

MOLDED CUSTOM PRODUCTS

Designed and Manufactured by Craftech Industries.

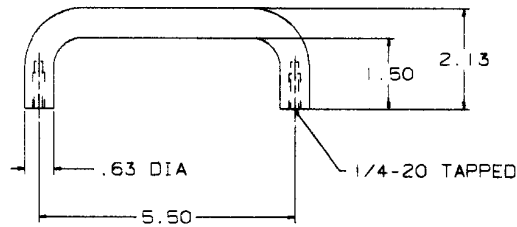
CORROSION RESISTANT HANDLES

Available in the following material:

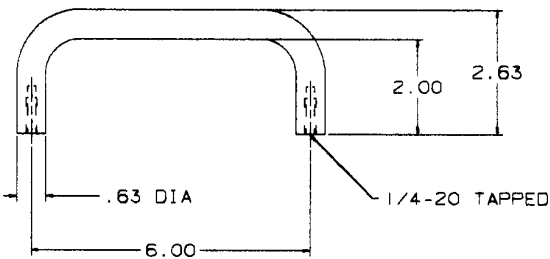
Material Code No.	Material Name
-46	Polycarbonate, (clear)
-113	Polypropylene, 40% Glass-filled, (black)
-116	Polypropylene, 40% Glass-filled, (white)
-741	Isoplast™, 40% Long Glass Fiber, (black)
-827	Isoplast™, 40% Long Glass Fiber, (white)

Handles are also available in a variety of colors.

Part No. HD200 - (Size Code No.) - (Material Code No.)

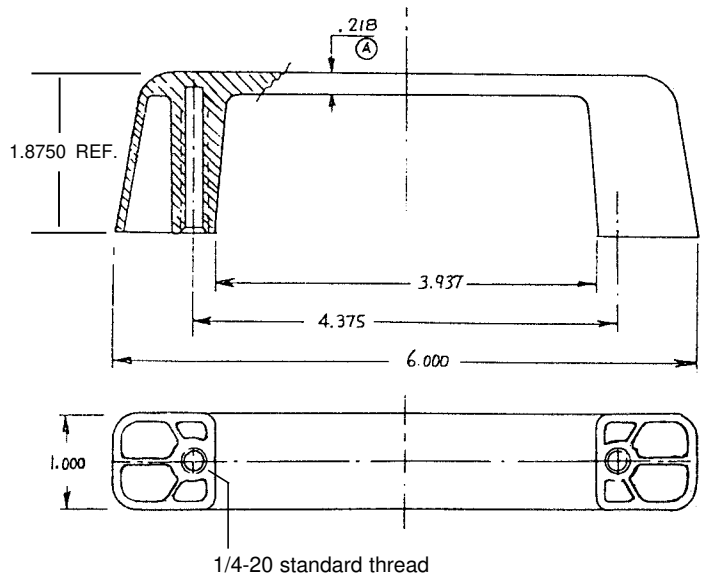


Size Code No. -2



Size Code No. -3

Part No. HD100 - 10 - (Material Code No.)



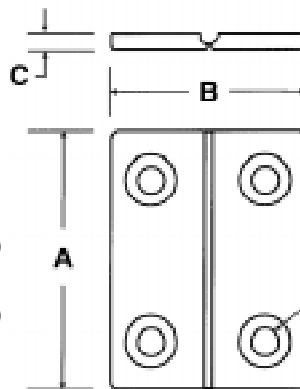
“LIVING” HINGE

This one-piece, flexure hinge
has a variety of hole choices to further expand fastening applications.
Countersunk holes accommodate a screw size more robust than competitors’ hinges
giving end users a stronger fastened hinge.

All “Living” Hinges regardless of size and color have a VO flammability rating.

Available in the following material:

Material Code No.	Material Name
-147	Polypropylene, UV Stabilized, Flame Retardant (white)
-118	Polypropylene, UV Stabilized, Flame Retardant (black)
-119	Polypropylene, Flame Retardant (white)



Size Code Nos. 1-3
have holes countersunk for #8 flatheads.
Size Code Nos. 4-12
have holes countersunk for #10 flatheads.
Also available without countersink or hole.

Part No. HG400 - (Size Code No.)

Size Code No.	Hinge Dimensions			Hole
	A	B	C	
-1	1-1/2	1	1/8	Countersunk Hole
-2	1-1/2	1	1/8	Plain Hole
-3	1-1/2	1	1/8	No Hole *
-4	2	1-1/2	1/8	Countersunk Hole
-5	2	1-1/2	1/8	Plain Hole
-6	2	1-1/2	1/8	No Hole *
-7	2-1/2	2	1/8	Countersunk Hole
-8	2-1/2	2	1/8	Plain Hole
-9	2-1/2	2	1/8	No Hole *
-10	3	2-1/2	1/8	Countersunk Hole
-11	3	2-1/2	1/8	Plain Hole
-12	3	2-1/2	1/8	No Hole *

*Can be furnished with no holes for welding.

PLASTIC HINGES

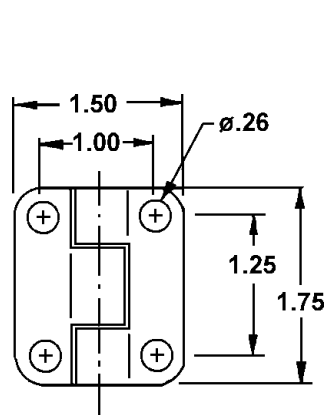
Available in the following material:

Material Code No.	Material Name
-46	Polycarbonate, (clear)
-113	Polypropylene, 40% Glass-filled, (black)
-116	Polypropylene, 40% Glass-filled, (white)
-824	Isoplast™, 30% Short Glass Fiber, (natural)
-825	Isoplast™, 30% Short Glass Fiber, (black)
-826	Isoplast™, 30% Short Glass Fiber, (white)

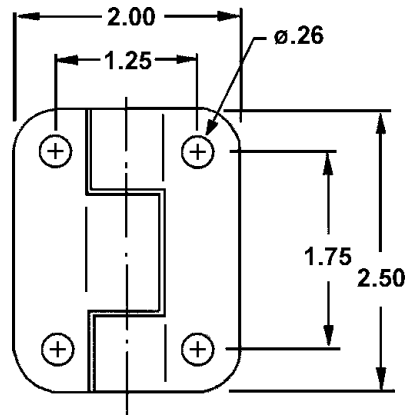
Handles are also available in a variety of colors.

Part No. HG100 - (Size Code No.) - (Material Code No.)

Size Code No.	Hinge Dimensions
-10	1 1/2 x 1 3/4"
-20	2 x 2 1/2"



Size Code No. -10



Size Code No. -20

LIFT-OFF HINGE

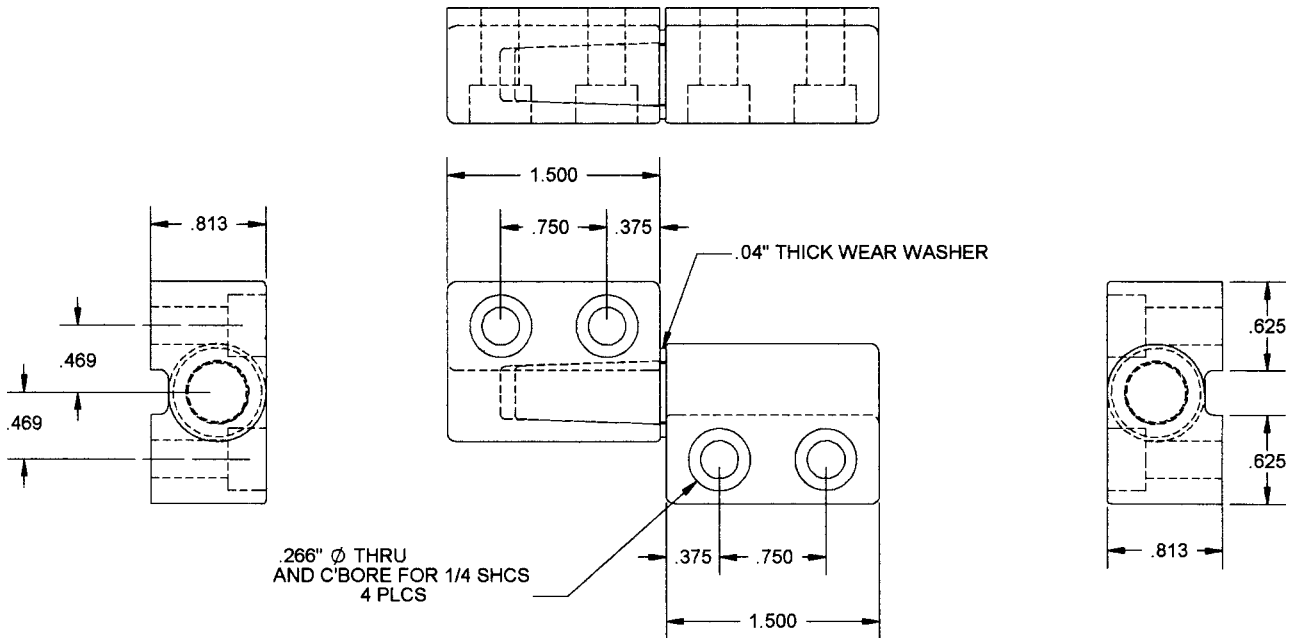
Available in the following material:

Material Code No.	Material Name
-113	Polypropylene, 40% Glass-filled, (black)
-116	Polypropylene, 40% Glass-filled, (white)
-825	Isoplast™, 30% Short Glass Fiber, (black)
-826	Isoplast™, 30% Short Glass Fiber, (white)

Colors and other materials including fiber-filled materials available upon request.

Part No. HG300 - 10 (right) - (Material Code No.)

Part No. HG300 - 11 (left) - (Material Code No.)



PLASTIC HINGES

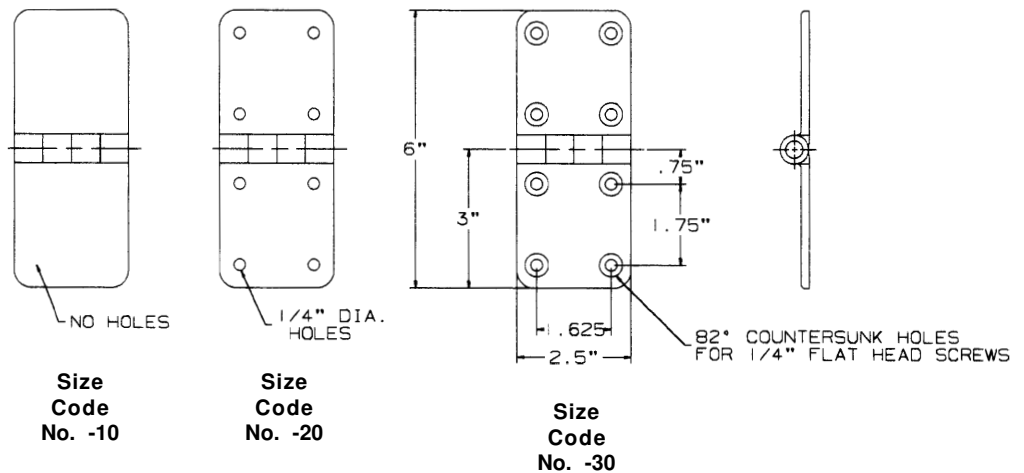
Available in the following material:

Material Code No.	Material Name
-113	Polypropylene, 40% Glass-filled, (black)
-116	Polypropylene, 40% Glass-filled, (white)
-824	Isoplast™, 30% Short Glass Fiber, (natural)
-825	Isoplast™, 30% Short Glass Fiber, (black)
-826	Isoplast™, 30% Short Glass Fiber, (white)

Handles are also available in a variety of colors.

Part No. HG200 - (Size Code No.) - (Material Code No.)

Size Code No.	Hinge Description
-10	No Holes
-20	1/4" Dia. Holes
-30	Countersunk Holes



EYE BOLTS

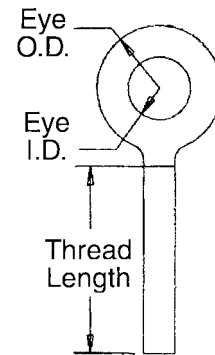
Available in the following materials:

Material Code No.	Material Name
-60	Nylon 6/6, 30% Short Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)
-111	Polypropylene, Glass-filled

EYE BOLTS

Part No. B199 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Thread Length	Size Code No.	Thread Size	Thread Length	Size Code No.	Thread Size	Thread Length
-10	1/4 - 20	0.750"	-50	3/8 - 16	1.000"	-100	1/2 - 13	1.750"
-15	1/4 - 20	0.875"	-55	3/8 - 16	1.250"	-110	5/8 - 11	0.750"
-20	1/4 - 20	1.000"	-60	3/8 - 16	1.500"	-115	5/8 - 11	0.875"
-25	1/4 - 20	1.250"	-70	1/2 - 13	0.750"	-120	5/8 - 11	1.000"
-30	1/4 - 20	1.500"	-75	1/2 - 13	0.875"	-125	5/8 - 11	1.250"
-40	3/8 - 16	0.750"	-80	1/2 - 13	1.000"	-140	5/8 - 11	1.750"
-45	3/8 - 16	0.875"	-85	1/2 - 13	1.250"			



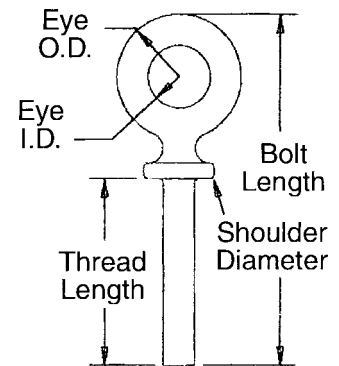
EYE BOLT

Size	Eye I.D.	Eye O.D.
1/4 - 20	0.500"	1.000"
3/8 - 16	0.750"	1.500"
1/2 - 13	1.000"	2.000"
5/8 - 11	1.250"	2.500"

SHOULDER EYE BOLTS

Part No. B203 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Thread Length	Size Code No.	Thread Size	Thread Length	Size Code No.	Thread Size	Thread Length
-10	1/4 - 20	0.750"	-50	3/8 - 16	1.000"	-110	5/8 - 11	0.750"
-15	1/4 - 20	0.875"	-60	3/8 - 16	1.500"	-115	5/8 - 11	0.875"
-20	1/4 - 20	1.000"	-70	1/2 - 13	0.750"	-120	5/8 - 11	1.000"
-25	1/4 - 20	1.250"	-75	1/2 - 13	0.875"	-125	5/8 - 11	1.250"
-30	1/4 - 20	1.500"	-80	1/2 - 13	1.000"	-140	5/8 - 11	1.750"
-40	3/8 - 16	0.750"	-85	1/2 - 13	1.250"			
-45	3/8 - 16	0.875"	-100	1/2 - 13	1.750"			



SHOULDER EYE BOLT

Size	Eye I.D.	Eye O.D.	Shoulder Dia.
1/4 - 20	0.500"	1.000"	0.563"
3/8 - 16	0.750"	1.500"	0.813"
1/2 - 13	1.000"	2.000"	1.125"
5/8 - 11	1.250"	2.500"	1.250"

EXTENDED REACH U-BOLTS

"Extended reach" u-bolts are available in 6 different sizes (see drawings and charts below).

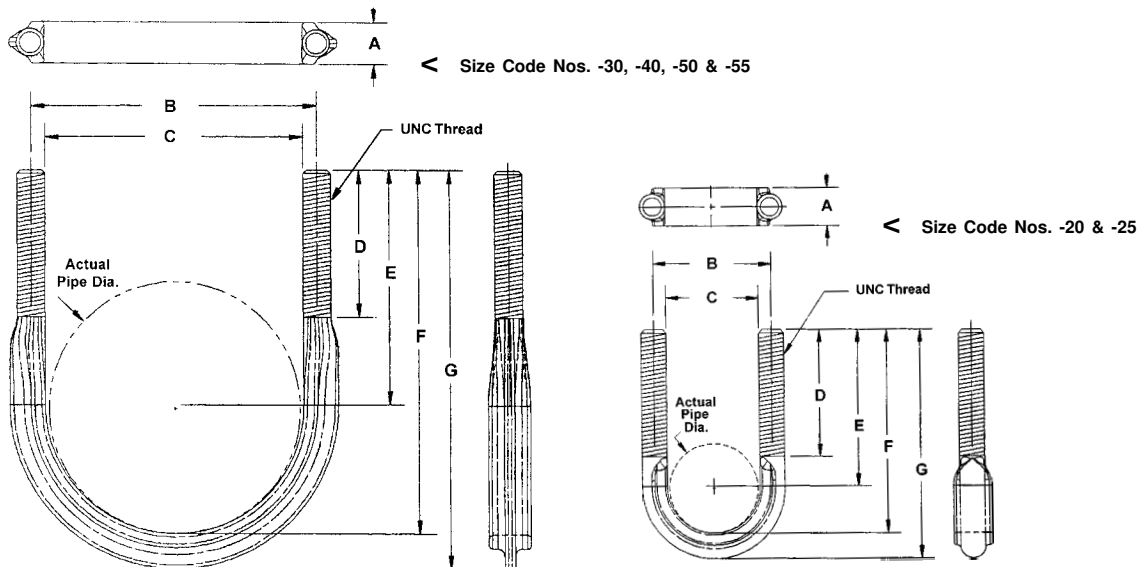
Material offered gives u-bolts corrosion resistance and strength.

Available in the following materials:

Material Code No.	Material Name
-81	Isoplast™, 40% Long Glass Fiber, (grey)

Part No. B300 - (Size Code No.) - 81

Size Code No.	U-Bolt Size	A	B	C	D	E	F	G	Pipe DIA	UNC Thrd
-20	1"	9/16	1-3/4	1-3/8	1-7/8	2-5/16	3	3-3/8	1.315	3/8-16
-25	1-1/2"	9/16	2-3/8	2	2-1/8	2-21/32	3-21/32	4-1/32	1.900	3/8-16
-30	2"	3/4	2-15/16	2-7/16	2-3/8	3-5/32	4-3/8	5	2.375	1/2-13
-40	3"	3/4	4-1/8	3-5/8	2-5/8	3-11/16	5-1/2	6-1/8	3.500	1/2-13
-50	4"	3/4	5-1/8	4-5/8	2-5/8	4-3/16	6-1/2	7-1/8	4.500	1/2-13
-55	6"	7/8	7-3/8	6-3/4	3-1/4	5-3/4	9-1/8	9-7/8	6.625	5/8-11



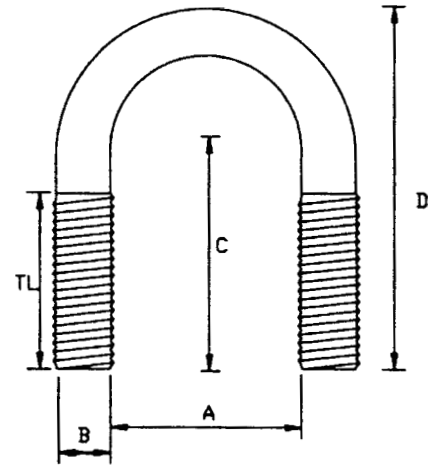
U-BOLTS

Available in the following materials:

Material Code No.	Material Name
-81	Isoplast™, 40% Long Glass Fiber, (grey)

Part No. BU220 - (Size Code No.) - 81

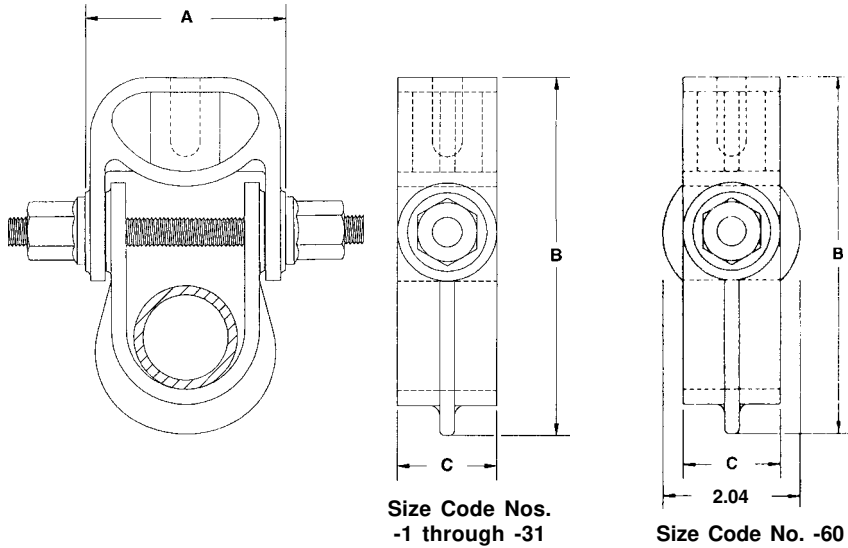
Size Code No.	Pipe Nom. Dia. (in.)	Dimensions					Load Ratings	
		A	B	C	D	TL	Maximum Rec. Loading (lbs.)	Maximum Rec. Torque (in/lbs.)
-1	1/2	0.93	0.375	1.56	2.41	1.25	75	20
-2	3/4	1.12	0.375	1.66	2.60	1.25	75	20
-3	1	1.37	0.375	1.78	2.85	1.25	75	20
-4	1 1/4	1.68	0.375	1.94	3.16	1.25	75	20
-5	1 1/2	2.00	0.375	2.10	3.47	1.25	75	20
-6	2	2.43	0.500	2.46	4.18	1.50	150	40
-7	2 1/2	2.93	0.500	2.71	4.68	1.50	150	40
-8	3	3.56	0.500	3.03	5.31	1.50	150	40
-9	3 1/2	4.06	0.500	3.28	5.81	1.50	150	40
-10	4	4.56	0.500	3.53	6.31	1.50	150	40



PIPE HANGER

Available in the following materials:

Material Code No.	Material Name
-74	Isoplast™, 40% Long Glass Fiber, (natural)
-81	Isoplast™, 40% Long Glass Fiber, (Gray)
-218	Ryton, PPS, 40% Glass-filled, Fire Retardant, (black)



Part No. PH100 - (Size Code No.) - (Material Code No.)

Size Code No.	Size (inches)	A	B	C	Tapped
-1	3/4 to 1	2.53	4.52	1.25	3/8
-2	3/4 to 1	2.53	4.52	1.25	1/2
-15	1-1/4 to 1-1/2	3.06	5.14	1.25	3/8
-16	1-1/4 to 1-1/2	3.06	5.14	1.25	1/2
-20	2	3.68	6.52	1.25	3/8
-21	2	3.68	6.52	1.25	1/2
-30	3 to 4	7.04	10.00	1.50	1/2
-31	3 to 4	7.04	10.00	1.50	3/8
-60	6	9.36	12.33	1.50	1/2

BEAM CLAMPS

Material Code No. **Standard Material**
 -830 Isoplast™, 60% Long Glass Fiber, (natural)

Part No. BHX200 - (Size Code No.) - (Material Code No.)

Size Code No.	Size
-1	3/8-16
-2	1/2-13
-3	5/8-11
-4	M10 x 1.5
-5	M12 x 1.75
-6	M16 x 2

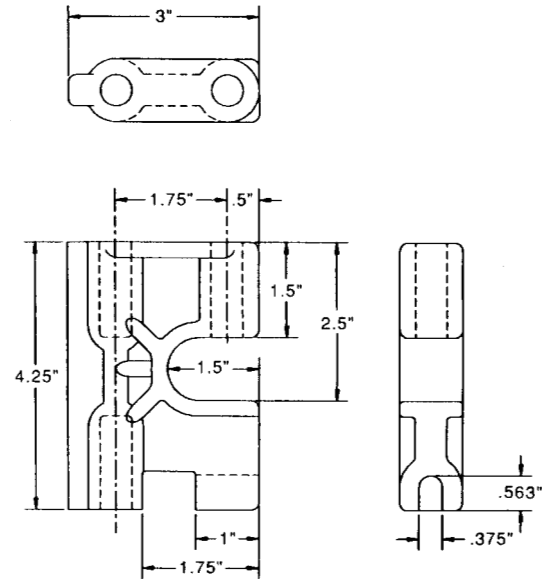
- 700 lb. Max Load Rating
- 2100 lb. Ultimate Load
- Chemically Resistant
- Reversible
- Weather Resistant
- Corrosion Resistant
- Unaffected by Sunlight

For use with 3/8-16, 1/2-13, 5/8-11, M10 x 1.5, M12 x 1.75 or M16 x 2 Threaded Rod or stainless steel Hex Head Cap Screws.

Threaded Rod and stainless steel Hex Head Cap Screws not included.

For Threaded Rod, (Part No. D200), see page 219 in this catalog.
 For stainless steel Hex Head Cap Screws (Part No. BHX201) see next page.

Hex Head Cap Screws used for BHX200 are 2-1/2" in length.



BEAM CLAMP, Small

Part No. BHX202 - (Size Code No.) - (Material Code No.)

Size Code No.	Size
-1	3/8-16
-2	1/2-13
-6	M10 x 1.5
-7	M12 x 1.75

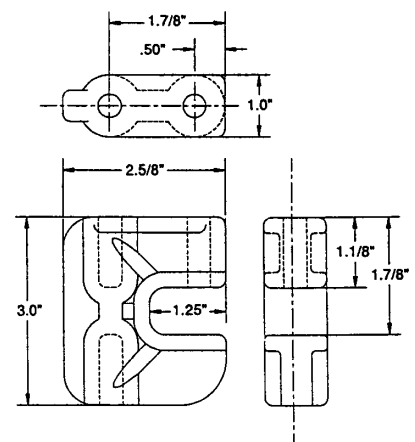
- 600 lb. Max Load Rating
- 1800 lb. Ultimate Load
- Chemically Resistant
- Reversible
- Weather Resistant
- Corrosion Resistant
- Unaffected by Sunlight

For use with 3/8-16, 1/2-13, M10 x 1.5 and M12 x 1.75 Threaded Rod or stainless steel Hex Head Cap Screws.

Threaded Rod and stainless steel Hex Head Cap Screws not included.

For Threaded Rod, (Part No. D200), see page 219 in this catalog.
 For stainless steel Hex Head Cap Screws (Part No. BHX201) see next page.

Hex Head Cap Screws used for BHX202 are 2" in length.

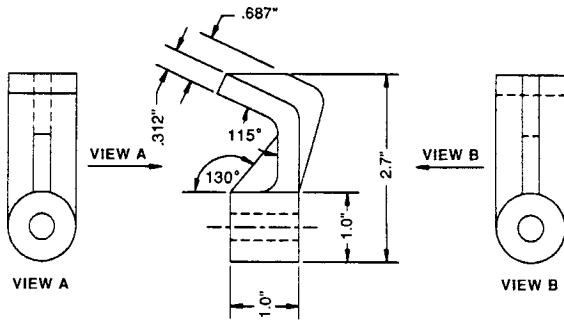


MOLDED CUSTOM PRODUCTS (continued)

BEAM CLIP, available with Beam Clamp

Material Code No. **Standard Material**
 -830 Isoplast™, 60% Long Glass Fiber, (natural)

Part No. BHX210



- Chemically Resistant
- Reversible
- Weather Resistant
- Corrosion Resistant
- Water Proof
- Unaffected by Sunlight

HEX HEAD CAP SCREW

Standard Material:
 316 Stainless Steel

Part No. BHX201 - (Size Code No.)

Size Code No.	Size	Size Code No.	Size
-1	3/8-16 x 2	-6	M10 x 1.5 x 50mm
-2	3/8-16 x 2-1/2	-7	M10 x 1.5 x 60mm
-3	1/2-13 x 2	-8	M12 x 1.75 x 50mm
-4	1/2-13 x 2-1/2	-9	M12 x 1.75 x 60mm
-5	5/8-11 x 2-1/2	-10	M16 x 2 x 60mm

THREADED ROD

Standard Material:
 Fiberglass, Vinyl Ester (-214)

Part No. D201 - (Size Code No.) - 214

Size Code No.	Size
-1	3/8-16
-6	1/2-13
-8	5/8-11
-10	3/4-10
-12	1-8

PRECISION MOLDED SCREWS & NUTS

Since plastic materials shrink at different rates, Craftech has created a series of molds that gives our customers product that meets the ANSI and DIN standards in a variety of advanced plastic materials.

The information below will help you locate standard and metric molded machine screws, cap screws & bolts, thumb screws, set & grub screws and nuts in specific materials.

MH Series (pages 30-40, 103, 107 & 116)

Ultem® 2300, (black)
Ryton®, PPS 40% Short Glass-filled
Isoplast™ 40% Long Glass-fiber, (natural)
Ultem® 2300, (natural)
Isoplast™ 40% Long Glass-fiber, (gray)
Polypropylene, 30% Glass-filled
Radel® AG330, 30% Glass-filled
PPS 30% Carbon Fiber, (black)
Isoplast™ 30% Short Glass-filled, (gray)
Isoplast™ 30% Short Glass-filled, (natural)

J Series (pages 41-51, 104, 107 & 116)

ABS
Noryl®
Polycarbonate (clear)
Nylon 6/6, 30% Short Glass-filled
PEEK™, 30% Short Glass-filled, (natural)
Nylon 46, 30% Glass-filled, Heat Stabilized
Nylon 46, 30% Glass-filled, Heat Stabilized,
Fire Retardant
Radel® A-200, Polyethersulfone
Radel® R-5000, Polyphenylsulfone
Radel® R-5100 NT15, Polyphenylsulfone
Ultem® 1000

K Series (pages 52-62, 105, 108 & 117)

Polypropylene
Delrin®
Delrin® AF
PVDF
Halar®

L Series (pages 63-73, 106, 108 & 117)

PEEK™

Additional series for molded Polycarbonate machine screws (**page 74**).

Additional series for molded Nylon 6/6 -

- standard machine screws (**page 75-86**).
- standard thumb, cap, set & grub screws (**page 87-92**).
- metric machine screws, cap, thumb & grub screws (**page 93-100**).
- standard and metric nuts (**page 109-115**).

MOLDED MACHINE SCREWS - MH Series

For other materials refer to **Craftech MOLDED SCREWS**
on pages 30-73 (J, K, & L series).

For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No. Material Name

-6	Ultem® 2300, (black)
-48	Ryton®, PPS, 40% Short Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)
-77	Ultem® 2300, (natural)
-81	Isoplast™, 40% Long Glass Fiber, (gray)

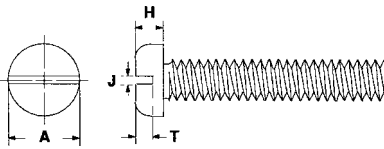
Material Code No. Material Name

-108	Polypropylene, 30% Glass-filled
-228	Radel® AG330, 30% Glass-filled
-520	PPS, 30% Carbon Fiber, (black)
-820	Isoplast™, 30% Short Glass Fiber, (gray)
-824	Isoplast™, 30% Short Glass Fiber, (natural)

(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 32) (above)

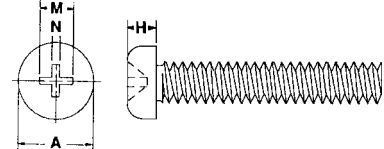
Machine screws under 1" are fully threaded.
Machine screws over 1" can be fully threaded on request.

PAN HEAD SLOTTED
Part No. MHN1903 -

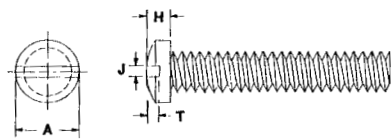


Thread Size	A	H	J	T	M	N
0	.110	.035	.020	.018	.071	.022
1	.136	.042	.023	.023	.084	.024
2	.161	.049	.027	.026	.103	.027
3	.186	.055	.031	.031	.119	.029
4	.212	.063	.035	.035	.136	.032
5	.238	.070	.039	.039	.152	.034
6	.263	.077	.043	.043	.169	.037
8	.314	.091	.049	.051	.200	.041
10	.365	.105	.055	.060	.232	.046
12	.416	.118	.061	.069	.263	.051
1/4	.482	.137	.069	.078	.309	.058
5/16	.604	.170	.078	.095	.386	.069
3/8	.728	.204	.087	.112	.468	.081
7/16	.850	.237	.087	.129	.544	.093
1/2	.973	.270	.098	.146	.617	.104
9/16	1.020	.304	.110	.163	.625	.105
5/8	1.148	.337	.124	.180	.625	.105
3/4	1.405	.404	.140	.213	.625	.105

PAN HEAD PHILLIPS
Part No. MHN1904 -

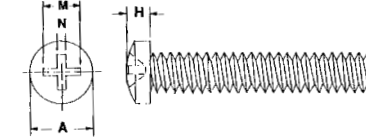


BINDING HEAD SLOTTED
Part No. MHN1906 -

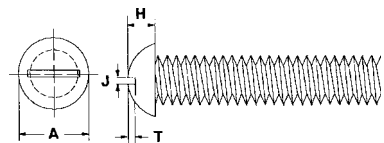


Thread Size	A	H	J	T	M	N
0	.122	.030	.019	.013	.078	.023
1	.149	.038	.022	.019	.092	.025
2	.176	.046	.026	.025	.112	.028
3	.202	.055	.031	.030	.130	.031
4	.229	.064	.034	.036	.147	.034
5	.256	.074	.039	.041	.165	.036
6	.282	.083	.043	.046	.183	.039
8	.335	.100	.049	.057	.216	.044
12	.442	.135	.061	.079	.239	.047
10	.388	.117	.055	.068	.284	.054
1/4	.511	.158	.069	.094	.320	.059
5/16	.639	.201	.078	.121	.403	.072
3/8	.767	.244	.087	.147	.468	.081

BINDING HEAD PHILLIPS
Part No. MHN1907 -



ROUND HEAD SLOTTED
Part No. MHN1908 -



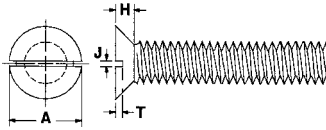
Thread Size	A	H	J	T
0	.106	.048	.019	.034
1	.130	.056	.023	.038
2	.154	.064	.027	.043
3	.178	.073	.031	.047
4	.202	.081	.035	.051
5	.226	.089	.039	.055
6	.250	.097	.043	.060
8	.298	.114	.049	.067
10	.347	.130	.055	.076
12	.395	.146	.062	.084
1/4	.458	.168	.069	.096
5/16	.574	.207	.078	.116
3/8	.689	.247	.087	.136
7/16	.729	.318	.087	.172
1/2	.790	.344	.098	.185
9/16	.912	.398	.110	.213
5/8	.972	.425	.125	.227
3/4	1.218	.532	.140	.281

MOLDED MACHINE SCREWS - MH Series (continued)

(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 32) (page 30)

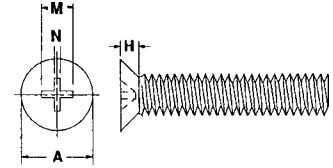
Machine screws under 1" are fully threaded.
 Machine screws over 1" can be fully threaded on request.

FLAT HEAD SLOTTED 82°
 Part No. MHN1913 -

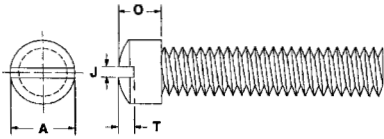


Thread Size	A	H	J	T	M	N
0	.109	.035	.019	.012	.078	.021
1	.134	.043	.022	.015	.091	.024
2	.159	.051	.027	.019	.115	.027
3	.185	.059	.031	.022	.133	.030
4	.210	.067	.035	.025	.151	.032
5	.236	.075	.039	.028	.169	.035
6	.261	.083	.044	.031	.187	.038
8	.312	.100	.049	.037	.224	.043
10	.362	.116	.055	.044	.260	.048
12	.414	.132	.061	.049	.297	.054
1/4	.479	.153	.069	.058	.344	.061
5/16	.601	.191	.078	.073	.432	.074
3/8	.723	.230	.088	.088	.509	.086
7/16	.767	.223	.088	.085	.554	.092
1/2	.825	.223	.098	.085	.593	.098
9/16	.994	.260	.110	.098	.639	.104
5/8	1.063	.298	.124	.113	.639	.104
3/4	1.302	.372	.140	.141	.639	.104

FLAT HEAD PHILLIPS 82°
 Part No. MHN1912 -



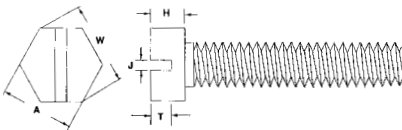
FILLISTER HEAD SLOTTED
 Part No. MHN1917 -



Thread Size	A	O	J	T	Thread Size	A	O	J	T
0	.089	.051	.019	.020	12	.345	.192	.061	.084
1	.111	.062	.023	.025	1/4	.402	.222	.070	.098
2	.132	.074	.027	.031	5/16	.504	.279	.078	.123
3	.153	.086	.031	.036	3/8	.606	.335	.088	.148
4	.174	.097	.035	.041	7/16	.607	.344	.088	.152
5	.196	.110	.039	.047	1/2	.730	.387	.098	.170
6	.217	.121	.044	.052	9/16	.790	.438	.110	.193
8	.260	.144	.050	.062	5/8	.851	.491	.124	.216
10	.302	.168	.055	.073	3/4	.972	.577	.140	.253

HEX HEAD SLOTTED
 Part No. MHN1920 -

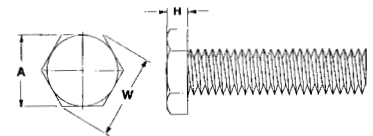
(Available in sizes 2-56 through 10-32.)



Thread Size	A	W	H	J	T
1	.122	.134	.040	---	---
2	.122	.134	.045	---	---
3	.184	.202	.049	---	---
4	.184	.202	.055	.035	.031
5	.184	.202	.064	.039	.036
6	.247	.272	.086	.044	.039
8	.247	.272	.103	.050	.059
10	.308	.340	.113	.055	.065
12	.308	.340	.147	.062	.085
1/4	.371	.409	.181	.069	.092
5/16	.495	.545	.219	.078	.111
3/8	.557	.614	.283	.088	.144

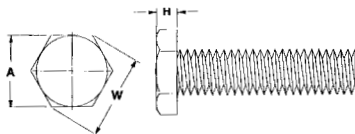
HEX HEAD
 Part No. MHN1919 -

(Available in sizes 2-56 through 10-32.)



HEX LARGE HEAD
 Part No. MHN1940-

(Available in size 8-32.)



Thread Size	A	W	H
8	.308	.353	.103

Dimensions are given here as a guide only.
 Screws are made to the American National Standard.

MOLDED MACHINE SCREWS - MH Series (continued)

MOLDED MACHINE SCREWS AND HEX CAP SCREWS SIZE CODE CHART

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-10	2-56	1/4	-192	8-32	3/8	-287	10-32	5/8	-360	1/4-20	2	-565	3/8-16	1 1/2
-15	2-56	1/2	-194	8-32	7/16	-290	10-32	3/4	-405	5/16-18	1/4	-561	1/2-13	1/2
-20	2-56	3/4	-195	8-32	1/2	-292	10-32	13/16	-407	5/16-18	3/8	-562	1/2-13	3/4
-25	2-56	1	-196	8-32	9/16	-293	10-32	7/8	-409	5/16-18	7/16	-564	1/2-13	7/8
-30	2-56	1 1/4	-197	8-32	5/8	-295	10-32	1	-410	5/16-18	1/2	-566	1/2-13	1
-35	2-56	1 1/2	-200	8-32	3/4	-297	10-32	1 1/16	-411	5/16-18	9/16	-568	1/2-13	1 1/4
-42	4-40	3/16	-201	8-32	7/8	-300	10-32	1 1/4	-412	5/16-18	5/8	-570	1/2-13	1 3/8
-45	4-40	1/4	-205	8-32	1	-305	10-32	1 1/2	-414	5/16-18	3/4	-572	1/2-13	1 1/2
-47	4-40	3/8	-210	8-32	1 1/4	-310	10-32	1 3/4	-416	5/16-18	7/8	-574	1/2-13	1 5/8
-50	4-40	1/2	-215	8-32	1 1/2	-315	10-32	2	-418	5/16-18	1	-576	1/2-13	1 3/4
-55	4-40	3/4	-220	8-32	1 3/4	-325	1/4-20	1/4	-422	5/16-18	1 1/4	-578	1/2-13	1 7/8
-60	4-40	1	-225	8-32	2	-326	1/4-20	5/16	-426	5/16-18	1 1/2	-580	1/2-13	2
-65	4-40	1 1/4	-235	10-24	1/4	-327	1/4-20	3/8	-430	5/16-18	1 3/4	-582	1/2-13	2 1/4
-70	4-40	1 1/2	-240	10-24	1/2	-328	1/4-20	7/16	-434	5/16-18	2	-584	1/2-13	2 3/8
-145	6-32	1/4	-245	10-24	3/4	-330	1/4-20	1/2	-500	3/8-16	1/4	-586	1/2-13	2 1/2
-146	6-32	5/16	-250	10-24	1	-334	1/4-20	5/8	-505	3/8-16	5/16	-588	1/2-13	2 5/8
-147	6-32	3/8	-255	10-24	1 1/4	-3341	1/4-20	11/16	-510	3/8-16	3/8	-590	1/2-13	2 3/4
-150	6-32	1/2	-260	10-24	1 1/2	-335	1/4-20	3/4	-515	3/8-16	7/16	-592	1/2-13	2 7/8
-155	6-32	3/4	-265	10-24	1 3/4	-337	1/4-20	7/8	-520	3/8-16	1/2	-594	1/2-13	3
-160	6-32	1	-270	10-24	2	-340	1/4-20	1	-525	3/8-16	9/16	-596	1/2-13	3 1/4
-165	6-32	1 1/4	-280	10-32	1/4	-341	1/4-20	1 1/8	-530	3/8-16	5/8	-598	1/2-13	3 3/8
-170	6-32	1 1/2	-281	10-32	5/16	-345	1/4-20	1 1/4	-535	3/8-16	3/4	-599	1/2-13	3 1/2
-175	6-32	1 3/4	-282	10-32	3/8	-347	1/4-20	1 3/8	-540	3/8-16	7/8			
-180	6-32	2	-2822	10-32	7/16	-350	1/4-20	1 1/2	-545	3/8-16	1			
-190	8-32	1/4	-285	10-32	1/2	-355	1/4-20	1 3/4	-560	3/8-16	1 1/4			

MOLDED HEX CAP SCREWS - MH Series

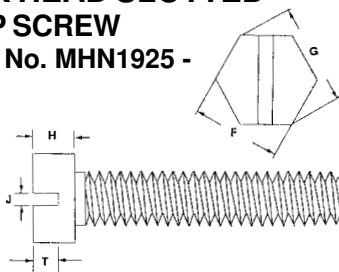
(Available in sizes 1/4-20 through 3/8-16.)

(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (above) (page 30)

Sizes under 1" are fully threaded.
 Sizes over 1" can be fully threaded on request.

HEX HEAD SLOTTED CAP SCREW

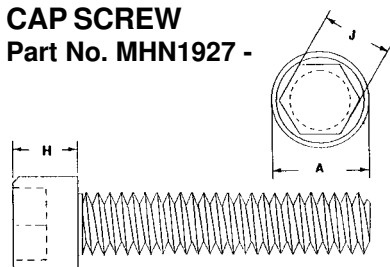
Part No. MHN1925 -



Thread Size	F	G	H
1/4	7/16	.496	5/32
5/16	1/2	.667	13/64
3/8	9/16	.639	15/64
7/16	5/8	.710	9/32
1/2	3/4	.853	5/16
9/16	13/16	.924	23/64
5/8	15/16	1.067	25/64
3/4	1 1/8	1.276	15/32
7/8	1 5/16	1.490	35/64
1	1 1/2	1.703	39/64

HEX SOCKET HEAD CAP SCREW

Part No. MHN1927 -



Thread Size	A	H	J	Thread Size	A	H	J
0	.093	.058	.050	1/4	.370	.247	.188
1	.115	.071	.062	5/16	.463	.309	.250
2	.137	.084	.078	3/8	.556	.371	.312
3	.157	.097	.078	7/16	.649	.434	.375
4	.180	.110	.094	1/2	.742	.496	.375
5	.201	.123	.094	5/8	.930	.620	.500
6	.222	.136	.109	3/4	1.116	.745	.625
8	.266	.162	.141	7/8	1.302	.870	.750
10	.307	.188	.156	1	1.489	.994	.750

MOLDED CAP SCREWS - MH Series

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

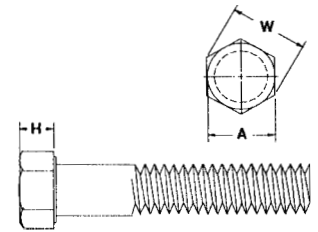
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

MOLDED HEX HEAD CAP SCREWS

Part No. MHC1900 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	1/2	-4	3/8-16	2	-12	5/8-11	4	-20	3/4-10	3
-101	1/4-20	3/4	-5	3/8-16	2 1/2	-13	5/8-11	4 1/2	-21	3/4-10	3 1/2
-102	1/4-20	1	-6	3/8-16	3	-14	5/8-11	5	-22	3/4-10	4
-103	1/4-20	1 1/4	-7	5/8-11	1 1/2	-15	5/8-11	5 1/2	-23	3/4-10	4 1/2
-104	1/4-20	1 1/2	-8	5/8-11	2	-16	5/8-11	6	-24	3/4-10	5
-1	5/16-18	1 1/2	-9	5/8-11	2 1/2	-17	3/4-10	1 1/2	-25	3/4-10	5 1/2
-2	5/16-18	2	-10	5/8-11	3	-18	3/4-10	2	-26	3/4-10	6
-3	3/8-16	1 1/2	-11	5/8-11	3 1/2	-19	3/4-10	2 1/2			



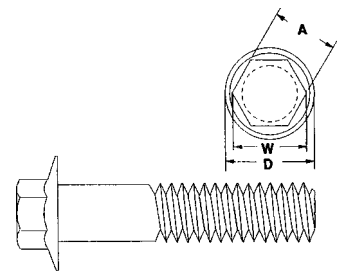
Size	A	W	H
1/4-20	.435	.498	.190
5/16-18	.502	.575	.205
3/8-16	.560	.645	.250
5/8-11	.938	1.051	.400
3/4-10	1.125	1.254	.465

Dimensions +/- .015

MOLDED FLANGED HEX HEAD CAP SCREWS

Part No. MHN1901 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	3/8	-14	3/8-16	1 1/4	-15	1/2-13	3/4	-29	1/2-13	2 3/4
-1	1/4-20	1/2	-140	3/8-16	1 1/2	-16	1/2-13	7/8	-30	1/2-13	3
-2	1/4-20	5/8	-1402	3/8-16	1 5/8	-17	1/2-13	1	-31	1/2-13	3 1/4
-3	1/4-20	3/4	-1403	3/8-16	1 3/4	-18	1/2-13	1 1/4	-32	1/2-13	3 3/8
-4	1/4-20	7/8	-141	3/8-16	2	-19	1/2-13	1 3/8	-33	1/2-13	3 1/2
-5	1/4-20	1	-1410	3/8-16	2 1/4	-20	1/2-13	1 1/2	-331	1/2-13	3 3/4
-6	1/4-20	1 1/4	-142	3/8-16	2 1/2	-21	1/2-13	1 5/8	-34	1/2-13	4
-7	1/4-20	1 3/8	-143	3/8-16	3	-22	1/2-13	1 3/4	-35	1/2-13	4 1/2
-8	1/4-20	1 1/2	-1430	3/8-16	3 1/4	-23	1/2-13	1 7/8	-36	1/2-13	5
-9	3/8-16	1/2	-1431	3/8-16	3 1/2	-24	1/2-13	2	-37	1/2-13	5 1/2
-10	3/8-16	5/8	-1432	3/8-16	3 3/4	-25	1/2-13	2 1/4	-38	1/2-13	6
-11	3/8-16	3/4	-1433	3/8-16	4	-26	1/2-13	2 3/8			
-12	3/8-16	7/8	-1434	3/8-16	4 1/4	-27	1/2-13	2 1/2			
-13	3/8-16	1	-1435	3/8-16	4 1/2	-28	1/2-13	2 5/8			



Size	A	W	D
1/4-20	.374	.426	.560
3/8-16	.560	.641	.800
1/2-13	.751	.862	1.059

Dimensions +/- .015

MOLDED THUMB SCREWS

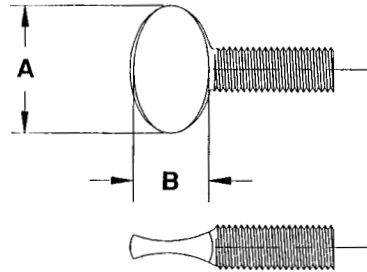
THUMB SCREWS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

Part No. MHT1500 - (Size Code No.) - (Material Code No.)

Size Code No.	Size x Length	A	B
-10	3/8-16 x 3/4	1.060	.630
-11	3/8-16 x 7/8	1.060	.630
-12	3/8-16 x 1	1.060	.630
-14	3/8-16 x 1-1/4	1.060	.630

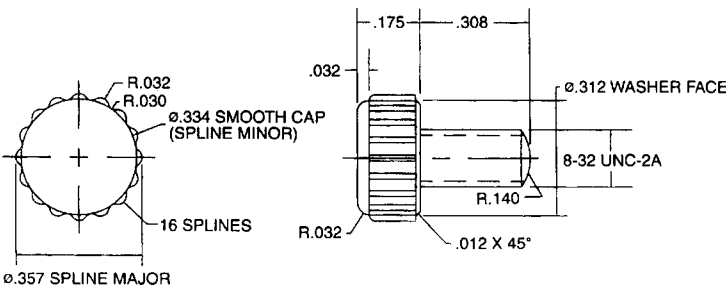


THUMB SCREWS

*Available in the following materials:

Material Code No.	Material Name
-15	PEEK™
-24	Delrin®
-37	PVDF

Part No. Q103 - 3 - (Material Code No.)



MOLDED METRIC MACHINE SCREWS - MH Series

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

For other materials refer to Craftech MOLDED METRIC SCREWS on pages 30-73 (J, K, & L series).

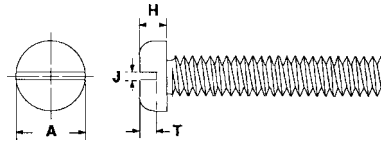
For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

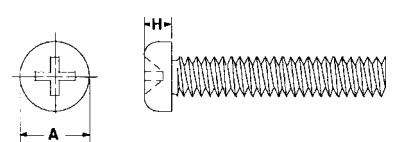
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 36) (above)

PAN HEAD SLOTTED Part No. MHN2010 -

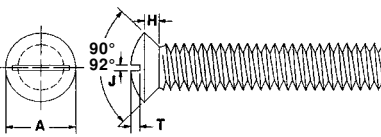


Thread Size	A nom	H nom	J nom	T nom
M3 x 0,5	6,00	1,80	0,80	0,82
M4 x 0,7	8,00	2,40	1,20	1,15
M5 x 0,8	10,00	3,00	1,20	1,35
M6 x 1	12,00	3,60	1,60	1,70

PAN HEAD CROSS RECESSED Part No. MHN2011 -

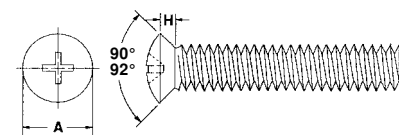


RAISED COUNTERSUNK HEAD SLOTTED Part No. MHN2017 -

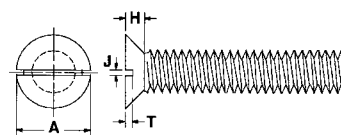


Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,60	0,90
M2,5 x 0,45	4,70	1,50	0,70	1,10
M3 x 0,5	5,60	1,65	0,90	1,32
M3,5 x 0,6	6,50	1,93	1,10	1,55
M4 x 0,7	7,50	2,20	1,30	1,75
M5 x 0,8	9,20	2,50	1,40	2,15
M6 x 1,0	11,00	3,00	1,70	2,60
M8 x 1,25	14,50	4,00	2,10	3,70 (max)
M10 x 1,5	18,00	5,00	2,60	4,30

RAISED COUNTERSUNK HEAD CROSS RECESSED Part No. MHN2016 -

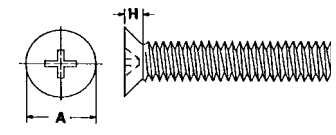


COUNTERSUNK HEAD SLOTTED Part No. MHN2019 -



Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,50	0,50
M2,5 x 0,45	4,70	1,50	0,60	0,60
M3 x 0,5	5,60	1,65	0,80	0,72
M4 x 0,7	7,50	2,20	1,00	0,95
M5 x 0,8	9,20	2,50	1,20	1,15
M6 x 1,0	11,00	3,00	1,60	1,40
M8 x 1,25	14,50	4,00	2,00	1,85
M10 x 1,50	18,00	5,00	2,50	2,30
M12 x 1,75	22,00	6,00	3,00	2,70

COUNTERSUNK HEAD CROSS RECESSED Part No. MHN2018 -



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED METRIC MACHINE SCREWS - MH Series (continued)

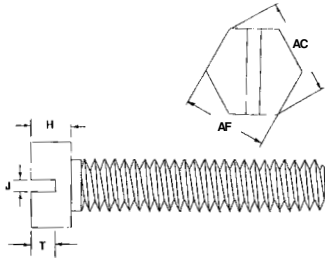
MOLDED METRIC MACHINE SCREWS, CAP SCREWS, BOLTS, THUMB SCREWS and SET SCREWS SIZE CODE CHART

ALL DIMENSIONS GIVEN IN MILLIMETERS

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1000	M2 x 0,4	3mm	-25	M3 x 0,5	20mm	-52	M5 x 0,8	20mm	-77	M8 x 1,25	35mm
-1	M2 x 0,4	4mm	-26	M3 x 0,5	25mm	-53	M5 x 0,8	25mm	-78	M8 x 1,25	40mm
-2	M2 x 0,4	5mm	-27	M3 x 0,5	30mm	-54	M5 x 0,8	30mm	-79	M8 x 1,25	45mm
-3	M2 x 0,4	6mm	-28	M3,5 x 0,6	5mm	-55	M5 x 0,8	35mm	-80	M8 x 1,25	50mm
-4	M2 x 0,4	8mm	-29	M3,5 x 0,6	6mm	-56	M5 x 0,8	40mm	-81	M8 x 1,25	55mm
-5	M2 x 0,4	10mm	-30	M3,5 x 0,6	8mm	-57	M6 x 1,00	6mm	-82	M8 x 1,25	60mm
-6	M2 x 0,4	12mm	-31	M3,5 x 0,6	10mm	-58	M6 x 1,00	8mm	-83	M8 x 1,25	65mm
-600	M2 x 0,4	15mm	-32	M3,5 x 0,6	12mm	-59	M6 x 1,00	10mm	-84	M8 x 1,25	70mm
-7	M2 x 0,4	16mm	-33	M3,5 x 0,6	16mm	-60	M6 x 1,00	12mm	-85	M10 x 1,50	10mm
-8	M2 x 0,4	20mm	-34	M3,5 x 0,6	20mm	-603	M6 x 1,00	15mm	-853	M10 x 1,50	15mm
-9	M2 x 0,4	25mm	-35	M3,5 x 0,6	25mm	-61	M6 x 1,00	16mm	-86	M10 x 1,50	16mm
-10	M2,5 x 0,45	4mm	-36	M3,5 x 0,6	35mm	-62	M6 x 1,00	20mm	-87	M10 x 1,50	20mm
-11	M2,5 x 0,45	5mm	-37	M4 x 0,7	6mm	-63	M6 x 1,00	25mm	-88	M10 x 1,50	25mm
-12	M2,5 x 0,45	6mm	-38	M4 x 0,7	8mm	-64	M6 x 1,00	30mm	-89	M10 x 1,50	30mm
-13	M2,5 x 0,45	8mm	-39	M4 x 0,7	10mm	-65	M6 x 1,00	35mm	-90	M10 x 1,50	35mm
-14	M2,5 x 0,45	10mm	-40	M4 x 0,7	12mm	-66	M6 x 1,00	40mm	-91	M10 x 1,50	40mm
-15	M2,5 x 0,45	12mm	-41	M4 x 0,7	16mm	-67	M6 x 1,00	45mm	-92	M10 x 1,50	50mm
-16	M2,5 x 0,45	16mm	-42	M4 x 0,7	20mm	-68	M6 x 1,00	50mm	-93	M10 x 1,50	60mm
-17	M2,5 x 0,45	20mm	-43	M4 x 0,7	25mm	-69	M6 x 1,00	55mm	-94	M10 x 1,50	70mm
-18	M2,5 x 0,45	25mm	-44	M4 x 0,7	30mm	-70	M8 x 1,25	8mm	-95	M10 x 1,50	75mm
-19	M3 x 0,5	5mm	-45	M4 x 0,7	35mm	-71	M8 x 1,25	10mm	-96	M12 x 1,75	20mm
-20	M3 x 0,5	6mm	-46	M4 x 0,7	40mm	-72	M8 x 1,25	12mm	-97	M12 x 1,75	30mm
-21	M3 x 0,5	8mm	-47	M5 x 0,8	6mm	-723	M8 x 1,25	15mm	-98	M12 x 1,75	40mm
-22	M3 x 0,5	10mm	-48	M5 x 0,8	8mm	-73	M8 x 1,25	16mm	-99	M12 x 1,75	50mm
-23	M3 x 0,5	12mm	-49	M5 x 0,8	10mm	-74	M8 x 1,25	20mm	-100	M12 x 1,75	60mm
-233	M3 x 0,5	15mm	-50	M5 x 0,8	12mm	-75	M8 x 1,25	25mm	-101	M12 x 1,75	70mm
-24	M3 x 0,5	16mm	-51	M5 x 0,8	15mm	-76	M8 x 1,25	30mm	-102	M12 x 1,75	75mm

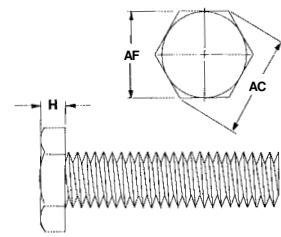
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (above) (page 35)

HEX HEAD SLOTTED
Part No. MHN2026 -

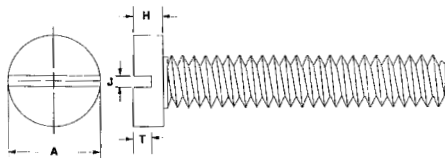


Thread Size	AF nom	H nom	AC max	J nom	T nom
M5 x 0,8	8,00	3,50	8,63	1,20	1,40
M6 x 1,0	10,00	4,00	10,89	1,60	1,60
M8 x 1,25	13,00	5,30	14,20	2,00	2,12
M10 x 1,5	17,00	6,40	18,72	2,50	2,56

HEX HEAD
Part No. MHN2025 -



SLOTTED CHEESE HEAD
Part No. MHN2038 -

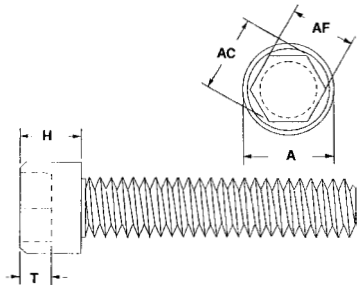


Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,30	0,70	0,90
M2,5 x 0,45	4,50	1,60	0,80	1,00
M3 x 0,5	5,50	2,00	1,00	1,20
M3,5 x 0,6	6,00	2,40	1,20	1,40
M4 x 0,7	7,00	2,60	1,51	1,50
M5 x 0,8	8,50	3,30	1,50	1,80
M6 x 1,0	10,00	3,90	1,90	2,30
M8 x 1,25	13,00	5,00	2,30	2,80
M10 1,5	16,00	6,00	2,80	3,30

MOLDED METRIC HEX CAP SCREWS AND BOLTS - MH Series

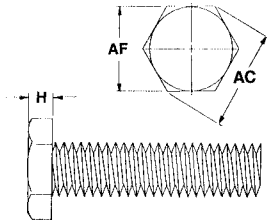
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 36) (page 35)

HEX SOCKET HEAD CAP Part No. MHN2033 -



Thread Size	A max	H nom	T min	AF nom	AC min
M2 x 0,4	3,80	1,93	1,00	1,50	1,73
M2,5 x 0,45	4,45	2,43	1,10	2,00	2,30
M3 x 0,5	5,50	2,93	1,30	2,50	2,87
M4 x 0,7	7,00	3,91	2,00	3,00	3,44
M5 x 0,8	8,50	4,91	2,50	4,00	4,58
M6 x 1,0	10,00	5,85	3,00	5,00	5,72
M8 x 1,25	13,00	7,82	4,00	6,00	6,86
M10 x 1,5	16,00	9,82	5,00	8,00	9,15
M12 x 1,75	18,00	11,78	6,00	10,00	11,53

HEX HEAD BOLTS Part No. MHN2039 -

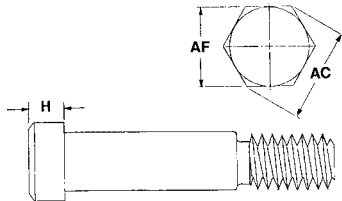


Thread Size	AF nom	H nom	AC min
M5 x 0,8	8,00	3,50	8,63
M6 x 1,00	10,00	4,00	10,89
M8 x 1,25	13,00	5,30	14,20
M10 x 1,5	17,00	6,40	18,72
M12 x 1,75	19,00	7,50	20,88

MOLDED METRIC HEX FIT BOLTS - MH Series

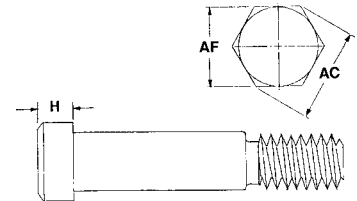
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 36) (page 35)

HEX FIT BOLTS with Long Threaded Dog Point Part No. MHN2040 -



Thread Size	AF nom	H nom	AC min
M8	13,00	5,30	14,38
M10	16/17,00	6,40	17,77/18,90
M12	18/19,00	7,50	19,85/20,88

HEX FIT BOLTS with Short Threaded Dog Point Part No. MHN2041 -



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED METRIC FLANGED HEX CAP SCREWS - MH Series

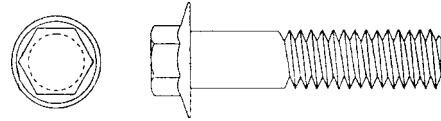
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

Part No. MHN1905 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	35	-14	M10	60
-6	M10	40	-16	M10	65
-8	M10	45	-18	M10	70
-10	M10	50	-20	M10	75
-12	M10	55			



MOLDED METRIC HEX SOCKET COUNTERSUNK SCREWS - MH Series

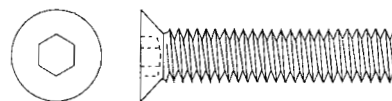
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

Part No. MHN2022 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	20	-12	M10	35
-6	M10	22	-14	M10	40
-8	M10	25	-16	M10	45
-10	M10	30	-18	M10	50



MOLDED METRIC THUMB SCREWS - MH Series

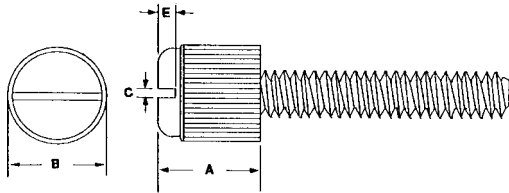
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

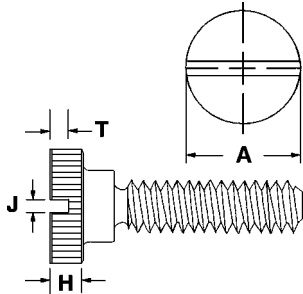
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 36) (above)

THUMB SCREW SLOTTED Part No. MHN2035 -



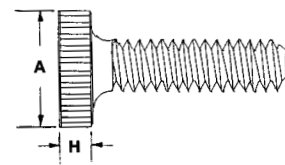
Thread Size	A	B	C	E
M3 x ,5	5,5	8,1	1,0	1,1
M3,5 x ,6	6,4	8,8	1,1	1,3
M4 x ,7	7,1	9,7	1,2	1,5
M5 x ,8	8,1	10,5	1,4	1,7
M6 x 1,0	8,3	12,5	1,8	2,2

KNURLED THUMB SCREW SLOTTED Part No. MHN2042 -



Thread Size	A	H	J	T
	nom	nom	nom	nom
M2 x 0,4	9,00	2,00	0,50	1,25
M2,5 x 0,45	11,00	2,50	0,60	1,65
M3 x 0,5	12,00	2,50	0,80	2,00
M4 x 0,7	16,00	3,50	1,00	2,45
M5 x 0,8	20,00	4,00	1,20	3,10
M6 x 1	24,00	5,00	1,60	3,90
M8 x 1,25	30,00	6,00	2,00	5,00
M10 x 1,5	36,00	8,00	2,50	6,50

KNURLED THIN THUMB SCREW Part No. MHN2043 -



MOLDED METRIC SET SCREWS - MH Series

*Available in other materials. See material list in index.
 Other sizes available on request.
 Dimensions may vary with material.

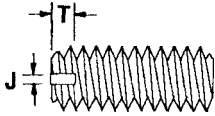
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-108	Polypropylene, 30% Glass-filled
-48	Ryton®, PPS, 40% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-77	Ultem® 2300, (natural)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-81	Isoplast™, 40% Long Glass Fiber, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)

Part No. MHN2044 - (Size Code No.) - (Set Style) - SL (Slotted) or SK (Socket) - (Material Code No.)
 (page 36) (below) (above)

Set Style:

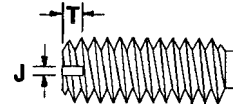
FLAT POINT - FP



LONG DOG POINT - LDP



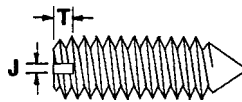
FULL DOG POINT - FDP



CUP POINT - CP



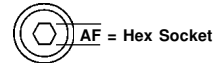
CONE POINT - CNP



CHAMFERED END - CE



Thread Size	J nom	T nom	AF nom
M2 x 0,4	0,25	0,64	0,90
M2,5 x 0,45	0,40	0,72	1,30
M3 x 0,5	0,40	0,80	1,50
M4 x 0,7	0,60	1,12	2,00
M5 x 0,8	0,80	1,28	2,50
M6 x 1	1,00	1,60	3,00
M8 x 1,25	1,20	2,00	4,00
M10 x 1,5	1,60	2,40	5,00
M12 x 1,75	2,00	2,80	6,00



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED MACHINE SCREWS - J Series

For other materials refer to Craftech MOLDED SCREWS on pages 30-73 (MH, K, & L series).

For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

*Available in other materials. See material list in index. Other sizes available on request. Dimensions may vary with material.

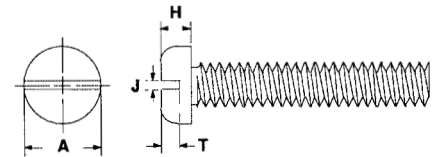
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-231	Radel® R5100 NT15, Polyphenylsulfone
-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant		

PAN HEAD SLOTTED

Part No. JM108 - (Size Code No.) - (Material Code No.)
(below) (above)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-13	2-56	1/8	-45	6-32	7/16	-75	10-32	1/4
-15	2-56	3/16	-46	6-32	1/2	-76	10-32	5/16
-16	2-56	1/4	-47	6-32	5/8	-77	10-32	3/8
-17	2-56	9/32	-48	6-32	3/4	-78	10-32	1/2
-18	2-56	5/16	-49	6-32	7/8	-79	10-32	5/8
-19	2-56	3/8	-50	6-32	1	-80	10-32	3/4
-20	2-56	1/2	-51	6-32	1 1/4	-81	10-32	1
-21	2-56	5/8	-52	6-40	1/4	-82	10-32	1 1/4
-22	2-56	3/4	-53	8-32	1/4	-83	10-32	1 1/2
-23	3-48	1/8	-54	8-32	9/32	-84	1/4-20	1/4
-24	3-48	1/4	-55	8-32	5/16	-85	1/4-20	3/8
-25	3-48	3/4	-56	8-32	3/8	-86	1/4-20	7/16
-26	4-40	1/8	-57	8-32	7/16	-87	1/4-20	1/2
-27	4-40	3/16	-58	8-32	1/2	-88	1/4-20	5/8
-28	4-40	1/4	-59	8-32	5/8	-89	1/4-20	3/4
-29	4-40	5/16	-60	8-32	3/4	-90	1/4-20	13/16
-30	4-40	3/8	-61	8-32	7/8	-91	1/4-20	1
-31	4-40	7/16	-62	8-32	1	-92	1/4-20	1 1/4
-32	4-40	1/2	-63	8-32	1 1/4	-93	1/4-20	1 3/8
-33	4-40	9/16	-64	8-32	1 1/2	-94	1/4-20	1 1/2
-34	4-40	5/8	-65	10-24	3/16	-95	5/16-18	1/2
-35	4-40	3/4	-66	10-24	1/4	-96	5/16-18	3/4
-36	4-40	7/8	-67	10-24	5/16	-97	5/16-18	1
-37	4-40	1	-68	10-24	3/8	-98	5/16-18	1 1/4
-39	6-32	1/8	-69	10-24	1/2	-99	5/16-18	1 1/2
-40	6-32	5/32	-70	10-24	5/8	-100	3/8-16	1/2
-41	6-32	3/16	-71	10-24	3/4	-101	3/8-16	3/4
-42	6-32	1/4	-72	10-24	1	-102	3/8-16	1
-43	6-32	5/16	-73	10-24	1 1/4	-103	3/8-16	1 1/4
-44	6-32	3/8	-74	10-24	1 1/2	-104	3/8-16	1 1/2

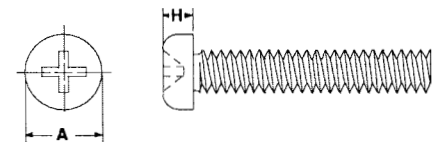


Thread Size	A	H	J	T
2	.161	.049	.027	.026
4	.212	.063	.035	.035
6	.263	.077	.043	.043
8	.314	.091	.049	.051
10	.365	.105	.055	.060
1/4	.482	.137	.069	.078
5/16	.604	.170	.078	.095
3/8	.728	.204	.087	.112

PAN HEAD PHILLIPS

Part No. J109 - (Size Code No.) - (Material Code No.)
(below) (above)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-9	2-56	5/8	-17	4-40	7/16
-2	2-56	5/32	-10	2-56	3/4	-18	4-40	1/2
-3	2-56	3/16	-11	4-40	1/8	-19	4-40	9/16
-4	2-56	1/4	-12	4-40	3/16	-20	4-40	5/8
-5	2-56	9/32	-13	4-40	1/4	-21	4-40	3/4
-6	2-56	5/16	-14	4-40	.320	-22	4-40	7/8
-7	2-56	3/8	-15	4-40	5/16	-23	4-40	1
-8	2-56	1/2	-16	4-40	3/8			



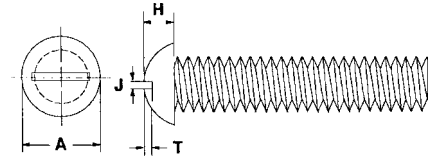
FOR SCREW DIMENSIONS SEE CHART FOR PAN HEAD SLOTTED

MOLDED MACHINE SCREWS - J Series (continued)

ROUND HEAD SLOTTED

Part No. J110 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-27	6-32	5/16	-54	10-32	1/4
-2	2-56	5/32	-28	6-32	3/8	-55	10-32	5/16
-3	2-56	3/16	-29	6-32	7/16	-56	10-32	3/8
-4	2-56	1/4	-30	6-32	1/2	-57	10-32	1/2
-5	2-56	9/32	-31	6-32	5/8	-58	10-32	5/8
-6	2-56	5/16	-32	6-32	3/4	-59	10-32	3/4
-7	2-56	3/8	-33	6-32	7/8	-60	10-32	1
-8	2-56	1/2	-34	6-32	1	-61	1/4-20	1/4
-9	2-56	5/8	-36	8-32	1/4	-62	1/4-20	3/8
-10	2-56	3/4	-37	8-32	9/32	-63	1/4-20	7/16
-11	4-40	1/8	-38	8-32	5/16	-64	1/4-20	1/2
-12	4-40	3/16	-39	8-32	3/8	-65	1/4-20	5/8
-13	4-40	1/4	-40	8-32	7/16	-66	1/4-20	3/4
-14	4-40	5/16	-41	8-32	1/2	-67	1/4-20	13/16
-15	4-40	3/8	-42	8-32	5/8	-68	1/4-20	1
-16	4-40	1/2	-43	8-32	3/4	-70	5/16-18	1/2
-17	4-40	9/16	-44	8-32	7/8	-71	5/16-18	3/4
-18	4-40	5/8	-45	8-32	1	-72	5/16-18	1
-19	4-40	3/4	-46	10-24	3/16	-73	5/16-18	1 1/4
-20	4-40	7/8	-47	10-24	1/4	-74	5/16-18	1 1/2
-21	4-40	1	-48	10-24	5/16	-75	3/8-16	1/2
-22	4-40	2 1/2	-49	10-24	3/8	-76	3/8-16	3/4
-23	6-32	1/8	-50	10-24	1/2	-77	3/8-16	1
-24	6-32	5/32	-51	10-24	5/8	-78	3/8-16	1 1/4
-25	6-32	3/16	-52	10-24	3/4	-79	3/8-16	1 1/2
-26	6-32	1/4	-53	10-24	1			

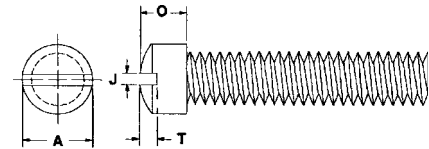


Thread Size	A	H	J	T
2	.154	.064	.027	.043
4	.202	.081	.035	.051
6	.250	.097	.043	.060
8	.298	.114	.049	.067
10	.347	.130	.055	.076
1/4	.458	.168	.069	.096
5/16	.574	.207	.078	.116
3/8	.689	.247	.087	.136

FILLISTER HEAD SLOTTED

Part No. J114 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-13	2-56	1/8	-48	6-32	5/8	-79	10-32	1/2
-14	2-56	5/32	-49	6-32	3/4	-80	10-32	5/8
-15	2-56	3/16	-50	6-32	7/8	-81	10-32	3/4
-16	2-56	7/32	-51	6-32	1	-82	10-32	1
-17	2-56	1/4	-52	6-32	1 1/4	-83	10-32	1 1/4
-18	2-56	5/16	-54	8-32	1/4	-84	10-32	1 1/2
-19	2-56	3/8	-55	8-32	9/32	-85	10-32	1/4
-20	2-56	1/2	-56	8-32	5/16	-86	1/4-20	3/8
-21	2-56	5/8	-57	8-32	3/8	-87	1/4-20	7/16
-22	2-56	3/4	-58	8-32	7/16	-88	1/4-20	1/2
-26	4-40	1/8	-59	8-32	1/2	-89	1/4-20	5/8
-27	4-40	3/16	-60	8-32	5/8	-90	1/4-20	3/4
-28	4-40	1/4	-61	8-32	3/4	-91	1/4-20	13/16
-29	4-40	5/16	-62	8-32	7/8	-92	1/4-20	1
-30	4-40	3/8	-63	8-32	1	-93	1/4-20	1 1/4
-31	4-40	7/16	-64	8-32	1 1/4	-94	1/4-20	1 3/8
-32	4-40	1/2	-65	8-32	1 1/2	-95	1/4-20	1 1/2
-33	4-40	9/16	-66	10-24	3/16	-97	5/16-18	3/8
-34	4-40	5/8	-67	10-24	1/4	-98	5/16-18	1/2
-35	4-40	3/4	-68	10-24	5/16	-99	5/16-18	3/4
-36	4-40	7/8	-69	10-24	3/8	-100	5/16-18	1
-37	4-40	1	-70	10-24	1/2	-1000	5/16-18	1 1/4
-40	6-32	1/8	-71	10-24	5/8	-1001	5/16-18	1 1/2
-41	6-32	5/32	-72	10-24	3/4	-101	3/8-16	1/2
-42	6-32	3/16	-73	10-24	1	-102	3/8-16	3/4
-43	6-32	1/4	-74	10-24	1 1/4	-103	3/8-16	1
-44	6-32	5/16	-75	10-24	1 1/2	-104	3/8-16	1 1/4
-45	6-32	3/8	-76	10-24	1/4	-105	3/8-16	1 1/2
-46	6-32	7/16	-77	10-32	5/16			
-47	6-32	1/2	-78	10-32	3/8			



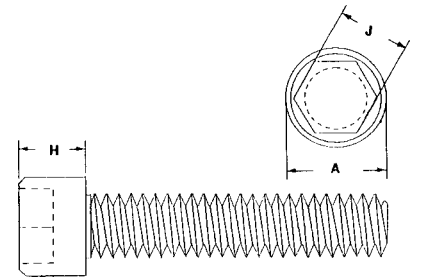
Thread Size	A	O	J	T
2	.132	.074	.027	.031
4	.174	.097	.035	.041
6	.217	.121	.044	.052
8	.260	.144	.050	.062
10	.302	.168	.055	.073
1/4	.402	.222	.070	.098
5/16	.504	.279	.078	.123
3/8	.606	.335	.088	.148

MOLDED MACHINE SCREWS - J Series (continued)

HEX SOCKET HEAD

Part No. J116 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/8	-22	8-32	5/16	-43	10-32	3/4
-2	4-40	3/16	-23	8-32	3/8	-44	10-32	1
-3	4-40	1/4	-24	8-32	7/16	-45	1/4-20	1/4
-4	4-40	5/16	-25	8-32	1/2	-46	1/4-20	3/8
-5	4-40	3/8	-26	8-32	5/8	-47	1/4-20	7/16
-6	4-40	1/2	-27	8-32	3/4	-48	1/4-20	1/2
-7	4-40	5/8	-28	8-32	7/8	-49	1/4-20	5/8
-8	4-40	3/4	-29	8-32	1	-50	1/4-20	3/4
-9	4-40	1	-30	10-24	3/16	-51	1/4-20	13/16
-10	6-32	1/8	-31	10-24	1/4	-52	1/4-20	1
-11	6-32	3/16	-32	10-24	5/16	-54	5/16-18	1/2
-12	6-32	1/4	-33	10-24	3/8	-55	5/16-18	3/4
-13	6-32	5/16	-34	10-24	1/2	-56	5/16-18	1
-14	6-32	3/8	-35	10-24	5/8	-57	5/16-18	1 1/4
-15	6-32	7/16	-36	10-24	3/4	-58	5/16-18	1 1/2
-16	6-32	1/2	-37	10-24	1	-59	3/8-16	1/2
-17	6-32	5/8	-38	10-32	1/4	-60	3/8-16	3/4
-18	6-32	3/4	-39	10-32	5/16	-61	3/8-16	1
-19	6-32	1	-40	10-32	3/8	-62	3/8-16	1 1/4
-20	8-32	1/4	-41	10-32	1/2	-63	3/8-16	1 1/2
-21	8-32	9/32	-42	10-32	5/8			

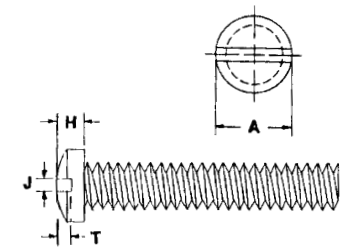


Thread Size	A	H	J
4	.180	.110	.094
6	.222	.136	.109
8	.266	.162	.141
10	.307	.188	.156
1/4	.370	.247	.188
5/16	.463	.309	.250
3/8	.556	.371	.312

BINDING HEAD SLOTTED

Part No. J117 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-29	6-32	3/8	-58	10-32	5/16
-2	2-56	5/32	-30	6-32	7/16	-59	10-32	3/8
-3	2-56	3/16	-31	6-32	1/2	-60	10-32	1/2
-4	2-56	1/4	-32	6-32	5/8	-61	10-32	5/8
-5	2-56	9/32	-33	6-32	11/16	-62	10-32	3/4
-6	2-56	5/16	-34	6-32	3/4	-63	10-32	1
-7	2-56	3/8	-35	6-32	7/8	-64	1/4-20	1/4
-8	2-56	1/2	-36	6-32	1	-65	1/4-20	3/8
-9	2-56	5/8	-38	8-32	7/32	-66	1/4-20	7/16
-10	2-56	3/4	-39	8-32	1/4	-67	1/4-20	1/2
-11	4-40	3/32	-40	8-32	9/32	-68	1/4-20	5/8
-12	4-40	1/8	-41	8-32	5/16	-69	1/4-20	3/4
-13	4-40	3/16	-42	8-32	3/8	-70	1/4-20	13/16
-14	4-40	1/4	-43	8-32	7/16	-71	1/4-20	1
-15	4-40	5/16	-44	8-32	1/2	-73	5/16-18	1/2
-16	4-40	3/8	-45	8-32	5/8	-74	5/16-18	3/4
-17	4-40	7/16	-46	8-32	3/4	-75	5/16-18	1
-18	4-40	1/2	-47	8-32	7/8	-76	5/16-18	1 1/4
-19	4-40	9/16	-48	8-32	1	-77	5/16-18	1 1/2
-20	4-40	5/8	-49	10-24	3/16	-78	3/8-16	1/2
-21	4-40	3/4	-50	10-24	1/4	-79	3/8-16	3/4
-22	4-40	7/8	-51	10-24	5/16	-80	3/8-16	1
-23	4-40	1	-52	10-24	3/8	-81	3/8-16	1 1/4
-24	6-32	1/8	-53	10-24	1/2	-82	3/8-16	1 1/2
-25	6-32	5/32	-54	10-24	5/8	-83	3/8-16	2
-26	6-32	3/16	-55	10-24	3/4	-84	3/8-16	2 1/2
-27	6-32	1/4	-56	10-24	1	-85	3/8-16	3
-28	6-32	5/16	-57	10-32	1/4			



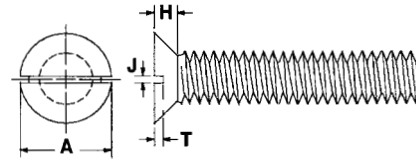
Thread Size	A	H	J	T
2	.176	.046	.026	.025
4	.229	.064	.034	.036
6	.282	.083	.043	.046
8	.335	.100	.049	.057
10	.388	.117	.055	.068
1/4	.511	.158	.069	.094
5/16	.639	.201	.078	.121
3/8	.767	.244	.087	.147

MOLDED MACHINE SCREWS - J Series (continued)

FLAT HEAD 82° SLOTTED

Part No. J121 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-12	2-56	1/8	-51	6-32	3/4	-88	10-32	11/16
-13	2-56	5/32	-52	6-32	13/16	-89	10-32	3/4
-14	2-56	3/16	-53	6-32	1	-90	10-32	13/16
-15	2-56	7/32	-54	6-32	1 1/16	-91	10-32	1
-16	2-56	1/4	-55	6-32	1 1/4	-92	10-32	1 1/16
-17	2-56	5/16	-56	8-32	1/4	-93	10-32	1 1/4
-18	2-56	3/8	-57	8-32	5/16	-94	10-32	1 1/2
-19	2-56	13/32	-58	8-32	3/8	-95	1/4-20	1/4
-20	2-56	1/2	-59	8-32	7/16	-96	1/4-20	5/16
-21	2-56	17/32	-60	8-32	1/2	-97	1/4-20	3/8
-22	2-56	21/32	-61	8-32	9/16	-98	1/4-20	7/16
-23	2-56	25/32	-62	8-32	5/8	-99	1/4-20	1/2
-26	4-40	5/32	-63	8-32	11/16	-100	1/4-20	9/16
-27	4-40	3/16	-64	8-32	3/4	-101	1/4-20	11/16
-28	4-40	7/32	-65	8-32	13/16	-102	1/4-20	3/4
-29	4-40	1/4	-66	8-32	1	-103	1/4-20	13/16
-30	4-40	9/32	-67	8-32	1 1/16	-104	1/4-20	7/8
-31	4-40	5/16	-68	8-32	1 1/4	-105	1/4-20	1
-32	4-40	11/32	-69	8-32	1 1/2	-106	1/4-20	1 1/16
-33	4-40	3/8	-70	10-24	1/4	-107	1/4-20	1 1/4
-34	4-40	13/32	-71	10-24	5/16	-108	1/4-20	1 3/8
-35	4-40	15/32	-72	10-24	3/8	-109	1/4-20	1 1/2
-36	4-40	1/2	-73	10-24	1/2	-112	5/16-18	1/2
-37	4-40	17/32	-74	10-24	9/16	-113	5/16-18	3/4
-38	4-40	3/4	-75	10-24	3/4	-114	5/16-18	1
-39	4-40	25/32	-76	10-24	13/16	-115	5/16-18	1 1/4
-40	4-40	1	-77	10-24	1	-116	5/16-18	1 1/2
-41	4-40	1 1/32	-78	10-24	1 1/16	-117	3/8-16	1/2
-42	6-32	3/16	-79	10-24	1 1/4	-118	3/8-16	3/4
-43	6-32	1/4	-80	10-24	1 1/2	-119	3/8-16	1
-44	6-32	5/16	-81	10-32	1/4	-120	3/8-16	1 1/4
-45	6-32	3/8	-82	10-32	5/16	-121	3/8-16	1 1/2
-46	6-32	7/16	-83	10-32	3/8	-122	3/8-16	2
-47	6-32	1/2	-84	10-32	7/16	-123	3/8-16	2 1/2
-48	6-32	9/16	-85	10-32	1/2	-124	3/8-16	3
-49	6-32	5/8	-86	10-32	9/16			
-50	6-32	11/16	-87	10-32	5/8			

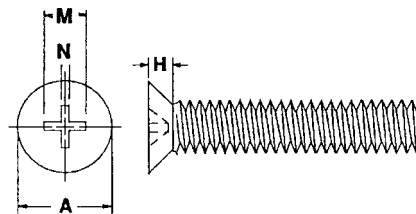


Thread Size	A	H	J	T
2	.159	.051	.027	.019
4	.210	.067	.035	.025
6	.261	.083	.044	.031
8	.312	.100	.049	.037
10	.362	.116	.055	.044
1/4	.479	.153	.069	.058
5/16	.601	.191	.078	.073
3/8	.723	.230	.088	.088

FLAT HEAD 82° PHILLIPS

Part No. J122 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	6-32	3/16	-19	8-32	11/16	-34	10-32	1
-4	6-32	1/4	-20	8-32	3/4	-35	10-32	1 1/16
-5	6-32	5/16	-21	8-32	13/16	-36	1/4-20	1/4
-6	6-32	3/8	-22	8-32	1	-37	1/4-20	5/16
-7	6-32	7/16	-23	8-32	1 1/16	-38	1/4-20	3/8
-8	6-32	1/2	-24	10-32	1/4	-39	1/4-20	7/16
-9	6-32	9/16	-25	10-32	5/16	-40	1/4-20	1/2
-10	6-32	11/16	-26	10-32	3/8	-41	1/4-20	9/16
-11	6-32	13/16	-27	10-32	7/16	-42	1/4-20	11/16
-12	8-32	1/4	-28	10-32	1/2	-43	1/4-20	3/4
-13	8-32	5/16	-29	10-32	9/16	-44	1/4-20	13/16
-14	8-32	3/8	-30	10-32	5/8	-45	1/4-20	7/8
-15	8-32	7/16	-31	10-32	11/16	-46	1/4-20	1
-16	8-32	1/2	-32	10-32	3/4			
-18	8-32	5/8	-33	10-32	13/16			



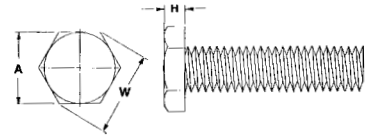
Thread Size	A	H	M	N
6	.261	.083	.187	.038
8	.312	.100	.224	.043
10	.362	.116	.260	.048
1/4	.479	.153	.344	.061

MOLDED MACHINE SCREWS - J Series (continued)

HEX HEAD MACHINE SCREWS

Part No. J106 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-28	6-32	3/16	-53	8-32	1	-76	10-32	1/2
-2	2-56	3/16	-29	6-32	1/4	-55	8-32	1 1/4	-77	10-32	5/8
-3	2-56	1/4	-30	6-32	5/16	-56	8-32	1 3/8	-78	10-32	3/4
-5	2-56	5/16	-31	6-32	3/8	-57	8-32	1 1/2	-79	10-32	7/8
-6	2-56	3/8	-32	6-32	7/16	-58	8-32	1 3/4	-80	10-32	1
-7	2-56	7/16	-33	6-32	1/2	-59	8-32	2	-81	10-32	1 1/4
-8	2-56	1/2	-34	6-32	5/8	-60	10-24	1/8	-82	10-32	1 1/2
-9	2-56	5/8	-36	6-32	3/4	-61	10-24	3/16	-83	10-32	2
-10	2-56	3/4	-37	6-32	1	-62	10-24	1/4	-84	1/4-20	1/4
-11	4-40	1/8	-39	6-32	1 1/4	-63	10-24	5/16	-85	1/4-20	5/16
-12	4-40	3/16	-40	6-32	1 1/2	-64	10-24	3/8	-86	1/4-20	3/8
-13	4-40	1/4	-41	6-32	1 3/4	-65	10-24	1/2	-87	1/4-20	1/2
-15	4-40	5/16	-43	8-32	1/8	-66	10-24	5/8	-88	1/4-20	5/8
-16	4-40	3/8	-44	8-32	3/16	-67	10-24	3/4	-89	1/4-20	3/4
-17	4-40	7/16	-45	8-32	1/4	-68	10-24	1	-90	1/4-20	7/8
-18	4-40	1/2	-46	8-32	5/16	-69	10-24	1 1/4	-91	1/4-20	1
-19	4-40	5/8	-47	8-32	3/8	-70	10-24	1 1/2	-92	1/4-20	1 1/4
-21	4-40	3/4	-48	8-32	7/16	-71	10-32	1/8	-93	1/4-20	1 1/2
-22	4-40	7/8	-49	8-32	1/2	-72	10-32	3/16	-94	1/4-20	1 3/4
-23	4-40	1	-50	8-32	5/8	-73	10-32	1/4	-95	1/4-20	2
-25	4-40	1 1/4	-51	8-32	3/4	-74	10-32	5/16			
-27	6-32	1/8	-52	8-32	7/8	-75	10-32	3/8			



Thread Size	A		W		H	
	max.	min.	min.	max.	min.	max.
2	.125	.120	.134	.050	.040	
4	.188	.181	.202	.060	.049	
6	.250	.244	.272	.093	.080	
8	.250	.244	.272	.110	.096	
10	.312	.305	.340	.120	.105	
1/4	.375	.367	.409	.190	.172	

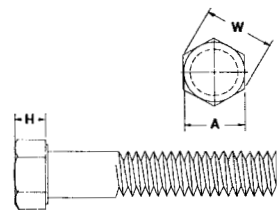
Dimensions may vary with material.

MOLDED CAP SCREWS - J Series

HEX HEAD CAP SCREWS

Part No. J130 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	1/2	-2	5/16-18	2	-7	5/8-11	1 1/2	-12	5/8-11	4	-17	3/4-10	1 1/2	-22	3/4-10	4
-101	1/4-20	3/4	-3	3/8-16	1 1/2	-8	5/8-11	2	-13	5/8-11	4 1/2	-18	3/4-10	2	-23	3/4-10	4 1/2
-102	1/4-20	1	-4	3/8-16	2	-9	5/8-11	2 1/2	-14	5/8-11	5	-19	3/4-10	2 1/2	-24	3/4-10	5
-103	1/4-20	1 1/4	-5	3/8-16	2 1/2	-10	5/8-11	3	-15	5/8-11	5 1/2	-20	3/4-10	3	-25	3/4-10	5 1/2
-104	1/4-20	1 1/2	-6	3/8-16	3	-11	5/8-11	3 1/2	-16	5/8-11	6	-21	3/4-10	3 1/2	-26	3/4-10	6



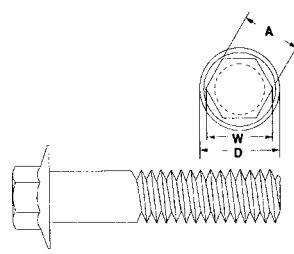
Size	A	W	H
1/4-20	.435	.498	.190
5/16-18	.502	.575	.205
3/8-16	.560	.645	.250
5/8-11	.938	1.051	.400
3/4-10	1.125	1.254	.465

Dimensions +/- .015

FLANGED HEX HEAD CAP SCREWS

Part No. J131 - (Size Code No.) - (Material Code No.)
(below) (page 41)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	3/8	-9	3/8-16	1/2	-141	3/8-16	2	-1435	3/8-16	4 1/2	-23	1/2-13	1 7/8	-32	1/2-13	3 3/8
-1	1/4-20	1/2	-10	3/8-16	5/8	-1410	3/8-16	2 1/4	-15	1/2-13	3/4	-24	1/2-13	2	-33	1/2-13	3 1/2
-2	1/4-20	5/8	-11	3/8-16	3/4	-142	3/8-16	2 1/2	-16	1/2-13	7/8	-25	1/2-13	2 1/4	-331	1/2-13	3 3/4
-3	1/4-20	3/4	-12	3/8-16	7/8	-143	3/8-16	3	-17	1/2-13	1	-26	1/2-13	2 3/8	-34	1/2-13	4
-4	1/4-20	7/8	-13	3/8-16	1	-1430	3/8-16	3 1/4	-18	1/2-13	1 1/4	-27	1/2-13	2 1/2	-35	1/2-13	4 1/2
-5	1/4-20	1	-14	3/8-16	1 1/4	-1431	3/8-16	3 1/2	-19	1/2-13	1 3/8	-28	1/2-13	2 5/8	-36	1/2-13	5
-6	1/4-20	1 1/4	-140	3/8-16	1 1/2	-1432	3/8-16	3 3/4	-20	1/2-13	1 1/2	-29	1/2-13	2 3/4	-37	1/2-13	5 1/2
-7	1/4-20	1 3/8	-1402	3/8-16	1 5/8	-1433	3/8-16	4	-21	1/2-13	1 5/8	-30	1/2-13	3	-38	1/2-13	6
-8	1/4-20	1 1/2	-1403	3/8-16	1 3/4	-1434	3/8-16	4 1/4	-22	1/2-13	1 3/4						



Size	A	W	D
1/4-20	.375	.425	.560
3/8-16	.550	.625	.785
1/2-13	.730	.835	1.059

Dimensions +/- .010

MOLDED METRIC MACHINE SCREWS - J Series

For other materials refer to **Craftech MOLDED METRIC SCREWS** on pages 30-73 (MH, K, & L series).

For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

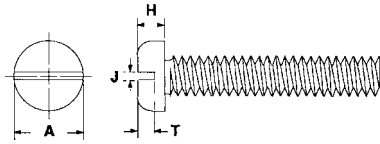
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized
-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant

Material Code No.	Material Name
-226	Radel® A200, Polyethersulfone
-229	Radel® R5000, Polyphenylsulfone
-231	Radel® R5100 NT15, Polyphenylsulfone

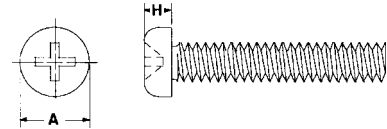
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 47) (above)

PAN HEAD SLOTTED Part No. J244 -

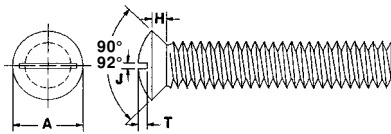


Thread Size	A nom	H nom	J nom	T nom
M3 x 0,5	6,00	1,80	0,80	0,82
M4 x 0,7	8,00	2,40	1,20	1,15
M5 x 0,8	10,00	3,00	1,20	1,35
M6 x 1	12,00	3,60	1,60	1,70

PAN HEAD CROSS RECESSED Part No. J245 -

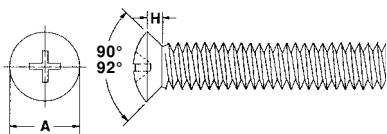


RAISED COUNTERSUNK HEAD SLOTTED Part No. J250 -

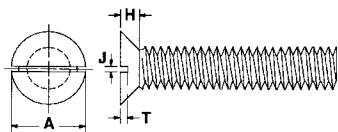


Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,20	0,60	0,90
M2,5 x 0,45	4,70	1,50	0,70	1,10
M3 x 0,5	5,60	1,65	0,90	1,32
M3,5 x 0,6	6,50	1,93	1,10	1,55
M4 x 0,7	7,50	2,20	1,30	1,75
M5 x 0,8	9,20	2,50	1,40	2,15
M6 x 1,0	11,00	3,00	1,70	2,60
M8 x 1,25	14,50	4,00	2,10	3,70 (max)
M10 x 1,5	18,00	5,00	2,60	4,30

RAISED COUNTERSUNK HEAD CROSS RECESSED Part No. J249 -

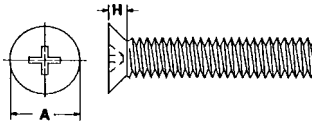


COUNTERSUNK HEAD SLOTTED Part No. J251 -



Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,20	0,50	0,50
M2,5 x 0,45	4,70	1,50	0,60	0,60
M3 x 0,5	5,60	1,65	0,80	0,72
M4 x 0,7	7,50	2,20	1,00	0,95
M5 x 0,8	9,20	2,50	1,20	1,15
M6 x 1,0	11,00	3,00	1,60	1,40
M8 x 1,25	14,50	4,00	2,00	1,85
M10 x 1,50	18,00	5,00	2,50	2,30
M12 x 1,75	22,00	6,00	3,00	2,70

COUNTERSUNK HEAD CROSS RECESSED Part No. J252 -



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED METRIC MACHINE SCREWS - J Series (continued)

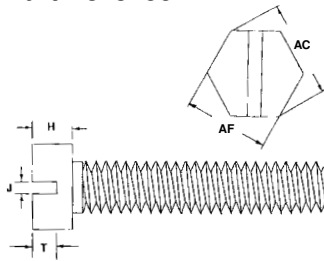
MOLDED METRIC MACHINE SCREWS, CAP SCREWS, BOLTS, THUMB SCREWS and SET SCREWS SIZE CODE CHART

ALL DIMENSIONS GIVEN IN MILLIMETERS

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1000	M2 x 0,4	3mm	-25	M3 x 0,5	20mm	-52	M5 x 0,8	20mm	-77	M8 x 1,25	35mm
-1	M2 x 0,4	4mm	-26	M3 x 0,5	25mm	-53	M5 x 0,8	25mm	-78	M8 x 1,25	40mm
-2	M2 x 0,4	5mm	-27	M3 x 0,5	30mm	-54	M5 x 0,8	30mm	-79	M8 x 1,25	45mm
-3	M2 x 0,4	6mm	-28	M3,5 x 0,6	5mm	-55	M5 x 0,8	35mm	-80	M8 x 1,25	50mm
-4	M2 x 0,4	8mm	-29	M3,5 x 0,6	6mm	-56	M5 x 0,8	40mm	-81	M8 x 1,25	55mm
-5	M2 x 0,4	10mm	-30	M3,5 x 0,6	8mm	-57	M6 x 1,00	5mm	-82	M8 x 1,25	60mm
-6	M2 x 0,4	12mm	-31	M3,5 x 0,6	10mm	-58	M6 x 1,00	8mm	-83	M8 x 1,25	65mm
-600	M2 x 0,4	15mm	-32	M3,5 x 0,6	12mm	-59	M6 x 1,00	10mm	-84	M8 x 1,25	70mm
-7	M2 x 0,4	16mm	-33	M3,5 x 0,6	16mm	-60	M6 x 1,00	12mm	-85	M10 x 1,50	10mm
-8	M2 x 0,4	20mm	-34	M3,5 x 0,6	20mm	-603	M6 x 1,00	15mm	-853	M10 x 1,50	15mm
-9	M2 x 0,4	25mm	-35	M3,5 x 0,6	25mm	-61	M6 x 1,00	16mm	-86	M10 x 1,50	16mm
-10	M2,5 x 0,45	4mm	-36	M3,5 x 0,6	35mm	-62	M6 x 1,00	20mm	-87	M10 x 1,50	20mm
-11	M2,5 x 0,45	5mm	-37	M4 x 0,7	6mm	-63	M6 x 1,00	25mm	-88	M10 x 1,50	25mm
-12	M2,5 x 0,45	6mm	-38	M4 x 0,7	8mm	-64	M6 x 1,00	30mm	-89	M10 x 1,50	30mm
-13	M2,5 x 0,45	8mm	-39	M4 x 0,7	10mm	-65	M6 x 1,00	35mm	-90	M10 x 1,50	35mm
-14	M2,5 x 0,45	10mm	-40	M4 x 0,7	12mm	-66	M6 x 1,00	40mm	-91	M10 x 1,50	40mm
-15	M2,5 x 0,45	12mm	-41	M4 x 0,7	16mm	-67	M6 x 1,00	45mm	-92	M10 x 1,50	50mm
-16	M2,5 x 0,45	16mm	-42	M4 x 0,7	20mm	-68	M6 x 1,00	50mm	-93	M10 x 1,50	60mm
-17	M2,5 x 0,45	20mm	-43	M4 x 0,7	25mm	-69	M6 x 1,00	55mm	-94	M10 x 1,50	70mm
-18	M2,5 x 0,45	25mm	-44	M4 x 0,7	30mm	-70	M8 x 1,25	8mm	-95	M10 x 1,50	75mm
-19	M3 x 0,5	5mm	-45	M4 x 0,7	35mm	-71	M8 x 1,25	10mm	-96	M12 x 1,75	20mm
-20	M3 x 0,5	6mm	-46	M4 x 0,7	40mm	-72	M8 x 1,25	12mm	-97	M12 x 1,75	30mm
-21	M3 x 0,5	8mm	-47	M5 x 0,8	6mm	-723	M8 x 1,25	15mm	-98	M12 x 1,75	40mm
-22	M3 x 0,5	10mm	-48	M5 x 0,8	8mm	-73	M8 x 1,25	16mm	-99	M12 x 1,75	50mm
-23	M3 x 0,5	12mm	-49	M5 x 0,8	10mm	-74	M8 x 1,25	20mm	-100	M12 x 1,75	60mm
-233	M3 x 0,5	15mm	-50	M5 x 0,8	12mm	-75	M8 x 1,25	25mm	-101	M12 x 1,75	70mm
-24	M3 x 0,5	16mm	-51	M5 x 0,8	15mm	-76	M8 x 1,25	30mm	-102	M12 x 1,75	75mm

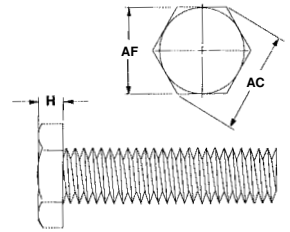
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (above) (page 46)

HEX HEAD SLOTTED
Part No. J255 -

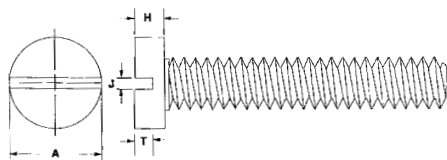


Thread Size	AF nom	H nom	AC max	J nom	T nom
M5 x 0,8	8,00	3,50	8,63	1,20	1,40
M6 x 1,0	10,00	4,00	10,89	1,60	1,60
M8 x 1,25	13,00	5,30	14,20	2,00	2,12
M10 x 1,5	17,00	6,40	18,72	2,50	2,56

HEX HEAD
Part No. J246 -



SLOTTED CHEESE HEAD
Part No. J243 -

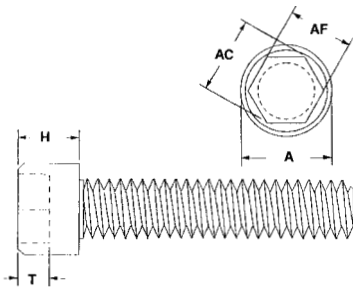


Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,30	0,70	0,90
M2,5 x 0,45	4,50	1,60	0,80	1,00
M3 x 0,5	5,50	2,00	1,00	1,20
M3,5 x 0,6	6,00	2,40	1,20	1,40
M4 x 0,7	7,00	2,60	1,51	1,50
M5 x 0,8	8,50	3,30	1,50	1,80
M6 x 1,0	10,00	3,90	1,90	2,30
M8 x 1,25	13,00	5,00	2,30	2,80
M10 1,5	16,00	6,00	2,80	3,30

MOLDED METRIC HEX CAP SCREWS AND BOLTS - J Series

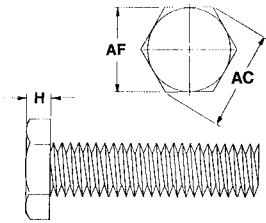
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 47) (page 46)

HEX SOCKET HEAD CAP Part No. J256 -



Thread Size	A	H	T	AF	AC
	max	nom	min	nom	min
M2 x 0,4	3,80	1,93	1,00	1,50	1,73
M2,5 x 0,45	4,45	2,43	1,10	2,00	2,30
M3 x 0,5	5,50	2,93	1,30	2,50	2,87
M4 x 0,7	7,00	3,91	2,00	3,00	3,44
M5 x 0,8	8,50	4,91	2,50	4,00	4,58
M6 x 1,0	10,00	5,85	3,00	5,00	5,72
M8 x 1,25	13,00	7,82	4,00	6,00	6,86
M10 x 1,5	16,00	9,82	5,00	8,00	9,15
M12 x 1,75	18,00	11,78	6,00	10,00	11,53

HEX HEAD BOLTS Part No. J257 -

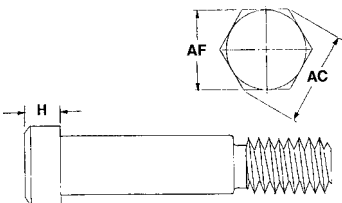


Thread Size	AF nom	H nom	AC min
M5 x 0,8	8,00	3,50	8,63
M6 x 1,00	10,00	4,00	10,89
M8 x 1,25	13,00	5,30	14,20
M10 x 1,5	17,00	6,40	18,72
M12 x 1,75	19,00	7,50	20,88

MOLDED METRIC HEX FIT BOLTS - J Series

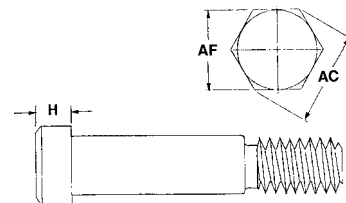
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 47) (page 46)

HEX FIT BOLTS with Long Threaded Dog Point Part No. J309 -



Thread Size	AF nom	H nom	AC min
M8	13,00	5,30	14,38
M10	16/17,00	6,40	17,77/18,90
M12	18/19,00	7,50	19,85/20,88

HEX FIT BOLTS with Short Threaded Dog Point Part No. J310 -



MOLDED METRIC FLANGED HEX CAP SCREWS - J Series

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

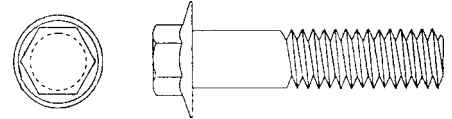
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized
-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant

Material Code No.	Material Name
-226	Radel® A200, Polyethersulfone
-229	Radel® R5000, Polyphenylsulfone
-231	Radel® R5100 NT15, Polyphenylsulfone

Part No. J258 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	35	-14	M10	60
-6	M10	40	-16	M10	65
-8	M10	45	-18	M10	70
-10	M10	50	-20	M10	75
-12	M10	55			



MOLDED METRIC HEX SOCKET COUNTERSUNK SCREWS - J Series

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

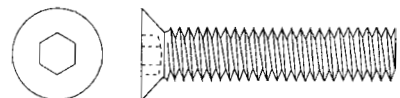
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized
-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant

Material Code No.	Material Name
-226	Radel® A200, Polyethersulfone
-229	Radel® R5000, Polyphenylsulfone
-231	Radel® R5100 NT15, Polyphenylsulfone

Part No. J259 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	20	-12	M10	35
-6	M10	22	-14	M10	40
-8	M10	25	-16	M10	45
-10	M10	30	-18	M10	50



MOLDED METRIC THUMB SCREWS - J Series

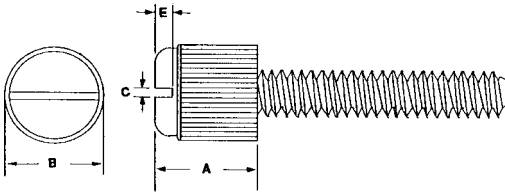
*Available in other materials. See material list in index.
 Other sizes available on request.
 Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-231	Radel® R5100 NT15, Polyphenylsulfone
-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant		

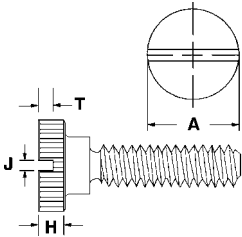
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 47) (above)

THUMB SCREW SLOTTED Part No. J241 -



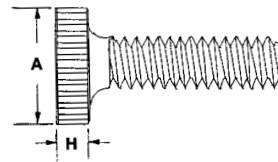
Thread Size	A	B	C	E
M3 x ,5	5,5	8,1	1,0	1,1
M3,5 x ,6	6,4	8,8	1,1	1,3
M4 x ,7	7,1	9,7	1,2	1,5
M5 x ,8	8,1	10,5	1,4	1,7
M6 x 1,0	8,3	12,5	1,8	2,2

KNURLED THUMB SCREW SLOTTED Part No. J308 -



Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	9,00	2,00	0,50	1,25
M2,5 x 0,45	11,00	2,50	0,60	1,65
M3 x 0,5	12,00	2,50	0,80	2,00
M4 x 0,7	16,00	3,50	1,00	2,45
M5 x 0,8	20,00	4,00	1,20	3,10
M6 x 1	24,00	5,00	1,60	3,90
M8 x 1,25	30,00	6,00	2,00	5,00
M10 x 1,5	36,00	8,00	2,50	6,50

KNURLED THIN THUMB SCREW Part No. J307 -





MOLDED METRIC SET SCREWS - J Series

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

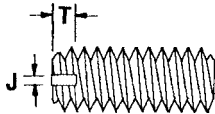
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-231	Radel® R5100 NT15, Polyphenylsulfone
-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant		

Part No. **J260** - (Size Code No.) - (Set Style) - SL  (Slotted) or SK  (Socket) - (Material Code No.)
(page 47) (below) (above)

Set Style:

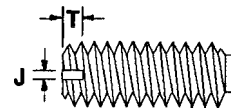
FLAT POINT - FP



LONG DOG POINT - LDP



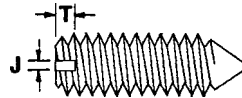
FULL DOG POINT - FDP



CUP POINT - CP



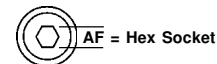
CONE POINT - CNP



CHAMFERED END - CE



Thread Size	J nom	T nom	AF nom
M2 x 0,4	0,25	0,64	0,90
M2,5 x 0,45	0,40	0,72	1,30
M3 x 0,5	0,40	0,80	1,50
M4 x 0,7	0,60	1,12	2,00
M5 x 0,8	0,80	1,28	2,50
M6 x 1	1,00	1,60	3,00
M8 x 1,25	1,20	2,00	4,00
M10 x 1,5	1,60	2,40	5,00
M12 x 1,75	2,00	2,80	6,00



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED MACHINE SCREWS - K Series

For other materials refer to **Craftech MOLDED SCREWS** on pages 30-73 (MH, J, & L series).

For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

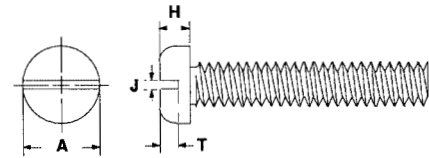
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

PAN HEAD SLOTTED

Part No. **KM108** - (Size Code No.) - (Material Code No.)
(below) (above)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-13	2-56	1/8	-45	6-32	7/16	-75	10-32	1/4
-15	2-56	3/16	-46	6-32	1/2	-76	10-32	5/16
-16	2-56	1/4	-47	6-32	5/8	-77	10-32	3/8
-17	2-56	9/32	-48	6-32	3/4	-78	10-32	1/2
-18	2-56	5/16	-49	6-32	7/8	-79	10-32	5/8
-19	2-56	3/8	-50	6-32	1	-80	10-32	3/4
-20	2-56	1/2	-51	6-32	1 1/4	-81	10-32	1
-21	2-56	5/8	-52	6-40	1/4	-82	10-32	1 1/4
-22	2-56	3/4	-53	8-32	1/4	-83	10-32	1 1/2
-23	3-48	1/8	-54	8-32	9/32	-84	1/4-20	1/4
-24	3-48	1/4	-55	8-32	5/16	-85	1/4-20	3/8
-25	3-48	3/4	-56	8-32	3/8	-86	1/4-20	7/16
-26	4-40	1/8	-57	8-32	7/16	-87	1/4-20	1/2
-27	4-40	3/16	-58	8-32	1/2	-88	1/4-20	5/8
-28	4-40	1/4	-59	8-32	5/8	-89	1/4-20	3/4
-29	4-40	5/16	-60	8-32	3/4	-90	1/4-20	13/16
-30	4-40	3/8	-61	8-32	7/8	-91	1/4-20	1
-31	4-40	7/16	-62	8-32	1	-92	1/4-20	1 1/4
-32	4-40	1/2	-63	8-32	1 1/4	-93	1/4-20	1 3/8
-33	4-40	9/16	-64	8-32	1 1/2	-94	1/4-20	1 1/2
-34	4-40	5/8	-65	10-24	3/16	-95	5/16-18	1/2
-35	4-40	3/4	-66	10-24	1/4	-96	5/16-18	3/4
-36	4-40	7/8	-67	10-24	5/16	-97	5/16-18	1
-37	4-40	1	-68	10-24	3/8	-98	5/16-18	1 1/4
-39	6-32	1/8	-69	10-24	1/2	-99	5/16-18	1 1/2
-40	6-32	5/32	-70	10-24	5/8	-100	3/8-16	1/2
-41	6-32	3/16	-71	10-24	3/4	-101	3/8-16	3/4
-42	6-32	1/4	-72	10-24	1	-102	3/8-16	1
-43	6-32	5/16	-73	10-24	1 1/4	-103	3/8-16	1 1/4
-44	6-32	3/8	-74	10-24	1 1/2	-104	3/8-16	1 1/2

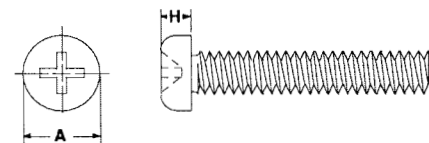


Thread Size	A	H	J	T
2	.161	.049	.027	.026
4	.212	.063	.035	.035
6	.263	.077	.043	.043
8	.314	.091	.049	.051
10	.365	.105	.055	.060
1/4	.482	.137	.069	.078
5/16	.604	.170	.078	.095
3/8	.728	.204	.087	.112

PAN HEAD PHILLIPS

Part No. **K109** - (Size Code No.) - (Material Code No.)
(below) (above)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-9	2-56	5/8	-17	4-40	7/16
-2	2-56	5/32	-10	2-56	3/4	-18	4-40	1/2
-3	2-56	3/16	-11	4-40	1/8	-19	4-40	9/16
-4	2-56	1/4	-12	4-40	3/16	-20	4-40	5/8
-5	2-56	9/32	-13	4-40	1/4	-21	4-40	3/4
-6	2-56	5/16	-14	4-40	.320	-22	4-40	7/8
-7	2-56	3/8	-15	4-40	5/16	-23	4-40	1
-8	2-56	1/2	-16	4-40	3/8			



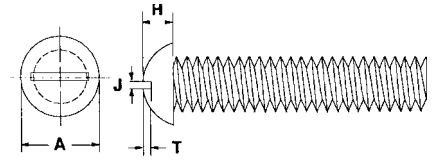
FOR SCREW DIMENSIONS SEE CHART FOR PAN HEAD SLOTTED

MOLDED MACHINE SCREWS - K Series (continued)

ROUND HEAD SLOTTED

Part No. K110 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-27	6-32	5/16	-54	10-32	1/4
-2	2-56	5/32	-28	6-32	3/8	-55	10-32	5/16
-3	2-56	3/16	-29	6-32	7/16	-56	10-32	3/8
-4	2-56	1/4	-30	6-32	1/2	-57	10-32	1/2
-5	2-56	9/32	-31	6-32	5/8	-58	10-32	5/8
-6	2-56	5/16	-32	6-32	3/4	-59	10-32	3/4
-7	2-56	3/8	-33	6-32	7/8	-60	10-32	1
-8	2-56	1/2	-34	6-32	1	-61	1/4-20	1/4
-9	2-56	5/8	-36	8-32	1/4	-62	1/4-20	3/8
-10	2-56	3/4	-37	8-32	9/32	-63	1/4-20	7/16
-11	4-40	1/8	-38	8-32	5/16	-64	1/4-20	1/2
-12	4-40	3/16	-39	8-32	3/8	-65	1/4-20	5/8
-13	4-40	1/4	-40	8-32	7/16	-66	1/4-20	3/4
-14	4-40	5/16	-41	8-32	1/2	-67	1/4-20	13/16
-15	4-40	3/8	-42	8-32	5/8	-68	1/4-20	1
-16	4-40	1/2	-43	8-32	3/4	-70	5/16-18	1/2
-17	4-40	9/16	-44	8-32	7/8	-71	5/16-18	3/4
-18	4-40	5/8	-45	8-32	1	-72	5/16-18	1
-19	4-40	3/4	-46	10-24	3/16	-73	5/16-18	1 1/4
-20	4-40	7/8	-47	10-24	1/4	-74	5/16-18	1 1/2
-21	4-40	1	-48	10-24	5/16	-75	3/8-16	1/2
-22	4-40	2 1/2	-49	10-24	3/8	-76	3/8-16	3/4
-23	6-32	1/8	-50	10-24	1/2	-77	3/8-16	1
-24	6-32	5/32	-51	10-24	5/8	-78	3/8-16	1 1/4
-25	6-32	3/16	-52	10-24	3/4	-79	3/8-16	1 1/2
-26	6-32	1/4	-53	10-24	1			

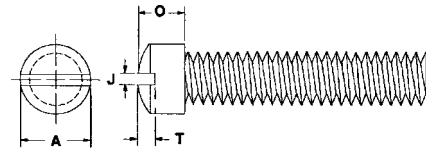


Thread Size	A	H	J	T
2	.154	.064	.027	.043
4	.202	.081	.035	.051
6	.250	.097	.043	.060
8	.298	.114	.049	.067
10	.347	.130	.055	.076
1/4	.458	.168	.069	.096
5/16	.574	.207	.078	.116
3/8	.689	.247	.087	.136

FILLISTER HEAD SLOTTED

Part No. K114 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-13	2-56	1/8	-48	6-32	5/8	-79	10-32	1/2
-14	2-56	5/32	-49	6-32	3/4	-80	10-32	5/8
-15	2-56	3/16	-50	6-32	7/8	-81	10-32	3/4
-16	2-56	7/32	-51	6-32	1	-82	10-32	1
-17	2-56	1/4	-52	6-32	1 1/4	-83	10-32	1 1/4
-18	2-56	5/16	-54	8-32	1/4	-84	10-32	1 1/2
-19	2-56	3/8	-55	8-32	9/32	-85	10-32	1/4
-20	2-56	1/2	-56	8-32	5/16	-86	1/4-20	3/8
-21	2-56	5/8	-57	8-32	3/8	-87	1/4-20	7/16
-22	2-56	3/4	-58	8-32	7/16	-88	1/4-20	1/2
-26	4-40	1/8	-59	8-32	1/2	-89	1/4-20	5/8
-27	4-40	3/16	-60	8-32	5/8	-90	1/4-20	3/4
-28	4-40	1/4	-61	8-32	3/4	-91	1/4-20	13/16
-29	4-40	5/16	-62	8-32	7/8	-92	1/4-20	1
-30	4-40	3/8	-63	8-32	1	-93	1/4-20	1 1/4
-31	4-40	7/16	-64	8-32	1 1/4	-94	1/4-20	1 3/8
-32	4-40	1/2	-65	8-32	1 1/2	-95	1/4-20	1 1/2
-33	4-40	9/16	-66	10-24	3/16	-97	5/16-18	3/8
-34	4-40	5/8	-67	10-24	1/4	-98	5/16-18	1/2
-35	4-40	3/4	-68	10-24	5/16	-99	5/16-18	3/4
-36	4-40	7/8	-69	10-24	3/8	-100	5/16-18	1
-37	4-40	1	-70	10-24	1/2	-1000	5/16-18	1 1/4
-40	6-32	1/8	-71	10-24	5/8	-1001	5/16-18	1 1/2
-41	6-32	5/32	-72	10-24	3/4	-101	3/8-16	1/2
-42	6-32	3/16	-73	10-24	1	-102	3/8-16	3/4
-43	6-32	1/4	-74	10-24	1 1/4	-103	3/8-16	1
-44	6-32	5/16	-75	10-24	1 1/2	-104	3/8-16	1 1/4
-45	6-32	3/8	-76	10-24	1/4	-105	3/8-16	1 1/2
-46	6-32	7/16	-77	10-32	5/16			
-47	6-32	1/2	-78	10-32	3/8			

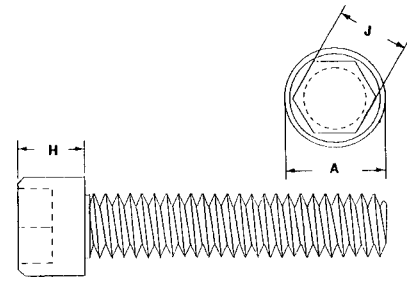


Thread Size	A	O	J	T
2	.132	.074	.027	.031
4	.174	.097	.035	.041
6	.217	.121	.044	.052
8	.260	.144	.050	.062
10	.302	.168	.055	.073
1/4	.402	.222	.070	.098
5/16	.504	.279	.078	.123
3/8	.606	.335	.088	.148

MOLDED MACHINE SCREWS - K Series (continued)

HEX SOCKET HEAD

Part No. K116 - (Size Code No.) - (Material Code No.)
(below) (page 52)

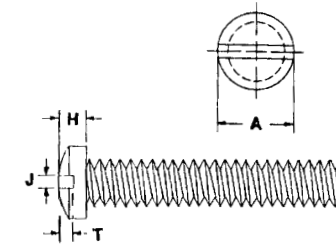


Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/8	-22	8-32	5/16	-43	10-32	3/4
-2	4-40	3/16	-23	8-32	3/8	-44	10-32	1
-3	4-40	1/4	-24	8-32	7/16	-45	1/4-20	1/4
-4	4-40	5/16	-25	8-32	1/2	-46	1/4-20	3/8
-5	4-40	3/8	-26	8-32	5/8	-47	1/4-20	7/16
-6	4-40	1/2	-27	8-32	3/4	-48	1/4-20	1/2
-7	4-40	5/8	-28	8-32	7/8	-49	1/4-20	5/8
-8	4-40	3/4	-29	8-32	1	-50	1/4-20	3/4
-9	4-40	1	-30	10-24	3/16	-51	1/4-20	13/16
-10	6-32	1/8	-31	10-24	1/4	-52	1/4-20	1
-11	6-32	3/16	-32	10-24	5/16	-54	5/16-18	1/2
-12	6-32	1/4	-33	10-24	3/8	-55	5/16-18	3/4
-13	6-32	5/16	-34	10-24	1/2	-56	5/16-18	1
-14	6-32	3/8	-35	10-24	5/8	-57	5/16-18	1 1/4
-15	6-32	7/16	-36	10-24	3/4	-58	5/16-18	1 1/2
-16	6-32	1/2	-37	10-24	1	-59	3/8-16	1/2
-17	6-32	5/8	-38	10-32	1/4	-60	3/8-16	3/4
-18	6-32	3/4	-39	10-32	5/16	-61	3/8-16	1
-19	6-32	1	-40	10-32	3/8	-62	3/8-16	1 1/4
-20	8-32	1/4	-41	10-32	1/2	-63	3/8-16	1 1/2
-21	8-32	9/32	-42	10-32	5/8			

Thread Size	A	H	J
4	.180	.110	.094
6	.222	.136	.109
8	.266	.162	.141
10	.307	.188	.156
1/4	.370	.247	.188
5/16	.463	.309	.250
3/8	.556	.371	.312

BINDING HEAD SLOTTED

Part No. K117 - (Size Code No.) - (Material Code No.)
(below) (page 52)



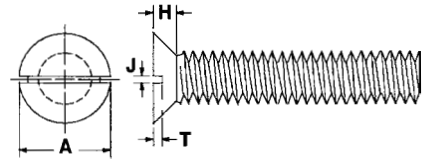
Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-29	6-32	3/8	-58	10-32	5/16
-2	2-56	5/32	-30	6-32	7/16	-59	10-32	3/8
-3	2-56	3/16	-31	6-32	1/2	-60	10-32	1/2
-4	2-56	1/4	-32	6-32	5/8	-61	10-32	5/8
-5	2-56	9/32	-33	6-32	11/16	-62	10-32	3/4
-6	2-56	5/16	-34	6-32	3/4	-63	10-32	1
-7	2-56	3/8	-35	6-32	7/8	-64	1/4-20	1/4
-8	2-56	1/2	-36	6-32	1	-65	1/4-20	3/8
-9	2-56	5/8	-38	8-32	7/32	-66	1/4-20	7/16
-10	2-56	3/4	-39	8-32	1/4	-67	1/4-20	1/2
-11	4-40	3/32	-40	8-32	9/32	-68	1/4-20	5/8
-12	4-40	1/8	-41	8-32	5/16	-69	1/4-20	3/4
-13	4-40	3/16	-42	8-32	3/8	-70	1/4-20	13/16
-14	4-40	1/4	-43	8-32	7/16	-71	1/4-20	1
-15	4-40	5/16	-44	8-32	1/2	-73	5/16-18	1/2
-16	4-40	3/8	-45	8-32	5/8	-74	5/16-18	3/4
-17	4-40	7/16	-46	8-32	3/4	-75	5/16-18	1
-18	4-40	1/2	-47	8-32	7/8	-76	5/16-18	1 1/4
-19	4-40	9/16	-48	8-32	1	-77	5/16-18	1 1/2
-20	4-40	5/8	-49	10-24	3/16	-78	3/8-16	1/2
-21	4-40	3/4	-50	10-24	1/4	-79	3/8-16	3/4
-22	4-40	7/8	-51	10-24	5/16	-80	3/8-16	1
-23	4-40	1	-52	10-24	3/8	-81	3/8-16	1 1/4
-24	6-32	1/8	-53	10-24	1/2	-82	3/8-16	1 1/2
-25	6-32	5/32	-54	10-24	5/8	-83	3/8-16	2
-26	6-32	3/16	-55	10-24	3/4	-84	3/8-16	2 1/2
-27	6-32	1/4	-56	10-24	1	-85	3/8-16	3
-28	6-32	5/16	-57	10-32	1/4			

Thread Size	A	H	J	T
2	.176	.046	.026	.025
4	.229	.064	.034	.036
6	.282	.083	.043	.046
8	.335	.100	.049	.057
10	.388	.117	.055	.068
1/4	.511	.158	.069	.094
5/16	.639	.201	.078	.121
3/8	.767	.244	.087	.147

FLAT HEAD 82° SLOTTED

Part No. K121 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-12	2-56	1/8	-51	6-32	3/4	-88	10-32	11/16
-13	2-56	5/32	-52	6-32	13/16	-89	10-32	3/4
-14	2-56	3/16	-53	6-32	1	-90	10-32	13/16
-15	2-56	7/32	-54	6-32	1 1/16	-91	10-32	1
-16	2-56	1/4	-55	6-32	1 1/4	-92	10-32	1 1/16
-17	2-56	5/16	-56	8-32	1/4	-93	10-32	1 1/4
-18	2-56	3/8	-57	8-32	5/16	-94	10-32	1 1/2
-19	2-56	13/32	-58	8-32	3/8	-95	1/4-20	1/4
-20	2-56	1/2	-59	8-32	7/16	-96	1/4-20	5/16
-21	2-56	17/32	-60	8-32	1/2	-97	1/4-20	3/8
-22	2-56	21/32	-61	8-32	9/16	-98	1/4-20	7/16
-23	2-56	25/32	-62	8-32	5/8	-99	1/4-20	1/2
-26	4-40	5/32	-63	8-32	11/16	-100	1/4-20	9/16
-27	4-40	3/16	-64	8-32	3/4	-101	1/4-20	11/16
-28	4-40	7/32	-65	8-32	13/16	-102	1/4-20	3/4
-29	4-40	1/4	-66	8-32	1	-103	1/4-20	13/16
-30	4-40	9/32	-67	8-32	1 1/16	-104	1/4-20	7/8
-31	4-40	5/16	-68	8-32	1 1/4	-105	1/4-20	1
-32	4-40	11/32	-69	8-32	1 1/2	-106	1/4-20	1 1/16
-33	4-40	3/8	-70	10-24	1/4	-107	1/4-20	1 1/4
-34	4-40	13/32	-71	10-24	5/16	-108	1/4-20	1 3/8
-35	4-40	15/32	-72	10-24	3/8	-109	1/4-20	1 1/2
-36	4-40	1/2	-73	10-24	1/2	-112	5/16-18	1/2
-37	4-40	17/32	-74	10-24	9/16	-113	5/16-18	3/4
-38	4-40	3/4	-75	10-24	3/4	-114	5/16-18	1
-39	4-40	25/32	-76	10-24	13/16	-115	5/16-18	1 1/4
-40	4-40	1	-77	10-24	1	-116	5/16-18	1 1/2
-41	4-40	1 1/32	-78	10-24	1 1/16	-117	3/8-16	1/2
-42	6-32	3/16	-79	10-24	1 1/4	-118	3/8-16	3/4
-43	6-32	1/4	-80	10-24	1 1/2	-119	3/8-16	1
-44	6-32	5/16	-81	10-32	1/4	-120	3/8-16	1 1/4
-45	6-32	3/8	-82	10-32	5/16	-121	3/8-16	1 1/2
-46	6-32	7/16	-83	10-32	3/8	-122	3/8-16	2
-47	6-32	1/2	-84	10-32	7/16	-123	3/8-16	2 1/2
-48	6-32	9/16	-85	10-32	1/2	-124	3/8-16	3
-49	6-32	5/8	-86	10-32	9/16			
-50	6-32	11/16	-87	10-32	5/8			

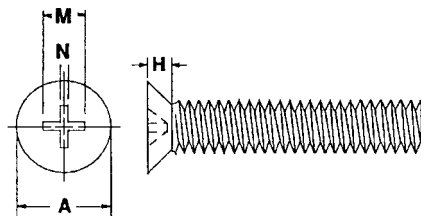


Thread Size	A	H	J	T
2	.159	.051	.027	.019
4	.210	.067	.035	.025
6	.261	.083	.044	.031
8	.312	.100	.049	.037
10	.362	.116	.055	.044
1/4	.479	.153	.069	.058
5/16	.601	.191	.078	.073
3/8	.723	.230	.088	.088

FLAT HEAD 82° PHILLIPS

Part No. K122 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	6-32	3/16	-19	8-32	11/16	-34	10-32	1
-4	6-32	1/4	-20	8-32	3/4	-35	10-32	1 1/16
-5	6-32	5/16	-21	8-32	13/16	-36	1/4-20	1/4
-6	6-32	3/8	-22	8-32	1	-37	1/4-20	5/16
-7	6-32	7/16	-23	8-32	1 1/16	-38	1/4-20	3/8
-8	6-32	1/2	-24	10-32	1/4	-39	1/4-20	7/16
-9	6-32	9/16	-25	10-32	5/16	-40	1/4-20	1/2
-10	6-32	11/16	-26	10-32	3/8	-41	1/4-20	9/16
-11	6-32	13/16	-27	10-32	7/16	-42	1/4-20	11/16
-12	8-32	1/4	-28	10-32	1/2	-43	1/4-20	3/4
-13	8-32	5/16	-29	10-32	9/16	-44	1/4-20	13/16
-14	8-32	3/8	-30	10-32	5/8	-45	1/4-20	7/8
-15	8-32	7/16	-31	10-32	11/16	-46	1/4-20	1
-16	8-32	1/2	-32	10-32	3/4			
-18	8-32	5/8	-33	10-32	13/16			



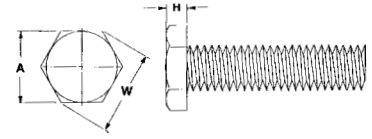
Thread Size	A	H	M	N
6	.261	.083	.187	.038
8	.312	.100	.224	.043
10	.362	.116	.260	.048
1/4	.479	.153	.344	.061

MOLDED MACHINE SCREWS - K Series (continued)

HEX HEAD MACHINE SCREWS

Part No. K106 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-28	6-32	3/16	-53	8-32	1	-76	10-32	1/2
-2	2-56	3/16	-29	6-32	1/4	-55	8-32	1 1/4	-77	10-32	5/8
-3	2-56	1/4	-30	6-32	5/16	-56	8-32	1 3/8	-78	10-32	3/4
-5	2-56	5/16	-31	6-32	3/8	-57	8-32	1 1/2	-79	10-32	7/8
-6	2-56	3/8	-32	6-32	7/16	-58	8-32	1 3/4	-80	10-32	1
-7	2-56	7/16	-33	6-32	1/2	-59	8-32	2	-81	10-32	1 1/4
-8	2-56	1/2	-34	6-32	5/8	-60	10-24	1/8	-82	10-32	1 1/2
-9	2-56	5/8	-36	6-32	3/4	-61	10-24	3/16	-83	10-32	2
-10	2-56	3/4	-37	6-32	1	-62	10-24	1/4	-84	1/4-20	1/4
-11	4-40	1/8	-39	6-32	1 1/4	-63	10-24	5/16	-85	1/4-20	5/16
-12	4-40	3/16	-40	6-32	1 1/2	-64	10-24	3/8	-86	1/4-20	3/8
-13	4-40	1/4	-41	6-32	1 3/4	-65	10-24	1/2	-87	1/4-20	1/2
-15	4-40	5/16	-43	8-32	1/8	-66	10-24	5/8	-88	1/4-20	5/8
-16	4-40	3/8	-44	8-32	3/16	-67	10-24	3/4	-89	1/4-20	3/4
-17	4-40	7/16	-45	8-32	1/4	-68	10-24	1	-90	1/4-20	7/8
-18	4-40	1/2	-46	8-32	5/16	-69	10-24	1 1/4	-91	1/4-20	1
-19	4-40	5/8	-47	8-32	3/8	-70	10-24	1 1/2	-92	1/4-20	1 1/4
-21	4-40	3/4	-48	8-32	7/16	-71	10-32	1/8	-93	1/4-20	1 1/2
-22	4-40	7/8	-49	8-32	1/2	-72	10-32	3/16	-94	1/4-20	1 3/4
-23	4-40	1	-50	8-32	5/8	-73	10-32	1/4	-95	1/4-20	2
-25	4-40	1 1/4	-51	8-32	3/4	-74	10-32	5/16			
-27	6-32	1/8	-52	8-32	7/8	-75	10-32	3/8			



Thread Size	A		W		H	
	max.	min.	min.	max.	min.	max.
2	.125	.120	.134	.050	.040	
4	.188	.181	.202	.060	.049	
6	.250	.244	.272	.093	.080	
8	.250	.244	.272	.110	.096	
10	.312	.305	.340	.120	.105	
1/4	.375	.367	.409	.190	.172	

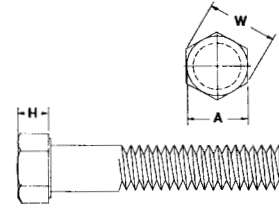
Dimensions may vary with material.

MOLDED CAP SCREWS - K Series

HEX HEAD CAP SCREWS

Part No. K130 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	1/2	-2	5/16-18	2	-7	5/8-11	1 1/2	-12	5/8-11	4	-17	3/4-10	1 1/2	-22	3/4-10	4
-101	1/4-20	3/4	-3	3/8-16	1 1/2	-8	5/8-11	2	-13	5/8-11	4 1/2	-18	3/4-10	2	-23	3/4-10	4 1/2
-102	1/4-20	1	-4	3/8-16	2	-9	5/8-11	2 1/2	-14	5/8-11	5	-19	3/4-10	2 1/2	-24	3/4-10	5
-103	1/4-20	1 1/4	-5	3/8-16	2 1/2	-10	5/8-11	3	-15	5/8-11	5 1/2	-20	3/4-10	3	-25	3/4-10	5 1/2
-104	1/4-20	1 1/2	-6	3/8-16	3	-11	5/8-11	3 1/2	-16	5/8-11	6	-21	3/4-10	3 1/2	-26	3/4-10	6
-1	5/16-18	1 1/2															



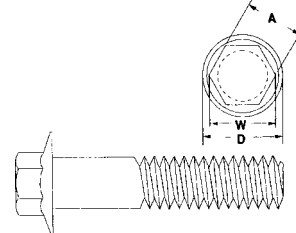
Size	A	W	H
1/4-20	.435	.498	.190
5/16-18	.502	.575	.205
3/8-16	.560	.645	.250
5/8-11	.938	1.051	.400
3/4-10	1.125	1.254	.465

Dimensions +/- .015

FLANGED HEX HEAD CAP SCREWS

Part No. K131 - (Size Code No.) - (Material Code No.)
(below) (page 52)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	3/8	-9	3/8-16	1/2	-141	3/8-16	2	-1435	3/8-16	4 1/2	-23	1/2-13	1 7/8	-32	1/2-13	3 3/8
-1	1/4-20	1/2	-10	3/8-16	5/8	-1410	3/8-16	2 1/4	-15	1/2-13	3/4	-24	1/2-13	2	-33	1/2-13	3 1/2
-2	1/4-20	5/8	-11	3/8-16	3/4	-142	3/8-16	2 1/2	-16	1/2-13	7/8	-25	1/2-13	2 1/4	-331	1/2-13	3 3/4
-3	1/4-20	3/4	-12	3/8-16	7/8	-143	3/8-16	3	-17	1/2-13	1	-26	1/2-13	2 3/8	-34	1/2-13	4
-4	1/4-20	7/8	-13	3/8-16	1	-1430	3/8-16	3 1/4	-18	1/2-13	1 1/4	-27	1/2-13	2 1/2	-35	1/2-13	4 1/2
-5	1/4-20	1	-14	3/8-16	1 1/4	-1431	3/8-16	3 1/2	-19	1/2-13	1 3/8	-28	1/2-13	2 5/8	-36	1/2-13	5
-6	1/4-20	1 1/4	-140	3/8-16	1 1/2	-1432	3/8-16	3 3/4	-20	1/2-13	1 1/2	-29	1/2-13	2 3/4	-37	1/2-13	5 1/2
-7	1/4-20	1 3/8	-1402	3/8-16	1 5/8	-1433	3/8-16	4	-21	1/2-13	1 5/8	-30	1/2-13	3	-38	1/2-13	6
-8	1/4-20	1 1/2	-1403	3/8-16	1 3/4	-1434	3/8-16	4 1/4	-22	1/2-13	1 3/4						



Size	A	W	D
1/4-20	.375	.425	.560
3/8-16	.550	.625	.785
1/2-13	.730	.835	1.059

Dimensions +/- .010

MOLDED METRIC MACHINE SCREWS - K Series

For other materials refer to Craftech MOLDED METRIC SCREWS on pages 30-73 (MH, J, & L series).

For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

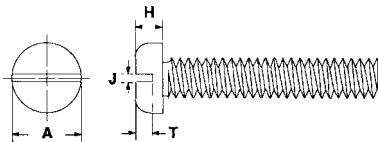
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

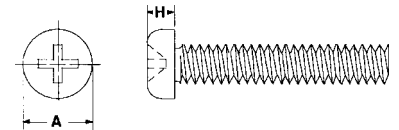
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 58) (above)

PAN HEAD SLOTTED Part No. K244 -

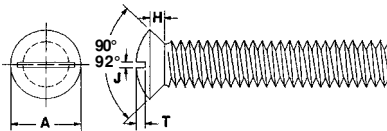


Thread Size	A nom	H nom	J nom	T nom
M3 x 0,5	6,00	1,80	0,80	0,82
M4 x 0,7	8,00	2,40	1,20	1,15
M5 x 0,8	10,00	3,00	1,20	1,35
M6 x 1	12,00	3,60	1,60	1,70

PAN HEAD CROSS RECESSED Part No. K245 -

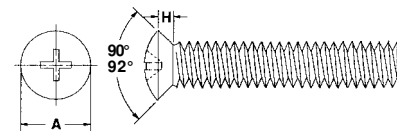


RAISED COUNTERSUNK HEAD SLOTTED Part No. K250 -

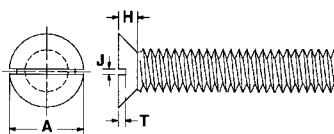


Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,60	0,90
M2,5 x 0,45	4,70	1,50	0,70	1,10
M3 x 0,5	5,60	1,65	0,90	1,32
M3,5 x 0,6	6,50	1,93	1,10	1,55
M4 x 0,7	7,50	2,20	1,30	1,75
M5 x 0,8	9,20	2,50	1,40	2,15
M6 x 1,0	11,00	3,00	1,70	2,60
M8 x 1,25	14,50	4,00	2,10	3,70 (max)
M10 x 1,5	18,00	5,00	2,60	4,30

RAISED COUNTERSUNK HEAD CROSS RECESSED Part No. K249 -

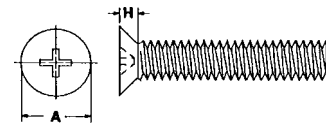


COUNTERSUNK HEAD SLOTTED Part No. K251 -



Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,50	0,50
M2,5 x 0,45	4,70	1,50	0,60	0,60
M3 x 0,5	5,60	1,65	0,80	0,72
M4 x 0,7	7,50	2,20	1,00	0,95
M5 x 0,8	9,20	2,50	1,20	1,15
M6 x 1,0	11,00	3,00	1,60	1,40
M8 x 1,25	14,50	4,00	2,00	1,85
M10 x 1,50	18,00	5,00	2,50	2,30
M12 x 1,75	22,00	6,00	3,00	2,70

COUNTERSUNK HEAD CROSS RECESSED Part No. K252 -



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED METRIC MACHINE SCREWS - K Series (continued)

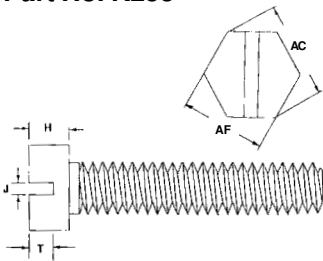
MOLDED METRIC MACHINE SCREWS, CAP SCREWS, BOLTS, THUMB SCREWS and SET SCREWS SIZE CODE CHART

ALL DIMENSIONS GIVEN IN MILLIMETERS

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1000	M2 x 0,4	3mm	-25	M3 x 0,5	20mm	-52	M5 x 0,8	20mm	-77	M8 x 1,25	35mm
-1	M2 x 0,4	4mm	-26	M3 x 0,5	25mm	-53	M5 x 0,8	25mm	-78	M8 x 1,25	40mm
-2	M2 x 0,4	5mm	-27	M3 x 0,5	30mm	-54	M5 x 0,8	30mm	-79	M8 x 1,25	45mm
-3	M2 x 0,4	6mm	-28	M3,5 x 0,6	5mm	-55	M5 x 0,8	35mm	-80	M8 x 1,25	50mm
-4	M2 x 0,4	8mm	-29	M3,5 x 0,6	6mm	-56	M5 x 0,8	40mm	-81	M8 x 1,25	55mm
-5	M2 x 0,4	10mm	-30	M3,5 x 0,6	8mm	-57	M6 x 1,00	5mm	-82	M8 x 1,25	60mm
-6	M2 x 0,4	12mm	-31	M3,5 x 0,6	10mm	-58	M6 x 1,00	8mm	-83	M8 x 1,25	65mm
-600	M2 x 0,4	15mm	-32	M3,5 x 0,6	12mm	-59	M6 x 1,00	10mm	-84	M8 x 1,25	70mm
-7	M2 x 0,4	16mm	-33	M3,5 x 0,6	16mm	-60	M6 x 1,00	12mm	-85	M10 x 1,50	10mm
-8	M2 x 0,4	20mm	-34	M3,5 x 0,6	20mm	-603	M6 x 1,00	15mm	-853	M10 x 1,50	15mm
-9	M2 x 0,4	25mm	-35	M3,5 x 0,6	25mm	-61	M6 x 1,00	16mm	-86	M10 x 1,50	16mm
-10	M2,5 x 0,45	4mm	-36	M3,5 x 0,6	35mm	-62	M6 x 1,00	20mm	-87	M10 x 1,50	20mm
-11	M2,5 x 0,45	5mm	-37	M4 x 0,7	6mm	-63	M6 x 1,00	25mm	-88	M10 x 1,50	25mm
-12	M2,5 x 0,45	6mm	-38	M4 x 0,7	8mm	-64	M6 x 1,00	30mm	-89	M10 x 1,50	30mm
-13	M2,5 x 0,45	8mm	-39	M4 x 0,7	10mm	-65	M6 x 1,00	35mm	-90	M10 x 1,50	35mm
-14	M2,5 x 0,45	10mm	-40	M4 x 0,7	12mm	-66	M6 x 1,00	40mm	-91	M10 x 1,50	40mm
-15	M2,5 x 0,45	12mm	-41	M4 x 0,7	16mm	-67	M6 x 1,00	45mm	-92	M10 x 1,50	50mm
-16	M2,5 x 0,45	16mm	-42	M4 x 0,7	20mm	-68	M6 x 1,00	50mm	-93	M10 x 1,50	60mm
-17	M2,5 x 0,45	20mm	-43	M4 x 0,7	25mm	-69	M6 x 1,00	55mm	-94	M10 x 1,50	70mm
-18	M2,5 x 0,45	25mm	-44	M4 x 0,7	30mm	-70	M8 x 1,25	8mm	-95	M10 x 1,50	75mm
-19	M3 x 0,5	5mm	-45	M4 x 0,7	35mm	-71	M8 x 1,25	10mm	-96	M12 x 1,75	20mm
-20	M3 x 0,5	6mm	-46	M4 x 0,7	40mm	-72	M8 x 1,25	12mm	-97	M12 x 1,75	30mm
-21	M3 x 0,5	8mm	-47	M5 x 0,8	6mm	-723	M8 x 1,25	15mm	-98	M12 x 1,75	40mm
-22	M3 x 0,5	10mm	-48	M5 x 0,8	8mm	-73	M8 x 1,25	16mm	-99	M12 x 1,75	50mm
-23	M3 x 0,5	12mm	-49	M5 x 0,8	10mm	-74	M8 x 1,25	20mm	-100	M12 x 1,75	60mm
-233	M3 x 0,5	15mm	-50	M5 x 0,8	12mm	-75	M8 x 1,25	25mm	-101	M12 x 1,75	70mm
-24	M3 x 0,5	16mm	-51	M5 x 0,8	15mm	-76	M8 x 1,25	30mm	-102	M12 x 1,75	75mm

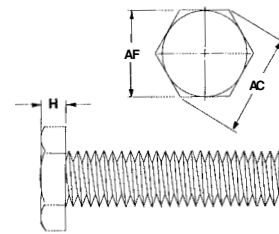
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (above) (page 57)

HEX HEAD SLOTTED
Part No. K255 -

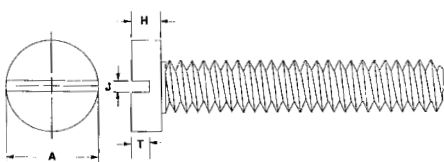


Thread Size	AF nom	H nom	AC max	J nom	T nom
M5 x 0,8	8,00	3,50	8,63	1,20	1,40
M6 x 1,0	10,00	4,00	10,89	1,60	1,60
M8 x 1,25	13,00	5,30	14,20	2,00	2,12
M10 x 1,5	17,00	6,40	18,72	2,50	2,56

HEX HEAD
Part No. K246 -



SLOTTED CHEESE HEAD
Part No. K243 -

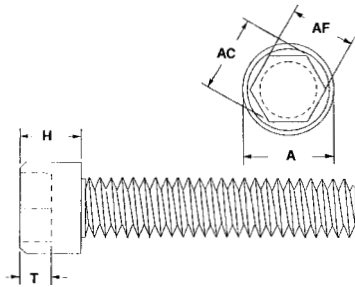


Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,30	0,70	0,90
M2,5 x 0,45	4,50	1,60	0,80	1,00
M3 x 0,5	5,50	2,00	1,00	1,20
M3,5 x 0,6	6,00	2,40	1,20	1,40
M4 x 0,7	7,00	2,60	1,51	1,50
M5 x 0,8	8,50	3,30	1,50	1,80
M6 x 1,0	10,00	3,90	1,90	2,30
M8 x 1,25	13,00	5,00	2,30	2,80
M10 1,5	16,00	6,00	2,80	3,30

MOLDED METRIC HEX CAP SCREWS and BOLTS - K Series

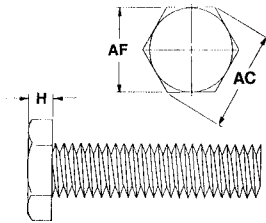
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 58) (page 57)

HEX SOCKET HEAD CAP Part No. K256 -



Thread Size	A	H	T	AF	AC
	max	nom	min	nom	min
M2 x 0,4	3,80	1,93	1,00	1,50	1,73
M2,5 x 0,45	4,45	2,43	1,10	2,00	2,30
M3 x 0,5	5,50	2,93	1,30	2,50	2,87
M4 x 0,7	7,00	3,91	2,00	3,00	3,44
M5 x 0,8	8,50	4,91	2,50	4,00	4,58
M6 x 1,0	10,00	5,85	3,00	5,00	5,72
M8 x 1,25	13,00	7,82	4,00	6,00	6,86
M10 x 1,5	16,00	9,82	5,00	8,00	9,15
M12 x 1,75	18,00	11,78	6,00	10,00	11,53

HEX HEAD BOLTS Part No. K257 -

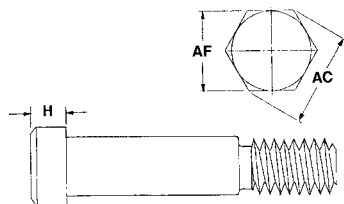


Thread Size	AF	H	AC
	nom	nom	min
M5 x 0,8	8,00	3,50	8,63
M6 x 1,00	10,00	4,00	10,89
M8 x 1,25	13,00	5,30	14,20
M10 x 1,5	17,00	6,40	18,72
M12 x 1,75	19,00	7,50	20,88

MOLDED METRIC HEX FIT BOLTS - K Series

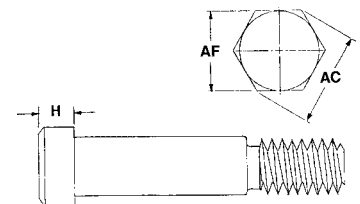
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 58) (page 57)

HEX FIT BOLTS with Long Threaded Dog Point Part No. K309 -



Thread Size	AF	H	AC
	nom	nom	min
M8	13,00	5,30	14,38
M10	16/17,00	6,40	17,77/18,90
M12	18/19,00	7,50	19,85/20,88

HEX FIT BOLTS with Short Threaded Dog Point Part No. K310 -



MOLDED METRIC FLANGED HEX CAP SCREWS - K Series

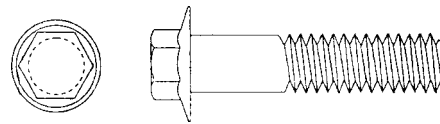
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

Part No. K258 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	35	-14	M10	60
-6	M10	40	-16	M10	65
-8	M10	45	-18	M10	70
-10	M10	50	-20	M10	75
-12	M10	55			



MOLDED METRIC HEX SOCKET COUNTERSUNK SCREWS - K Series

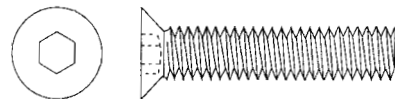
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

Part No. K259 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	20	-12	M10	35
-6	M10	22	-14	M10	40
-8	M10	25	-16	M10	45
-10	M10	30	-18	M10	50



MOLDED METRIC THUMB SCREWS - K Series

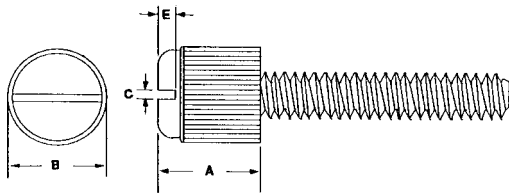
*Available in other materials. See material list in index.
 Other sizes available on request.
 Dimensions may vary with material.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

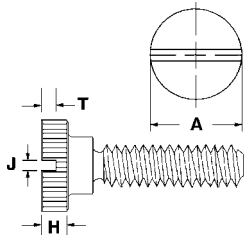
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 58) (above)

THUMB SCREW SLOTTED
Part No. K241 -



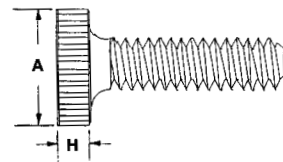
Thread Size	A	B	C	E
M3 x ,5	5,5	8,1	1,0	1,1
M3,5 x ,6	6,4	8,8	1,1	1,3
M4 x ,7	7,1	9,7	1,2	1,5
M5 x ,8	8,1	10,5	1,4	1,7
M6 x 1,0	8,3	12,5	1,8	2,2

KNURLED THUMB SCREW SLOTTED
Part No. K308 -



Thread Size	A	H	J	T
	nom	nom	nom	nom
M2 x 0,4	9,00	2,00	0,50	1,25
M2,5 x 0,45	11,00	2,50	0,60	1,65
M3 x 0,5	12,00	2,50	0,80	2,00
M4 x 0,7	16,00	3,50	1,00	2,45
M5 x 0,8	20,00	4,00	1,20	3,10
M6 x 1	24,00	5,00	1,60	3,90
M8 x 1,25	30,00	6,00	2,00	5,00
M10 x 1,5	36,00	8,00	2,50	6,50

KNURLED THIN THUMB SCREW
Part No. K307 -





MOLDED METRIC SET SCREWS - K Series

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

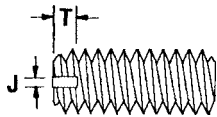
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

Part No. K260 - (Size Code No.) - (Set Style) - SL  (Slotted) or SK  (Socket) - (Material Code No.)
(page 58) (below) (above)

Set Style:

FLAT POINT - FP



LONG DOG POINT - LDP



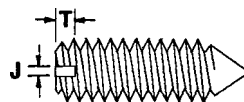
FULL DOG POINT - FDP



CUP POINT - CP



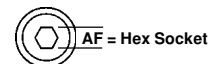
CONE POINT - CNP



CHAMFERED END - CE



Thread Size	J nom	T nom	AF nom
M2 x 0,4	0,25	0,64	0,90
M2,5 x 0,45	0,40	0,72	1,30
M3 x 0,5	0,40	0,80	1,50
M4 x 0,7	0,60	1,12	2,00
M5 x 0,8	0,80	1,28	2,50
M6 x 1	1,00	1,60	3,00
M8 x 1,25	1,20	2,00	4,00
M10 x 1,5	1,60	2,40	5,00
M12 x 1,75	2,00	2,80	6,00



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED MACHINE SCREWS - L Series

For other materials refer to Craftech MOLDED SCREWS on pages 30-73 (MH, J, & K series).
For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

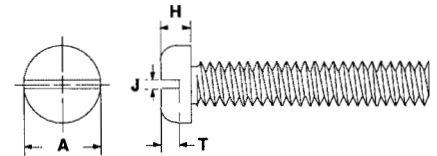
*Available in the following material:

Material Code No.	Material Name
-15	PEEK™

PAN HEAD SLOTTED

Part No. LM108 - (Size Code No.) - (Material Code No.)
(below) (above)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-13	2-56	1/8	-45	6-32	7/16	-75	10-32	1/4
-15	2-56	3/16	-46	6-32	1/2	-76	10-32	5/16
-16	2-56	1/4	-47	6-32	5/8	-77	10-32	3/8
-17	2-56	9/32	-48	6-32	3/4	-78	10-32	1/2
-18	2-56	5/16	-49	6-32	7/8	-79	10-32	5/8
-19	2-56	3/8	-50	6-32	1	-80	10-32	3/4
-20	2-56	1/2	-51	6-32	1 1/4	-81	10-32	1
-21	2-56	5/8	-52	6-40	1/4	-82	10-32	1 1/4
-22	2-56	3/4	-53	8-32	1/4	-83	10-32	1 1/2
-23	3-48	1/8	-54	8-32	9/32	-84	1/4-20	1/4
-24	3-48	1/4	-55	8-32	5/16	-85	1/4-20	3/8
-25	3-48	3/4	-56	8-32	3/8	-86	1/4-20	7/16
-26	4-40	1/8	-57	8-32	7/16	-87	1/4-20	1/2
-27	4-40	3/16	-58	8-32	1/2	-88	1/4-20	5/8
-28	4-40	1/4	-59	8-32	5/8	-89	1/4-20	3/4
-29	4-40	5/16	-60	8-32	3/4	-90	1/4-20	13/16
-30	4-40	3/8	-61	8-32	7/8	-91	1/4-20	1
-31	4-40	7/16	-62	8-32	1	-92	1/4-20	1 1/4
-32	4-40	1/2	-63	8-32	1 1/4	-93	1/4-20	1 3/8
-33	4-40	9/16	-64	8-32	1 1/2	-94	1/4-20	1 1/2
-34	4-40	5/8	-65	10-24	3/16	-95	5/16-18	1/2
-35	4-40	3/4	-66	10-24	1/4	-96	5/16-18	3/4
-36	4-40	7/8	-67	10-24	5/16	-97	5/16-18	1
-37	4-40	1	-68	10-24	3/8	-98	5/16-18	1 1/4
-39	6-32	1/8	-69	10-24	1/2	-99	5/16-18	1 1/2
-40	6-32	5/32	-70	10-24	5/8	-100	3/8-16	1/2
-41	6-32	3/16	-71	10-24	3/4	-101	3/8-16	3/4
-42	6-32	1/4	-72	10-24	1	-102	3/8-16	1
-43	6-32	5/16	-73	10-24	1 1/4	-103	3/8-16	1 1/4
-44	6-32	3/8	-74	10-24	1 1/2	-104	3/8-16	1 1/2

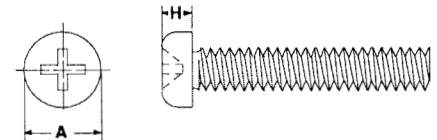


Thread Size	A	H	J	T
2	.161	.049	.027	.026
4	.212	.063	.035	.035
6	.263	.077	.043	.043
8	.314	.091	.049	.051
10	.365	.105	.055	.060
1/4	.482	.137	.069	.078
5/16	.604	.170	.078	.095
3/8	.728	.204	.087	.112

PAN HEAD PHILLIPS

Part No. L109 - (Size Code No.) - (Material Code No.)
(below) (above)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-9	2-56	5/8	-17	4-40	7/16
-2	2-56	5/32	-10	2-56	3/4	-18	4-40	1/2
-3	2-56	3/16	-11	4-40	1/8	-19	4-40	9/16
-4	2-56	1/4	-12	4-40	3/16	-20	4-40	5/8
-5	2-56	9/32	-13	4-40	1/4	-21	4-40	3/4
-6	2-56	5/16	-14	4-40	.320	-22	4-40	7/8
-7	2-56	3/8	-15	4-40	5/16	-23	4-40	1
-8	2-56	1/2	-16	4-40	3/8			



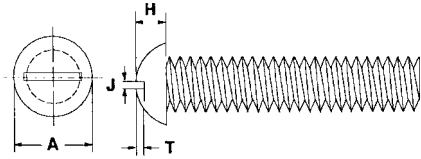
FOR SCREW DIMENSIONS SEE CHART FOR PAN HEAD SLOTTED

MOLDED MACHINE SCREWS - L Series (continued)

ROUND HEAD SLOTTED

Part No. L110 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-27	6-32	5/16	-54	10-32	1/4
-2	2-56	5/32	-28	6-32	3/8	-55	10-32	5/16
-3	2-56	3/16	-29	6-32	7/16	-56	10-32	3/8
-4	2-56	1/4	-30	6-32	1/2	-57	10-32	1/2
-5	2-56	9/32	-31	6-32	5/8	-58	10-32	5/8
-6	2-56	5/16	-32	6-32	3/4	-59	10-32	3/4
-7	2-56	3/8	-33	6-32	7/8	-60	10-32	1
-8	2-56	1/2	-34	6-32	1	-61	1/4-20	1/4
-9	2-56	5/8	-36	8-32	1/4	-62	1/4-20	3/8
-10	2-56	3/4	-37	8-32	9/32	-63	1/4-20	7/16
-11	4-40	1/8	-38	8-32	5/16	-64	1/4-20	1/2
-12	4-40	3/16	-39	8-32	3/8	-65	1/4-20	5/8
-13	4-40	1/4	-40	8-32	7/16	-66	1/4-20	3/4
-14	4-40	5/16	-41	8-32	1/2	-67	1/4-20	13/16
-15	4-40	3/8	-42	8-32	5/8	-68	1/4-20	1
-16	4-40	1/2	-43	8-32	3/4	-70	5/16-18	1/2
-17	4-40	9/16	-44	8-32	7/8	-71	5/16-18	3/4
-18	4-40	5/8	-45	8-32	1	-72	5/16-18	1
-19	4-40	3/4	-46	10-24	3/16	-73	5/16-18	1 1/4
-20	4-40	7/8	-47	10-24	1/4	-74	5/16-18	1 1/2
-21	4-40	1	-48	10-24	5/16	-75	3/8-16	1/2
-22	4-40	2 1/2	-49	10-24	3/8	-76	3/8-16	3/4
-23	6-32	1/8	-50	10-24	1/2	-77	3/8-16	1
-24	6-32	5/32	-51	10-24	5/8	-78	3/8-16	1 1/4
-25	6-32	3/16	-52	10-24	3/4	-79	3/8-16	1 1/2
-26	6-32	1/4	-53	10-24	1			

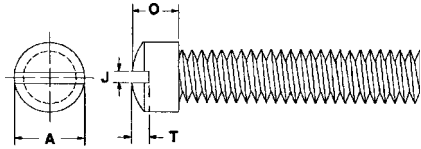


Thread Size	A	H	J	T
2	.154	.064	.027	.043
4	.202	.081	.035	.051
6	.250	.097	.043	.060
8	.298	.114	.049	.067
10	.347	.130	.055	.076
1/4	.458	.168	.069	.096
5/16	.574	.207	.078	.116
3/8	.689	.247	.087	.136

FILLISTER HEAD SLOTTED

Part No. L114 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-13	2-56	1/8	-48	6-32	5/8	-79	10-32	1/2
-14	2-56	5/32	-49	6-32	3/4	-80	10-32	5/8
-15	2-56	3/16	-50	6-32	7/8	-81	10-32	3/4
-16	2-56	7/32	-51	6-32	1	-82	10-32	1
-17	2-56	1/4	-52	6-32	1 1/4	-83	10-32	1 1/4
-18	2-56	5/16	-54	8-32	1/4	-84	10-32	1 1/2
-19	2-56	3/8	-55	8-32	9/32	-85	10-32	1/4
-20	2-56	1/2	-56	8-32	5/16	-86	1/4-20	3/8
-21	2-56	5/8	-57	8-32	3/8	-87	1/4-20	7/16
-22	2-56	3/4	-58	8-32	7/16	-88	1/4-20	1/2
-26	4-40	1/8	-59	8-32	1/2	-89	1/4-20	5/8
-27	4-40	3/16	-60	8-32	5/8	-90	1/4-20	3/4
-28	4-40	1/4	-61	8-32	3/4	-91	1/4-20	13/16
-29	4-40	5/16	-62	8-32	7/8	-92	1/4-20	1
-30	4-40	3/8	-63	8-32	1	-93	1/4-20	1 1/4
-31	4-40	7/16	-64	8-32	1 1/4	-94	1/4-20	1 3/8
-32	4-40	1/2	-65	8-32	1 1/2	-95	1/4-20	1 1/2
-33	4-40	9/16	-66	10-24	3/16	-97	5/16-18	3/8
-34	4-40	5/8	-67	10-24	1/4	-98	5/16-18	1/2
-35	4-40	3/4	-68	10-24	5/16	-99	5/16-18	3/4
-36	4-40	7/8	-69	10-24	3/8	-100	5/16-18	1
-37	4-40	1	-70	10-24	1/2	-1000	5/16-18	1 1/4
-40	6-32	1/8	-71	10-24	5/8	-1001	5/16-18	1 1/2
-41	6-32	5/32	-72	10-24	3/4	-101	3/8-16	1/2
-42	6-32	3/16	-73	10-24	1	-102	3/8-16	3/4
-43	6-32	1/4	-74	10-24	1 1/4	-103	3/8-16	1
-44	6-32	5/16	-75	10-24	1 1/2	-104	3/8-16	1 1/4
-45	6-32	3/8	-76	10-24	1/4	-105	3/8-16	1 1/2
-46	6-32	7/16	-77	10-32	5/16			
-47	6-32	1/2	-78	10-32	3/8			

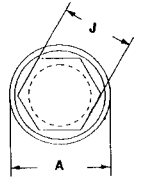


Thread Size	A	O	J	T
2	.132	.074	.027	.031
4	.174	.097	.035	.041
6	.217	.121	.044	.052
8	.260	.144	.050	.062
10	.302	.168	.055	.073
1/4	.402	.222	.070	.098
5/16	.504	.279	.078	.123
3/8	.606	.335	.088	.148

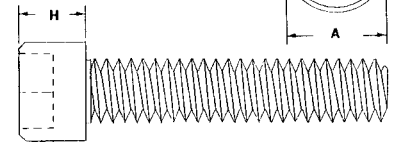
MOLDED MACHINE SCREWS - L Series (continued)

HEX SOCKET HEAD

Part No. L116 - (Size Code No.) - (Material Code No.)
(below) (page 63)



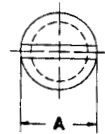
Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/8	-22	8-32	5/16	-43	10-32	3/4
-2	4-40	3/16	-23	8-32	3/8	-44	10-32	1
-3	4-40	1/4	-24	8-32	7/16	-45	1/4-20	1/4
-4	4-40	5/16	-25	8-32	1/2	-46	1/4-20	3/8
-5	4-40	3/8	-26	8-32	5/8	-47	1/4-20	7/16
-6	4-40	1/2	-27	8-32	3/4	-48	1/4-20	1/2
-7	4-40	5/8	-28	8-32	7/8	-49	1/4-20	5/8
-8	4-40	3/4	-29	8-32	1	-50	1/4-20	3/4
-9	4-40	1	-30	10-24	3/16	-51	1/4-20	13/16
-10	6-32	1/8	-31	10-24	1/4	-52	1/4-20	1
-11	6-32	3/16	-32	10-24	5/16	-54	5/16-18	1/2
-12	6-32	1/4	-33	10-24	3/8	-55	5/16-18	3/4
-13	6-32	5/16	-34	10-24	1/2	-56	5/16-18	1
-14	6-32	3/8	-35	10-24	5/8	-57	5/16-18	1 1/4
-15	6-32	7/16	-36	10-24	3/4	-58	5/16-18	1 1/2
-16	6-32	1/2	-37	10-24	1	-59	3/8-16	1/2
-17	6-32	5/8	-38	10-32	1/4	-60	3/8-16	3/4
-18	6-32	3/4	-39	10-32	5/16	-61	3/8-16	1
-19	6-32	1	-40	10-32	3/8	-62	3/8-16	1 1/4
-20	8-32	1/4	-41	10-32	1/2	-63	3/8-16	1 1/2
-21	8-32	9/32	-42	10-32	5/8			



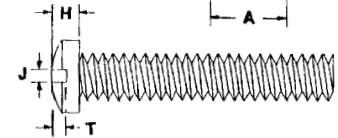
Thread Size	A	H	J
4	.180	.110	.094
6	.222	.136	.109
8	.266	.162	.141
10	.307	.188	.156
1/4	.370	.247	.188
5/16	.463	.309	.250
3/8	.556	.371	.312

BINDING HEAD SLOTTED

Part No. L117 - (Size Code No.) - (Material Code No.)
(below) (page 63)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-29	6-32	3/8	-58	10-32	5/16
-2	2-56	5/32	-30	6-32	7/16	-59	10-32	3/8
-3	2-56	3/16	-31	6-32	1/2	-60	10-32	1/2
-4	2-56	1/4	-32	6-32	5/8	-61	10-32	5/8
-5	2-56	9/32	-33	6-32	11/16	-62	10-32	3/4
-6	2-56	5/16	-34	6-32	3/4	-63	10-32	1
-7	2-56	3/8	-35	6-32	7/8	-64	1/4-20	1/4
-8	2-56	1/2	-36	6-32	1	-65	1/4-20	3/8
-9	2-56	5/8	-38	8-32	7/32	-66	1/4-20	7/16
-10	2-56	3/4	-39	8-32	1/4	-67	1/4-20	1/2
-11	4-40	3/32	-40	8-32	9/32	-68	1/4-20	5/8
-12	4-40	1/8	-41	8-32	5/16	-69	1/4-20	3/4
-13	4-40	3/16	-42	8-32	3/8	-70	1/4-20	13/16
-14	4-40	1/4	-43	8-32	7/16	-71	1/4-20	1
-15	4-40	5/16	-44	8-32	1/2	-73	5/16-18	1/2
-16	4-40	3/8	-45	8-32	5/8	-74	5/16-18	3/4
-17	4-40	7/16	-46	8-32	3/4	-75	5/16-18	1
-18	4-40	1/2	-47	8-32	7/8	-76	5/16-18	1 1/4
-19	4-40	9/16	-48	8-32	1	-77	5/16-18	1 1/2
-20	4-40	5/8	-49	10-24	3/16	-78	3/8-16	1/2
-21	4-40	3/4	-50	10-24	1/4	-79	3/8-16	3/4
-22	4-40	7/8	-51	10-24	5/16	-80	3/8-16	1
-23	4-40	1	-52	10-24	3/8	-81	3/8-16	1 1/4
-24	6-32	1/8	-53	10-24	1/2	-82	3/8-16	1 1/2
-25	6-32	5/32	-54	10-24	5/8	-83	3/8-16	2
-26	6-32	3/16	-55	10-24	3/4	-84	3/8-16	2 1/2
-27	6-32	1/4	-56	10-24	1	-85	3/8-16	3
-28	6-32	5/16	-57	10-32	1/4			



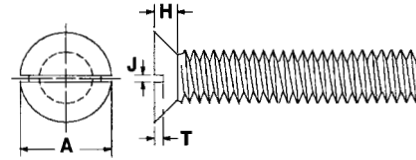
Thread Size	A	H	J	T
2	.176	.046	.026	.025
4	.229	.064	.034	.036
6	.282	.083	.043	.046
8	.335	.100	.049	.057
10	.388	.117	.055	.068
1/4	.511	.158	.069	.094
5/16	.639	.201	.078	.121
3/8	.767	.244	.087	.147

MOLDED MACHINE SCREWS - L Series (continued)

FLAT HEAD 82° SLOTTED

Part No. L121 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-12	2-56	1/8	-51	6-32	3/4	-88	10-32	11/16
-13	2-56	5/32	-52	6-32	13/16	-89	10-32	3/4
-14	2-56	3/16	-53	6-32	1	-90	10-32	13/16
-15	2-56	7/32	-54	6-32	1 1/16	-91	10-32	1
-16	2-56	1/4	-55	6-32	1 1/4	-92	10-32	1 1/16
-17	2-56	5/16	-56	8-32	1/4	-93	10-32	1 1/4
-18	2-56	3/8	-57	8-32	5/16	-94	10-32	1 1/2
-19	2-56	13/32	-58	8-32	3/8	-95	1/4-20	1/4
-20	2-56	1/2	-59	8-32	7/16	-96	1/4-20	5/16
-21	2-56	17/32	-60	8-32	1/2	-97	1/4-20	3/8
-22	2-56	21/32	-61	8-32	9/16	-98	1/4-20	7/16
-23	2-56	25/32	-62	8-32	5/8	-99	1/4-20	1/2
-26	4-40	5/32	-63	8-32	11/16	-100	1/4-20	9/16
-27	4-40	3/16	-64	8-32	3/4	-101	1/4-20	11/16
-28	4-40	7/32	-65	8-32	13/16	-102	1/4-20	3/4
-29	4-40	1/4	-66	8-32	1	-103	1/4-20	13/16
-30	4-40	9/32	-67	8-32	1 1/16	-104	1/4-20	7/8
-31	4-40	5/16	-68	8-32	1 1/4	-105	1/4-20	1
-32	4-40	11/32	-69	8-32	1 1/2	-106	1/4-20	1 1/16
-33	4-40	3/8	-70	10-24	1/4	-107	1/4-20	1 1/4
-34	4-40	13/32	-71	10-24	5/16	-108	1/4-20	1 3/8
-35	4-40	15/32	-72	10-24	3/8	-109	1/4-20	1 1/2
-36	4-40	1/2	-73	10-24	1/2	-112	5/16-18	1/2
-37	4-40	17/32	-74	10-24	9/16	-113	5/16-18	3/4
-38	4-40	3/4	-75	10-24	3/4	-114	5/16-18	1
-39	4-40	25/32	-76	10-24	13/16	-115	5/16-18	1 1/4
-40	4-40	1	-77	10-24	1	-116	5/16-18	1 1/2
-41	4-40	1 1/32	-78	10-24	1 1/16	-117	3/8-16	1/2
-42	6-32	3/16	-79	10-24	1 1/4	-118	3/8-16	3/4
-43	6-32	1/4	-80	10-24	1 1/2	-119	3/8-16	1
-44	6-32	5/16	-81	10-32	1/4	-120	3/8-16	1 1/4
-45	6-32	3/8	-82	10-32	5/16	-121	3/8-16	1 1/2
-46	6-32	7/16	-83	10-32	3/8	-122	3/8-16	2
-47	6-32	1/2	-84	10-32	7/16	-123	3/8-16	2 1/2
-48	6-32	9/16	-85	10-32	1/2	-124	3/8-16	3
-49	6-32	5/8	-86	10-32	9/16			
-50	6-32	11/16	-87	10-32	5/8			

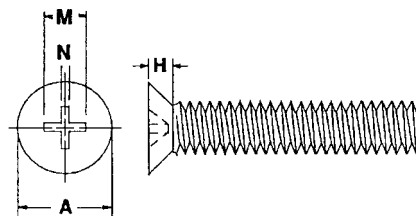


Thread Size	A	H	J	T
2	.159	.051	.027	.019
4	.210	.067	.035	.025
6	.261	.083	.044	.031
8	.312	.100	.049	.037
10	.362	.116	.055	.044
1/4	.479	.153	.069	.058
5/16	.601	.191	.078	.073
3/8	.723	.230	.088	.088

FLAT HEAD 82° PHILLIPS

Part No. L122 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	6-32	3/16	-19	8-32	11/16	-34	10-32	1
-4	6-32	1/4	-20	8-32	3/4	-35	10-32	1 1/16
-5	6-32	5/16	-21	8-32	13/16	-36	1/4-20	1/4
-6	6-32	3/8	-22	8-32	1	-37	1/4-20	5/16
-7	6-32	7/16	-23	8-32	1 1/16	-38	1/4-20	3/8
-8	6-32	1/2	-24	10-32	1/4	-39	1/4-20	7/16
-9	6-32	9/16	-25	10-32	5/16	-40	1/4-20	1/2
-10	6-32	11/16	-26	10-32	3/8	-41	1/4-20	9/16
-11	6-32	13/16	-27	10-32	7/16	-42	1/4-20	11/16
-12	8-32	1/4	-28	10-32	1/2	-43	1/4-20	3/4
-13	8-32	5/16	-29	10-32	9/16	-44	1/4-20	13/16
-14	8-32	3/8	-30	10-32	5/8	-45	1/4-20	7/8
-15	8-32	7/16	-31	10-32	11/16	-46	1/4-20	1
-16	8-32	1/2	-32	10-32	3/4			
-18	8-32	5/8	-33	10-32	13/16			



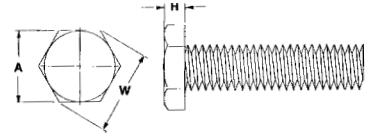
Thread Size	A	H	M	N
6	.261	.083	.187	.038
8	.312	.100	.224	.043
10	.362	.116	.260	.048
1/4	.479	.153	.344	.061

MOLDED MACHINE SCREWS - L Series (continued)

HEX HEAD MACHINE SCREWS

Part No. L106 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-28	6-32	3/16	-53	8-32	1	-76	10-32	1/2
-2	2-56	3/16	-29	6-32	1/4	-55	8-32	1 1/4	-77	10-32	5/8
-3	2-56	1/4	-30	6-32	5/16	-56	8-32	1 3/8	-78	10-32	3/4
-5	2-56	5/16	-31	6-32	3/8	-57	8-32	1 1/2	-79	10-32	7/8
-6	2-56	3/8	-32	6-32	7/16	-58	8-32	1 3/4	-80	10-32	1
-7	2-56	7/16	-33	6-32	1/2	-59	8-32	2	-81	10-32	1 1/4
-8	2-56	1/2	-34	6-32	5/8	-60	10-24	1/8	-82	10-32	1 1/2
-9	2-56	5/8	-36	6-32	3/4	-61	10-24	3/16	-83	10-32	2
-10	2-56	3/4	-37	6-32	1	-62	10-24	1/4	-84	1/4-20	1/4
-11	4-40	1/8	-39	6-32	1 1/4	-63	10-24	5/16	-85	1/4-20	5/16
-12	4-40	3/16	-40	6-32	1 1/2	-64	10-24	3/8	-86	1/4-20	3/8
-13	4-40	1/4	-41	6-32	1 3/4	-65	10-24	1/2	-87	1/4-20	1/2
-15	4-40	5/16	-43	8-32	1/8	-66	10-24	5/8	-88	1/4-20	5/8
-16	4-40	3/8	-44	8-32	3/16	-67	10-24	3/4	-89	1/4-20	3/4
-17	4-40	7/16	-45	8-32	1/4	-68	10-24	1	-90	1/4-20	7/8
-18	4-40	1/2	-46	8-32	5/16	-69	10-24	1 1/4	-91	1/4-20	1
-19	4-40	5/8	-47	8-32	3/8	-70	10-24	1 1/2	-92	1/4-20	1 1/4
-21	4-40	3/4	-48	8-32	7/16	-71	10-32	1/8	-93	1/4-20	1 1/2
-22	4-40	7/8	-49	8-32	1/2	-72	10-32	3/16	-94	1/4-20	1 3/4
-23	4-40	1	-50	8-32	5/8	-73	10-32	1/4	-95	1/4-20	2
-25	4-40	1 1/4	-51	8-32	3/4	-74	10-32	5/16			
-27	6-32	1/8	-52	8-32	7/8	-75	10-32	3/8			



Thread Size	A		W		H	
	max.	min.	min.	max.	min.	max.
2	.125	.120	.134	.050	.040	
4	.188	.181	.202	.060	.049	
6	.250	.244	.272	.093	.080	
8	.250	.244	.272	.110	.096	
10	.312	.305	.340	.120	.105	
1/4	.375	.367	.409	.190	.172	

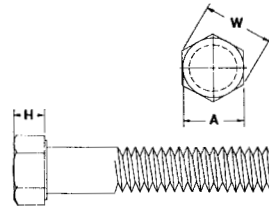
Dimensions may vary with material.

MOLDED CAP SCREWS - L Series

HEX HEAD CAP SCREWS

Part No. L130 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	1/2	-2	5/16-18	2	-7	5/8-11	1 1/2	-12	5/8-11	4	-17	3/4-10	1 1/2	-22	3/4-10	4
-101	1/4-20	3/4	-3	3/8-16	1 1/2	-8	5/8-11	2	-13	5/8-11	4 1/2	-18	3/4-10	2	-23	3/4-10	4 1/2
-102	1/4-20	1	-4	3/8-16	2	-9	5/8-11	2 1/2	-14	5/8-11	5	-19	3/4-10	2 1/2	-24	3/4-10	5
-103	1/4-20	1 1/4	-5	3/8-16	2 1/2	-10	5/8-11	3	-15	5/8-11	5 1/2	-20	3/4-10	3	-25	3/4-10	5 1/2
-104	1/4-20	1 1/2	-6	3/8-16	3	-11	5/8-11	3 1/2	-16	5/8-11	6	-21	3/4-10	3 1/2	-26	3/4-10	6
-1	5/16-18	1 1/2															



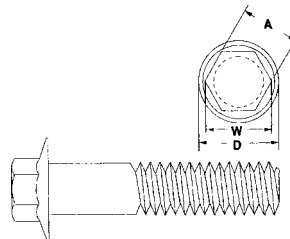
Size	A	W	H
1/4-20	.435	.498	.190
5/16-18	.502	.575	.205
3/8-16	.560	.645	.250
5/8-11	.938	1.051	.400
3/4-10	1.125	1.254	.465

Dimensions +/- .015

FLANGED HEX HEAD CAP SCREWS

Part No. L131 - (Size Code No.) - (Material Code No.)
(below) (page 63)

Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.	Size Code No.	Thread Size	Lgth.
-100	1/4-20	3/8	-9	3/8-16	1/2	-141	3/8-16	2	-1435	3/8-16	4 1/2	-23	1/2-13	1 7/8	-32	1/2-13	3 3/8
-1	1/4-20	1/2	-10	3/8-16	5/8	-1410	3/8-16	2 1/4	-15	1/2-13	3/4	-24	1/2-13	2	-33	1/2-13	3 1/2
-2	1/4-20	5/8	-11	3/8-16	3/4	-142	3/8-16	2 1/2	-16	1/2-13	7/8	-25	1/2-13	2 1/4	-331	1/2-13	3 3/4
-3	1/4-20	3/4	-12	3/8-16	7/8	-143	3/8-16	3	-17	1/2-13	1	-26	1/2-13	2 3/8	-34	1/2-13	4
-4	1/4-20	7/8	-13	3/8-16	1	-1430	3/8-16	3 1/4	-18	1/2-13	1 1/4	-27	1/2-13	2 1/2	-35	1/2-13	4 1/2
-5	1/4-20	1	-14	3/8-16	1 1/4	-1431	3/8-16	3 1/2	-19	1/2-13	1 3/8	-28	1/2-13	2 5/8	-36	1/2-13	5
-6	1/4-20	1 1/4	-140	3/8-16	1 1/2	-1432	3/8-16	3 3/4	-20	1/2-13	1 1/2	-29	1/2-13	2 3/4	-37	1/2-13	5 1/2
-7	1/4-20	1 3/8	-1402	3/8-16	1 5/8	-1433	3/8-16	4	-21	1/2-13	1 5/8	-30	1/2-13	3	-38	1/2-13	6
-8	1/4-20	1 1/2	-1403	3/8-16	1 3/4	-1434	3/8-16	4 1/4	-22	1/2-13	1 3/4						



Size	A	W	D
1/4-20	.375	.425	.560
3/8-16	.550	.625	.785
1/2-13	.730	.835	1.059

Dimensions +/- .010

MOLDED METRIC MACHINE SCREWS - L Series

For other materials refer to **Craftech MOLDED METRIC SCREWS**
on pages 30-73 (MH, J, & K series).
For Nylon 6/6 MOLDED SCREWS, see pages 75-100.

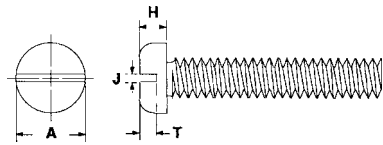
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following material:

Material Code No.	Material Name
-15	PEEK™

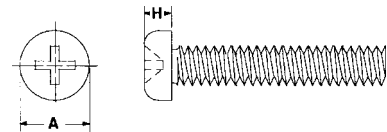
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 69) (above)

PAN HEAD SLOTTED
Part No. L244 -

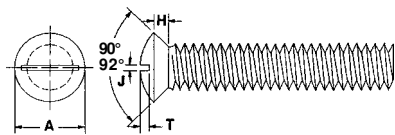


Thread Size	A nom	H nom	J nom	T nom
M3 x 0,5	6,00	1,80	0,80	0,82
M4 x 0,7	8,00	2,40	1,20	1,15
M5 x 0,8	10,00	3,00	1,20	1,35
M6 x 1	12,00	3,60	1,60	1,70

PAN HEAD CROSS RECESSED
Part No. L245 -

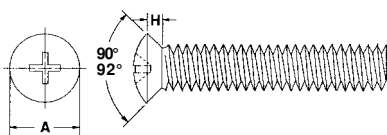


RAISED COUNTERSUNK HEAD SLOTTED
Part No. L250 -

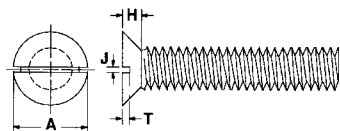


Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,60	0,90
M2,5 x 0,45	4,70	1,50	0,70	1,10
M3 x 0,5	5,60	1,65	0,90	1,32
M3,5 x 0,6	6,50	1,93	1,10	1,55
M4 x 0,7	7,50	2,20	1,30	1,75
M5 x 0,8	9,20	2,50	1,40	2,15
M6 x 1,0	11,00	3,00	1,70	2,60
M8 x 1,25	14,50	4,00	2,10	3,70 (max)
M10 x 1,5	18,00	5,00	2,60	4,30

RAISED COUNTERSUNK HEAD CROSS RECESSED
Part No. L249 -

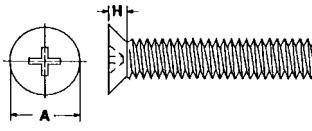


COUNTERSUNK HEAD SLOTTED
Part No. L251 -



Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,50	0,50
M2,5 x 0,45	4,70	1,50	0,60	0,60
M3 x 0,5	5,60	1,65	0,80	0,72
M4 x 0,7	7,50	2,20	1,00	0,95
M5 x 0,8	9,20	2,50	1,20	1,15
M6 x 1,0	11,00	3,00	1,60	1,40
M8 x 1,25	14,50	4,00	2,00	1,85
M10 x 1,50	18,00	5,00	2,50	2,30
M12 x 1,75	22,00	6,00	3,00	2,70

COUNTERSUNK HEAD CROSS RECESSED
Part No. L252 -



Parts are made to DIN dimensions. Materials are selected by customer.

MOLDED METRIC MACHINE SCREWS - L Series (continued)

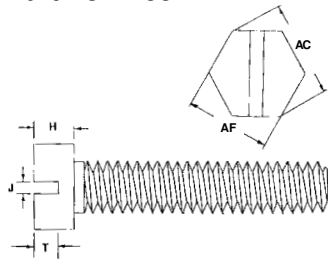
MOLDED METRIC MACHINE SCREWS, CAP SCREWS, BOLTS, THUMB SCREWS and SET SCREWS SIZE CODE CHART

ALL DIMENSIONS GIVEN IN MILLIMETERS

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1000	M2 x 0,4	3mm	-25	M3 x 0,5	20mm	-52	M5 x 0,8	20mm	-77	M8 x 1,25	35mm
-1	M2 x 0,4	4mm	-26	M3 x 0,5	25mm	-53	M5 x 0,8	25mm	-78	M8 x 1,25	40mm
-2	M2 x 0,4	5mm	-27	M3 x 0,5	30mm	-54	M5 x 0,8	30mm	-79	M8 x 1,25	45mm
-3	M2 x 0,4	6mm	-28	M3,5 x 0,6	5mm	-55	M5 x 0,8	35mm	-80	M8 x 1,25	50mm
-4	M2 x 0,4	8mm	-29	M3,5 x 0,6	6mm	-56	M5 x 0,8	40mm	-81	M8 x 1,25	55mm
-5	M2 x 0,4	10mm	-30	M3,5 x 0,6	8mm	-57	M6 x 1,00	5mm	-82	M8 x 1,25	60mm
-6	M2 x 0,4	12mm	-31	M3,5 x 0,6	10mm	-58	M6 x 1,00	8mm	-83	M8 x 1,25	65mm
-600	M2 x 0,4	15mm	-32	M3,5 x 0,6	12mm	-59	M6 x 1,00	10mm	-84	M8 x 1,25	70mm
-7	M2 x 0,4	16mm	-33	M3,5 x 0,6	16mm	-60	M6 x 1,00	12mm	-85	M10 x 1,50	10mm
-8	M2 x 0,4	20mm	-34	M3,5 x 0,6	20mm	-603	M6 x 1,00	15mm	-853	M10 x 1,50	15mm
-9	M2 x 0,4	25mm	-35	M3,5 x 0,6	25mm	-61	M6 x 1,00	16mm	-86	M10 x 1,50	16mm
-10	M2,5 x 0,45	4mm	-36	M3,5 x 0,6	35mm	-62	M6 x 1,00	20mm	-87	M10 x 1,50	20mm
-11	M2,5 x 0,45	5mm	-37	M4 x 0,7	6mm	-63	M6 x 1,00	25mm	-88	M10 x 1,50	25mm
-12	M2,5 x 0,45	6mm	-38	M4 x 0,7	8mm	-64	M6 x 1,00	30mm	-89	M10 x 1,50	30mm
-13	M2,5 x 0,45	8mm	-39	M4 x 0,7	10mm	-65	M6 x 1,00	35mm	-90	M10 x 1,50	35mm
-14	M2,5 x 0,45	10mm	-40	M4 x 0,7	12mm	-66	M6 x 1,00	40mm	-91	M10 x 1,50	40mm
-15	M2,5 x 0,45	12mm	-41	M4 x 0,7	16mm	-67	M6 x 1,00	45mm	-92	M10 x 1,50	50mm
-16	M2,5 x 0,45	16mm	-42	M4 x 0,7	20mm	-68	M6 x 1,00	50mm	-93	M10 x 1,50	60mm
-17	M2,5 x 0,45	20mm	-43	M4 x 0,7	25mm	-69	M6 x 1,00	55mm	-94	M10 x 1,50	70mm
-18	M2,5 x 0,45	25mm	-44	M4 x 0,7	30mm	-70	M8 x 1,25	8mm	-95	M10 x 1,50	75mm
-19	M3 x 0,5	5mm	-45	M4 x 0,7	35mm	-71	M8 x 1,25	10mm	-96	M12 x 1,75	20mm
-20	M3 x 0,5	6mm	-46	M4 x 0,7	40mm	-72	M8 x 1,25	12mm	-97	M12 x 1,75	30mm
-21	M3 x 0,5	8mm	-47	M5 x 0,8	6mm	-723	M8 x 1,25	15mm	-98	M12 x 1,75	40mm
-22	M3 x 0,5	10mm	-48	M5 x 0,8	8mm	-73	M8 x 1,25	16mm	-99	M12 x 1,75	50mm
-23	M3 x 0,5	12mm	-49	M5 x 0,8	10mm	-74	M8 x 1,25	20mm	-100	M12 x 1,75	60mm
-233	M3 x 0,5	15mm	-50	M5 x 0,8	12mm	-75	M8 x 1,25	25mm	-101	M12 x 1,75	70mm
-24	M3 x 0,5	16mm	-51	M5 x 0,8	15mm	-76	M8 x 1,25	30mm	-102	M12 x 1,75	75mm

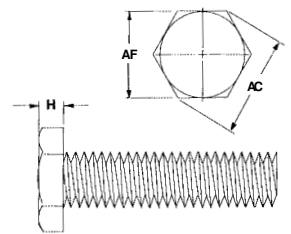
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (above) (page 68)

HEX HEAD SLOTTED
Part No. L255 -

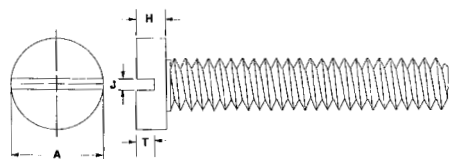


Thread Size	AF nom	H nom	AC max	J nom	T nom
M5 x 0,8	8,00	3,50	8,63	1,20	1,40
M6 x 1,0	10,00	4,00	10,89	1,60	1,60
M8 x 1,25	13,00	5,30	14,20	2,00	2,12
M10 x 1,5	17,00	6,40	18,72	2,50	2,56

HEX HEAD
Part No. L246 -



SLOTTED CHEESE HEAD
Part No. L243 -

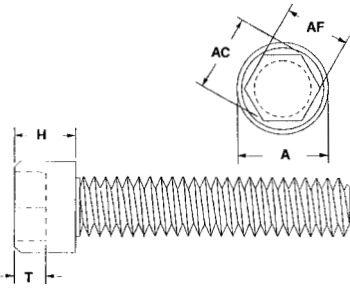


Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,30	0,70	0,90
M2,5 x 0,45	4,50	1,60	0,80	1,00
M3 x 0,5	5,50	2,00	1,00	1,20
M3,5 x 0,6	6,00	2,40	1,20	1,40
M4 x 0,7	7,00	2,60	1,51	1,50
M5 x 0,8	8,50	3,30	1,50	1,80
M6 x 1,0	10,00	3,90	1,90	2,30
M8 x 1,25	13,00	5,00	2,30	2,80
M10 1,5	16,00	6,00	2,80	3,30

MOLDED METRIC HEX CAP SCREWS and BOLTS - L Series

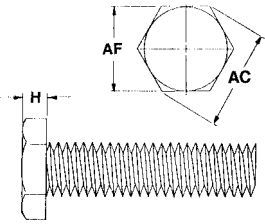
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 69) (page 68)

HEX SOCKET HEAD CAP Part No. L256 -



Thread Size	A	H	T	AF	AC
	max	nom	min	nom	min
M2 x 0,4	3,80	1,93	1,00	1,50	1,73
M2,5 x 0,45	4,45	2,43	1,10	2,00	2,30
M3 x 0,5	5,50	2,93	1,30	2,50	2,87
M4 x 0,7	7,00	3,91	2,00	3,00	3,44
M5 x 0,8	8,50	4,91	2,50	4,00	4,58
M6 x 1,0	10,00	5,85	3,00	5,00	5,72
M8 x 1,25	13,00	7,82	4,00	6,00	6,86
M10 x 1,5	16,00	9,82	5,00	8,00	9,15
M12 x 1,75	18,00	11,78	6,00	10,00	11,53

HEX HEAD BOLTS Part No. L257 -

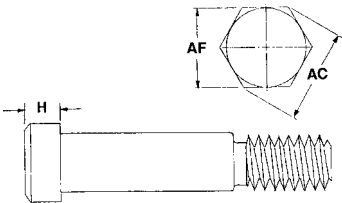


Thread Size	AF nom	H nom	AC min
M5 x 0,8	8,00	3,50	8,63
M6 x 1,00	10,00	4,00	10,89
M8 x 1,25	13,00	5,30	14,20
M10 x 1,5	17,00	6,40	18,72
M12 x 1,75	19,00	7,50	20,88

MOLDED METRIC HEX FIT BOLTS - L Series

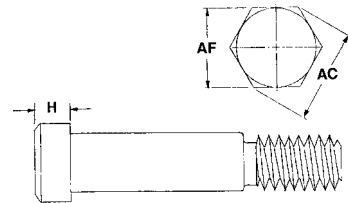
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 69) (page 68)

HEX FIT BOLTS with Long Threaded Dog Point Part No. L309 -



Thread Size	AF nom	H nom	AC min
M8	13,00	5,30	14,38
M10	16/17,00	6,40	17,77/18,90
M12	18/19,00	7,50	19,85/20,88

HEX FIT BOLTS with Short Threaded Dog Point Part No. L310 -



MOLDED METRIC FLANGED HEX CAP SCREWS - L Series

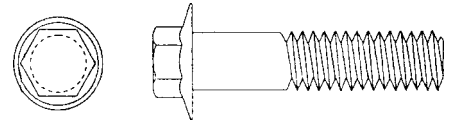
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following material:

Material Code No.	Material Name
-15	PEEK™

Part No. L258 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	35	-14	M10	60
-6	M10	40	-16	M10	65
-8	M10	45	-18	M10	70
-10	M10	50	-20	M10	75
-12	M10	55			



MOLDED METRIC HEX SOCKET COUNTERSUNK SCREWS - L Series

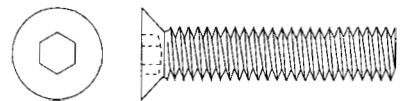
*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following material:

Material Code No.	Material Name
-15	PEEK™

Part No. L259 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5	M10	20	-12	M10	35
-6	M10	22	-14	M10	40
-8	M10	25	-16	M10	45
-10	M10	30	-18	M10	50



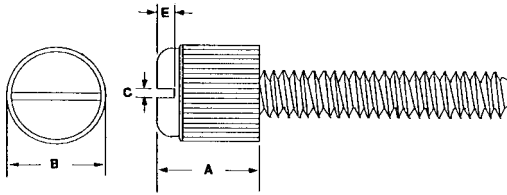
MOLDED METRIC THUMB SCREWS - L Series

(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 69) (below)

*Available in the following material:

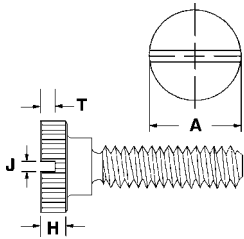
Material Code No.	Material Name
-15	PEEK™

THUMB SCREW SLOTTED Part No. L241 -



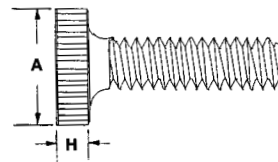
Thread Size	A	B	C	E
M3 x ,5	5,5	8,1	1,0	1,1
M3,5 x ,6	6,4	8,8	1,1	1,3
M4 x ,7	7,1	9,7	1,2	1,5
M5 x ,8	8,1	10,5	1,4	1,7
M6 x 1,0	8,3	12,5	1,8	2,2

KNURLED THUMB SCREW SLOTTED Part No. L308 -



Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	9,00	2,00	0,50	1,25
M2,5 x 0,45	11,00	2,50	0,60	1,65
M3 x 0,5	12,00	2,50	0,80	2,00
M4 x 0,7	16,00	3,50	1,00	2,45
M5 x 0,8	20,00	4,00	1,20	3,10
M6 x 1	24,00	5,00	1,60	3,90
M8 x 1,25	30,00	6,00	2,00	5,00
M10 x 1,5	36,00	8,00	2,50	6,50

KNURLED THIN THUMB SCREW Part No. L307 -





MOLDED METRIC SET SCREWS - L Series

*Available in other materials. See material list in index.
 Other sizes available on request.
 Dimensions may vary with material.

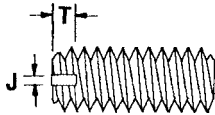
*Available in the following material:

Material Code No.	Material Name
-15	PEEK™

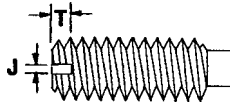
Part No. L260 - (Size Code No.) - (Set Style) - SL  (Slotted) or SK  (Socket) - (Material Code No.)
(page 69) (below) (above)

Set Style:

FLAT POINT - FP



LONG DOG POINT - LDP



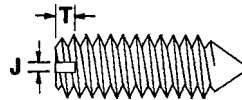
FULL DOG POINT - FDP



CUP POINT - CP



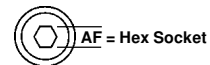
CONE POINT - CNP



CHAMFERED END - CE



Thread Size	J nom	T nom	AF nom
M2 x 0,4	0,25	0,64	0,90
M2,5 x 0,45	0,40	0,72	1,30
M3 x 0,5	0,40	0,80	1,50
M4 x 0,7	0,60	1,12	2,00
M5 x 0,8	0,80	1,28	2,50
M6 x 1	1,00	1,60	3,00
M8 x 1,25	1,20	2,00	4,00
M10 x 1,5	1,60	2,40	5,00
M12 x 1,75	2,00	2,80	6,00



Parts are made to DIN dimensions. Materials are selected by customer.

Polycarbonate Machine Screws

Available in the following material:

Material Code No.	Material Name
-46	Polycarbonate

For additional Polycarbonate screws, see Craftech's J Series on pages 41-51.

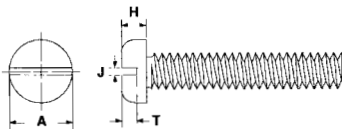
(Part No.) - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/4	-12	8-32	3/8
-2	4-40	9/32	-13	8-32	1/2
-3	4-40	3/8	-14	8-32	5/8
-4	4-40	1/2	-15	8-32	3/4
-5	6-32	1/4	-16	10-32	1/4
-6	6-32	3/8	-17	10-32	3/8
-7	6-32	1/2	-18	10-32	1/2
-8	6-32	5/8	-19	10-32	5/8
-9	6-32	3/4	-20	10-32	3/4
-10	8-32	1/8	-21	10-32	1
-11	8-32	1/4			

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

Pan Head Slotted

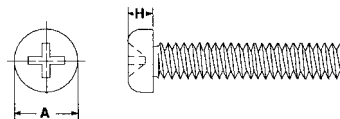
Part No. JP100 -



Thread Size	A	H	J	T
4	.205-.219	.058-.068	.031-.039	.030-.040
6	.256-.270	.072-.082	.039-.048	.037-.050
8	.306-.322	.085-.096	.045-.054	.045-.058
10	.357-.373	.099-.110	.050-.060	.053-.068

Pan Head Phillips

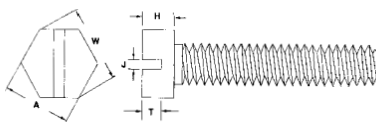
Part No. JP109 -



Thread Size	A	H
4	.205-.219	.070-.080
6	.256-.270	.087-.097
8	.306-.322	.105-.115
10	.357-.373	.122-.133

Hex Head Slotted

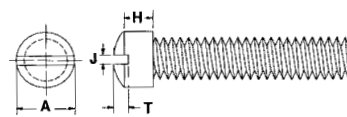
Part No. JP102 -



Thread Size	A	W	H	J	T
4	.181-.188	.202 min.	.049-.060	.031-.039	.025-.036
6	.244-.250	.272 min.	.080-.093	.039-.048	.033-.046
8	.244-.250	.272 min.	.096-.110	.045-.054	.052-.066
10	.305-.312	.340 min.	.105-.120	.505-.060	.057-.072

Fillister Head Slotted

Part No. JP110 -



Thread Size	A	H	J	T
4	.166-.183	.088-.107	.031-.039	.035-.048
6	.208-.226	.111-.132	.039-.048	.045-.060
8	.250-.270	.133-.156	.045-.054	.054-.071
10	.292-.313	.156-.180	.050-.060	.064-.083

MOLDED NYLON MACHINE SCREWS

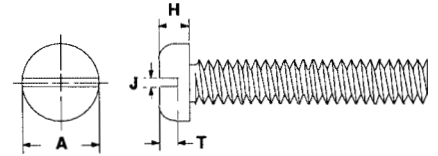
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

PAN HEAD SLOTTED

Part No. JNM108 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-9	1-64	1/4	-57	4-40	11/16	-96	6-40	3/4	-131	10-32	5/16
-10	1-64	3/4	-58	4-40	3/4	-97	6-40	1	-132	10-32	3/8
-13	1-72	1/4	-59	4-40	7/8	-98	8-32	1/8	-133	10-32	7/16
-15	1-72	1/2	-60	4-40	1	-99	8-32	3/16	-134	10-32	1/2
-16	2-56	1/16	-600	4-40	1 5/8	-100	8-32	1/4	-135	10-32	5/8
-17	2-56	3/32	-62	4-40	1 1/8	-101	8-32	9/32	-136	10-32	3/4
-18	2-56	1/8	-63	4-40	1 3/16	-102	8-32	5/16	-1360	10-32	3/16
-19	2-56	5/32	-64	4-40	1 1/4	-103	8-32	3/8	-137	10-32	7/8
-20	2-56	3/16	-65	4-40	1 3/8	-104	8-32	7/16	-138	10-32	1
-21	2-56	1/4	-66	4-40	1 1/2	-105	8-32	1/2	-1380	10-32	1 1/16
-22	2-56	9/32	-67	4-40	1 3/4	-106	8-32	5/8	-139	10-32	1 1/4
-23	2-56	5/16	-69	4-48	1/4	-107	8-32	3/4	-140	10-32	1 1/2
-24	2-56	3/8	-72	6-32	3/32	-108	8-32	7/8	-141	10-32	1 3/4
-25	2-56	25/64	-73	6-32	1/8	-109	8-32	1	-142	10-32	2
-26	2-56	7/16	-74	6-32	5/32	-110	8-32	1 1/8	-143	1/4-20	1/4
-27	2-56	1/2	-75	6-32	3/16	-111	8-32	1 1/4	-144	1/4-20	5/16
-28	2-56	9/16	-76	6-32	1/4	-112	8-32	1 3/8	-145	1/4-20	3/8
-29	2-56	5/8	-77	6-32	5/16	-113	8-32	1 1/2	-147	1/4-20	1/2
-30	2-56	3/4	-78	6-32	3/8	-114	8-32	1 3/4	-148	1/4-20	5/8
-31	2-56	7/8	-79	6-32	7/16	-115	8-32	1 7/8	-149	1/4-20	3/4
-32	2-56	1	-80	6-32	1/2	-116	8-32	2	-151	1/4-20	7/8
-320	2-56	1 1/8	-81	6-32	9/16	-117	10-24	1/8	-152	1/4-20	1
-33	2-64	3/16	-82	6-32	5/8	-118	10-24	3/16	-153	1/4-20	1 1/4
-34	2-64	3/8	-83	6-32	11/16	-119	10-24	1/4	-155	1/4-20	1 1/2
-430	4-36	1/2	-84	6-32	3/4	-120	10-24	5/16	-156	1/4-20	1 3/4
-44	4-40	3/32	-85	6-32	7/8	-121	10-24	3/8	-157	1/4-20	2
-45	4-40	1/8	-87	6-32	1	-122	10-24	1/2	-1570	1/4-20	2 1/2
-46	4-40	9/64	-88	6-32	1 1/8	-123	10-24	5/8	-158	1/4-28	3/16
-48	4-40	3/16	-89	6-32	1 1/4	-124	10-24	3/4	-159	1/4-28	3/8
-49	4-40	1/4	-90	6-32	1 1/2	-125	10-24	1	-1590	1/4-28	1/4
-50	4-40	9/32	-91	6-32	1 5/8	-126	10-24	1 1/4	-161	1/4-28	5/8
-51	4-40	5/16	-92	6-32	1 3/4	-127	10-24	1 1/2	-162	1/4-28	3/4
-52	4-40	3/8	-93	6-32	1 7/8	-1270	10-24	2 1/4	-163	1/4-28	1
-53	4-40	7/16	-930	6-32	2	-128	10-32	1/8	-170	5/16-18	7/8
-54	4-40	1/2	-932	6-32	2 1/4	-129	10-32	3/16	-171	1/2-13	3/4
-55	4-40	9/16	-94	6-40	1/4	-130	10-32	1/4	-172	1/2-13	1
-56	4-40	5/8	-95	6-40	3/8						

Thread Size	A	H	J	T
1	.130-.142	.038-.046	.019-.026	.018-.027
2	.155-.167	.045-.053	.023-.031	.022-.031
4	.205-.219	.058-.068	.031-.039	.030-.040
6	.256-.270	.072-.082	.039-.048	.037-.050
8	.306-.322	.085-.096	.045-.054	.045-.058
10	.357-.373	.099-.110	.050-.060	.053-.068
1/4	.473-.492	.130-.144	.064-.075	.070-.087
5/16	.594-.615	.162-.178	.072-.084	.085-.106
1/2	.958-.987	.260-.281	.091-.106	.131-.161

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

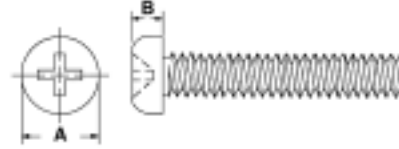
MOLDED NYLON MACHINE SCREWS (continued)

Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

PAN HEAD PHILLIPS

Part No. JN109 - (Size Code No.) - (Material Code No.)

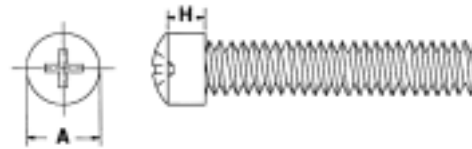


Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth
-3	2-56	1/8	-30	4-40	1/2	-59	6-32	7/8	-86	8-32	1 1/2	-108	10-32	5/8
-5	2-56	3/16	-32	4-40	5/8	-60	6-32	1	-90	10-24	1/8	-109	10-32	3/4
-6	2-56	1/4	-34	4-40	3/4	-62	6-32	1 1/4	-92	10-24	1/4	-110	10-32	7/8
-7	2-56	9/32	-35	4-40	7/8	-63	6-32	1 1/2	-94	10-24	3/8	-111	10-32	1
-8	2-56	5/16	-36	4-40	1	-65	6-32	1 3/4	-95	10-24	1/2	-112	10-32	1 1/4
-9	2-56	3/8	-39	4-40	1 1/4	-71	8-32	1/8	-96	10-24	5/8	-113	10-32	1 1/2
-11	2-56	7/16	-41	4-40	1 1/2	-72	8-32	3/16	-97	10-24	3/4	-116	1/4-20	1/4
-12	2-56	1/2	-47	6-32	1/8	-73	8-32	1/4	-98	10-24	1	-117	1/4-20	5/16
-15	2-56	3/4	-49	6-32	3/16	-75	8-32	5/16	-99	10-24	1 1/4	-118	1/4-20	3/8
-17	2-56	1	-50	6-32	1/4	-76	8-32	3/8	-100	10-24	1 1/2	-119	1/4-20	7/16
-21	4-40	1/8	-51	6-32	5/16	-77	8-32	7/16	-101	10-32	1/8	-121	1/4-20	1/2
-23	4-40	3/16	-52	6-32	3/8	-78	8-32	1/2	-102	10-32	3/16	-120	1/4-20	5/8
-24	4-40	1/4	-53	6-32	7/16	-79	8-32	5/8	-103	10-32	1/4	-130	1/4-20	3/4
-25	4-40	9/32	-54	6-32	1/2	-80	8-32	3/4	-104	10-32	5/16	-122	1/4-20	7/8
-26	4-40	5/16	-55	6-32	9/16	-81	8-32	7/8	-105	10-32	3/8	-123	1/4-20	1
-28	4-40	3/8	-56	6-32	5/8	-82	8-32	1	-106	10-32	7/16	-124	1/4-20	1 1/4
-29	4-40	7/16	-58	6-32	3/4	-84	8-32	1 1/4	-107	10-32	1/2	-125	1/4-20	1 1/2

Thread Size	A	B	Thread Size	A	B
2-56	.160	.058	10-32	.365	.125
4-40	.215	.075	10-24	.365	.125
6-32	.263	.092	1/4-20	.485	.165
8-32	.320	.110			

FILLISTER HEAD PHILLIPS

Part No. JN115- (Size Code No.) - (Material Code No.)



Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth	Size Code No.	Thrd Size	Lgth
-100	6-32	3/32	-119	6-32	1 3/4	-10	8-32	1	-148	10-32	1/8	-13	1/4-20	3/8
-101	6-32	1/8	-120	6-32	1 7/8	-130	8-32	1 1/8	-149	10-32	3/16	-15	1/4-20	1/2
-102	6-32	5/32	-121	6-32	2	-131	8-32	1 1/4	-150	10-32	1/4	-16	1/4-20	5/8
-103	6-32	3/16	-122	6-32	2 1/4	-132	8-32	1 3/8	-151	10-32	5/16	-17	1/4-20	3/4
-104	6-32	1/4	-123	6-40	1/4	-133	8-32	1 1/2	-152	10-32	3/8	-18	1/4-20	7/8
-105	6-32	5/16	-124	6-40	3/8	-134	8-32	1 3/4	-153	10-32	7/16	-19	1/4-20	1
-106	6-32	3/8	-125	6-40	3/4	-135	8-32	1 7/8	-154	10-32	1/2	-20	1/4-20	1 1/4
-107	6-32	7/16	-126	6-40	1	-136	8-32	2	-155	10-32	5/8	-21	1/4-20	1 1/2
-108	6-32	1/2	-127	8-32	1/8	-137	10-24	1/8	-156	10-32	3/4	-170	1/4-20	1 3/4
-109	6-32	9/16	-128	8-32	3/16	-138	10-24	3/16	-157	10-32	13/16	-171	1/4-20	2
-110	6-32	5/8	-1	8-32	1/4	-139	10-24	1/4	-158	10-32	7/8	-172	1/4-20	2 1/2
-111	6-32	11/16	-2	8-32	9/32	-140	10-24	5/16	-159	10-32	1	-173	1/4-28	3/16
-112	6-32	3/4	-3	8-32	5/16	-141	10-24	3/8	-160	10-32	1 1/16	-174	1/4-28	1/4
-113	6-32	7/8	-4	8-32	3/8	-142	10-24	1/2	-161	10-32	1 1/4	-175	1/4-28	3/8
-114	6-32	1	-5	8-32	7/16	-143	10-24	5/8	-162	10-32	1 1/2	-23	1/4-28	5/8
-115	6-32	1 1/8	-6	8-32	1/2	-144	10-24	3/4	-163	10-32	1 3/4	-24	1/4-28	3/4
-116	6-32	1 1/4	-7	8-32	5/8	-145	10-24	1	-164	10-32	2	-25	1/4-28	1
-117	6-32	1 1/2	-8	8-32	3/4	-146	10-24	1 1/4	-11	1/4-20	1/4			
-118	6-32	1 5/8	-9	8-32	7/8	-147	10-24	1 1/2						

Thread Size	A	H
6	.208-.226	.111-.132
8	.250-.270	.133-.156
10	.292-.313	.156-.180
1/4	.378-.403	.189-.219

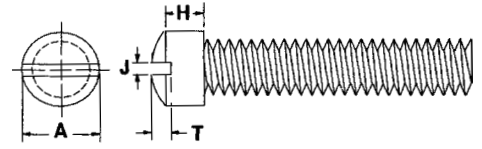
MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

FILLISTER HEAD SLOTTED



Part No. JN114 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-14	2-56	3/32	-53	4-40	7/16	-92	6-32	1 7/8	-128	10-32	1/8
-15	2-56	1/8	-54	4-40	1/2	-920	6-32	2	-129	10-32	3/16
-16	2-56	5/32	-55	4-40	9/16	-9201	6-32	2 1/4	-130	10-32	1/4
-17	2-56	3/16	-56	4-40	5/8	-93	6-40	1/4	-131	10-32	5/16
-19	2-56	1/4	-57	4-40	11/16	-94	6-40	3/8	-132	10-32	3/8
-20	2-56	9/32	-58	4-40	3/4	-95	6-40	3/4	-133	10-32	7/16
-21	2-56	5/16	-59	4-40	7/8	-96	6-40	1	-134	10-32	1/2
-22	2-56	3/8	-60	4-40	1	-97	8-32	1/8	-135	10-32	5/8
-23	2-56	25/64	-62	4-40	1 1/8	-98	8-32	3/16	-136	10-32	3/4
-24	2-56	7/16	-63	4-40	1 3/16	-99	8-32	1/4	-1360	10-32	13/16
-25	2-56	1/2	-64	4-40	1 1/4	-100	8-32	9/32	-137	10-32	7/8
-26	2-56	9/16	-65	4-40	1 3/8	-101	8-32	5/16	-138	10-32	1
-27	2-56	5/8	-66	4-40	1 1/2	-102	8-32	3/8	-1380	10-32	1 1/16
-28	2-56	3/4	-660	4-40	1 5/8	-103	8-32	7/16	-139	10-32	1 1/4
-29	2-56	7/8	-67	4-40	1 3/4	-104	8-32	1/2	-140	10-32	1 1/2
-30	2-56	1	-68	4-48	1/4	-105	8-32	5/8	-141	10-32	1 3/4
-300	2-56	1 1/8	-70	5-40	3/8	-106	8-32	3/4	-142	10-32	2
-31	2-64	3/16	-71	6-32	3/32	-107	8-32	7/8	-144	1/4-20	1/4
-32	2-64	3/8	-72	6-32	1/8	-108	8-32	1	-145	1/4-20	5/16
-33	3-48	1/8	-73	6-32	5/32	-109	8-32	1 1/8	-146	1/4-20	3/8
-34	3-48	3/16	-74	6-32	3/16	-110	8-32	1 1/4	-148	1/4-20	1/2
-35	3-48	1/4	-75	6-32	1/4	-111	8-32	1 3/8	-149	1/4-20	5/8
-37	3-48	5/16	-76	6-32	5/16	-112	8-32	1 1/2	-150	1/4-20	3/4
-38	3-48	3/8	-77	6-32	3/8	-113	8-32	1 3/4	-152	1/4-20	7/8
-39	3-48	7/16	-78	6-32	7/16	-114	8-32	1 7/8	-153	1/4-20	1
-40	3-48	1/2	-79	6-32	1/2	-115	8-32	2	-154	1/4-20	1 1/4
-42	3-48	3/4	-80	6-32	9/16	-116	10-24	1/8	-156	1/4-20	1 1/2
-43	3-56	5/16	-81	6-32	5/8	-117	10-24	3/16	-157	1/4-20	1 3/4
-430	4-36	1/2	-82	6-32	11/16	-118	10-24	1/4	-158	1/4-20	2
-44	4-40	3/32	-83	6-32	3/4	-119	10-24	5/16	-1580	1/4-20	2 1/2
-45	4-40	1/8	-84	6-32	7/8	-120	10-24	3/8	-159	1/4-28	3/16
-46	4-40	9/64	-86	6-32	1	-121	10-24	1/2	-1590	1/4-28	1/4
-48	4-40	3/16	-87	6-32	1 1/8	-122	10-24	5/8	-160	1/4-28	3/8
-49	4-40	1/4	-88	6-32	1 1/4	-123	10-24	3/4	-162	1/4-28	5/8
-50	4-40	9/32	-89	6-32	1 1/2	-124	10-24	1	-163	1/4-28	3/4
-51	4-40	5/16	-90	6-32	1 5/8	-125	10-24	1 1/4	-164	1/4-28	1
-52	4-40	3/8	-91	6-32	1 3/4	-126	10-24	1 1/2	-165	3/8-24	1

Thread Size	A	H	J	T
2	.124-.140	.066-.083	.023-.031	.025-.037
3	.145-.161	.077-.095	.027-.035	.030-.043
4	.166-.183	.088-.107	.031-.039	.035-.048
6	.208-.226	.111-.132	.039-.048	.045-.060
8	.250-.270	.133-.156	.045-.054	.054-.071
10	.292-.313	.156-.180	.050-.060	.064-.083
1/4	.389-.414	.207-.237	.064-.075	.087-.109
3/8	.590-.622	.315-.355	.081-.094	.133-.164

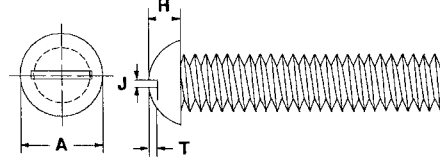
Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No. Material Name

- 18 Nylon 6/6, (natural)
- 78 Nylon 6/6, (black)



ROUND HEAD SLOTTED

Part No. JN110 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	1-64	1/4	-41	4-40	5/16	-83	6-32	1 7/8	-121	10-32	1/4
-4	1-64	3/4	-42	4-40	3/8	-830	6-32	2	-122	10-32	5/16
-5	1-72	1/4	-43	4-40	7/16	-831	6-32	2 1/4	-123	10-32	3/8
-500	1-72	1/2	-44	4-40	1/2	-84	6-40	1/4	-124	10-32	7/16
-6	2-56	1/16	-45	4-40	9/16	-85	6-40	3/8	-125	10-32	1/2
-7	2-56	3/32	-46	4-40	5/8	-86	6-40	3/4	-126	10-32	5/8
-8	2-56	1/8	-47	4-40	11/16	-87	6-40	1	-127	10-32	3/4
-9	2-56	5/32	-48	4-40	3/4	-88	8-32	1/8	-1270	10-32	13/16
-10	2-56	3/16	-49	4-40	7/8	-89	8-32	3/16	-128	10-32	7/8
-11	2-56	1/4	-50	4-40	1	-90	8-32	1/4	-129	10-32	1
-12	2-56	9/32	-51	4-40	1 1/8	-91	8-32	9/32	-1290	10-32	1 1/16
-13	2-56	5/16	-52	4-40	1 3/16	-92	8-32	5/16	-130	10-32	1 1/4
-14	2-56	3/8	-53	4-40	1 1/4	-93	8-32	3/8	-131	10-32	1 1/2
-15	2-56	7/16	-54	4-40	1 3/8	-94	8-32	7/16	-1310	10-32	1 5/8
-16	2-56	1/2	-55	4-40	1 1/2	-95	8-32	1/2	-132	10-32	1 3/4
-17	2-56	9/16	-550	4-40	1 5/8	-96	8-32	5/8	-133	10-32	2
-18	2-56	5/8	-56	4-40	1 3/4	-97	8-32	3/4	-135	1/4-20	1/4
-19	2-56	3/4	-58	4-48	1/4	-98	8-32	7/8	-136	1/4-20	5/16
-20	2-56	7/8	-61	5-40	1/2	-99	8-32	1	-137	1/4-20	3/8
-21	2-56	1	-62	6-32	3/32	-100	8-32	1 1/8	-139	1/4-20	1/2
-210	2-56	1 1/8	-63	6-32	1/8	-101	8-32	1 1/4	-140	1/4-20	5/8
-22	2-64	3/16	-64	6-32	5/32	-102	8-32	1 3/8	-141	1/4-20	3/4
-23	2-64	3/8	-65	6-32	3/16	-103	8-32	1 1/2	-143	1/4-20	7/8
-24	3-48	1/8	-66	6-32	1/4	-104	8-32	1 3/4	-144	1/4-20	1
-25	3-48	3/16	-67	6-32	5/16	-105	8-32	1 7/8	-145	1/4-20	1 1/4
-26	3-48	1/4	-68	6-32	3/8	-106	8-32	2	-146	1/4-20	1 1/2
-260	3-48	5/16	-69	6-32	7/16	-107	10-24	1/8	-147	1/4-20	1 3/4
-29	3-48	3/8	-70	6-32	1/2	-108	10-24	3/16	-148	1/4-20	2
-30	3-48	7/16	-71	6-32	9/16	-109	10-24	1/4	-1480	1/4-20	2 1/2
-31	3-48	1/2	-72	6-32	5/8	-110	10-24	5/16	-149	1/4-20	3
-33	3-48	3/4	-73	6-32	11/16	-111	10-24	3/8	-150	1/4-28	3/16
-34	3-56	5/16	-74	6-32	3/4	-112	10-24	1/2	-1500	1/4-28	1/4
-340	4-36	1/2	-75	6-32	7/8	-113	10-24	5/8	-151	1/4-28	3/8
-35	4-40	3/32	-77	6-32	1	-114	10-24	3/4	-153	1/4-28	5/8
-36	4-40	1/8	-78	6-32	1 1/8	-115	10-24	1	-154	1/4-28	3/4
-37	4-40	9/64	-79	6-32	1 1/4	-116	10-24	1 1/4	-155	1/4-28	1
-38	4-40	3/16	-80	6-32	1 1/2	-117	10-24	1 1/2			
-39	4-40	1/4	-81	6-32	1 5/8	-119	10-32	1/8			
-40	4-40	9/32	-82	6-32	1 3/4	-120	10-32	3/16			

Thread Size	A	H	J	T
1	.122-.138	.051-.061	.019-.026	.033-.044
2	.146-.162	.059-.069	.023-.031	.037-.048
3	.169-.187	.067-.078	.027-.035	.040-.053
4	.193-.211	.075-.086	.031-.039	.044-.058
6	.240-.260	.091-.103	.039-.048	.051-.068
8	.287-.309	.107-.120	.045-.054	.058-.077
10	.334-.359	.123-.137	.050-.060	.065-.087
1/4	.433-.472	.160-.175	.064-.075	.082-.109

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

ROUND HEAD PHILLIPS

Part No. JN111 - NO LONGER AVAILABLE

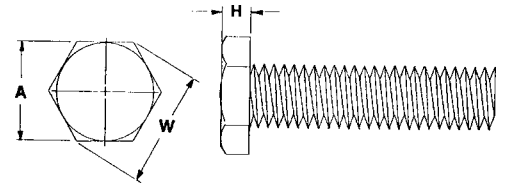
MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

HEX HEAD



Part No. JN106 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	2-56	3/32	-41	4-40	7/16	-800	6-32	2	-118	10-32	1/4
-4	2-56	1/8	-42	4-40	1/2	-802	6-32	2 1/4	-119	10-32	5/16
-5	2-56	5/32	-43	4-40	9/16	-81	6-40	1/4	-120	10-32	3/8
-6	2-56	3/16	-44	4-40	5/8	-82	6-40	3/8	-121	10-32	7/16
-7	2-56	1/4	-45	4-40	11/16	-83	6-40	3/4	-122	10-32	1/2
-8	2-56	9/32	-46	4-40	3/4	-84	6-40	1	-123	10-32	5/8
-9	2-56	5/16	-47	4-40	7/8	-85	8-32	1/8	-124	10-32	3/4
-10	2-56	3/8	-48	4-40	1	-86	8-32	3/16	-1240	10-32	13/16
-11	2-56	25/64	-50	4-40	1 1/8	-87	8-32	1/4	-125	10-32	7/8
-12	2-56	7/16	-51	4-40	1 3/16	-88	8-32	9/32	-126	10-32	1
-13	2-56	1/2	-52	4-40	1 1/4	-89	8-32	5/16	-1260	10-32	1 1/16
-14	2-56	9/16	-53	4-40	1 3/8	-90	8-32	3/8	-127	10-32	1 1/4
-15	2-56	5/8	-54	4-40	1 1/2	-91	8-32	7/16	-128	10-32	1 1/2
-16	2-56	3/4	-540	4-40	1 5/8	-92	8-32	1/2	-129	10-32	1 3/4
-17	2-56	7/8	-55	4-40	1 3/4	-93	8-32	5/8	-130	10-32	2
-18	2-56	1	-56	4-48	1/4	-94	8-32	3/4	-132	1/4-20	1/4
-180	2-56	1 1/8	-59	6-32	3/32	-95	8-32	7/8	-133	1/4-20	5/16
-19	2-64	3/16	-60	6-32	1/8	-96	8-32	1	-134	1/4-20	3/8
-20	2-64	3/8	-61	6-32	5/32	-97	8-32	1 1/8	-136	1/4-20	1/2
-21	3-48	1/8	-62	6-32	3/16	-98	8-32	1 1/4	-137	1/4-20	5/8
-22	3-48	3/16	-63	6-32	1/4	-99	8-32	1 3/8	-138	1/4-20	3/4
-23	3-48	1/4	-64	6-32	5/16	-100	8-32	1 1/2	-139	1/4-20	7/8
-25	3-48	5/16	-65	6-32	3/8	-101	8-32	1 3/4	-140	1/4-20	1
-26	3-48	3/8	-66	6-32	7/16	-102	8-32	1 7/8	-141	1/4-20	1 1/4
-27	3-48	7/16	-67	6-32	1/2	-103	8-32	2	-142	1/4-20	1 1/2
-28	3-48	1/2	-68	6-32	9/16	-104	10-24	1/8	-143	1/4-20	1 3/4
-30	3-48	3/4	-69	6-32	5/8	-105	10-24	3/16	-144	1/4-20	2
-31	3-56	5/16	-70	6-32	11/16	-106	10-24	1/4	-1400	1/4-20	2 1/2
-310	4-36	1/2	-71	6-32	3/4	-107	10-24	5/16	-145	1/4-28	3/16
-32	4-40	3/32	-72	6-32	7/8	-108	10-24	3/8	-1450	1/4-28	1/4
-33	4-40	1/8	-74	6-32	1	-109	10-24	1/2	-146	1/4-28	3/8
-34	4-40	9/64	-75	6-32	1 1/8	-110	10-24	5/8	-148	1/4-28	5/8
-36	4-40	3/16	-76	6-32	1 1/4	-111	10-24	3/4	-149	1/4-28	3/4
-37	4-40	1/4	-77	6-32	1 1/2	-112	10-24	1	-150	1/4-28	1
-38	4-40	9/32	-78	6-32	1 5/8	-113	10-24	1 1/4			
-39	4-40	5/16	-79	6-32	1 3/4	-114	10-24	1 1/2			
-40	4-40	3/8	-80	6-32	1 7/8	-116	10-32	1/8			
						-117	10-32	3/16			

Thread Size	A	W	H
2	.120-.125	.134 min.	.040-.050
3	.181-.188	.202 min.	.044-.055
4	.181-.188	.202 min.	.049-.060
6	.244-.250	.272 min.	.080-.093
8	.244-.250	.272 min.	.096-.110
10	.305-.312	.340 min.	.105-.120
1/4	.367-.375	.409 min.	.172-.190

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

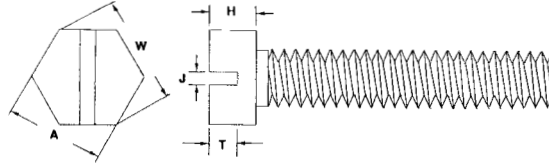
MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

HEX HEAD SLOTTED



Part No. JN112 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	2-56	3/32	-47	4-40	1 1/8	-83	8-32	3/16	-120	10-32	5/8
-4	2-56	1/8	-48	4-40	1 3/16	-84	8-32	1/4	-1210	10-32	13/16
-5	2-56	5/32	-49	4-40	1 1/4	-85	8-32	9/32	-121	10-32	3/4
-6	2-56	3/16	-50	4-40	1 3/8	-86	8-32	5/16	-122	10-32	7/8
-7	2-56	1/4	-51	4-40	1 1/2	-87	8-32	3/8	-123	10-32	1
-8	2-56	9/32	-510	4-40	1 5/8	-88	8-32	7/16	-1230	10-32	1 1/16
-9	2-56	5/16	-52	4-40	1 3/4	-89	8-32	1/2	-124	10-32	1 1/4
-10	2-56	3/8	-53	4-48	1/4	-90	8-32	5/8	-125	10-32	1 1/2
-11	2-56	25/64	-56	6-32	3/32	-91	8-32	3/4	-126	10-32	1 3/4
-12	2-56	7/16	-57	6-32	1/8	-92	8-32	7/8	-127	10-32	2
-13	2-56	1/2	-58	6-32	5/32	-93	8-32	1	-129	1/4-20	1/4
-14	2-56	9/16	-59	6-32	3/16	-94	8-32	1 1/8	-130	1/4-20	5/16
-15	2-56	5/8	-60	6-32	1/4	-95	8-32	1 1/4	-131	1/4-20	3/8
-16	2-56	3/4	-61	6-32	5/16	-96	8-32	1 3/8	-133	1/4-20	1/2
-17	2-56	7/8	-62	6-32	3/8	-97	8-32	1 1/2	-134	1/4-20	5/8
-18	2-56	1	-63	6-32	7/16	-98	8-32	1 3/4	-135	1/4-20	3/4
-180	2-56	1 1/8	-64	6-32	1/2	-99	8-32	1 7/8	-137	1/4-20	7/8
-19	2-64	3/16	-65	6-32	9/16	-100	8-32	2	-138	1/4-20	1
-20	2-64	3/8	-66	6-32	5/8	-101	10-24	1/8	-139	1/4-20	1 1/4
-280	4-36	1/2	-67	6-32	11/16	-102	10-24	3/16	-140	1/4-20	1 1/2
-29	4-40	3/32	-68	6-32	3/4	-103	10-24	1/4	-141	1/4-20	1 3/4
-30	4-40	1/8	-69	6-32	7/8	-104	10-24	5/16	-142	1/4-20	2
-31	4-40	9/64	-71	6-32	1	-105	10-24	3/8	-1420	1/4-20	2 1/2
-33	4-40	3/16	-72	6-32	1 1/8	-106	10-24	1/2	-143	1/4-28	3/16
-34	4-40	1/4	-73	6-32	1 1/4	-107	10-24	5/8	-1430	1/4-28	1/4
-35	4-40	9/32	-74	6-32	1 1/2	-108	10-24	3/4	-144	1/4-28	3/8
-36	4-40	5/16	-75	6-32	1 5/8	-109	10-24	1	-145	1/4-28	1/2
-37	4-40	3/8	-76	6-32	1 3/4	-110	10-24	1 1/4	-146	1/4-28	5/8
-38	4-40	7/16	-77	6-32	1 7/8	-111	10-24	1 1/2	-147	1/4-28	3/4
-39	4-40	1/2	-770	6-32	2	-113	10-32	1/8	-148	1/4-28	1
-40	4-40	9/16	-771	6-32	2 1/4	-114	10-32	3/16			
-41	4-40	5/8	-78	6-40	1/4	-115	10-32	1/4			
-42	4-40	11/16	-79	6-40	3/8	-116	10-32	5/16			
-43	4-40	3/4	-80	6-40	3/4	-117	10-32	3/8			
-44	4-40	7/8	-81	6-40	1	-118	10-32	7/16			
-45	4-40	1	-82	8-32	1/8	-119	10-32	1/2			

Thread Size	A	W	H	J	T
2	.120-.125	.134 min.	.040-.050	.024-.032	.021-.029
4	.181-.188	.202 min.	.049-.060	.031-.039	.025-.036
6	.244-.250	.272 min.	.080-.093	.039-.048	.033-.046
8	.244-.250	.272 min.	.096-.110	.045-.054	.052-.066
10	.305-.312	.340 min.	.105-.120	.050-.060	.057-.072
1/4	.367-.375	.409 min.	.172-.190	.064-.075	.083-.101

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

MOLDED NYLON MACHINE SCREWS (continued)

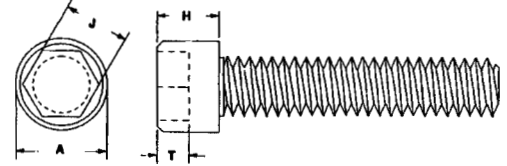
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

HEX SOCKET HEAD

Part No. JN116 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-5000	4-36	1/2	-37	6-32	1 1/4	-72	10-24	1 1/4	-1010	1/4-28	1/4
-1	4-40	3/32	-38	6-32	1 1/2	-73	10-24	1 1/2	-102	1/4-28	3/8
-2	4-40	1/8	-39	6-32	1 3/4	-74	10-32	1/8	-105	1/4-28	3/4
-3	4-40	9/64	-40	6-32	1 7/8	-75	10-32	3/16	-106	1/4-28	1
-4	4-40	3/16	-400	6-32	2 1/4	-76	10-32	1/4	-109	5/16-18	1/2
-5	4-40	1/4	-41	6-40	1/4	-77	10-32	5/16	-110	5/16-18	3/4
-6	4-40	9/32	-42	6-40	3/8	-78	10-32	3/8	-111	5/16-18	1
-7	4-40	5/16	-43	6-40	3/4	-79	10-32	1/2	-112*	5/16-18	1 1/4
-8	4-40	3/8	-44	6-40	1	-80	10-32	5/8	-113*	5/16-18	1 1/2
-9	4-40	7/16	-45	8-32	1/8	-81	10-32	3/4	-114*	5/16-18	2
-10	4-40	1/2	-46	8-32	3/16	-810	10-32	13/16	-115*	5/16-18	2 1/2
-11	4-40	9/16	-47	8-32	9/32	-82	10-32	7/8	-116*	5/16-18	3
-12	4-40	5/8	-48	8-32	1/4	-83	10-32	1	-117	3/8-16	1/2
-13	4-40	11/16	-49	8-32	5/16	-830	10-32	1 1/16	-118	3/8-16	3/4
-14	4-40	3/4	-50	8-32	3/8	-84	10-32	1 1/4	-119	3/8-16	1
-15	4-40	7/8	-51	8-32	7/16	-85	10-32	1 1/2	-120*	3/8-16	1 1/4
-16	4-40	1	-52	8-32	1/2	-86	10-32	2	-121*	3/8-16	1 1/2
-17	4-40	1 1/8	-53	8-32	5/8	-860	1/4-20	3/16	-122*	3/8-16	2
-18	4-40	1 1/4	-54	8-32	3/4	-861	1/4-20	1/4	-123*	3/8-16	2 1/2
-19	4-40	1 3/8	-55	8-32	7/8	-88	1/4-20	5/16	-124*	3/8-16	3
-20	4-40	1 1/2	-56	8-32	1	-89	1/4-20	3/8	-125	1/2-13	1/2
-22	6-32	3/32	-57	8-32	1 1/8	-91	1/4-20	1/2	-126	1/2-13	3/4
-23	6-32	1/8	-58	8-32	1 1/4	-92	1/4-20	5/8	-127	1/2-13	1
-24	6-32	5/32	-59	8-32	1 3/8	-93	1/4-20	3/4	-128*	1/2-13	1 1/4
-25	6-32	3/16	-60	8-32	1 1/2	-95	1/4-20	7/8	-129*	1/2-13	1 1/2
-26	6-32	1/4	-61	8-32	1 3/4	-96	1/4-20	1	-130*	1/2-13	2
-27	6-32	5/16	-62	8-32	2	-960	1/4-20	1 1/8	-131*	1/2-13	2 1/2
-28	6-32	3/8	-63	10-24	1/8	-97	1/4-20	1 1/4	-132*	1/2-13	3
-29	6-32	7/16	-64	10-24	3/16	-98	1/4-20	1 1/2	-133	5/8-11	1/2
-30	6-32	1/2	-65	10-24	1/4	-99	1/4-20	1 3/4	-134	5/8-11	3/4
-31	6-32	5/8	-66	10-24	5/16	-100*	1/4-20	2	-135	5/8-11	1
-32	6-32	11/16	-67	10-24	3/8	-1000*	1/4-20	2 1/4	-136	5/8-11	1 1/2
-33	6-32	3/4	-68	10-24	1/2	-1001*	1/4-20	2 1/2	-137	5/8-11	2
-34	6-32	7/8	-69	10-24	5/8	-1002	1/4-20	2 1/2	-138	5/8-11	2 1/2
-35	6-32	1	-70	10-24	3/4	-1004	1/4-20	3	-139	5/8-11	3
-36	6-32	1 1/8	-71	10-24	1	-101	1/4-28	3/16			

* Not full thread

Thread Size	A	H	J	T
4	.176-.183	.108-.112	3/32	.051
6	.218-.226	.134-.138	7/64	.064
8	.262-.270	.159-.164	9/64	.077
10	.303-.312	.185-.190	5/32	.090
1/4	.365-.375	.244-.250	3/16	.120
5/16	.457-.469	.306-.312	1/4	.151
3/8	.550-.562	.368-.375	5/16	.182
1/2	.735-.750	.492-.500	3/8	.245
5/8	.921-.938	.616-.625	1/2	.307

Nominal Screw Size	0 thru 3/8 incl.	7/16 thru 3/4 incl.	7/8 thru 1 1/2 incl.	Over 1 1/2
Nominal Screw Length	Tolerance on length			
Up to 1.00 in., incl.	-0.03	-0.03	-0.05	----
Over 1.00 to 2.50 in., incl.	-0.04	-0.06	-0.10	-0.18
Over 2.50 to 6.00 in., incl.	-0.06	-0.08	-0.14	-0.20
Over 6.00 in.	-0.12	-0.12	-0.20	-0.24

MOLDED NYLON MACHINE SCREWS (continued)

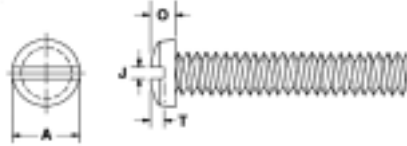
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

BINDING HEAD SLOTTED

Part No. JN117 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	2-56	3/32	-45	4-40	1	-81	6-40	1	-118	10-32	3/8
-4	2-56	1/8	-47	4-40	1 1/8	-82	8-32	1/8	-119	10-32	7/16
-5	2-56	5/32	-48	4-40	1 3/16	-83	8-32	3/16	-120	10-32	1/2
-6	2-56	3/16	-49	4-40	1 1/4	-85	8-32	1/4	-121	10-32	5/8
-7	2-56	1/4	-50	4-40	1 3/8	-86	8-32	9/32	-122	10-32	3/4
-8	2-56	9/32	-51	4-40	1 1/2	-87	8-32	5/16	-1220	10-32	13/16
-9	2-56	5/16	-510	4-40	1 5/8	-88	8-32	3/8	-123	10-32	7/8
-10	2-56	3/8	-52	4-40	1 3/4	-89	8-32	7/16	-124	10-32	1
-11	2-56	25/64	-53	4-48	1/4	-90	8-32	1/2	-1240	10-32	1 1/16
-12	2-56	7/16	-56	6-32	3/32	-91	8-32	5/8	-125	10-32	1 1/4
-13	2-56	1/2	-57	6-32	1/8	-92	8-32	3/4	-126	10-32	1 1/2
-14	2-56	9/16	-58	6-32	5/32	-93	8-32	7/8	-127	10-32	1 3/4
-15	2-56	5/8	-59	6-32	3/16	-94	8-32	1	-128	10-32	2
-16	2-56	3/4	-60	6-32	1/4	-95	8-32	1 1/8	-130	1/4-20	1/4
-17	2-56	7/8	-61	6-32	5/16	-96	8-32	1 1/4	-131	1/4-20	5/16
-18	2-56	1	-62	6-32	3/8	-97	8-32	1 3/8	-132	1/4-20	3/8
-180	2-56	1 1/8	-63	6-32	7/16	-98	8-32	1 1/2	-134	1/4-20	1/2
-19	2-64	3/16	-64	6-32	1/2	-99	8-32	1 3/4	-135	1/4-20	5/8
-20	2-64	3/8	-65	6-32	9/16	-100	8-32	1 7/8	-136	1/4-20	3/4
-280	4-36	1/2	-66	6-32	5/8	-101	8-32	2	-138	1/4-20	7/8
-29	4-40	3/32	-67	6-32	11/16	-102	10-24	1/8	-139	1/4-20	1
-30	4-40	1/8	-68	6-32	3/4	-103	10-24	3/16	-140	1/4-20	1 1/4
-31	4-40	9/64	-69	6-32	7/8	-104	10-24	1/4	-141	1/4-20	1 1/2
-33	4-40	3/16	-71	6-32	1	-105	10-24	5/16	-142	1/4-20	1 3/4
-34	4-40	1/4	-72	6-32	1 1/8	-106	10-24	3/8	-143	1/4-20	2
-35	4-40	9/32	-73	6-32	1 1/4	-107	10-24	1/2	-1430	1/4-20	2 1/2
-36	4-40	5/16	-74	6-32	1 1/2	-108	10-24	5/8	-144	1/4-28	3/16
-37	4-40	3/8	-75	6-32	1 5/8	-109	10-24	3/4	-1440	1/4-28	1/4
-38	4-40	7/16	-76	6-32	1 3/4	-110	10-24	1	-145	1/4-28	3/8
-39	4-40	1/2	-77	6-32	1 7/8	-111	10-24	1 1/4	-147	1/4-28	5/8
-40	4-40	9/16	-770	6-32	2	-112	10-24	1 1/2	-148	1/4-28	3/4
-41	4-40	5/8	-771	6-32	2 1/4	-114	10-32	1/8	-149	1/4-28	1
-42	4-40	11/16	-78	6-40	1/4	-115	10-32	3/16			
-43	4-40	3/4	-79	6-40	3/8	-116	10-32	1/4			
-44	4-40	7/8	-80	6-40	3/4	-117	10-32	5/16			

Thread Size	A	O	J	T
2	.171-.181	.043-.050	.023-.031	.020-.030
4	.223-.235	.061-.068	.031-.039	.030-.042
6	.275-.290	.078-.087	.039-.048	.040-.053
8	.326-.344	.095-.105	.045-.054	.050-.065
10	.378-.399	.112-.123	.050-.060	.060-.077
1/4	.498-.525	.152-.165	.064-.075	.084-.105

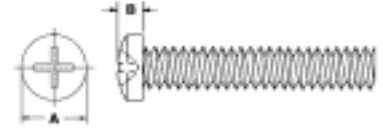
Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.



BINDING HEAD PHILLIPS

Part No. JN118 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-2	4-40	1/8	-30	6-32	7/16	-48	8-32	1 1/4	-73	10-32	3/4
-4	4-40	3/16	-31	6-32	1/2	-50	8-32	1 1/2	-74	10-32	7/8
-5	4-40	1/4	-32	6-32	5/8	-54	10-24	1/8	-75	10-32	1
-6	4-40	9/32	-33	6-32	3/4	-56	10-24	1/4	-76	10-32	1 1/4
-7	4-40	5/16	-330	6-32	7/8	-58	10-24	3/8	-77	10-32	1 1/2
-8	4-40	3/8	-34	6-32	1	-59	10-24	1/2	-80	1/4-20	1/4
-9	4-40	7/16	-340	6-32	1 1/4	-60	10-24	5/8	-81	1/4-20	5/16
-10	4-40	1/2	-341	6-32	1 1/2	-61	10-24	3/4	-82	1/4-20	3/8
-12	4-40	5/8	-35	8-32	1/8	-62	10-24	1	-820	1/4-20	7/16
-14	4-40	3/4	-36	8-32	3/16	-63	10-24	1 1/4	-83	1/4-20	1/2
-15	4-40	7/8	-37	8-32	1/4	-64	10-24	1 1/2	-84	1/4-20	5/8
-16	4-40	1	-39	8-32	5/16	-65	10-32	1/8	-85	1/4-20	3/4
-19	4-40	1 1/4	-40	8-32	3/8	-66	10-32	3/16	-86	1/4-20	7/8
-21	4-40	1 1/2	-41	8-32	7/16	-67	10-32	1/4	-87	1/4-20	1
-25	6-32	1/8	-42	8-32	1/2	-68	10-32	5/16	-88	1/4-20	1 1/4
-26	6-32	3/16	-43	8-32	5/8	-69	10-32	3/8	-89	1/4-20	1 1/2
-27	6-32	1/4	-44	8-32	3/4	-70	10-32	7/16			
-28	6-32	5/16	-45	8-32	7/8	-71	10-32	1/2			
-29	6-32	3/8	-46	8-32	1	-72	10-32	5/8			

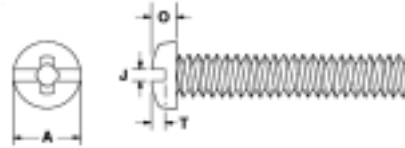
Thread Size	A	B
4-40	.229	.065
6-32	.280	.080
8-32	.335	.100
10-32	.389	.117
10-24	.389	.117
1/4-20	.511	.158

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

BINDER HEAD COMBINATION DRIVE



Part No. JN128 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	3/32	-34	4-40	7/8	-67	8-32	3/16	-100	10-32	3/8
-2	2-56	1/8	-35	4-40	1	-68	8-32	1/4	-101	10-32	7/16
-3	2-56	5/32	-36	4-40	1 1/8	-69	8-32	9/32	-102	10-32	1/2
-4	2-56	3/16	-37	4-40	1 3/16	-70	8-32	5/16	-103	10-32	5/8
-5	2-56	1/4	-38	4-40	1 1/4	-71	8-32	3/8	-104	10-32	3/4
-6	2-56	9/32	-39	4-40	1 3/8	-72	8-32	7/16	-105	10-32	13/16
-7	2-56	5/16	-40	4-40	1 1/2	-73	8-32	1/2	-106	10-32	7/8
-8	2-56	3/8	-41	4-40	1 5/8	-74	8-32	5/8	-107	10-32	1
-9	2-56	25/64	-42	4-40	1 3/4	-75	8-32	3/4	-108	10-32	1 1/16
-10	2-56	7/16	-43	6-32	3/32	-76	8-32	7/8	-109	10-32	1 1/4
-11	2-56	1/2	-44	6-32	1/8	-77	8-32	1	-110	10-32	1 1/2
-12	2-56	9/16	-45	6-32	5/32	-78	8-32	1 1/8	-111	10-32	1 3/4
-13	2-56	5/8	-46	6-32	3/16	-79	8-32	1 1/4	-112	10-32	2
-14	2-56	3/4	-47	6-32	1/4	-80	8-32	1 3/8	-113	1/4-20	1/4
-15	2-56	7/8	-48	6-32	5/16	-81	8-32	1 1/2	-114	1/4-20	5/16
-16	2-56	1	-49	6-32	3/8	-82	8-32	1 3/4	-115	1/4-20	3/8
-17	2-56	1 1/8	-50	6-32	7/16	-83	8-32	1 7/8	-116	1/4-20	1/2
-18	2-64	3/16	-51	6-32	1/2	-84	8-32	2	-117	1/4-20	5/8
-19	2-64	3/8	-52	6-32	9/16	-85	10-24	1/8	-118	1/4-20	3/4
-20	4-40	3/32	-53	6-32	5/8	-86	10-24	3/16	-119	1/4-20	7/8
-21	4-40	1/8	-54	6-32	11/16	-87	10-24	1/4	-120	1/4-20	1
-22	4-40	9/64	-55	6-32	3/4	-88	10-24	5/16	-121	1/4-20	1 1/4
-23	4-40	7/8	-56	6-32	7/8	-89	10-24	3/8	-122	1/4-20	1 1/2
-24	4-40	1/4	-57	6-32	1	-90	10-24	1/2	-123	1/4-20	1 3/4
-25	4-40	9/32	-58	6-32	1 1/8	-91	10-24	5/8	-124	1/4-20	2
-26	4-40	5/16	-59	6-32	1 1/4	-92	10-24	3/4	-125	1/4-20	2 1/2
-27	4-40	3/8	-60	6-32	1 1/2	-93	10-24	1	-126	1/4-28	3/16
-28	4-40	7/16	-61	6-32	1 5/8	-94	10-24	1 1/4	-127	1/4-28	1/4
-29	4-40	1/2	-62	6-32	1 3/4	-95	10-24	1 1/2	-128	1/4-28	3/8
-30	4-40	9/16	-63	6-32	1 7/8	-96	10-32	1/8	-129	1/4-28	5/8
-31	4-40	5/8	-64	6-32	2	-97	10-32	3/16	-130	1/4-28	3/4
-32	4-40	11/16	-65	6-32	2 1/4	-98	10-32	1/4	-131	1/4-28	1
-33	4-40	3/4	-66	8-32	1/8	-99	10-32	5/16			

Thread Size	A	O	J	T
2	.171-.181	.066-.072	.023-.031	.040-.046
4	.223-.235	.071-.077	.031-.039	.042-.048
6	.275-.290	.091-.097	.039-.048	.052-.059
8	.326-.344	.095-.105	.045-.054	.050-.065
10	.378-.399	.112-.123	.050-.060	.060-.077
1/4	.498-.525	.152-.165	.064-.075	.084-.105

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

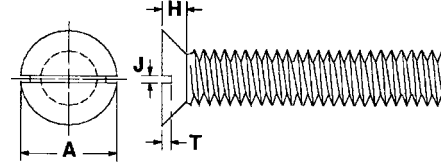
MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

FLAT HEAD 82° SLOTTED



Part No. JN121 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-800	1-72	1/4	-44	4-40	5/8	-70	6-32	1 1/4	-105	10-32	3/4
-9	1-72	5/16	-45	4-40	3/4	-71	8-32	1/8	-106	10-32	7/8
-1000	1-72	1/2	-47	4-40	1	-72	8-32	1/4	-108	10-32	1
-14	2-56	3/16	-49	4-40	1 1/8	-73	8-32	5/16	-110	10-32	1 1/4
-16	2-56	1/4	-50	4-40	1 3/16	-74	8-32	3/8	-111	10-32	1 1/2
-17	2-56	5/16	-51	4-40	1 1/4	-75	8-32	7/16	-112	1/4-20	1/4
-18	2-56	3/8	-52	4-40	1 3/8	-76	8-32	1/2	-116	1/4-20	1/2
-19	2-56	7/16	-53	4-40	1 1/2	-77	8-32	9/16	-118	1/4-20	5/8
-20	2-56	1/2	-54	4-40	1 3/4	-78	8-32	5/8	-120	1/4-20	3/4
-22	2-56	9/16	-540	4-48	5/32	-80	8-32	3/4	-122	1/4-20	7/8
-222	2-56	5/8	-542	4-48	1/4	-82	8-32	1	-123	1/4-20	1
-25	2-56	3/4	-55	6-32	3/16	-84	8-32	1 1/4	-125	1/4-20	1 1/4
-250	4-40	1/8	-56	6-32	1/4	-840	8-32	1 1/2	-127	1/4-20	1 1/2
-30	4-40	5/32	-57	6-32	5/16	-89	10-24	1/2	-1274	1/4-20	1 3/4
-31	4-40	3/16	-58	6-32	3/8	-91	10-24	3/4	-128	1/4-20	2
-33	4-40	1/4	-61	6-32	1/2	-93	10-24	1	-129	1/4-20	2 1/2
-35	4-40	5/16	-63	6-32	5/8	-97	10-32	1/4	-134	5/16-18	1
-37	4-40	3/8	-65	6-32	3/4	-98	10-32	5/16	-1415	3/8-16	1 3/4
-41	4-40	1/2	-67	6-32	1	-99	10-32	3/8			
-42	4-40	9/16	-69	6-32	1 1/8	-101	10-32	1/2			

Thread Size	A	H *	J	T
1	.126-.148	.043	.019-.026	.012-.019
2	.147-.172	.051	.023-.031	.015-.023
4	.195-.225	.067	.031-.039	.020-.030
6	.244-.279	.083	.039-.048	.024-.038
8	.292-.332	.100	.045-.054	.029-.045
10	.340-.385	.116	.050-.060	.034-.053
1/4	.452-.507	.153	.064-.075	.046-.070
5/16	.568-.635	.191	.072-.084	.058-.088
3/8	.685-.762	.230	.081-.094	.070-.106

* For Reference Only

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

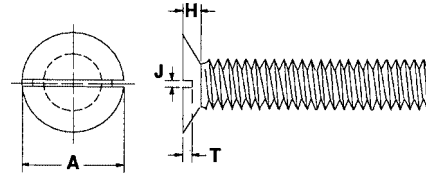
MOLDED NYLON MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

FLAT HEAD SLOTTED 100°



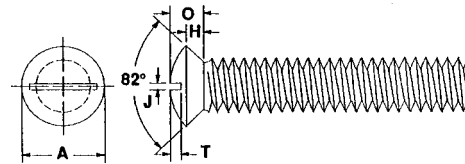
Part No. JN123 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/8	-12	4-40	17/32	-27	6-32	1	-48	10-32	11/16
-2	2-56	3/16	-14	4-40	5/8	-28	6-32	1 1/8	-53	1/4-20	3/8
-200	2-56	5/16	-160	4-40	3/16	-280	6-32	1 1/2	-57	1/4-20	3/4
-3	2-56	1/2	-17	4-40	1	-30	8-32	3/8	-570	1/4-20	1
-300	2-56	5/8	-171	6-32	3/16	-33	8-32	17/32	-59	1/4-20	7/8
-6	4-40	1/4	-20	6-32	1/4	-37	8-32	1	-60	1/4-20	1 1/16
-7	4-40	5/16	-21	6-32	3/8	-41	10-24	13/16	-61	1/4-20	1 1/8
-9	4-40	3/8	-24	6-32	1/2	-46	10-32	1/2			
-11	4-40	1/2	-25	6-32	5/8						

Thread Size	A	H*	J	T	Thread Size	A	H*	J	T
2	.143-.172	.037	.023-.031	.012-.019	8	.285-.332	.072	.045-.054	.027-.036
4	.193-.225	.049	.031-.039	.017-.024	10	.333-.385	.083	.050-.060	.031-.042
6	.238-.279	.060	.039-.048	.022-.030	1/4	.442-.507	.110	.064-.075	.042-.055

*For Reference Only

OVAL HEAD SLOTTED 82°



Part No. JN125 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-2	2-56	3/16	-29	4-40	1	-530	6-32	1 3/4	-81	10-32	3/8
-3	2-56	1/4	-31	4-40	1 1/8	-55	8-32	1/8	-83	10-32	1/2
-4	2-56	5/16	-32	4-40	1 3/16	-56	8-32	1/4	-87	10-32	3/4
-5	2-56	3/8	-33	4-40	1 1/4	-57	8-32	5/16	-89	10-32	7/8
-6	2-56	7/16	-34	4-40	1 3/8	-58	8-32	3/8	-90	10-32	1
-7	2-56	1/2	-35	4-40	1 1/2	-59	8-32	7/16	-92	10-32	1 1/4
-8	2-56	9/16	-350	4-40	1 3/4	-60	8-32	1/2	-93	10-32	1 1/2
-80	2-56	5/8	-37	4-48	5/32	-61	8-32	9/16	-94	1/4-20	1/4
-10	2-56	3/4	-372	4-48	1/4	-62	8-32	5/8	-98	1/4-20	1/2
-11	4-40	1/8	-38	6-32	1/4	-64	8-32	3/4	-100	1/4-20	5/8
-12	4-40	5/32	-41	6-32	5/16	-66	8-32	1	-102	1/4-20	3/4
-13	4-40	3/16	-42	6-32	3/8	-68	8-32	1 1/4	-104	1/4-20	7/8
-15	4-40	1/4	-45	6-32	1/2	-72	10-24	1/2	-105	1/4-20	1
-17	4-40	5/16	-47	6-32	5/8	-74	10-24	3/4	-107	1/4-20	1 1/4
-19	4-40	3/8	-49	6-32	3/4	-76	10-24	1	-108	1/4-20	1 1/2
-23	4-40	1/2	-51	6-32	1	-78	10-24	1 1/4	-1080	1/4-20	1 3/4
-25	4-40	9/16	-52	6-32	1 1/8	-79	10-32	1/4	-109	1/4-20	2
-26	4-40	5/8	-53	6-32	1 1/4	-80	10-32	5/16	-110	1/4-20	2 1/2
-27	4-40	3/4									

Thread Size	A	H*	O	J	T	Thread Size	A	H*	O	J	T
2	.147-.172	.051	.063-.080	.023-.031	.037-.045	8	.292-.332	.100	.126-.152	.045-.054	.072-.088
4	.195-.225	.067	.084-.104	.031-.039	.049-.059	10	.340-.385	.116	.148-.176	.050-.060	.084-.103
6	.244-.279	.083	.105-.128	.039-.048	.060-.074	1/4	.452-.507	.153	.197-.232	.064-.075	.112-.136

*For Reference Only

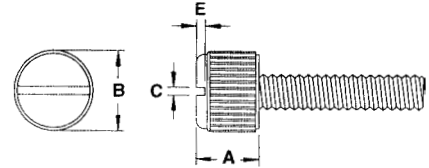
MOLDED NYLON THUMB SCREWS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

SLOTTED THUMB SCREW



Part No. QN101 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-22	4-40	3/32	-49	6-32	3/32	-706	6-40	3/8	-95	10-24	3/16	-117	10-32	1 1/4
-23	4-40	1/8	-50	6-32	1/8	-73	6-40	3/4	-96	10-24	1/4	-118	10-32	1 1/2
-24	4-40	9/64	-51	6-32	5/32	-74	6-40	1	-97	10-24	5/16	-119	10-32	1 3/4
-26	4-40	3/16	-52	6-32	3/16	-75	8-32	1/8	-98	10-24	3/8	-120	10-32	2
-27	4-40	1/4	-53	6-32	1/4	-76	8-32	3/16	-99	10-24	1/2	-122	1/4-20	1/4
-28	4-40	9/32	-54	6-32	5/16	-77	8-32	1/4	-100	10-24	5/8	-123	1/4-20	5/16
-29	4-40	5/16	-55	6-32	3/8	-78	8-32	9/32	-101	10-24	3/4	-124	1/4-20	3/8
-30	4-40	3/8	-56	6-32	7/16	-79	8-32	5/16	-102	10-24	1	-126	1/4-20	1/2
-31	4-40	7/16	-57	6-32	1/2	-80	8-32	3/8	-103	10-24	1 1/4	-127	1/4-20	5/8
-32	4-40	1/2	-58	6-32	9/16	-81	8-32	7/16	-104	10-24	1 1/2	-128	1/4-20	3/4
-33	4-40	9/16	-59	6-32	5/8	-82	8-32	1/2	-106	10-32	1/8	-129	1/4-20	7/8
-34	4-40	5/8	-60	6-32	11/16	-83	8-32	5/8	-107	10-32	3/16	-130	1/4-20	1
-340	4-40	11/16	-61	6-32	3/4	-84	8-32	3/4	-108	10-32	1/4	-131	1/4-20	1 1/4
-341	4-40	3/4	-62	6-32	7/8	-85	8-32	7/8	-109	10-32	5/16	-132	1/4-20	1 1/2
-37	4-40	7/8	-64	6-32	1	-86	8-32	1	-110	10-32	3/8	-133	1/4-20	1 3/4
-38	4-40	1	-65	6-32	1 1/8	-87	8-32	1 1/8	-111	10-32	7/16	-134	1/4-20	2
-40	4-40	1 1/8	-66	6-32	1 1/4	-88	8-32	1 1/4	-112	10-32	1/2	-1340	1/4-20	2 1/2
-41	4-40	1 3/16	-67	6-32	1 1/2	-89	8-32	1 3/8	-113	10-32	5/8	-135	1/4-28	3/16
-42	4-40	1 1/4	-68	6-32	1 5/8	-90	8-32	1 1/2	-114	10-32	3/4	-1350	1/4-28	1/4
-43	4-40	1 3/8	-69	6-32	1 3/4	-91	8-32	1 3/4	-115	10-32	7/8	-136	1/4-28	3/8
-44	4-40	1 1/2	-70	6-32	1 7/8	-92	8-32	1 7/8	-1150	10-32	13/16	-137	1/4-28	1/2
-45	4-40	1 3/4	-700	6-32	2 1/4	-93	8-32	2	-116	10-32	1	-139	1/4-28	3/4
-46	4-48	1/4	-705	6-40	1/4	-94	10-24	1/8	-1160	10-32	1 1/16	-140	1/4-28	1

Thread Size	B	A	C	E	Thread Size	B	A	C	E
4	.317	.216	.039	.045	10	.395	.305	.040	.060
6	.336	.243	.035	.051	1/4	.480	.305	.045	.060
8	.381	.280	.049	.040					

MOLDED NYLON THUMB SCREWS (continued)

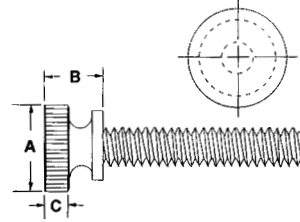
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

KNURLED THUMB SCREW

Part No. JN100 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-100	4-40	3/16	-9	6-32	1	-18	10-24	1 1/4	-24	10-32	2	-33	5/16-18	2
-1	4-40	1/4	-10	8-32	3/16	-19	10-24	2	-25	1/4-20	1/2	-34	3/8-16	1/2
-2	4-40	3/8	-100	8-32	1/4	-20	10-32	3/8	-26	1/4-20	3/4	-35	3/8-16	1
-3	4-40	1/2	-11	8-32	3/8	-21	10-32	1/2	-27	1/4-20	1	-36	3/8-16	1 1/2
-4	4-40	3/4	-12	8-32	1/2	-210	10-32	5/8	-28	1/4-20	1 1/4	-37	3/8-16	2
-5	6-32	1/4	-13	8-32	3/4	-22	10-32	3/4	-29	1/4-20	1 1/2	-38	1/2-13	1/2
-6	6-32	3/8	-14	8-32	1	-23	10-32	1	-30	5/16-18	1/2	-39	1/2-13	1
-7	6-32	1/2	-15	10-24	1/2	-2300	10-32	1 1/16	-31	5/16-18	1	-40	1/2-13	1 1/2
-8	6-32	3/4	-16	10-24	3/4	-230	10-32	1 1/2	-32	5/16-18	1 1/2	-41	1/2-13	2
			-17	10-24	1									

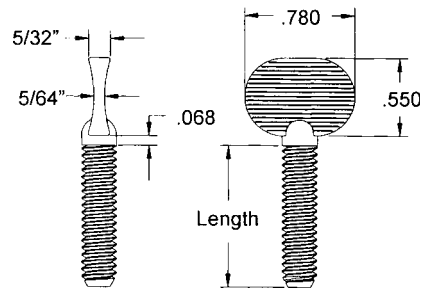
Thread Size	A	B	C	Thread Size	A	B	C
4	.300	.280	.125	1/4	.540	.365	.155
6	.360	.275	.125	5/16	.615	.385	.171
8	.425	.305	.140	3/8	.687	.430	.187
10	.425	.325	.140	1/2	.750	.468	.203

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

OVAL HEAD THUMB SCREW

Part No. JN102 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length
-1	1/4-20	3/8
-2	1/4-20	1/2
-3	1/4-20	5/8
-4	1/4-20	1
-5	1/4-20	1 1/2
-6	1/4-20	1 3/4
-7	1/4-20	2
-8	1/4-20	2 1/2



Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	---	-0.06	-0.06
Over 2 in.	---	-0.09	-0.09

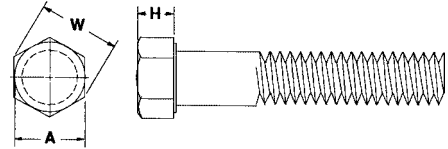
MOLDED NYLON CAP SCREWS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

HEX HEAD CAP SCREW



Part No. IN201 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	1/4-20	3/8	-30	5/16-18	1 1/4	-50	3/8-16	3 1/2	-71	1/2-13	6
-5	1/4-20	1/2	-301	5/16-18	1 3/8	-51	3/8-16	4	-72	5/8-11	1/2
-6	1/4-20	5/8	-31	5/16-18	1 1/2	-52	3/8-16	4 1/2	-73	5/8-11	3/4
-7	1/4-20	3/4	-32	5/16-18	2	-53	3/8-16	5	-74	5/8-11	1
-9	1/4-20	1	-33	5/16-18	2 1/2	-54	3/8-16	5 1/2	-75	5/8-11	1 1/2
-10	1/4-20	1 1/4	-34	5/16-18	3	-55	3/8-16	6	-76	5/8-11	2
-11	1/4-20	1 1/2	-35	5/16-18	3 1/2	-550	3/8-24	1/2	-77	5/8-11	2 1/2
-111•	1/4-20	1 3/4	-36	5/16-18	4	-551	3/8-24	1 1/2	-78	5/8-11	3
-12	1/4-20	2	-37	5/16-18	4 1/2	-552	3/8-24	1 1/2	-79	5/8-11	3 1/2
-121	1/4-20	2 1/8	-38	5/16-18	5	-56	1/2-13	1/2	-80	5/8-11	4
-122	1/4-20	2 1/4	-39	5/16-18	5 1/2	-57	1/2-13	3/4	-800•	5/8-11	4
-13	1/4-20	2 1/2	-40	5/16-18	6	-58	1/2-13	7/8	-81	5/8-11	4 1/2
-131•	1/4-20	2 1/2	-41	5/16-24	1/2	-59	1/2-13	1	-82	5/8-11	5
-132	1/4-20	2 3/4	-410	5/16-24	1 1/2	-60	1/2-13	1 1/4	-83	5/8-11	5 1/2
-14	1/4-20	3	-412•	5/16-24	1 1/2	-61	1/2-13	1 1/2	-84	5/8-11	6
-15	1/4-20	3 1/2	-42	3/8-16	1/2	-610	1/2-13	1 3/4	-85	3/4-10	3/4
-16	1/4-20	4	-43	3/8-16	3/4	-63	1/2-13	2	-91•	3/4-10	4
-17	1/4-20	4 1/2	-44	3/8-16	1	-64	1/2-13	2 1/2	-94	3/4-10	5 1/2
-18	1/4-20	5	-45	3/8-16	1 1/4	-65	1/2-13	3	-96	7/8-9	3/4
-19	1/4-20	5 1/2	-46	3/8-16	1 1/2	-66	1/2-13	3 1/2	-97•	7/8-9	4 1/2
-20	1/4-20	6	-47	3/8-16	2	-67	1/2-13	4			
-27	5/16-18	1/2	-470•	3/8-16	2	-68	1/2-13	4 1/2			
-28	5/16-18	3/4	-48	3/8-16	2 1/2	-69	1/2-13	5			
-29	5/16-18	1	-49	3/8-16	3	-70	1/2-13	5 1/2			

• Full Threaded

Thread Size	A	W	H
1/4	.425-.438	.484-.505	.150-.188
5/16	.484-.500	.552-.577	.195-.235
3/8	.544-.562	.620-.650	.226-.268
1/2	.725-.750	.826-.866	.302-.364
5/8	.906-.938	1.033-1.083	.378-.444
3/4	1.088-1.125	1.240-1.299	.455-.524
7/8	1.269-1.312	1.447-1.516	.531-.604

Nominal Length	1/4-3/8	7/16-1/2	9/16-3/4	7/8-1	1 1/8-1 1/2	over 1 1/2
Up to 1 in., incl.	+0.02 -0.03	+0.02 -0.03	-0.02 -0.03	----- -----	----- -----	----- -----
Over 1 in. to 2 1/2 in., incl.	+0.02 -0.04	+0.04 -0.06	+0.06 -0.08	+0.08 -0.10	+0.12 -0.12	+0.18 -0.18
Over 2 1/2 to 4 in., incl.	+0.04 -0.06	+0.06 -0.08	-0.08 -0.10	+0.10 -0.14	+0.16 -0.16	+0.20 -0.20
Over 4 in. to 6 in., incl.	+0.06 -0.10	-0.08 -0.10	+0.10 -0.10	+0.12 -0.16	+0.18 -0.18	+0.22 -0.22
Longer than 6 in.	+0.10 -0.18	+0.12 -0.18	+0.14 -0.18	+0.16 -0.20	+0.22 -0.22	+0.24 -0.24

MOLDED NYLON CAP SCREWS (continued)

*Available in the following materials:

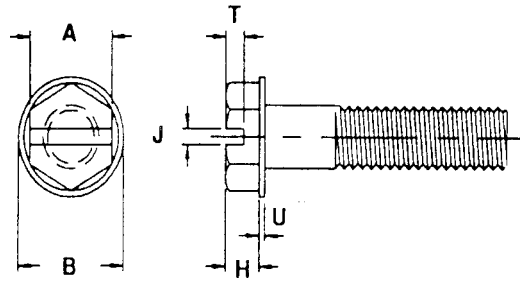
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See material list in index.
Other sizes available on request.

SLOTTED HEX WASHER CAP SCREW

Part No. IN202 - (Size Code No.) - (Material Code No.)

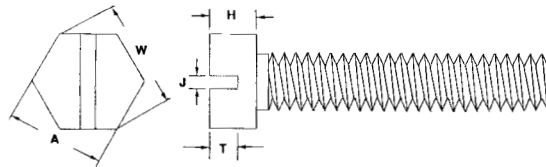
Size Code No.	Thread Size	Length
-1	3/8-16	1/2
-2	3/8-16	3/4
-3	3/8-16	1
-4	3/8-16	1 1/4
-5	3/8-16	1 1/2
-6	3/8-16	2
-7	3/8-16	2 1/2
-8	3/8-16	3



Thread Size	A	B	H	U	J	T
3/8	.558	.745	.282	.050	.087	.149

SLOTTED HEX HEAD CAP SCREW

Part No. IN200 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	1/4-20	3/8	-29	5/16-18	1	-46	3/8-16	1 1/2	-66	1/2-13	3 1/2
-5	1/4-20	1/2	-30	5/16-18	1 1/4	-47	3/8-16	2	-67	1/2-13	4
-6	1/4-20	5/8	-300	5/16-18	1 3/8	-48	3/8-16	2 1/2	-68	1/2-13	4 1/2
-7	1/4-20	3/4	-31	5/16-18	1 1/2	-49	3/8-16	3	-69	1/2-13	5
-9	1/4-20	1	-310	5/16-18	1 3/4	-50	3/8-16	3 1/2	-70	1/2-13	5 1/2
-10	1/4-20	1 1/4	-32	5/16-18	2	-51	3/8-16	4	-71	1/2-13	6
-11	1/4-20	1 1/2	-321*	5/16-18	2	-52	3/8-16	4 1/2	-72	5/8-11	1/2
-12	1/4-20	2	-33	5/16-18	2 1/2	-53	3/8-16	5	-73	5/8-11	3/4
-121	1/4-20	2 1/8	-34	5/16-18	3	-54	3/8-16	5 1/2	-74	5/8-11	1
-122	1/4-20	2 1/4	-35	5/16-18	3 1/2	-55	3/8-16	6	-75	5/8-11	1 1/2
-13	1/4-20	2 1/2	-36	5/16-18	4	-550	3/8-24	1/2	-76	5/8-11	2
-14	1/4-20	3	-37	5/16-18	4 1/2	-56	1/2-13	1/2	-77	5/8-11	2 1/2
-15	1/4-20	3 1/2	-38	5/16-18	5	-57	1/2-13	3/4	-78	5/8-11	3
-16	1/4-20	4	-39	5/16-18	5 1/2	-58	1/2-13	7/8	-79	5/8-11	3 1/2
-17	1/4-20	4 1/2	-40	5/16-18	6	-59	1/2-13	1	-80	5/8-11	4
-18	1/4-20	5	-41	5/16-24	1/2	-60	1/2-13	1 1/4	-800*	5/8-11	4
-19	1/4-20	5 1/2	-42	3/8-16	1/2	-61	1/2-13	1 1/2	-81	5/8-11	4 1/2
-20	1/4-20	6	-43	3/8-16	3/4	-63	1/2-13	2	-82	5/8-11	5
-27	5/16-18	1/2	-44	3/8-16	1	-64	1/2-13	2 1/2	-83	5/8-11	5 1/2
-28	5/16-18	3/4	-45	3/8-16	1 1/4	-65	1/2-13	3	-84	5/8-11	6

*Full Threaded

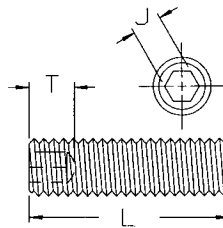
Thread Size	A	W	H	J	T
1/4	.425-.438	.484-.505	.150-.188	.070	.090
5/16	.484-.500	.552-.577	.195-.235	.080	.110
3/8	.544-.562	.620-.650	.226-.268	.090	.140
1/2	.725-.750	.826-.866	.302-.364	.075	.163
5/8	.906-.938	1.033-1.083	.378-.444	.110	.170

Nominal Length	1/4-3/8	7/16-1/2	9/16-3/4	7/8-1	1 1/8-1 1/2	over 1 1/2
Up to 1 in., incl.	+0.02 -0.03	+0.02 -0.03	-0.02 -0.03	----- -----	----- -----	----- -----
Over 1 in. to 2 1/2 in., incl.	+0.02 -0.04	+0.04 -0.06	+0.06 -0.08	+0.08 -0.10	+0.12 -0.12	+0.18 -0.18
Over 2 1/2 to 4 in., incl.	+0.04 -0.06	+0.06 -0.08	-0.08 -0.10	+0.10 -0.14	+0.16 -0.16	+0.20 -0.20
Over 4 in. to 6 in., incl.	+0.06 -0.10	-0.08 -0.10	+0.10 -0.10	+0.12 -0.16	+0.18 -0.18	+0.22 -0.22
Longer than 6 in.	+0.10 -0.18	+0.12 -0.18	+0.14 -0.18	+0.16 -0.20	+0.22 -0.22	+0.24 -0.24

MOLDED NYLON SET and GRUB SCREWS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Nominal Screw Length	Tolerance on Length
Up to 0.63, incl.	+/-0.01
Over 0.63 to 2.00, incl.	+/-0.02
Over 2.00 to 6.00, incl.	+/-0.03
Over 6.00	+/-0.06

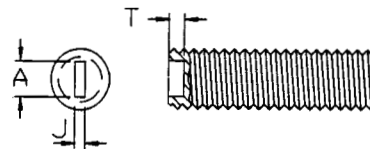
NYLON SOCKET SET SCREW

Part No. H101 - (Size Code No.) - (Material Code No.)

Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Thread Size	J	T
-1000	4-36	1/2	-26	6-32	1/8	-51	8-32	3/16	-78	10-24	1 1/4	-103	1/4-20	1 1/4	4	.050	.070
-1	4-40	3/32	-27	6-32	5/32	-52	8-32	1/4	-79	10-24	1 1/2	-104	1/4-20	1 1/2	6	.062	.080
-2	4-40	1/8	-28	6-32	3/16	-53	8-32	9/32	-80	10-32	1/8	-105	1/4-20	1 3/4	8	.078	.090
-3	4-40	9/64	-29	6-32	1/4	-54	8-32	5/16	-81	10-32	3/16	-106	1/4-20	2	10	.094	.100
-4	4-40	5/32	-30	6-32	5/16	-55	8-32	3/8	-82	10-32	1/4	-1060	1/4-20	2 1/2	1/4	.125	.125
-5	4-40	3/16	-31	6-32	3/8	-56	8-32	7/16	-83	10-32	5/16	-107	1/4-28	3/16	5/16	.156	.156
-6	4-40	1/4	-32	6-32	7/16	-57	8-32	1/2	-84	10-32	3/8	-1070	1/4-28	1/4	3/8	.188	.188
-7	4-40	9/32	-33	6-32	1/2	-58	8-32	5/8	-85	10-32	7/16	-108	1/4-28	3/8	1/2	.250	.250
-8	4-40	5/16	-34	6-32	9/16	-59	8-32	3/4	-86	10-32	1/2	-1080	1/4-28	5/8	5/8	.312	.312
-9	4-40	3/8	-35	6-32	5/8	-60	8-32	7/8	-87	10-32	5/8	-109	1/4-28	3/4	3/4	.370	.185
-10	4-40	7/16	-36	6-32	11/16	-61	8-32	1	-88	10-32	3/4	-110	1/4-28	1			
-11	4-40	1/2	-37	6-32	3/4	-62	8-32	1 1/8	-880	10-32	13/16	-111	5/16-18	1/2			
-12	4-40	9/16	-38	6-32	7/8	-63	8-32	1 1/4	-89	10-32	7/8	-112	5/16-18	3/4			
-13	4-40	5/8	-39	6-32	1	-64	8-32	1 3/8	-90	10-32	1	-113	5/16-18	1			
-14	4-40	11/16	-40	6-32	1 1/8	-65	8-32	1 1/2	-900	10-32	1 1/16	-114	3/8-16	1/2			
-15	4-40	3/4	-41	6-32	1 1/4	-66	8-32	1 3/4	-91	10-32	1 1/4	-115	3/8-16	3/4			
-16	4-40	7/8	-42	6-32	1 1/2	-67	8-32	1 7/8	-92	10-32	1 1/2	-116	3/8-16	1			
-17	4-40	1	-43	6-32	1 5/8	-68	8-32	2	-93	10-32	1 3/4	-117	1/2-13	1/2			
-18	4-40	1 1/8	-44	6-32	1 3/4	-69	10-24	1/8	-94	10-32	2	-118	1/2-13	3/4			
-19	4-40	1 3/16	-45	6-32	1 7/8	-70	10-24	3/16	-95	1/4-20	1/4	-119	1/2-13	1			
-20	4-40	1 1/4	-450	6-32	2	-71	10-24	1/4	-96	1/4-20	5/16	-120	1/2-13	1 1/4			
-21	4-40	1 3/8	-451	6-32	2 1/4	-72	10-24	5/16	-97	1/4-20	3/8	-121	5/8-11	1/2			
-22	4-40	1 1/2	-46	6-40	1/4	-73	10-24	3/8	-98	1/4-20	1/2	-122	5/8-11	3/4			
-220	4-40	1 5/8	-47	6-40	3/8	-74	10-24	1/2	-99	1/4-20	5/8	-123	5/8-11	1			
-23	4-40	1 3/4	-48	6-40	3/4	-75	10-24	5/8	-100	1/4-20	3/4	-124	5/8-11	1 1/2			
-24	4-48	1/4	-49	6-40	1	-76	10-24	3/4	-101	1/4-20	7/8	-125	3/4-10	1/4			
-25	6-32	3/32	-50	8-32	1/8	-77	10-24	1	-102	1/4-20	1						

NYLON SLOTTED GRUB SCREW

Part No. H105 - (Size Code No.) - (Material Code No.)



Thread Size	T	A	J
6	.030	.080	.025
8	.035	.080	.028
10	.050	.130	.035
1/4	.060	.160	.040
3/8	.100	.254	.064
1/2	.130	.350	.075
1	.178	.115	.516

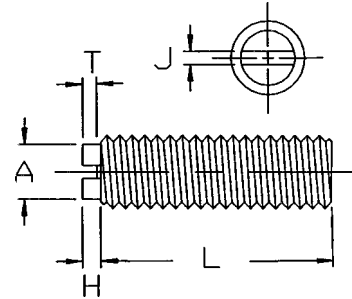
Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.	Size Code No.	Thrd. Size	Lgth.
-1	6-32	3/32	-18	6-32	1 1/2	-35	8-32	3/4	-52	10-24	3/4	-69	10-32	1 1/4	-86	1/4-28	3/16
-2	6-32	1/8	-19	6-32	1 5/8	-36	8-32	7/8	-53	10-24	1	-70	10-32	1 1/2	-87	1/4-28	1/4
-3	6-32	5/32	-20	6-32	1 3/4	-37	8-32	1	-54	10-24	1 1/4	-71	10-32	1 3/4	-88	1/4-28	3/8
-4	6-32	3/16	-21	6-32	1 7/8	-38	8-32	1 1/8	-55	10-24	1 1/2	-72	10-32	2	-89	1/4-28	5/8
-5	6-32	1/4	-22	6-40	1/4	-39	8-32	1 1/4	-56	10-32	1/8	-73	1/4-20	1/4	-90	1/4-28	3/4
-6	6-32	5/16	-23	6-40	3/8	-40	8-32	1 3/8	-57	10-32	3/16	-74	1/4-20	5/16	-91	1/4-28	1
-7	6-32	3/8	-24	6-40	3/4	-41	8-32	1 1/2	-58	10-32	1/4	-75	1/4-20	3/8	-92	3/8-16	1/2
-8	6-32	7/16	-25	6-40	1	-42	8-32	1 3/4	-59	10-32	5/16	-76	1/4-20	1/2	-93	3/8-16	3/4
-9	6-32	1/2	-26	8-32	1/8	-43	8-32	1 7/8	-60	10-32	3/8	-77	1/4-20	5/8	-94	3/8-16	1
-10	6-32	9/16	-27	8-32	3/16	-44	8-32	2	-61	10-32	7/16	-78	1/4-20	3/4	-95	1/2-13	1/2
-11	6-32	5/8	-28	8-32	1/4	-45	10-24	1/8	-62	10-32	1/2	-79	1/4-20	7/8	-96	1/2-13	3/4
-12	6-32	11/16	-29	8-32	9/32	-46	10-24	3/16	-63	10-32	5/8	-80	1/4-20	1	-97	1/2-13	1
-13	6-32	3/4	-30	8-32	5/16	-47	10-24	1/4	-64	10-32	3/4	-81	1/4-20	1 1/4	-98	1-8	5/8
-14	6-32	7/8	-31	8-32	3/8	-48	10-24	5/16	-65	10-32	13/16	-82	1/4-20	1 1/2			
-15	6-32	1	-32	8-32	7/16	-49	10-24	3/8	-66	10-32	7/8	-83	1/4-20	1 3/4			
-16	6-32	1 1/8	-33	8-32	1/2	-50	10-24	1/2	-67	10-32	1	-84	1/4-20	2			
-17	6-32	1 1/4	-34	8-32	5/8	-51	10-24	5/8	-68	10-32	1 1/16	-85	1/4-20	2 1/2			

MOLDED NYLON SET SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.



NYLON SLOTTED SET SCREW

Part No. H100 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-3	2-56	1/16	-45	4-40	1	-82	8-32	1/8	-119	10-32	5/8
-4	2-56	3/32	-47	4-40	1 1/8	-83	8-32	3/16	-120	10-32	3/4
-5	2-56	1/8	-48	4-40	1 3/16	-84	8-32	1/4	-1200	10-32	13/16
-6	2-56	5/32	-49	4-40	1 1/4	-85	8-32	9/32	-121	10-32	7/8
-7	2-56	3/16	-50	4-40	1 3/8	-86	8-32	5/16	-122	10-32	1
-8	2-56	1/4	-51	4-40	1 1/2	-87	8-32	3/8	-1220	10-32	1 1/16
-9	2-56	9/32	-510	4-40	1 5/8	-88	8-32	7/16	-123	10-32	1 1/4
-10	2-56	5/16	-52	4-40	1 3/4	-89	8-32	1/2	-124	10-32	1 1/2
-11	2-56	3/8	-53	4-48	1/4	-90	8-32	5/8	-125	10-32	1 3/4
-12	2-56	7/16	-56	6-32	3/32	-91	8-32	3/4	-126	10-32	2
-13	2-56	1/2	-57	6-32	1/8	-92	8-32	7/8	-128	1/4-20	1/4
-14	2-56	9/16	-58	6-32	5/32	-93	8-32	1	-129	1/4-20	5/16
-15	2-56	5/8	-59	6-32	3/16	-94	8-32	1 1/8	-130	1/4-20	3/8
-16	2-56	3/4	-60	6-32	1/4	-95	8-32	1 1/4	-132	1/4-20	1/2
-17	2-56	7/8	-61	6-32	5/16	-96	8-32	1 3/8	-133	1/4-20	5/8
-18	2-56	1	-62	6-32	3/8	-97	8-32	1 1/2	-134	1/4-20	3/4
-180	2-56	1 1/8	-63	6-32	7/16	-98	8-32	1 3/4	-135	1/4-20	7/8
-19	2-64	3/16	-64	6-32	1/2	-99	8-32	1 7/8	-136	1/4-20	1
-20	2-64	3/8	-65	6-32	9/16	-100	8-32	2	-137	1/4-20	1 1/4
-280	4-36	1/2	-66	6-32	5/8	-101	10-24	1/8	-138	1/4-20	1 1/2
-29	4-40	3/32	-67	6-32	11/16	-102	10-24	3/16	-139	1/4-20	1 3/4
-30	4-40	1/8	-68	6-32	3/4	-103	10-24	1/4	-140	1/4-20	2
-31	4-40	9/64	-69	6-32	7/8	-104	10-24	5/16	-1400	1/4-20	2 1/2
-32	4-40	5/32	-71	6-32	1	-105	10-24	3/8	-141	1/4-28	3/16
-33	4-40	3/16	-72	6-32	1 1/8	-106	10-24	1/2	-1410	1/4-28	1/4
-34	4-40	1/4	-73	6-32	1 1/4	-107	10-24	5/8	-142	1/4-28	3/8
-35	4-40	9/32	-74	6-32	1 1/2	-108	10-24	3/4	-144	1/4-28	5/8
-36	4-40	5/16	-75	6-32	1 5/8	-109	10-24	1	-145	1/4-28	3/4
-37	4-40	3/8	-76	6-32	1 3/4	-110	10-24	1 1/4	-146	1/4-28	1
-38	4-40	7/16	-77	6-32	1 7/8	-111	10-24	1 1/2	-1560	5/16-24	13/16
-39	4-40	1/2	-770	6-32	2	-113	10-32	1/8	-164*	3/8-24	5/16
-40	4-40	9/16	-771	6-32	2 1/4	-114	10-32	3/16			
-41	4-40	5/8	-78	6-40	1/4	-115	10-32	1/4			
-42	4-40	11/16	-79	6-40	3/8	-116	10-32	5/16			
-43	4-40	3/4	-80	6-40	3/4	-117	10-32	3/8			
-44	4-40	7/8	-81	6-40	1	-118	10-32	1/2			

*Slot is in threads.

Thread Size

Size	A	H	J	T
2	.055	.035	.018	.020
4	.075	.045	.020	.025
6	.100	.055	.025	.030
8	.120	.055	.028	.035
10	.150	.060	.035	.050
1/4	.175	.080	.040	.060
5/16	.246	.078	.051	.078

Nominal Screw Size	0000 thru 00	0 thru 12	1/4 thru 3/4
Nominal Screw Length	Tolerance on Length		
Up to 1/2 in., incl.	-0.01	-0.02	-0.03
Over 1/2 to 1 in., incl.	-0.02	-0.03	-0.03
Over 1 to 2 in., incl.	----	-0.06	-0.06
Over 2 in.	----	-0.09	-0.09

MOLDED NYLON METRIC MACHINE SCREWS

*Available in the following materials:

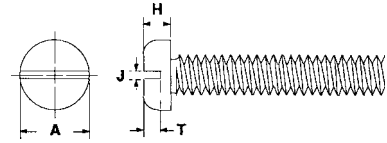
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON METRIC PAN HEAD

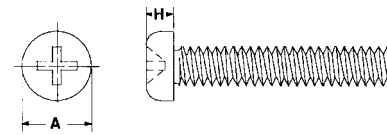
Slotted

Part No. DM244 - (Size Code No.) - (Material Code No.)



Phillips

Part No. DM245 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-100*	M2 x 0,4	3mm	-32	M3,5 x 0,6	6mm	-64	M6 x 1,00	8mm
-1	M2 x 0,4	4mm	-320	M3,5 x 0,6	7mm	-65	M6 x 1,00	10mm
-2	M2 x 0,4	5mm	-33	M3,5 x 0,6	8mm	-66	M6 x 1,00	12mm
-3	M2 x 0,4	6mm	-34	M3,5 x 0,6	10mm	-67	M6 x 1,00	16mm
-4	M2 x 0,4	8mm	-35	M3,5 x 0,6	12mm	-68	M6 x 1,00	20mm
-5	M2 x 0,4	10mm	-36	M3,5 x 0,6	16mm	-69	M6 x 1,00	22mm
-6	M2 x 0,4	12mm	-37	M3,5 x 0,6	20mm	-70	M6 x 1,00	25mm
-7	M2 x 0,4	16mm	-38	M3,5 x 0,6	25mm	-71	M6 x 1,00	30mm
-8	M2 x 0,4	20mm	-39	M3,5 x 0,6	35mm	-72	M6 x 1,00	35mm
-9	M2 x 0,4	25mm	-40	M3,5 x 0,6	42mm	-73	M6 x 1,00	40mm
-10	M2,5 x 0,45	4mm	-41	M4 x 0,7	3mm	-74	M6 x 1,00	45mm
-11	M2,5 x 0,45	5mm	-42	M4 x 0,7	6mm	-75	M6 x 1,00	50mm
-12	M2,5 x 0,45	6mm	-43	M4 x 0,7	8mm	-76	M6 x 1,00	60mm
-13	M2,5 x 0,45	8mm	-44	M4 x 0,7	10mm	-77	M6 x 1,00	70mm
-14	M2,5 x 0,45	10mm	-45	M4 x 0,7	12mm	-78	M6 x 1,00	75mm
-15	M2,5 x 0,45	12mm	-46	M4 x 0,7	16mm	-79	M8 x 1,25	10mm
-16	M2,5 x 0,45	16mm	-47	M4 x 0,7	20mm	-80	M8 x 1,25	16mm
-17	M2,5 x 0,45	20mm	-48	M4 x 0,7	25mm	-81	M8 x 1,25	20mm
-18	M2,5 x 0,45	25mm	-49	M4 x 0,7	30mm	-82	M8 x 1,25	25mm
-180**	M3 x 0,5	3mm	-50	M4 x 0,7	35mm	-83	M8 x 1,25	30mm
-19	M3 x 0,5	4mm	-51	M4 x 0,7	40mm	-84	M8 x 1,25	35mm
-20	M3 x 0,5	5mm	-52	M5 x 0,8	6mm	-85	M8 x 1,25	50mm
-21	M3 x 0,5	6mm	-53	M5 x 0,8	8mm	-86	M8 x 1,25	70mm
-22	M3 x 0,5	8mm	-54	M5 x 0,8	10mm	-87	M10 x 1,50	13mm
-23	M3 x 0,5	10mm	-55	M5 x 0,8	12mm	-88	M10 x 1,50	16mm
-24	M3 x 0,5	12mm	-56	M5 x 0,8	15mm	-89	M10 x 1,50	19mm
-25	M3 x 0,5	16mm	-57	M5 x 0,8	16mm	-90	M10 x 1,50	20mm
-26	M3 x 0,5	20mm	-58	M5 x 0,8	20mm	-91	M10 x 1,50	25mm
-27	M3 x 0,5	25mm	-59	M5 x 0,8	25mm	-92	M10 x 1,50	30mm
-28	M3 x 0,5	30mm	-60	M5 x 0,8	30mm	-93	M10 x 1,50	35mm
-29	M3 x 0,5	35mm	-61	M5 x 0,8	35mm	-94	M10 x 1,50	50mm
-30	M3 x 0,5	42mm	-62	M5 x 0,8	40mm	-95	M10 x 1,50	60mm
-31	M3,5 x 0,6	5mm	-63	M6 x 1,00	5mm			

*Slotted Only

**Phillips Only

Thread Size	A	DM244 H	DM245 H	J	T
M2	3,7-4,0	1,1-1,3	1,4-1,6	0,5-0,7	0,5 min.
M2,5	4,7-5,0	1,3-1,5	1,9-2,1	0,6-0,8	0,6 min.
M3	5,3-5,6	1,6-1,8	2,2-2,4	0,8-1,0	0,7 min.
M3,5	6,6-7,0	1,9-2,1	2,3-2,6	1,0-1,2	0,8 min.
M4	7,6-8,0	2,2-2,4	2,8-3,1	1,2-1,5	1,0 min.
M5	9,1-9,5	2,7-3,0	3,4-3,7	1,2-1,5	1,2 min.
M6	11,5-12,0	3,3-3,6	4,3-4,6	1,6-1,9	1,4 min.
M8	15,5-16,0	4,5-4,8	5,6-6,0	2,0-2,3	1,9 min.
M10	19,4-20,0	5,7-6,0	7,1-7,5	2,5-2,8	2,4 min.

Nominal Screw Length	Tolerance on Length
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

MOLDED NYLON METRIC MACHINE SCREWS (continued)

*Available in the following materials:

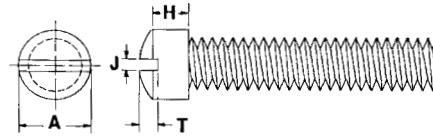
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON METRIC FILLISTER HEAD

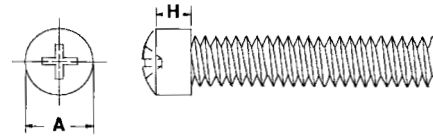
Slotted

Part No. **DM248** - (Size Code No.) - (Material Code No.)



Phillips

Part No. **DM247** - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M2 x 0,4	4mm	-33	M3,5 x 0,6	8mm	-66	M6 x 1,00	12mm
-2	M2 x 0,4	5mm	-34	M3,5 x 0,6	10mm	-67	M6 x 1,00	16mm
-3	M2 x 0,4	6mm	-35	M3,5 x 0,6	12mm	-68	M6 x 1,00	20mm
-4	M2 x 0,4	8mm	-36	M3,5 x 0,6	16mm	-69	M6 x 1,00	22mm
-5	M2 x 0,4	10mm	-37	M3,5 x 0,6	20mm	-70	M6 x 1,00	25mm
-6	M2 x 0,4	12mm	-38	M3,5 x 0,6	25mm	-71	M6 x 1,00	30mm
-7	M2 x 0,4	16mm	-39	M3,5 x 0,6	35mm	-72	M6 x 1,00	35mm
-8	M2 x 0,4	20mm	-40	M3,5 x 0,6	42mm	-73	M6 x 1,00	40mm
-9	M2 x 0,4	25mm	-41	M4 x 0,7	3mm	-74	M6 x 1,00	45mm
-10	M2,5 x 0,45	4mm	-42	M4 x 0,7	6mm	-75	M6 x 1,00	50mm
-11	M2,5 x 0,45	5mm	-43	M4 x 0,7	8mm	-76	M6 x 1,00	60mm
-12	M2,5 x 0,45	6mm	-44	M4 x 0,7	10mm	-77	M6 x 1,00	70mm
-13	M2,5 x 0,45	8mm	-45	M4 x 0,7	12mm	-78	M6 x 1,00	75mm
-14	M2,5 x 0,45	10mm	-46	M4 x 0,7	16mm	-79	M8 x 1,25	10mm
-15	M2,5 x 0,45	12mm	-47	M4 x 0,7	20mm	-80	M8 x 1,25	16mm
-16	M2,5 x 0,45	16mm	-48	M4 x 0,7	25mm	-81	M8 x 1,25	20mm
-17	M2,5 x 0,45	20mm	-49	M4 x 0,7	30mm	-82	M8 x 1,25	25mm
-18	M2,5 x 0,45	25mm	-50	M4 x 0,7	35mm	-83	M8 x 1,25	30mm
-19	M3 x 0,5	4mm	-51	M4 x 0,7	40mm	-84	M8 x 1,25	35mm
-20	M3 x 0,5	5mm	-52	M5 x 0,8	6mm	-85	M8 x 1,25	50mm
-21	M3 x 0,5	6mm	-53	M5 x 0,8	8mm	-86	M8 x 1,25	70mm
-22	M3 x 0,5	8mm	-54	M5 x 0,8	10mm	-87	M10 x 1,50	13mm
-23	M3 x 0,5	10mm	-55	M5 x 0,8	12mm	-88	M10 x 1,50	16mm
-24	M3 x 0,5	12mm	-56	M5 x 0,8	15mm	-89	M10 x 1,50	19mm
-25	M3 x 0,5	16mm	-57	M5 x 0,8	16mm	-90	M10 x 1,50	20mm
-26	M3 x 0,5	20mm	-58	M5 x 0,8	20mm	-91	M10 x 1,50	25mm
-27	M3 x 0,5	25mm	-59	M5 x 0,8	25mm	-92	M10 x 1,50	30mm
-28	M3 x 0,5	30mm	-60	M5 x 0,8	30mm	-93	M10 x 1,50	35mm
-29	M3 x 0,5	35mm	-61	M5 x 0,8	35mm	-94	M10 x 1,50	50mm
-30	M3 x 0,5	42mm	-62	M5 x 0,8	40mm	-95	M10 x 1,50	60mm
-31	M3,5 x 0,6	5mm	-63	M6 x 1,00	5mm			
-32	M3,5 x 0,6	6mm	-64	M6 x 1,00	8mm			
-320	M3,5 x 0,6	7mm	-65	M6 x 1,00	10mm			

Thread Size	DM248 A	DM247 A	DM248 H	DM247 H	J	T
M2	3,8	3,8	1,60	1,60	0,60	0,90
M2,5	5,0	5,0	2,00	2,00	0,70	1,10
M3	6,0	6,0	2,40	2,40	1,00	1,30
M3,5	7,0	7,0	2,70	2,70	1,10	1,40
M4	8,0	8,0	3,10	3,10	1,20	1,60
M5	9,4	10,0	3,80	3,80	1,50	2,00
M6	12,0	12,0	4,60	4,60	1,90	2,30
M8	16,0	16,0	6,00	6,00	2,30	2,80
M10	20,0	18,0	7,50	7,00	2,80	3,20

*Available in other materials. See materials list in index.
Other sizes available on request.

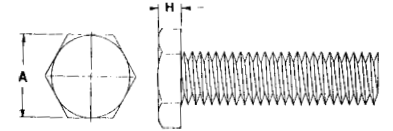
MOLDED NYLON METRIC MACHINE SCREWS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

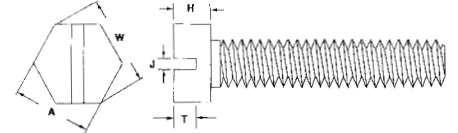
NYLON METRIC HEX HEAD

Part No. DM246 - (Size Code No.) - (Material Code No.)



NYLON METRIC HEX HEAD SLOTTED

Part No. DM255 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M2 x 0,4	4mm	-33	M3,5 x 0,6	8mm	-65	M6 x 1,00	16mm
-2	M2 x 0,4	5mm	-34	M3,5 x 0,6	10mm	-66	M6 x 1,00	20mm
-3	M2 x 0,4	6mm	-35	M3,5 x 0,6	12mm	-67	M6 x 1,00	25mm
-4	M2 x 0,4	8mm	-36	M3,5 x 0,6	16mm	-68	M6 x 1,00	30mm
-5	M2 x 0,4	10mm	-37	M3,5 x 0,6	20mm	-69	M6 x 1,00	35mm
-6	M2 x 0,4	12mm	-38	M3,5 x 0,6	25mm	-70	M6 x 1,00	40mm
-7	M2 x 0,4	16mm	-39	M3,5 x 0,6	35mm	-71	M6 x 1,00	45mm
-8	M2 x 0,4	20mm	-40	M3,5 x 0,6	42mm	-72	M6 x 1,00	50mm
-9	M2 x 0,4	25mm	-41	M4 x 0,7	6mm	-73	M6 x 1,00	60mm
-10	M2,5 x 0,45	4mm	-42	M4 x 0,7	8mm	-74	M6 x 1,00	70mm
-11	M2,5 x 0,45	5mm	-43	M4 x 0,7	10mm	-75	M6 x 1,00	75mm
-12	M2,5 x 0,45	6mm	-44	M4 x 0,7	12mm	-76	M8 x 1,25	10mm
-13	M2,5 x 0,45	8mm	-45	M4 x 0,7	16mm	-77	M8 x 1,25	16mm
-14	M2,5 x 0,45	10mm	-46	M4 x 0,7	20mm	-78	M8 x 1,25	20mm
-15	M2,5 x 0,45	12mm	-47	M4 x 0,7	25mm	-79	M8 x 1,25	25mm
-16	M2,5 x 0,45	16mm	-48	M4 x 0,7	30mm	-80	M8 x 1,25	30mm
-17	M2,5 x 0,45	20mm	-49	M4 x 0,7	35mm	-81	M8 x 1,25	35mm
-18	M2,5 x 0,45	25mm	-50	M4 x 0,7	40mm	-810	M8 x 1,25	40mm
-19	M3 x 0,5	4mm	-51	M5 x 0,8	6mm	-82	M8 x 1,25	50mm
-20	M3 x 0,5	5mm	-52	M5 x 0,8	8mm	-83	M8 x 1,25	70mm
-21	M3 x 0,5	6mm	-53	M5 x 0,8	10mm	-84	M10 x 1,50	16mm
-22	M3 x 0,5	8mm	-54	M5 x 0,8	12mm	-85	M10 x 1,50	20mm
-23	M3 x 0,5	10mm	-55	M5 x 0,8	16mm	-86	M10 x 1,50	25mm
-24	M3 x 0,5	12mm	-56	M5 x 0,8	20mm	-87	M10 x 1,50	30mm
-25	M3 x 0,5	16mm	-57	M5 x 0,8	25mm	-88	M10 x 1,50	35mm
-26	M3 x 0,5	20mm	-58	M5 x 0,8	30mm	-89	M10 x 1,50	50mm
-27	M3 x 0,5	25mm	-59	M5 x 0,8	35mm	-90	M10 x 1,50	60mm
-28	M3 x 0,5	30mm	-60	M5 x 0,8	40mm	-900	M10 x 1,50	70mm
-29	M3 x 0,5	35mm	-600*	M5 x 0,8	70mm	-901*	M12 x 1,75	20mm
-30	M3 x 0,5	42mm	-61	M6 x 1,00	5mm	-902*	M12 x 1,75	25mm
-31	M3,5 x 0,6	5mm	-62	M6 x 1,00	8mm	-903*	M12 x 1,75	30mm
-32	M3,5 x 0,6	6mm	-63	M6 x 1,00	10mm	-903*	M12 x 1,75	35mm
-320	M3,5 x 0,6	7mm	-64	M6 x 1,00	12mm	-91*	M12 x 1,75	40mm

* Not available in slotted hex head.

Thread Size	A	W	H	J	T
M2	3,02-3,20	3,38 min.	1,3-1,6	,60	,46
M2,5	3,82-4,00	4,28 min.	1,8-2,1	,80	,99
M3	4,82-5,00	5,40 min.	2,0-2,3	,99	1,30
M3,5	5,32-5,50	5,96 min.	2,3-2,6	1,20	1,28
M4	6,78-7,00	7,59 min.	2,6-3,0	1,24	1,28
M5	7,78-8,00	8,71 min.	3,3-3,8	1,30	1,40
M6	9,78-10,00	10,95 min.	4,1-4,7	1,70	2,24
M8	12,73-13,00	14,26 min.	5,2-6,0	2,15	2,27
M10	15,73-16,00	17,62 min.	6,5-7,5	2,38	2,90
M12	17,73-18,00	19,86 min.	7,8-9,0	-	-

Nominal Screw Length	Tolerance on Length
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

MOLDED NYLON METRIC MACHINE SCREWS (continued)

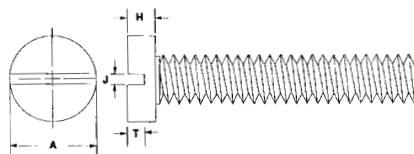
*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

NYLON METRIC CHEESE HEAD

Slotted



Part No. **DM243** - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M2 x 0,4	4mm	-31	M3,5 x 0,6	5mm	-61	M6 x 1,00	5mm
-2	M2 x 0,4	5mm	-32	M3,5 x 0,6	6mm	-62	M6 x 1,00	8mm
-3	M2 x 0,4	6mm	-33	M3,5 x 0,6	8mm	-63	M6 x 1,00	10mm
-4	M2 x 0,4	8mm	-34	M3,5 x 0,6	10mm	-64	M6 x 1,00	12mm
-5	M2 x 0,4	10mm	-35	M3,5 x 0,6	12mm	-65	M6 x 1,00	16mm
-6	M2 x 0,4	12mm	-36	M3,5 x 0,6	16mm	-66	M6 x 1,00	20mm
-7	M2 x 0,4	16mm	-37	M3,5 x 0,6	20mm	-67	M6 x 1,00	25mm
-8	M2 x 0,4	20mm	-38	M3,5 x 0,6	25mm	-68	M6 x 1,00	30mm
-9	M2 x 0,4	25mm	-39	M3,5 x 0,6	35mm	-69	M6 x 1,00	35mm
-10	M2,5 x 0,45	4mm	-40	M3,5 x 0,6	42mm	-70	M6 x 1,00	40mm
-11	M2,5 x 0,45	5mm	-400	M4 x 0,7	4mm	-71	M6 x 1,00	45mm
-12	M2,5 x 0,45	6mm	-41	M4 x 0,7	6mm	-72	M6 x 1,00	50mm
-13	M2,5 x 0,45	8mm	-42	M4 x 0,7	8mm	-73	M6 x 1,00	60mm
-14	M2,5 x 0,45	10mm	-43	M4 x 0,7	10mm	-730	M6 x 1,00	65mm
-15	M2,5 x 0,45	12mm	-44	M4 x 0,7	12mm	-74	M6 x 1,00	70mm
-16	M2,5 x 0,45	16mm	-45	M4 x 0,7	16mm	-75	M6 x 1,00	75mm
-17	M2,5 x 0,45	20mm	-46	M4 x 0,7	20mm	-76	M8 x 1,25	10mm
-18	M2,5 x 0,45	25mm	-47	M4 x 0,7	25mm	-77	M8 x 1,25	16mm
-19	M3 x 0,5	4mm	-48	M4 x 0,7	30mm	-78	M8 x 1,25	20mm
-20	M3 x 0,5	5mm	-49	M4 x 0,7	35mm	-79	M8 x 1,25	25mm
-21	M3 x 0,5	6mm	-50	M4 x 0,7	40mm	-80	M8 x 1,25	30mm
-22	M3 x 0,5	8mm	-51	M5 x 0,8	6mm	-81	M8 x 1,25	35mm
-23	M3 x 0,5	10mm	-52	M5 x 0,8	8mm	-82	M8 x 1,25	50mm
-24	M3 x 0,5	12mm	-53	M5 x 0,8	10mm	-83	M8 x 1,25	70mm
-240	M3 x 0,5	14mm	-54	M5 x 0,8	12mm	-84	M10 x 1,50	16mm
-25	M3 x 0,5	16mm	-55	M5 x 0,8	16mm	-85	M10 x 1,50	20mm
-26	M3 x 0,5	20mm	-56	M5 x 0,8	20mm	-86	M10 x 1,50	25mm
-27	M3 x 0,5	25mm	-57	M5 x 0,8	25mm	-87	M10 x 1,50	30mm
-28	M3 x 0,5	30mm	-58	M5 x 0,8	30mm	-88	M10 x 1,50	35mm
-29	M3 x 0,5	35mm	-59	M5 x 0,8	35mm	-89	M10 x 1,50	50mm
-30	M3 x 0,5	42mm	-60	M5 x 0,8	40mm	-90	M10 x 1,50	60mm

Thread

Size	A	H	J	T
M2	3,80	1,30	0,70	0,90
M2,5	4,50	1,60	0,80	1,00
M3	5,50	2,00	1,00	1,30
M3,5	6,00	2,40	1,10	1,40
M4	7,00	2,60	1,20	1,60
M5	8,50	3,30	1,50	2,00
M6	10,00	3,90	1,90	2,30
M8	13,00	5,00	2,30	2,80
M10	15,63	6,00	2,80	3,20

Nominal Screw Length	Tolerance on Length
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

*Available in other materials. See materials list in index.
Other sizes available on request.

MOLDED NYLON METRIC MACHINE SCREWS (continued)

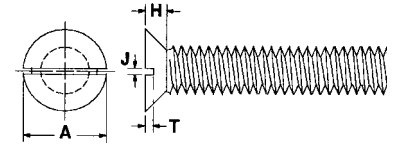
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

NYLON METRIC FLAT HEAD

Slotted

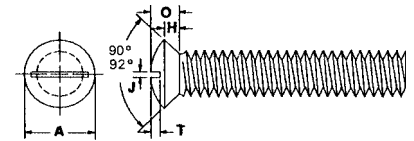
Part No. DM251 - (Size Code No.) - (Material Code No.)



NYLON METRIC OVAL HEAD

Slotted

Part No. DM250 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M2 x 0,4	3mm	-27	M3 x 0,5	25mm	-510	M5 x 0,8	16mm
-2	M2 x 0,4	5mm	-28	M3 x 0,5	30mm	-520	M5 x 0,8	20mm
-3	M2 x 0,4	6mm	-29	M3 x 0,5	42mm	-53	M5 x 0,8	25mm
-4	M2 x 0,4	8mm	-30	M3,5 x 0,6	5mm	-54	M5 x 0,8	30mm
-5	M2 x 0,4	10mm	-31	M3,5 x 0,6	6mm	-540	M5 x 0,8	35mm
-6	M2 x 0,4	11mm	-32	M3,5 x 0,6	8mm	-56	M5 x 0,8	40mm
-7	M2 x 0,4	12mm	-33	M3,5 x 0,6	10mm	-57	M6 x 1,00	8mm
-8	M2 x 0,4	16mm	-34	M3,5 x 0,6	16mm	-58	M6 x 1,00	10mm
-9	M2 x 0,4	25mm	-35	M3,5 x 0,6	20mm	-59	M6 x 1,00	12mm
-10	M2,5 x 0,45	4mm	-36	M3,5 x 0,6	25mm	-60	M6 x 1,00	16mm
-11	M2,5 x 0,45	5mm	-37	M3,5 x 0,6	35mm	-61	M6 x 1,00	20mm
-12	M2,5 x 0,45	6mm	-38	M4 x 0,7	6mm	-62	M6 x 1,00	25mm
-13	M2,5 x 0,45	8mm	-39	M4 x 0,7	8mm	-63	M6 x 1,00	35mm
-14	M2,5 x 0,45	10mm	-40	M4 x 0,7	10mm	-64	M6 x 1,00	40mm
-15	M2,5 x 0,45	12mm	-41	M4 x 0,7	12mm	-65	M6 x 1,00	45mm
-16	M2,5 x 0,45	16mm	-42	M4 x 0,7	15mm	-66	M6 x 1,00	50mm
-17	M2,5 x 0,45	20mm	-43	M4 x 0,7	16mm	-67	M8 x 1,25	16mm
-18	M2,5 x 0,45	25mm	-44	M4 x 0,7	20mm	-68	M8 x 1,25	20mm
-19	M3 x 0,5	5mm	-45	M4 x 0,7	25mm	-69	M8 x 1,25	25mm
-20	M3 x 0,5	6mm	-46	M4 x 0,7	30mm	-70	M8 x 1,25	30mm
-21	M3 x 0,5	8mm	-47	M4 x 0,7	35mm	-71	M8 x 1,25	50mm
-22	M3 x 0,5	10mm	-48	M5 x 0,8	6mm	-72	M10 x 1,50	20mm
-23	M3 x 0,5	12mm	-49	M5 x 0,8	8mm	-73	M10 x 1,50	25mm
-24	M3 x 0,5	15mm	-50	M5 x 0,8	10mm	-74	M10 x 1,50	30mm
-25	M3 x 0,5	16mm	-52	M5 x 0,8	15mm	-75	M10 x 1,50	35mm
-26	M3 x 0,5	20mm	-51	M5 x 0,8	12mm	-76	M10 x 1,50	60mm

*Sizes M3,5 x 0,6 x 20mm and M5 x 0,8 x 35mm available in slotted oval head only.

Thread Size	A	H	DM250 O	J	DM251 T	DM250 T
M2	3,5-4,4	1,2 max ref.	1,7 max	0,5-0,7	0,4-0,6	0,8-1,0
M2,5	4,4-5,5	1,5 max ref.	2,1 max	0,6-0,8	0,5-0,7	1,0-1,2
M3	5,2-6,3	1,7 max ref.	2,4 max	0,8-1,0	0,6-0,9	1,2-1,5
M3,5	6,9-8,2	2,3 max ref.	3,1 max	1,0-1,2	0,9-1,2	1,4-1,7
M4	8,0-9,4	2,7 max ref.	3,7 max	1,2-1,5	1,0-1,3	1,6-1,9
M5	8,9-10,4	2,7 max ref.	3,9 max	1,2-1,5	1,1-1,4	2,0-2,4
M6	10,9-12,6	3,3 max ref.	4,7 max	1,6-1,9	1,2-1,6	2,4-2,8
M8	15,4-17,3	4,6 max ref.	6,6 max	2,0-2,3	1,8-2,3	3,2-3,7
M10	17,8-20,0	5,0 max ref.	7,3 max	2,5-2,8	2,0-2,6	3,8-4,4

MOLDED NYLON METRIC MACHINE SCREWS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

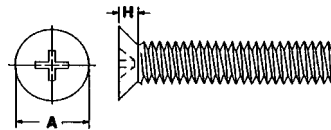
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

NYLON METRIC FLAT HEAD

Phillips

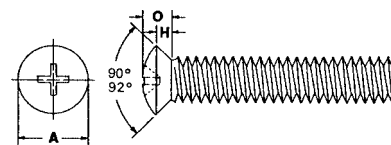
Part No. DM252 - (Size Code No.) - (Material Code No.)



NYLON METRIC OVAL HEAD

Phillips

Part No. DM249 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M2,5 x 0,45	4mm	-21	M3,5 x 0,6	10mm	-41	M5 x 0,8	30mm
-2	M2,5 x 0,45	5mm	-22	M3,5 x 0,6	12mm	-42	M5 x 0,8	40mm
-3	M2,5 x 0,45	6mm	-23	M3,5 x 0,6	16mm	-43	M6 x 1,00	8mm
-4	M2,5 x 0,45	8mm	-24	M3,5 x 0,6	20mm	-44	M6 x 1,00	10mm
-5	M2,5 x 0,45	10mm	-25	M3,5 x 0,6	25mm	-45	M6 x 1,00	12mm
-6	M2,5 x 0,45	12mm	-26	M3,5 x 0,6	35mm	-46	M6 x 1,00	16mm
-7	M2,5 x 0,45	16mm	-27	M4 x 0,7	6mm	-47	M6 x 1,00	20mm
-8	M2,5 x 0,45	20mm	-28	M4 x 0,7	8mm	-48	M6 x 1,00	25mm
-9	M2,5 x 0,45	25mm	-29	M4 x 0,7	10mm	-49	M6 x 1,00	35mm
-10	M3 x 0,5	5mm	-30	M4 x 0,7	12mm	-50	M6 x 1,00	45mm
-11	M3 x 0,5	6mm	-31	M4 x 0,7	16mm	-51	M8 x 1,25	10mm
-12	M3 x 0,5	8mm	-32	M4 x 0,7	20mm	-52	M8 x 1,25	16mm
-13	M3 x 0,5	10mm	-33	M4 x 0,7	25mm	-53	M8 x 1,25	20mm
-14	M3 x 0,5	12mm	-34	M5 x 0,8	6mm	-54	M8 x 1,25	25mm
-15	M3 x 0,5	16mm	-35	M5 x 0,8	8mm	-55	M8 x 1,25	30mm
-16	M3 x 0,5	20mm	-36	M5 x 0,8	10mm	-56	M8 x 1,25	50mm
-17	M3 x 0,5	25mm	-37	M5 x 0,8	12mm	-57	M10 x 1,5	20mm
-18	M3,5 x 0,6	5mm	-38	M5 x 0,8	16mm	-58	M10 x 1,5	25mm
-19	M3,5 x 0,6	6mm	-39	M5 x 0,8	20mm	-59	M10 x 1,5	35mm
-20	M3,5 x 0,6	8mm	-40	M5 x 0,8	25mm			

Thread Size	A	H*	DM249 O
M2	3,5-4,4	1,2 max ref.	1,7 max
M2,5	4,4-5,5	1,5 max ref.	2,1 max
M3	5,2-6,3	1,7 max ref.	2,4 max
M3,5	6,9-8,2	2,3 max ref.	3,1 max
M4	8,0-9,4	2,7 max ref.	3,7 max
M5	8,9-10,4	2,7 max ref.	3,9 max
M6	10,9-12,6	3,3 max ref.	4,7 max
M8	15,4-17,3	4,6 max ref.	6,6 max
M10	17,8-20,0	5,0 max ref.	7,3 max

*For Reference Only

*Available in other materials. See materials list in index.
Other sizes available on request.

MOLDED NYLON METRIC MACHINE SCREWS (continued)

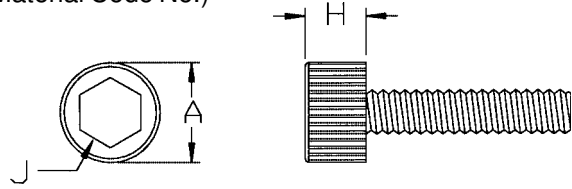
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

METRIC HEX SOCKET CAP SCREW

Part No. KM101 - (Size Code No.) - (Material Code No.)

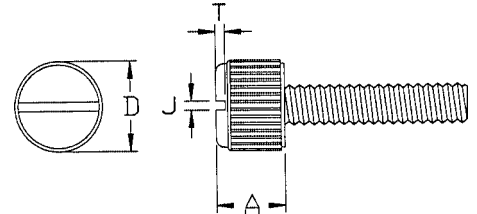
Size Code No.	Thread Size	Length
-1	M10 x 1,50	13mm
-2	M10 x 1,50	16mm
-3	M10 x 1,50	19mm
-4	M10 x 1,50	20mm
-5	M10 x 1,50	25mm
-6	M10 x 1,50	30mm
-7	M10 x 1,50	35mm
-8	M10 x 1,50	50mm
-9	M10 x 1,50	60mm



Thread Size	A	H	J	Depth of Socket
M10 x 1,50	15,67-16,00	9,81-10,00	8,0 nom.	5,00

METRIC THUMB SCREW SLOTTED

Part No. DM241 - (Size Code No.) - (Material Code No.)



Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M3 x 0,5	4mm	-15	M3,5 x 0,6	10mm	-29	M4 x 0,7	25mm	-44	M6 x 1,00	10mm
-2	M3 x 0,5	5mm	-16	M3,5 x 0,6	12mm	-30	M4 x 0,7	30mm	-45	M6 x 1,00	12mm
-3	M3 x 0,5	6mm	-17	M3,5 x 0,6	16mm	-31	M4 x 0,7	35mm	-46	M6 x 1,00	16mm
-4	M3 x 0,5	8mm	-18	M3,5 x 0,6	20mm	-32	M4 x 0,7	40mm	-47	M6 x 1,00	20mm
-5	M3 x 0,5	10mm	-19	M3,5 x 0,6	25mm	-33	M5 x 0,8	6mm	-48	M6 x 1,00	22mm
-6	M3 x 0,5	12mm	-190	M3,5 x 0,6	30mm	-34	M5 x 0,8	8mm	-49	M6 x 1,00	25mm
-7	M3 x 0,5	16mm	-20	M3,5 x 0,6	35mm	-35	M5 x 0,8	10mm	-50	M6 x 1,00	35mm
-8	M3 x 0,5	20mm	-21	M3,5 x 0,6	42mm	-36	M5 x 0,8	12mm	-501	M6 x 1,00	40mm
-9	M3 x 0,5	25mm	-22	M4 x 0,7	3mm	-37	M5 x 0,8	16mm	-51	M6 x 1,00	45mm
-10	M3 x 0,5	30mm	-23	M4 x 0,7	6mm	-38	M5 x 0,8	20mm	-52	M6 x 1,00	50mm
-11	M3 x 0,5	35mm	-24	M4 x 0,7	8mm	-39	M5 x 0,8	25mm	-53	M6 x 1,00	60mm
-110	M3 x 0,5	42mm	-25	M4 x 0,7	10mm	-40	M5 x 0,8	30mm	-530	M6 x 1,00	70mm
-12	M3,5 x 0,6	5mm	-26	M4 x 0,7	12mm	-41	M5 x 0,8	40mm	-54	M6 x 1,00	75mm
-13	M3,5 x 0,6	6mm	-27	M4 x 0,7	16mm	-42	M6 x 1,00	5mm			
-14	M3,5 x 0,6	8mm	-28	M4 x 0,7	20mm	-43	M6 x 1,00	8mm			

Thread Size	A	D	J	T
M3	5,5	8,1	1,0	1,1
M3,5	6,4	8,8	1,1	1,3
M4	7,1	9,7	1,2	1,5
M5	8,1	10,5	1,4	1,7
M6	8,3	12,5	1,8	2,2

Nominal Screw Length	Tolerance on Length
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

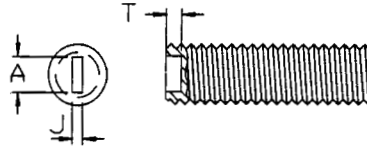
MOLDED NYLON METRIC MACHINE SCREWS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

NYLON METRIC SLOTTED GRUB SCREW



Part No. DM240 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	M4 x 0,7	3mm	-18	M5 x 0,8	25mm	-34	M6 x 1,00	75mm
-100	M2 x 0,4	4mm	-19	M5 x 0,8	30mm	-340	M8 x 1,25	8mm
-2	M4 x 0,7	6mm	-190	M5 x 0,8	35mm	-35	M8 x 1,25	10mm
-3	M4 x 0,7	8mm	-20	M5 x 0,8	40mm	-36	M8 x 1,25	16mm
-4	M4 x 0,7	10mm	-21	M6 x 1,00	5mm	-37	M8 x 1,25	20mm
-5	M4 x 0,7	12mm	-22	M6 x 1,00	8mm	-38	M8 x 1,25	25mm
-6	M4 x 0,7	16mm	-23	M6 x 1,00	10mm	-39	M8 x 1,25	30mm
-7	M4 x 0,7	20mm	-24	M6 x 1,00	12mm	-40	M8 x 1,25	35mm
-8	M4 x 0,7	25mm	-25	M6 x 1,00	16mm	-41	M8 x 1,25	50mm
-9	M4 x 0,7	30mm	-26	M6 x 1,00	20mm	-42	M10 x 1,50	13mm
-10	M4 x 0,7	35mm	-27	M6 x 1,00	22mm	-43	M10 x 1,50	16mm
-11	M4 x 0,7	40mm	-28	M6 x 1,00	25mm	-44	M10 x 1,50	19mm
-12	M5 x 0,8	6mm	-29	M6 x 1,00	30mm	-45	M10 x 1,50	20mm
-13	M5 x 0,8	8mm	-30	M6 x 1,00	35mm	-46	M10 x 1,50	25mm
-14	M5 x 0,8	10mm	-31	M6 x 1,00	45mm	-47	M10 x 1,50	30mm
-15	M5 x 0,8	12mm	-32	M6 x 1,00	50mm	-48	M10 x 1,50	35mm
-16	M5 x 0,8	16mm	-33	M6 x 1,00	60mm	-49	M10 x 1,50	50mm
-17	M5 x 0,8	20mm	-330	M6 x 1,00	70mm	-50	M10 x 1,50	60mm

Thread Size	A	J	T
M4	2,0	0,64	0,76
M5	3,3	0,89	1,3
M6	4,1	1,0	1,5
M8	5,2	1,6	2,4
M10	6,6	1,5	2,5

Nominal Screw Length	Tolerance on Length
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

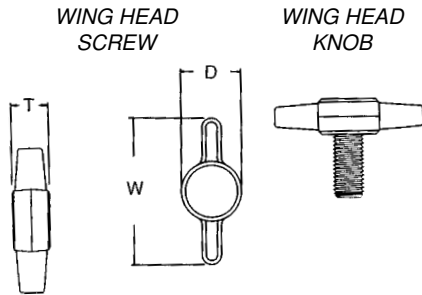
All tolerances are plus and minus.

MOLDED NYLON THUMB SCREW KNOBS

Available in the following colors:

Color Code	Color	Color Code	Color
BK	Black	BL	Blue
RD	Red	GR	Green
WT	White		

ORDER: (Part No.) - (Size Code No.) - (Color Code)



WING HEAD KNOBS

Press knobs onto any standard socket hex cap screw.

Part No. TK405 -

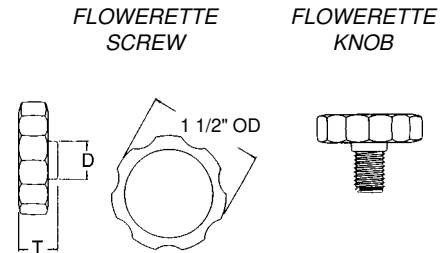
Size Code No.	Fits Screw	Specifications		
		W	T	D
-1	#10	1	1/4	7/16
-2	1/4	1 17/64	11/32	17/32
-3	5/16	1 1/2	13/32	5/8
-4	3/8	1 25/32	15/32	47/64

WING HEAD SCREW

Plastic heads are molded onto zinc plated steel alloy socket head cap screws.

Part No. TK407 -

Size Code No.	Screw Size	Screw Length	Head Dia.
-1		3/8	
-2		1/2	
-3	10-32	3/4	1
-4		1	
-5		1 1/2	
-6		1/2	
-7		3/4	
-8	1/4-20	1	1 17/64
-80		1 1/4	
-9		1 1/2	
-10		1/2	
-11	5/16-18	3/4	1 1/2
-12		1	
-13		1 1/2	
-14		3/4	
-15	3/8-16	1	1 3/4
-16		1 1/2	



FLOWERETTE KNOBS

Press knobs onto any standard socket hex cap screw.

Part No. TK406 -

Size Code No.	Fits Screw	Specifications	
		T	D
-1	1/4	3/8	1/2
-2	5/16	3/8	19/32
-3	3/8	3/8	45/64

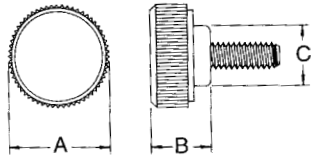
FLOWERETTE SCREW

Plastic heads are molded onto zinc plated steel alloy socket head cap screws.

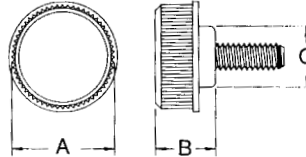
Part No. TK408 -

Size Code No.	Screw Size	Screw Length	Head Dia.
-1		1/2	
-2	1/4-20	3/4	1 1/2
-3		1	
-4		1 1/2	
-5		1/2	
-6	5/16-18	3/4	1 1/2
-7		1	
-8		1 1/2	
-9		3/4	
-10	3/8-16	1	1 1/2
-11		1 1/2	

MOLDED NYLON THUMB SCREW KNOBS (continued)



ROUND HEAD DRAWING FOR:
 Standard Head Dia. 5/16" through 3/4" Metric Head Dia. 9,53 through 19,05



ROUND HEAD DRAWING FOR:
 Standard Head Dia. 1" Metric Head Dia. 25,40

STANDARD ROUND HEAD KNOBS

Press knobs onto any standard socket hex cap screw.

Part No. TK400 -

Size Code No.	Fits Screw	Specifications		
		A	B	C
-1	#4	5/16	11/64	9/32
-2	#6	3/8	13/64	21/64
-3	#8	1/2	7/32	3/8
-4	#10	21/32	1/4	27/64
-5	1/4	3/4	5/16	1/2
-6	1/4	1	21/64	1/2
-7	5/16	1	25/64	19/32

METRIC ROUND HEAD KNOBS

Press knobs onto any standard socket hex cap screw.

Part No. TK402 -

Size Code No.	Fits Screw	Specifications		
		A	B	C
-1	M3	9,53	5,16	8,33
-2	M4	12,70	5,56	9,53
-3	M5	16,28	6,35	10,72
-4	M6	19,05	7,93	12,70
-5	M6	25,40	8,33	12,70
-6	M8	25,40	9,92	15,08

STANDARD ROUND HEAD SCREW

Plastic heads are molded onto zinc plated steel alloy socket head cap screws.

Part No. TK403 -

Size Code No.	Screw Size	Screw Length	Head Dia.
-1		1/4	
-100	4-40	3/8	5/16
-2		1/2	
-3		3/4	
-4		1/4	
-400	6-32	3/8	3/8
-5		1/2	
-500		5/8	
-6		3/4	
-7		3/8	
-8	8-32	1/2	1/2
-9		3/4	
-10		1	
-11		3/8	
-12		1/2	
-13	10-32	3/4	5/8
-14		1	
-15		1 1/2	
-16		1/2	
-17		3/4	
-18	1/4-20	1	3/4
-180		1 1/4	
-19		1 1/2	
-20		1/2	
-21		3/4	
-22	1/4-20	1	1
-220		1 1/4	
-23		1 1/2	
-24		1/2	
-25	5/16-18	3/4	1
-26		1	
-27		1 1/2	

METRIC ROUND HEAD SCREW

Plastic heads are molded onto zinc plated steel alloy socket head cap screws.

Part No. TK404 -

Size Code No.	Screw Size	Screw Length	Head Dia.
-1		M8	
-2	M 3	M10	9,53
-3		M12	
-4		M16	
-5		M10	
-6		M12	
-7	M 4	M16	12,70
-8		M20	
-9		M25	
-10		M12	
-11		M16	
-12	M 5	M20	15,88
-13		M25	
-14		M40	
-15		M12	
-16		M16	
-17	M 6	M20	19,05
-18		M25	
-19		M40	
-20		M12	
-21		M16	
-22	M 6	M20	25,40
-23		M25	
-24		M40	
-25		M12	
-26		M16	
-27	M 8	M20	25,40
-28		M25	
-29		M40	

MOLDED NUTS - MH Series

See Craftech Industries' J Series on page 104, K Series on page 105 and L Series on page 106 for additional MOLDED NUTS.
For Nylon 6/6 MOLDED NUTS, see pages 109-115.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

*Available in the following materials:

Material Code

No.	Material Name
-6	Ultem® 2300, (black)
-48	Ryton®, PPS, 40% Short Glass-filled
-74	Isoplast™, 40% Long Glass Fiber, (natural)

Material Code

No.	Material Name
-77	Ultem® 2300, (natural)
-81	Isoplast™, 40% Long Glass Fiber, (gray)
-108	Polypropylene, 30% Glass-filled
-228	Radel® AG330, 30% Glass-filled

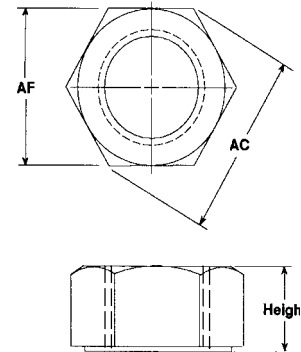
Material Code

No.	Material Name
-520	PPS, 30% Carbon Fiber, (black)
-820	Isoplast™, 30% Short Glass Fiber, (gray)
-824	Isoplast™, 30% Short Glass Fiber, (natural)

MOLDED HEX NUTS

Part No. MHX1800 - (Size Code No.) - (Material Code No.)

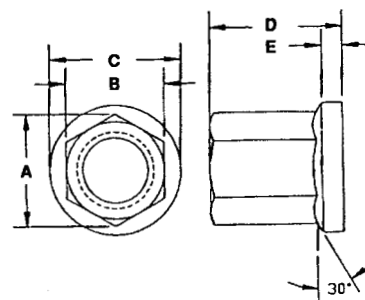
Size Code No.	Thread Size	AF	AC	Height	Size Code No.	Thread Size	AF	AC	Height
-1	4-40	1/4	0.289	0.098	-13	1/2-13	3/4	0.866	7/16
-2	4-48	1/4	0.289	0.098	-14	1/2-20	3/4	0.866	7/16
-3	6-32	5/16	0.361	0.114	-15	5/8-11	15/16	1.083	35/64
-4	8-32	11/32	0.397	0.130	-16	5/8-18	15/16	1.083	35/64
-5	10-32	3/8	0.433	0.130	-17	3/4-10	1 1/8	1.299	41/64
-6	10-24	3/8	0.433	0.130	-18	3/4-16	1 1/8	1.299	41/64
-7	1/4-20	7/16	0.505	7/32	-19	7/8-9	1 5/16	1.516	3/4
-8	1/4-28	7/16	0.505	7/32	-20	7/8-14	1 5/16	1.516	3/4
-9	5/16-18	1/2	0.577	17/64	-21	1-8	1 1/2	1.732	55/64
-10	5/16-24	1/2	0.577	17/64	-22	1-12	1 1/2	1.732	55/64
-11	3/8-16	9/16	0.650	21/64	-23	1-14	1 1/2	1.732	55/64
-12	3/8-24	9/16	0.650	21/64					



MOLDED FLANGED NUTS

Part No. MHX1700 - (Size Code No.) - (Material Code No.)

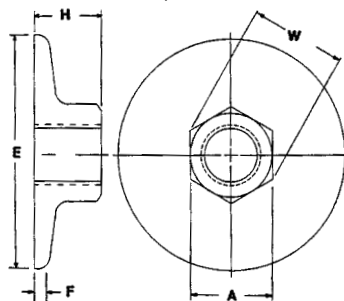
Size Code No.	Thread Size	A	B	C	D	E
-1	3/8-16	.635	.555	.745	.750	.120
-2	3/8-24	.635	.555	.745	.750	.120
-5	1/2-13	.840	.730	1.000	.855	.130
-6	1/2-20	.840	.730	1.000	.855	.130
-7	5/8-11	1.050	.920	1.250	1.220	.130
-9	3/4-10	1.285	1.120	1.950	1.590	.130
-12	1-8	1.750	1.475	2.000	1.750	.188



MOLDED CLAMP NUTS

Part No. MHC18001 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size
-1	3/8-16	-6	1/2-20
-2	3/8-24	-7	1/4NPT
-3	7/16-14	-8	3/8NPT
-4	7/16-20	-10	1/4NPS
-5	1/2-13	-11	3/8NPS



A W H F E
1.00 1.35 .605 .187 2.00
Tolerance on all dimensions +/- .050

MOLDED NUTS - J Series

See *Craftech Industries' MH Series on page 103, K Series on page 105 and L Series on page 106 for additional MOLDED NUTS. For Nylon 6/6 MOLDED NUTS, see pages 109-115.*

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

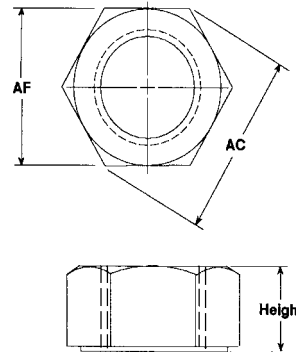
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-14	ABS	-90	PEEK®, 30% Short Glass-filled, (natural)	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-231	Radel® R5100 NT15, Polyphenylsulfone
-46	Polycarbonate, (clear)	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant		

MOLDED HEX NUTS

Part No. J400 - (Size Code No.) - (Material Code No.)

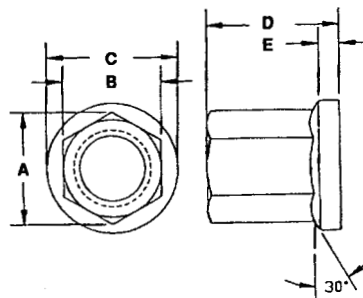
Size Code No.	Thread Size	AF	AC	Height	Size Code No.	Thread Size	AF	AC	Height
-1	4-40	1/4	0.289	0.098	-13	1/2-13	3/4	0.866	7/16
-2	4-48	1/4	0.289	0.098	-14	1/2-20	3/4	0.866	7/16
-3	6-32	5/16	0.361	0.114	-15	5/8-11	15/16	1.083	35/64
-4	8-32	11/32	0.397	0.130	-16	5/8-18	15/16	1.083	35/64
-5	10-32	3/8	0.433	0.130	-17	3/4-10	1 1/8	1.299	41/64
-6	10-24	3/8	0.433	0.130	-18	3/4-16	1 1/8	1.299	41/64
-7	1/4-20	7/16	0.505	7/32	-19	7/8-9	1 5/16	1.516	3/4
-8	1/4-28	7/16	0.505	7/32	-20	7/8-14	1 5/16	1.516	3/4
-9	5/16-18	1/2	0.577	17/64	-21	1-8	1 1/2	1.732	55/64
-10	5/16-24	1/2	0.577	17/64	-22	1-12	1 1/2	1.732	55/64
-11	3/8-16	9/16	0.650	21/64	-23	1-14	1 1/2	1.732	55/64
-12	3/8-24	9/16	0.650	21/64					



MOLDED FLANGED NUTS

Part No. J401 - (Size Code No.) - (Material Code No.)

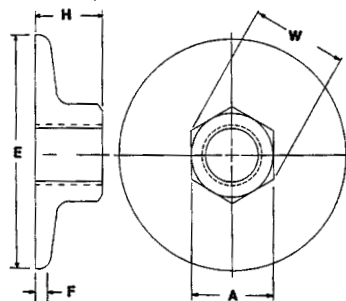
Size Code No.	Thread Size	A	B	C	D	E
-1	3/8-16	.635	.555	.745	.750	.120
-2	3/8-24	.635	.555	.745	.750	.120
-5	1/2-13	.840	.730	1.000	.855	.130
-6	1/2-20	.840	.730	1.000	.855	.130
-7	5/8-11	1.050	.920	1.250	1.220	.130
-9	3/4-10	1.285	1.120	1.950	1.590	.130
-12	1-8	1.750	1.475	2.000	1.750	.188



MOLDED CLAMP NUTS

Part No. J402 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size
-1	3/8-16	-6	1/2-20
-2	3/8-24	-7	1/4NPT
-3	7/16-14	-8	3/8NPT
-4	7/16-20	-10	1/4NPS
-5	1/2-13	-11	3/8NPS



A W H F E
1.00 1.35 .605 .187 2.00
Tolerance on all dimensions +/- .050

MOLDED NUTS - K Series

See Craftech Industries' MH Series on page 103, J Series on page 104 and L Series on page 106 for additional MOLDED NUTS.
For Nylon 6/6 MOLDED NUTS, see pages 109-115.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

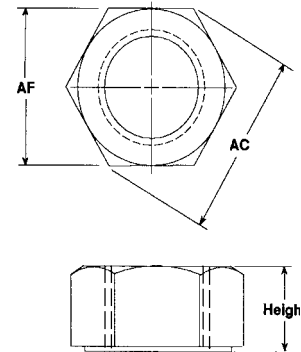
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

MOLDED HEX NUTS

Part No. K400 - (Size Code No.) - (Material Code No.)

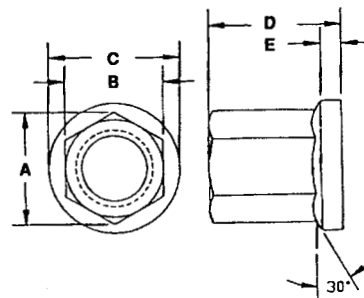
Size Code No.	Thread Size	AF	AC	Height	Size Code No.	Thread Size	AF	AC	Height
-1	4-40	1/4	0.289	0.098	-13	1/2-13	3/4	0.866	7/16
-2	4-48	1/4	0.289	0.098	-14	1/2-20	3/4	0.866	7/16
-3	6-32	5/16	0.361	0.114	-15	5/8-11	15/16	1.083	35/64
-4	8-32	11/32	0.397	0.130	-16	5/8-18	15/16	1.083	35/64
-5	10-32	3/8	0.433	0.130	-17	3/4-10	1 1/8	1.299	41/64
-6	10-24	3/8	0.433	0.130	-18	3/4-16	1 1/8	1.299	41/64
-7	1/4-20	7/16	0.505	7/32	-19	7/8-9	1 5/16	1.516	3/4
-8	1/4-28	7/16	0.505	7/32	-20	7/8-14	1 5/16	1.516	3/4
-9	5/16-18	1/2	0.577	17/64	-21	1-8	1 1/2	1.732	55/64
-10	5/16-24	1/2	0.577	17/64	-22	1-12	1 1/2	1.732	55/64
-11	3/8-16	9/16	0.650	21/64	-23	1-14	1 1/2	1.732	55/64
-12	3/8-24	9/16	0.650	21/64					



MOLDED FLANGED NUTS

Part No. K401 - (Size Code No.) - (Material Code No.)

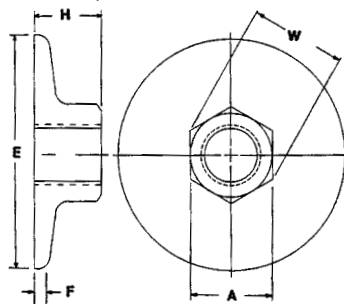
Size Code No.	Thread Size	A	B	C	D	E
-1	3/8-16	.635	.555	.745	.750	.120
-2	3/8-24	.635	.555	.745	.750	.120
-5	1/2-13	.840	.730	1.000	.855	.130
-6	1/2-20	.840	.730	1.000	.855	.130
-7	5/8-11	1.050	.920	1.250	1.220	.130
-9	3/4-10	1.285	1.120	1.950	1.590	.130
-12	1-8	1.750	1.475	2.000	1.750	.188



MOLDED CLAMP NUTS

Part No. K402 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size
-1	3/8-16	-6	1/2-20
-2	3/8-24	-7	1/4NPT
-3	7/16-14	-8	3/8NPT
-4	7/16-20	-10	1/4NPS
-5	1/2-13	-11	3/8NPS



A W H F E
1.00 1.35 .605 .187 2.00
Tolerance on all dimensions +/- .050

MOLDED NUTS - L Series

See *Craftech Industries' MH Series on page 103, J Series on page 104 and K Series on page 105 for additional MOLDED NUTS*
 For Nylon 6/6 MOLDED NUTS, see pages 109-115.

*Available in other materials. See material list in index.
 Other sizes available on request.
 Dimensions may vary with material.

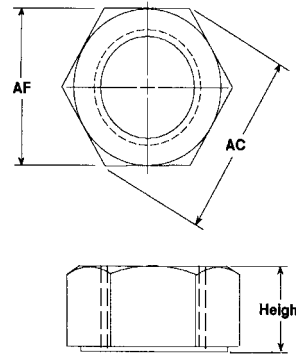
*Available in the following materials:

Material Code No.	Material Name
-15	PEEK™

MOLDED HEX NUTS

Part No. L400 - (Size Code No.) - (Material Code No.)

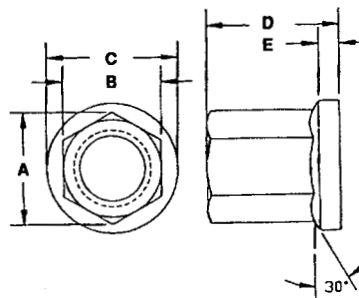
Size Code No.	Thread Size	AF	AC	Height	Size Code No.	Thread Size	AF	AC	Height
-1	4-40	1/4	0.289	0.098	-13	1/2-13	3/4	0.866	7/16
-2	4-48	1/4	0.289	0.098	-14	1/2-20	3/4	0.866	7/16
-3	6-32	5/16	0.361	0.114	-15	5/8-11	15/16	1.083	35/64
-4	8-32	11/32	0.397	0.130	-16	5/8-18	15/16	1.083	35/64
-5	10-32	3/8	0.433	0.130	-17	3/4-10	1 1/8	1.299	41/64
-6	10-24	3/8	0.433	0.130	-18	3/4-16	1 1/8	1.299	41/64
-7	1/4-20	7/16	0.505	7/32	-19	7/8-9	1 5/16	1.516	3/4
-8	1/4-28	7/16	0.505	7/32	-20	7/8-14	1 5/16	1.516	3/4
-9	5/16-18	1/2	0.577	17/64	-21	1-8	1 1/2	1.732	55/64
-10	5/16-24	1/2	0.577	17/64	-22	1-12	1 1/2	1.732	55/64
-11	3/8-16	9/16	0.650	21/64	-23	1-14	1 1/2	1.732	55/64
-12	3/8-24	9/16	0.650	21/64					



MOLDED FLANGED NUTS

Part No. L401 - (Size Code No.) - (Material Code No.)

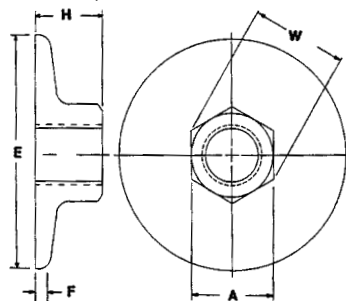
Size Code No.	Thread Size	A	B	C	D	E
-1	3/8-16	.635	.555	.745	.750	.120
-2	3/8-24	.635	.555	.745	.750	.120
-5	1/2-13	.840	.730	1.000	.855	.130
-6	1/2-20	.840	.730	1.000	.855	.130
-7	5/8-11	1.050	.920	1.250	1.220	.130
-9	3/4-10	1.285	1.120	1.950	1.590	.130
-12	1-8	1.750	1.475	2.000	1.750	.188



MOLDED CLAMP NUTS

Part No. L402 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size
-1	3/8-16	-6	1/2-20
-2	3/8-24	-7	1/4NPT
-3	7/16-14	-8	3/8NPT
-4	7/16-20	-10	1/4NPS
-5	1/2-13	-11	3/8NPS



A W H F E
 1.00 1.35 .605 .187 2.00
 Tolerance on all dimensions +/- .050

MOLDED METRIC HEX NUTS

For Nylon 6/6 MOLDED NUTS, see pages 109-115.

*Available in other materials. See material list in index.
Other sizes available on request.
Dimensions may vary with material.

MH Series

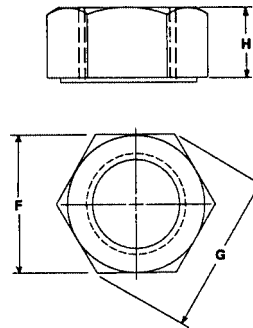
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-77	Ultem® 2300, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-48	Ryton®, PPS, 40% Short Glass-filled	-81	Isoplast™, 40% Long Glass Fiber, (gray)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-108	Polypropylene, 30% Glass-filled	-824	Isoplast™, 30% Short Glass Fiber, (natural)
		-228	Radel® AG330, 30% Glass-filled		

MOLDED METRIC HEX NUTS

Part No. MHX2000 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	G	H
-7	M6 x 1.00	9.78 - 10	min. 11.05	4.9 - 5.2
-8	M8 x 1.25	12.73 - 13	min. 14.38	7.5 - 7.14
-9	M10 x 1.50	15.73 - 16	min. 17.77	8.94 - 9.3
-10	M12 x 1.75	17.73 - 18	min. 20.03	11.57 - 12



J Series

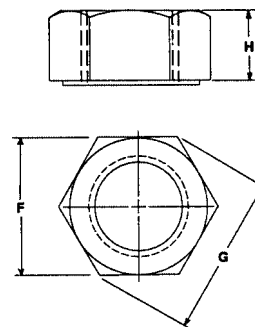
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-231	Radel® R5100 NT15, Polyphenylsulfone
-46	Polycarbonate, (clear)	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant		

MOLDED METRIC HEX NUTS

Part No. J2000 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	G	H
-7	M6 x 1.00	9.78 - 10	min. 11.05	4.9 - 5.2
-8	M8 x 1.25	12.73 - 13	min. 14.38	7.5 - 7.14
-9	M10 x 1.50	15.73 - 16	min. 17.77	8.94 - 9.3
-10	M12 x 1.75	17.73 - 18	min. 20.03	11.57 - 12



MOLDED METRIC HEX NUTS (continued)

K Series

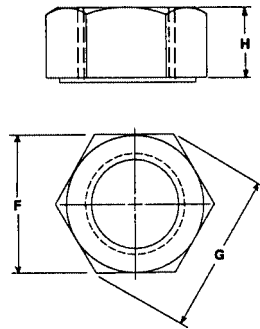
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

MOLDED METRIC HEX NUTS

Part No. K2000 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	G	H
-7	M6 x 1.00	9.78 - 10	min. 11.05	4.9 - 5.2
-8	M8 x 1.25	12.73 - 13	min. 14.38	7.5 - 7.14
-9	M10 x 1.50	15.73 - 16	min. 17.77	8.94 - 9.3
-10	M12 x 1.75	17.73 - 18	min. 20.03	11.57 - 12



L Series

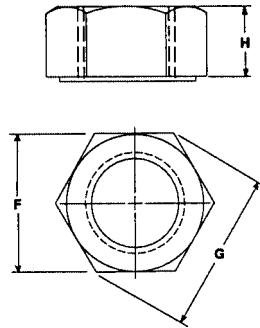
*Available in the following materials:

Material Code No.	Material Name
-15	PEEK™

MOLDED METRIC HEX NUTS

Part No. L2000 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	G	H
-7	M6 x 1.00	9.78 - 10	min. 11.05	4.9 - 5.2
-8	M8 x 1.25	12.73 - 13	min. 14.38	7.5 - 7.14
-9	M10 x 1.50	15.73 - 16	min. 17.77	8.94 - 9.3
-10	M12 x 1.75	17.73 - 18	min. 20.03	11.57 - 12



MOLDED NYLON NUTS and POLYCARBONATE NUTS

*Available in the following materials:

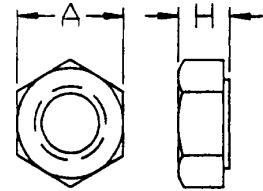
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON HEX NUT

Part No. G100 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H	Size Code No.	Thread Size	A	H
-1	2-56	.180	.070	-14	3/8-24	.560	.330
-2	3-48	.180	.070	-140	3/8-32	.560	.330
-3	4-40	.250	.100	-1400	7/16-14	.685	.380
-4	6-32	.305	.120	-15	7/16-24	.685	.380
-5	6-40	.305	.120	-16	7/16-20	.685	.380
-6	8-32	.335	.130	-17	1/2-13	.750	.430
-7	10-24	.365	.135	-18	1/2-20	.750	.430
-8	10-32	.365	.135	-19	5/8-11	.925	.550
-9	12-24	.425	.207	-20	5/8-18	.925	.550
-10	1/4-20	.433	.233	-200	11/16-27	1.00	.250
-11	1/4-28	.433	.235	-21	3/4-10	1.10	.640
-12	5/16-18	.500	.270	-22	7/8-9	1.28	.750
-120	5/16-24	.500	.270	-23	1-8	1.47	.870
-13	3/8-16	.560	.330				



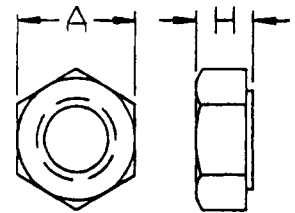
Tolerance on all dimensions +/- .010

NYLON SPECIAL HEX NUT

(G101's are thicker than G100's.)

Part No. G101 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H	Size Code No.	Thread Size	A	H
-1	2-56	.180	.090	-1	2-56	.180	.090
-2	4-40	.250	.124	-2	4-40	.250	.124
-3	6-32	.305	.146	-3	6-32	.305	.146
-4	8-32	.340	.170	-4	8-32	.340	.170
-5	10-24	.365	.196	-5	10-24	.365	.196
-6	10-32	.365	.196	-6	10-32	.365	.196
-7	1/4-20	.425	.258	-7	1/4-20	.425	.258

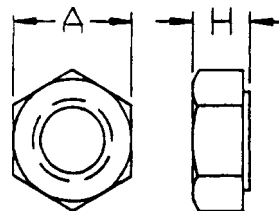


Tolerance on all dimensions +/- .010

POLYCARBONATE HEX NUT

Part No. GP100 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H
-3	2-56	.180	.090
-4	6-32	.305	.120
-6	8-32	.335	.130
-8	10-32	.365	.135



Tolerance on all dimensions +/- .010

MOLDED NYLON NUTS (continued)

*Available in the following materials:

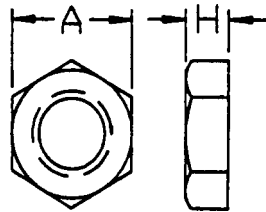
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON HEX JAM NUT

Part No. G102 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H
-1	5/16-18	.500	.190
-2	5/16-24	.500	.190
-3	3/8-16	.500	.125
-30	3/8-16	.670	.218
-4	3/8-24	.500	.125
-5	3/8-32	.500	.125
-6	7/16-14	.687	.375
-7	7/16-20	.687	.250
-70	15/32-32	.625	.125
-8	1/2-13	.687	.220
-9	1/2-24	.687	.220
-10	1/2-28	.660	.125
-100	9/16-18	.750	.250
-1000	9/16-24	.750	.250
-1001	5/8-11	.930	.375
-101	5/8-18	.937	.375
-11	3/4-10	1.12	.250
-110	3/4-16	1.12	.250
-12	3/4-27	1.00	.125
-120	7/8-14	1.25	.340
-1200	7/8-20	1.00	.125
-121	1-8	1.48	.410
-1210	1/8-27 NPT	.560	.110
-122	1/4-18 NPT	.740	.187
-13	3/8-18 NPT	1.00	.280
-14	1/2-14 NPT	1.25	.340
-15	3/4-14 NPT	1.48	.410
-150	1/4-18 NPS	.687	.225
-16	3/8-18 NPS	1.00	.280
-17	1/2-14 NPS	1.25	.340
-18	3/4-14 NPS	1.48	.410

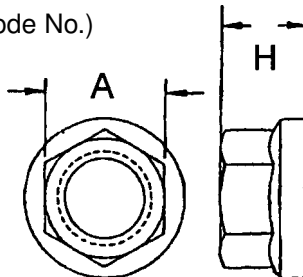


Tolerance on all dimensions +/- .010

NYLON HEX FLANGE NUT

Part No. G113 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H
-1	10-32	.364	.208
-2	1/4-20	.428	.226



Tolerance on all dimensions +/- .010

MOLDED NYLON NUTS (continued)

*Available in the following materials:

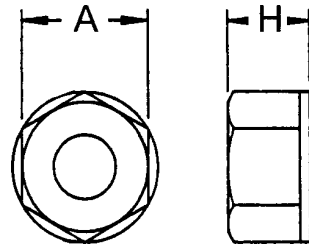
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

**NYLON LOCK NUT
SELF-THREADING**

Part No. G103 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H
-1	2-56	.180	.140
-2	4-40	.250	.200
-3	6-32	.305	.200
-4	8-32	.335	.230
-5	10-24	.365	.250
-6	10-32	.365	.250
-7	1/4-20	.425	.275

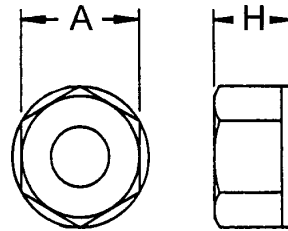


Tolerance on all dimensions +/- .010

NYLON LOCK NUT

Part No. G104 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H
-1	2-56	.180	.140
-2	4-40	.250	.200
-3	6-32	.305	.200
-4	8-32	.335	.230
-5	10-24	.365	.250
-6	10-32	.365	.250
-7	1/4-20	.425	.275

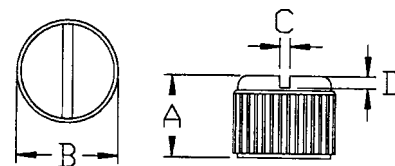


Tolerance on all dimensions +/- .010

NYLON SLOTTED THUMB NUT

Part No. G105 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	C	D
-1	4-40	.280	.317	.039	.045
-2	6-32	.334	.348	.044	.051
-3	8-32	.378	.381	.049	.059
-4	10-24	.357	.400	.056	.068
-5	10-32	.357	.400	.056	.068
-6	1/4-20	.370	.478	.070	.088



Tolerance on all dimensions +/- .010

MOLDED NYLON NUTS (continued)

*Available in the following materials:

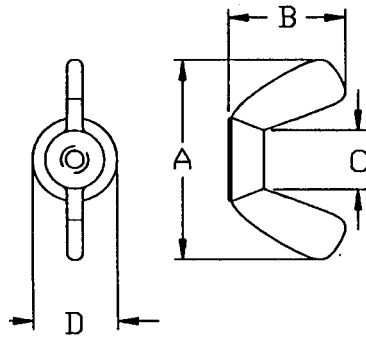
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON WING NUT

Part No. G107 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	C	D
-1	4-40	.90	.48	.23	.40
-2	6-32	.90	.48	.23	.40
-3	8-32	.90	.48	.23	.40
-4	10-24	.90	.48	.23	.40
-5	10-32	.90	.48	.23	.40
-6	10-24	1.10	.63	.30	.56
-7	10-32	1.10	.63	.30	.56
-8	1/4-20	1.10	.63	.30	.56
-9	1/4-28	1.10	.63	.30	.56
-10	1/4-20	1.36	.71	.36	.65
-11	1/4-28	1.36	.71	.36	.65
-12	5/16-18	1.38	.72	.36	.65
-13	3/8-16	1.38	.72	.36	.65
-130	3/8-24	.140	.720	.36	.64
-14	7/16-14	1.76	.90	.58	.85
-15	1/2-13	1.76	.90	.58	.85
-16	9/16-12	1.76	.90	.58	.85

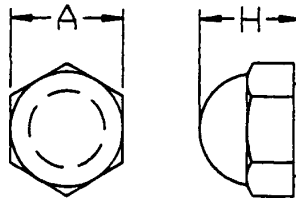


Tolerance on all dimensions +/- .010

NYLON CAP NUT

Part No. GN106 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	H
-1	4-40	.250	.280
-2	6-32	.305	.345
-3	8-32	.330	.375
-4	10-24	.365	.400
-5	10-32	.365	.400
-6	1/4-20	.425	.475
-7	1/4-28	.425	.475
-8	5/16-18	.500	.530
-80	5/16-24	.500	.530
-9	3/8-16	.560	.620
-90	3/8-24	.560	.620
-10	1/2-13	.750	.810
-100	1/2-20	.750	.810
-11	5/8-11	.935	.970



Tolerance on all dimensions +/- .010

*Available in the following materials:

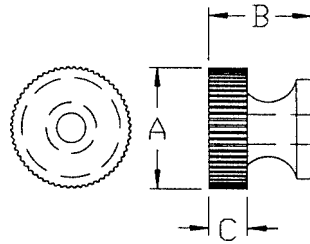
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON KNURLED THUMB NUTS

Part No. G108 - (Size Code No.) - (Material Code No.)

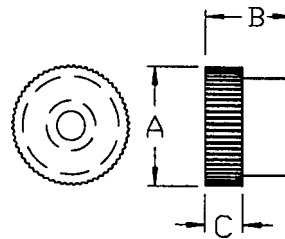
Size Code No.	Thread Size	A	B	C
-1	4-40	.300	.280	.125
-2	6-32	.360	.275	.125
-3	8-32	.425	.305	.140
-4	10-24	.425	.325	.140
-5	10-32	.425	.325	.140
-6	1/4-20	.540	.365	.155
-7	5/16-18	.612	.400	.170
-8	5/16-24	.612	.400	.170



Tolerance on all dimensions +/- .010

Part No. G109 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	C
-1	4-40	.300	.280	.120
-2	6-32	.360	.275	.125
-3	8-32	.425	.305	.140
-4	10-24	.425	.325	.140
-5	10-32	.425	.325	.140
-6	1/4-20	.540	.365	.155
-7	5/16-18	.612	.385	.171
-8	3/8-16	.687	.430	.187
-9	1/2-13	.750	.768	.203



Tolerance on all dimensions +/- .010

MOLDED NYLON METRIC NUTS

*Available in the following materials:

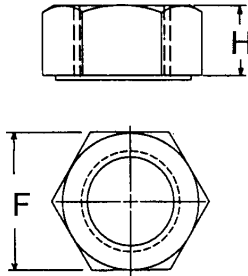
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON METRIC HEX NUTS

Part No. GM114 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	H
-1	M2 x 0,4	3,90	1,20
-2	M2,5 x 0,45	4,90	1,80
-3	M3 x 0,5	5,40	2,20
-4	M3,5 x 0,6	6,90	2,70
-5	M4 x 0,7	6,90	3,00
-6	M5 x 0,8	7,90	4,30
-7	M6 x 1,0	10,00	5,40
-8	M8 x 1,25	12,90	6,40
-9	M10 x 1,50	14,80	9,80
-10	M12 x 1,75	17,74	10,54

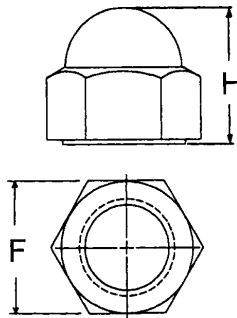


Tolerance on all dimensions +/- .26mm

NYLON METRIC CAP NUTS

Part No. GM115 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	H
-1	M4 x 0,70	7,00	8,00
-2	M5 x 0,80	8,00	10,00
-3	M6 x 1,00	10,00	12,00
-4	M8 x 1,25	13,00	15,00
-5	M10 x 1,50	17,00	18,00
-6	M12 x 1,75	18,90	20,50
-7	M16 x 2,00	23,70	24,80
-8	M20 x 2,50	26,70	29,10



Tolerance on all dimensions +/- .26mm

MOLDED NYLON METRIC NUTS (continued)

*Available in the following materials:

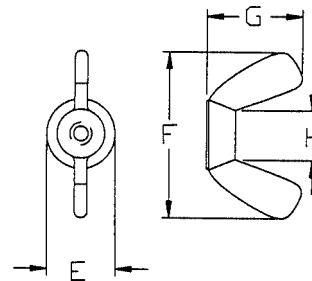
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.

NYLON METRIC WING NUTS

Part No. GM118 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	G	H	E
-100	M3 x 0,50	22,90	12,20	5,80	10,20
-1	M4 x 0,70	22,80	12,20	5,80	10,20
-2	M5 x 0,80	22,80	12,20	5,80	10,20
-3	M6 x 1,00	28,00	16,00	7,60	14,20
-4	M8 x 1,25	35,10	18,30	9,10	16,50
-5	M10 x 1,50	35,10	18,30	9,10	16,50
-6	M12 x 1,70	44,70	22,70	15,00	21,10

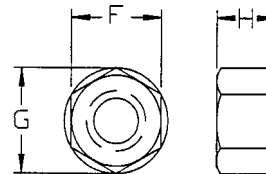


Tolerance on all dimensions +/- .26mm

NYLON METRIC LOCK NUTS

Part No. GM119 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	H
-1	M6 x 1,00	10,90	6,70



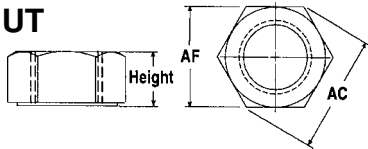
Tolerance on all dimensions +/- .26mm

MOLDED ACME NUTS

MH Series

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-77	Ultem® 2300, (natural)	-520	PPS, 30% Carbon Fiber, (black)
-48	Ryton®, PPS, 40% Short Glass-filled	-81	Isoplast™, 40% Long Glass Fiber, (gray)	-820	Isoplast™, 30% Short Glass Fiber, (gray)
-74	Isoplast™, 40% Long Glass Fiber, (natural)	-108	Polypropylene, 30% Glass-filled	-824	Isoplast™, 30% Short Glass Fiber, (natural)
		-228	Radel® AG330, 30% Glass-filled		

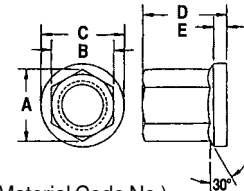
ACME HEX NUT



Part No. MHX2300 - (Size Code No.) - (Material Code No.)

Size Code No.	Size	AF	AC	Height
-1	1/4-12	7/16	0.505	7/32
-2	3/8-12	9/16	0.650	21/64
-3	3/8-8	9/16	0.650	21/64
-4	1/2-10	3/4	0.840	7/16
-5	1/2-5	3/4	0.840	7/16
-6	5/8-8	15/16	1.083	35/64
-7	5/8-5	15/16	1.083	35/64
-8	3/4-6	1-1/8	1.299	41/64
-9	3/4-10	1-1/8	1.299	41/64
-10	1-4	1-1/2	1.732	55/64
-11	1-5	1-1/2	1.732	55/64
-12	1-6	1-1/2	1.732	55/64
-13	1-10	1-1/2	1.732	55/64

ACME FLANGED NUT



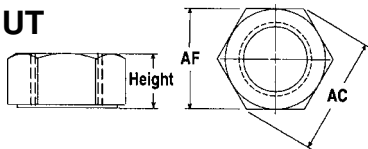
Part No. MHX2200 - (Size Code No.) - (Material Code No.)

Size Code No.	Size	A	B	C	D	E
-1	3/8-12	.635	.555	.745	.750	.120
-2	3/8-8	.635	.555	.745	.750	.120
-3	1/2-10	.840	.730	1.000	.855	.130
-4	1/2-5	.840	.730	1.000	.855	.130
-5	5/8-8	1.050	.920	1.250	1.220	.130
-6	5/8-5	1.050	.920	1.250	1.220	.130
-7	3/4-6	1.285	1.120	1.950	1.590	.130
-8	3/4-10	1.285	1.120	1.950	1.590	.130
-9	1-4	1.750	1.475	2.000	1.750	.188
-10	1-5	1.750	1.475	2.000	1.750	.188
-11	1-6	1.750	1.475	2.000	1.750	.188
-12	1-10	1.750	1.475	2.000	1.750	.188

J Series

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-14	ABS	-90	PEEK™, 30% Short Glass-filled, (natural)	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-231	Radel® R5100 NT15, Polyphenylsulfone
-46	Polycarbonate, (clear)	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Fire Retardant		

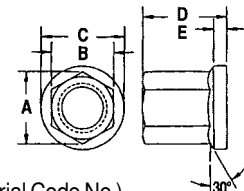
ACME HEX NUT



Part No. J2300 - (Size Code No.) - (Material Code No.)

Size Code No.	Size	AF	AC	Height
-1	1/4-12	7/16	0.505	7/32
-2	3/8-12	9/16	0.650	21/64
-3	3/8-8	9/16	0.650	21/64
-4	1/2-10	3/4	0.840	7/16
-5	1/2-5	3/4	0.840	7/16
-6	5/8-8	15/16	1.083	35/64
-7	5/8-5	15/16	1.083	35/64
-8	3/4-6	1-1/8	1.299	41/64
-9	3/4-10	1-1/8	1.299	41/64
-10	1-4	1-1/2	1.732	55/64
-11	1-5	1-1/2	1.732	55/64
-12	1-6	1-1/2	1.732	55/64
-13	1-10	1-1/2	1.732	55/64

ACME FLANGED NUT



Part No. J2200 - (Size Code No.) - (Material Code No.)

Size Code No.	Size	A	B	C	D	E
-1	3/8-12	.635	.555	.745	.750	.120
-2	3/8-8	.635	.555	.745	.750	.120
-3	1/2-10	.840	.730	1.000	.855	.130
-4	1/2-5	.840	.730	1.000	.855	.130
-5	5/8-8	1.050	.920	1.250	1.220	.130
-6	5/8-5	1.050	.920	1.250	1.220	.130
-7	3/4-6	1.285	1.120	1.950	1.590	.130
-8	3/4-10	1.285	1.120	1.950	1.590	.130
-9	1-4	1.750	1.475	2.000	1.750	.188
-10	1-5	1.750	1.475	2.000	1.750	.188
-11	1-6	1.750	1.475	2.000	1.750	.188
-12	1-10	1.750	1.475	2.000	1.750	.188

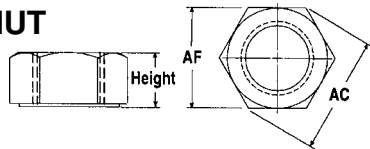
ACME THREADED ROD
can be found on page 237.

MOLDED ACME NUTS (continued)

K Series

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-37	PVDF
-24	Delrin®	-41	Halar®
-25	Delrin® AF		

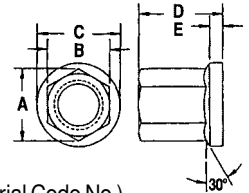
ACME HEX NUT



Part No. **K2300** - (Size Code No.) - (Material Code No.)

Size Code No.	Size	AF	AC	Height
-1	1/4-12	7/16	0.505	7/32
-2	3/8-12	9/16	0.650	21/64
-3	3/8-8	9/16	0.650	21/64
-4	1/2-10	3/4	0.840	7/16
-5	1/2-5	3/4	0.840	7/16
-6	5/8-8	15/16	1.083	35/64
-7	5/8-5	15/16	1.083	35/64
-8	3/4-6	1-1/8	1.299	41/64
-9	3/4-10	1-1/8	1.299	41/64
-10	1-4	1-1/2	1.732	55/64
-11	1-5	1-1/2	1.732	55/64
-12	1-6	1-1/2	1.732	55/64
-13	1-10	1-1/2	1.732	55/64

ACME FLANGED NUT



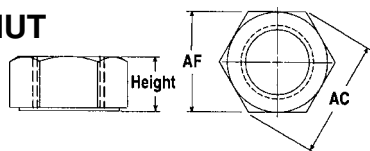
Part No. **K2200** - (Size Code No.) - (Material Code No.)

Size Code No.	Size	A	B	C	D	E
-1	3/8-12	.635	.555	.745	.750	.120
-2	3/8-8	.635	.555	.745	.750	.120
-3	1/2-10	.840	.730	1.000	.855	.130
-4	1/2-5	.840	.730	1.000	.855	.130
-5	5/8-8	1.050	.920	1.250	1.220	.130
-6	5/8-5	1.050	.920	1.250	1.220	.130
-7	3/4-6	1.285	1.120	1.950	1.590	.130
-8	3/4-10	1.285	1.120	1.950	1.590	.130
-9	1-4	1.750	1.475	2.000	1.750	.188
-10	1-5	1.750	1.475	2.000	1.750	.188
-11	1-6	1.750	1.475	2.000	1.750	.188
-12	1-10	1.750	1.475	2.000	1.750	.188

L Series

Material Code No.	Material Name
-15	PEEK™

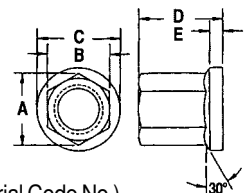
ACME HEX NUT



Part No. **L2300** - (Size Code No.) - (Material Code No.)

Size Code No.	Size	AF	AC	Height
-1	1/4-12	7/16	0.505	7/32
-2	3/8-12	9/16	0.650	21/64
-3	3/8-8	9/16	0.650	21/64
-4	1/2-10	3/4	0.840	7/16
-5	1/2-5	3/4	0.840	7/16
-6	5/8-8	15/16	1.083	35/64
-7	5/8-5	15/16	1.083	35/64
-8	3/4-6	1-1/8	1.299	41/64
-9	3/4-10	1-1/8	1.299	41/64
-10	1-4	1-1/2	1.732	55/64
-11	1-5	1-1/2	1.732	55/64
-12	1-6	1-1/2	1.732	55/64
-13	1-10	1-1/2	1.732	55/64

ACME FLANGED NUT



Part No. **L2200** - (Size Code No.) - (Material Code No.)

Size Code No.	Size	A	B	C	D	E
-1	3/8-12	.635	.555	.745	.750	.120
-2	3/8-8	.635	.555	.745	.750	.120
-3	1/2-10	.840	.730	1.000	.855	.130
-4	1/2-5	.840	.730	1.000	.855	.130
-5	5/8-8	1.050	.920	1.250	1.220	.130
-6	5/8-5	1.050	.920	1.250	1.220	.130
-7	3/4-6	1.285	1.120	1.950	1.590	.130
-8	3/4-10	1.285	1.120	1.950	1.590	.130
-9	1-4	1.750	1.475	2.000	1.750	.188
-10	1-5	1.750	1.475	2.000	1.750	.188
-11	1-6	1.750	1.475	2.000	1.750	.188
-12	1-10	1.750	1.475	2.000	1.750	.188

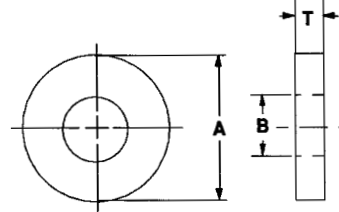
MOLDED WASHERS and SPACERS

MOLDED NYLON FLAT WASHERS

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED FLAT WASHERS starting on page 181-185.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-2	.090	.031	.031	-30	.312	.110	.125	-5900	.187	.130	.150	-8510	.312	.150	.040
-2020	.156	.031	.002	-31	.314	.110	.062	-61	.285	.130	.060	-86	.312	.150	.050
-2024	.085	.032	.062	-32	.206	.112	.053	-62	.312	.130	.062	-8600	.312	.150	.060
-2026	.125	.032	.060	-33	.240	.113	.040	-6300	.355	.130	.062	-87	.375	.150	.030
-3	.100	.035	.020	-3300	.199	.115	.050	-6302	.375	.130	.030	-8704	.750	.150	.055
-4	.153	.038	.060	-3305	.197	.115	.030	-6400	.375	.131	.093	-8708	.251	.151	.035
-5	.170	.038	.060	-34	.250	.115	.032	-65	.295	.135	.127	-90	.375	.153	.063
-6	.138	.040	.033	-35	.250	.115	.062	-650	.490	.136	.055	-9020	.251	.155	.077
-600	.120	.045	.130	-36	.250	.115	.093	-66	.310	.138	.030	-9030	.280	.155	.160
-8	.156	.050	.200	-37	.250	.115	.125	-660	.505	.138	.080	-9000	.250	.156	.100
-8000	.185	.051	.132	-39	.290	.115	.047	-67	.180	.139	.064	-9100	.312	.156	.125
-8002	.120	.055	.080	-3900	.312	.115	.140	-7000	.250	.140	.150	-9200	.320	.156	.031
-9	.312	.062	.125	-3902	.182	.120	.125	-7010	.260	.140	.080	-9210	.438	.156	.062
-10	.120	.063	.180	-3904	.187	.120	.032	-7020	.250	.140	.094	-93	.440	.156	.032
-1000	.312	.063	.090	-41	.187	.120	.060	-7022	.281	.140	.020	-94	.687	.156	.135
-12	.179	.065	.078	-4110	.187	.120	.062	-7024	.312	.140	.020	-95	1.000	.156	.062
-1200	.197	.067	.154	-4105	.190	.120	.100	-71	.312	.140	.032	-9500	.315	.157	.197
-13	.156	.076	.062	-42	.218	.120	.037	-72	.312	.140	.047	-96	.250	.160	.062
-14	.259	.081	.062	-4200	.250	.120	.140	-73	.312	.140	.062	-98	.285	.160	.032
-15	.695	.082	.184	-4300	.275	.120	.062	-74	.312	.140	.093	-9800	.310	.160	.060
-16	.196	.085	.031	-4302	.280	.120	.145	-75	.312	.140	.125	-99	.312	.162	.062
-17	.187	.086	.130	-4305	.281	.120	.020	-76	.375	.140	.080	-100	.500	.165	.075
-1700	1.000	.093	.125	-4400	.280	.120	.030	-760	.400	.140	.062	-101	.620	.165	.250
-18	.188	.094	.020	-4405	.281	.120	.060	-764	.500	.140	.062	-1010	.250	.166	.061
-19	.250	.090	.032	-4410	.281	.120	.040	-77	.187	.141	.125	-1015	.250	.166	.082
-20	.250	.090	.055	-45	.288	.120	.040	-7700	.234	.141	.090	-103	.354	.169	.031
-21	.250	.090	.062	-4600	.228	.122	.093	-78	.250	.141	.062	-1030	.375	.170	.040
-22	.250	.090	.093	-47	.199	.125	.045	-79	.375	.141	.031	-1035	.375	.170	.050
-23	.250	.090	.125	-50	.225	.125	.100	-80	.562	.141	.062	-104	.682	.170	.062
-2301	.187	.091	.080	-51	.235	.125	.040	-8110	.250	.142	.110	-105	.246	.171	.100
-2300	.219	.094	.100	-52	.250	.125	.062	-8115	.250	.143	.082	-107	.250	.171	.100
-24	.375	.094	.281	-53	.250	.125	.095	-8118	.307	.144	.059	-109	.375	.171	.032
-25	.312	.095	.062	-530	.250	.125	.150	-8220	.500	.144	.125	-110	.375	.171	.062
-2500	.178	.098	.045	-54	.312	.125	.032	-8224	.187	.145	.050	-111	.375	.171	.093
-26	.186	.098	.030	-55	.315	.125	.031	-8226	.250	.147	.125	-112	.375	.171	.125
-27	.197	.100	.156	-56	.375	.125	.040	-8228	.495	.147	.298	-114	.630	.171	.060
-2702	.316	.100	.033	-5600	.375	.125	.072	-8230	.225	.150	.045	-118	.375	.172	.060
-2700	1.250	.100	.060	-5602	.500	.125	.125	-8232	.225	.150	.090	-1180	.375	.173	.093
-2704	.502	.101	.040	-57	.625	.125	.062	-8238	.280	.150	.108	-1182	.500	.175	.062
-28	.220	.104	.031	-58	.250	.126	.025	-8700	.329	.150	.060	-119	.408	.177	.062
-2890	.281	.107	.020	-5800	.245	.128	.093	-8500	.312	.150	.020				
-29	.158	.110	.070	-59	.322	.128	.062	-8505	.312	.150	.030				

(continued next page)

Tolerances:
O.D. +/- .015.

Thickness & I.D. +/- .010

.031 I.D. to .177 I.D.

MOLDED WASHERS and SPACERS (continued)

Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-1190	.356	.179	.118	-1451	.460	.204	.031	-1740	.486	.252	.069	-2077	.731	.266	.118
-1192	.370	.184	.047	-1452	.500	.205	.125	-175	.622	.252	.060	-2078	.618	.270	.220
-1195	.310	.185	.032	-1454	.270	.207	.050	-176	.375	.253	.084	-2079	1.250	.270	.080
-1210	.250	.187	.130	-146	.435	.209	.039	-1760	.443	.253	.125	-2080	.416	.272	.120
-1215	.256	.187	.045	-1460	.492	.209	.020	-1764	.568	.253	.093	-2082	.538	.272	.047
-122	.312	.187	.050	-147	.620	.209	.187	-178	.565	.254	.094	-2084	.750	.274	.250
-1220	.380	.187	.155	-148	.280	.210	.125	-1780	1.000	.254	.325	-2086	.433	.275	.075
-1225	.440	.187	.093	-1480	.307	.210	.125	-1784	.375	.255	.093	-2088	2.150	.275	.125
-1228	.500	.187	.062	-1485	.375	.210	.152	-179	.382	.255	.195	-2090	.335	.280	.195
-123	.625	.187	.062	-149	.375	.210	.160	-180	.500	.255	.075	-2092	.453	.280	.030
-124	.750	.187	.156	-1490	.740	.215	.095	-181	.555	.255	.047	-209	.630	.280	.030
-125	.500	.188	.032	-1500	.313	.217	.125	-182	.900	.255	.125	-210	.687	.280	.031
-1250	.500	.188	.062	-1505	.345	.218	.032	-1820	.591	.256	.087	-2100	.490	.281	.030
-126	1.500	.188	.068	-151	.375	.218	.032	-183	.500	.257	.032	-212	.625	.281	.110
-1260	.330	.189	.080	-1510	.438	.218	.156	-184	.500	.257	.062	-2110	.625	.281	.210
-1265	.375	.189	.031	-152	.625	.218	.031	-186	.500	.257	.093	-214	.719	.281	.062
-1268	1.006	.189	.040	-153	.625	.218	.062	-187	.500	.257	.125	-2150	1.250	.281	.063
-127	1.006	.189	.064	-154	.625	.218	.125	-188	.625	.257	.020	-216	.753	.282	.123
-1270	.282	.190	.065	-155	.625	.218	.250	-1884	.750	.257	.030	-2162	.638	.283	.027
-128	.310	.190	.032	-156	.625	.218	.500	-1880	.750	.257	.062	-2167	.625	.284	.062
-1290	.335	.190	.032	-1570	.750	.218	.187	-1886	.750	.257	.109	-217	.445	.290	.033
-130	.375	.190	.065	-1575	.500	.219	.156	-189	.875	.257	.031	-2170	.560	.290	.062
-1300	.434	.190	.125	-158	.295	.220	.127	-190	.875	.257	.062	-2174	.625	.292	.040
-1310	.750	.191	.100	-159	.374	.220	.062	-1900	1.250	.257	.255	-218	.685	.295	.062
-1320	.312	.192	.110	-1580	.738	.220	.155	-1910	.312	.260	.070	-220	.750	.296	.032
-1322	.370	.192	.080	-1585	.740	.220	.120	-1912	.312	.260	.109	-2190	1.000	.297	.063
-1324	.370	.192	.125	-1590	.377	.221	.095	-193	.350	.260	.062	-2194	.750	.300	.125
-1326	.406	.192	.062	-1596	.348	.222	.081	-195	.437	.260	.047	-2196	.620	.301	.039
-1328	.510	.193	.050	-1598	.450	.222	.048	-204	.490	.260	.245	-2198	.578	.307	.125
-131	.750	.193	.040	-160	1.258	.226	.065	-196	.560	.260	.125	-221	.495	.310	.095
-132	.375	.194	.032	-1604	1.250	.226	.125	-197	.562	.260	.062	-2212	.750	.310	.170
-133	.375	.194	.062	-161	.312	.228	.250	-198	.615	.260	.100	-2214	.750	.310	.375
-134	.375	.194	.093	-1610	.415	.229	.102	-1984	.625	.260	.140	-222	1.175	.310	.125
-135	.375	.194	.125	-162	.970	.230	.125	-1986	.625	.260	.180	-2210	1.250	.310	.120
-1350	.525	.194	.032	-163	.406	.234	.062	-1988	1.225	.260	.060	-2220	.500	.312	.096
-136	.625	.194	.125	-164	.425	.235	.130	-199	.685	.260	.032	-223	.500	.312	.125
-1362	1.000	.194	.160	-1642	.350	.240	.040	-1990	.687	.260	.020	-224	.500	.312	.156
-1364	.245	.195	.125	-166	.375	.242	.062	-1995	.687	.260	.050	-2240	.625	.312	.250
-1360	.437	.195	.020	-1660	.433	.244	.054	-200	.687	.260	.040	-2245	.712	.312	.081
-137	.437	.195	.031	-1664	.689	.244	.2364	-201	.687	.260	.060	-225	.812	.312	.125
-1370	.437	.195	.040	-167	.375	.250	.093	-2010	.745	.260	.066	-226	.855	.312	.125
-1373	.437	.195	.050	-1670	.375	.250	.150	-2015	.745	.260	.125	-227	.875	.312	.125
-1376	.437	.195	.060	-168	.435	.250	.094	-202	.750	.261	.095	-228	.875	.312	.187
-1380	.245	.195	.125	-1680	.465	.250	.015	-192	.312	.262	.127	-2280	1.000	.312	.032
-139	.435	.196	.046	-169	.500	.250	.150	-1922	.433	.262	.126	-2284	1.000	.312	.187
-1390	.353	.197	.157	-170	.562	.250	.031	-1924	.500	.262	.150	-2286	1.500	.312	.062
-1395	.280	.200	.093	-171	.625	.250	.062	-1928	1.000	.264	.070	-229	.531	.313	.031
-140	.380	.200	.030	-1710	.625	.250	.190	-1934	.405	.265	.125	-2310	.560	.315	.062
-141	.390	.200	.031	-172	.719	.250	.062	-205	.560	.265	.030	-231	.625	.315	.031
-1410	.400	.200	.093	-173	1.250	.250	.255	-2052	.562	.265	.187	-233	.872	.315	.062
-142	.437	.200	.062	-1730	1.250	.250	.062	-206	.620	.265	.192	-2330	.890	.315	.215
-143	.437	.200	.090	-1731	1.375	.250	.064	-2060	.625	.265	.093	-234	1.121	.316	.034
-1430	.437	.200	.115	-1732	1.375	.250	.750	-2070	.875	.265	.093	-235	.500	.317	.032
-144	.450	.200	.048	-1733	1.395	.250	.118	-2072	1.000	.265	.262	-236	.500	.317	.062
-145	.435	.202	.187	-1734	.389	.251	.125	-2073	1.500	.265	.312				
-1450	.562	.203	.062	-174	.472	.252	.059	-2076	1.500	.265	.375				

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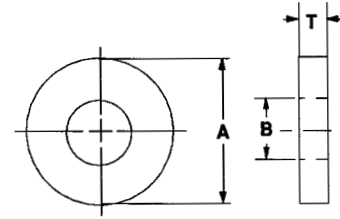
Tolerances:
O.D. +/- .015.
Thickness & I.D. +/- .010

.179 I.D. to .317 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-237	.500	.317	.093	-2555	.472	.350	.110	-2868	.542	.388	.220	-3138	.805	.418	.062
-238	.500	.317	.125	-257	.620	.350	.188	-2869	.695	.388	.059	-314	.687	.421	.031
-2380	.565	.317	.095	-258	.750	.352	.031	-2894	.754	.389	.075	-315	.687	.421	.062
-2384	.750	.317	.040	-259	.735	.360	.160	-289	.625	.390	.265	-316	.625	.422	.203
-239	.750	.317	.062	-2590	.983	.360	.120	-2892	.680	.390	.125	-320	.810	.435	.060
-2390	.890	.317	.245	-2595	.547	.363	.062	-2900	.688	.390	.031	-317	.625	.437	.093
-2392	.440	.318	.031	-261	1.235	.365	.110	-2905	.750	.390	.050	-318	.625	.437	.250
-2395	.680	.318	.187	-262	.560	.373	.031	-2910	.720	.390	.300	-3180	.629	.437	.125
-241	.688	.318	.190	-263	.505	.375	.050	-292	.750	.390	.062	-3182	.750	.437	.036
-2412	.755	.318	.100	-2630	.591	.374	.118	-293	.750	.390	.140	-3184	.876	.437	.502
-2414	.500	.320	.170	-2632	.453	.375	.062	-294	.875	.390	.093	-3186	1.250	.437	.125
-2415	.500	.320	.200	-2634	.490	.375	.087	-295	.880	.390	.062	-319	1.500	.437	.130
-2416	.500	.320	.250	-2636	.500	.375	.032	-2950	.885	.390	.094	-3190	.650	.440	.125
-2410	.500	.320	.281	-265	.500	.375	.087	-2952	1.000	.390	.175	-3192	.662	.440	.122
-2411	.560	.320	.187	-266	.530	.375	.093	-2954	1.000	.390	.250	-3194	.750	.440	.093
-2413	.562	.320	.020	-267	.625	.375	.032	-296	1.120	.390	.125	-3200	.745	.443	.095
-2417	.562	.320	.125	-269	.750	.375	.062	-2960	1.265	.390	.156	-321	.750	.443	.032
-2418	.750	.320	.250	-2690	.750	.375	.125	-298	1.267	.390	.045	-322	.750	.443	.062
-2420	1.000	.320	.375	-2694	3.750	.375	.062	-2970	2.000	.390	.062	-323	.750	.443	.093
-2424	1.125	.320	.062	-270	.825	.375	.100	-300	.757	.394	.125	-324	.750	.443	.125
-232	.625	.321	.125	-272	.900	.375	.055	-301	.785	.394	.080	-3240	.670	.448	.120
-243	.750	.323	.125	-2730	1.000	.375	.062	-3010	.748	.395	.093	-325	1.000	.450	.125
-2430	1.000	.326	.125	-2732	1.000	.375	.312	-303	.598	.396	.175	-3250	1.375	.450	.090
-2435	.630	.327	.071	-2735	1.500	.375	.375	-3030	.860	.397	.165	-326	.938	.453	.155
-245	.390	.328	.079	-274	.875	.377	.062	-3034	.748	.400	.089	-3260	.709	.461	.110
-2450	.562	.328	.095	-2740	1.170	.377	.062	-3036	1.270	.400	.062	-327	.523	.463	.060
-2455	.590	.328	.147	-2744	.551	.378	.063	-3038	.528	.402	.039	-328	.713	.463	.065
-246	.750	.328	.032	-2748	.615	.380	.122	-304	.807	.402	.065	-3282	.614	.464	.110
-2460	.465	.330	.031	-275	.625	.380	.062	-3040	.748	.403	.059	-3284	.575	.467	.090
-2465	.625	.330	.092	-276	.625	.380	.093	-3044	.542	.404	.097	-3286	.659	.468	.119
-2470	1.375	.330	.125	-277	.625	.380	.125	-3048	.542	.404	.110	-3288	.750	.470	.200
-2475	.944	.331	.098	-2770	.750	.380	.187	-305	.540	.405	.112	-3280	.929	.472	.126
-2478	1.000	.333	.385	-279	.875	.380	.093	-3052	.512	.406	.089	-3292	.685	.473	.190
-2480	1.500	.335	.125	-2790	.937	.380	.062	-3054	.615	.406	.042	-329	.525	.475	.070
-248	.709	.336	.079	-2800	1.250	.380	.125	-3056	.625	.406	.120	-3295	1.184	.477	.079
-249	.683	.337	.063	-2804	1.370	.380	.125	-3050	.750	.406	.032	-330	.825	.480	.100
-2490	.990	.337	.292	-281	.932	.381	.031	-3051	.750	.406	.060	-3302	.554	.481	.030
-2495	1.000	.339	.154	-2810	.540	.382	.096	-3055	.750	.406	.200	-331	.671	.481	.031
-250	.615	.340	.125	-2814	.738	.382	.160	-308	.984	.406	.125	-3310	.775	.485	.150
-251	.740	.340	.062	-282	.750	.382	.066	-309	1.000	.406	.062	-3312	1.006	.485	.040
-256	.865	.340	.187	-283	.750	.382	.160	-3094	1.005	.406	.080	-3314	.710	.490	.125
-2510	1.260	.340	.250	-284	.500	.385	.160	-3090	1.055	.406	.250	-333	.809	.495	.059
-2515	.437	.343	.062	-2840	.625	.385	.185	-310	.875	.408	.060	-3330	.742	.498	.119
-2518	.687	.343	.031	-2845	.750	.385	.020	-3100	.625	.410	.033	-3352	.600	.500	.120
-252	.500	.343	.109	-2848	.750	.385	.045	-312	1.010	.410	.100	-3354	.625	.500	.132
-2530	.885	.343	.062	-287	.750	.385	.200	-313	.866	.413	.098	-3305	.880	.500	.065
-2535	.980	.343	.065	-2860	.880	.385	.125	-3130	1.181	.413	.098	-336	.875	.500	.125
-255	.687	.344	.064	-2865	.885	.385	.062	-3134	.555	.415	.060				
-2550	.452	.349	.075	-2866	.812	.386	.187	-3136	.990	.416	.060				

(continued next page)

Tolerances:
O.D. +/- .015.

Thickness & I.D. +/- .010

.317 I.D. to .500 I.D.

MOLDED WASHERS and SPACERS (continued)

Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-337	.900	.500	.075	-3650	.755	.558	.030	-3944	.871	.706	.111	-4196	1.500	1.015	.250
-3372	1.000	.500	.062	-3654	.825	.561	.145	-3946	1.102	.728	.039	-4198	1.135	1.022	.500
-3374	1.000	.500	.100	-3658	.700	.565	.062	-3970	.840	.730	.125	-4190	1.312	1.026	.191
-3376	1.125	.500	.062	-366	.705	.562	.093	-3973	1.000	.730	.062	-420	1.850	1.028	.120
-341	1.500	.500	.125	-368	1.000	.562	.125	-3975	1.060	.740	.100	-421	1.218	1.031	.040
-3410	1.220	.502	.150	-3680	1.255	.562	.031	-3978	1.062	.740	.225	-4210	2.500	1.075	.125
-342	1.120	.503	.033	-3684	1.024	.563	.220	-3982	.875	.750	.160	-4216	2.000	1.080	.160
-343	.625	.505	.092	-3688	.750	.565	.125	-3980	1.505	.750	.053	-422	1.312	1.088	.062
-344	.750	.505	.032	-371	.687	.568	.062	-3984	.875	.755	.125	-423	2.935	1.125	.093
-345	.750	.505	.062	-3710	.715	.570	.100	-3986	.962	.755	.101	-4234	1.540	1.164	.192
-346	.750	.505	.093	-3720	.937	.580	.082	-3988	1.000	.755	.175	-4230	1.468	1.180	.100
-347	.750	.505	.125	-3725	.937	.583	.062	-3992	1.500	.755	.125	-4238	1.500	1.250	.125
-3470	1.000	.505	.125	-3726	.882	.589	.085	-3996	1.000	.760	.062	-4240	1.695	1.255	.065
-3478	1.500	.505	.125	-3730	.778	.590	.032	-3990	1.420	.760	.100	-4243	3.000	1.270	.093
-3475	1.500	.505	.130	-3732	1.493	.604	.220	-3998	1.125	.763	.125	-4245	2.260	1.275	.120
-348	.940	.506	.064	-3734	.753	.605	.055	-400	1.250	.765	.080	-425	2.010	1.280	.135
-3480	.692	.507	.042	-3736	.753	.605	.067	-4000	1.490	.765	.100	-4260	2.280	1.325	.120
-3482	1.500	.507	.250	-3728	1.128	.605	.239	-402	.993	.771	.124	-427	1.625	1.375	.110
-3484	.745	.509	.150	-3737	.805	.621	.125	-4020	1.000	.781	.075	-4272	1.650	1.395	.140
-3486	.643	.510	.090	-3738	.805	.621	.101	-4030	1.575	.795	.039	-4270	1.635	1.405	.093
-3488	.805	.510	.125	-373	.750	.625	.170	-403	1.250	.805	.060	-4274	2.250	1.410	.130
-3489	.805	.510	.220	-374	.937	.625	.093	-404	2.000	.805	.062	-4275	2.180	1.420	.050
-3492	1.312	.510	.400	-3740	1.312	.625	.050	-4040	2.968	.805	.062	-4278	2.970	1.490	.125
-3490	1.375	.510	.062	-378	1.718	.625	.050	-405	1.490	.810	.062	-4290	1.619	1.495	.245
-3494	2.000	.510	.060	-379	.875	.627	.114	-406	1.057	.812	.125	-429	1.724	1.500	.032
-3496	1.570	.512	.118	-380	.812	.630	.100	-4060	1.250	.812	.080	-430	1.906	1.500	.093
-3498	.750	.515	.250	-3800	.812	.630	.220	-4062	1.750	.812	.125	-4306	1.985	1.525	.125
-350	.775	.515	.250	-3802	1.130	.630	.062	-4064	3.132	.812	.125	-431	2.000	1.525	.060
-3500	.900	.515	.060	-3804	1.562	.630	.062	-4066	1.250	.839	.040	-4310	2.995	1.625	.093
-3510	1.500	.515	.437	-3806	2.000	.630	.125	-4068	1.114	.840	.127	-4318	2.205	1.720	.050
-352	1.468	.515	.050	-381	1.000	.631	.128	-4070	1.000	.844	.125	-432	2.500	1.750	.125
-3520	.740	.516	.125	-3810	1.004	.631	.065	-407	1.031	.844	.040	-433	2.135	1.760	.130
-3495	.743	.516	.093	-382	1.000	.632	.185	-4074	1.117	.875	.195	-434	2.060	1.800	.055
-353	1.250	.516	.062	-383	2.930	.632	.150	-408	1.250	.875	.125	-4360	2.690	1.930	.125
-354	1.000	.518	.080	-384	.782	.633	.125	-4082	1.280	.880	.062	-438	3.260	2.620	.062
-3540	1.490	.521	.120	-3840	.995	.635	.250	-4080	1.125	.889	.060	-439	3.016	2.800	.072
-355	.712	.522	.062	-3845	1.120	.635	.140	-4086	1.125	.920	.126	-440	3.016	2.800	.122
-3550	.738	.522	.120	-386	.781	.640	.031	-409	1.750	.928	.275	-460	3.600	3.030	.075
-3554	1.363	.523	.051	-387	1.375	.640	.090	-4102	1.310	.938	.040				
-3556	.690	.525	.250	-388	1.225	.643	.100	-4104	1.625	.940	.060				
-3558	.636	.526	.098	-3880	1.122	.644	.217	-4106	1.132	.942	.130				
-357	1.375	.525	.125	-389	1.310	.645	.120	-4100	1.800	.948	.057				
-358	.718	.526	.219	-3892	1.119	.650	.090	-413	1.203	.984	.050				
-3580	.718	.526	.281	-3890	.844	.656	.060	-4130	1.450	.990	.120				
-359	.750	.530	.230	-390	1.375	.656	.125	-4134	1.625	1.000	.187				
-3593	1.375	.530	.173	-3910	1.575	.659	.118	-4138	2.250	1.000	.075				
-3596	.697	.531	.158	-3906	1.000	.655	.125	-414	1.312	1.000	.125				
-3598	.700	.531	.093	-392	1.500	.665	.094	-415	1.312	1.000	.191				
-3590	.740	.531	.187	-3920	.957	.666	.139	-416	1.437	1.000	.069				
-361	.865	.531	.200	-393	.865	.688	.155	-417	1.450	1.000	.063				
-3610	.870	.531	.187	-3930	.960	.692	.126	-4170	1.563	1.000	.062				
-364	1.625	.531	.312	-3934	1.500	.696	.120	-418	1.245	1.001	.031				
-3640	1.120	.540	.125	-394	.812	.695	.093	-4180	1.468	1.010	.112				
-3644	.817	.544	.140	-3940	1.425	.697	.100	-4184	1.375	1.015	.125				
-3646	1.030	.550	.062	-3942	.926	.705	.124	-419	1.500	1.015	.080				

Tolerances:
O.D. +/- .015.
Thickness & I.D. +/- .010

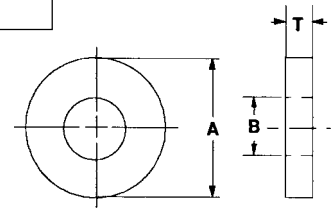
.500 I.D. to 3.030 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.



MOLDED NYLON METRIC FLAT WASHERS

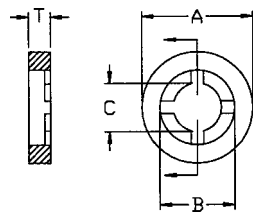
Part No. GM117 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	T	Size Code No.	Thread Size	A	B	T	Size Code No.	Thread Size	A	B	T
-1	M2	5,00	2,15	0,80	-6	M5	11,00	5,30	1,00	-11	M12	25,14	13,43	2,53
-2	M2,5	5,60	2,65	0,80	-7	M6	12,00	6,40	1,50	-12	M12	33,64	13,40	3,06
-3	M3	8,00	3,20	0,80	-8	M8	18,00	8,40	2,00	Tolerance on all dimensions +/- .25mm				
-4	M3,5	8,00	3,70	0,80	-9	M8,5	25,00	8,50	2,00					
-5	M4	9,00	4,30	0,80	-10	M10	22,00	10,50	2,50					

MOLDED NYLON RETAINING WASHERS

Part No. F127 - (Size Code No.) - (Material Code No.)

Size Code No.	A	B	C	T	Size Code No.	A	B	C	T	Size Code No.	A	B	C	T
-1	.203	.115	.078	.031	-9	.453	.277	.177	.031	-17	1.031	.570	.410	.031
-2	.203	.115	.078	.062	-10	.453	.277	.177	.062	-18	1.031	.570	.410	.062
-3	.265	.156	.102	.032	-100	.500	.277	.177	.062	-19	1.125	.690	.468	.031
-4	.265	.156	.102	.062	-11	.594	.375	.234	.031	-20	1.125	.690	.468	.062
-40	.265	.156	.102	.125	-12	.594	.375	.234	.062	-200	1.260	.563	.350	.062
-5	.328	.198	.128	.031	-13	.734	.470	.292	.031	-202	1.334	.940	.825	.062
-6	.328	.198	.128	.062	-14	.734	.470	.292	.062	-204	1.385	1.070	.970	.062
-7	.390	.235	.152	.031	-15	.890	.564	.350	.031					
-8	.390	.235	.152	.062	-16	.890	.564	.350	.062					

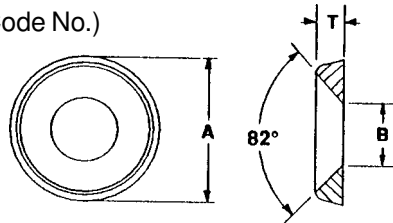


Tolerances:
O.D. +/- .015.
Thickness +/- .010
I.D. +/- .010

MOLDED NYLON FINISHING WASHERS

Part No. G1203 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thick T	Screw Size
-1	.437	.143	.100	#6
-2	.515	.171	.115	#8
-3	.580	.191	.152	#10
-4	.609	.225	.160	#12
-5	.683	.260	.183	1/4



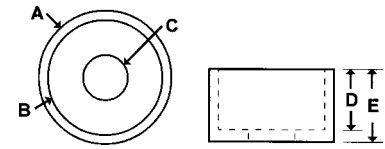
Tolerances:
O.D. +/- .015.
Thickness & I.D. +/- .010

For other materials see
MACHINED FINISHING WASHERS
on page 194.

MOLDED NYLON CUP WASHERS

Part No. DN400 - (Size Code No.) - (Material Code No.)

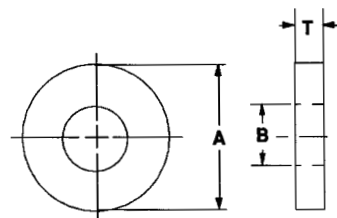
Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E
-1	.305	.245	.115	.117	.157	-31	.497	.389	.187	.093	.139	-50	.895	.625	.344	.250	.375
-2	.360	.300	.140	.142	.182	-32	.568	.375	.201	.127	.157	-54	.895	.625	.344	.375	.500
-3	.414	.354	.171	.166	.206	-4	.470	.410	.194	.190	.230						
-30	.414	.354	.171	.130	.170	-5	.595	.535	.257	.247	.287						



MOLDED CUSHIONING WASHERS and SPACERS

Standard Material:

Material Code No. Material Name
 -67 Engage 8400, (clear)



Part No. FW110 - (Size Code No.) - (Material Code No.)

Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T	Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T
-1	6	.250	.141	.060	-11	1/2	2.250	.530	.125
-2	8	.312	.171	.060	-12	5/8	2.250	.680	.125
-3	10	.375	.190	.060	-120	3/4	1.375	.875	.187
-4	12	.437	.200	.093	-13	3/4	2.250	.780	.125
-5	1/4	.500	.257	.093	-14	7/8	2.250	.890	.125
-6	5/16	.562	.317	.093	-15	1	2.250	1.060	.125
-7	3/8	.625	.380	.093	-16	1	3.000	1.060	.125
-70	1/2	.750	.531	.235	-160	1 1/4	1.875	1.312	.125
-8	1/2	1.000	.530	.093	-17	1 1/4	3.000	1.280	.125
-9	3/8	2.250	.380	.125	-175	1 7/8	2.281	1.937	.125
-10	3/8	3.000	.380	.125					

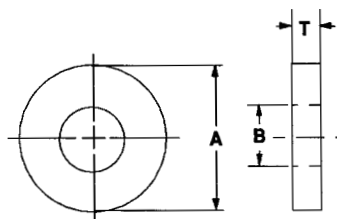
Tolerance: +/- .020

SPECIAL MOLDED WASHERS and SPACERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-520	PPS, 30%Carbon Fiber, (black)
-48	Ryton® (PPS), 40% Short Glass-filled	-820	Isoplast™, 30% Short Glass-fiber, (grey)
-77	Ultem® 2300, (natural)	-822	Isoplast™, 40% Short Glass-fiber, (natural)
-228	Radel® AG330, 30% Glass-filled	-824	Isoplast™, 30% Short Glass-fiber, (natural)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED FLAT WASHERS starting on page 181-185.



Part No. FW126 - (Size Code No.) - (Material Code No.)

Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T	Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T
-1	6	.250	.141	.060	-10	3/8	3.000	.380	.125
-100	6	.312*	.141**	.060	-11	1/2	2.250	.530	.125
-2	8	.312	.171	.060	-12	5/8	2.250	.680	.125
-3	10	.375	.190	.060	-120	3/4	1.375	.875	.187
-4	12	.437	.200	.093	-13	3/4	2.250	.780	.125
-5	1/4	.500	.257	.093	-14	7/8	2.250	.890	.125
-6	5/16	.562	.317	.093	-15	1	2.250	1.060	.125
-7	3/8	.625	.380	.093	-16	1	3.000	1.060	.125
-70	1/2	.750	.531	.235	-160	1 1/4	1.875	1.312	.125
-8	1/2	1.000	.530	.093	-17	1 1/4	3.000	1.280	.125
-9	3/8	2.250	.380	.125	-175	1 7/8	2.281	1.937	.125

Tolerance: +/- .020

* Tolerance: +/- .010

** Tolerance: +/- .003

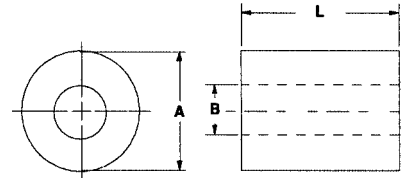
MOLDED WASHERS and SPACERS (continued)

MOLDED NYLON SPACERS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED SPACERS starting on page 196-202.



ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-5000	.138	.038	.065	-44	.250	.100	.127	-92	.312	.115	.437
-5005	.138	.038	.125	-4400	.250	.110	.530	-93	.312	.115	.500
-5010	.125	.047	.187	-4410	.157	.102	.217	-94	.312	.115	.562
-5015	.125	.047	.375	-4415	.198	.109	.345	-95	.312	.115	.625
-4	.125	.063	.187	-46	.187	.115	.125	-96	.312	.115	.687
-4010	.156	.063	.120	-47	.187	.115	.187	-97	.312	.115	.750
-4000	.187	.063	.250	-49	.187	.115	.250	-98	.312	.115	.812
-4005	.187	.063	.300	-4900	.187	.115	.281	-99	.312	.115	.875
-5	.187	.067	.140	-50	.187	.115	.312	-100	.312	.115	.937
-6	.150	.078	.312	-51	.187	.115	.375	-101	.312	.115	1.000
-6000	.148	.085	.280	-52	.187	.115	.437	-102	.312	.115	1.062
-6015	.188	.090	.520	-53	.187	.115	.500	-103	.312	.115	1.125
-8	.187	.091	.125	-54	.187	.115	.562	-104	.312	.115	1.187
-9	.187	.091	.187	-55	.187	.115	.625	-105	.312	.115	1.250
-9000	.187	.091	.203	-56	.187	.115	.687	-106	.312	.115	1.312
-10	.187	.091	.250	-57	.187	.115	.750	-107	.312	.115	1.375
-11	.187	.091	.312	-58	.187	.115	.812	-108	.312	.115	1.437
-12	.187	.091	.375	-59	.187	.115	.875	-109	.312	.115	1.500
-13	.187	.091	.437	-60	.187	.115	.937	-111	.375	.115	1.062
-14	.187	.091	.500	-61	.187	.115	1.000	-1120	.197	.118	.108
-15	.187	.091	.562	-62	.250	.115	.125	-1112	.187	.120	.312
-16	.187	.091	.625	-63	.250	.115	.187	-1114	.187	.120	.343
-17	.187	.091	.687	-630	.250	.115	.207	-1115	.187	.120	.430
-18	.187	.091	.750	-64	.250	.115	.218	-1116	.187	.120	.437
-19	.187	.091	.812	-65	.250	.115	.250	-1119	.250	.120	.200
-20	.187	.091	.844	-66	.250	.115	.312	-1130	.250	.120	.389
-21	.187	.091	.875	-67	.250	.115	.375	-112	.470	.120	.359
-22	.187	.091	.937	-68	.250	.115	.437	-113	.193	.125	.250
-23	.187	.091	1.000	-69	.250	.115	.500	-114	.216	.125	.135
-2310	.188	.091	.275	-70	.250	.115	.562	-1140	.218	.125	.385
-2300	.188	.091	.330	-71	.250	.115	.625	-1145	.250	.125	.375
-24	.250	.091	.125	-72	.250	.115	.687	-1150	.250	.125	.420
-25	.250	.091	.187	-73	.250	.115	.750	-1155	.250	.125	.823
-26	.250	.091	.250	-74	.250	.115	.812	-116	.280	.125	.296
-27	.250	.091	.312	-75	.250	.115	.875	-117	.296	.125	.094
-28	.250	.091	.375	-76	.250	.115	.937	-1172	.325	.125	.360
-29	.250	.091	.437	-77	.250	.115	1.000	-1175	.375	.125	.437
-30	.250	.091	.500	-78	.250	.115	1.062	-118	.250	.126	.797
-31	.250	.091	.562	-79	.250	.115	1.125	-119	.310	.126	.410
-32	.250	.091	.625	-80	.250	.115	1.187	-120	.203	.130	.281
-33	.250	.091	.687	-81	.250	.115	1.250	-1210	.187	.135	.250
-34	.250	.091	.750	-82	.250	.115	1.312	-122	.220	.138	.656
-35	.250	.091	.812	-83	.250	.115	1.375	-1220	.236	.138	.118
-36	.250	.091	.875	-84	.250	.115	1.437	-1225	.354	.138	.374
-37	.250	.091	.937	-85	.250	.115	1.500	-124	.218	.140	.156
-38	.250	.091	1.000	-86	.251	.115	.531	-1240	.250	.140	.150
-39	.192	.093	.203	-87	.312	.115	.125	-125	.250	.140	.125
-40	.375	.094	.281	-88	.312	.115	.187	-127	.250	.140	.187
-41	.312	.095	.250	-89	.312	.115	.250	-1270	.250	.140	.220
-4200	.187	.096	.156	-90	.312	.115	.312				
-43	.160	.100	.406	-91	.312	.115	.375				

(continued next page)

Tolerances: O.D. & Length +/- .015
I.D. +/- .010

.038 I.D. to .140 I.D.

MOLDED WASHERS and SPACERS (continued)

ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-129	.250	.140	.250	-184	.375	.140	.750	-234	.250	.171	.500
-130	.250	.140	.312	-185	.375	.140	.812	-235	.250	.171	.562
-131	.250	.140	.375	-186	.375	.140	.875	-2350	.250	.171	.575
-132	.250	.140	.437	-187	.375	.140	.937	-236	.250	.171	.625
-133	.250	.140	.500	-188	.375	.140	1.000	-237	.250	.171	.687
-1330	.250	.140	.531	-189	.375	.140	1.062	-238	.250	.171	.750
-134	.250	.140	.547	-190	.375	.140	1.125	-239	.250	.171	.812
-135	.250	.140	.562	-191	.375	.140	1.187	-240	.250	.171	.875
-136	.250	.140	.625	-192	.375	.140	1.250	-241	.250	.171	.937
-1360	.250	.140	.640	-193	.375	.140	1.312	-242	.250	.171	1.000
-137	.250	.140	.687	-194	.375	.140	1.375	-243	.312	.171	.125
-138	.250	.140	.750	-195	.375	.140	1.439	-244	.312	.171	.187
-139	.250	.140	.812	-196	.375	.140	1.500	-245	.312	.171	.250
-140	.250	.140	.875	-197	.400	.140	.718	-246	.312	.171	.312
-141	.250	.140	.937	-198	.400	.140	.781	-247	.312	.171	.375
-142	.250	.140	1.000	-199	.500	.140	.125	-248	.312	.171	.437
-143	.250	.140	1.062	-200	.500	.140	.187	-249	.312	.171	.500
-144	.250	.140	1.125	-201	.500	.140	.250	-250	.312	.171	.562
-145	.250	.140	1.187	-202	.500	.140	.312	-251	.312	.171	.625
-146	.250	.140	1.250	-203	.500	.140	.375	-2510	.312	.171	.625
-147	.250	.140	1.312	-204	.500	.140	.437	-252	.312	.171	.687
-148	.250	.140	1.375	-205	.500	.140	.500	-253	.312	.171	.750
-149	.250	.140	1.437	-206	.500	.140	.562	-254	.312	.171	.812
-150	.250	.140	1.500	-207	.500	.140	.625	-255	.312	.171	.875
-151	.312	.140	.125	-208	.500	.140	.687	-256	.312	.171	.937
-152	.312	.140	.187	-209	.500	.140	.750	-257	.312	.171	1.000
-1520	.312	.140	.200	-210	.500	.140	.812	-258	.312	.171	1.062
-153	.312	.140	.250	-211	.500	.140	.875	-259	.312	.171	1.125
-154	.312	.140	.281	-212	.500	.140	.937	-260	.312	.171	1.187
-155	.312	.140	.312	-213	.500	.140	1.000	-261	.312	.171	1.250
-156	.312	.140	.375	-2130	.625	.140	.375	-262	.312	.171	1.312
-157	.312	.140	.437	-214	.250	.141	.281	-263	.312	.171	1.375
-158	.312	.140	.500	-2155	.200	.145	.110	-264	.312	.171	1.437
-159	.312	.140	.562	-216	.200	.145	.171	-265	.312	.171	1.500
-160	.312	.140	.625	-217	.215	.145	.328	-2650	.312	.171	1.875
-161	.312	.140	.687	-2170	.500	.145	.669	-2655	.312	.171	2.437
-162	.312	.140	.750	-220	.250	.147	.297	-266	.375	.171	.125
-163	.312	.140	.812	-2205	.250	.150	.250	-267	.375	.171	.187
-164	.312	.140	.875	-2208	.254	.150	.166	-268	.375	.171	.203
-1640	.312	.140	.937	-221	.393	.151	.250	-269	.375	.171	.250
-165	.312	.140	1.000	-222	.251	.152	.156	-270	.375	.171	.312
-166	.312	.140	1.062	-2220	.250	.155	.160	-271	.375	.171	.375
-167	.312	.140	1.125	-2223	.210	.156	.250	-272	.375	.171	.437
-168	.312	.140	1.187	-2225	.312	.156	.256	-273	.375	.171	.500
-169	.312	.140	1.250	-223	.687	.156	.125	-274	.375	.171	.562
-170	.312	.140	1.312	-2240	.250	.160	.750	-275	.375	.171	.625
-171	.312	.140	1.375	-2245	.625	.160	.312	-276	.375	.171	.687
-172	.312	.140	1.437	-2250	.250	.166	.500	-277	.375	.171	.750
-173	.312	.140	1.500	-2255	.236	.169	.154	-278	.375	.171	.812
-174	.375	.140	.125	-226	.393	.169	.234	-279	.375	.171	.875
-175	.375	.140	.187	-2260	.280	.170	.300	-280	.375	.171	.937
-176	.375	.140	.250	-2263	.500	.170	.255	-281	.375	.171	1.000
-177	.375	.140	.312	-2265	.500	.170	.270	-282	.375	.171	1.062
-1770	.375	.140	.343	-228	.250	.171	.125	-283	.375	.171	1.125
-178	.375	.140	.375	-229	.250	.171	.187	-284	.375	.171	1.187
-179	.375	.140	.437	-231	.250	.171	.312	-285	.375	.171	1.250
-180	.375	.140	.500	-2310	.250	.171	.355	-286	.375	.171	1.312
-181	.375	.140	.562	-232	.250	.171	.375	-287	.375	.171	1.375
-182	.375	.140	.625	-2320	.250	.171	.413	-288	.375	.171	1.437
-183	.375	.140	.687	-230	.250	.171	.250	-289	.375	.171	1.500
-1830	.375	.140	.700	-233	.250	.171	.437				
-1835	.375	.140	.725	-2330	.250	.171	.475				

(continued next page)

Tolerances: O.D. & Length +/- .015
I.D. +/- .010

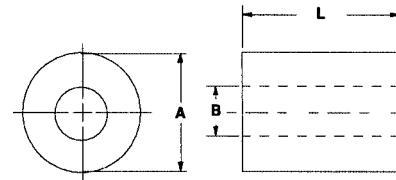
.140 I.D. to .171 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SPACERS starting on page 196-202.



ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-2890	.437	.171	.655	-3370	.312	.194	1.155	-3832	.343	.198	.281
-290	.500	.171	.125	-338	.312	.194	1.187	-383	.260	.200	.594
-291	.500	.171	.187	-339	.312	.194	1.250	-3830	.750	.200	1.000
-292	.500	.171	.250	-340	.312	.194	1.312	-385	.375	.203	.109
-293	.500	.171	.312	-341	.312	.194	1.375	-386	.375	.203	.265
-294	.500	.171	.375	-3410	.312	.194	1.405	-387	.606	.203	.625
-295	.500	.171	.437	-342	.312	.194	1.437	-389	.825	.203	.625
-296	.500	.171	.500	-343	.312	.194	1.500	-3892	.250	.205	.230
-297	.500	.171	.562	-343	.370	.194	.418	-3894	.312	.205	.160
-298	.500	.171	.625	-344	.375	.194	.125	-3890	.620	.209	.187
-299	.500	.171	.687	-345	.375	.194	.187	-3896	.500	.213	.250
-300	.500	.171	.750	-346	.375	.194	.250	-3898	.320	.215	.220
-301	.500	.171	.812	-347	.375	.194	.312	-3902	.312	.218	.812
-302	.500	.171	.875	-348	.375	.194	.375	-3900	.375	.218	.437
-303	.500	.171	.937	-349	.375	.194	.437	-3910	.375	.219	.156
-304	.500	.171	1.000	-350	.375	.194	.500	-3913	.375	.219	.171
-3040	.354	.172	.531	-351	.375	.194	.562	-3915	.375	.219	.203
-3042	.245	.175	.156	-352	.375	.194	.625	-392	.375	.219	.250
-3046	.245	.175	.166	-353	.375	.194	.687	-393	.500	.219	.125
-3047	.312	.175	.154	-354	.375	.194	.750	-394	.500	.219	.187
-3043	.376	.175	.150	-355	.375	.194	.812	-395	.500	.219	.250
-3046	.400	.180	.140	-356	.375	.194	.875	-396	.500	.219	.312
-3048	.427	.182	.734	-357	.375	.194	.937	-397	.500	.219	.375
-3049	.275	.185	.090	-358	.375	.194	1.000	-398	.500	.219	.437
-308	.312	.187	.215	-359	.375	.194	1.062	-399	.500	.219	.500
-3082	.313	.187	.171	-360	.375	.194	1.125	-400	.500	.219	.562
-3090	.990	.187	.250	-361	.375	.194	1.187	-401	.500	.219	.625
-3122	.250	.188	.188	-362	.375	.194	1.250	-4010	.500	.219	.649
-3124	.316	.188	.203	-363	.375	.194	1.312	-402	.500	.219	.687
-3126	.313	.189	.296	-364	.375	.194	1.375	-403	.500	.219	.750
-315	.463	.190	.312	-365	.375	.194	1.437	-404	.500	.219	.812
-316	.475	.191	.328	-366	.375	.194	1.500	-405	.500	.219	.875
-317	.625	.191	.250	-367	.500	.194	.125	-406	.500	.219	.937
-3185	.375	.192	.187	-368	.500	.194	.187	-407	.500	.219	1.000
-321	.312	.194	.125	-369	.500	.194	.250	-4070	.533	.219	.360
-322	.312	.194	.187	-370	.500	.194	.312	-408	.375	.220	.375
-323	.312	.194	.250	-371	.500	.194	.375	-4081	.500	.220	.135
-324	.312	.194	.312	-372	.500	.194	.406	-4080	.748	.220	.252
-325	.312	.194	.375	-373	.500	.194	.437	-4082	.313	.222	.238
-326	.312	.194	.437	-374	.500	.194	.500	-4086	.284	.224	.400
-327	.312	.194	.500	-375	.500	.194	.562	-391	.312	.225	.437
-3270	.312	.194	.530	-376	.500	.194	.625	-4087	.375	.225	.250
-328	.312	.194	.562	-377	.500	.194	.687	-4083	.312	.228	.260
-329	.312	.194	.625	-378	.500	.194	.750	-4085	.375	.230	.925
-330	.312	.194	.687	-379	.500	.194	.812	-4088	.354	.236	.224
-331	.312	.194	.750	-380	.500	.194	.875	-4089	.500	.244	.295
-332	.312	.194	.812	-381	.500	.194	.937	-4090	.555	.245	.562
-333	.312	.194	.875	-382	.500	.194	1.000	-4092	.750	.245	.361
-334	.312	.194	.937	-3824	.250	.195	.195	-4094	.312	.246	.250
-334	.312	.194	.937	-3827	.275	.195	.400	-4096	.312	.246	.495
-335	.312	.194	.937	-3820	.312	.195	.214	-4098	.374	.248	.406
-335	.312	.194	1.000	-3828	.312	.195	.355	-4099	.946	.248	.500
-336	.312	.194	1.062	-3825	.313	.195	.385				
-337	.312	.194	1.125	-3822	.500	.195	.451				

(continued next page)

Tolerances: O.D. & Length +/- .015
 I.D. +/- .010

.171 I.D. to .248 I.D.

MOLDED WASHERS and SPACERS (continued)

ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-4095	.501	.249	.390	-424	.500	.260	.125	-4652	.406	.311	.591
-4100	.375	.250	.593	-425	.500	.260	.187	-465	.623	.311	.812
-4102	.380	.250	.440	-427	.500	.260	.250	-4656	.437	.312	.350
-4104	.437	.250	.591	-435	.500	.260	.750	-467	.500	.312	.156
-4106	.437	.250	3.940	-436	.500	.260	.812	-4670	.500	.312	1.312
-4108	.500	.250	2.125	-437	.500	.260	.875	-4672	.589	.312	.310
-4110	.535	.250	.610	-4430	.500	.260	1.375	-4674	.625	.312	.500
-4116	.602	.250	.622	-441	.500	.260	1.625	-4676	.750	.312	.250
-413	.610	.250	.375	-444	.625	.260	.250	-4678	.750	.312	.562
-4133	.625	.250	.650	-4423	.687	.260	.457	-4679	.750	.312	.938
-414	.740	.250	.250	-4420	.750	.260	.125	-470	.812	.312	.125
-4140	.745	.250	.375	-4425	.750	.260	.375	-4700	1.000	.312	.250
-4142	.750	.250	.500	-4429	.750	.260	.500	-4713	1.240	.312	.250
-4143	.750	.250	.500	-4432	.750	.260	.562	-4715	.612	.313	.687
-4144	.750	.250	.878	-4422	.750	.260	.750	-4724	.468	.314	.230
-4146	.866	.250	.394	-4434	.750	.260	1.000	-473	.590	.314	.359
-4160	1.000	.250	.125	-4436	1.000	.260	.375	-4730	.625	.315	.312
-4163	1.000	.250	.187	-445	.370	.265	.156	-4732	.750	.315	.187
-4162	1.000	.250	.225	-446	.375	.265	.250	-4733	.750	.315	.312
-4164	1.000	.250	.250	-447	.375	.265	.375	-474	.360	.316	.250
-4167	1.000	.250	.437	-448	.375	.265	.500	-4740	.500	.316	.234
-4166	1.180	.250	.217	-449	.375	.265	.750	-4743	.500	.316	.500
-4165	1.860	.250	1.000	-450	.375	.265	.875	-4655	.437	.318	.281
-417	.389	.251	.125	-451	.375	.265	1.000	-475	.567	.318	.547
-4170	.875	.251	.625	-4514	.406	.265	1.000	-4750	.437	.318	.150
-4172	.360	.252	.425	-4518	.406	.265	.562	-4752	.590	.319	.655
-4175	.375	.252	.187	-4510	.406	.265	.625	-4755	.380	.320	.382
-418	.375	.252	.375	-452	.406	.265	.750	-4753	.395	.320	.591
-4178	.375	.252	.820	-4522	.500	.265	.156	-4756	.415	.320	.640
-4180	.460	.252	.562	-4524	.500	.265	.200	-4758	.486	.320	.375
-4181	.375	.254	.453	-4520	.730	.265	.295	-4761	.500	.320	.270
-4182	.385	.254	.245	-4526	.875	.265	.156	-476	.510	.320	.875
-4183	.355	.255	.130	-4528	.875	.265	.250	-4764	.750	.320	.500
-4130	.621	.255	.652	-4532	.875	.265	.375	-4763	.750	.320	.750
-4184	.375	.255	.380	-4530	.875	.265	.750	-4766	.750	.320	1.000
-4185	.375	.255	.700	-4531	1.250	.265	.750	-477	.570	.320	.547
-4186	.750	.255	.290	-4534	.750	.266	.312	-4766	.437	.323	.156
-4187	1.250	.256	.220	-453	.406	.267	.500	-4760	.620	.323	.187
-4195	.433	.256	.531	-454	.406	.269	.250	-4783	.750	.323	.250
-4182	.355	.254	.553	-455	.625	.270	.218	-4782	.438	.325	.422
-420	.610	.256	1.500	-4552	.340	.280	.310	-480	.450	.325	.421
-4205	.375	.257	.250	-4554	.340	.280	.500	-4786	.480	.325	.250
-4210	.375	.257	1.250	-4555	.406	.280	.375	-4785	.480	.325	1.250
-4250	.480	.257	.177	-4557	.340	.280	.500	-4788	.615	.325	.813
-423	.490	.257	.375	-4570	.560	.280	.500	-4810	.875	.325	2.000
-426	.500	.257	.234	-457	.625	.280	.437	-4814	.640	.327	.560
-428	.500	.257	.312	-458	.648	.280	.359	-4815	.750	.327	.188
-4280	.500	.257	.359	-4580	.750	.280	.440	-481	.500	.328	1.000
-429	.500	.257	.375	-4582	.875	.280	.500	-4812	.615	.328	.438
-4290	.500	.257	.406	-4584	.500	.281	.375	-4816	.625	.328	.250
-430	.625	.257	.125	-459	.500	.281	.812	-4818	1.000	.328	1.000
-431	.500	.257	.500	-4592	.563	.281	.375	-4813	.565	.330	.560
-432	.500	.257	.562	-460	.613	.281	.500	-4820	.875	.330	.375
-4320	.500	.257	.437	-461	.615	.281	.812	-4822	.500	.335	.209
-433	.500	.257	.625	-463	1.120	.281	.437	-4828	.700	.335	.866
-434	.500	.257	.687	-4633	.500	.285	.630	-4823	.625	.342	.375
-438	.500	.257	.937	-4634	.430	.285	.400	-483	.484	.343	.187
-439	.500	.257	1.000	-4635	.500	.285	.930	-4833	1.000	.343	.125
-4415	.750	.257	1.000	-464	.985	.285	.250	-4835	.500	.344	.812
-4418	.825	.257	.370	-4642	.372	.288	.969	-4836	.750	.344	.250
-442	.750	.258	.437	-4643	1.240	.307	.500				
-4419	.305	.260	.179	-4645	.740	.310	.437				

(continued next page)

Tolerances: O.D. & Length +/- .015
I.D. +/- .010

.249 I.D. to .344 I.D.

MOLDED WASHERS and SPACERS (continued)

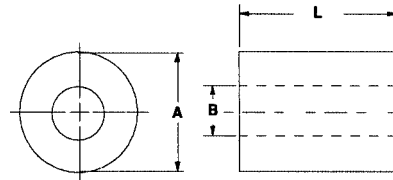
*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED SPACERS starting on page 196-202.

ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)



Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-4838	.750	.344	.520	-5022	.625	.386	.738	-5195	1.250	.510	.700
-4839	.990	.344	.312	-5026	.745	.387	.187	-5200	.720	.515	.490
-4837	1.000	.344	.187	-5028	.510	.390	.250	-5205	.750	.515	.340
-4840	1.000	.344	.435	-5033	.625	.390	.250	-520	.656	.516	.500
-484	.480	.345	.187	-4973	.680	.390	.625	-5200	1.000	.517	.312
-485	.620	.350	.187	-5034	.740	.390	1.000	-5205	1.000	.517	.375
-4850	.630	.350	.200	-5036	.975	.390	1.180	-5210	1.000	.517	.687
-4852	.670	.350	.200	-5038	.720	.392	.230	-5215	.635	.520	.500
-4853	.750	.350	.685	-5030	.472	.394	.787	-5220	.998	.523	.453
-4856	.980	.352	.500	-5032	.760	.394	.910	-521	.803	.520	.500
-4860	.375	.354	.473	-5034	.744	.397	.371	-52125	1.460	.521	.500
-486	.984	.366	.375	-5035	.460	.400	.440	-524	.718	.526	.218
-4865	.500	.368	.470	-5036	.755	.400	.290	-525	.718	.526	.281
-487	.750	.370	.343	-5037	1.250	.400	.625	-5250	.870	.527	.875
-4870	.500	.375	.225	-5038	.760	.401	.600	-5254	1.000	.530	.500
-4871	.500	.375	.380	-5043	.750	.403	.312	-5258	.754	.531	.451
-488	.500	.375	.437	-5040	.812	.403	.250	-528	.870	.531	.391
-489	.500	.375	.625	-5042	.812	.403	.710	-5280	.835	.540	.188
-4901	.500	.375	.635	-5044	.750	.406	.562	-5282	.680	.600	.560
-490	.500	.375	.687	-5045	1.000	.406	.437	-5283	.841	.605	.600
-491	.562	.375	.500	-5046	.625	.412	.155	-5284	.870	.610	.500
-4910	.625	.375	.082	-5047	.875	.421	.325	-5286	1.750	.625	.250
-4912	.625	.375	.375	-505	.635	.425	.875	-5288	.913	.635	.641
-4914	.625	.375	.462	-5050	.634	.434	.380	-5333	1.250	.642	.082
-4916	.750	.375	.375	-5051	.770	.434	.377	-5335	1.000	.643	.500
-4918	.875	.375	.312	-5053	.625	.435	.250	-5338	1.000	.650	.373
-4920	1.000	.375	.800	-5056	.567	.437	.406	-535	1.375	.656	.125
-492	.986	.375	.250	-5057	.885	.438	.370	-5353	1.457	.669	.315
-4923	1.000	.375	.625	-5059	.515	.445	.380	-5358	1.062	.680	.200
-4943	.630	.378	.500	-5063	.625	.450	.625	-538	1.055	.740	.187
-4945	.560	.379	.315	-507	.625	.450	.875	-540	1.000	.755	.203
-495	.560	.379	.375	-5070	1.000	.450	.219	-5400	1.239	.761	.562
-497	.500	.380	.421	-5076	1.000	.453	.219	-5403	1.000	.765	.562
-4970	.625	.380	.750	-508	.750	.460	.250	-5405	.907	.780	.315
-4972	.625	.380	1.250	-5082	.752	.480	.226	-5407	.917	.785	.750
-4975	.750	.380	.472	-5083	.627	.484	.467	-541	1.057	.812	.125
-4986	1.250	.380	.380	-509	.750	.490	.375	-5410	1.188	.813	.250
-4990	.465	.382	.282	-510	.618	.500	.484	-5415	1.250	.875	.562
-4992	.500	.382	.312	-5103	.625	.500	.312	-5423	1.000	.915	.250
-4994	.500	.382	.625	-5104	.625	.500	1.000	-543	1.750	.928	.281
-4996	.518	.382	.280	-5105	.630	.500	1.250	-5430	1.080	.950	.875
-4984	.500	.383	.500	-512	.987	.500	.375	-5433	1.500	1.000	.500
-4982	.750	.383	.437	-5120	.780	.501	.205	-5435	1.500	1.020	.500
-499	.505	.385	.156	-5143	.620	.504	.625	-5436	1.120	1.015	.375
-500	.500	.385	1.000	-514	.620	.504	.812	-5438	1.320	1.031	.562
-5003	.615	.385	.187	-5140	.620	.504	.812	-5453	1.262	1.043	.950
-5004	.625	.385	.187	-5144	1.240	.505	.500	-547	1.312	1.078	.750
-5005	.635	.385	.230	-516	.668	.506	.937	-549	1.500	1.187	.359
-5006	.745	.385	.312	-517	.620	.507	1.687	-5492	1.625	1.388	.093
-5007	.750	.385	.203	-518	.620	.507	.500	-5496	2.013	1.420	.350
-5008	1.000	.385	.340	-519	.775	.507	.250	-5498	2.130	1.630	.130
-5013	1.000	.385	.375	-5190	.984	.509	.984	-550	2.135	1.760	.125
-502	.625	.386	.609	-5193	.750	.510	.188				
-5020	.625	.386	.625	-5194	.750	.510	.375				

Tolerances: O.D. & Length +/- .015
I.D. +/- .010

.344 I.D. to 1.760 I.D.

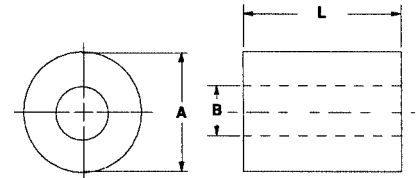
MOLDED WASHERS and SPACERS (continued)

MOLDED NYLON SPACERS

*Available in the following materials:

Material Code No. Material Name
 -78 Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SPACERS starting on page 196-202.



ROUND METRIC SPACERS

Part No. DN242 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-1	4 mm	2.6 mm	2 mm	-44	6 mm	3.6 mm	3 mm	-87	12 mm	8.3 mm	10 mm
-2	4 mm	2.6 mm	3 mm	-45	6 mm	3.6 mm	5 mm	-88	12 mm	8.3 mm	15 mm
-3	4 mm	2.6 mm	5 mm	-46	6 mm	3.6 mm	7.5 mm	-89	12 mm	8.3 mm	20 mm
-4	4 mm	2.6 mm	7.5 mm	-47	6 mm	3.6 mm	10 mm	-90	12 mm	8.3 mm	25 mm
-5	4 mm	2.6 mm	10 mm	-48	6 mm	3.6 mm	15 mm	-91	12 mm	8.3 mm	30 mm
-6	4 mm	2.6 mm	15 mm	-49	6 mm	3.6 mm	20 mm	-92	18 mm	8.3 mm	3 mm
-7	4 mm	2.6 mm	20 mm	-50	6 mm	3.6 mm	25 mm	-93	18 mm	8.3 mm	5 mm
-8	4 mm	2.6 mm	25 mm	-51	6 mm	3.6 mm	30 mm	-94	18 mm	8.3 mm	7.5 mm
-9	4 mm	2.6 mm	30 mm	-52	8 mm	4.3 mm	3 mm	-95	18 mm	8.3 mm	10 mm
-10	5 mm	2.6 mm	2 mm	-53	8 mm	4.3 mm	5 mm	-96	18 mm	8.3 mm	15 mm
-11	5 mm	2.6 mm	3 mm	-54	8 mm	4.3 mm	7.5 mm	-97	18 mm	8.3 mm	20 mm
-12	5 mm	2.6 mm	5 mm	-55	8 mm	4.3 mm	10 mm	-98	18 mm	8.3 mm	25 mm
-13	5 mm	2.6 mm	7.5 mm	-56	8 mm	4.3 mm	15 mm	-99	18 mm	8.3 mm	30 mm
-14	5 mm	2.6 mm	10 mm	-57	8 mm	4.3 mm	20 mm	-100	15 mm	10.4 mm	3 mm
-15	5 mm	2.6 mm	15 mm	-58	8 mm	4.3 mm	25 mm	-101	15 mm	10.4 mm	5 mm
-16	5 mm	2.6 mm	20 mm	-59	8 mm	4.3 mm	30 mm	-102	15 mm	10.4 mm	7.5 mm
-17	5 mm	2.6 mm	25 mm	-60	10 mm	5.3 mm	3 mm	-103	15 mm	10.4 mm	10 mm
-18	5 mm	2.6 mm	30 mm	-61	10 mm	5.3 mm	5 mm	-104	15 mm	10.4 mm	15 mm
-19	5 mm	3.2 mm	2 mm	-62	10 mm	5.3 mm	7.5 mm	-105	15 mm	10.4 mm	20 mm
-20	5 mm	3.2 mm	3 mm	-63	10 mm	5.3 mm	10 mm	-106	15 mm	10.4 mm	25 mm
-21	5 mm	3.2 mm	5 mm	-64	10 mm	5.3 mm	15 mm	-107	15 mm	10.4 mm	30 mm
-22	5 mm	3.2 mm	7.5 mm	-65	10 mm	5.3 mm	20 mm	-108	22 mm	10.4 mm	5 mm
-23	5 mm	3.2 mm	10 mm	-66	10 mm	5.3 mm	25 mm	-109	22 mm	10.4 mm	10 mm
-24	5 mm	3.2 mm	15 mm	-67	10 mm	5.3 mm	30 mm	-110	22 mm	10.4 mm	15 mm
-25	5 mm	3.2 mm	20 mm	-68	10 mm	6.3 mm	3 mm	-111	22 mm	10.4 mm	20 mm
-26	5 mm	3.2 mm	25 mm	-69	10 mm	6.3 mm	5 mm	-112	22 mm	10.4 mm	25 mm
-27	5 mm	3.2 mm	30 mm	-70	10 mm	6.3 mm	7.5 mm	-113	22 mm	10.4 mm	30 mm
-28	6 mm	3.2 mm	3 mm	-71	10 mm	6.3 mm	10 mm	-118	18 mm	13.3 mm	3 mm
-29	6 mm	3.2 mm	5 mm	-72	10 mm	6.3 mm	15 mm	-119	18 mm	13.3 mm	5 mm
-30	6 mm	3.2 mm	7.5 mm	-73	10 mm	6.3 mm	20 mm	-120	18 mm	13.3 mm	7.5 mm
-31	6 mm	3.2 mm	10 mm	-74	10 mm	6.3 mm	25 mm	-121	18 mm	13.3 mm	10 mm
-32	6 mm	3.2 mm	15 mm	-75	10 mm	6.3 mm	30 mm	-122	18 mm	13.3 mm	15 mm
-33	6 mm	3.2 mm	20 mm	-76	15 mm	6.5 mm	3 mm	-123	18 mm	13.3 mm	20 mm
-34	6 mm	3.2 mm	25 mm	-77	15 mm	6.5 mm	5 mm	-124	18 mm	13.3 mm	25 mm
-35	6 mm	3.2 mm	30 mm	-78	15 mm	6.5 mm	7.5 mm	-125	18 mm	13.3 mm	30 mm
-36	8 mm	3.2 mm	3 mm	-79	15 mm	6.5 mm	10 mm	-126	25 mm	13.3 mm	5 mm
-37	8 mm	3.2 mm	5 mm	-80	15 mm	6.5 mm	15 mm	-127	25 mm	13.3 mm	10 mm
-38	8 mm	3.2 mm	7.5 mm	-81	15 mm	6.5 mm	20 mm	-128	25 mm	13.3 mm	15 mm
-39	8 mm	3.2 mm	10 mm	-82	15 mm	6.5 mm	25 mm	-129	25 mm	13.3 mm	20 mm
-40	8 mm	3.2 mm	15 mm	-83	15 mm	6.5 mm	30 mm	-130	25 mm	13.3 mm	25 mm
-41	8 mm	3.2 mm	20 mm	-84	12 mm	8.3 mm	3 mm	-131	25 mm	13.3 mm	30 mm
-42	8 mm	3.2 mm	25 mm	-85	12 mm	8.3 mm	5 mm	-132	10 mm	6.3 mm	28 mm
-43	8 mm	3.2 mm	30 mm	-86	12 mm	8.3 mm	7.5 mm				

Tolerances: O.D. & Length +/- .38mm
 I.D. +/- .26mm

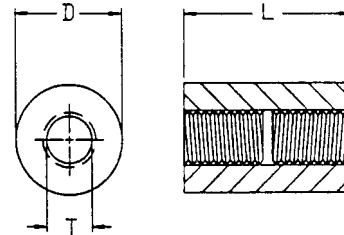
2.6 mm I.D. to 6.3 mm I.D.

MOLDED WASHERS and SPACERS (continued)

MOLDED NYLON SPACERS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



TAPPED ROUND SPACERS

Part No. DN207 - (Size Code No.) - (Material Code No.)

Size Code No.	T Thread	L Lgth.	D Dia.	Size Code No.	T Thread	L Lgth.	D Dia.	Size Code No.	T Thread	L Lgth.	D Dia.
-102	2-56	1/4	1/4	-24	6-32**	1/2	1/4	-51	8-32***	1/2	5/16
-101	2-56	3/8	3/16	-25	6-32**	9/16	1/4	-52	8-32***	5/8	5/16
-1	2-56	7/16	3/16	-26	6-32**	5/8	1/4	-53	8-32***	3/4	5/16
-100	2-56	1/2	3/16	-27	6-32**	3/4	1/4	-54	8-32***	7/8	5/16
-105	4-40	5/32	3/16	-28	6-32**	15/16	1/4	-55	8-32***	1	5/16
-2	4-40*	1/4	1/4	-29	6-32**	7/8	1/4	-56	10-32****	1/4	3/8
-3	4-40*	5/16	1/4	-30	6-32**	1	1/4	-57	10-32****	3/8	3/8
-4	4-40*	3/8	1/4	-31	6-32**	1 1/2	1/4	-58	10-32****	1/2	3/8
-5	4-40*	1/2	1/4	-32	6-32	3/16	3/16	-59	10-32****	5/8	3/8
-6	4-40*	5/8	1/4	-33	6/32	1/4	3/16	-60	10-32****	3/4	3/8
-7	4-40*	3/4	1/4	-34	6-32	5/16	3/16	-61	10-32****	7/8	3/8
-8	4-40*	7/8	1/4	-35	6-32	3/8	3/16	-62	10-32****	1	3/8
-9	4-40*	1	1/4	-36	6-32	7/16	3/16	-63	10-32****	1/4	1/2
-11	4-40	3/16	3/16	-37	6-32	1/2	3/16	-64	10-32****	3/8	1/2
-12	4-40	1/4	3/16	-38	6-32	5/8	3/16	-65	10-32****	1/2	1/2
-120	4-40*	17/64	3/16	-39	6-32	3/4	3/16	-66	10-32****	5/8	1/2
-13	4-40	5/16	3/16	-40	6-32	7/8	3/16	-67	10-32****	3/4	1/2
-14	4-40	3/8	3/16	-41	6-32	1	3/16	-68	10-32****	7/8	1/2
-15	4-40	7/16	3/16	-42	8-32***	1/4	1/4	-69	10-32****	1	1/2
-16	4-40	1/2	3/16	-43	8-32***	3/8	1/4	-70	1/4-20	1/4	1/2
-17	4-40	5/8	3/16	-44	8-32***	1/2	1/4	-71	1/4-20	3/8	1/2
-18	4-40	3/4	3/16	-45	8-32***	5/8	1/4	-72	1/4-20	1/2	1/2
-19	4-40	7/8	3/16	-46	8-32***	3/4	1/4	-73	1/4-20	5/8	1/2
-20	4-40	1	3/16	-47	8-32***	7/8	1/4	-74	1/4-20	3/4	1/2
-21	6-32**	1/4	1/4	-48	8-32***	1	1/4	-75	1/4-20	7/8	1/2
-22	6-32**	5/16	1/4	-49	8-32***	1/4	5/16	-76	1/4-20	1	1/2
-23	6-32**	3/8	1/4	-50	8-32***	3/8	5/16				

Lengths over 3/4" are tapped 3/8" on either end.

Tolerance on all dimensions: +/- .015

Note:

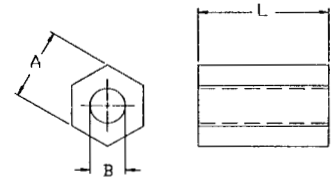
- 4-40* available in M3 thread.
- 6-32** available in M3.5 thread.
- 8-32*** available in M4 thread.
- 10-32**** available in M5 thread.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.



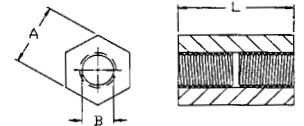
HEX SPACERS

Part No. EN195 - (Size Code No.) - (Material Code No.)

Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF
-100	.072	5/16	3/16	-14	.091	5/8	1/4	-28	.115	5/8	1/4
-101	.072	3/8	3/16	-15	.091	3/4	1/4	-29	.115	3/4	1/4
-1010	.072	7/16	3/16	-16	.091	7/8	1/4	-30	.115	7/8	1/4
-102	.075	9/16	3/16	-17	.091	1	1/4	-31	.115	1	1/4
-1	.091	1/4	3/16	-170	.091	1 1/2	1/4	-32	.115	1 1/4	1/4
-2	.091	3/8	3/16	-174	.094	.826	1/4	-33	.115	1/2	5/16
-3	.091	7/16	3/16	-176	.110	3/4	3/4	-330	.115	7/8	5/16
-4	.091	1/2	3/16	-178	.111	9/16	1/4	-34	.115	1 1/8	5/16
-5	.091	9/16	3/16	-18	.115	1/4	3/16	-340	.115	3/4	3/8
-6	.091	5/8	3/16	-19	.115	3/8	3/16	-35	.115	1/4	1/4
-7	.091	3/4	3/16	-20	.115	1/2	3/16	-36	.140	3/8	1/4
-8	.091	7/8	3/16	-21	.115	5/8	3/16	-360	.140	1/4	1/4
-9	.091	1	3/16	-22	.115	3/4	3/16	-37	.140	1/2	1/4
-10	.091	1/4	1/4	-23	.115	7/8	3/16	-38	.140	5/8	1/4
-11	.091	5/16	1/4	-24	.115	1	3/16	-39	.140	3/4	1/4
-12	.091	3/8	1/4	-240	.115	3/16	1/4	-40	.140	7/8	1/4
-120	.091	7/16	1/4	-25	.115	1/4	1/4	-43	.195	1/2	3/8
-13	.091	1/2	1/4	-26	.115	3/8	1/4	-48	.225	7/32	5/16
-130	.091	9/16	1/4	-27	.115	1/2	1/4				

Self-threading, use with tapping screws.

Tolerance on all dimensions: +/- .015



HEX TAPPED SPACERS

Part No. EN194 - (Size Code No.) - (Material Code No.)

Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF
-100	2-56	5/16	3/16	-15	4-40*	5/8	1/4	-30	6-32**	3/4	1/4
-1010	2-56	7/16	3/16	-16	4-40*	3/4	1/4	-31	6-32**	7/8	1/4
-101	2-56	3/8	3/16	-17	4-40*	7/8	1/4	-32	6-32**	1	1/4
-102	2-56	9/16	3/16	-175	4-40*	.826	1/4	-33	6-32**	1 1/4	1/4
-1	4-40*	1/4	3/16	-18	4-40*	1	1/4	-330	6-32**	1 1/2	1/4
-2	4-40*	3/8	3/16	-180	4-40*	1 1/2	1/4	-34	6-32**	1/2	5/16
-3	4-40*	7/16	3/16	-19	6-32**	1/4	3/16	-340	6-32**	7/8	5/16
-4	4-40*	1/2	3/16	-20	6-32**	3/8	3/16	-35	6-32**	1 1/8	5/16
-5	4-40*	9/16	3/16	-21	6-32**	1/2	3/16	-350	6-32**	3/4	3/8
-6	4-40*	5/8	3/16	-22	6-32**	5/8	3/16	-351	6-32**	1 5/16	3/8
-7	4-40*	3/4	3/16	-23	6-32**	3/4	3/16	-36	8-32***	1/4	1/4
-8	4-40*	7/8	3/16	-24	6-32**	7/8	3/16	-37	8-32***	3/8	1/4
-9	4-40*	1	3/16	-25	6-32**	1	3/16	-38	8-32***	1/2	1/4
-10	4-40*	1/4	1/4	-250	6-32**	3/16	1/4	-39	8-32***	5/8	1/4
-11	4-40*	5/16	1/4	-26	6-32**	1/4	1/4	-40	8-32***	3/4	1/4
-12	4-40*	3/8	1/4	-27	6-32**	3/8	1/4	-41	8-32***	7/8	1/4
-120	4-40*	7/16	1/4	-28	6-32**	1/2	1/4	-42	8-32***	1	1/4
-13	4-40*	1/2	1/4	-280	6-32**	7/16	1/4	-420	1/4-20	7/32	5/16
-14	4-40*	9/16	1/4	-29	6-32**	5/8	1/4	-421	1/4-20	1/2	3/8

Lengths over 3/4" are tapped 3/8" on either end. -330 has no thru hole.

Tolerance on all dimensions: +/- .015

Note: 4-40* available in M3 thread, 6-32** available in M3.5 thread, 8-32*** available in M4 thread.

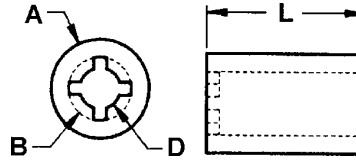
MOLDED WASHERS and SPACERS (continued)

Material Code No. Material Name

- 18 Nylon 6/6, (natural)
- 78 Nylon 6/6, (black)

RETAINING SPACERS

Part No. DN300 - (Size Code No.) - (Material Code No.)

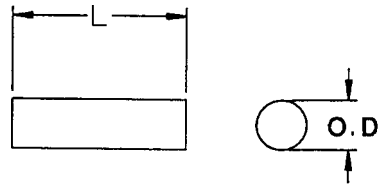


Size Code No.	A	B	D	L	Size Code No.	A	B	D	L	Size Code No.	A	B	D	L
-1	.250	.115	.078	.125	-31	.3125	.198	.128	.125	-61	.500	.277	.177	.187
-2	.250	.115	.078	.187	-32	.3125	.198	.128	.187	-62	.500	.277	.177	.250
-3	.250	.115	.078	.250	-33	.3125	.198	.128	.250	-63	.500	.277	.177	.312
-4	.250	.115	.078	.312	-34	.3125	.198	.128	.312	-64	.500	.277	.177	.375
-5	.250	.115	.078	.375	-35	.3125	.198	.128	.375	-65	.500	.277	.177	.437
-6	.250	.115	.078	.437	-36	.3125	.198	.128	.437	-66	.500	.277	.177	.500
-7	.250	.115	.078	.500	-37	.3125	.198	.128	.500	-67	.500	.277	.177	.562
-8	.250	.115	.078	.562	-38	.3125	.198	.128	.562	-68	.500	.277	.177	.625
-9	.250	.115	.078	.625	-39	.3125	.198	.128	.625	-69	.500	.277	.177	.687
-10	.250	.115	.078	.687	-40	.3125	.198	.128	.687	-70	.500	.277	.177	.750
-11	.250	.115	.078	.750	-41	.3125	.198	.128	.750	-71	.500	.277	.177	.812
-12	.250	.115	.078	.812	-42	.3125	.198	.128	.812	-72	.500	.277	.177	.875
-13	.250	.115	.078	.875	-43	.3125	.198	.128	.875	-73	.500	.277	.177	.937
-14	.250	.115	.078	.937	-44	.3125	.198	.128	.937	-74	.500	.277	.177	1.000
-15	.250	.115	.078	1.000	-45	.3125	.198	.128	1.000	-75	.500	.375	.234	.125
-16	.250	.156	.102	.125	-46	.375	.240	.152	.125	-76	.500	.375	.234	.187
-17	.250	.156	.102	.187	-47	.375	.240	.152	.250	-77	.500	.375	.234	.250
-18	.250	.156	.102	.250	-48	.375	.240	.152	.312	-78	.500	.375	.234	.312
-19	.250	.156	.102	.312	-49	.375	.240	.152	.375	-79	.500	.375	.234	.375
-20	.250	.156	.102	.375	-50	.375	.240	.152	.437	-80	.500	.375	.234	.437
-21	.250	.156	.102	.437	-51	.375	.240	.152	.500	-81	.500	.375	.234	.500
-22	.250	.156	.102	.500	-52	.375	.240	.152	.562	-82	.500	.375	.234	.562
-23	.250	.156	.102	.562	-53	.375	.240	.152	.625	-83	.500	.375	.234	.625
-24	.250	.156	.102	.625	-54	.375	.240	.152	.687	-84	.500	.375	.234	.687
-25	.250	.156	.102	.687	-55	.375	.240	.152	.750	-85	.500	.375	.234	.750
-26	.250	.156	.102	.750	-56	.375	.240	.152	.812	-86	.500	.375	.234	.812
-27	.250	.156	.102	.812	-57	.375	.240	.152	.875	-87	.500	.375	.234	.875
-28	.250	.156	.102	.875	-58	.375	.240	.152	.937	-88	.500	.375	.234	.937
-29	.250	.156	.102	.937	-59	.375	.240	.152	1.000	-89	.500	.375	.234	1.000
-30	.250	.156	.102	1.000	-60	.500	.277	.177	.125					

MOLDED DOWELS

STANDARD MATERIAL: -62 Acetal

Part No. PN105 - (Size Code No.) -62



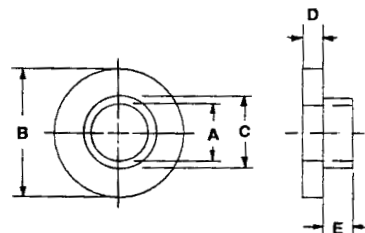
Size Code No.	O.D.	Length	Size Code No.	O.D.	Length	Size Code No.	O.D.	Length	Size Code No.	O.D.	Length
-1	.047	1/8	-10	.093	1/4	-19	.187	1/4	-27	.250	1/2
-2	.047	1/4	-11	.093	3/8	-20	.187	3/8	-28	.250	3/4
-3	.047	3/8	-12	.093	1/2	-21	.187	1/2	-29	.312	1/8
-4	.047	1/2	-13	.125	1/8	-22	.187	3/4	-30	.312	1/4
-5	.062	1/8	-14	.125	3/16	-23	.210	1/2	-31	.312	3/8
-6	.062	1/4	-15	.125	1/4	-230	.245	1 1/4	-32	.312	1/2
-7	.062	3/8	-16	.125	3/8	-24	.250	1/8	-33	.312	5/8
-8	.062	1/2	-17	.125	1/2	-25	.250	1/4	-34	.312	3/4
-9	.093	1/8	-18	.187	1/8	-26	.250	3/8	-35	.437	1/4

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED SHOULDER WASHERS on pages 203-222.



MOLDED NYLON SHOULDER WASHERS

Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1000	.045	.181	.120	.047	.075	-2600	.102	.250	.140	.047	.040
-1005	.055	.125	.080	.030	.060	-27	.102	.250	.169	.031	.062
-1006	.055	.300	.087	.035	.052	-28	.109	.200	.138	.031	.047
-1	.061	.105	.084	.047	.047	-29	.110	.242	.135	.047	.156
-2	.063	.187	.119	.031	.078	-30	.111	.250	.124	.047	.016
-3	.063	.187	.119	.031	.187	-3000	.112	.280	.150	.042	.185
-4	.075	.197	.118	.031	.281	-34	.112	.350	.300	.016	.171
-7	.080	.518	.305	.031	.047	-37	.113	.250	.143	.047	.047
-7000	.085	.182	.125	.078	.031	-38	.114	.240	.135	.062	.047
-10	.089	.187	.119	.031	.016	-39	.114	.240	.138	.062	.047
-1010	.090	.187	.131	.030	.030	-3901	.114	.240	.138	.130	.047
-1012	.090	.187	.119	.030	.020	-3900	.114	.312	.150	.045	.100
-1013	.090	.187	.120	.047	.250	-4100	.115	.235	.147	.047	.040
-1014	.090	.235	.120	.032	.250	-43	.115	.200	.140	.031	.031
-1015	.091	.312	.126	.063	.062	-44	.115	.203	.140	.047	.031
-11	.093	.195	.120	.031	.062	-45	.115	.216	.135	.047	.031
-12	.093	.200	.120	.031	.062	-46	.115	.218	.135	.047	.031
-13	.093	.205	.125	.031	.078	-4600	.115	.234	.145	.025	.031
-14	.093	.205	.125	.031	.109	-47	.115	.234	.147	.047	.047
-15	.093	.205	.125	.031	.187	-48	.115	.235	.137	.047	.031
-16	.093	.228	.122	.032	.032	-49	.115	.235	.140	.047	.094
-1600	.093	.250	.122	.031	.025	-50	.115	.235	.145	.047	.094
-1601	.093	.250	.140	.031	.040	-51	.115	.235	.145	.047	.125
-1602	.093	.250	.154	.031	.031	-52	.115	.235	.145	.047	.250
-17	.093	.281	.158	.094	.125	-5201	.115	.235	.145	.250	.093
-1701	.093	.307	.154	.065	.025	-5202	.115	.235	.147	.095	.035
-1700	.093	.375	.187	.062	.031	-5203	.115	.240	.134	.047	.027
-18	.093	.289	.215	.062	.062	-53	.115	.240	.139	.047	.031
-19	.095	.189	.119	.062	.031	-54	.115	.242	.140	.047	.109
-20	.095	.250	.187	.047	.672	-55	.115	.242	.140	.047	.125
-21	.095	.260	.154	.016	.016	-56	.115	.250	.143	.031	.062
-2100	.093	.187	.156	.156	.206	-57	.115	.250	.145	.047	.109
-22	.097	.312	.160	.047	.016	-58	.115	.250	.145	.047	.140
-2200	.098	.228	.140	.039	.088	-59	.115	.250	.145	.047	.171
-23	.098	.240	.150	.031	.031	-590	.115	.250	.145	.047	.296
-2300	.098	.250	.140	.030	.065	-60	.115	.250	.150	.171	.218
-2301	.100	.203	.156	.040	.281	-61	.115	.250	.156	.047	.047
-24	.100	.250	.114	.047	.031	-6100	.115	.252	.140	.047	.047
-25	.100	.250	.114	.047	.094						
-26	.100	.228	.138	.047	.031						

(continued next page)

Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

.045 I.D. to .115 I.D.

Tolerance on all dimensions:
+/- .015

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-6101	.115	.252	.140	.047	.156	-1023	.125	.290	.205	.060	.090
-62	.115	.312	.149	.062	.062	-1024	.125	.312	.185	.058	.312
-63	.115	.312	.149	.062	.094	-1025	.125	.375	.190	.040	.070
-64	.115	.312	.187	.062	.016	-1030	.125	.375	.253	.050	.300
-6400	.115	.312	.250	.125	.187	-1031	.125	.438	.350	.062	.050
-6401	.115	.315	.150	.030	.031	-1032	.125	.750	.375	.062	.500
-66	.115	.368	.146	.078	.203	-104	.126	.265	.157	.031	.031
-67	.115	.370	.145	.078	.203	-106	.126	.250	.186	.047	.171
-71	.116	.200	.135	.078	.031	-108	.126	.315	.185	.031	.047
-710	.116	.210	.143	.042	.033	-109	.127	.312	.170	.062	.047
-712	.116	.239	.139	.020	.050	-1100	.128	.312	.185	.031	.078
-714	.116	.250	.150	.030	.020	-111	.128	.312	.187	.047	.094
-72	.116	.250	.150	.031	.016	-1110	.130	.234	.164	.025	.063
-7201	.116	.250	.150	.031	.062	-113	.130	.250	.195	.031	.125
-7202	.116	.250	.150	.063	.032	-114	.130	.312	.154	.031	.312
-73	.116	.250	.185	.031	.047	-1140	.132	.400	.200	.032	.380
-74	.116	.250	.185	.062	.047	-1141	.132	.308	.183	.045	.067
-75	.116	.312	.185	.031	.047	-1142	.133	.349	.260	.050	.060
-76	.116	.316	.158	.047	.094	-116	.135	.296	.235	.031	.218
-77	.116	.375	.193	.078	.156	-117	.135	.438	.250	.031	.140
-78	.116	.378	.194	.078	.156	-118	.136	.313	.219	.031	.031
-79	.116	.378	.255	.031	.125	-119	.136	.375	.195	.047	.109
-7901	.118	.197	.144	.027	.046	-120	.136	.375	.248	.062	.094
-7902	.118	.210	.141	.032	.039	-1200	.137	.385	.250	.051	.072
-7903	.118	.244	.157	.040	.177	-121	.138	.293	.218	.047	.187
-800	.118	.250	.135	.050	.120	-122	.138	.375	.240	.062	.109
-82	.118	.250	.139	.047	.125	-123	.138	.375	.250	.094	.062
-83	.118	.250	.143	.031	.062	-1230	.138	.500	.240	.062	.109
-8300	.118	.256	.173	.055	.453	-124	.139	.250	.186	.031	.031
-8301	.120	.200	.135	.078	.052	-125	.139	.310	.183	.062	.016
-85	.120	.202	.145	.016	.047	-134	.140	.250	.187	.062	.031
-86	.120	.210	.145	.016	.047	-136	.140	.252	.186	.031	.031
-8600	.120	.224	.154	.028	.090	-137	.140	.260	.190	.062	.047
-8601	.120	.224	.154	.028	.155	-138	.140	.290	.170	.047	.031
-8602	.120	.250	.185	.031	.050	-139	.140	.290	.170	.047	.047
-860	.120	.250	.187	.031	.031	-1390	.140	.290	.170	.047	.125
-88	.120	.224	.154	.031	.062	-140	.140	.290	.170	.047	.250
-89	.120	.224	.154	.031	.437	-1400	.140	.290	.170	.047	.296
-90	.120	.250	.138	.047	.062	-1401	.140	.290	.170	.234	.375
-900	.120	.250	.150	.050	.090	-1402	.140	.290	.210	.047	.600
-9000	.120	.255	.145	.040	.070	-141	.140	.295	.234	.031	.218
-91	.120	.253	.136	.047	.078	-142	.140	.312	.170	.047	.062
-9100	.120	.255	.145	.040	.070	-143	.140	.312	.185	.031	.031
-92	.120	.291	.154	.062	.234	-1430	.140	.312	.187	.035	.027
-93	.120	.312	.170	.062	.062	-1431	.140	.325	.220	.047	.750
-94	.120	.312	.203	.047	.031	-145	.140	.324	.204	.062	.031
-940	.120	.625	.248	.062	.027	-146	.140	.340	.250	.078	.047
-960	.123	.312	.187	.063	.031	-147	.140	.349	.248	.047	.062
-99	.122	.230	.142	.016	.047	-1470	.140	.350	.200	.090	.100
-101	.124	.313	.219	.031	.031	-148	.140	.375	.185	.016	.094
-1011	.125	.230	.150	.040	.030	-149	.140	.375	.185	.031	.094
-102	.125	.240	.185	.031	.094	-150	.140	.375	.185	.062	.031
-1021	.125	.243	.199	.060	.100	-151	.140	.375	.199	.218	.078
-1020	.125	.250	.156	.047	.250						
-1022	.125	.260	.158	.032	.437						

(continued next page)

Tolerance on all dimensions:
+/- .015

.115 I.D. to .140 I.D.

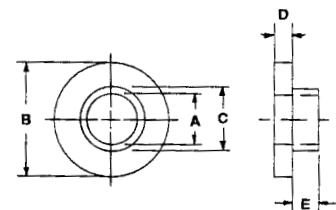
Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SHOULDER WASHERS on pages 203-222.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-152	.140	.375	.218	.062	.047	-182	.150	.750	.250	.062	.250
-1520	.140	.375	.245	.060	.050	-183	.152	.750	.359	.094	.062
-153	.140	.375	.250	.094	.062	-1830	.155	.377	.245	.050	.050
-154	.140	.381	.185	.062	.047	-185	.156	.312	.250	.062	.187
-1434	.140	.400	.275	.125	.100	-186	.156	.400	.243	.047	.047
-155	.140	.400	.275	.125	.125	-188	.156	.428	.245	.062	.031
-1550	.140	.450	.170	.047	.280	-189	.156	.437	.245	.062	.031
-156	.140	.468	.248	.062	.047	-190	.156	.500	.250	.094	.031
-157	.140	.470	.312	.078	.281	-1902	.157	.591	.394	.197	.128
-158	.140	.578	.185	.062	.047	-191	.160	.300	.194	.047	.062
-1580	.140	.625	.219	.060	.025	-1912	.160	.300	.194	.047	.125
-160	.141	.257	.187	.062	.031	-1913	.160	.388	.207	.187	.122
-161	.141	.312	.187	.062	.031	-1920	.163	.312	.229	.046	.050
-1610	.141	.320	.182	.050	.065	-1922	.163	.428	.261	.155	.048
-162	.141	.330	.206	.062	.031	-1923	.164	.310	.242	.037	.100
-163	.141	.344	.189	.109	.047	-193	.165	.500	.250	.078	.016
-164	.141	.374	.246	.031	.031	-1930	.166	.545	.316	.075	.335
-1640	.141	.375	.214	.040	.046	-195	.167	.375	.246	.062	.031
-165	.141	.415	.243	.156	.047	-196	.167	.500	.250	.125	.437
-166	.141	.418	.243	.109	.062	-1960	.168	.736	.371	.125	.145
-167	.141	.500	.318	.031	.016	-197	.169	.375	.250	.031	.031
-168	.141	.500	.318	.031	.047	-1970	.169	.385	.250	.030	.050
-169	.142	.265	.205	.031	.156	-198	.169	.562	.312	.125	.031
-1690	.142	.265	.205	.118	.156	-199	.170	.344	.210	.062	.140
-1691	.142	.312	.210	.060	.250	-1991	.170	.625	.427	.050	.035
-170	.143	.313	.175	.031	.031	-1992	.170	.750	.320	.065	.250
-171	.144	.312	.189	.030	.060	-202	.171	.345	.209	.062	.047
-172	.144	.312	.234	.047	.062	-203	.171	.375	.195	.031	.062
-173	.144	.312	.234	.047	.125	-2030	.171	.375	.250	.040	.046
-1730	.145	.290	.200	.047	.165	-2031	.171	.375	.250	.040	.099
-1734	.145	.375	.245	.030	.060	-2032	.171	.375	.250	.040	.250
-174	.145	.375	.250	.062	.062	-204	.171	.375	.250	.062	.031
-175	.145	.385	.240	.062	.031	-2040	.171	.390	.281	.055	.312
-1750	.145	.500	.213	.078	.080	-2041	.171	.500	.243	.031	.031
-176	.145	.500	.275	.094	.047	-2042	.171	.500	.245	.105	.200
-177	.146	.328	.218	.047	.047	-205	.171	.510	.250	.062	.406
-1771	.147	.312	.172	.062	.187	-206	.171	.630	.248	.031	.047
-1770	.147	.375	.187	.062	.032	-208	.172	.625	.310	.062	.047
-178	.147	.500	.230	.062	.031	-2080	.172	.750	.375	.093	.125
-179	.148	.380	.220	.062	.203	-2081	.173	.344	.205	.032	.250
-1790	.150	.230	.190	.025	.100	-209	.173	.344	.205	.062	.375
-1792	.150	.300	.180	.050	.062	-210	.173	.345	.205	.062	.375
-1793	.150	.316	.181	.096	.027	-2101	.174	.375	.250	.063	.030
-180	.150	.375	.244	.078	.047						
-181	.150	.500	.330	.062	.062						

(continued next page)

Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

.140 I.D. to .174 I.D.

Tolerance on all dimensions:
 +/- .015

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-211	.175	.340	.220	.062	.094	-2406	.197	.408	.240	.062	.187
-2110	.175	.344	.235	.063	.085	-2407	.197	.433	.259	.161	.106
-2111	.175	.344	.235	.062	.120	-242	.198	.588	.253	.031	.031
-2112	.175	.513	.312	.063	.187	-2420	.199	.375	.343	.031	.050
-2113	.176	.372	.201	.062	.387	-243	.199	.433	.312	.062	.125
-214	.176	.493	.376	.094	.406	-2433	.199	.437	.274	.062	.050
-2140	.177	.276	.236	.030	.226	-2434	.199	.500	.248	.031	.027
-2141	.180	.370	.242	.031	.346	-2435	.200	.375	.304	.057	.015
-215	.184	.312	.234	.031	.187	-2436	.200	.390	.260	.062	.075
-2150	.184	.630	.265	.070	.310	-2430	.200	.390	.260	.062	.130
-2151	.185	.375	.242	.035	.125	-245	.200	.399	.260	.062	.375
-216	.187	.375	.245	.031	.140	-2451	.200	.421	.281	.050	.160
-2160	.187	.499	.295	.125	.375	-2450	.200	.490	.281	.062	.094
-2161	.188	.350	.240	.067	.180	-2455	.200	.495	.312	.065	.187
-217	.188	.437	.313	.062	.062	-246	.200	.490	.281	.062	.094
-2170	.189	.500	.250	.062	.249	-247	.200	.500	.312	.062	.312
-2171	.189	.750	.490	.095	.779	-2470	.200	.625	.260	.032	.188
-2174	.190	.380	.250	.066	.030	-2471	.200	.625	.375	.062	.025
-218	.190	.488	.250	.125	.156	-2472	.200	.745	.305	.085	.018
-2180	.190	.490	.250	.062	.156	-248	.201	.375	.280	.062	.125
-220	.190	.625	.375	.062	.047	-249	.201	.437	.281	.050	.050
-2205	.190	.750	.315	.094	.797	-2490	.201	.635	.425	.140	.094
-2206	.190	1.000	.562	.075	.085	-250	.201	.635	.425	.140	1.109
-2210	.191	.443	.285	.048	.070	-2501	.202	.433	.310	.079	.315
-2212	.191	.513	.312	.062	.375	-252	.203	.390	.313	.078	.078
-223	.192	.375	.245	.047	.047	-253	.203	.438	.267	.031	.094
-224	.193	.290	.250	.016	.125	-254	.203	.438	.267	.062	.094
-2240	.193	.375	.257	.035	.043	-255	.203	1.000	.298	.062	.062
-2250	.193	.440	.312	.094	.043	-2550	.205	.472	.315	.181	.157
-2255	.193	.490	.310	.031	.031	-256	.205	.620	.312	.047	.047
-227	.193	.500	.318	.031	.047	-2560	.205	1.000	.306	.125	.080
-228	.193	.495	.318	.031	.078	-257	.208	.615	.315	.047	.047
-231	.194	.375	.240	.062	.047	-2570	.215	.488	.250	.125	.156
-2311	.194	.437	.375	.040	.093	-2575	.215	.562	.365	.109	.062
-232	.194	.441	.248	.062	.047	-2576	.216	.635	.380	.042	.090
-2321	.194	.500	.248	.062	.050	-2580	.217	.413	.244	.118	.138
-2322	.194	.500	.373	.096	.099	-2581	.217	.413	.244	.315	.138
-2320	.195	.370	.242	.067	.283	-2582	.218	.320	.250	.039	.126
-2324	.195	.385	.236	.060	.380	-2583	.219	.500	.281	.125	.047
-234	.195	.498	.310	.250	.187	-2586	.219	.625	.281	.040	.163
-2341	.195	.500	.234	.039	.085	-2587	.219	.740	.495	.130	.305
-2340	.195	.500	.300	.175	.075	-2584	.219	.750	.500	.031	.031
-2344	.195	.625	.310	.031	.062	-259	.220	.375	.260	.031	.093
-235	.195	.640	.380	.062	.062	-260	.220	.408	.240	.062	.187
-2360	.196	.380	.254	.065	.055	-2601	.221	.394	.256	.030	.126
-237	.196	.312	.250	.062	.031	-2602	.222	.500	.270	.167	.122
-238	.196	.381	.308	.062	.031	-2603	.223	.390	.303	.025	.139
-2380	.196	.380	.254	.065	.125	-261	.225	.437	.282	.062	.375
-239	.196	.390	.287	.078	.187	-2610	.227	.359	.300	.060	.046
-2399	.196	.432	.256	.065	.115	-262	.230	.395	.299	.078	.109
-2390	.196	.432	.303	.031	.140	-263	.230	.450	.310	.016	.047
-2391	.196	.437	.310	.055	.375	-2630	.234	.500	.282	.031	.094
-2400	.196	.500	.308	.062	.062	-264	.234	.745	.282	.031	.187
-2401	.197	.364	.244	.055	.453						
-2404	.197	.375	.250	.062	.213						

(continued next page)

Tolerance on all dimensions:
+/- .015

.175 I.D. to .234 I.D.

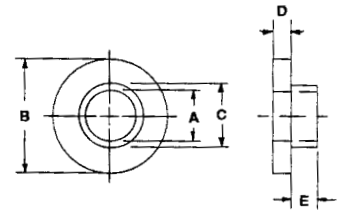
Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED SHOULDER WASHERS on pages 203-222.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-2640	.236	.355	.315	.020	.177	-2971	.257	.750	.310	.031	.027
-2641	.240	.480	.315	.079	.236	-2972	.257	.940	.560	.090	.060
-2645	.240	.483	.315	.059	.157	-2973	.258	.701	.305	.062	.280
-265	.247	.550	.380	.062	.468	-298	.258	.753	.409	.078	.047
-266	.248	.551	.380	.062	.250	-2980	.258	.760	.410	.078	.047
-2660	.249	.692	.417	.051	.146	-302	.260	.425	.377	.062	.171
-267	.250	.425	.310	.062	.062	-3020	.260	.460	.370	.030	.060
-268	.250	.500	.375	.062	.437	-303	.260	.495	.312	.031	.031
-2680	.250	.500	.375	.125	1.250	-3030	.260	.495	.346	.050	.335
-269	.250	.600	.370	.125	.125	-3031	.260	.500	.360	.062	.160
-2690	.250	.625	.375	.109	.047	-3032	.260	.500	.365	.030	.060
-271	.250	.734	.488	.125	.062	-399	.260	.505	.312	.062	.093
-2710	.250	.740	.375	.156	.468	-3996	.260	.513	.370	.062	.250
-2720	.250	.750	.500	.086	.100	-304	.260	.515	.312	.062	.140
-2721	.250	.765	.481	.126	.216	-3040	.260	.516	.345	.060	.050
-2723	.250	.780	.392	.079	.252	-3041	.260	.540	.370	.065	.937
-2722	.250	.875	.620	.125	.375	-305	.260	.550	.305	.078	.047
-276	.252	.500	.312	.031	.031	-306	.260	.555	.300	.078	.047
-277	.252	.500	.312	.062	.031	-3060	.260	.562	.300	.046	.104
-2771	.253	.375	.312	.030	.060	-307	.260	.562	.300	.047	.047
-2770	.253	.375	.312	.062	.031	-308	.260	.562	.375	.094	.062
-279	.253	.437	.310	.031	.031	-3080	.260	.620	.400	.062	.100
-2790	.253	.438	.307	.094	.026	-309	.260	.625	.375	.125	.812
-280	.253	.615	.310	.031	.047	-310	.260	.620	.400	.125	.750
-2801	.253	.625	.311	.062	.090	-311	.260	.630	.327	.062	.125
-281	.253	.750	.341	.031	.047	-313	.260	.740	.385	.140	.687
-282	.253	.750	.371	.031	.047	-3133	.260	.750	.375	.062	.031
-2820	.253	.830	.452	.100	.250	-3130	.260	1.010	.600	.160	.660
-283	.254	.498	.375	.062	.687	-3131	.261	.513	.312	.062	.375
-284	.254	.630	.375	.062	.187	-3132	.263	.625	.379	.058	.210
-2841	.254	1.125	.419	.250	.100	-3134	.263	.687	.348	.046	.334
-2840	.255	.370	.307	.110	.125	-3136	.263	.687	.359	.375	.375
-285	.255	.464	.312	.016	.078	-314	.265	.492	.318	.031	.078
-286	.255	.467	.312	.047	.125	-3141	.265	.500	.307	.062	.187
-2860	.255	.550	.375	.062	.562	-3142	.265	.500	.345	.040	.076
-288	.255	.560	.375	.062	.422	-3143	.265	.504	.312	.160	.150
-289	.255	.562	.375	.062	.437	-3144	.265	.525	.370	.063	.500
-290	.255	.625	.322	.062	.187	-3145	.265	.750	.375	.095	1.000
-291	.255	.625	.375	.125	.812	-3140	.265	.750	.375	.125	.094
-2910	.255	.710	.338	.190	.110	-3146	.265	.750	.437	.075	.125
-292	.256	.348	.290	.031	.062	-3147	.265	1.500	.615	.120	.250
-2920	.257	.500	.375	.125	.170	-315	.266	.697	.359	.062	.125
-295	.257	.505	.343	.062	.094	-316	.266	.740	.371	.094	.125
-296	.257	.675	.480	.094	.062						
-297	.257	.730	.375	.250	.343						

(continued next page)

Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

.236 I.D. to .266 I.D.

Tolerance on all dimensions:
+/- .015

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-317	.266	.740	.375	.094	.343	-334	.335	.872	.617	.125	.500
-318	.266	.750	.380	.094	.078	-3341	.335	.875	.617	.125	.250
-319	.266	.750	.380	.094	.218	-3345	.340	1.250	1.000	.150	.100
-3190	.267	.525	.370	.063	.500	-3347	.340	1.250	1.000	.212	.100
-3192	.268	.700	.375	.225	.187	-3348	.344	.750	.469	.062	.125
-320	.270	.720	.485	.062	.156	-3349	.344	.750	.500	.187	.125
-321	.270	2.111	.603	.125	.703	-335	.349	.502	.399	.031	.125
-3212	.280	.630	.375	.050	.150	-3350	.355	.562	.395	.062	.620
-3214	.281	.750	.500	.125	.250	-3351	.358	.747	.482	.079	.098
-3216	.285	.500	.345	.062	.140	-336	.370	.750	.500	.078	.312
-3210	.285	.500	.375	.125	.125	-3380	.375	.750	.500	.062	.187
-322	.290	.674	.500	.094	.187	-3420	.375	1.000	.500	.125	.750
-323	.295	.625	.375	.062	.031	-345	.375	.725	.445	.156	.156
-324	.306	.825	.445	.094	.406	-347	.375	.743	.443	.062	.187
-3240	.307	.550	.436	.176	.420	-348	.375	.743	.500	.094	.109
-325	.308	.428	.350	.125	.047	-3480	.375	.750	.500	.062	.031
-3251	.308	.445	.343	.077	.058	-349	.375	.750	.500	.062	.125
-3253	.310	.620	.366	.057	.220	-350	.375	.750	.500	.125	.031
-3254	.310	.750	.500	.190	.250	-3500	.375	.750	.500	.125	.062
-3256	.310	.825	.435	.060	.190	-3502	.375	.750	.590	.062	.425
-3250	.310	.825	.435	.060	.325	-352	.375	.875	.500	.062	1.000
-3252	.312	.390	.348	.062	.207	-353	.375	1.005	.500	.062	.312
-3255	.312	.500	.365	.062	.325	-354	.376	.743	.437	.062	.187
-3257	.312	.575	.365	.030	.190	-3540	.376	1.006	.504	.078	.243
-326	.312	.750	.434	.171	.422	-3542	.377	1.160	.495	.128	.060
-3260	.312	1.125	.437	.062	.750	-355	.378	.625	.448	.031	.031
-3262	.315	.492	.370	.055	.630	-3550	.378	.625	.447	.030	.030
-3264	.315	.730	.500	.125	.150	-356	.378	.625	.495	.062	.031
-3266	.315	.750	.505	.078	.250	-357	.378	.750	.498	.031	.156
-3268	.316	.620	.370	.031	.500	-358	.378	.750	.498	.062	.187
-328	.316	.620	.370	.062	.500	-359	.378	.755	.505	.078	.250
-3281	.316	.620	.502	.060	.100	-3590	.379	.875	.626	.062	.204
-3282	.316	.620	.502	.060	.150	-3591	.380	.500	.411	.093	.375
-3283	.316	.698	.400	.065	.748	-3592	.380	.625	.437	.031	.031
-3284	.318	.502	.374	.187	.253	-362	.380	.625	.500	.062	.312
-3280	.318	.562	.400	.030	.030	-3610	.380	.740	.605	.500	.250
-3285	.320	.563	.443	.068	.240	-3611	.380	.750	.506	.062	.360
-3286	.320	.620	.360	.063	.093	-3612	.380	.750	.544	.375	.375
-3287	.320	.620	.360	.375	.125	-363	.380	.980	.556	.125	.250
-3288	.320	.625	.405	.066	.139	-3630	.380	1.250	.480	.045	.125
-3291	.320	.740	.368	.031	.062	-3631	.380	1.952	.484	.125	.625
-3293	.320	.745	.375	.031	.062	-364	.382	1.000	.500	.062	.562
-3294	.320	.752	.505	.060	1.005	-365	.383	.620	.434	.047	.031
-3292	.322	.740	.430	.065	.395	-366	.383	.743	.502	.078	.312
-331	.323	.750	.375	.047	.047	-367	.384	.748	.504	.125	.359
-3311	.324	.600	.485	.025	.500	-370	.385	.570	.470	.062	.375
-3312	.324	.805	.502	.132	.108	-3701	.385	.650	.490	.125	.175
-3314	.325	.468	.375	.047	.218	-3702	.385	.750	.495	.074	.020
-3316	.325	.687	.412	.263	.513	-3704	.385	.750	.528	.060	.593
-3318	.325	1.000	.435	.250	.187	-3706	.385	.755	.510	.500	.156
-332	.328	.687	.437	.125	.125	-3708	.385	.872	.497	.110	.935
-333	.328	.693	.437	.062	.125	-3710	.386	.875	.484	.062	.375
-3331	.335	.551	.413	.059	.335	-3712	.388	.810	.498	.130	.110
-3335	.335	.562	.370	.024	.047						
-3336	.335	.703	.437	.062	.125						

(continued next page)

Tolerance on all dimensions:
+/- .015

.266 I.D. to .388 I.D.

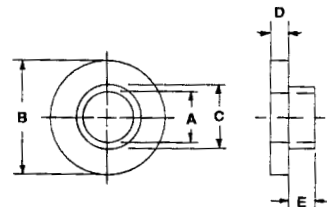
Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SHOULDER WASHERS on pages 203-222.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-3714	.390	.625	.485	.125	.342	-3905	.520	1.000	.666	.125	.625
-3716	.390	.625	.485	.125	.563	-391	.538	1.252	.600	.062	.406
-3718	.390	.745	.495	.062	.440	-392	.550	.790	.625	.047	.422
-374	.390	.750	.577	.094	.109	-3921	.559	1.250	1.000	.047	.563
-3741	.390	.875	.500	.062	1.000	-3920	.562	1.250	.930	.062	.094
-3742	.391	.745	.545	.100	.155	-3922	.562	1.250	.989	.062	.094
-3743	.394	.763	.562	.026	.196	-3924	.563	.800	.655	.055	.100
-3740	.395	.625	.500	.062	.312	-3926	.569	.750	.688	.032	.118
-375	.406	.945	.470	.078	.531	-393	.612	1.064	.787	.062	.062
-3751	.406	.980	.546	.125	.250	-3950	.617	.880	.750	.047	.203
-3750	.413	.570	.491	.039	.783	-395	.627	1.245	.875	.125	.500
-3752	.420	.710	.470	.075	.420	-3953	.630	.750	.708	.031	.140
-376	.430	.750	.500	.187	.047	-3955	.630	1.000	.750	.050	.050
-377	.435	.735	.490	.187	.047	-3956	.630	1.068	.896	.062	.521
-378	.435	1.739	1.095	.203	.203	-3957	.640	.735	.710	.050	.050
-3780	.437	.630	.500	.055	.748	-3958	.645	1.000	.745	.130	.120
-3782	.437	.688	.562	.062	.500	-396	.695	.995	.787	.125	.625
-3784	.438	.875	.531	.062	.375	-3960	.695	.995	.787	.125	1.000
-379	.440	.875	.630	.125	.375	-397	.695	.995	.792	.125	.187
-3790	.453	1.005	.500	.070	.050	-3970	.750	1.130	.880	.062	.313
-3795	.470	.750	.625	.066	.174	-3972	.758	1.130	.880	.062	.313
-381	.471	1.251	.528	.062	.406	-3974	.783	2.065	1.050	.125	.500
-382	.500	.745	.560	.031	.312	-398	.806	2.065	1.050	.125	.500
-3820	.500	.750	.625	.062	.437	-3985	.818	1.250	1.002	.156	.422
-3822	.506	.750	.627	.092	.188	-3986	.827	1.102	.906	.039	.118
-3824	.507	.874	.634	.063	.689	-3987	.870	1.365	1.120	.128	.309
-384	.508	.688	.543	.031	.047	-3980	.885	1.250	.995	.156	.343
-385	.508	1.000	.770	.078	.109	-3988	.887	1.570	1.055	.175	.170
-3851	.509	.750	.617	.062	.250	-3990	.942	1.501	1.248	.133	.238
-3850	.510	.750	.625	.062	.187	-3995	1.015	1.750	1.375	.125	.625
-3853	.510	.865	.600	.045	.455	-4000	1.125	1.650	1.380	.060	.060
-3854	.510	.875	.633	.125	.375	-4005	1.326	1.989	1.743	.129	.305
-3855	.510	1.000	.687	.125	.500						
-3852	.510	1.125	.700	.094	.437						
-386	.510	1.230	.980	.062	.094						
-3860	.515	.745	.556	.031	.050						
-387	.515	1.000	.616	.094	.031						
-3871	.515	1.000	.625	.040	.330						
-3870	.515	1.105	.718	.092	.281						
-388	.515	1.105	.752	.125	.281						
-3880	.515	1.125	.718	.187	.250						
-389	.515	1.125	.740	.062	.094						
-3890	.517	.750	.580	.030	.320						
-390	.520	.825	.620	.062	.500						

Some of these shoulder washers may be molded or stamped, so tolerances will vary from tolerances listed to left. Please call for quote.

.390 I.D. to 1.326 I.D.

Tolerance on all dimensions:
 +/- .015

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

*Available in the following materials:

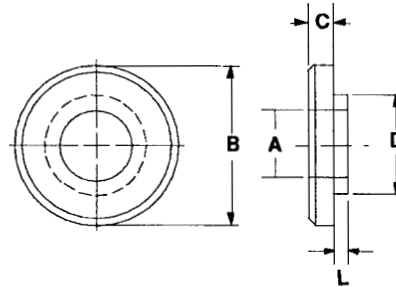
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SHOULDER WASHERS on pages 203-222.

MOLDED NYLON STANDARD SHOULDER WASHERS

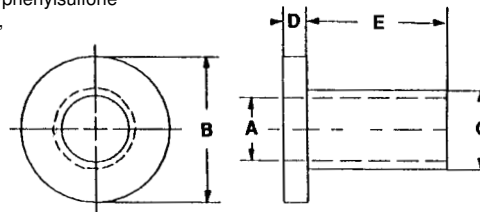
Part No. G1201 - (Size Code No.) - (Material Code No.)

Size Code No.	I.D. A	O.D. B	Thick C	Shank D	Length L	Screw Size
-1	.093	.250	.040	.156	.040	#2
-2	.122	.281	.040	.187	.040	#4
-4	.146	.328	.040	.218	.040	#6
-6	.174	.375	.050	.250	.050	#8
-7	.201	.437	.050	.281	.050	#10
-8	.260	.562	.060	.375	.060	#1/4
-9	.385	.750	.060	.500	.060	#3/8



*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized
-5	Ultem® 1000	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-6	Ultem® 2300, (black)	-226	Radel® A200, Polyethersulfone
-14	ABS	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-231	Radel® R5100 NT15, Polyphenylsulfone
-60	Nylon 6/6, 30% Short Glass-filled		
-77	Ultem® 2300, (natural)		
-90	PEEK™, 30% Short Glass-filled		
-108	Polypropylene, 30% Glass-filled		



MOLDED SCREW INSULATORS

Part No. D270 - (Size Code No.) - (Material Code No.)

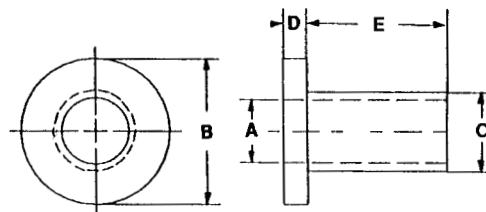
Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E
-1	.090	.181	.120	.047	.125	-21	.140	.290	.170	.047	.094
-2	.090	.181	.110	.047	.187	-22	.140	.290	.170	.047	.500
-3	.090	.181	.120	.047	.187	-23	.173	.344	.205	.062	.140
-4	.090	.181	.120	.047	.250	-24	.173	.344	.205	.062	.250
-5	.090	.181	.120	.047	.375	-25	.173	.344	.205	.062	.375
-6	.115	.235	.145	.047	.032	-26	.173	.344	.205	.062	.500
-7	.115	.235	.145	.047	.047	-27	.173	.344	.205	.062	.625
-8	.115	.235	.145	.047	.094	-28	.173	.344	.205	.062	.750
-9	.115	.235	.145	.047	.125	-29	.200	.399	.260	.062	.250
-10	.115	.235	.145	.047	.150	-30	.200	.399	.260	.062	.375
-11	.115	.235	.145	.047	.156	-31	.200	.399	.260	.062	.500
-12	.115	.235	.145	.047	.187	-32	.200	.399	.260	.062	.625
-13	.115	.235	.145	.047	.250	-33	.200	.399	.260	.062	.750
-14	.115	.235	.145	.047	.375	-34	.260	.513	.312	.062	.187
-15	.115	.235	.145	.047	.500	-35	.260	.513	.312	.062	.250
-16	.140	.290	.170	.047	.125	-36	.260	.513	.312	.062	.375
-17	.140	.290	.170	.047	.156	-37	.260	.513	.312	.062	.500
-18	.140	.290	.170	.047	.187	-38	.260	.513	.312	.062	.625
-19	.140	.290	.170	.047	.250	-39	.260	.513	.312	.062	.750
-20	.140	.290	.170	.047	.375						

MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED STANDOFFS on pages 230-235.



MOLDED NYLON SCREW INSULATORS

Part No. FN104 - (Size Code No.) - (Material Code No.)

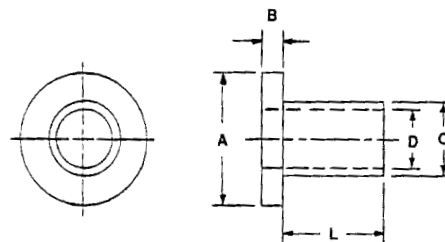
Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E
-1	.090	.181	.120	.047	.125	-19	.140	.290	.170	.047	.156	-35	.200	.399	.260	.062	.500
-2	.090	.181	.120	.047	.187	-20	.140	.290	.170	.047	.187	-36	.200	.399	.260	.062	.562
-3	.090	.181	.120	.047	.250	-21	.140	.290	.170	.047	.250	-37	.200	.399	.260	.062	.625
-4	.090	.181	.120	.047	.375	-22	.140	.290	.170	.047	.375	-38	.200	.399	.260	.062	.750
-5	.115	.235	.145	.047	.031	-23	.140	.290	.170	.047	.500	-39	.260	.513	.312	.062	.125
-6	.115	.235	.145	.047	.047	-24	.173	.344	.205	.062	.125	-40	.260	.513	.312	.062	.140
-7	.115	.235	.145	.047	.062	-25	.173	.344	.205	.062	.140	-41	.260	.513	.312	.062	.187
-8	.115	.235	.145	.047	.094	-26	.173	.344	.205	.062	.250	-42	.260	.513	.312	.062	.250
-9	.115	.235	.145	.047	.125	-27	.173	.344	.205	.062	.375	-43	.260	.513	.312	.062	.375
-10	.115	.235	.145	.047	.156	-28	.173	.344	.205	.062	.500	-44	.260	.513	.312	.062	.500
-11	.115	.235	.145	.047	.187	-29	.173	.344	.205	.062	.625	-45	.260	.513	.312	.062	.620
-12	.115	.235	.145	.047	.250	-30	.173	.344	.205	.062	.750	-46	.260	.513	.312	.062	.750
-13	.115	.235	.145	.047	.375	-300	.200	.399	.260	.062	.062	-47	.320	.620	.360	.062	.125
-14	.115	.235	.145	.047	.500	-31	.200	.399	.260	.062	.140	-48	.320	.620	.360	.062	.250
-15	.140	.290	.170	.047	.047	-32	.200	.399	.260	.062	.187	-49	.320	.620	.360	.062	.375
-16	.140	.290	.170	.047	.062	-33	.200	.399	.260	.062	.250	-50	.320	.620	.360	.062	.500
-17	.140	.290	.170	.047	.094	-34	.200	.399	.260	.062	.375	-51	.320	.620	.360	.062	.625
-18	.140	.290	.170	.047	.125												

Tolerance on all dimensions: +/- .015

MOLDED NYLON METRIC SCREW INSULATORS

ALL DIMENSIONS GIVEN IN MILLIMETERS

Part No. EM300 - (Size Code No.) - (Material Code No.)



Size Code No.	L	A	B	C	D	Size Code No.	L	A	B	C	D	Size Code No.	L	A	B	C	D
-1	3	4,2	1,0	3,0	2,1	-12	9	6,2	1,0	4,0	3,1	-23	9	10,2	2,0	7,0	5,1
-2	4	4,2	1,0	3,0	2,1	-13	10	6,2	1,0	4,0	3,1	-24	4	12,2	2,0	8,0	6,1
-3	5	4,2	1,0	3,0	2,1	-14	3	8,4	1,5	6,0	4,1	-25	6	12,2	2,0	8,0	6,1
-4	6	4,2	1,0	3,0	2,1	-15	4	8,4	1,5	6,0	4,1	-26	8	12,2	2,0	8,0	6,1
-5	2	6,2	1,0	4,0	3,1	-16	5	8,4	1,5	6,0	4,1	-27	10	12,2	2,0	8,0	6,1
-6	3	6,2	1,0	4,0	3,1	-17	7	8,4	1,5	6,0	4,1	-28	12	12,2	2,0	8,0	6,1
-7	4	6,2	1,0	4,0	3,1	-18	9	8,4	1,5	6,0	4,1	-29	4	14,2	2,5	10,0	8,1
-8	5	6,2	1,0	4,0	3,1	-19	3	10,2	2,0	7,0	5,1	-30	6	14,2	2,5	10,0	8,1
-9	6	6,2	1,0	4,0	3,1	-20	4	10,2	2,0	7,0	5,1	-31	8	14,2	2,5	10,0	8,1
-10	7	6,2	1,0	4,0	3,1	-21	5	10,2	2,0	7,0	5,1	-32	10	14,2	2,5	10,0	8,1
-11	8	6,2	1,0	4,0	3,1	-22	7	10,2	2,0	7,0	5,1	-33	12	14,2	2,5	10,0	8,1

Tolerance on all dimensions: +/- .13mm

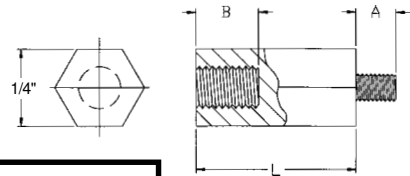
Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED STANDOFFS on pages 230-235.

MOLDED NYLON HEX MALE-FEMALE STANDOFFS

1/4" AF - Part No. EN172 - (Size Code No.) - (Material Code No.)



Depth of thread in 1/4" body lengths is 3/16" minimum.

Size Code No.	Length	Thread	Size Code No.	Length	Thread	Size Code No.	Length	Thread	Size Code No.	Length	Thread
-1	1/4	4-40	-11	1 1/2	4-40	-210	15/16	6-32	-33	1/2	8-32
-100	5/16	4-40	-12	1 5/8	4-40	-22	1	6-32	-34	5/8	8-32
-2	3/8	4-40	-13	1 3/4	4-40	-23	1 1/8	6-32	-35	3/4	8-32
-3	1/2	4-40	-15	2	4-40	-24	1 1/4	6-32	-36	7/8	8-32
-300	.600	4-40	-16	1/4 *	6-32	-240	1 5/16	6-32	-37	1	8-32
-4	5/8	4-40	-160	17/64	6-32	-25	1 3/8	6-32	-38	1 1/8	8-32
-5	3/4	4-40	-17	3/8	6-32	-26	1 1/2	6-32	-39	1 1/4	8-32
-6	7/8	4-40	-18	1/2	6-32	-27	1 5/8	6-32	-40	1 3/8	8-32
-7	1	4-40	-180	9/16	6-32	-28	1 3/4	6-32	-41	1 1/2	8-32
-8	1 1/8	4-40	-19	5/8	6-32	-30	2	6-32	-42	1 5/8	8-32
-9	1 1/4	4-40	-20	3/4	6-32	-31	1/4 **	8-32	-43	1 3/4	8-32
-10	1 3/8	4-40	-21	7/8	6-32	-32	3/8 ***	8-32	-45	2	8-32

Thread	A	B
4-40	3/16	3/16
6-32	1/4	1/4
8-32	3/8	3/8

* B = 7/32".
** B = .200.
*** B = .270.

MOLDED NYLON SPECIAL SNAP-IN STANDOFF

Part No. EN180 - (Size Code No.) - (Material Code No.)

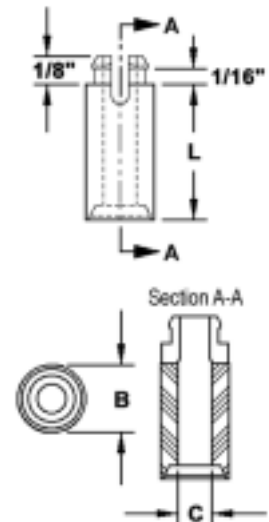


Size Code No.	Panel Thk.	Hole Size	L	O.D.	I.D.	Size Code No.	Panel Thk.	Hole Size	L	O.D.	I.D.
-1	.062	.187	.945	.250	.106	-3	.062	.234	.375	.281	.153
-10	.062	.187	.187	.250	.125	-4	.062	.234	.375	.281	.169
-2	.062	.234	.250	.281	.153	-5	.062	.234	.500	.281	.169

MOLDED NYLON STACKABLE SNAP-IN STANDOFF

Part No. EN184 - (Size Code No.) - (Material Code No.) Also available in UL94-VO Nylon.

Size Code No.	Screw Size	B	C	L	Mount Hole	Size Code No.	Screw Size	B	C	L	Mount Hole
-1	#4	.260	.125	.125	.187	-14	#6	.312	.156	.625	.234
-2	#4	.260	.125	.187	.187	-15	#6	.312	.156	.750	.234
-3	#4	.260	.125	.250	.187	-16	#6	.312	.156	.875	.234
-4	#4	.260	.125	.312	.187	-17	#6	.312	.156	1.000	.234
-5	#4	.260	.125	.375	.187	-18	#8	.312	.169	.250	.234
-6	#4	.260	.125	.437	.187	-19	#8	.312	.169	.312	.234
-7	#4	.260	.125	.500	.187	-20	#8	.312	.169	.375	.234
-8	#4	.260	.125	.625	.187	-21	#8	.312	.169	.437	.234
-9	#6	.312	.156	.250	.234	-22	#8	.312	.169	.500	.234
-10	#6	.312	.156	.312	.234	-23	#8	.312	.169	.625	.234
-11	#6	.312	.156	.375	.234	-24	#8	.312	.169	.750	.234
-12	#6	.312	.156	.437	.234	-25	#8	.312	.169	.875	.234
-13	#6	.312	.156	.500	.234	-26	#8	.312	.169	1.000	.234



MOLDED SHOULDER WASHERS, INSULATORS and STANDOFFS (continued)

*Available in the following materials:

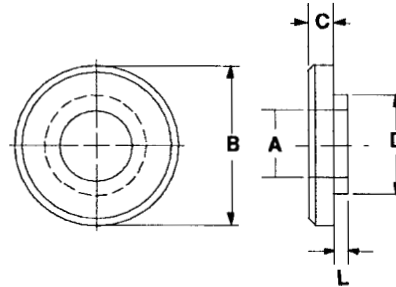
Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SHOULDER WASHERS on pages 203-222.

MOLDED NYLON STANDARD SHOULDER WASHERS

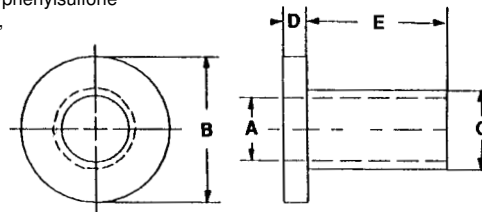
Part No. G1201 - (Size Code No.) - (Material Code No.)

Size Code No.	I.D. A	O.D. B	Thick C	Shank D	Length L	Screw Size
-1	.093	.250	.040	.156	.040	#2
-2	.122	.281	.040	.187	.040	#4
-4	.146	.328	.040	.218	.040	#6
-6	.174	.375	.050	.250	.050	#8
-7	.201	.437	.050	.281	.050	#10
-8	.260	.562	.060	.375	.060	#1/4
-9	.385	.750	.060	.500	.060	#3/8



*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized
-5	Ultem® 1000	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-6	Ultem® 2300, (black)	-226	Radel® A200, Polyethersulfone
-14	ABS	-229	Radel® R5000, Polyphenylsulfone
-35	Noryl®	-231	Radel® R5100 NT15, Polyphenylsulfone
-60	Nylon 6/6, 30% Short Glass-filled		
-77	Ultem® 2300, (natural)		
-90	PEEK™, 30% Short Glass-filled		
-108	Polypropylene, 30% Glass-filled		



MOLDED SCREW INSULATORS

Part No. D270 - (Size Code No.) - (Material Code No.)

Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E
-1	.090	.181	.120	.047	.125	-21	.140	.290	.170	.047	.094
-2	.090	.181	.110	.047	.187	-22	.140	.290	.170	.047	.500
-3	.090	.181	.120	.047	.187	-23	.173	.344	.205	.062	.140
-4	.090	.181	.120	.047	.250	-24	.173	.344	.205	.062	.250
-5	.090	.181	.120	.047	.375	-25	.173	.344	.205	.062	.375
-6	.115	.235	.145	.047	.032	-26	.173	.344	.205	.062	.500
-7	.115	.235	.145	.047	.047	-27	.173	.344	.205	.062	.625
-8	.115	.235	.145	.047	.094	-28	.173	.344	.205	.062	.750
-9	.115	.235	.145	.047	.125	-29	.200	.399	.260	.062	.250
-10	.115	.235	.145	.047	.150	-30	.200	.399	.260	.062	.375
-11	.115	.235	.145	.047	.156	-31	.200	.399	.260	.062	.500
-12	.115	.235	.145	.047	.187	-32	.200	.399	.260	.062	.625
-13	.115	.235	.145	.047	.250	-33	.200	.399	.260	.062	.750
-14	.115	.235	.145	.047	.375	-34	.260	.513	.312	.062	.187
-15	.115	.235	.145	.047	.500	-35	.260	.513	.312	.062	.250
-16	.140	.290	.170	.047	.125	-36	.260	.513	.312	.062	.375
-17	.140	.290	.170	.047	.156	-37	.260	.513	.312	.062	.500
-18	.140	.290	.170	.047	.187	-38	.260	.513	.312	.062	.625
-19	.140	.290	.170	.047	.250	-39	.260	.513	.312	.062	.750
-20	.140	.290	.170	.047	.375						

PRECISION MACHINED FASTENERS

The following section includes machined fasteners in a wide variety of plastic materials.

Standard Machine, Hex Socket, Cap, Thumb and Set Screws
(pages 144-155)

Metric Bolts, Machine, Cap, Thumb and Set Screws
(pages 156-160)

Vented Screws
(page 161)

Captive Panel Screws
(pages 162-177)

Standard and Metric Nuts
(pages 178-180)

Washers and Spacers
(pages 181-202)

Shoulder Washers
(pages 203-222)

Shoulder Bushings, Screw Insulators and Bushings
(pages 223-229)

Standoffs
(pages 230-235)

Threaded Rod
(page 236-237)

Military Standard Fasteners and Components
(pages 238)

MACHINED HIGH TECHNOLOGY PLASTIC MACHINE SCREWS

*Available in other materials. See material list in index.
Other sizes available on request.

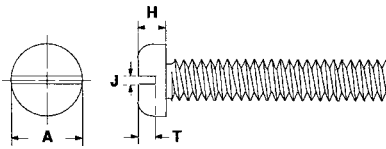
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	VespeI®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PvDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 148) (above)

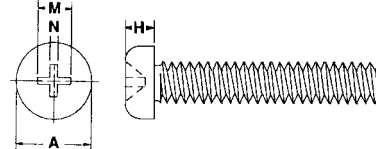
*Machine screws under 1" are fully threaded.
Machine screws over 1" can be fully threaded on request.*

PAN HEAD SLOTTED Part No. D232 -

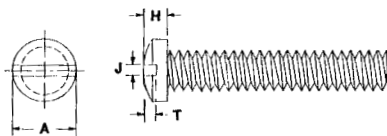


Thread Size	A	H	J	T	M	N
0	.110	.035	.020	.018	.071	.022
1	.136	.042	.023	.023	.084	.024
2	.161	.049	.027	.026	.103	.027
3	.186	.055	.031	.031	.119	.029
4	.212	.063	.035	.035	.136	.032
5	.238	.070	.039	.039	.152	.034
6	.263	.077	.043	.043	.169	.037
8	.314	.091	.049	.051	.200	.041
10	.365	.105	.055	.060	.232	.046
12	.416	.118	.061	.069	.263	.051
1/4	.482	.137	.069	.078	.309	.058
5/16	.604	.170	.078	.095	.386	.069
3/8	.728	.204	.087	.112	.468	.081
7/16	.850	.237	.087	.129	.544	.093
1/2	.973	.270	.098	.146	.617	.104
9/16	1.020	.304	.110	.163	.625	.105
5/8	1.148	.337	.124	.180	.625	.105
3/4	1.405	.404	.140	.213	.625	.105

PAN HEAD PHILLIPS Part No. D232J -

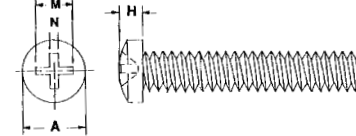


BINDING HEAD SLOTTED Part No. D230 -

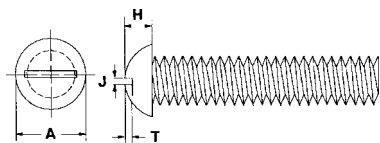


Thread Size	A	H	J	T	M	N
0	.122	.030	.019	.013	.078	.023
1	.149	.038	.022	.019	.092	.025
2	.176	.046	.026	.025	.112	.028
3	.202	.055	.031	.030	.130	.031
4	.229	.064	.034	.036	.147	.034
5	.256	.074	.039	.041	.165	.036
6	.282	.083	.043	.046	.183	.039
8	.335	.100	.049	.057	.216	.044
12	.442	.135	.061	.079	.239	.047
10	.388	.117	.055	.068	.284	.054
1/4	.511	.158	.069	.094	.320	.059
5/16	.639	.201	.078	.121	.403	.072
3/8	.767	.244	.087	.147	.468	.081

BINDING HEAD PHILLIPS Part No. D230J -

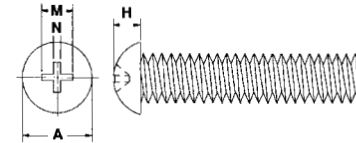


ROUND HEAD SLOTTED Part No. D233 -



Thread Size	A	H	J	T	M	N
0	.106	.048	.019	.034	.068	.020
1	.130	.056	.023	.038	.085	.022
2	.154	.064	.027	.043	.100	.025
3	.178	.073	.031	.047	.116	.027
4	.202	.081	.035	.051	.131	.029
5	.226	.089	.039	.055	.147	.032
6	.250	.097	.043	.060	.163	.034
8	.298	.114	.049	.067	.194	.039
10	.347	.130	.055	.076	.225	.043
12	.395	.146	.062	.084	.257	.048
1/4	.458	.168	.069	.096	.298	.054
5/16	.574	.207	.078	.116	.373	.065
3/8	.689	.247	.087	.136	.448	.076
7/16	.729	.318	.087	.172	.474	.080
1/2	.790	.344	.098	.185	.513	.086
9/16	.912	.398	.110	.213	.593	.098
5/8	.972	.425	.125	.227	.632	.103
3/4	1.218	.532	.140	.281	.632	.103

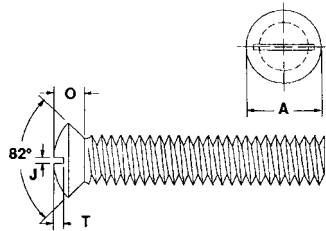
ROUND HEAD PHILLIPS Part No. D233J -



HIGH TECHNOLOGY PLASTIC MACHINE SCREWS (continued)

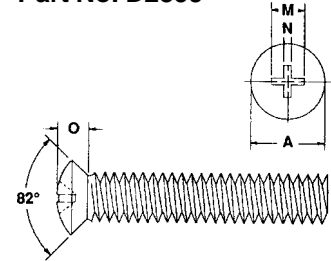
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 148) (page 144)

OVAL HEAD SLOTTED 82°
Part No. D239 -

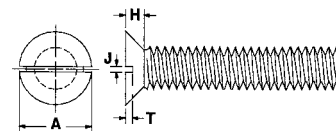


Thread Size	A	O	J	T	M	N
0	.109	.048	.020	.027	.078	.021
1	.135	.060	.023	.035	.091	.024
2	.159	.071	.027	.041	.115	.027
3	.185	.082	.031	.048	.133	.030
4	.210	.094	.035	.054	.151	.032
5	.236	.105	.039	.061	.169	.035
6	.262	.116	.044	.067	.187	.038
8	.312	.138	.050	.080	.224	.043
10	.362	.162	.055	.094	.260	.048
12	.414	.185	.061	.107	.297	.054
1/4	.479	.214	.070	.124	.345	.061
5/16	.602	.270	.078	.156	.432	.074
3/8	.723	.324	.088	.188	.509	.086
7/16	.767	.320	.088	.192	.554	.092
1/2	.825	.326	.098	.196	.593	.098
9/16	.944	.380	.110	.228	.639	.104
5/8	1.063	.433	.125	.260	.639	.104
3/4	1.302	.537	.140	.323	.639	.104

OVAL HEAD PHILLIPS 82°
Part No. D239J -

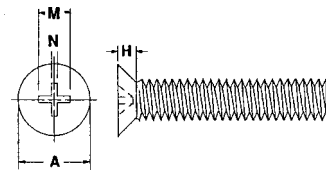


FLAT HEAD SLOTTED 82°
Part No. D237 -

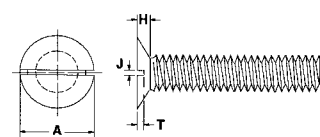


Thread Size	A	H	J	T	M	N
0	.109	.035	.019	.012	.078	.021
1	.134	.043	.022	.015	.091	.024
2	.159	.051	.027	.019	.115	.027
3	.185	.059	.031	.022	.133	.030
4	.210	.067	.035	.025	.151	.032
5	.236	.075	.039	.028	.169	.035
6	.261	.083	.044	.031	.187	.038
8	.312	.100	.049	.037	.224	.043
10	.362	.116	.055	.044	.260	.048
12	.414	.132	.061	.049	.297	.054
1/4	.479	.153	.069	.058	.344	.061
5/16	.601	.191	.078	.073	.432	.074
3/8	.723	.230	.088	.088	.509	.086
7/16	.767	.223	.088	.085	.554	.092
1/2	.825	.223	.098	.085	.593	.098
9/16	.994	.260	.110	.098	.639	.104
5/8	1.063	.298	.124	.113	.639	.104
3/4	1.302	.372	.140	.141	.639	.104

FLAT HEAD PHILLIPS 82°
Part No. D237J -

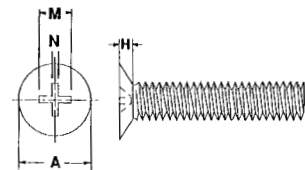


FLAT HEAD SLOTTED 100°
Part No. D238 -

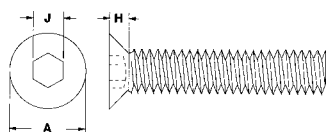


Thread Size	A	H	J	T	M	N
0	.108	.026	.019	.011	.057	.020
1	.133	.031	.023	.013	.078	.023
2	.158	.037	.027	.015	.092	.025
3	.183	.043	.031	.018	.113	.027
4	.208	.049	.035	.020	.131	.029
6	.258	.060	.044	.026	.157	.033
8	.308	.072	.049	.031	.185	.037
10	.359	.083	.055	.036	.219	.042
1/4	.475	.110	.070	.048	.288	.053
5/16	.595	.138	.078	.061	.355	.063
3/8	.716	.165	.087	.074	.433	.075

FLAT HEAD PHILLIPS 100°
Part No. D238J -



FLAT HEAD SOCKET
Part No. K201 -



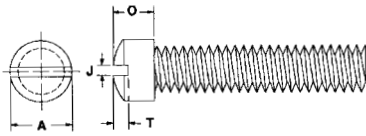
Thread Size	A	H	J
0	.127	.044	.035
1	.155	.054	.050
2	.183	.064	.050
3	.209	.073	.062
4	.236	.083	.062
5	.260	.090	.078
6	.285	.097	.078
8	.335	.112	.094
10	.385	.127	.125
1/4	.505	.161	.156
5/16	.628	.198	.188
3/8	.750	.234	.219
7/16	.812	.234	.250
1/2	.905	.251	.312
5/8	1.15	.324	.375
3/4	1.397	.396	.500
7/8	1.646	.468	.562
1	1.890	.540	.625

Dimensions are given here as a guide only.
 Screws are made to the American National Standard.

HIGH TECHNOLOGY PLASTIC MACHINE SCREWS (continued)

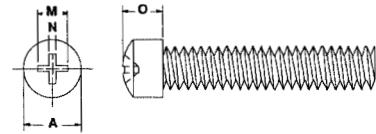
(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 148) (page 144)

**FILLISTER HEAD
SLOTTED**
Part No. D231 -

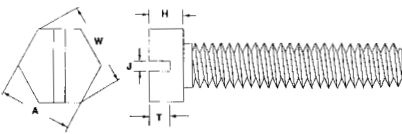


Thread Size	A	O	J	T	M	N
0	.089	.051	.019	.020	.067	.020
1	.111	.062	.023	.025	.083	.022
2	.132	.074	.027	.031	.099	.024
3	.153	.086	.031	.036	.115	.027
4	.174	.097	.035	.041	.130	.029
5	.196	.110	.039	.047	.147	.031
6	.217	.121	.044	.052	.163	.034
8	.260	.144	.050	.062	.194	.039
10	.302	.168	.055	.073	.227	.043
12	.345	.192	.061	.084	.259	.048
1/4	.402	.222	.070	.098	.229	.054
5/16	.504	.279	.078	.123	.378	.066
3/8	.606	.335	.088	.148	.454	.077
7/16	.607	.344	.088	.152	.454	.077
1/2	.730	.387	.098	.170	.547	.091
9/16	.790	.438	.110	.193	.592	.097
5/8	.851	.491	.124	.216	.592	.097
3/4	.972	.577	.140	.253	.592	.097

**FILLISTER HEAD
PHILLIPS**
Part No. D231J -

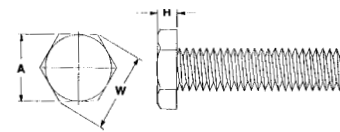


HEX HEAD SLOTTED
Part No. D229 -

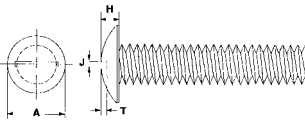


Thread Size	A	W	H	J	T
1	.122	.134	.040	---	---
2	.122	.134	.045	---	---
3	.184	.202	.049	---	---
4	.184	.202	.055	.035	.031
5	.184	.202	.064	.039	.036
6	.247	.272	.086	.044	.039
8	.247	.272	.103	.050	.059
10	.308	.340	.113	.055	.065
12	.308	.340	.147	.062	.085
1/4	.371	.409	.181	.069	.092
5/16	.495	.545	.219	.078	.111
3/8	.557	.614	.283	.088	.144

HEX HEAD
Part No. D228 -

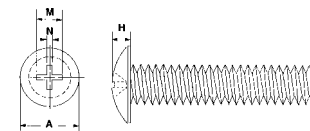


TRUSS HEAD SLOTTED
Part No. J200 -

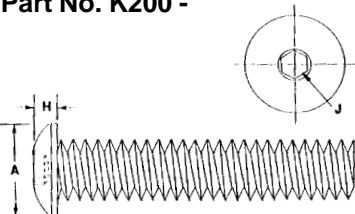


Thread Size	A	H	J	T	M	N
0	.125	.033	.020	.018	.070	.021
1	.156	.041	.023	.022	.087	.023
2	.187	.049	.027	.027	.105	.026
3	.218	.056	.031	.030	.123	.028
4	.249	.064	.035	.035	.140	.031
5	.280	.072	.039	.040	.157	.033
6	.312	.080	.044	.044	.175	.035
8	.374	.095	.049	.052	.209	.041
10	.436	.110	.055	.061	.245	.046
12	.499	.126	.061	.069	.279	.051
1/4	.559	.141	.069	.079	.314	.057
5/16	.682	.172	.078	.096	.382	.067
3/8	.805	.203	.087	.112	.446	.076
7/16	.927	.234	.087	.129	.512	.086
1/2	1.050	.265	.098	.146	.588	.097
9/16	1.173	.295	.110	.163	.588	.097
5/8	1.296	.327	.124	.179	.588	.097
3/4	1.541	.389	.140	.208	.588	.097

TRUSS HEAD PHILLIPS
Part No. J200J -

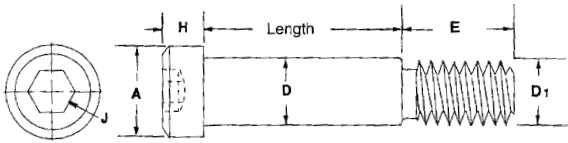


BUTTON HEAD
Part No. K200 -



Thread Size	A	H	J
0	.109	.029	.035
1	.134	.036	.050
2	.159	.042	.050
3	.182	.048	.062
4	.207	.055	.062
5	.232	.062	.078
6	.256	.068	.078
8	.305	.082	.094
10	.354	.096	.125
1/4	.427	.127	.156
5/16	.537	.159	.188
3/8	.646	.192	.219
1/2	.863	.255	.312
5/8	.985	.321	.375

MACHINED HIGH TECHNOLOGY PLASTIC HEX SOCKET HEAD SHOULDER SCREW



Part No. KN202 - (Size Code No.) - (Length Code No.) - (Material Code No.)
 (below) (right) (page 144)

Length Code No.	Length (inches)
-1	1/4
-2	5/16
-3	3/8
-4	7/16
-5	1/2
-6	9/16
-7	5/8
-8	11/16
-9	3/4
-10	13/16
-11	7/8
-12	15/16
-13	1
-14	1 1/4
-15	1 1/2
-16	1 3/4
-17	2
-18	2 1/4
-19	2 1/2
-20	2 3/4
-21	3
-22	3 1/2
-23	4
-24	4 1/2
-25	5

Size Code No.	Shoulder Dia.	D	A	H	J	D1		E Thread Length	
						Nominal Thread Size or Basic Thread Dia.	Threads per inch		
-1	1/4	.247	.366	.183	.125	#10	.190	24	.375
-2	5/16	.310	.429	.214	.156	1/4	.250	20	.438
-3	3/8	.372	.553	.245	.188	5/16	.313	18	.500
-4	1/2	.497	.740	.307	.250	3/8	.375	16	.625
-5	5/8	.622	.864	.370	.312	1/2	.500	13	.750
-6	3/4	.747	.989	.495	.375	5/8	.625	11	.875
-7	1	.997	1.300	.618	.500	3/4	.750	10	1.000
-8	1 1/4	1.247	1.737	.743	.625	7/8	.875	9	1.125

MACHINED HIGH TECHNOLOGY PLASTIC HEX CAP SCREW

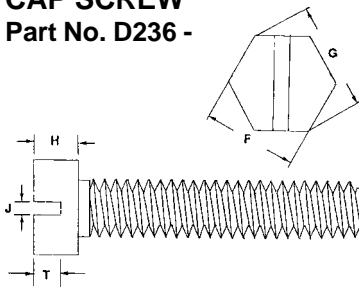
(Available in sizes 1/4-20 through 1-14.)

(Part No.) - (Size Code No.) - (Material Code No.)
 (below) (page 148) (page 144)

*Sizes under 1" are fully threaded.
 Sizes over 1" can be fully threaded on request.*

HEX HEAD SLOTTED CAP SCREW

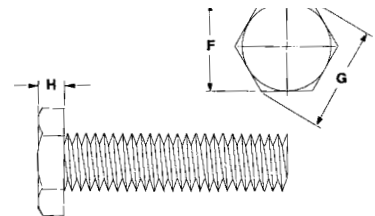
Part No. D236 -



Thread Size	F	G	H
1/4	7/16	.496	5/32
5/16	1/2	.667	13/64
3/8	9/16	.639	15/64
7/16	5/8	.710	9/32
1/2	3/4	.853	5/16
9/16	13/16	.924	23/64
5/8	15/16	1.067	25/64
3/4	1 1/8	1.276	15/32
7/8	1 5/16	1.490	35/64
1	1 1/2	1.703	39/64

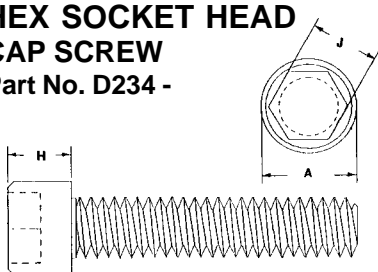
HEX HEAD CAP SCREW

Part No. D235 -



HEX SOCKET HEAD CAP SCREW

Part No. D234 -



Thread Size	A	H	J	Thread Size	A	H	J
0	.093	.058	.050	1/4	.370	.247	.188
1	.115	.071	.062	5/16	.463	.309	.250
2	.137	.084	.078	3/8	.556	.371	.312
3	.157	.097	.078	7/16	.649	.434	.375
4	.180	.110	.094	1/2	.742	.496	.375
5	.201	.123	.094	5/8	.930	.620	.500
6	.222	.136	.109	3/4	1.116	.745	.625
8	.266	.162	.141	7/8	1.302	.870	.750
10	.307	.188	.156	1	1.489	.994	.750

HIGH TECHNOLOGY PLASTIC MACHINE SCREWS, HEX CAP SCREWS and SET SCREWS SIZE CODE CHART

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	0-80	1/8	-68	6-40	1/2	-135	5/16-18	3/8	-202	1/2-13	1	-269	3/4-10	1 3/4
-2	0-80	1/4	-69	6-40	9/16	-136	5/16-18	7/16	-203	1/2-13	1 1/4	-270	3/4-10	2
-3	0-80	5/16	-70	6-40	5/8	-137	5/16-18	1/2	-204	1/2-13	1 1/2	-271	3/4-16	3/8
-4	0-80	3/8	-71	6-40	3/4	-138	5/16-18	9/16	-205	1/2-13	1 3/4	-272	3/4-16	7/16
-5	0-80	7/16	-72	6-40	7/8	-139	5/16-18	5/8	-206	1/2-13	2	-273	3/4-16	1/2
-6	0-80	1/2	-73	6-40	1	-140	5/16-18	3/4	-207	1/2-20	1/4	-274	3/4-16	9/16
-7	0-80	9/16	-74	8-32	1/8	-141	5/16-18	7/8	-208	1/2-20	5/16	-275	3/4-16	5/8
-8	0-80	5/8	-75	8-32	1/4	-142	5/16-18	1	-209	1/2-20	3/8	-276	3/4-16	3/4
-9	0-80	3/4	-76	8-32	5/16	-143	5/16-18	1 1/4	-210	1/2-20	7/16	-277	3/4-16	7/8
-10	0-80	7/8	-77	8-32	3/8	-144	5/16-18	1 1/2	-211	1/2-20	1/2	-278	3/4-16	1
-11	0-80	1	-78	8-32	7/16	-145	5/16-24	1/4	-212	1/2-20	9/16	-279	3/4-16	1 1/4
-12	2-56	1/8	-79	8-32	1/2	-146	5/16-24	5/16	-213	1/2-20	5/8	-280	3/4-16	1 1/2
-13	2-56	1/4	-80	8-32	9/16	-147	5/16-24	3/8	-214	1/2-20	3/4	-281	3/4-16	1 3/4
-14	2-56	5/16	-81	8-32	5/8	-148	5/16-24	7/16	-215	1/2-20	7/8	-282	3/4-16	2
-15	2-56	3/8	-82	8-32	3/4	-149	5/16-24	1/2	-216	1/2-20	1	-283	7/8-9	1/2
-16	2-56	7/16	-83	8-32	7/8	-150	5/16-24	9/16	-217	1/2-20	1 1/4	-284	7/8-9	9/16
-17	2-56	1/2	-84	8-32	1	-151	5/16-24	5/8	-218	1/2-20	1 1/2	-285	7/8-9	5/8
-18	2-56	9/16	-85	10-24	1/8	-152	5/16-24	3/4	-219	1/2-20	1 3/4	-286	7/8-9	3/4
-19	2-56	5/8	-86	10-24	1/4	-153	5/16-24	7/8	-220	1/2-20	2	-287	7/8-9	7/8
-20	2-56	3/4	-87	10-24	5/16	-154	5/16-24	1	-221	9/16-18	1/4	-288	7/8-9	1
-21	2-56	7/8	-88	10-24	3/8	-155	5/16-24	1 1/4	-222	9/16-18	5/16	-289	7/8-9	1 1/4
-22	2-56	1	-89	10-24	7/16	-156	5/16-24	1 1/2	-223	9/16-18	3/8	-290	7/8-9	1 1/2
-23	3-48	1/8	-90	10-24	1/2	-157	3/8-16	1/4	-224	9/16-18	7/16	-291	7/8-9	1 3/4
-24	3-48	1/4	-91	10-24	9/16	-158	3/8-16	5/16	-225	9/16-19	1/2	-292	7/8-9	2
-25	3-48	5/16	-92	10-24	5/8	-159	3/8-16	3/8	-226	9/16-18	9/16	-293	7/8-14	1/2
-26	3-48	3/8	-93	10-24	3/4	-160	3/8-16	7/16	-227	9/16-18	5/8	-294	7/8-14	9/16
-27	3-48	7/16	-94	10-24	7/8	-161	3/8-16	1/2	-228	9/16-18	3/4	-295	7/8-14	5/8
-28	3-48	1/2	-95	10-24	1	-162	3/8-16	9/16	-229	9/16-18	7/8	-296	7/8-14	3/4
-29	3-48	9/16	-96	10-32	1/8	-163	3/8-16	5/8	-230	9/16-18	1	-297	7/8-14	7/8
-30	3-48	5/8	-97	10-32	1/4	-164	3/8-16	3/4	-231	9/16-18	1 1/4	-298	7/8-14	1
-31	3-48	3/4	-98	10-32	5/16	-165	3/8-16	7/8	-232	9/16-18	1 1/2	-299	7/8-14	1 1/4
-32	4-40	1/8	-99	10-32	3/8	-166	3/8-16	1	-233	9/16-18	1 3/4	-300	7/8-14	1 1/2
-33	4-40	1/4	-100	10-32	7/16	-167	3/8-16	1 1/4	-234	9/16-18	2	-301	7/8-14	1 3/4
-34	4-40	3/8	-101	10-32	1/2	-168	3/8-16	1 1/2	-235	5/8-11	3/8	-302	7/8-14	2
-35	4-40	7/16	-102	10-32	9/16	-169	3/8-24	1/4	-236	5/8-11	7/16	-303	1-8	1/2
-36	4-40	1/2	-103	10-32	5/8	-170	3/8-24	5/16	-237	5/8-11	1/2	-304	1-8	9/16
-37	4-40	9/16	-104	10-32	3/4	-171	3/8-24	3/8	-238	5/8-11	9/16	-305	1-8	5/8
-38	4-40	5/8	-105	10-32	7/8	-172	3/8-24	7/16	-239	5/8-11	5/8	-306	1-8	3/4
-39	4-40	3/4	-106	10-32	1	-173	3/8-24	1/2	-240	5/8-11	3/4	-307	1-8	7/8
-40	4-40	7/8	-107	1/4-20	1/8	-174	3/8-24	9/16	-241	5/8-11	7/8	-308	1-8	1
-41	4-40	1	-108	1/4-20	1/4	-175	3/8-24	5/8	-242	5/8-11	1	-309	1-8	1 1/4
-42	5-40	1/8	-109	1/4-20	5/16	-176	3/8-24	3/4	-243	5/8-11	1 1/4	-310	1-8	1 1/2
-43	5-40	1/4	-110	1/4-20	3/8	-177	3/8-24	7/8	-244	5/8-11	1 1/2	-311	1-8	1 3/4
-44	5-40	3/8	-111	1/4-20	7/16	-178	3/8-24	1	-245	5/8-11	1 3/4	-312	1-8	2
-45	5-40	7/16	-112	1/4-20	1/2	-179	3/8-24	1 1/4	-246	5/8-11	2	-313	1-12	1/2
-46	5-40	1/2	-113	1/4-20	9/16	-180	3/8-24	1 1/2	-247	5/8-18	3/8	-314	1-12	9/16
-47	5-40	9/16	-114	1/4-20	5/8	-181	7/16-14	1/4	-248	5/8-18	7/16	-315	1-12	5/8
-48	5-40	5/8	-115	1/4-20	3/4	-182	7/16-14	5/16	-249	5/8-18	1/2	-316	1-12	3/4
-49	5-40	3/4	-116	1/4-20	7/8	-183	7/16-14	3/8	-250	5/8-18	9/16	-317	1-12	7/8
-50	5-40	7/8	-117	1/4-20	1	-184	7/16-14	7/16	-251	5/8-18	5/8	-318	1-12	1
-51	5-40	1	-118	1/4-20	1 1/4	-185	7/16-14	1/2	-252	5/8-18	3/4	-319	1-12	1 1/4
-52	6-32	1/8	-119	1/4-20	1 1/2	-186	7/16-14	9/16	-253	5/8-18	7/8	-320	1-12	1 1/2
-53	6-32	1/4	-120	1/4-28	1/8	-187	7/16-14	5/8	-254	5/8-18	1	-321	1-12	1 3/4
-54	6-32	5/16	-121	1/4-28	1/4	-188	7/16-14	3/4	-255	5/8-18	1 1/4	-322	1-12	2
-55	6-32	3/8	-122	1/4-28	5/16	-189	7/16-14	7/8	-256	5/8-18	1 1/2	-323	1-14	1/2
-56	6-32	7/16	-123	1/4-28	3/8	-190	7/16-14	1	-257	5/8-18	1 3/4	-324	1-14	9/16
-57	6-32	1/2	-124	1/4-28	7/16	-191	7/16-14	1 1/4	-258	5/8-18	2	-325	1-14	5/8
-58	6-32	9/16	-125	1/4-28	1/2	-192	7/16-14	1 1/2	-259	3/4-10	3/8	-326	1-14	3/4
-59	6-32	5/8	-126	1/4-28	9/16	-193	1/2-13	1/4	-260	3/4-10	7/16	-327	1-14	7/8
-60	6-32	3/4	-127	1/4-28	5/8	-194	1/2-13	5/16	-261	3/4-10	1/2	-328	1-14	1
-61	6-32	7/8	-128	1/4-28	3/4	-195	1/2-13	3/8	-262	3/4-10	9/16	-329	1-14	1 1/4
-62	6-32	1	-129	1/4-28	7/8	-196	1/2-13	7/16	-263	3/4-10	5/8	-330	1-14	1 1/2
-63	6-40	1/8	-130	1/4-28	1	-197	1/2-13	1/2	-264	3/4-10	3/4	-331	1-14	1 3/4
-64	6-40	1/4	-131	1/4-28	1 1/4	-198	1/2-13	9/16	-265	3/4-10	7/8	-332	1-14	2
-65	6-40	5/16	-132	1/4-28	1 1/2	-199	1/2-13	5/8	-266	3/4-10	1	-333	1-14	2 1/2
-66	6-40	3/8	-133	5/16-18	1/4	-200	1/2-13	3/4	-267	3/4-10	1 1/4	-334	1-14	3
-67	6-40	7/16	-134	5/16-18	5/16	-201	1/2-13	7/8	-268	3/4-10	1 1/2	-335	1-14	3 1/2

MACHINED HIGH TECHNOLOGY PLASTIC HEADLESS SET SCREWS

*Available in other materials. See material list in index.
Other sizes available on request.

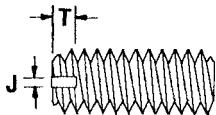
*Available in the following materials:

Material Code	Material Name	Material Code	Material Name	Material Code	Material Name	Material Code	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	VespeI®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

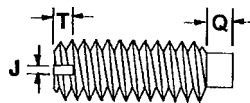
Part No. D219 - (Size Code No.) - (Set Style) - SL (Slotted) or SK (Socket) - (Material Code No.)
 (page 148) (below) (above)

Set Style:

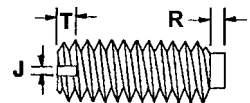
FLAT POINT - FP



DOG POINT - DP



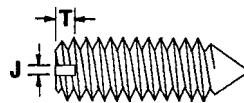
HALF DOG POINT - HP



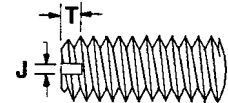
CUP POINT - CP



CONE POINT - CNP



OVAL POINT - OP



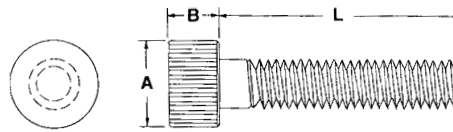
Screw Size	J	T	Q	R	Socket Size	Screw Size	J	T	Q	R	Socket Size	Screw Size	J	T	Q	R	Socket Size
2	.016	.022	.044	.022	.035	10	.032	.048	.090	.045	.094	1/2	.081	.125	.250	.125	.250
3	.018	.026	.050	.025	.050	12	.039	.056	.110	.055	--	9/16	.091	.141	.281	.140	--
4	.021	.028	.056	.028	.050	1/4	.045	.062	.125	.063	.125	5/8	.102	.156	.313	.156	.312
5	.023	.031	.060	.030	.062	5/16	.051	.078	.156	.078	.156	3/4	.129	.188	.375	.188	.375
6	.025	.035	.070	.035	.062	3/8	.064	.094	.188	.094	.188	7/8	--	--	.438	.224	.500
8	.029	.041	.080	.040	.078	7/16	.072	.109	.219	.109	.219	1	--	--	.500	.250	.562

Dimensions here are given as a guide only.
Set screws are made to the American National Standard.

MACHINED HIGH TECHNOLOGY PLASTIC THUMB SCREWS

*See previous page for available materials.

Part No. Q104 - (Size Code No.) - (Material Code No.)
(below) (page 149)



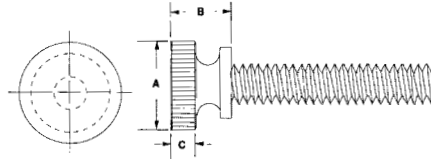
Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	1/4	-59	6-32	7/8	-117	1/4-20	3/8	-175	5/16-24	2	-233	1/2-13	1-1/4
-2		5/16	-60		1	-118		7/16	-176		2-1/4	-234		1-1/2
-3		3/8	-61		1-1/8	-119		1/2	-177		2-1/2	-235		1-3/4
-4		7/16	-62		1-1/4	-120		9/16	-178		3	-236		2
-5		1/2	-63		1-1/2	-121		5/8	-179	3/8-16	1/2	-237		2-1/2
-6		9/16	-64	6-40	1/4	-122		3/4	-180		9/16	-238		3
-7		5/8	-65		5/16	-123		7/8	-181		5/8	-239	1/2-20	3/4
-8		3/4	-66		3/8	-124		1	-182		3/4	-240		1
-9		7/8	-67		7/16	-125		1-1/8	-183		7/8	-241		1-1/4
-10		1	-68		1/2	-126		1-1/4	-184		1	-242		1-1/2
-11	3-48	1/4	-69		9/16	-127		1-1/2	-185		1-1/8	-243		1-3/4
-12		5/16	-70		5/8	-128		1-3/4	-186		1-1/4	-244		2
-13		3/8	-71		3/4	-129		2	-187		1-1/2	-245		2-1/2
-14		7/16	-72		7/8	-130		2-1/4	-188		1-3/4	-246		3
-15		1/2	-73		1	-131		2-1/2	-189		2	-247	9/16-18	3/4
-16		9/16	-74		1-1/8	-132	1/4-28	3/8	-190		2-1/4	-248		1
-17		5/8	-75		1-1/4	-133		7/16	-191		2-1/2	-249		1-1/4
-18		3/4	-76		1-1/2	-134		1/2	-192		3	-250		1-1/2
-19		7/8	-77	8-32	1/4	-135		9/16	-193	3/8-24	1/2	-251		1-3/4
-20		1	-78		5/16	-136		5/8	-194		9/16	-252		2
-21	4-40	1/4	-79		3/8	-137		3/4	-195		5/8	-253		2-1/2
-22		5/16	-80		7/16	-138		7/8	-196		3/4	-254		3
-23		3/8	-81		1/2	-139		1	-197		7/8	-255	9/16-20	3/4
-24		7/16	-82		9/16	-140		1-1/8	-198		1	-256		1
-25		1/2	-83		5/8	-141		1-1/4	-199		1-1/8	-257		1-1/4
-26		9/16	-84		3/4	-142		1-1/2	-200		1-1/4	-258		1-1/2
-27		5/8	-85		7/8	-143		1-3/4	-201		1-1/2	-259		1-3/4
-28		3/4	-86		1	-144		2	-202		1-3/4	-260		2
-29		7/8	-87		1-1/8	-145		2-1/4	-203		2	-261		2-1/2
-30		1	-88		1-1/4	-146		2-1/2	-204		2-1/4	-262		3
-31	4-48	1/4	-89		1-1/2	-147		3	-205		2-1/2	-263	5/8-11	1
-32		5/16	-90	10-24	1/4	-148	5/16-18	3/8	-206		3	-264		1-1/4
-33		3/8	-91		5/16	-149		7/16	-207	7/16-14	1/2	-265		1-1/2
-34		7/16	-92		3/8	-150		1/2	-208		5/8	-266		1-3/4
-35		1/2	-93		7/16	-151		9/16	-209		3/4	-267		2
-36		9/16	-94		1/2	-152		5/8	-210		1	-268		2-1/2
-37		5/8	-95		9/16	-153		3/4	-211		1-1/8	-269		3
-38		3/4	-96		5/8	-154		7/8	-212		1-1/4	-270	5/8-18	1
-39		7/8	-97		3/4	-155		1	-213		1-1/2	-271		1-1/4
-40		1	-98		7/8	-156		1-1/8	-214		1-3/4	-272		1-1/2
-41	5-40	1/4	-99		1	-157		1-1/4	-215		2	-273		1-3/4
-42		5/16	-100		1-1/8	-158		1-1/2	-216		2-1/4	-274		2
-43		3/8	-101		1-1/4	-159		1-3/4	-217		2-1/2	-275		2-1/2
-44		7/16	-102		1-1/2	-160		2	-218		3	-276		3
-45		1/2	-103	10-32	1/4	-161		2-1/2	-219	7/16-20	1/2	-277	3/4-10	1
-46		9/16	-104		5/16	-162		3	-220		5/8	-278		1-1/4
-47		5/8	-105		3/8	-163	5/16-24	3/8	-221		3/4	-279		1-1/2
-48		3/4	-106		7/16	-164		7/16	-222		1	-280		1-3/4
-49		7/8	-107		1/2	-165		1/2	-223		1-1/8	-281		2
-50		1	-108		9/16	-166		9/16	-224		1-1/4	-282		2-1/2
-51	6-32	1/4	-109		5/8	-167		5/8	-225		1-1/2	-283		3
-52		5/16	-110		3/4	-168		3/4	-226		1-3/4	-284	3/4-16	1
-53		3/8	-111		7/8	-169		7/8	-227		2	-285		1-1/4
-54		7/16	-112		1	-170		1	-228		2-1/4	-286		1-1/2
-55		1/2	-113		1-1/8	-171		1-1/8	-229		2-1/2	-287		1-3/4
-56		9/16	-114		1-1/4	-172		1-1/4	-230		3	-288		2
-57		5/8	-115		1-1/2	-173		1-1/2	-231	1/2-13	3/4	-289		2-1/2
-58		3/4	-116		2	-174		1-3/4	-232		1	-290		3

Thread Size	A	B	Thread Size	A	B	Thread Size	A	B	Thread Size	A	B	Thread Size	A	B
2-56	.250	.250	6-32	.375	.312	1/4-20	.500	.375	3/8-24	.625	.375	9/16-18	.750	.437
3-48	.250	.250	6-40	.375	.312	1/4-28	.500	.375	7/16-14	.625	.375	9/16-20	.750	.437
4-40	.312	.250	8-32	.431	.312	5/16-18	.562	.375	7/16-20	.625	.375	5/8-11	.875	.437
4-48	.312	.312	10-24	.437	.312	5/16-24	.562	.375	1/2-13	.750	.437	3/4-10	1.000	.500
5-40	.312	.312	10-32	.437	.312	3/8-16	.625	.375	1/2-20	.750	.437	3/4-16	1.000	.500

MACHINED HIGH TECHNOLOGY PLASTIC THUMB SCREWS (continued)

KNURLED THUMB SCREWS

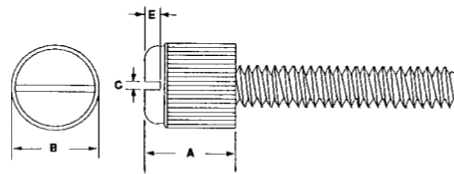
Part No. DF226 - (Size Code No.) - (Material Code No.)
(below) (page 149)



Thread Size	A	B	C	Thread Size	A	B	C
4-40	.300	.280	.120	1/4-28	.540	.365	.155
6-32	.360	.275	.125	5/16-18	.625	.406	.171
8-32	.425	.305	.140	3/8-16	.687	.437	.187
10-24	.425	.325	.140	1/2-13	.750	.468	.203
10-32	.425	.325	.140	1/2-20	.750	.468	.203
1/4-20	.540	.365	.155				

SLOTTED THUMB SCREWS

Part No. D227 - (Size Code No.) - (Material Code No.)
(below) (page 149)



Thread Size	A	B	C	E	Thread Size	A	B	C	E
4-40	.216	.317	.039	.045	1/4-28	.326	.492	.070	.088
6-32	.250	.348	.042	.051	5/16-18	.348	.562	.078	.095
8-32	.280	.381	.049	.059	3/8-16	.382	.625	.087	.112
10-24	.317	.412	.056	.068	1/2-13	.500	.750	.098	.146
10-32	.317	.412	.056	.068	1/2-20	.500	.750	.098	.146
1/4-20	.326	.492	.070	.088					

KNURLED AND SLOTTED THUMB SCREWS SIZE CODE CHART

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/4	-19	6-32	7/8	-37	10-24	5/8	-55	10-32	1 1/2	-73	5/16-18	1 1/2
-2	4-40	5/16	-20	6-32	1	-38	10-24	3/4	-56	10-32	2	-74	5/16-18	2
-3	4-40	3/8	-21	8-32	1/4	-39	10-24	7/8	-57	1/4-20	1/2	-75	3/8-16	1/2
-4	4-40	7/16	-22	8-32	5/16	-40	10-24	1	-58	1/4-20	3/4	-76	3/8-16	3/4
-5	4-40	1/2	-23	8-32	3/8	-41	10-24	1 1/4	-59	1/4-20	1	-77	3/8-16	1
-6	4-40	9/16	-24	8-32	7/16	-42	10-24	1 1/2	-60	1/4-20	1 1/4	-78	3/8-16	1 1/4
-7	4-40	5/8	-25	8-32	1/2	-43	10-24	2	-61	1/4-20	1 1/2	-79	3/8-16	1 1/2
-8	4-40	3/4	-26	8-32	9/16	-44	10-32	1/4	-62	1/4-20	2	-80	3/8-16	2
-9	4-40	7/8	-27	8-32	5/8	-45	10-32	5/16	-63	1/4-28	1/2	-81	1/2-13	1/2
-10	4-40	1	-28	8-32	3/4	-46	10-32	3/8	-64	1/4-28	3/4	-82	1/2-13	1
-11	6-32	1/4	-29	8-32	7/8	-47	10-32	7/16	-65	1/4-28	1	-83	1/2-13	1 1/2
-12	6-32	5/16	-30	8-32	1	-48	10-32	1/2	-66	1/4-28	1 1/4	-84	1/2-13	2
-13	6-32	3/8	-31	10-24	1/4	-49	10-32	9/16	-67	1/4-28	1 1/2	-85	1/2-13	2 1/2
-14	6-32	7/16	-32	10-24	5/16	-50	10-32	5/8	-68	1/4-28	2	-86	1/2-20	1/2
-15	6-32	1/2	-33	10-24	3/8	-51	10-32	3/4	-69	5/16-18	1/2	-87	1/2-20	1
-16	6-32	9/16	-34	10-24	7/16	-52	10-32	7/8	-70	5/16-18	3/4	-88	1/2-20	1 1/2
-17	6-32	5/8	-35	10-24	1/2	-53	10-32	1	-71	5/16-18	1	-89	1/2-20	2
-18	6-32	3/4	-36	10-24	9/16	-54	10-32	1 1/4	-72	5/16-18	1 1/4	-90	1/2-20	2 1/2

MACHINED HIGH TECHNOLOGY PLASTIC HEADLESS SET SCREWS: COMBINATION SLOT AND SOCKET

*Available in other materials. See material list in index.
Other sizes available on request.

*Available in the following materials:

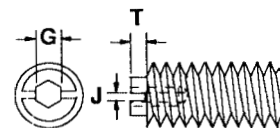
Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	VespeI®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

PLAIN POINT

Part No. **HN103** - (Size Code No.) - (Material Code No.)
(below) (above)

(Note: 0-80 and 1-72 size are slotted only.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	0-80	1/8	-25	6-32	3/16	-49	10-24	5/8
-2	1-72	1/8	-26	6-32	1/4	-50	10-24	25/32
-3	1-72	9/32	-27	6-32	5/16	-51	10-32	1/8
-4	2-56	3/16	-28	6-32	3/8	-52	10-32	1/4
-5	2-56	7/32	-29	6-32	7/16	-53	10-32	5/16
-6	2-56	1/4	-30	6-32	1/2	-54	10-32	3/8
-7	2-56	9/32	-31	6-32	5/8	-55	10-32	7/16
-8	2-56	3/8	-32	6-32	3/4	-56	10-32	1/2
-9	2-56	13/32	-33	6-32	7/8	-57	10-32	5/8
-10	2-56	1/2	-34	6-32	1	-58	10-32	3/4
-11	3-48	5/32	-35	8-32	1/4	-59	10-32	1
-12	3-48	1/4	-36	8-32	9/32	-60	1/4-20	1/4
-13	4-40	1/8	-37	8-32	5/16	-61	1/4-20	3/8
-14	4-40	3/16	-38	8-32	3/8	-62	1/4-20	7/16
-15	4-40	1/4	-39	8-32	7/16	-63	1/4-20	1/2
-16	4-40	5/16	-40	8-32	1/2	-64	1/4-20	5/8
-17	4-40	3/8	-41	8-32	5/8	-65	1/4-20	3/4
-18	4-40	1/2	-42	8-32	3/4	-66	1/4-20	13/16
-19	4-40	9/16	-43	8-32	7/8	-67	1/4-20	1
-20	4-40	5/8	-44	8-32	1	-68	1/4-28	1
-21	4-40	3/4	-45	10-24	3/16	-69	1/4-28	1 1/32
-22	4-40	7/8	-46	10-24	5/16	-70	5/16-18	1/2
-23	4-40	1	-47	10-24	11/32	-71	3/8-16	1/2



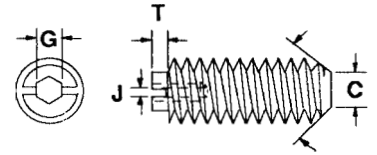
Thread Size	J	G	T
0-80	.014	--	.018
1-72	.016	--	.020
2-56	.016	.027	.027
3-48	.018	.035	.027
4-40	.020	.035	.031
6-32	.025	.050	.035
8-32	.029	.063	.041
10-24	.032	.078	.048
10-32	.032	.078	.048
1/4-20	.045	.094	.063
5/16-18	.051	.126	.078
3/8-16	.064	.157	.094

MACHINED HIGH TECHNOLOGY PLASTIC HEADLESS SET SCREWS: Combination Slot and Socket (continued)

FLAT POINT

Part No. HN104 - (Size Code No.) - (Material Code No.)
 (below) (page 152)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/8	-11	4-40	1	-21	10-32	1/8
-2	4-40	3/16	-12	8-32	1/4	-22	10-32	1/4
-3	4-40	1/4	-13	8-32	5/16	-23	10-32	5/16
-4	4-40	5/16	-14	8-32	3/8	-24	10-32	3/8
-5	4-40	3/8	-15	8-32	7/16	-25	10-32	7/16
-6	4-40	1/2	-16	8-32	1/2	-26	10-32	1/2
-7	4-40	9/16	-17	8-32	5/8	-27	10-32	5/8
-8	4-40	5/8	-18	8-32	3/4	-28	10-32	3/4
-9	4-40	3/4	-19	8-32	7/8	-29	10-32	1
-10	4-40	7/8	-20	8-32	1			

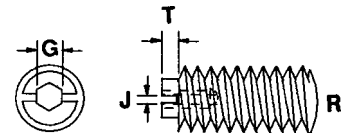


Thread Size	J	G	T	C
4-40	.020	.035	.031	.056
8-32	.029	.063	.041	5/64
10-32	.032	.078	.048	3/32

OVAL POINT

Part No. HN106 - (Size Code No.) - (Material Code No.)
 (below) (page 152)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	4-40	1/8	-18	6-32	1/2	-35	10-32	3/8
-2	4-40	3/16	-19	6-32	5/8	-36	10-32	7/16
-3	4-40	1/4	-20	6-32	3/4	-37	10-32	1/2
-4	4-40	5/16	-21	6-32	7/8	-38	10-32	5/8
-5	4-40	3/8	-22	6-32	1	-39	10-32	3/4
-6	4-40	1/2	-23	8-32	1/4	-40	10-32	1
-7	4-40	9/16	-24	8-32	5/16	-41	1/4-20	1/4
-8	4-40	5/8	-25	8-32	3/8	-42	1/4-20	3/8
-9	4-40	3/4	-26	8-32	7/16	-43	1/4-20	7/16
-10	4-40	7/8	-27	8-32	1/2	-44	1/4-20	1/2
-11	4-40	1	-28	8-32	5/8	-45	1/4-20	5/8
-12	6-32	1/8	-29	8-32	3/4	-46	1/4-20	3/4
-13	6-32	3/16	-30	8-32	7/8	-47	1/4-20	1
-14	6-32	1/4	-31	8-32	1	-48	1/4-28	1
-15	6-32	5/16	-32	10-32	1/8	-49	1/4-28	1 1/32
-16	6-32	3/8	-33	10-32	1/4	-50	5/16-24	3/8
-17	6-32	7/16	-34	10-32	5/16			

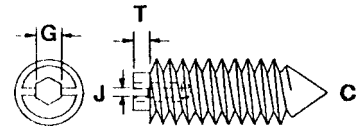


Thread Size	J	G	T	R
4-40	.020	.035	.031	.084
6-32	.025	.050	.035	7/64
8-32	.029	.063	.041	1/8
10-32	.032	.078	.048	9/64
1/4-20	.045	.094	.063	3/16
5/16-24	.051	.126	.094	--

CONE POINT

Part No. HN107 - (Size Code No.) - (Material Code No.)
 (below) (page 152)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	3/16	-9	6-32	3/8	-17	10-32	3/8
-2	2-56	7/32	-10	6-32	1/2	-18	10-32	7/16
-3	2-56	1/4	-11	6-32	5/8	-19	10-32	1/2
-4	2-56	3/8	-12	6-32	3/4	-20	10-32	5/8
-5	6-32	1/8	-13	6-32	1	-21	10-32	3/4
-6	6-32	3/16	-14	10-32	1/8	-22	10-32	1
-7	6-32	1/4	-15	10-32	1/4	-23	1/4-20	1/4
-8	6-32	5/16	-16	10-32	5/16			

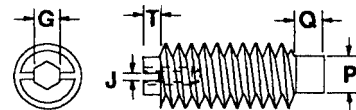


Thread Size	J	G	T	C
2-56	.016	.027	.027	.020
6-32	.025	.035	.031	.020
10-32	.032	.078	.048	.030
1/4-20	.045	.094	.063	.040

FULL DOG POINT

Part No. HN108 - (Size Code No.) - (Material Code No.)
 (below) (page 152)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	6-32	1/8	-8	6-32	5/8	-15	8-32	7/16
-2	6-32	3/16	-9	6-32	3/4	-16	8-32	1/2
-3	6-32	1/4	-10	6-32	7/8	-17	8-32	5/8
-4	6-32	5/16	-11	6-32	1	-18	8-32	3/4
-5	6-32	3/8	-12	8-32	1/4	-19	8-32	7/8
-6	6-32	7/16	-13	8-32	5/16	-20	8-32	1
-7	6-32	1/2	-14	8-32	3/8			

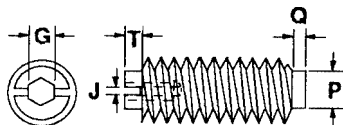


Thread Size	J	G	T	Q	P
6-32	.025	.050	.035	.070	.090
8-32	.029	.063	.041	.080	.106

HALF DOG POINT

Part No. HN109 - (Size Code No.) - (Material Code No.)
 (below) (page 152)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	2-56	.200	-8	6-32	1/2	-15	8-32	7/16
-2	6-32	1/8	-9	6-32	5/8	-16	8-32	1/2
-3	6-32	3/16	-10	6-32	3/4	-17	8-32	5/8
-4	6-32	1/4	-11	6-32	1	-18	8-32	3/4
-5	6-32	5/16	-12	8-32	1/4	-19	8-32	7/8
-6	6-32	3/8	-13	8-32	5/16	-20	8-32	1
-7	6-32	7/16	-14	8-32	3/8			

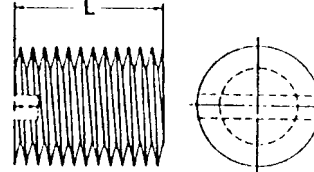


Thread Size	J	G	T	Q	P
2-56	.016	.027	.027	.022	.055
6-32	.025	.050	.035	.030	.090
8-32	.029	.063	.041	.040	.106

MACHINED HIGH TECHNOLOGY PLASTIC LARGE SIZE SET SCREWS

*Available in the following materials:

<p>Material Code</p> <p>No. Material Name</p> <p>-3 Lexan®, (clear)</p> <p>-4 Lexan®, (black)</p> <p>-5 Ultem® 1000</p> <p>-7 PES®</p> <p>-8 PES®, 30% Glass-filled</p> <p>-11 Polypropylene</p> <p>-12 Polystyrene</p> <p>-13 Polyethylene</p> <p>-14 ABS</p> <p>-15 PEEK™</p> <p>-18 Nylon 6/6, (natural)</p> <p>-19 Nylon 6/6, 20% Short Glass-filled</p> <p>-20 Nylon MDS</p> <p>-22 Nylon 612</p>	<p>Material Code</p> <p>No. Material Name</p> <p>-23 Nylon Super Tough</p> <p>-24 Delrin®, (white)</p> <p>-25 Delrin® AF</p> <p>-27 PVC</p> <p>-28 CPVC</p> <p>-29 Teflon®</p> <p>-30 Tefzel®</p> <p>-31 FEP®</p> <p>-32 PCTFE</p> <p>-33 Polysulfone</p> <p>-35 Noryl®</p> <p>-36 Noryl®, Glass-filled</p> <p>-37 PVDF</p> <p>-38 Fiber Glass G10</p> <p>-39 UHMW®</p>	<p>Material Code</p> <p>No. Material Name</p> <p>-40 PFA, (Teflon®)</p> <p>-41 Halar®</p> <p>-42 Nylatron® GS</p> <p>-43 Ertalyte®</p> <p>-44 Ertalon®</p> <p>-58 Fiber Glass G11</p> <p>-77 Ultem® 2300, (natural)</p> <p>-194 Nylon 46, 30% Glass-filled, Heat Stabilized</p>	<p>Material Code</p> <p>No. Material Name</p> <p>-195 Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized</p> <p>-226 Radel® A200, Polyethersulfone</p> <p>-228 Radel® AG330, 30% Glass-filled</p> <p>-229 Radel® R5000, Polyphenylsulfone</p> <p>-213 Vespel®</p> <p>-272 PVC, (white)</p> <p>-273 PVC, (black)</p> <p>-294 Teflon®, 20% Glass-filled</p>
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Part No. H102 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1	1 1/8-7	3/4	-43	1 1/4-7	2 3/4	-85	1 3/8-8	2	-127	1 1/2-12	1 1/2
-2	1 1/8-7	1	-44	1 1/4-7	3	-86	1 3/8-8	2 1/2	-128	1 1/2-12	1 3/4
-3	1 1/8-7	1 1/8	-45	1 1/4-8	3/4	-87	1 3/8-8	2 3/4	-129	1 1/2-12	2
-4	1 1/8-7	1 1/4	-46	1 1/4-8	1	-88	1 3/8-8	3	-130	1 1/2-12	2 1/2
-5	1 1/8-7	1 3/8	-47	1 1/4-8	1 1/8	-89	1 3/8-12	3/4	-131	1 1/2-12	2 3/4
-6	1 1/8-7	1 1/2	-48	1 1/4-8	1 1/4	-90	1 3/8-12	1	-132	1 1/2-12	3
-7	1 1/8-7	1 3/4	-49	1 1/4-8	1 3/8	-91	1 3/8-12	1 1/8	-133	1 3/4-5	3/4
-8	1 1/8-7	2	-50	1 1/4-8	1 1/2	-92	1 3/8-12	1 1/4	-134	1 3/4-5	1
-9	1 1/8-7	2 1/2	-51	1 1/4-8	1 3/4	-93	1 3/8-12	1 3/8	-135	1 3/4-5	1 1/8
-10	1 1/8-7	2 3/4	-52	1 1/4-8	2	-94	1 3/8-12	1 1/2	-136	1 3/4-5	1 1/4
-11	1 1/8-7	3	-53	1 1/4-8	2 1/2	-95	1 3/8-12	1 3/4	-137	1 3/4-5	1 3/8
-12	1 1/8-8	3/4	-54	1 1/4-8	2 3/4	-96	1 3/8-12	2	-138	1 3/4-5	1 1/2
-13	1 1/8-8	1	-55	1 1/4-8	3	-97	1 3/8-12	2 1/2	-139	1 3/4-5	1 3/4
-14	1 1/8-8	1 1/8	-56	1 1/4-12	3/4	-98	1 3/8-12	2 3/4	-140	1 3/4-5	2
-15	1 1/8-8	1 1/4	-57	1 1/4-12	1	-99	1 3/8-12	3	-141	1 3/4-5	2 1/2
-16	1 1/8-8	1 3/8	-58	1 1/4-12	1 1/8	-100	1 1/2-6	3/4	-142	1 3/4-5	2 3/4
-17	1 1/8-8	1 1/2	-59	1 1/4-12	1 1/4	-101	1 1/2-6	1	-143	1 3/4-5	3
-18	1 1/8-8	1 3/4	-60	1 1/4-12	1 3/8	-102	1 1/2-6	1 1/8	-144	1 3/4-8	3/4
-19	1 1/8-8	2	-61	1 1/4-12	1 1/2	-103	1 1/2-6	1 1/4	-145	1 3/4-8	1
-20	1 1/8-8	2 1/2	-62	1 1/4-12	1 3/4	-104	1 1/2-6	1 3/8	-146	1 3/4-8	1 1/8
-21	1 1/8-8	2 3/4	-63	1 1/4-12	2	-105	1 1/2-6	1 1/2	-147	1 3/4-8	1 1/4
-22	1 1/8-8	3	-64	1 1/4-12	2 1/2	-106	1 1/2-6	1 3/4	-148	1 3/4-8	1 3/8
-23	1 1/8-12	3/4	-65	1 1/4-12	2 3/4	-107	1 1/2-6	2	-149	1 3/4-8	1 1/2
-24	1 1/8-12	1	-66	1 1/4-12	3	-108	1 1/2-6	2 1/2	-150	1 3/4-8	1 3/4
-25	1 1/8-12	1 1/8	-67	1 3/8-6	3/4	-109	1 1/2-6	2 3/4	-151	1 3/4-8	2
-26	1 1/8-12	1 1/4	-68	1 3/8-6	1	-110	1 1/2-6	3	-152	1 3/4-8	2 1/2
-27	1 1/8-12	1 3/8	-69	1 3/8-6	1 1/8	-111	1 1/2-8	3/4	-153	1 3/4-8	2 3/4
-28	1 1/8-12	1 1/2	-70	1 3/8-6	1 1/4	-112	1 1/2-8	1	-154	1 3/4-8	3
-29	1 1/8-12	1 3/4	-71	1 3/8-6	1 3/8	-113	1 1/2-8	1 1/8	-155	2-4	1
-30	1 1/8-12	2	-72	1 3/8-6	1 1/2	-114	1 1/2-8	1 1/4	-156	2-4	1 1/4
-31	1 1/8-12	2 1/2	-73	1 3/8-6	1 3/4	-115	1 1/2-8	1 3/8	-157	2-4	1 1/2
-32	1 1/8-12	2 3/4	-74	1 3/8-6	2	-116	1 1/2-8	1 1/2	-158	2-4	1 3/4
-33	1 1/8-12	3	-75	1 3/8-6	2 1/2	-117	1 1/2-8	1 3/4	-159	2-4	2
-34	1 1/4-7	3/4	-76	1 3/8-6	2 3/4	-118	1 1/2-8	2	-160	2-4	2 1/2
-35	1 1/4-7	1	-77	1 3/8-6	3	-119	1 1/2-8	2 1/2	-161	2-4	3
-36	1 1/4-7	1 1/8	-78	1 3/8-8	3/4	-120	1 1/2-8	2 3/4	-162	2-8	1
-37	1 1/4-7	1 1/4	-79	1 3/8-8	1	-121	1 1/2-8	3	-163	2-8	1 1/4
-38	1 1/4-7	1 3/8	-80	1 3/8-8	1 1/8	-122	1 1/2-12	3/4	-164	2-8	1 1/2
-39	1 1/4-7	1 1/2	-81	1 3/8-8	1 1/4	-123	1 1/2-12	1	-165	2-8	1 3/4
-40	1 1/4-7	1 3/4	-82	1 3/8-8	1 3/8	-124	1 1/2-12	1 1/8	-166	2-8	2
-41	1 1/4-7	2	-83	1 3/8-8	1 1/2	-125	1 1/2-12	1 1/4	-167	2-8	2 1/2
-42	1 1/4-7	2 1/2	-84	1 3/8-8	1 3/4	-126	1 1/2-12	1 3/8	-168	2-8	3

MACHINED HIGH TECHNOLOGY PLASTIC METRIC MACHINE SCREWS

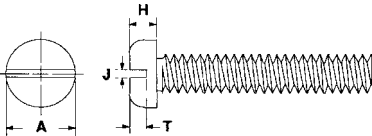
*Available in other materials. See material list in index. Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	Vespel®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

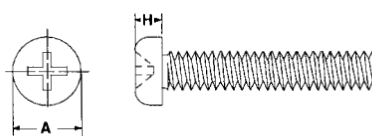
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 157) (above)

PAN HEAD SLOTTED Part No. D244 -

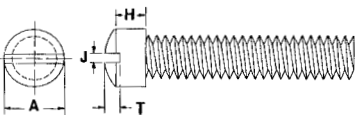


Thread Size	A nom	H nom	J nom	T nom
M3 x 0,5	6,00	1,80	0,80	0,82
M4 x 0,7	8,00	2,40	1,20	1,15
M5 x 0,8	10,00	3,00	1,20	1,35
M6 x 1	12,00	3,60	1,60	1,70

PAN HEAD CROSS RECESSED Part No. D245 -

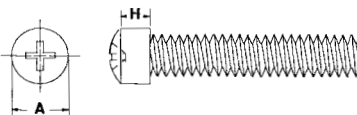


FILLISTER HEAD SLOTTED Part No. D248 -

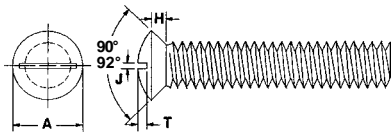


Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	4,00	1,60	0,60	0,90
M2,5 x 0,45	4,00	2,00	0,70	1,10
M3 x 0,5	5,00	2,40	1,00	1,30
M3,5 x 0,6	5,00	2,70	1,10	1,40
M4 x 0,7	7,00	3,10	1,20	1,60
M5 x 0,8	8,00	3,80	1,50	2,00
M6 x 1,0	10,00	4,60	1,90	2,30
M8 x 1,25	12,00	6,00	2,30	2,80
M10 x 1,5	16,00	7,50	2,80	3,20

FILLISTER CROSS RECESSED Part No. D247 -

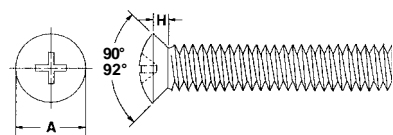


RAISED COUNTERSUNK HEAD SLOTTED Part No. D250 -

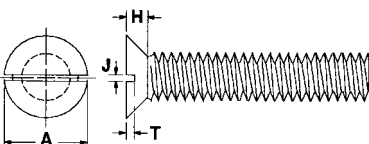


Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,60	0,90
M2,5 x 0,45	4,70	1,50	0,70	1,10
M3 x 0,5	5,60	1,65	0,90	1,32
M3,5 x 0,6	6,50	1,93	1,10	1,55
M4 x 0,7	7,50	2,20	1,30	1,75
M5 x 0,8	9,20	2,50	1,40	2,15
M6 x 1,0	11,00	3,00	1,70	2,60
M8 x 1,25	14,50	4,00	2,10	3,70 (max)
M10 x 1,5	18,00	5,00	2,60	4,30

RAISED COUNTERSUNK HEAD CROSS RECESSED Part No. D249 -

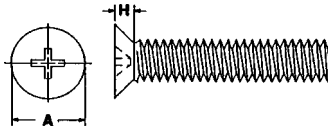


COUNTERSUNK HEAD SLOTTED Part No. D251 -



Thread Size	A nom	H max	J nom	T nom
M2 x 0,4	3,80	1,20	0,50	0,50
M2,5 x 0,45	4,70	1,50	0,60	0,60
M3 x 0,5	5,60	1,65	0,80	0,72
M4 x 0,7	7,50	2,20	1,00	0,95
M5 x 0,8	9,20	2,50	1,20	1,15
M6 x 1,0	11,00	3,00	1,60	1,40
M8 x 1,25	14,50	4,00	2,00	1,85
M10 x 1,50	18,00	5,00	2,50	2,30
M12 x 1,75	22,00	6,00	3,00	2,70

COUNTERSUNK HEAD CROSS RECESSED Part No. D252 -



Parts are made to DIN dimensions. Materials are selected by customer.

MACHINED HIGH TECHNOLOGY PLASTIC METRIC MACHINE SCREWS (continued)

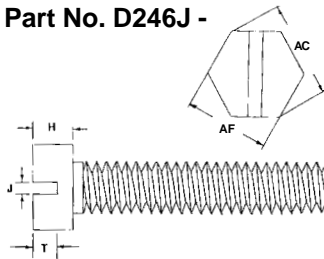
HIGH TECHNOLOGY PLASTIC METRIC MACHINE SCREWS, HEX CAP SCREWS/BOLTS and SET SCREWS SIZE CODE CHART

ALL DIMENSIONS GIVEN IN MILLIMETERS

Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length	Size Code No.	Thread Size	Length
-1000	M2 x 0,4	3mm	-25	M3 x 0,5	20mm	-52	M5 x 0,8	20mm	-77	M8 x 1,25	35mm
-1	M2 x 0,4	4mm	-26	M3 x 0,5	25mm	-53	M5 x 0,8	25mm	-78	M8 x 1,25	40mm
-2	M2 x 0,4	5mm	-27	M3 x 0,5	30mm	-54	M5 x 0,8	30mm	-79	M8 x 1,25	45mm
-3	M2 x 0,4	6mm	-28	M3,5 x 0,6	5mm	-55	M5 x 0,8	35mm	-80	M8 x 1,25	50mm
-4	M2 x 0,4	8mm	-29	M3,5 x 0,6	6mm	-56	M5 x 0,8	40mm	-81	M8 x 1,25	55mm
-5	M2 x 0,4	10mm	-30	M3,5 x 0,6	8mm	-57	M6 x 1,00	5mm	-82	M8 x 1,25	60mm
-6	M2 x 0,4	12mm	-31	M3,5 x 0,6	10mm	-58	M6 x 1,00	8mm	-83	M8 x 1,25	65mm
-600	M2 x 0,4	15mm	-32	M3,5 x 0,6	12mm	-59	M6 x 1,00	10mm	-84	M8 x 1,25	70mm
-7	M2 x 0,4	16mm	-33	M3,5 x 0,6	16mm	-60	M6 x 1,00	12mm	-85	M10 x 1,50	10mm
-8	M2 x 0,4	20mm	-34	M3,5 x 0,6	20mm	-603	M6 x 1,00	15mm	-853	M10 x 1,50	15mm
-9	M2 x 0,4	25mm	-35	M3,5 x 0,6	25mm	-61	M6 x 1,00	16mm	-86	M10 x 1,50	16mm
-10	M2,5 x 0,45	4mm	-36	M3,5 x 0,6	35mm	-62	M6 x 1,00	20mm	-87	M10 x 1,50	20mm
-11	M2,5 x 0,45	5mm	-37	M4 x 0,7	6mm	-63	M6 x 1,00	25mm	-88	M10 x 1,50	25mm
-12	M2,5 x 0,45	6mm	-38	M4 x 0,7	8mm	-64	M6 x 1,00	30mm	-89	M10 x 1,50	30mm
-13	M2,5 x 0,45	8mm	-39	M4 x 0,7	10mm	-65	M6 x 1,00	35mm	-90	M10 x 1,50	35mm
-14	M2,5 x 0,45	10mm	-40	M4 x 0,7	12mm	-66	M6 x 1,00	40mm	-91	M10 x 1,50	40mm
-15	M2,5 x 0,45	12mm	-41	M4 x 0,7	16mm	-67	M6 x 1,00	45mm	-92	M10 x 1,50	50mm
-16	M2,5 x 0,45	16mm	-42	M4 x 0,7	20mm	-68	M6 x 1,00	50mm	-93	M10 x 1,50	60mm
-17	M2,5 x 0,45	20mm	-43	M4 x 0,7	25mm	-69	M6 x 1,00	55mm	-94	M10 x 1,50	70mm
-18	M2,5 x 0,45	25mm	-44	M4 x 0,7	30mm	-70	M8 x 1,25	8mm	-95	M10 x 1,50	75mm
-19	M3 x 0,5	5mm	-45	M4 x 0,7	35mm	-71	M8 x 1,25	10mm	-96	M12 x 1,75	20mm
-20	M3 x 0,5	6mm	-46	M4 x 0,7	40mm	-72	M8 x 1,25	12mm	-97	M12 x 1,75	30mm
-21	M3 x 0,5	8mm	-47	M5 x 0,8	6mm	-723	M8 x 1,25	15mm	-98	M12 x 1,75	40mm
-22	M3 x 0,5	10mm	-48	M5 x 0,8	8mm	-73	M8 x 1,25	16mm	-99	M12 x 1,75	50mm
-23	M3 x 0,5	12mm	-49	M5 x 0,8	10mm	-74	M8 x 1,25	20mm	-100	M12 x 1,75	60mm
-233	M3 x 0,5	15mm	-50	M5 x 0,8	12mm	-75	M8 x 1,25	25mm	-101	M12 x 1,75	70mm
-24	M3 x 0,5	16mm	-51	M5 x 0,8	15mm	-76	M8 x 1,25	30mm	-102	M12 x 1,75	75mm

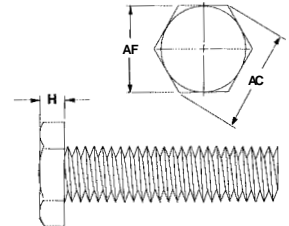
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (above) (page 156)

HEX HEAD SLOTTED
Part No. D246J -

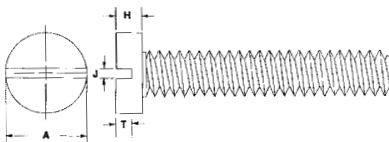


Thread Size	AF nom	H nom	AC max	J nom	T nom
M5 x 0,8	8,00	3,50	8,63	1,20	1,40
M6 x 1,0	10,00	4,00	10,89	1,60	1,60
M8 x 1,25	13,00	5,30	14,20	2,00	2,12
M10 x 1,5	17,00	6,40	18,72	2,50	2,56

HEX HEAD
Part No. D246 -



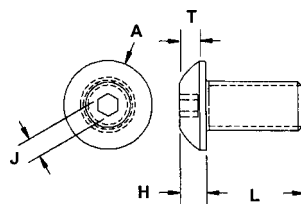
SLOTTED CHEESE HEAD
Part No. D243 -



Thread Size	A nom	H nom	J nom	T nom	Thread Size	A nom	H nom	J nom	T nom
M2 x 0,4	3,80	1,30	0,70	0,90	M5 x 0,8	8,50	3,30	1,50	1,80
M2,5 x 0,45	4,50	1,60	0,80	1,00	M6 x 1,0	10,00	3,90	1,90	2,30
M3 x 0,5	5,50	2,00	1,00	1,20	M8 x 1,25	13,00	5,00	2,30	2,80
M3,5 x 0,6	6,00	2,40	1,20	1,40	M10 1,5	16,00	6,00	2,80	3,30
M4 x 0,7	7,00	2,60	1,51	1,50					

BUTTON SOCKET HEAD
Part No. K300 -

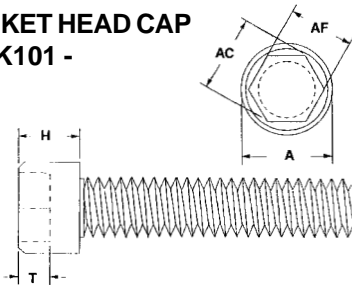
Available from M3 and up.
Fine or coarse thread.
Call for quote.



MACHINED HIGH TECHNOLOGY PLASTIC METRIC HEX CAP SCREWS and BOLTS

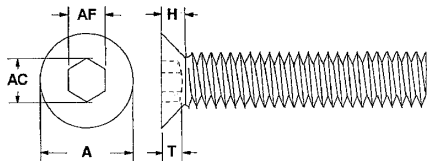
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 157) (page 156)

**HEX SOCKET HEAD CAP
Part No. K101 -**



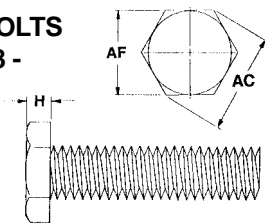
Thread Size	A	H	T	AF	AC
	max	nom	min	nom	min
M2 x 0,4	3,80	1,93	1,00	1,50	1,73
M2,5 x 0,45	4,45	2,43	1,10	2,00	2,30
M3 x 0,5	5,50	2,93	1,30	2,50	2,87
M4 x 0,7	7,00	3,91	2,00	3,00	3,44
M5 x 0,8	8,50	4,91	2,50	4,00	4,58
M6 x 1,0	10,00	5,85	3,00	5,00	5,72
M8 x 1,25	13,00	7,82	4,00	6,00	6,86
M10 x 1,5	16,00	9,82	5,00	8,00	9,15
M12 x 1,75	18,00	11,78	6,00	10,00	11,53

**COUNTERSUNK HEX SOCKET HEAD CAP
Part No. K301 -**



Thread Size	A	H	T	AF	AC
	max	max	nom	nom	min
M3 x 0,5	6,00	1,70	1,20	2,00	2,30
M4 x 0,7	8,00	2,30	1,80	2,50	2,87
M5 x 0,8	10,00	2,80	2,30	3,00	3,44
M6 x 1,0	12,00	3,30	2,50	4,00	4,58
M8 x 1,25	16,00	4,40	3,50	5,00	5,72
M10 x 1,5	20,00	5,50	4,40	6,00	6,86
M12 x 1,75	24,00	6,50	4,60	8,00	9,15

**HEX HEAD BOLTS
Part No. J108 -**

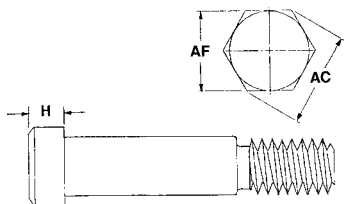


Thread Size	AF	H	AC
	nom	nom	min
M5 x 0,8	8,00	3,50	8,63
M6 x 1,00	10,00	4,00	10,89
M8 x 1,25	13,00	5,30	14,20
M10 x 1,5	17,00	6,40	18,72
M12 x 1,75	19,00	7,50	20,88

MACHINED HIGH TECHNOLOGY PLASTIC METRIC HEX FIT BOLTS

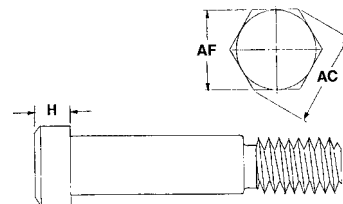
(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 157) (page 156)

**HEX FIT BOLTS
with Long Threaded Dog Point
Part No. D309 -**



Thread Size	AF	H	AC
	nom	nom	min
M8	13,00	5,30	14,38
M10	16/17,00	6,40	17,77/18,90
M12	18/19,00	7,50	19,85/20,88

**HEX FIT BOLTS
with Short Threaded Dog Point
Part No. D310 -**

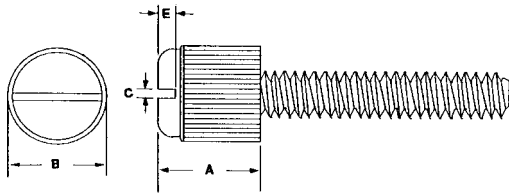


Parts are made to DIN dimensions. Materials are selected by customer.

MACHINED HIGH TECHNOLOGY PLASTIC METRIC THUMB SCREWS

(Part No.) - (Size Code No.) - (Material Code No.)
(below) (page 157) (page 156)

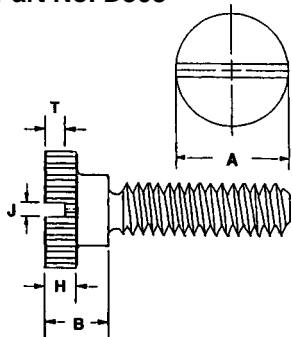
SLOTTED THUMB SCREWS Part No. D241 -



Thread Size	A	B	C	E
M3 x ,5	5,5	8,1	1,0	1,1
M3,5 x ,6	6,4	8,8	1,1	1,3
M4 x ,7	7,1	9,7	1,2	1,5
M5 x ,8	8,1	10,5	1,4	1,7
M6 x 1,0	8,3	12,5	1,8	2,2

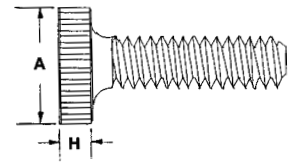
Dimensions are +/- .125
No DIN available.

KNURLED THUMB SCREWS SLOTTED Part No. D308 -



Thread Size	A	H	J	T	B
	nom	nom	nom	nom	nom
M2 x 0,4	9,00	2,00	0,50	1,25	5,30
M2,5 x 0,45	11,00	2,50	0,60	1,65	6,50
M3 x 0,5	12,00	2,50	0,80	2,00	7,50
M4 x 0,7	16,00	3,50	1,00	2,45	9,50
M5 x 0,8	20,00	4,00	1,20	3,10	11,50
M6 x 1	24,00	5,00	1,60	3,90	15,00
M8 x 1,25	30,00	6,00	2,00	5,00	18,00
M10 x 1,5	36,00	8,00	2,50	6,50	23,00

KNURLED THIN THUMB SCREWS Part No. D307 -





Parts are made to DIN dimensions. Materials are selected by customer.

MACHINED HIGH TECHNOLOGY PLASTIC METRIC SET SCREWS

*Available in other materials. See material list in index.
Other sizes available on request.

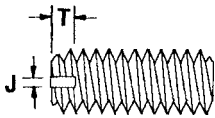
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	VespeI®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

Part No. **D260** - (Size Code No.) - (Set Style) - SL  (Slotted) or SK  (Socket) - (Material Code No.)
(page 157) (below) (above)

Set Style:

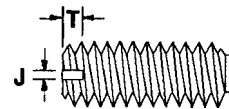
FLAT POINT - FP



LONG DOG POINT - LDP



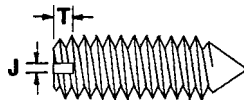
FULL DOG POINT - FDP



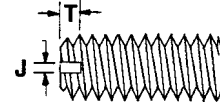
CUP POINT - CP



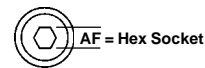
CONE POINT - CNP



CHAMFERED END - CE



Thread Size	J nom	T nom	AF nom
M2 x 0,4	0,25	0,64	0,90
M2,5 x 0,45	0,40	0,72	1,30
M3 x 0,5	0,40	0,80	1,50
M4 x 0,7	0,60	1,12	2,00
M5 x 0,8	0,80	1,28	2,50
M6 x 1	1,00	1,60	3,00
M8 x 1,25	1,20	2,00	4,00
M10 x 1,5	1,60	2,40	5,00
M12 x 1,75	2,00	2,80	6,00



Parts are made to DIN dimensions. Materials are selected by customer.

VENTED SCREWS

Available in thread sizes 4-40 to 3/4-10, up to 1" in length.
For ANSI, use Size Code No. CHART on page 145.

Available in thread sizes M3 to M12, up to 25mm in length.
For DIN (metric), use Size Code No. CHART on page 154.

Other sizes and head styles available on request.

(Part No.) - (Size Code No.) - (Hole Size No.) - (Material Code No.)
(below) (ANSI-page 148) (bottom of page) (right)
(DIN-page 157)

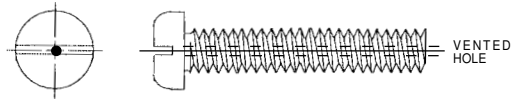
*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-37	PVDF
-11	Polypropylene, (natural)	-40	PFA, (Teflon®)
-15	PEEK™	-50	PPS
-18	Nylon 6/6, (natural)	-213	Vespe®
-24	Delrin®, (white)	-229	Radel® R5000
-27	PVC		
-28	CPVC		
-29	Teflon®		
-32	PCTFE		
-33	Polysulfone		

*Available in other materials.
See material list in index.

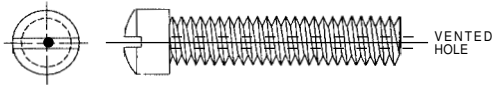
VENTED PAN HEAD SLOTTED

Part No. V100 (ANSI) Part No. VM100 (DIN)



VENTED FILLISTER HEAD SLOTTED

Part No. V108 (ANSI) Part No. VM108 (DIN)



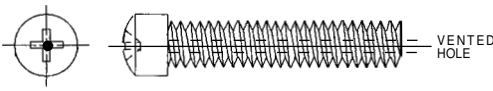
VENTED PAN HEAD PHILLIPS

Part No. V103 (ANSI) Part No. VM103 (DIN)



VENTED FILLISTER HEAD PHILLIPS

Part No. V109 (ANSI) Part No. VM109 (DIN)



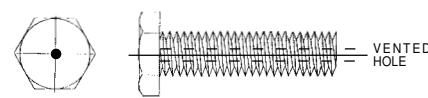
VENTED FLAT HEAD SLOTTED

Part No. V105 (ANSI) Part No. VM105 (DIN)



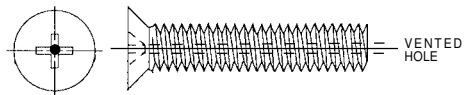
VENTED HEX HEAD

Part No. V110 (ANSI) Part No. VM110 (DIN)



VENTED FLAT HEAD PHILLIPS

Part No. V106 (ANSI) Part No. VM106 (DIN)



VENTED BUTTON HEAD

Part No. V112 (ANSI) Part No. VM112 (DIN)



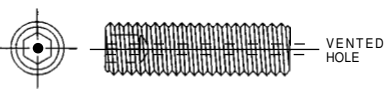
VENTED FLAT HEAD SOCKET

Part No. V107 (ANSI) Part No. VM107 (DIN)



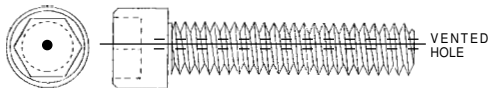
VENTED SOCKET SET SCREW

Part No. V120 (ANSI) Part No. VM120 (DIN)



VENTED HEX HEAD SOCKET

Part No. V123 (ANSI) Part No. VM123 (DIN)

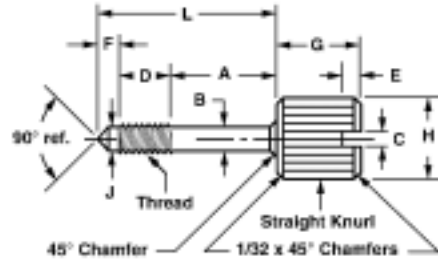


Hole Size No.	Hole Size	Hole Size No.	Hole Size	Hole Size No.	Hole Size	Hole Size No.	Hole Size
-10	.0200	-70	.0781	-130	.1719	-190	.2656
-20	.0250	-80	.0938	-140	.1875	-200	.2812
-30	.0312	-90	.1094	-150	.2031	-210	.2969
-40	.0400	-100	.1250	-160	.2188	-220	.3125
-50	.0469	-110	.1406	-170	.2344		
-60	.0625	-120	.1562	-180	.2500		

CAPTIVE PANEL SCREWS and WASHERS

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	Vespel®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



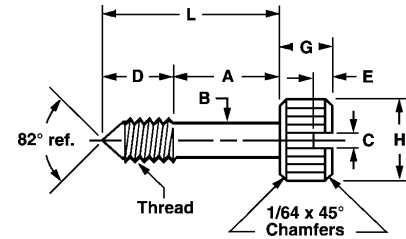
STANDARD KNURLED HEAD

Part No. CS100 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread	+/- .015 L	+/- .010 A	+.015 -.005 Dia. H	+/- 1/64 Lgth G	+.005 -.000 C	+.010 -.000 E	+.000 -.015 D	(Ref) F	+/- .005 B	+.000 -.016 J	Knurl Teeth per Inch	Knurl Dia-metrical Pitch	Chamfer 45° Max
-14 -16	6-32	.500 .625	.194 .319	5/16	5/16	.047	.078	.212	.094	.095	.095	40.7	128	.022
-40 -42	8-32	.500 .625	.194 .319	5/16	5/16	.047	.078	.212	.094	.120	.120	40.7	128	.022
-66 -68 -70	10-24	.625 .750 .875	.219 .344 .469	3/8	7/16	.063	.094	.250	.156	.130	.130	30.6	96	.030
-90 -92 -94	10-32	.625 .750 .875	.219 .344 .469	3/8	7/16	.063	.094	.250	.156	.130	.130	30.6	96	.030
-114 -116 -118 -120	1/4-20	.750 .875 1.000 1.125	.250 .375 .500 .625	1/2	9/16	.078	.094	.313	.187	.175	.175	30.6	96	.038
-152 -154 -156 -158	1/4-28	.750 .875 1.000 1.125	.250 .375 .500 .625	1/2	9/16	.078	.094	.313	.187	.175	.175	30.6	96	.038
-190 -192 -194 -196 -198 -200	5/16-18	1.000 1.125 1.250 1.375 1.500 1.625	.375 .500 .625 .750 .875 1.000	5/8	11/16	.094	.125	.375	.250	.230	.230	20.4	64	.041
-224 -226 -228 -230 -232 -234	5/16-18	1.000 1.125 1.250 1.375 1.500 1.625	.375 .500 .625 .750 .875 1.000	5/8	11/16	.094	.125	.375	.250	.230	.230	20.4	64	.041
-258 -260 -262 -264 -266 -268 -270 -272 -274	3/8-16	1.000 1.125 1.250 1.375 1.500 1.625 1.750 1.875 2.000	.375 .500 .625 .750 .875 1.000 1.125 1.250 1.375	5/8	11/16	.094	.125	.375	.250	.280	.280	20.4	64	.041

Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)



SHORT KNURLED HEAD

Part No. CS102 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread	+/- .015 L	+/- .010 A	+0.015 -0.005 Dia. H	+/- 1/64 Lgth G	+0.005 -0.000 C	+0.010 -0.000 E	+0.000 -0.015 D	+/- .005 B	Knurl Pitch
-30 -32 -34	6-32	.375 .500 .625	.094 .219 .344	5/16	3/16	.040-.050	.063	.281	.095	40
-58 -60 -62	6-32	.375 .500 .625	.094 .219 .344	3/8	3/16	.040-.050	.063	.281	.095	40
-86	8-32	.625	.250	7/16	1/4	.063	.063	.375	.120	40
-110 -112 -114	10-24	.625 .750 .875	.250 .375 .500	7/16	1/4	.063	.063	.375	.130	30
-150 -152 -154	10-32	.625 .750 .875	.219 .344 .469	7/16	1/4	.063	.063	.375	.130	30
-190 -192 -194	12-24	.625 .750 .875	.250 .375 .500	9/16	1/4	.063	.094	.375	.152	30
-230 -232 -234 -236 -238	1/4-20	.625 .750 .875 1.000 1.125	.250 .375 .500 .625 .750	9/16	1/4	.063	.094	.375	.175	30
-270 -272 -274 -276 -278	1/4-20	.625 .750 .875 1.000 1.125	.250 .375 .500 .625 .750	3/4	1/4	.063	.125	.375	.175	30
-310 -312 -314 -316 -318	1/4-28	.625 .750 .875 1.000 1.125	.250 .375 .500 .625 .750	9/16	1/4	.063	.094	.375	.175	30
-350 -352 -354 -356 -358 -360 -362	1/4-28	.625 .750 .875 1.000 1.125 1.250 1.375	.250 .375 .500 .625 .750 .875 1.000	3/4	1/4	.063	.125	.375	.175	30
-390 -392 -394 -396 -398 -400 -402 -404 -406	5/16-24	.625 .750 .875 1.000 1.125 1.250 1.375 1.500 1.625	.250 .375 .500 .625 .750 .875 1.000 1.125 1.250	9/16	1/4	.063	.094	.375	.235	30

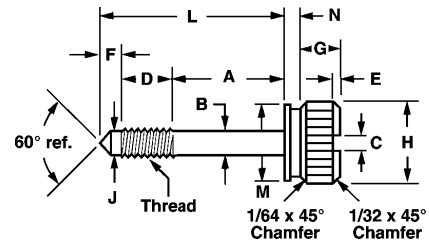
Available in the following materials:

Material Code No.	Material Name
-5	Ultem® 1000
-15	PEEK™
-24	Delrin (white)
-27	PVC (grey)
-37	PVDF (Kynar)
-60	Glass-filled Nylon
-213	Vespel®
-272	PVC (white)
-273	PVC (black)
-274	PVC (clear)
-2401	Meldin®

Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

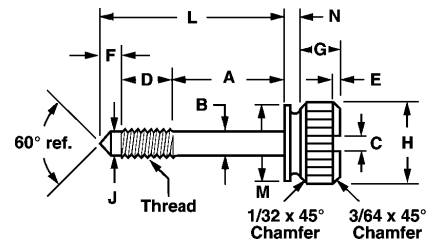
See next page for available materials.



SMALL CHAMFER KNURLED HEAD

Part No. CS103 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread	+/- .015 L	+/- .010 A	+0.015 -0.005 Dia. H	+/- 1/64 Lgth G	+0.005 -0.000 C	+0.010 -0.000 E	+0.000 -0.015 D	(Ref) F	+/- .005 B	+0.000 -0.016 J	Knurl Teeth per Inch	Knurl Dia-metrical Pitch	Chamfer 45° Max
-14	6-32	.500	.194	5/16	5/16	.047	.078	.212	.094	.095	.095	40.7	128	.022
-16		.625	.319											



LARGE CHAMFER KNURLED HEAD

Part No. CS105 - (Size Code No.) - (Material Code No.)

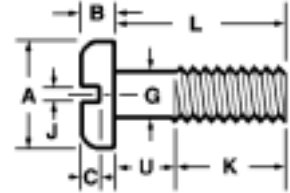
Size Code No.	Thread	+/- .015 L	+/- .010 A	+0.015 -0.005 Dia. H	+/- 1/64 Lgth G	+0.005 -0.000 C	+0.010 -0.000 E	+0.000 -0.015 D	(Ref) F	+/- .005 B	+0.000 -0.016 J	+/- .010 M	+/- .010 N	Knurl Pitch
-2	8-32	.625	.250	1/2	3/16	.063	.078	.250	.125	.120	.120	13/32	1/16	40
-26	8-32	.625	.250	5/8	3/16	.063	.078	.250	.125	.120	.120	1/2	1/16	40
-50	10-24	.625	.250	1/2	3/16	.063	.094	.250	.125	.130	.130	13/32	1/16	.30
-52		.750	.375											
-54		.875	.500											
-90	10-32	.625	.250	1/2	3/16	.063	.094	.250	.125	.130	.130	13/32	1/16	.30
-92		.750	.375											
-94		.875	.500											
-130	10-32	.625	.250	5/8	3/16	.063	.094	.250	.125	.130	.130	1/2	1/16	.30
-132		.750	.375											
-134		.875	.500											
-170	12-24	.625	.250	5/8	3/16	.078	.094	.250	.125	.152	.152	1/2	1/16	.30
-172		.750	.375											
-174		.875	.500											
-210	1/4-20	.750	.125	5/8	9/16	.078	.094	.313	.187	.175	.175	30.6	96	.038
-212		.875	.250											
-214		1.000	.375											
-248	1/4-20	.750	.125	5/8	9/16	.078	.094	.313	.187	.175	.175	30.6	96	.038
-250		.875	.250											
-252		1.000	.375											
-254		1.125	.500											

Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	Vespel®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SLOTTED PAN HEAD

Part No. CS200 - (Size Code No.) - (Material Code No.)

Slotted Pan Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. +/- .005 A	Slotted Head Height B	Slot Depth C	Slot Width J	Dim. +/- .005 G	PK Ref. Only
Size Code No.		Thread									
-16 -18	-16P -18P	6-32	.500 .625	3/16	5/16 7/16	.256-.294	.072-.082	.037-.050	.039-.048	.095	.26
-28 -30	-28P -30P	8-32	.500 .625	3/16	5/16 7/16	.306-.347	.085-.096	.045-.058	.045-.054	.120	.28
-40 -42 -44	-40P -42P -44P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.357-.403	.099-.110	.053-.068	.050-.060	.130	.36
-54 -56 -58	-54P -56P -58P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.357-.403	.099-.110	.053-.068	.050-.060	.130	.36
-70 -72 -74 -76	-70P -72P -74P -76P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.473-.517	.130-.144	.070-.087	.064-.075	.175	.39

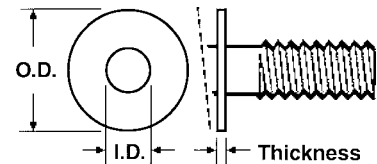
Other sizes available.

CAPTIVE WASHERS for Slotted Pan Head Screws

Part No. CSW200 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.312	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045

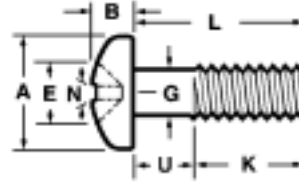
Washers are available in Teflon (Material Code No. -29)



Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

See next page for available materials.



PHILLIPS PAN HEAD

Part No. CS202 - (Size Code No.) - (Material Code No.)

Phillips Pan Head	With Point										
Size Code No.	Thread	Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. +/- .005 A	Slotted Head Height B	Recess Dia. E	Recess Width N	Dim. +/- .005 G	PK Ref. Only	
-16 -18	-16P -18P	6-32	.500 .625	3/16	5/16 7/16	.256-.294	.097-.097	.153-.166	.028	.095	.26
-28 -30	-28P -30P	8-32	.500 .625	3/16	5/16 7/16	.306-.347	.105-.115	.169-.182	.030	.120	.28
-40 -42 -44	-40P -42P -44P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.357-.403	.122-.133	.186-.199	.031	.130	.36
-54 -56 -58	-54P -56P -58P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.357-.403	.099-.110	.053-.068	.050-.060	.130	.36
-70 -72 -74 -76	-70P -72P -74P -76P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.473-.517	.162-.175	.268-.281	.036	.175	.39

Other sizes available.

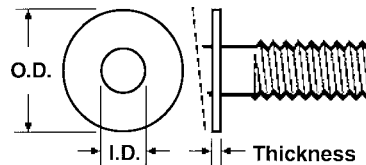
CAPTIVE WASHERS for Phillips Pan Head Screws

Part No. CSW200 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.312	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045

Other sizes available.

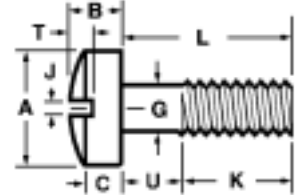
Washers are available in Teflon (Material Code No. -29)



CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	Vespel®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SLOTTED FILLISTER HEAD

Part No. CS400 - (Size Code No.) - (Material Code No.)

Slotted Fillister Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Total Head Height B	Head Side Height C	Slot Width J	Slot Depth T	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread											
-16 -18	-16P -18P	6-32	.500 .625	3/16	5/16 7/16	.208-.226	.111-.132	.086-.096	.039-.048	.045-.060	.095	.26
-26 -28	-26P -28P	8-32	.500 .625	3/16	5/16 7/16	.250-.270	.133-.156	.102-.113	.045-.054	.054-.071	.120	.28
-38 -40 -42	-38P -40P -42P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.292-.313	.156-.180	.118-.130	.050-.060	.064-.083	.130	.36
-50 -52 -54	-50P -52P -54P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.292-.313	.156-.180	.118-.130	.050-.060	.064-.083	.130	.36
-64 -66 -68 -70	-64P -66P -68P -70P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.389-.414	.207-.237	.155-.170	.064-.075	.082-.109	.175	.39

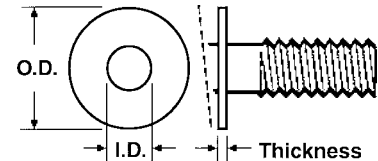
Other sizes available.

CAPTIVE WASHERS for Slotted Fillister Head Screws

Part No. CSW200 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.312	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045

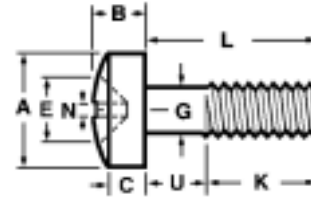
Washers are available in Teflon (Material Code No. -29)



Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

See next page for available materials.



PHILLIPS FILLISTER HEAD

Part No. CS402 - (Size Code No.) - (Material Code No.)

Phillips Fillister Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Total Head Height B	Head Side Height C	Recess Dia. E	Recess Width N	Dim. +/- .005 G	PK Ref. Only
Size Code No.		Thread										
-16 -18	-16P -18P	6-32	.500 .625	3/16	5/16 7/16	.208-.226	.111-.132	.086-.096	.152-.166	.028	.095	.26
-26 -28	-26P -28P	8-32	.500 .625	3/16	5/16 7/16	.250-.270	.133-.156	.102-.113	.169-.182	.030	.120	.28
-38 -40 -42	-38P -40P -42P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.292-.313	.156-.180	.118-.130	.186-.199	.031	.130	.36
-50 -52 -54	-50P -52P -54P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.292-.313	.156-.180	.118-.130	.186-.199	.031	.130	.36
-64 -66 -68 -70	-64P -66P -68P -70P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.389-.414	.207-.237	.155-.170	.268-.281	.036	.175	.39

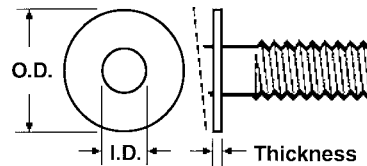
Other sizes available.

CAPTIVE WASHERS for Phillips Fillister Head Screws

Part No. CSW200 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.312	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045

Washers are available in Teflon (Material Code No. -29)

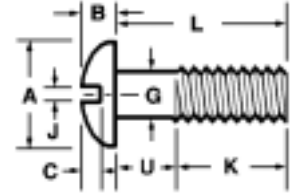


Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	Vespel®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SLOTTED ROUND HEAD

Part No. CS500 - (Size Code No.) - (Material Code No.)

Slotted Round Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Head Height B	Slot Width J	Slot Depth C	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread										
-16 -18	-16P -18P	6-32	.500 .625	3/16	5/16 7/16	.240-.260	.091-.103	.039-.048	.051-.068	.095	.26
-26 -28	-26P -28P	8-32	.500 .625	3/16	5/16 7/16	.287-.309	.107-.120	.045-.054	.058-.077	.120	.28
-38 -40 -42	-38P -40P -42P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.334-.359	.123-.137	.050-.060	.067-.087	.130	.36
-50 -52 -54	-50P -52P -54P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.334-.359	.123-.137	.050-.060	.067-.087	.130	.36
-64 -66 -68 -70	-64P -66P -68P -70P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.443-.472	.160-.175	.064-.075	.082-.109	.175	.39

Other sizes available.

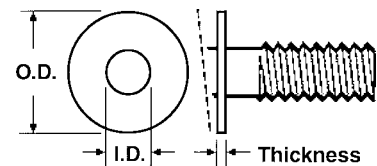
CAPTIVE WASHERS for Slotted Round Head Screws

Part No. CSW500 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.500	.155	.030
-4	10	.500	.180	.030
-5	1/4	.562	.240	.045

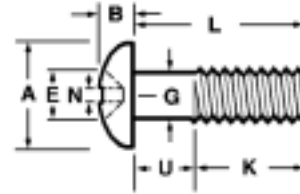
Other sizes available.

Washers are available in Teflon (Material Code No. -29)



CAPTIVE PANEL SCREWS AND WASHERS (continued)

See next page for available materials.



PHILLIPS ROUND HEAD

Part No. CS502 - (Size Code No.) - (Material Code No.)

Phillips Round Head	With Point	Thread	Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Head Height B	Recess Dia. E	Recess Width N	Dim. +/- .005 G	PK Ref. Only
Size Code No.											
-16 -18	-16P -18P	6-32	.500 .625	3/16	5/16 7/16	.240-.260	.091-.103	.091-.103	.149-.162	.095	.26
-26 -28	-26P -28P	8-32	.500 .625	3/16	5/16 7/16	.287-.309	.107-.120	.107-.120	.165-.178	.120	.28
-38 -40 -42	-38P -40P -42P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.334-.359	.123-.137	.123-.137	.182-.195	.130	.36
-50 -52 -54	-50P -52P -54P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.334-.359	.123-.137	.123-.137	.182-.195	.130	.36
-64 -66 -68 -70	-64P -66P -68P -70P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.443-.472	.160-.175	.160-.175	.255-.268	.175	.39

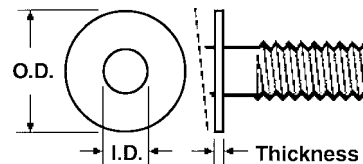
Other sizes available.

CAPTIVE WASHERS for Phillips Round Head Screws

Part No. CSW500 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.500	.155	.030
-4	10	.500	.180	.030
-5	1/4	.562	.240	.045

Washers are available in Teflon (Material Code No. -29)

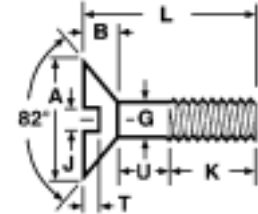


Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	VespeI®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SLOTTED FLAT HEAD

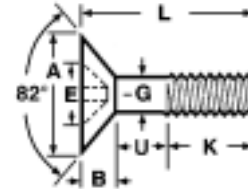
Part No. CS800 - (Size Code No.) - (Material Code No.)

Slotted Flat Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Ref. B	Slot Width J	Slot Depth T	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread										
-20 -22	-20P -22P	6-32	.500 .625	3/16	5/16 7/16	.244-.279	.083	.039-.048	.024-.038	.095	.26
-62 -64	-62P -64P	8-32	.500 .625	3/16	5/16 7/16	.292-.332	.100	.045-.054	.029-.045	.120	.28
-106 -108 -110	-106P -108P -110P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.340-.385	.116	.050-.060	.034-.053	.130	.36
-150 -152 -154 -156	-150P -152P -154P -156P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.452-.507	.153	.064-.075	.046-.070	.175	.39
-212 -214 -216 -218 -220 -222	-212P -214P -216P -218P -220P -222P	5/16-18	1.000 1.125 1.250 1.375 1.500 1.625	1/4	27/32 15/16 1 1/16 1 1/8 1 1/4 1 3/8	.568-.635	.191	.072-.084	.058-.088	.230	.43

Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

See next page for available materials.



PHILLIPS FLAT HEAD

Part No. CS802 - (Size Code No.) - (Material Code No.)

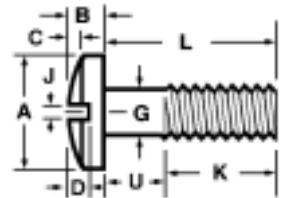
Phillips Flat Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Ref. B	Recess Dia. E	Dim. +/- .005 G	PK Ref. Only
Size Code No.		Thread								
-20 -22	-20P -22P	6-32	.500 .625	3/16	5/16 7/16	.244-.279	.083	.161-.174	.095	.26
-62 -64	-62P -64P	8-32	.500 .625	3/16	5/16 7/16	.292-.332	.100	.176-.189	.120	.28
-106 -108 -110	-106P -108P -110P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.340-.385	.116	.191-.204	.130	.36
-150 -152 -154 -156	-150P -152P -154P -156P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.452-.507	.153	.270-.283	.175	.39
-212 -214 -216 -218 -220 -222	-212P -214P -216P -218P -220P -222P	5/16-18	1.000 1.125 1.250 1.375 1.500 1.625	1/4	27/32 15/16 1 1/16 1 1/8 1 1/4 1 3/8	.568-.635	.191	.352-.365	.230	.43

Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	Vespel®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SLOTTED BINDING HEAD

Part No. CS300 - (Size Code No.) - (Material Code No.)

Slotted Binding Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Head Height B	Oval Head Height C	Slot Depth D	Slot Width J	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread											
-26 -28	-26P -28P	6-32	.500 .625	3/16	5/16 7/16	.275-.290	.078-.087	.024-.032	.040-.053	.039-.048	.095	.26
-38 -40	-38P -40P	8-32	.500 .625	3/16	5/16 7/16	.326-.344	.095-.105	.029-.039	.050-.065	.045-.054	.120	.28
-50 -52 -54	-50P -52P -54P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.378-.399	.112-.123	.034-.045	.060-.077	.050-.060	.130	.36
-64 -66 -68	-64P -66P -68P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.378-.399	.112-.123	.034-.045	.060-.077	.050-.060	.130	.36
-80 -82 -84 -86	-80P -82P -84P -86P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.498-.525	.152-.165	.046-.061	.084-.105	.064-.075	.175	.39

Other sizes available.

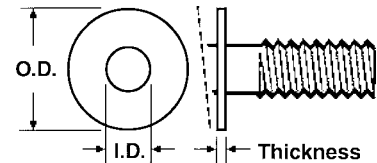
CAPTIVE WASHERS for Slotted Binding Head Screws

Part No. CSW300 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.375	.155	.030
-4	10	.500	.180	.030
-5	1/4	.562	.240	.045

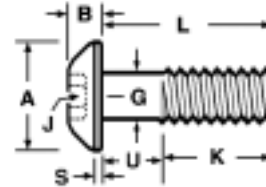
Other sizes available.

Washers are available in Teflon (Material Code No. -29)



CAPTIVE PANEL SCREWS AND WASHERS (continued)

See next page for available materials.



HEX SOCKET BUTTON HEAD

Part No. CS602 - (Size Code No.) - (Material Code No.)

Hex Socket Button Head	With Point							Head Side Height Ref. S	Hex Socket Size J	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread	Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Head Height B					
-12 -14	-12P -13P	6-32	.500 .625	3/16 5/16 7/16	.250-.262	.063-.073	.015	.078	.095	.26	
-20 -22	-20P -22P	8-32	.500 .625	3/16 5/16 7/16	.298-.312	.077-.087	.015	.094	.120	.28	
-32 -34 -36	-32P -34P -36P	10-32	.625 .750 .875	1/4 3/8 1/2 5/8	.347-.361	.091-.101	.020	.125	.130	.36	
-46 -48 -50 -500	-46P -48P -50P -500P	1/4-20	.750 .875 1.000 1.125	1/4 1/2 5/8 7/8	.419-.437	.122-.132	.031	.156	.175	.39	
-62 -64 -66 -68 -70 -72	-62P -64P -66P -68P -70P -72P	5/16-18	1.000 1.125 1.250 1.375 1.500 1.625	1/4 27/32 15/16 1 1/16 1 1/8 1 3/4 1 1/38	.527-.547	.152-.166	.031	.188	.230	.43	

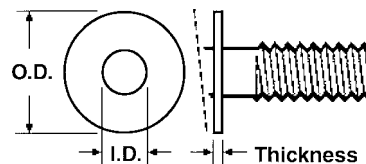
Other sizes available.

CAPTIVE WASHERS for Hex Socket Button Head Screws

Part No. CSW600 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.375	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045
-6	5/16	.625	.300	.085

Washers are available in Teflon (Material Code No. -29)

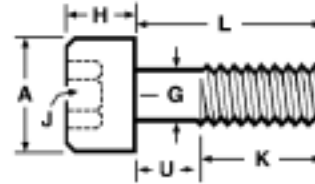


Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	VespeI®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SOCKET HEAD CAP SCREW

Part No. CS600 - (Size Code No.) - (Material Code No.)

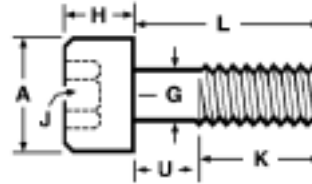
Socket Head Cap	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Head Height B	Hex Socket Size J	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread									
-18 -20	-18P -20P	6-32	.500 .625	3/16	5/16 7/16	.218-.226	.134-.138	.109	.095	.26
-32 -34	-32P -34P	8-32	.500 .625	3/16	5/16 7/16	.262-.270	.159-.164	.141	.120	.28
-46 -48 -50	-46P -48P -50P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.303-.312	.185-.190	.156	.130	.36
-64 -66 -68	-64P -66P -68P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.303-.312	.185-.190	.156	.130	.36
-84 -86 -88 -90	-84P -86P -88P -90P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.365-.375	.244-.250	.188	.175	.39
-126 -128 -130 -132	-126P -128P -130P -132P	1/4-28	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.365-.375	.244-.250	.188	.175	.39
-172 -174 -176 -178 -180 -182	-172P -174P -176P -178P -180P -182P	5/16-18	.750 .875 1.000 1.125 1.250 1.375	1/4	27/32 15/16 1 1/16 1 1/8 1 1/4 1 3/8	.457-.469	.306-.312	.250	.230	.55
-206 -208 -210 -212 -214 -216 -218 -220 -222 -224 -226 -228 -230	-206P -208P -210P -212P -214P -216P -218P -220P -222P -224P -226P -228P -230P	3/8-16	.500 .625 .750 .875 1.000 1.125 1.250 1.375 1.500 1.625 1.750 1.875 2.000	1/4	1/4 3/8 1/2 5/8 3/4 7/8 1 1 1/8 1 1/4 1 3/8 1 1/2 1 5/8 1 3/4	.550-.562	.368-.375	.312	.280	.59

(Continued next page.)

CAPTIVE PANEL SCREWS AND WASHERS (continued)

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-37	PVDF (Kynar)	-273	PVC (black)
-15	PEEK™	-60	Glass-filled Nylon	-274	PVC (clear)
-24	Delrin (white)	-213	Vespel®	-2401	Meldin®
-27	PVC (grey)	-272	PVC (white)		



SOCKET HEAD CAP SCREW (continued)

Part No. CS600 - (Size Code No.) - (Material Code No.)

Socket Head Cap	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head Dia. A	Head Height B	Hex Socket Size J	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread									
-248	-248P		.500		1/4					
-250	-250P		.625		3/8					
-252	-252P		.750		1/2					
-254	-254P		.875		5/8					
-256	-256P		1.000		3/4					
-258	-258P		1.125		7/8					
-260	-260P	7/16-14	1.250	1/4	1	.642-.656	.430-.438	.375	.344	.62
-262	-262P		1.375		1 1/8					
-264	-264P		1.500		1 1/4					
-266	-266P		1.625		1 3/8					
-268	-268P		1.750		1 1/2					
-270	-270P		1.875		1 5/8					
-272	-272P		2.000		1 3/4					
-290	-290P		.500		1/4					
-292	-292P		.625		3/8					
-294	-294P		.750		1/2					
-296	-296P		.875		5/8					
-298	-298P		1.000		3/4					
-300	-300P		1.125		7/8					
-302	-302P	1/2-13	1.250	1/4	1	.735-.750	.492-.500	.375	.4004	.66
-304	-304P		1.375		1 1/8					
-306	-306P		1.500		1 1/4					
-308	-308P		1.625		1 3/8					
-310	-310P		1.750		1 1/2					
-312	-312P		1.875		1 5/8					
-314	-314P		2.000		1 3/4					
-316	-316P		2.125		1 7/8					
-318	-318P		2.250		2					

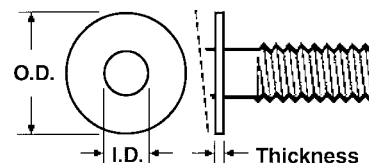
Other sizes available.

CAPTIVE WASHERS for Socket Head Cap Screws

Part No. CSW200 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.312	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045
-6	5/16	.625	.300	.085

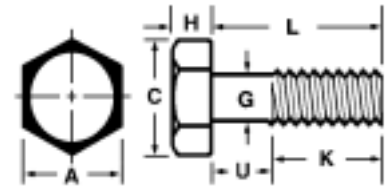
Washers are available in Teflon (Material Code No. -29)



Other sizes available.

CAPTIVE PANEL SCREWS AND WASHERS (continued)

See previous page for available materials.



HEX HEAD SCREW

Part No. CS700 - (Size Code No.) - (Material Code No.)

Hex Head	With Point		Dim. L	Dim. +/- .010 K	Dim. +/- .010 U	Head A	Head H	Min. C	Dim. +/- .005 G	PK Ref. Only
Size Code No.	Thread									
-12 -14	-12P -14P	6-32	.500 .625	3/16	5/16 7/16	.244-.250	.080-.093	.272	.095	.26
-26 -28	-26P -28P	8-32	.500 .625	3/16	5/16 7/16	.244-.250	.096-.110	.272	.120	.28
-42 -44 -46	-42P -44P -46P	10-24	.625 .750 .875	1/4	3/8 1/2 5/8	.305-.312	.105-.120	.340	.130	.36
-58 -60 -62	-58P -60P -62P	10-32	.625 .750 .875	1/4	3/8 1/2 5/8	.305-.312	.105-.120	.340	.130	.36
-72 -74 -76 -78	-72P -74P -76P -78P	1/4-20	.750 .875 1.000 1.125	1/4	1/2 5/8 3/4 7/8	.428-.438	.150-.163	.488	.175	.39
-88 -90 -92 -922 -924 -926	-88P -90P -92P -922P -924P -926P	5/16-18	1.000 1.125 1.250 1.375 1.500 1.625	1/4	27/32 15/16 1 1/16 1 1/8 1 1/4 1 3/8	.489-.500	.195-.211	.557	.230	.43
-100 -102 -104 -106 -108 -110 -112 -114 -116	-100P -102P -104P -106P -108P -110P -112P -114P -116P	3/8-16	1.000 1.125 1.250 1.375 1.500 1.625 1.750 1.875 2.000	3/8	5/8 3/4 7/8 1 1 1/8 1 1/4 1 3/8 1 1/2 1 5/8	.551-.562	.226-.243	.628	.280	.59

Other sizes available.

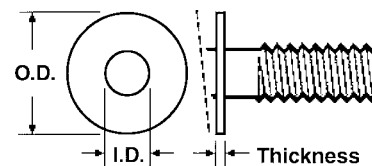
CAPTIVE WASHERS for Hex Head Screws

Part No. CSW200 - (Size Code No.) - 29 (Teflon)

Size Code No.	Screw Size	Outside Diameter +/- .010	Inside Diameter +/- .005	Thickness +/- .005
-2	6	.312	.130	.030
-3	8	.312	.155	.030
-4	10	.375	.180	.030
-5	1/4	.500	.240	.045
-6	5/16	.625	.300	.085

Other sizes available.

Washers are available in Teflon (Material Code No. -29)



MACHINED HIGH TECHNOLOGY PLASTIC NUTS

*Available in the following materials:

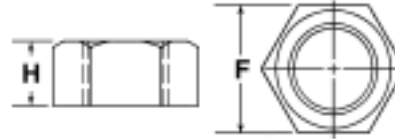
Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-2	Nylon, 30% Glass-filled (black), UV stabilized	-15	PEEK™	-46	Polycarbonate	-226	Radel® A200, Polyethersulfone
-5	Ultem® 1000	-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-11	Polypropylene	-24	Delrin®	-77	Ultem® 2300, (natural)	-229	Radel® R5000, Polyphenylsulfone
-13	Polyethylene	-32	PCTFE	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	*Available in other materials. Other sizes available on request.	
-14	ABS	-37	PVDF	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized		
		-40	PFA, (Teflon®)				

HEX NUTS

Made to the American National Standard.

Part No. DF220 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size	Size Code No.	Thread Size
-1	0-80	-12	10-32	-23	1/2-20
-2	1-64	-13	12-24	-24	9/16-18
-3	1-72	-14	1/4-20	-25	5/8-11
-4	2-56	-15	1/4-28	-26	5/8-18
-5	3-48	-16	5/16-18	-27	3/4-10
-6	4-40	-17	5/16-24	-28	3/4-16
-7	5-40	-18	3/8-16	-29	7/8-9
-8	6-32	-19	3/8-24	-30	7/8-14
-9	6-40	-20	7/16-14	-31	1-8
-10	8-32	-21	7/16-20	-32	1-12
-11	10-24	-22	1/2-13	-33	1-14



Thread Size	F		H		Thread Size	F		H	
	max.	min.	max.	min.		max.	min.	max.	min.
0	.156	.150	.050	.043	5/16	.500	.489	.273	.258
1	.156	.150	.050	.043	3/8	.562	.551	.337	.320
2	.188	.180	.066	.057	7/16	.688	.675	.385	.365
3	.188	.180	.066	.057	1/2	.750	.736	.448	.427
4	.250	.241	.098	.087	9/16	.875	.861	.496	.473
5	.312	.302	.114	.102	5/8	.938	.922	.559	.535
6	.312	.302	.114	.102	3/4	1.125	1.088	.665	.617
8	.344	.332	.130	.117	7/8	1.312	1.269	.776	.724
10	.375	.362	.130	.117	1	1.500	1.450	.887	.831
12	.438	.423	.161	.148					
1/4	.438	.428	.226	.212					

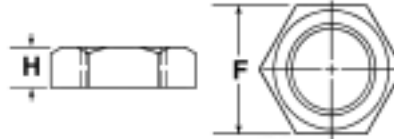
Tolerances: +/- .015

HEX JAM NUTS

Made to the American National Standard.

Part No. DF222 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size	Size Code No.	Thread Size
-1	5/16-18	-9	1/2-24	-18	3/4-14NPT
-2	5/16-24	-10	1/2-28	-19	1/8-27NPS
-3	3/8-16	-11	3/4-10	-20	1/4-18NPS
-4	3/8-24	-12	3/4-27	-21	3/8-18NPS
-5	3/8-32	-14	1/8-27NPT	-22	1/2-14NPS
-6	7/16-14	-15	1/4-18NPT	-23	3/4-14NPS
-7	7/16-20	-16	3/8-18NPT		
-8	1/2-13	-17	1/2-14NPT		



Thread Size	F		H		Thread Size	F	H
	max.	min.	max.	min.			
5/16	.500	.489	.195	.180	1/8-27NPT/NPS	.735	.250
3/8	.562	.551	.227	.210	1/4-18NPT/NPS	.860	.375
7/16	.688	.675	.260	.240	3/8-18NPT/NPS	.985	.375
1/2	.750	.736	.323	.302	1/2-14NPT/NPS	1.235	.500
9/16	.875	.861	.324	.301	3/4-14NPT/NPS	1.485	.500
5/8	.938	.922	.387	.363			
3/4	1.125	1.088	.446	.398			

Tolerances: +/- .015

HEAVY HEX NUTS

Made to the American National Standard.

Part Number - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size	Size Code No.	Thread Size
-1	1/4-20	-15	3/4-16	-29	1 3/8-12
-2	1/4-28	-16	7/8-9	-30	1 1/2-6
-3	5/16-18	-17	7/8-14	-31	1 1/2-8
-4	5/16-24	-18	1-8	-32	1 1/2-12
-5	3/8-16	-19	1-12	-33	1 5/8-5.5
-6	3/8-24	-20	1-14	-34	1 3/4-5
-7	7/16-14	-21	1 1/8-7	-35	1 3/4-8
-8	7/16-20	-22	1 1/8-8	-36	1 7/8-5
-9	1/2-13	-23	1 1/8-12	-37	2-4
-10	1/2-20	-24	1 1/4-7	-38	2-8
-11	9/16-18	-25	1 1/4-8	-39	2 1/4-6
-12	5/8-11	-26	1 1/4-12	-40	2 1/4-8
-13	5/8-18	-27	1 3/8-6		
-14	3/4-10	-28	1 3/8-8		



Part No. DF205
HEAVY HEX NUT



Part No. DF210
HEAVY HEX JAM NUT



Thread Size	F		Heavy Hex Nut H		Heavy Hex Jam Nut H	
	max.	min.	max.	min.	max.	min.
1/4	.500	.488	.250	.218	.188	.156
5/16	.562	.546	.314	.280	.220	.186
3/8	.688	.669	.377	.341	.252	.216
7/16	.750	.728	.441	.403	.285	.247
1/2	.875	.850	.504	.464	.317	.277
9/16	.938	.909	.568	.526	.349	.307
5/8	1.062	1.031	.631	.587	.381	.337
3/4	1.250	1.212	.758	.710	.446	.398
7/8	1.438	1.394	.885	.833	.510	.458
1	1.625	1.575	1.012	.956	.575	.519
1 1/8	1.812	1.756	1.139	1.079	.639	.579
1 1/4	2.000	1.938	1.251	1.187	.751	.687
1 3/8	2.188	2.119	1.378	1.310	.815	.747
1 1/2	2.375	2.300	1.505	1.433	.880	.808
1 5/8	2.562	2.481	1.632	1.556	.944	.868
1 3/4	2.750	2.662	1.759	1.679	1.009	.929
1 7/8	2.938	2.844	1.886	1.802	1.073	.989
2	3.125	3.025	2.013	1.925	1.138	1.050
2 1/4	3.500	3.388	2.251	2.155	1.251	1.155

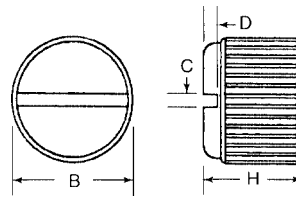
Tolerances: +/- .015

MACHINED HIGH TECHNOLOGY PLASTIC NUTS (continued)

SLOTTED THUMB NUTS

Part No. DF223 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size	Size Code No.	Thread Size
-1	4-40	-10	1/4-28	-16	1/2-20
-3	6-32	-11	5/16-18	-18	5/8-11
-5	8-32	-12	5/16-24	-19	5/8-18
-6	10-24	-13	3/8-16	-20	3/4-10
-7	10-32	-14	3/8-24		
-9	1/4-20	-15	1/2-13		



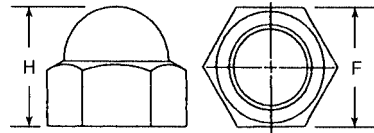
Thread Size	H	B	C	D
4	.280	.317	.039	.045
6	.334	.348	.044	.051
8	.378	.381	.049	.059
10	.357	.412	.056	.068
1/4	.370	.478	.070	.088
5/16	.437	.562	.070	.095
3/8	.480	.625	.080	.100
1/2	.625	.750	.090	.125
5/8	.825	1.000	.110	.140
3/4	.890	1.125	.125	.180

Tolerances: +/- .015

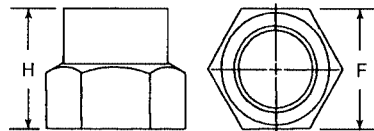
CAP NUTS

Part No. DF224 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size	Size Code No.	Thread Size
-1	4-40	-9	1/4-20	-16	1/2-20
-3	6-32	-10	1/4-28	-17	9/16-18
-4	6-40	-11	5/16-18	-18	5/8-11
-5	8-32	-12	5/16-24	-19	5/8-18
-6	10-24	-13	3/8-16	-20	3/4-10
-7	10-32	-14	3/8-24	-23	1-8
-8	12-24	-15	1/2-13	-24	1-12



Thread Sizes 4 thru 9/16



Thread Sizes 5/8 thru 1

Thread Size	F max.	F min.	H
4	.250	.242	.280
6	.312	.302	.340
8	.312	.302	.340
10	.375	.362	.410
12	.375	.362	.410
1/4	.437	.428	.470
5/16	.500	.489	.530
3/8	.562	.551	.620
1/2	.750	.736	.810
9/16	.875	.861	.940
5/8	.937	.922	1.000
3/4	1.062	1.045	1.160
1	1.437	1.417	1.550

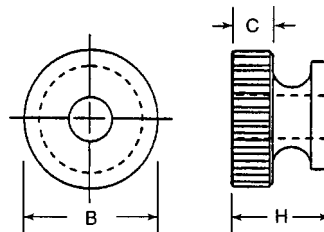
Tolerances: +/- .015

Cap Nuts are made to the American National Standard.

KNURLED THUMB NUTS

Part No. DF225 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size	Size Code No.	Thread Size
-1	4-40	-8	12-24	-15	1/2-13
-2	5-40	-9	1/4-20	-16	1/2-20
-3	6-32	-10	1/4-28	-18	5/8-11
-4	6-40	-11	5/16-18	-19	5/8-18
-5	8-32	-12	5/16-24		
-6	10-24	-13	3/8-16		
-7	10-32	-14	3/8-24		



Thread Size	B	H	C
4	.300	.280	.120
6	.360	.275	.125
8	.425	.305	.140
10	.425	.325	.140
1/4	.520	.365	.155
5/16	.612	.400	.170
3/8	.625	.500	.187
1/2	.750	.625	.250
5/8	1.000	.750	.300

Tolerances: +/- .015

MACHINED HIGH TECHNOLOGY PLASTIC METRIC NUTS

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

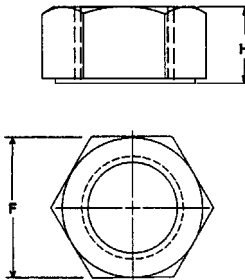
Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	Vespel®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-226	Radel® A200, Polyethersulfone
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-228	Radel® AG330, 30% Glass-filled
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-229	Radel® R5000, Polyphenylsulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-272	PVC, (white)
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-273	PVC, (black)
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

ALL DIMENSIONS GIVEN IN MILLIMETERS

METRIC HEX NUTS

Part No. G114 - (Size Code No.) - (Material Code No.)

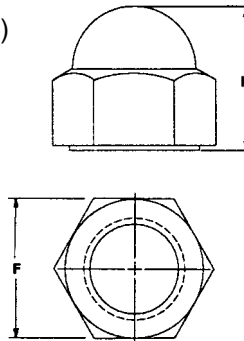
Size Code No.	Thread Size	F	H
-1	M2 x 0,4	4,00	1,60
-2	M2,5 x 0,45	5,00	2,00
-3	M3 x 0,5	5,50	2,40
-5	M4 x 0,7	7,00	3,20
-6	M5 x 0,8	8,00	4,00
-7	M6 x 1,0	10,00	5,00
-8	M8 x 1,25	13,00	6,50
-9	M10 x 1,5	17,00	8,00
-10	M12 x 1,75	19,00	10,00



METRIC CAP NUTS

Part No. G115 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	F	H
-2	M4 x 0,7	7,00	8,00
-3	M5 x 0,8	8,00	10,00
-4	M6 x 1,0	10,00	12,00
-5	M8 x 1,25	13,00	15,00
-6	M10 x 1,5	16/17,00	18,00
-7	M12 x 1,75	18/19,00	22,00

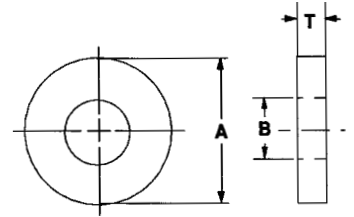


Parts are made to DIN dimensions. Materials are selected by customer.

MACHINED FLAT WASHERS

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-1	.187	.060	.010	-39	.187	.093	.020	-79	.250	.105	.045	-120	.281	.120	.010
-2	.187	.060	.015	-40	.187	.093	.025	-80	.250	.105	.050	-121	.281	.120	.015
-3	.187	.060	.020	-41	.187	.093	.030	-81	.250	.105	.060	-122	.281	.120	.020
-4	.187	.060	.025	-42	.187	.093	.040	-82	.540	.105	.060	-123	.281	.120	.025
-5	.187	.060	.030	-43	.187	.093	.050	-83	.220	.108	.040	-124	.281	.120	.030
-6	.187	.060	.040	-44	.196	.093	.040	-84	.220	.115	.010	-125	.281	.120	.040
-7	.897	.060	.040	-45	.250	.093	.010	-85	.220	.115	.015	-126	.281	.120	.045
-8	1.450	.060	.040	-46	.250	.093	.015	-86	.220	.115	.020	-127	.281	.120	.050
-9	.596	.062	.040	-47	.250	.093	.020	-87	.220	.115	.025	-128	.281	.120	.060
-10	.866	.062	.040	-48	.250	.093	.025	-88	.220	.115	.030	-129	.375	.120	.010
-11	.955	.062	.040	-49	.250	.093	.030	-89	.220	.115	.040	-130	.375	.120	.015
-12	.220	.063	.010	-50	.250	.093	.040	-90	.220	.115	.050	-131	.375	.120	.020
-13	.220	.063	.015	-51	.250	.093	.045	-91	.220	.115	.060	-132	.375	.120	.025
-14	.220	.063	.020	-52	.250	.093	.050	-92	.250	.115	.010	-133	.375	.120	.030
-15	.220	.063	.025	-53	.250	.093	.060	-93	.250	.115	.015	-134	.375	.120	.040
-16	.220	.063	.030	-54	.281	.093	.010	-94	.250	.115	.020	-135	.375	.120	.045
-17	.220	.063	.040	-55	.281	.093	.015	-95	.250	.115	.025	-136	.375	.120	.050
-18	.220	.063	.050	-56	.281	.093	.020	-96	.250	.115	.030	-137	.375	.120	.060
-19	.151	.065	.030	-57	.281	.093	.025	-97	.250	.115	.040	-138	.192	.125	.040
-20	.188	.065	.040	-58	.281	.093	.030	-98	.250	.115	.045	-139	.245	.125	.060
-21	.220	.070	.040	-59	.281	.093	.040	-99	.250	.115	.050	-140	.275	.125	.060
-22	.187	.080	.010	-60	.281	.093	.045	-100	.250	.115	.060	-141	.281	.125	.060
-23	.187	.080	.015	-61	.281	.093	.050	-101	.281	.115	.010	-142	.312	.125	.010
-24	.187	.080	.020	-62	.281	.093	.060	-102	.281	.115	.015	-143	.312	.125	.015
-25	.187	.080	.025	-63	.245	.095	.040	-103	.281	.115	.020	-144	.312	.125	.020
-26	.187	.080	.030	-64	.192	.098	.040	-104	.281	.115	.025	-145	.312	.125	.025
-27	.187	.080	.040	-65	.150	.100	.015	-105	.281	.115	.030	-146	.312	.125	.030
-28	.182	.085	.040	-66	.170	.105	.040	-106	.281	.115	.040	-147	.312	.125	.040
-29	.190	.085	.040	-67	.220	.105	.010	-107	.281	.115	.045	-148	.312	.125	.045
-30	.156	.090	.010	-68	.220	.105	.015	-108	.281	.115	.050	-149	.312	.125	.050
-31	.156	.090	.015	-69	.220	.105	.020	-109	.281	.115	.060	-150	.312	.125	.060
-32	.156	.090	.020	-70	.220	.105	.025	-110	.600	.115	.060	-151	.370	.125	.060
-33	.156	.090	.025	-71	.220	.105	.030	-111	.250	.120	.010	-152	.437	.125	.010
-34	.156	.090	.030	-72	.220	.105	.040	-112	.250	.120	.015	-153	.437	.125	.015
-35	.174	.092	.040	-73	.250	.105	.010	-113	.250	.120	.020	-154	.437	.125	.020
-36	.156	.093	.030	-74	.250	.105	.015	-114	.250	.120	.025	-155	.437	.125	.025
-37	.187	.093	.010	-75	.250	.105	.020	-115	.250	.120	.030	-156	.437	.125	.030
-38	.187	.093	.015	-76	.250	.105	.025	-116	.250	.120	.040	-157	.437	.125	.040
				-77	.250	.105	.030	-117	.250	.120	.045	-158	.437	.125	.045
				-78	.250	.105	.040	-118	.250	.120	.050				
								-119	.250	.120	.060				

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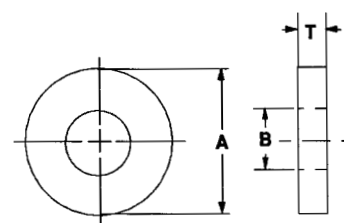
.060 I.D. to .125 I.D.

MACHINED FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN100 - (Size Code No.) - (Material Code No.)

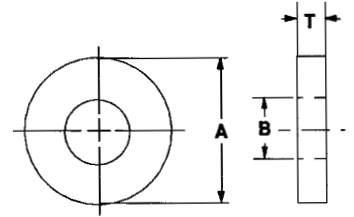
Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-159	.437	.125	.050	-200	.250	.141	.010	-243	.500	.141	.030	-287	.233	.146	.060
-160	.437	.125	.050	-201	.250	.141	.015	-244	.500	.141	.040	-288	.307	.146	.060
				-202	.250	.141	.020	-245	.500	.141	.045	-289	.370	.146	.060
-161	.500	.125	.010	-203	.250	.141	.025	-246	.500	.141	.050				
-162	.500	.125	.015	-204	.250	.141	.030	-247	.500	.141	.060	-290	.250	.150	.010
-163	.500	.125	.020	-205	.250	.141	.040					-291	.250	.150	.015
-164	.500	.125	.025	-206	.250	.141	.045	-248	.505	.142	.060	-292	.250	.150	.020
-165	.500	.125	.030	-207	.250	.141	.050	-249	.495	.143	.060	-293	.250	.150	.025
-166	.500	.125	.040	-208	.250	.141	.060	-250	.560	.143	.060	-294	.250	.150	.030
-167	.500	.125	.045									-295	.250	.150	.040
-168	.500	.125	.050	-209	.254	.141	.040	-251	.312	.145	.010	-296	.250	.150	.045
-169	.500	.125	.060					-252	.312	.145	.015	-297	.250	.150	.050
				-210	.312	.141	.010	-253	.312	.145	.020	-298	.250	.150	.060
-170	.932	.125	.060	-211	.312	.141	.015	-254	.312	.145	.025				
				-212	.312	.141	.020	-255	.312	.145	.030	-299	.312	.150	.010
-171	.245	.130	.060	-213	.312	.141	.025	-256	.312	.145	.040	-300	.312	.150	.015
				-214	.312	.141	.030	-257	.312	.145	.045	-301	.312	.150	.020
-172	.250	.130	.010	-215	.312	.141	.040	-258	.312	.145	.050	-302	.312	.150	.025
-173	.250	.130	.015	-216	.312	.141	.045	-259	.312	.145	.060	-303	.312	.150	.030
-174	.250	.130	.020	-217	.312	.141	.050					-304	.312	.150	.040
-175	.250	.130	.025	-218	.312	.141	.060	-260	.375	.145	.010	-305	.312	.150	.045
-176	.250	.130	.030					-261	.375	.145	.015	-306	.312	.150	.050
-177	.250	.130	.040	-219	.375	.141	.010	-262	.375	.145	.020	-307	.312	.150	.060
-178	.250	.130	.045	-220	.375	.141	.015	-263	.375	.145	.025				
-179	.250	.130	.050	-221	.375	.141	.020	-264	.375	.145	.030	-308	.375	.150	.010
-180	.250	.130	.060	-222	.375	.141	.025	-265	.375	.145	.040	-309	.375	.150	.015
				-223	.375	.141	.030	-266	.375	.145	.045	-310	.375	.150	.020
-181	.281	.130	.060	-224	.375	.141	.040	-267	.375	.145	.050	-311	.375	.150	.025
-182	.307	.130	.060	-225	.375	.141	.045	-268	.375	.145	.060	-312	.375	.150	.030
-183	.370	.130	.060	-226	.375	.141	.050					-313	.375	.150	.040
				-227	.375	.141	.060	-269	.437	.145	.010	-314	.375	.150	.045
-184	.375	.130	.010					-270	.437	.145	.015	-315	.375	.150	.050
-185	.375	.130	.015	-228	.400	.141	.060	-271	.437	.145	.020	-316	.375	.150	.060
-186	.375	.130	.020	-229	.432	.141	.060	-272	.437	.145	.025				
-187	.375	.130	.025					-273	.437	.145	.030	-317	.437	.150	.060
-188	.375	.130	.030	-230	.437	.141	.010	-274	.437	.145	.040	-318	.275	.155	.060
-189	.375	.130	.040	-231	.437	.141	.015	-275	.437	.145	.045	-319	.307	.155	.060
-190	.375	.130	.045	-232	.437	.141	.020	-276	.437	.145	.050	-320	.370	.155	.060
-191	.375	.130	.050	-233	.437	.141	.025	-277	.437	.145	.060	-321	.435	.155	.060
-192	.375	.130	.060	-234	.437	.141	.030					-322	.460	.155	.060
				-235	.437	.141	.040	-278	.500	.145	.010				
-193	.432	.130	.060	-236	.437	.141	.045	-279	.500	.145	.015	-323	.688	.155	.010
-194	.495	.130	.060	-237	.437	.141	.050	-280	.500	.145	.020	-324	.688	.155	.015
-195	.540	.130	.060	-238	.437	.141	.060	-281	.500	.145	.025	-325	.688	.155	.020
-196	.829	.130	.060					-282	.500	.145	.030	-326	.688	.155	.025
-197	.890	.130	.060	-239	.500	.141	.010	-283	.500	.145	.040	-327	.688	.155	.030
-198	.265	.135	.060	-240	.500	.141	.015	-284	.500	.145	.045	-328	.688	.155	.040
				-241	.500	.141	.020	-285	.500	.145	.050				
-199	.385	.140	.060	-242	.500	.141	.025	-286	.500	.145	.060				

(continued next page)

.125 I.D. to .155 I.D.

MACHINED FLAT WASHERS (continued)

SEE PAGE 182 FOR AVAILABLE MATERIALS



Part No. FN100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-329	.688	.155	.045	-374	.317	.173	.060	-419	.750	.195	.015	-463	.437	.205	.020
-330	.688	.155	.050	-375	.312	.175	.060	-420	.750	.195	.020	-464	.437	.205	.025
-331	.688	.155	.060	-376	.370	.175	.060	-421	.750	.195	.025	-465	.437	.205	.030
-332	.688	.159	.060	-377	.375	.175	.060	-422	.750	.195	.030	-466	.437	.205	.040
-333	.250	.160	.060	-378	.345	.180	.070	-423	.750	.195	.040	-467	.437	.205	.045
-334	.375	.160	.010	-379	.254	.183	.040	-424	.750	.195	.045	-468	.437	.205	.050
-335	.375	.160	.015	-380	.281	.186	.060	-425	.750	.195	.050	-469	.437	.205	.060
-336	.375	.160	.020	-381	.252	.187	.040	-426	.750	.195	.060	-470	.340	.206	.060
-337	.375	.160	.025	-382	.375	.187	.060	-427	.750	.196	.060	-471	.500	.208	.060
-338	.375	.160	.030	-383	.312	.190	.010	-428	.370	.199	.060	-472	.275	.215	.020
-339	.375	.160	.040	-384	.312	.190	.015	-429	.280	.200	.040	-473	.500	.215	.010
-340	.375	.160	.045	-385	.312	.190	.020	-430	.360	.200	.060	-474	.500	.215	.015
-341	.375	.160	.050	-386	.312	.190	.025	-431	.432	.200	.060	-475	.500	.215	.020
-342	.375	.160	.060	-387	.312	.190	.030	-432	.437	.200	.010	-476	.500	.215	.025
-343	.312	.162	.060	-388	.312	.190	.040	-433	.437	.200	.015	-477	.500	.215	.030
-344	.205	.165	.020	-389	.312	.190	.045	-434	.437	.200	.020	-478	.500	.215	.040
-345	.245	.165	.050	-390	.312	.190	.050	-435	.437	.200	.025	-479	.500	.215	.045
-346	.312	.170	.010	-391	.312	.190	.060	-436	.437	.200	.030	-480	.500	.215	.050
-347	.312	.170	.015	-392	.437	.190	.010	-437	.437	.200	.040	-481	.500	.215	.060
-348	.312	.170	.020	-393	.437	.190	.015	-438	.437	.200	.045	-482	.500	.223	.060
-349	.312	.170	.025	-394	.437	.190	.020	-439	.437	.200	.050	-483	.660	.223	.060
-350	.312	.170	.030	-395	.437	.190	.025	-440	.437	.200	.060	-484	.315	.225	.040
-351	.312	.170	.040	-396	.437	.190	.030	-441	.500	.200	.010	-485	.375	.225	.060
-352	.312	.170	.045	-397	.437	.190	.040	-442	.500	.200	.015	-486	.400	.225	.060
-353	.312	.170	.050	-398	.437	.190	.045	-443	.500	.200	.020	-487	.370	.255	.060
-354	.312	.170	.060	-399	.437	.190	.050	-444	.500	.200	.025	-488	.432	.255	.060
-355	.370	.170	.060	-400	.437	.190	.060	-445	.500	.200	.030	-489	.495	.255	.060
-356	.375	.170	.010	-401	.500	.192	.060	-446	.500	.200	.040	-490	.620	.255	.060
-357	.375	.170	.015	-402	.307	.193	.060	-447	.500	.200	.045	-491	.745	.255	.060
-358	.375	.170	.020	-403	.460	.193	.060	-448	.500	.200	.050	-492	1.448	.255	.060
-359	.375	.170	.025	-404	.660	.193	.060	-449	.500	.200	.060	-493	.375	.257	.010
-360	.375	.170	.030	-405	.745	.193	.060	-450	.750	.200	.010	-494	.375	.257	.015
-361	.375	.170	.040	-406	.324	.195	.060	-451	.750	.200	.015	-495	.375	.257	.020
-362	.375	.170	.045	-407	.370	.195	.060	-452	.750	.200	.020	-496	.375	.257	.025
-363	.375	.170	.050	-408	.375	.195	.010	-453	.750	.200	.025	-497	.375	.257	.030
-364	.375	.170	.060	-409	.375	.195	.015	-454	.750	.200	.030	-498	.375	.257	.040
-365	.437	.170	.010	-410	.375	.195	.020	-455	.750	.200	.040	-499	.375	.257	.045
-366	.437	.170	.015	-411	.375	.195	.025	-456	.750	.200	.045	-500	.375	.257	.050
-367	.437	.170	.020	-412	.375	.195	.030	-457	.750	.200	.050	-501	.375	.257	.060
-368	.437	.170	.025	-413	.375	.195	.040	-458	.750	.200	.060	-502	.437	.257	.010
-369	.437	.170	.030	-414	.375	.195	.045	-459	.870	.200	.060	-503	.437	.257	.015
-370	.437	.170	.040	-415	.375	.195	.050	-4590	.562	.203	.040	-504	.437	.257	.020
-371	.437	.170	.045	-416	.375	.195	.060	-460	.432	.205	.060	-505	.437	.257	.025
-372	.437	.170	.050	-417	.437	.195	.060	-461	.437	.205	.010				
-373	.437	.170	.060	-418	.750	.195	.010	-462	.437	.205	.015				

(continued next page)

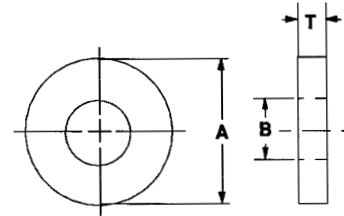
.155 I.D. to .257 I.D.

MACHINED FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN100 - (Size Code No.) - (Material Code No.)

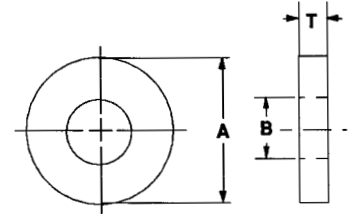
Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-506	.437	.257	.030	-550	.750	.257	.025	-590	.625	.290	.010	-632	.531	.317	.060
-507	.437	.257	.040	-551	.750	.257	.030	-591	.625	.290	.015	-633	.557	.317	.060
-508	.437	.257	.045	-552	.750	.257	.040	-592	.625	.290	.020	-634	.562	.317	.010
-509	.437	.257	.050	-553	.750	.257	.045	-593	.625	.290	.025	-635	.562	.317	.015
-510	.437	.257	.060	-554	.750	.257	.050	-594	.625	.290	.030	-636	.562	.317	.020
-511	.500	.257	.010	-555	.750	.257	.060	-595	.625	.290	.040	-637	.562	.317	.025
-512	.500	.257	.015	-556	.432	.258	.060	-596	.625	.290	.045	-638	.562	.317	.030
-513	.500	.257	.020	-557	.793	.258	.060	-597	.625	.290	.050	-639	.562	.317	.040
-514	.500	.257	.025	-558	.688	.259	.060	-598	.625	.290	.060	-640	.562	.317	.045
-515	.500	.257	.030	-559	.385	.260	.060	-599	.785	.290	.060	-641	.562	.317	.050
-516	.500	.257	.040	-560	.495	.263	.060	-600	1.110	.290	.060	-642	.562	.317	.060
-517	.500	.257	.045	-561	.557	.263	.060	-601	1.190	.290	.060	-643	.625	.317	.010
-518	.500	.257	.050	-562	.658	.263	.060	-602	.961	.300	.060	-644	.625	.317	.015
-519	.500	.257	.060	-563	.682	.263	.060	-603	.500	.305	.010	-645	.625	.317	.020
-520	.560	.257	.010	-564	.870	.263	.060	-604	.500	.305	.015	-646	.625	.317	.025
-521	.560	.257	.015	-565	.745	.265	.060	-605	.500	.305	.020	-647	.625	.317	.030
-522	.560	.257	.020	-566	1.260	.265	.060	-606	.500	.305	.025	-648	.625	.317	.040
-523	.560	.257	.025	-567	.437	.270	.060	-607	.500	.305	.030	-649	.625	.317	.045
-524	.560	.257	.030	-568	.620	.270	.060	-608	.500	.305	.040	-650	.625	.317	.050
-525	.560	.257	.040	-569	.625	.270	.010	-609	.500	.305	.045	-651	.625	.317	.060
-526	.560	.257	.045	-570	.625	.270	.015	-610	.500	.305	.050	-652	.750	.317	.010
-527	.560	.257	.050	-571	.625	.270	.020	-611	.500	.305	.060	-653	.750	.317	.015
-528	.560	.257	.060	-572	.625	.270	.025	-612	.500	.309	.060	-654	.750	.317	.020
-529	.625	.257	.010	-573	.625	.270	.030	-613	.437	.315	.010	-655	.750	.317	.025
-530	.625	.257	.015	-574	.625	.270	.040	-614	.437	.315	.015	-656	.750	.317	.030
-531	.625	.257	.020	-575	.625	.270	.045	-615	.437	.315	.020	-657	.750	.317	.040
-532	.625	.257	.025	-576	.625	.270	.050	-616	.437	.315	.025	-658	.750	.317	.045
-533	.625	.257	.030	-577	.625	.270	.060	-617	.437	.315	.030	-659	.750	.317	.050
-534	.625	.257	.040	-578	.812	.275	.060	-618	.437	.315	.040	-660	.750	.317	.060
-535	.625	.257	.045	-579	.385	.281	.060	-619	.437	.315	.045	-661	.437	.318	.060
-536	.625	.257	.050	-580	.500	.290	.010	-620	.437	.315	.050	-662	.750	.318	.060
-537	.625	.257	.060	-581	.500	.290	.015	-621	.437	.315	.060	-663	.480	.319	.060
-538	.688	.257	.010	-582	.500	.290	.020	-622	.495	.317	.060	-664	.620	.320	.060
-539	.688	.257	.015	-583	.500	.290	.025	-623	.500	.317	.010	-665	.745	.327	.060
-540	.688	.257	.020	-584	.500	.290	.030	-624	.500	.317	.015	-666	.625	.330	.010
-541	.688	.257	.025	-585	.500	.290	.040	-625	.500	.317	.020	-667	.625	.330	.015
-542	.688	.257	.030	-586	.500	.290	.045	-626	.500	.317	.025	-668	.625	.330	.020
-543	.688	.257	.040	-587	.500	.290	.050	-627	.500	.317	.030	-669	.625	.330	.025
-544	.688	.257	.045	-588	.500	.290	.060	-628	.500	.317	.040	-670	.625	.330	.030
-545	.688	.257	.050	-589	.620	.290	.060	-629	.500	.317	.045	-671	.625	.330	.040
-546	.688	.257	.060					-630	.500	.317	.050	-672	.625	.330	.045
-547	.750	.257	.010					-631	.500	.317	.060				
-548	.750	.257	.015												
-549	.750	.257	.020												

(continued next page)

257 I.D. to .330 I.D.

MACHINED FLAT WASHERS (continued)

SEE PAGE 184 FOR AVAILABLE MATERIALS



Part No. FN100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-673	.625	.330	.050	-716	.750	.380	.050	-757	.750	.445	.045	-798	.750	.570	.010
-674	.625	.330	.060	-717	.750	.380	.060	-758	.750	.445	.050	-799	.750	.570	.015
-675	.620	.335	.060	-718	.557	.385	.060	-759	.750	.445	.060	-800	.750	.570	.020
-676	.658	.348	.060	-719	.625	.390	.010	-760	1.000	.445	.060	-801	.750	.570	.025
-677	.540	.378	.060	-720	.625	.390	.015	-761	.575	.447	.060	-802	.750	.570	.030
-678	.495	.380	.060	-721	.625	.390	.020	-762	.620	.447	.060	-803	.750	.570	.040
-679	.500	.380	.010	-722	.625	.390	.025	-763	.866	.504	.060	-804	.750	.570	.045
-680	.500	.380	.015	-723	.625	.390	.030	-764	.688	.505	.010	-805	.750	.570	.050
-681	.500	.380	.020	-724	.625	.390	.040	-765	.688	.505	.015	-806	.750	.570	.060
-682	.500	.380	.025	-725	.625	.390	.045	-766	.688	.505	.020	-807	.995	.570	.060
-683	.500	.380	.030	-726	.625	.390	.050	-767	.688	.505	.025	-808	.869	.626	.060
-684	.500	.380	.040	-727	.625	.390	.060	-768	.688	.505	.030	-809	.840	.630	.060
-685	.500	.380	.045	-728	.625	.400	.010	-769	.688	.505	.040	-810	1.117	.630	.060
-686	.500	.380	.050	-729	.625	.400	.015	-770	.688	.505	.045	-811	.807	.632	.060
-687	.500	.380	.060	-730	.625	.400	.020	-771	.688	.505	.050	-812	.870	.632	.060
-688	.562	.380	.010	-731	.625	.400	.025	-772	.688	.505	.060	-813	.995	.635	.060
-689	.562	.380	.015	-732	.625	.400	.030	-773	.750	.505	.010	-814	.995	.695	.060
-690	.562	.380	.020	-733	.625	.400	.040	-774	.750	.505	.015	-815	.812	.700	.060
-691	.562	.380	.025	-734	.625	.400	.045	-775	.750	.505	.020	-816	1.500	.758	.060
-692	.562	.380	.030	-735	.625	.400	.050	-776	.750	.505	.025	-817	.995	.820	.060
-693	.562	.380	.040	-736	.625	.400	.060	-777	.750	.505	.030	-818	1.088	.850	.060
-694	.562	.380	.045	-737	.620	.400	.060	-778	.750	.505	.040	-819	1.125	.890	.060
-695	.562	.380	.050	-738	.745	.400	.060	-779	.750	.505	.045	-820	1.372	.930	.060
-696	.562	.380	.060	-739	.490	.410	.040	-780	.750	.505	.050	-821	1.372	1.020	.060
-697	.620	.380	.060	-740	.656	.443	.060	-781	.750	.505	.060	-822	1.350	1.300	.060
-698	.625	.380	.010	-741	.625	.445	.010	-782	.682	.508	.060				
-699	.625	.380	.015	-742	.625	.445	.015	-783	.745	.508	.060				
-700	.625	.380	.020	-743	.625	.445	.020	-784	1.000	.509	.060				
-701	.625	.380	.025	-744	.625	.445	.025	-785	.750	.515	.010				
-702	.625	.380	.030	-745	.625	.445	.030	-786	.750	.515	.015				
-703	.625	.380	.040	-746	.625	.445	.040	-787	.750	.515	.020				
-704	.625	.380	.045	-747	.625	.445	.045	-788	.750	.515	.025				
-705	.625	.380	.050	-748	.625	.445	.050	-789	.750	.515	.030				
-706	.625	.380	.060	-749	.625	.445	.060	-790	.750	.515	.040				
-707	.656	.380	.060	-750	.745	.445	.060	-791	.750	.515	.045				
-708	.745	.380	.060					-792	.750	.515	.050				
-709	.750	.380	.010					-793	.750	.515	.060				
-710	.750	.380	.015	-751	.750	.445	.010	-794	.745	.520	.060				
-711	.750	.380	.020	-752	.750	.445	.015	-795	.875	.520	.060				
-712	.750	.380	.025	-753	.750	.445	.020	-796	.803	.533	.060				
-713	.750	.380	.030	-754	.750	.445	.025	-797	.745	.570	.060				
-714	.750	.380	.040	-755	.750	.445	.030								
-715	.750	.380	.045	-756	.750	.445	.040								

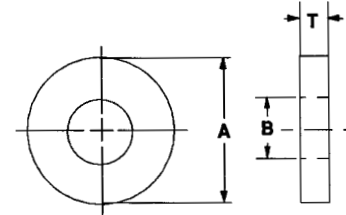
.330 I.D. to 1.300 I.D.

MACHINED LARGE FLAT WASHERS

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN126 - (Size Code No.) - (Thickness Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Size Code No.	O.D. A	I.D. B	Size Code No.	O.D. A	I.D. B
-1	1	.093	-36	1 3/4	.250	-66	2 3/4	.250
-2	1	.125	-37	1 3/4	.375	-67	2 3/4	.312
-3	1	.187	-38	1 3/4	.437	-68	2 3/4	.375
-4	1	.250	-39	1 3/4	.500	-69	2 3/4	.437
-5	1	.375	-40	1 3/4	.625	-70	2 3/4	.500
-6	1	.500	-41	1 3/4	.750	-71	2 3/4	.650
-7	1	.625				-72	2 3/4	.750
-8	1 1/8	.093	-42	2	.250	-73	2 3/4	1.000
-9	1 1/8	.125	-43	2	.315			
-10	1 1/8	.187	-44	2	.375	-74	3	.250
-11	1 1/8	.250	-45	2	.437	-75	3	.312
-12	1 1/8	.375	-46	2	.500	-76	3	.375
-13	1 1/8	.500	-47	2	.625	-77	3	.437
-14	1 1/8	.625	-48	2	.750	-78	3	.500
			-49	2	1.000	-79	3	.650
-15	1 1/4	.093	-50	2 1/4	.250	-80	3	.750
-16	1 1/4	.125	-51	2 1/4	.312	-81	3	1.000
-17	1 1/4	.250	-52	2 1/4	.375			
-18	1 1/4	.375	-53	2 1/4	.437	-82	3 1/2	.250
-19	1 1/4	.437	-54	2 1/4	.500	-83	3 1/2	.312
-20	1 1/4	.500	-55	2 1/4	.625	-84	3 1/2	.375
-21	1 1/4	.625	-56	2 1/4	.750	-85	3 1/2	.437
			-57	2 1/4	1.000	-86	3 1/2	.500
-22	1 3/8	.187				-87	3 1/2	.625
-23	1 3/8	.250	-58	2 1/2	.250	-88	3 1/2	.750
-24	1 3/8	.375	-59	2 1/2	.312	-89	3 1/2	1.000
-25	1 3/8	.437	-60	2 1/2	.375			
-26	1 3/8	.500	-61	2 1/2	.437	-90	4	.375
-27	1 3/8	.625	-62	2 1/2	.500	-91	4	.437
-28	1 3/8	.750	-63	2 1/2	.625	-92	4	.500
			-64	2 1/2	.750	-93	4	.625
-29	1 1/2	.187	-65	2 1/2	1.000	-94	4	.750
-30	1 1/2	.250				-95	4	1.000
-31	1 1/2	.375				-96	4	1.250
-32	1 1/2	.437				-97	4	1.500
-33	1 1/2	.500						
-34	1 1/2	.625						
-35	1 1/2	.750						

Thickness Code No.	Thk.
-1	.010
-2	.020
-3	.032
-4	.040
-5	.050
-6	.060
-7	.070
-8	.080
-9	.093

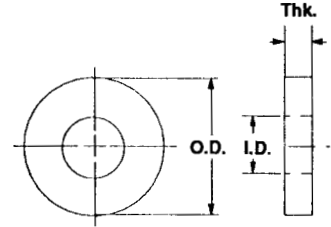
Tolerances:
O.D. +.020 -.000
I.D. +.010 -.000
Thickness +/- .005

Note:
Some of these products may be molded/stamped and tolerances will vary from tolerances listed above. Please call for quote..

MACHINED FLUOROPLASTIC FLAT WASHERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-32	PCTFE	-40	PFA (Teflon®)
-30	Tefzel®	-37	PVDF	-41	Halar®
-31	FEP®				



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-1	.156	.090	.010	-51	.250	.093	.045	-102	.250	.150	.025	-153	.312	.145	.010
-2	.156	.090	.015	-52	.250	.093	.050	-103	.250	.150	.030	-154	.312	.145	.015
-3	.156	.090	.020	-53	.250	.093	.060	-104	.250	.150	.040	-155	.312	.145	.020
-4	.156	.090	.025	-54	.250	.105	.010	-105	.250	.150	.045	-156	.312	.145	.025
-5	.156	.090	.030	-55	.250	.105	.015	-106	.250	.150	.050	-157	.312	.145	.030
-6	.187	.060	.010	-56	.250	.105	.020	-107	.250	.150	.060	-158	.312	.145	.040
-7	.187	.060	.015	-57	.250	.105	.025	-108	.281	.093	.010	-159	.312	.145	.045
-8	.187	.060	.020	-58	.250	.105	.030	-109	.281	.093	.015	-160	.312	.145	.050
-9	.187	.060	.025	-59	.250	.105	.040	-110	.281	.093	.020	-161	.312	.145	.060
-10	.187	.060	.030	-60	.250	.105	.045	-111	.281	.093	.025	-162	.312	.150	.010
-11	.187	.060	.040	-61	.250	.105	.050	-112	.281	.093	.030	-163	.312	.150	.015
-12	.187	.080	.010	-62	.250	.105	.060	-113	.281	.093	.040	-164	.312	.150	.020
-13	.187	.080	.015	-63	.250	.115	.010	-114	.281	.093	.045	-165	.312	.150	.025
-14	.187	.080	.020	-64	.250	.115	.015	-115	.281	.093	.050	-166	.312	.150	.030
-15	.187	.080	.025	-65	.250	.115	.020	-116	.281	.093	.060	-167	.312	.105	.040
-16	.187	.080	.030	-66	.250	.115	.025	-117	.281	.115	.010	-168	.312	.105	.045
-17	.187	.080	.040	-67	.250	.115	.030	-118	.281	.115	.015	-169	.312	.105	.050
-18	.187	.093	.010	-68	.250	.115	.040	-119	.281	.115	.020	-170	.312	.150	.060
-19	.187	.093	.015	-69	.250	.115	.045	-120	.281	.115	.025	-171	.312	.170	.010
-20	.187	.093	.020	-70	.250	.115	.050	-121	.281	.115	.030	-172	.312	.170	.015
-21	.187	.093	.025	-71	.250	.115	.060	-122	.281	.115	.040	-173	.312	.170	.020
-22	.187	.093	.030	-72	.250	.120	.010	-123	.281	.115	.045	-174	.312	.170	.025
-23	.187	.093	.040	-73	.250	.120	.015	-124	.281	.115	.050	-175	.312	.170	.030
-24	.187	.093	.045	-74	.250	.120	.020	-125	.281	.115	.060	-176	.312	.170	.040
-25	.220	.063	.010	-75	.250	.120	.025	-126	.281	.120	.010	-177	.312	.170	.045
-26	.220	.063	.015	-76	.250	.120	.030	-127	.281	.120	.015	-178	.312	.170	.050
-27	.220	.063	.020	-77	.250	.120	.040	-128	.281	.120	.020	-179	.312	.170	.060
-28	.220	.063	.025	-78	.250	.120	.045	-129	.281	.120	.025	-180	.312	.190	.010
-29	.220	.063	.030	-79	.250	.120	.050	-130	.281	.120	.030	-181	.312	.190	.015
-30	.220	.063	.040	-80	.250	.120	.060	-131	.281	.120	.040	-182	.312	.190	.020
-31	.220	.063	.050	-81	.250	.130	.010	-132	.281	.120	.045	-183	.312	.190	.025
-32	.220	.105	.010	-82	.250	.130	.015	-133	.281	.120	.050	-184	.312	.190	.030
-33	.220	.105	.015	-83	.250	.130	.020	-134	.281	.120	.060	-185	.312	.190	.040
-34	.220	.105	.020	-84	.250	.130	.025	-135	.312	.125	.010	-186	.312	.190	.045
-35	.220	.105	.025	-85	.250	.130	.030	-136	.312	.125	.015	-187	.312	.190	.050
-36	.220	.105	.030	-86	.250	.130	.040	-137	.312	.125	.020	-188	.312	.190	.060
-37	.220	.105	.040	-87	.250	.130	.045	-138	.312	.125	.025	-189	.375	.120	.010
-38	.220	.115	.010	-88	.250	.130	.050	-139	.312	.125	.030	-190	.375	.120	.015
-39	.220	.115	.015	-89	.250	.130	.060	-140	.312	.125	.040	-191	.375	.120	.020
-40	.220	.115	.020	-90	.250	.141	.010	-141	.312	.125	.045	-192	.375	.120	.025
-41	.220	.115	.025	-91	.250	.141	.015	-142	.312	.125	.050	-193	.375	.120	.030
-42	.220	.115	.030	-92	.250	.141	.020	-143	.312	.125	.060	-194	.375	.120	.040
-43	.220	.115	.040	-93	.250	.141	.025	-144	.312	.141	.010	-195	.375	.120	.045
-44	.220	.115	.050	-94	.250	.141	.030	-145	.312	.141	.015	-196	.375	.120	.050
-45	.250	.093	.010	-95	.250	.141	.040	-146	.312	.141	.020	-197	.375	.120	.060
-46	.250	.093	.015	-96	.250	.141	.045	-147	.312	.141	.025	-198	.375	.130	.010
-47	.250	.093	.020	-97	.250	.141	.050	-148	.312	.141	.030	-199	.375	.130	.015
-48	.250	.093	.025	-98	.250	.141	.060	-149	.312	.141	.040	-200	.375	.130	.020
-49	.250	.093	.030	-99	.250	.150	.010	-150	.312	.141	.045	-201	.375	.130	.025
-50	.250	.093	.040	-100	.250	.150	.015	-151	.312	.141	.050	-202	.375	.130	.030
				-101	.250	.150	.020	-152	.312	.141	.060				

(continued next page)

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000, Thickness +/- .005

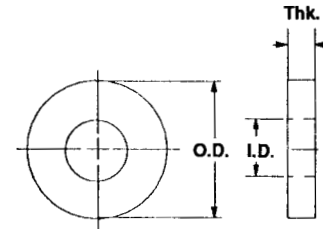
.156 O.D. to .375 O.D.

MACHINED FLUOROPLASTIC FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-32	PCTFE	-40	PFA (Teflon®)
-30	Tefzel®	-37	PVDF	-41	Halar®
-31	FEP®				



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-203	.375	.130	.040	-252	.375	.195	.010	-303	.437	.170	.045	-351	.500	.215	.010
-204	.375	.130	.045	-253	.375	.195	.015	-304	.437	.170	.050	-352	.500	.215	.015
-205	.375	.130	.050	-254	.375	.195	.020	-305	.437	.170	.060	-353	.500	.215	.020
-206	.375	.130	.060	-255	.375	.195	.025	-306	.437	.190	.010	-354	.500	.215	.025
-207	.375	.141	.010	-256	.375	.195	.030	-307	.437	.190	.015	-355	.500	.215	.030
-208	.375	.141	.015	-257	.375	.195	.040	-308	.437	.190	.020	-356	.500	.215	.040
-209	.375	.141	.020	-258	.375	.195	.045	-309	.437	.190	.025	-357	.500	.215	.045
-210	.375	.141	.025	-259	.375	.195	.050	-310	.437	.190	.030	-358	.500	.215	.050
-211	.375	.141	.030	-260	.375	.195	.060	-311	.437	.190	.040	-359	.500	.215	.060
-212	.375	.141	.040	-261	.375	.257	.010	-312	.437	.190	.045	-360	.500	.257	.010
-213	.375	.141	.045	-262	.375	.257	.015	-313	.437	.190	.050	-361	.500	.257	.015
-214	.375	.141	.050	-263	.375	.257	.020	-314	.437	.190	.060	-362	.500	.257	.020
-215	.375	.141	.060	-264	.375	.257	.025	-315	.500	.125	.010	-363	.500	.257	.025
-216	.375	.145	.010	-265	.375	.257	.030	-316	.500	.125	.015	-364	.500	.257	.030
-217	.375	.145	.015	-266	.375	.257	.040	-317	.500	.125	.020	-365	.500	.257	.040
-218	.375	.145	.020	-267	.375	.257	.045	-318	.500	.125	.025	-366	.500	.257	.045
-219	.375	.145	.025	-268	.375	.257	.050	-319	.500	.125	.030	-367	.500	.257	.050
-220	.375	.145	.030	-269	.375	.257	.060	-320	.500	.125	.040	-368	.500	.257	.060
-221	.375	.145	.040	-270	.437	.125	.010	-321	.500	.125	.045	-369	.500	.290	.010
-222	.375	.145	.045	-271	.437	.125	.015	-322	.500	.125	.050	-370	.500	.290	.015
-223	.375	.145	.050	-272	.437	.125	.020	-323	.500	.125	.060	-371	.500	.290	.020
-224	.375	.145	.060	-273	.437	.125	.025	-324	.500	.141	.010	-372	.500	.290	.025
-225	.375	.150	.010	-274	.437	.125	.030	-325	.500	.141	.015	-373	.500	.290	.030
-226	.375	.150	.015	-275	.437	.125	.040	-326	.500	.141	.020	-374	.500	.290	.040
-227	.375	.150	.020	-276	.437	.125	.045	-327	.500	.141	.025	-375	.500	.290	.045
-228	.375	.150	.025	-277	.437	.125	.050	-328	.500	.141	.030	-376	.500	.290	.050
-229	.375	.150	.030	-278	.437	.125	.060	-329	.500	.141	.040	-377	.500	.290	.060
-230	.375	.150	.040	-279	.437	.141	.010	-330	.500	.141	.045	-378	.500	.305	.010
-231	.375	.150	.045	-280	.437	.141	.015	-331	.500	.141	.050	-379	.500	.305	.015
-232	.375	.150	.050	-281	.437	.141	.020	-332	.500	.141	.060	-380	.500	.305	.020
-233	.375	.150	.060	-282	.437	.141	.025	-333	.500	.145	.010	-381	.500	.305	.025
-234	.375	.160	.010	-283	.437	.141	.030	-334	.500	.145	.015	-382	.500	.305	.030
-235	.375	.160	.015	-284	.437	.141	.040	-335	.500	.145	.020	-383	.500	.305	.040
-236	.375	.160	.020	-285	.437	.141	.045	-336	.500	.145	.025	-384	.500	.305	.045
-237	.375	.160	.025	-286	.437	.141	.050	-337	.500	.145	.030	-385	.500	.305	.050
-238	.375	.160	.030	-287	.437	.141	.060	-338	.500	.145	.040	-386	.500	.305	.060
-239	.375	.160	.040	-288	.437	.145	.010	-339	.500	.145	.045	-387	.500	.317	.010
-240	.375	.160	.045	-289	.437	.145	.015	-340	.500	.145	.050	-388	.500	.317	.015
-241	.375	.160	.050	-290	.437	.145	.020	-341	.500	.145	.060	-389	.500	.317	.020
-242	.375	.160	.060	-291	.437	.145	.025	-342	.500	.200	.010	-390	.500	.317	.025
-243	.375	.170	.010	-292	.437	.145	.030	-343	.500	.200	.015	-391	.500	.317	.030
-244	.375	.170	.015	-293	.437	.145	.040	-344	.500	.200	.020	-392	.500	.317	.040
-245	.375	.170	.020	-294	.437	.145	.045	-345	.500	.200	.025	-393	.500	.317	.045
-246	.375	.170	.025	-295	.437	.145	.050	-346	.500	.200	.030	-394	.500	.317	.050
-247	.375	.170	.030	-296	.437	.145	.060	-347	.500	.200	.040	-395	.500	.317	.060
-248	.375	.170	.040	-297	.437	.170	.010	-348	.500	.200	.045	-396	.500	.380	.010
-249	.375	.170	.045	-298	.437	.170	.015	-349	.500	.200	.050	-397	.500	.380	.015
-250	.375	.170	.050	-299	.437	.170	.020	-350	.500	.200	.060	-398	.500	.380	.020
-251	.375	.170	.060	-300	.437	.170	.025					-399	.500	.380	.025
				-301	.437	.170	.030					-400	.500	.380	.030
				-302	.437	.170	.040								

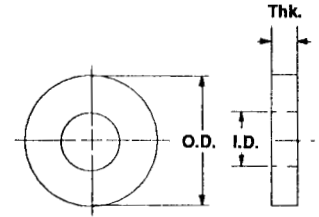
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Tolerances: O.D. +.020 -.000, I.D. +.010 -.000,
Thickness +/- .005

.375 O.D. to .500 O.D.

MACHINED FLUOROPLASTIC FLAT WASHERS (continued)

SEE PAGE 188 FOR AVAILABLE MATERIALS



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-401	.500	.380	.040	-450	.560	.257	.010	-500	.625	.290	.040	-549	.625	.445	.010
-402	.500	.380	.045	-451	.560	.257	.015	-501	.625	.290	.045	-550	.625	.445	.015
-403	.500	.380	.050	-452	.560	.257	.020	-502	.625	.290	.050	-551	.625	.445	.020
-404	.500	.380	.060	-453	.560	.257	.025	-503	.625	.290	.060	-552	.625	.445	.025
-405	.437	.195	.010	-454	.560	.257	.030	-504	.625	.317	.010	-553	.625	.445	.030
-406	.437	.195	.015	-455	.560	.257	.040	-505	.625	.317	.015	-554	.625	.445	.040
-407	.437	.195	.020	-456	.560	.257	.045	-506	.625	.317	.020	-555	.625	.445	.045
-408	.437	.195	.025	-457	.560	.257	.050	-507	.625	.317	.025	-556	.625	.445	.050
-409	.437	.195	.030	-458	.560	.257	.060	-508	.625	.317	.030	-557	.625	.445	.060
-410	.437	.195	.040	-459	.562	.317	.010	-509	.625	.317	.040	-558	.688	.155	.010
-411	.437	.195	.045	-460	.562	.317	.015	-510	.625	.317	.045	-559	.688	.155	.015
-412	.437	.195	.050	-461	.562	.317	.020	-511	.625	.317	.050	-560	.688	.155	.020
-413	.437	.195	.060	-462	.562	.317	.025	-512	.625	.317	.060	-561	.688	.155	.025
-414	.437	.200	.010	-463	.562	.317	.030	-513	.625	.330	.010	-562	.688	.155	.030
-415	.437	.200	.015	-464	.562	.317	.040	-514	.625	.330	.015	-563	.688	.155	.040
-416	.437	.200	.020	-465	.562	.317	.045	-515	.625	.330	.020	-564	.688	.155	.045
-417	.437	.200	.025	-466	.562	.317	.050	-516	.625	.330	.025	-565	.688	.155	.050
-418	.437	.200	.030	-467	.562	.317	.060	-517	.625	.330	.030	-566	.688	.155	.060
-419	.437	.200	.040	-468	.562	.380	.010	-518	.625	.330	.040	-567	.688	.257	.010
-420	.437	.200	.045	-469	.562	.380	.015	-519	.625	.330	.045	-568	.688	.257	.015
-421	.437	.200	.050	-470	.562	.380	.020	-520	.625	.330	.050	-569	.688	.257	.020
-422	.437	.200	.060	-471	.562	.380	.025	-521	.625	.330	.060	-570	.688	.257	.025
-423	.437	.205	.010	-472	.562	.380	.030	-522	.625	.380	.010	-571	.688	.257	.030
-424	.437	.205	.015	-473	.562	.380	.040	-523	.625	.380	.015	-572	.688	.257	.040
-425	.437	.205	.020	-474	.562	.380	.045	-524	.625	.380	.020	-573	.688	.257	.045
-426	.437	.205	.025	-475	.562	.380	.050	-525	.625	.380	.025	-574	.688	.257	.050
-427	.437	.205	.030	-476	.562	.380	.060	-526	.625	.380	.030	-575	.688	.257	.060
-428	.437	.205	.040	-477	.625	.257	.010	-527	.625	.380	.040	-576	.688	.505	.010
-429	.437	.205	.045	-478	.625	.257	.015	-528	.625	.380	.045	-577	.688	.505	.015
-430	.437	.205	.050	-479	.625	.257	.020	-529	.625	.380	.050	-578	.688	.505	.020
-431	.437	.205	.060	-480	.625	.257	.025	-530	.625	.380	.060	-579	.688	.505	.025
-432	.437	.257	.010	-481	.625	.257	.030	-531	.625	.390	.010	-580	.688	.505	.030
-433	.437	.257	.015	-482	.625	.257	.040	-532	.625	.390	.015	-581	.688	.505	.040
-434	.437	.257	.020	-483	.625	.257	.045	-533	.625	.390	.020	-582	.688	.505	.045
-435	.437	.257	.025	-484	.625	.257	.050	-534	.625	.390	.025	-583	.688	.505	.050
-436	.437	.257	.030	-485	.625	.257	.060	-535	.625	.390	.030	-584	.688	.505	.060
-437	.437	.257	.040	-486	.625	.270	.010	-536	.625	.390	.040	-585	.750	.195	.010
-438	.437	.257	.045	-487	.625	.270	.015	-537	.625	.390	.045	-586	.750	.195	.015
-439	.437	.257	.050	-488	.625	.270	.020	-538	.625	.390	.050	-587	.750	.195	.020
-440	.437	.257	.060	-489	.625	.270	.025	-539	.625	.390	.060	-588	.750	.195	.025
-441	.437	.315	.010	-490	.625	.270	.030	-540	.625	.400	.010	-589	.750	.195	.030
-442	.437	.315	.015	-491	.625	.270	.040	-541	.625	.400	.015	-590	.750	.195	.040
-443	.437	.315	.020	-492	.625	.270	.045	-542	.625	.400	.020	-591	.750	.195	.045
-444	.437	.315	.025	-493	.625	.270	.050	-543	.625	.400	.025	-592	.750	.195	.050
-445	.437	.315	.030	-494	.625	.270	.060	-544	.625	.400	.030	-593	.750	.195	.060
-446	.437	.315	.040	-495	.625	.290	.010	-545	.625	.400	.040	-594	.750	.200	.010
-447	.437	.315	.045	-496	.625	.290	.015	-546	.625	.400	.045	-595	.750	.200	.015
-448	.437	.315	.050	-497	.625	.290	.020	-547	.625	.400	.050	-596	.750	.200	.020
-449	.437	.315	.060	-498	.625	.290	.025	-548	.625	.400	.060	-597	.750	.200	.025
-499				-499	.625	.290	.030								

(continued next page)

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000, Thickness +/- .005

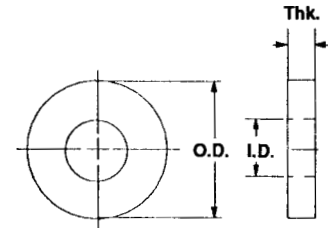
.500 O.D. to .750 O.D.

MACHINED FLUOROPLASTIC FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-32	PCTFE	-40	PFA (Teflon®)
-30	Tefzel®	-37	PVDF	-41	Halar®
-31	FEP®				



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-598	.750	.200	.030	-617	.750	.317	.040	-635	.750	.445	.040	-653	.750	.515	.040
-599	.750	.200	.040	-618	.750	.317	.045	-636	.750	.445	.045	-654	.750	.515	.045
-600	.750	.200	.045	-619	.750	.317	.050	-637	.750	.445	.050	-655	.750	.515	.050
-601	.750	.200	.050	-620	.750	.317	.060	-638	.750	.445	.060	-656	.750	.515	.060
-602	.750	.200	.060												
				-621	.750	.380	.010	-639	.750	.505	.010	-657	.750	.570	.010
-603	.750	.257	.010	-622	.750	.380	.015	-640	.750	.505	.015	-658	.750	.570	.015
-604	.750	.257	.015	-623	.750	.380	.020	-641	.750	.505	.020	-659	.750	.570	.020
-605	.750	.257	.020	-624	.750	.380	.025	-642	.750	.505	.025	-660	.750	.570	.025
-606	.750	.257	.025	-625	.750	.380	.030	-643	.750	.505	.030	-661	.750	.570	.030
-607	.750	.257	.030	-626	.750	.380	.040	-644	.750	.505	.040	-662	.750	.570	.040
-608	.750	.257	.040	-627	.750	.380	.045	-645	.750	.505	.045	-663	.750	.570	.045
-609	.750	.257	.045	-628	.750	.380	.050	-646	.750	.505	.050	-664	.750	.570	.050
-610	.750	.257	.050	-629	.750	.380	.060	-647	.750	.505	.060	-665	.750	.570	.060
-611	.750	.257	.060												
-612	.750	.317	.010	-630	.750	.445	.010	-648	.750	.515	.010				
-613	.750	.317	.015	-631	.750	.445	.015	-649	.750	.515	.015				
-614	.750	.317	.020	-632	.750	.445	.020	-650	.750	.515	.020				
-615	.750	.317	.025	-633	.750	.445	.025	-651	.750	.515	.025				
-616	.750	.317	.030	-634	.750	.445	.030	-652	.750	.515	.030				

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000,
Thickness +/- .005

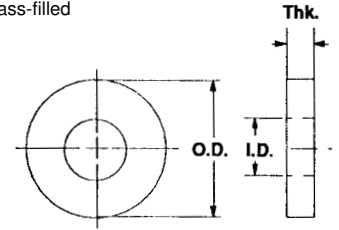
.750 O.D. to .750 O.D.

MACHINED SPECIAL FLAT WASHERS

*Available in other materials. See material list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-41	Halar®
-4	Lexan®, (black)	-28	CPVC	-60	Nylon 6/6, 30% Short Glass-filled
-5	Ultem® 1000	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled
-11	Polypropylene	-32	PCTFE	-77	Ultem® 2300, (natural)
-13	Polyethylene	-33	Polysulfone	-78	Nylon 6/6, (black)
-14	ABS	-35	Noryl®	-213	Vespele®
-15	PEEK™	-37	PVDF	-272	PVC, (white)
-18	Nylon 6/6, (natural)	-38	Fiber Glass G10	-273	PVC, (black)
-23	Nylon Super Tough	-39	UHMW®	-229	Radel® R5000, Polyphenylsulfone
-24	Delrin®, (white)	-40	PFA, (Teflon®)		



Part No. FN110 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-1	.125	.055	.016	-46	.281	.104	.016	-91	.625	.116	.062	-136	.437	.141	.031
-2	.187	.063	.016	-47	.312	.104	.016	-92	.250	.120	.016	-137	.500	.141	.031
-3	.218	.063	.016	-48	.180	.104	.025	-93	.281	.120	.020	-138	.562	.141	.031
-4	.250	.063	.016	-49	.180	.104	.031	-94	.281	.120	.031	-139	.625	.141	.031
-5	.281	.063	.016	-50	.187	.104	.031	-95	.281	.120	.040	-140	.218	.141	.040
-6	.187	.063	.031	-51	.218	.104	.031	-96	.281	.120	.062	-141	.312	.141	.047
-7	.218	.063	.031	-52	.281	.104	.031	-97	.375	.125	.062	-142	.250	.141	.062
-8	.250	.063	.031	-53	.312	.103	.031	-98	.187	.129	.016	-143	.281	.141	.062
-9	.281	.063	.031	-54	.343	.104	.031	-99	.218	.129	.016	-144	.312	.141	.062
-10	.187	.063	.062	-55	.375	.104	.031	-100	.250	.129	.016	-145	.343	.141	.062
-11	.218	.063	.062	-56	.437	.104	.031	-101	.281	.129	.016	-146	.375	.141	.062
-12	.250	.063	.062	-57	.500	.104	.031	-102	.312	.129	.016	-147	.437	.141	.062
-13	.281	.063	.062	-58	.562	.104	.031	-103	.187	.129	.031	-148	.500	.141	.062
-14	.250	.063	.093	-59	.625	.104	.031	-104	.218	.129	.031	-149	.562	.141	.062
-15	.281	.063	.093	-60	.250	.104	.062	-105	.250	.129	.031	-150	.625	.141	.062
-16	.125	.067	.016	-61	.281	.104	.062	-106	.281	.129	.031	-151	.187	.141	.016
-17	.187	.078	.031	-62	.312	.104	.062	-107	.312	.129	.031	-152	.218	.141	.016
-18	.187	.089	.016	-63	.343	.104	.062	-108	.343	.129	.031	-153	.250	.141	.016
-19	.218	.089	.016	-64	.375	.104	.062	-109	.375	.129	.031	-154	.281	.141	.016
-20	.250	.089	.016	-65	.437	.104	.062	-110	.437	.129	.031	-155	.312	.141	.016
-21	.281	.089	.016	-66	.500	.104	.062	-111	.500	.129	.031	-156	.343	.141	.016
-22	.312	.089	.016	-67	.562	.104	.062	-112	.562	.129	.031	-158	.375	.141	.016
-23	.187	.089	.031	-68	.625	.104	.062	-113	.625	.129	.031	-157	.437	.141	.016
-24	.250	.089	.031	-69	.250	.109	.031	-114	.218	.129	.040	-159	.500	.141	.016
-25	.281	.089	.031	-70	.187	.116	.016	-115	.312	.129	.047	-160	.562	.141	.016
-26	.312	.089	.031	-71	.218	.116	.016	-116	.250	.129	.062	-161	.625	.141	.016
-27	.343	.089	.031	-72	.281	.116	.016	-117	.281	.129	.062	-162	.312	.141	.047
-28	.375	.089	.031	-73	.312	.116	.016	-118	.312	.129	.062	-163	.250	.141	.062
-29	.437	.089	.031	-74	.187	.116	.031	-119	.343	.129	.062	-164	.281	.141	.062
-30	.500	.089	.031	-75	.218	.116	.031	-120	.375	.129	.062	-165	.312	.141	.062
-31	.562	.089	.031	-76	.250	.116	.031	-121	.437	.129	.062	-166	.343	.141	.062
-32	.625	.089	.031	-77	.312	.116	.031	-122	.500	.129	.062	-167	.375	.141	.062
-33	.218	.089	.062	-78	.343	.116	.031	-123	.562	.129	.062	-168	.437	.141	.062
-34	.250	.089	.062	-79	.375	.116	.031	-124	.625	.129	.062	-169	.500	.141	.062
-35	.281	.089	.062	-80	.437	.116	.031	-125	.187	.141	.016	-170	.562	.141	.062
-36	.343	.089	.062	-81	.500	.116	.031	-126	.218	.141	.016	-171	.625	.141	.062
-37	.375	.089	.062	-82	.562	.116	.031	-127	.250	.141	.016	-172	.312	.141	.093
-38	.218	.093	.031	-83	.625	.116	.031	-128	.281	.141	.016	-173	.343	.141	.093
-39	.250	.093	.016	-84	.281	.116	.047	-129	.312	.141	.016	-174	.375	.141	.093
-40	.312	.093	.062	-85	.250	.116	.062	-130	.218	.141	.031	-175	.437	.141	.093
-41	.500	.098	.124	-86	.312	.116	.062	-131	.250	.141	.031	-176	.500	.141	.093
-42	.180	.104	.016	-87	.343	.116	.062	-132	.281	.141	.031	-177	.562	.141	.093
-43	.187	.104	.016	-88	.437	.116	.062	-133	.312	.141	.031	-178	.625	.141	.093
-44	.218	.104	.016	-89	.500	.116	.062	-134	.343	.141	.031				
-45	.250	.104	.016	-90	.562	.116	.062	-135	.375	.141	.031				

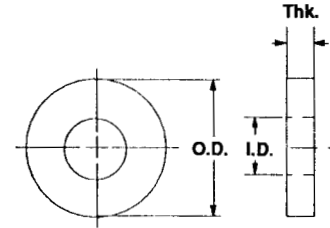
(continued next page)

Tolerances: O.D. +.020 - .000, I.D. +.010 - .000, Thickness +/- .005

.055 I.D. to .141 I.D.

MACHINED SPECIAL FLAT WASHERS (continued)

SEE PAGE 191 FOR AVAILABLE MATERIALS.



Part No. FN110 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-179	.312	.148	.205	-237	.375	.194	.062	-295	.625	.281	.062	-353	1.000	.515	.031
-180	.312	.150	.020	-238	.437	.194	.062	-296	.583	.307	.125	-354	.750	.515	.062
-181	.312	.150	.031	-239	.500	.194	.062	-297	.438	.312	.032	-355	.875	.515	.062
-182	.312	.150	.040	-240	.562	.194	.062	-298	.555	.315	.046	-356	1.000	.515	.062
-183	.312	.150	.050	-241	.625	.194	.062	-299	.500	.317	.020	-357	.750	.515	.093
-184	.312	.150	.062	-242	.687	.194	.062	-300	.500	.317	.031	-358	.875	.515	.093
-185	.312	.156	.031	-243	.750	.194	.062	-301	.562	.317	.031	-359	1.000	.515	.093
-186	.500	.156	.031	-244	.375	.194	.093	-302	.625	.317	.031	-360	.730	.525	.125
-187	.375	.156	.063	-245	.437	.194	.093	-303	.687	.317	.031	-361	.750	.569	.031
-188	.375	.158	.135	-246	.500	.194	.093	-304	.750	.317	.031	-362	.875	.569	.031
-189	.377	.163	.125	-247	.562	.194	.093	-305	.500	.317	.062	-363	1.000	.569	.031
-190	.500	.163	.125	-248	.625	.194	.093	-306	.562	.317	.062	-364	1.125	.569	.031
-191	.625	.165	.125	-249	.687	.194	.093	-307	.625	.317	.062	-365	1.250	.569	.031
-192	.375	.171	.020	-250	.750	.194	.093	-308	.687	.317	.062	-366	.750	.569	.062
-193	.250	.171	.031	-251	.437	.200	.062	-309	.750	.317	.062	-367	.875	.569	.062
-194	.281	.171	.031	-252	.312	.219	.031	-310	.500	.317	.093	-368	1.000	.569	.062
-195	.312	.171	.031	-253	.375	.219	.031	-311	.562	.317	.093	-369	1.125	.569	.062
-196	.343	.171	.031	-254	.437	.219	.031	-312	.625	.317	.093	-370	1.250	.569	.062
-197	.375	.171	.031	-255	.500	.219	.031	-313	.687	.317	.093	-371	.750	.569	.093
-198	.437	.171	.031	-256	.375	.219	.062	-314	.750	.317	.093	-372	.875	.569	.093
-199	.500	.171	.031	-257	.437	.219	.062	-315	.875	.328	.032	-373	1.000	.569	.093
-200	.625	.171	.031	-258	.500	.219	.062	-316	.502	.372	.080	-374	1.125	.569	.093
-201	.375	.171	.040	-259	.437	.219	.093	-317	.562	.377	.056	-375	1.250	.569	.093
-202	.375	.171	.050	-260	.500	.219	.093	-318	.750	.380	.094	-376	.730	.569	.125
-203	.312	.171	.062	-261	.278	.219	.125	-319	.625	.385	.031	-377	.875	.569	.125
-204	.343	.171	.062	-262	.437	.253	.031	-320	.687	.385	.031	-378	1.000	.569	.125
-205	.375	.171	.062	-263	.500	.253	.031	-321	.750	.385	.031	-379	1.125	.569	.125
-206	.437	.171	.062	-264	.562	.253	.031	-322	1.000	.385	.031	-380	1.250	.569	.125
-207	.500	.171	.062	-265	.625	.253	.031	-323	.625	.385	.047	-381	.828	.628	.025
-208	.562	.171	.062	-266	.687	.253	.031	-324	.625	.385	.062	-382	1.015	.640	.075
-209	.625	.171	.062	-267	.750	.253	.031	-325	.687	.385	.062	-383	1.125	.640	.031
-210	.625	.187	.016	-268	.812	.253	.031	-326	.750	.385	.062	-384	1.125	.758	.031
-211	.375	.187	.031	-269	.875	.253	.031	-327	1.000	.385	.062	-385	1.250	.758	.031
-212	.312	.187	.062	-270	.500	.253	.047	-328	.625	.385	.093	-386	1.500	.758	.031
-213	.437	.187	.062	-271	.437	.253	.062	-329	.687	.385	.093	-387	1.125	.758	.062
-214	.375	.187	.093	-272	.500	.253	.062	-330	.750	.385	.093	-388	1.250	.758	.062
-215	.437	.187	.093	-273	.562	.253	.062	-331	1.000	.385	.093	-389	1.500	.758	.062
-216	.500	.187	.093	-274	.625	.253	.062	-332	.609	.391	.047	-390	1.125	.758	.093
-217	.562	.187	.093	-275	.687	.253	.062	-333	.437	.395	.025	-391	1.250	.758	.093
-218	.625	.187	.093	-276	.750	.253	.062	-334	.812	.406	.062	-392	1.500	.758	.093
-219	.318	.190	.124	-277	.812	.253	.062	-335	.687	.443	.031	-393	1.125	.758	.125
-220	.500	.191	.062	-278	.875	.253	.062	-336	.750	.443	.031	-394	1.250	.758	.125
-221	.500	.191	.125	-279	.437	.253	.093	-337	.812	.443	.031	-395	1.500	.758	.125
-222	.625	.191	.062	-280	.500	.253	.093	-338	.875	.443	.031	-396	1.125	.765	.062
-223	.437	.194	.020	-281	.562	.253	.093	-339	.687	.443	.093	-397	1.250	.765	.062
-224	.312	.194	.031	-282	.625	.253	.092	-340	.750	.443	.062	-398	1.250	.765	.093
-225	.343	.194	.031	-283	.687	.253	.093	-341	.812	.443	.062	-399	1.500	.765	.125
-226	.375	.194	.031	-294	.312	.253	.125	-342	.875	.443	.062	-400	1.125	.875	.093
-227	.437	.194	.031	-285	.447	.254	.033	-343	.687	.443	.093				
-228	.500	.194	.031	-286	.625	.255	.187	-344	.750	.443	.093				
-229	.562	.194	.031	-287	.687	.260	.020	-345	.812	.443	.093				
-230	.625	.194	.031	-288	.687	.260	.031	-346	.875	.443	.093				
-231	.687	.194	.031	-289	.875	.260	.031	-347	.521	.450	.148				
-232	.750	.194	.031	-290	.680	.260	.040	-348	.750	.473	.031				
-233	.437	.194	.040	-291	.687	.260	.050	-349	.820	.500	.093				
-234	.437	.194	.050	-292	.562	.260	.062	-350	.750	.515	.031				
-235	.312	.194	.062	-293	.687	.260	.062	-351	.828	.515	.025				
-236	.343	.194	.062	-294	.437	.265	.062	-352	.875	.515	.031				

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000, Thickness +/- .005

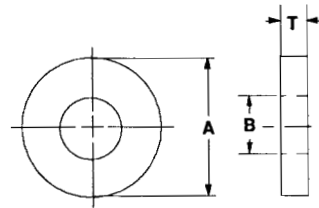
.148 I.D. to .875 I.D.

*Available in other materials. See material list in index.
Other sizes available on request.

MACHINED SPECIAL FLAT WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-24	Delrin®	-60	Nylon 6/6, 30% Short Glass-filled
-11	Polypropylene	-27	PVC	-77	Ultem® 2300, (natural)
-13	Polyethylene	-28	CPVC	-78	Nylon 6/6, (black)
-14	ABS	-32	PCTFE	-229	Radel® R5000, Polyphenylsulfone
-15	PEEK™	-37	PVDF		
-18	Nylon 6/6, (natural)	-40	PFA, (Teflon®)		



Part No. G1200 - (Size Code No.) - (Material Code No.)

Size Code No.	I.D. B	O.D. A	Thick T	Screw Size	Size Code No.	I.D. B	O.D. A	Thick T	Screw Size
-1	.031	.125	.020	-	-11	.189	.318	.125	#10
-2	.062	.250	.093	#0	-12	.200	.437	.062	#10
-3	.115	.281	.047	#4	-13	.218	.273	.125	-
-4	.140	.312	.047	#6	-14	.253	.312	.125	1/4
-5	.140	.500	.032	#6	-15	.255	.437	.062	1/4
-6	.158	3/8	.135	-	-16	.260	.562	.062	1/4
-7	.163	.377	.125	-	-17	.307	.583	1/8	-
-8	.163	.500	.125	-	-18	.406	.812	.062	-
-9	.165	.625	.125	#8	-19	.525	.730	.125	1/2
-10	.170	.375	.062	#8	-20	.562	.750	.125	9/16

MACHINED FINISHING WASHERS

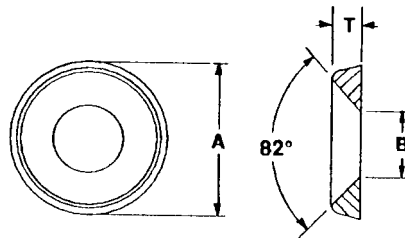
*Available in other materials. See materials list in index.
 Other sizes available on request.
 See MOLDED FINISHING WASHERS for additional sizes starting on page 122.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-18	Nylon 6/6, (natural)	-40	PFA, (Teflon®)
-11	Polypropylene	-24	Delrin®	-60	Nylon 6/6, 30% Short Glass-filled
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)
-14	ABS	-37	PVDF	-78	Nylon 6/6, (black)

Part No. F130 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thick T	Screw Size
-1	.437	.143	.100	#6
-2	.515	.171	.115	#8
-3	.580	.191	.152	#10
-4	.683	.260	.183	1/4



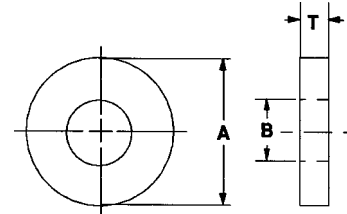
MACHINED HIGH TECHNOLOGY PLASTIC METRIC FLAT WASHERS

*Available in other materials. See material list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	Vespel®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

ALL DIMENSIONS GIVEN IN MILLIMETERS



Part No. GA117 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	T	Size Code No.	Thread Size	A	B	T
-1*	M1,6	4,00	1,70	0,30	-19	M6	12,00	6,40	1,50
-2*	M1,7	4,50	1,80	0,30	-20*	M6	12,00	6,40	1,60
-3	M2	5,00	2,15	0,80	-21*	M7	14,00	7,40	1,60
-4*	M2	5,00	2,20	0,30	-22*	M8	16,00	8,40	1,60
-5*	M2,3	6,00	2,50	0,50	-23	M8	18,00	8,40	2,00
-6	M2,5	5,60	2,65	0,80	-24	M8,5	25,00	8,50	2,00
-7*	M2,5	6,00	2,70	0,50	-25*	M10	20,00	10,50	2,00
-8*	M2,6	7,00	2,80	0,50	-26	M10	22,00	10,50	2,50
-9*	M3	7,00	3,20	0,50	-27*	M12	24,00	13,00	2,50
-10	M3	8,00	3,20	0,80	-28	M12	25,00	12,00	3,00
-11*	M3,5	8,00	3,70	0,50	-29	M12	25,00	12,50	0,65
-12	M3,5	8,00	3,70	0,80	-30	M14	28,00	14,00	3,00
-13	M4	8,00	4,30	0,80	-31*	M14	28,00	15,00	2,50
-14*	M4	9,00	4,30	0,80	-32*	M16	30,00	17,00	3,00
-15	M5	8,50	5,50	2,00	-33	M16	28,00	16,00	3,00
-16*	M5	10,00	5,30	1,00	-34	M18	30,00	18,00	4,00
-17	M5	11,00	5,30	1,00	-35*	M18	34,00	19,00	3,00
-18	M6	10,00	6,00	6,00	-36*	M20	37,00	21,00	3,00

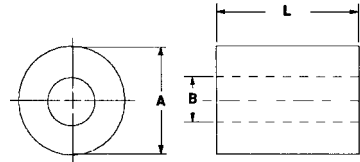
* Denotes manufactured to DIN 125, Part 1, March 1990.

Parts are made to DIN dimensions. Materials are selected by customer.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-31	FEP	-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Flame Retardant
-15	PEEK™	-32	PCTFE	-62	Acetal		
-27	PVC	-37	PVDF	-60	Nylon 6/6, 30% Short Glass-filled		
-28	CPVC	-38	G-10 Fiber Glass	-194	Nylon 46, 30% Glass-filled, Heat Stabilized		
-29	Teflon®	-40	Teflon®, (PFA)				



ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-1	.125	.030	.250	-47	.250	.100	.127	-94	.312	.115	.187
-2	.187	.042	.135	-48	.375	.105	.110	-95	.312	.115	.250
-3	.187	.042	.320	-49	.187	.115	.125	-96	.312	.115	.312
-4	.612	.060	.235	-50	.187	.115	.156	-97	.312	.115	.375
-5	.125	.063	.187	-51	.187	.115	.187	-98	.312	.115	.437
-6	.187	.067	.140	-52	.187	.115	.225	-99	.312	.115	.500
-7	.250	.075	.185	-53	.187	.115	.250	-100	.312	.115	.562
-8	.145	.078	.312	-54	.187	.115	.312	-101	.312	.115	.625
-9	.125	.090	.437	-56	.187	.115	.375	-102	.312	.115	.687
-10	.187	.091	.125	-57	.187	.115	.437	-103	.312	.115	.750
-11	.187	.091	.187	-58	.187	.115	.500	-104	.312	.115	.812
-12	.187	.091	.250	-59	.187	.115	.562	-105	.312	.115	.875
-13	.187	.091	.312	-60	.187	.115	.625	-106	.312	.115	.937
-14	.187	.091	.375	-61	.187	.115	.687	-107	.312	.115	1.000
-15	.187	.091	.437	-62	.187	.115	.750	-108	.312	.115	1.062
-16	.187	.091	.500	-63	.187	.115	.812	-109	.312	.115	1.125
-17	.187	.091	.562	-64	.187	.115	.875	-110	.312	.115	1.187
-18	.187	.091	.625	-65	.187	.115	.937	-111	.312	.115	1.250
-19	.187	.091	.687	-66	.187	.115	1.000	-112	.312	.115	1.312
-20	.187	.091	.750	-67	.225	.115	.145	-113	.312	.115	1.375
-21	.187	.091	.812	-68	.250	.115	.125	-114	.312	.115	1.437
-22	.187	.091	.844	-69	.250	.115	.187	-115	.312	.115	1.500
-23	.187	.091	.875	-70	.250	.115	.218	-116	.375	.115	.812
-24	.187	.091	.937	-71	.250	.115	.250	-117	.375	.115	1.062
-25	.187	.091	1.000	-72	.250	.115	.312	-118	.365	.120	.120
-26	.250	.091	.125	-73	.250	.115	.375	-119	.470	.120	.359
-27	.250	.091	.187	-74	.250	.115	.437	-120	.490	.120	.110
-28	.250	.091	.250	-75	.250	.115	.500	-121	.193	.125	.250
-29	.250	.091	.312	-76	.250	.115	.562	-122	.216	.125	.135
-30	.250	.091	.375	-77	.250	.115	.625	-123	.250	.125	.125
-31	.250	.091	.437	-78	.250	.115	.687	-124	.250	.125	.187
-32	.250	.091	.500	-79	.250	.115	.750	-125	.250	.125	.250
-33	.250	.091	.562	-80	.250	.115	.812	-126	.250	.125	.312
-34	.250	.091	.625	-81	.250	.115	.875	-127	.250	.125	.375
-35	.250	.091	.687	-82	.250	.115	.937	-128	.250	.125	.415
-36	.250	.091	.750	-83	.250	.115	1.000	-129	.250	.125	.437
-37	.250	.091	.812	-84	.250	.115	1.062	-130	.250	.125	.500
-38	.250	.091	.875	-85	.250	.115	1.125	-131	.250	.125	.625
-39	.250	.091	.937	-86	.250	.115	1.187	-132	.250	.125	.715
-40	.250	.091	1.000	-87	.250	.115	1.250	-133	.250	.125	.750
-41	.192	.093	.203	-88	.250	.115	1.312	-134	.250	.125	1.000
-42	.375	.094	.281	-89	.250	.115	1.375	-135	.280	.125	.297
-43	.145	.095	.390	-90	.250	.115	1.437	-136	.305	.125	.155
-44	.312	.095	.250	-91	.250	.115	1.500	-137	.312	.125	.125
-45	.160	.100	.406	-92	.251	.115	.531				
-46	.200	.100	.125	-93	.312	.115	.125				

(continued next page)

Tolerances on all dimensions +/- .010

.030 I.D. to .125 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

*Available in other materials.
See materials list in index.
Other sizes available on request.

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-138	.312	.125	.187	-196	.312	.140	.312	-253	.500	.140	.937
-139	.312	.125	.250	-197	.312	.140	.375	-254	.500	.140	1.000
-140	.312	.125	.312	-198	.312	.140	.437	-255	.250	.141	.281
-141	.312	.125	.375	-199	.312	.140	.500	-256	.375	.141	.156
-142	.312	.125	.437	-200	.312	.140	.562	-257	.200	.145	.171
-143	.312	.125	.500	-201	.312	.140	.625	-258	.215	.145	.328
-144	.375	.125	.125	-202	.312	.140	.687	-259	.230	.147	.475
-145	.375	.125	.187	-203	.312	.140	.750	-260	.250	.147	.062
-146	.375	.125	.250	-204	.312	.140	.812	-261	.250	.147	.125
-147	.375	.125	.312	-205	.312	.140	.875	-262	.250	.147	.187
-148	.375	.125	.375	-206	.312	.140	1.000	-263	.250	.147	.215
-149	.375	.125	.437	-207	.312	.140	1.062	-264	.250	.147	.250
-150	.375	.125	.500	-208	.312	.140	1.125	-265	.250	.147	.297
-151	.437	.125	.125	-209	.312	.140	1.187	-266	.250	.147	.312
-152	.437	.125	.250	-210	.312	.140	1.250	-267	.250	.147	.375
-153	.437	.125	.312	-211	.312	.140	1.312	-268	.250	.147	.437
-154	.437	.125	.375	-212	.312	.140	1.375	-269	.250	.147	.500
-155	.437	.125	.437	-213	.312	.140	1.437	-270	.250	.147	.625
-156	.437	.125	.599	-214	.312	.140	1.500	-271	.250	.147	.750
-157	.250	.126	.797	-215	.375	.140	.125	-272	.250	.147	.875
-158	.310	.126	.410	-216	.375	.140	.187	-273	.250	.147	1.000
-159	.203	.130	.281	-217	.375	.140	.250	-274	.312	.147	.125
-160	.255	.130	.190	-218	.375	.140	.312	-275	.312	.147	.187
-161	.375	.131	.220	-219	.375	.140	.375	-276	.312	.147	.250
-162	.220	.138	.656	-220	.375	.140	.437	-277	.312	.147	.312
-163	.187	.140	.125	-221	.375	.140	.500	-278	.312	.147	.375
-165	.218	.140	.156	-222	.375	.140	.562	-279	.312	.147	.437
-166	.250	.140	.125	-223	.375	.140	.625	-280	.312	.147	.500
-167	.250	.140	.160	-224	.375	.140	.687	-281	.312	.147	.625
-168	.250	.140	.187	-225	.375	.140	.750	-282	.312	.147	.750
-169	.250	.140	.210	-226	.375	.140	.812	-283	.312	.147	.875
-170	.250	.140	.250	-227	.375	.140	.875	-284	.312	.147	1.000
-171	.250	.140	.312	-228	.375	.140	.937	-285	.375	.147	.125
-172	.250	.140	.375	-229	.375	.140	1.000	-286	.375	.147	.187
-173	.250	.140	.437	-230	.375	.140	1.062	-287	.375	.147	.250
-174	.250	.140	.500	-231	.375	.140	1.125	-288	.375	.147	.312
-175	.250	.140	.547	-232	.375	.140	1.187	-289	.375	.147	.375
-176	.250	.140	.562	-233	.375	.140	1.250	-290	.375	.147	.437
-177	.250	.140	.625	-234	.375	.140	1.312	-291	.375	.147	.500
-178	.250	.140	.687	-235	.375	.140	1.375	-292	.375	.147	.625
-179	.250	.140	.750	-236	.375	.140	1.437	-293	.375	.147	.750
-180	.250	.140	.812	-237	.375	.140	1.500	-294	.375	.147	.875
-181	.250	.140	.875	-238	.400	.140	.718	-295	.375	.147	1.000
-182	.250	.140	.937	-239	.400	.140	.781	-296	.437	.147	.125
-183	.250	.140	1.000	-240	.500	.140	.125	-297	.437	.147	.187
-184	.250	.140	1.062	-241	.500	.140	.187	-298	.437	.147	.250
-185	.250	.140	1.125	-242	.500	.140	.250	-299	.437	.147	.312
-186	.250	.140	1.187	-243	.500	.140	.312	-300	.437	.147	.375
-187	.250	.140	1.250	-244	.500	.140	.375	-301	.437	.147	.437
-188	.250	.140	1.312	-245	.500	.140	.437	-302	.437	.147	.500
-189	.250	.140	1.375	-246	.500	.140	.500	-303	.437	.147	.625
-190	.250	.140	1.437	-247	.500	.140	.562	-304	.437	.147	.750
-191	.250	.140	1.500	-248	.500	.140	.625	-305	.437	.147	.875
-192	.312	.140	.125	-249	.500	.140	.687	-306	.437	.147	1.000
-193	.312	.140	.187	-250	.500	.140	.750	-307	.490	.150	.425
-194	.312	.140	.250	-251	.500	.140	.812				
-195	.312	.140	.281	-252	.500	.140	.875				

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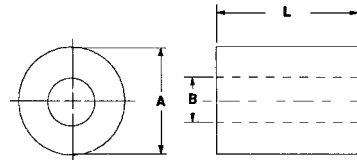
Tolerances on all dimensions +/- .010

.125 I.D. to .150 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-60	Nylon 6/6, 30% Short Glass -filled	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Flame Retardant
-15	PEEK™	-37	PVDF				
-27	PVC	-38	G-10 Fiber Glass	-194	Nylon 46, 30% Glass-filled, Heat Stabilized		
-28	CPVC	-40	Teflon®, (PFA)				
-29	Teflon®	-46	Polycarbonate				
-31	FEP	-62	Acetal				



ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-308	.510	.150	.310	-354	.312	.171	1.062	-400	.500	.171	.312
-309	.393	.151	.250	-355	.312	.171	1.125	-401	.500	.171	.375
-310	.251	.152	.156	-356	.312	.171	1.187	-402	.500	.171	.437
-311	.230	.155	.125	-357	.312	.171	1.250	-403	.500	.171	.500
-312	.687	.156	.125	-358	.312	.171	1.312	-404	.500	.171	.562
-313	.500	.158	.187	-359	.312	.171	1.375	-405	.500	.171	.625
-314	.377	.163	.125	-360	.312	.171	1.437	-406	.500	.171	.687
-315	.250	.165	.155	-361	.312	.171	1.500	-407	.500	.171	.750
-316	.375	.165	.100	-362	.375	.171	.125	-408	.500	.171	.812
-317	.500	.165	.165	-363	.375	.171	.187	-409	.500	.171	.875
-318	.570	.165	.250	-364	.375	.171	.203	-410	.500	.171	.937
-319	.605	.165	.370	-365	.375	.171	.250	-411	.500	.171	1.000
-320	.393	.169	.234	-366	.375	.171	.312	-412	.375	.174	.812
-321	.270	.170	.135	-367	.375	.171	.375	-413	.270	.175	.130
-322	.350	.170	.250	-368	.375	.171	.437	-414	.330	.183	.410
-323	.221	.171	.562	-369	.375	.171	.500	-415	.750	.185	.125
-324	.250	.171	.125	-370	.375	.171	.562	-416	.235	.187	.200
-325	.250	.171	.187	-371	.375	.171	.625	-417	.312	.187	.215
-326	.250	.171	.250	-372	.375	.171	.687	-418	.625	.187	.125
-327	.250	.171	.312	-373	.375	.171	.750	-419	1.312	.187	.562
-328	.250	.171	.375	-374	.375	.171	.812	-420	.312	.188	.312
-329	.250	.171	.437	-375	.375	.171	.875	-421	.316	.188	.203
-330	.250	.171	.500	-376	.375	.171	.937	-422	.250	.190	.280
-331	.250	.171	.562	-377	.375	.171	1.000	-423	.310	.190	.410
-332	.250	.171	.625	-378	.375	.171	1.062	-424	.330	.190	.410
-333	.250	.171	.687	-379	.375	.171	1.125	-425	.463	.190	.312
-334	.250	.171	.750	-380	.375	.171	1.187	-426	.495	.190	.415
-335	.250	.171	.812	-381	.375	.171	1.250	-427	.495	.190	.500
-336	.250	.171	.875	-382	.375	.171	1.312	-428	.495	.190	.620
-337	.250	.171	.937	-383	.375	.171	1.375	-429	.500	.190	.250
-338	.250	.171	1.000	-384	.375	.171	1.437	-430	.500	.190	1.740
-339	.312	.171	.125	-385	.375	.171	1.500	-431	.570	.190	.275
-340	.312	.171	.187	-386	.437	.171	.125	-432	.475	.191	.328
-341	.312	.171	.250	-387	.437	.171	.187	-433	.625	.191	.250
-342	.312	.171	.312	-388	.437	.171	.250	-434	.250	.192	.145
-343	.312	.171	.375	-389	.437	.171	.312	-435	.380	.192	.940
-344	.312	.171	.437	-390	.437	.171	.375	-436	.725	.192	.125
-345	.312	.171	.500	-391	.437	.171	.437	-437	.312	.194	.125
-346	.312	.171	.562	-392	.437	.171	.500	-438	.312	.194	.187
-347	.312	.171	.625	-393	.437	.171	.625	-439	.312	.194	.250
-348	.312	.171	.687	-394	.437	.171	.750	-440	.312	.194	.312
-349	.312	.171	.750	-395	.437	.171	.875	-441	.312	.194	.375
-350	.312	.171	.812	-396	.437	.171	1.000	-442	.312	.194	.437
-351	.312	.171	.875	-397	.500	.171	.125	-443	.312	.194	.500
-352	.312	.171	.937	-398	.500	.171	.187				
-353	.312	.171	1.000	-399	.500	.171	.250				

(continued next page)

Tolerances on all dimensions +/- .010

.150 I.D. to .194 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

*Available in other materials.
See materials list in index.
Other sizes available on request.

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-444	.312	.194	.562	-501	.260	.200	.594	-558	.750	.200	.125
-445	.312	.194	.625	-502	.312	.200	.125	-559	.609	.202	.250
-446	.312	.194	.687	-503	.312	.200	.187	-560	.375	.203	.109
-447	.312	.194	.750	-504	.312	.200	.250	-561	.375	.203	.266
-448	.312	.194	.812	-505	.312	.200	.312	-562	.606	.203	.625
-449	.312	.194	.875	-506	.312	.200	.375	-563	.750	.203	.340
-450	.312	.194	.937	-507	.312	.200	.437	-564	.825	.203	.625
-451	.312	.194	1.000	-508	.312	.200	.500	-565	.430	.205	.250
-452	.312	.194	1.062	-509	.312	.200	.625	-566	.300	.210	.135
-453	.312	.194	1.125	-510	.312	.200	.750	-567	.375	.218	.125
-454	.312	.194	1.187	-511	.312	.200	.875	-568	.312	.219	.437
-455	.312	.194	1.250	-512	.312	.200	1.000	-569	.375	.219	.250
-456	.312	.194	1.312	-513	.375	.200	.125	-570	.500	.219	.125
-457	.312	.194	1.375	-514	.375	.200	.187	-571	.500	.219	.187
-458	.312	.194	1.437	-515	.375	.200	.250	-572	.500	.219	.250
-459	.312	.194	1.500	-516	.375	.200	.312	-573	.500	.219	.312
-460	.375	.194	.125	-517	.375	.200	.375	-574	.500	.219	.375
-461	.375	.194	.187	-518	.375	.200	.437	-575	.500	.219	.437
-462	.375	.194	.250	-519	.375	.200	.500	-576	.500	.219	.500
-463	.375	.194	.312	-520	.375	.200	.625	-577	.500	.219	.562
-464	.375	.194	.375	-521	.375	.200	.750	-578	.500	.219	.625
-465	.375	.194	.437	-522	.375	.200	.875	-577	.500	.219	.562
-466	.375	.194	.500	-523	.375	.200	1.000	-578	.500	.219	.625
-467	.375	.194	.562	-524	.437	.200	.125	-579	.500	.219	.687
-468	.375	.194	.625	-525	.437	.200	.187	-580	.500	.219	.750
-469	.375	.194	.687	-526	.437	.200	.250	-581	.500	.219	.812
-470	.375	.194	.750	-527	.437	.200	.312	-582	.500	.219	.875
-471	.375	.194	.812	-528	.437	.200	.375	-583	.500	.219	.937
-472	.375	.194	.875	-529	.437	.200	.437	-584	.500	.219	1.000
-473	.375	.194	.938	-530	.437	.200	.500	-585	.375	.220	.375
-474	.375	.194	1.000	-531	.437	.200	.625	-586	.945	.240	.062
-475	.375	.194	1.062	-532	.437	.200	.750	-587	.750	.245	.260
-476	.375	.194	1.125	-533	.437	.200	1.000	-588	.370	.250	.595
-477	.375	.194	1.187	-534	.495	.200	.180	-589	.375	.250	.220
-478	.375	.194	1.250	-535	.500	.200	.125	-590	.375	.250	.340
-479	.375	.194	1.312	-536	.500	.200	.187	-591	.375	.250	.500
-480	.375	.194	1.375	-537	.500	.200	.250	-592	.460	.250	.562
-481	.375	.194	1.437	-538	.500	.200	.312	-593	.490	.250	.220
-482	.375	.194	1.500	-539	.500	.200	.375	-594	.495	.250	.925
-483	.500	.194	.125	-540	.500	.200	.437	-595	.500	.250	.390
-484	.500	.194	.187	-541	.500	.200	.500	-596	.610	.250	.375
-485	.500	.194	.250	-542	.500	.200	.625	-597	.615	.250	.090
-486	.500	.194	.312	-543	.500	.200	.750	-598	.740	.250	.250
-487	.500	.194	.375	-544	.500	.200	.875	-599	.750	.250	.375
-488	.500	.194	.406	-545	.500	.200	1.000	-600	.750	.250	.500
-489	.500	.194	.437	-546	.562	.200	.125	-601	.870	.250	.255
-490	.500	.194	.500	-547	.562	.200	.187	-602	.389	.251	.125
-491	.500	.194	.562	-548	.562	.200	.250	-603	.375	.252	.375
-492	.500	.194	.625	-549	.562	.200	.312	-604	.385	.254	.240
-493	.500	.194	.687	-550	.562	.200	.375	-605	.375	.255	.250
-494	.500	.194	.750	-551	.562	.200	.437	-606	.750	.255	1.500
-495	.500	.194	.812	-552	.562	.200	.500	-607	.610	.256	1.500
-496	.500	.194	.875	-553	.625	.200	.125	-608	.375	.257	1.000
-497	.500	.194	.937	-554	.625	.200	.187	-609	.406	.257	1.000
-498	.500	.194	1.000	-555	.625	.200	.250	-610	.490	.257	.375
-499	.245	.195	.390	-556	.625	.200	.312				
-500	.500	.195	.187	-557	.735	.200	.250				

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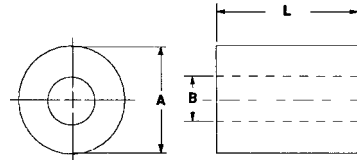
Tolerances on all dimensions +/- .010

.194 I.D. to .257 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-60	Nylon 6/6, 30% Short Glass -filled	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Flame Retardent
-15	PEEK™	-37	PVDF	-194	Nylon 46, 30% Glass-filled, Heat Stabilized		
-27	PVC	-38	G-10 Fiber Glass				
-28	CPVC	-40	Teflon®, (PFA)				
-29	Teflon®	-46	Polycarbonate				
-31	FEP	-62	Acetal				



ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-611	.500	.257	.125	-657	.750	.260	.125	-703	.570	.320	.547
-612	.500	.257	.187	-658	.370	.265	.156	-704	.975	.320	.420
-613	.500	.257	.234	-659	.375	.265	.250	-705	.625	.323	.187
-614	.500	.257	.250	-660	.375	.265	.375	-706	.390	.325	.240
-615	.500	.257	.312	-661	.375	.265	.500	-707	.450	.325	.422
-616	.500	.257	.375	-662	.375	.265	.750	-708	.500	.328	1.000
-617	.500	.257	.437	-663	.375	.265	.875	-709	.405	.330	.375
-618	.500	.257	.500	-664	.375	.265	1.000	-710	.448	.330	.422
-619	.500	.257	.562	-665	.406	.265	.750	-711	.484	.343	.187
-620	.500	.257	.625	-666	.635	.265	.875	-712	.480	.345	.187
-621	.500	.257	.687	-667	.406	.267	.500	-713	.620	.350	.187
-622	.500	.257	.750	-668	.406	.269	.250	-714	.984	.366	.375
-623	.500	.257	.812	-669	.625	.270	.218	-715	.750	.370	.343
-624	.500	.257	.875	-670	.940	.275	.062	-716	.500	.375	.030
-625	.500	.257	.937	-671	.380	.280	.255	-717	.500	.375	.437
-626	.500	.257	1.000	-672	.500	.280	.250	-718	.500	.375	.625
-627	.500	.257	1.375	-673	.500	.280	.255	-719	.500	.375	.687
-628	.500	.257	1.625	-674	.625	.280	.437	-720	.562	.375	.500
-629	.750	.258	.437	-675	.648	.280	.359	-721	.580	.375	.250
-630	.495	.260	.435	-676	.500	.281	.812	-722	.986	.375	.250
-631	.562	.260	.125	-677	.613	.281	.500	-723	2.000	.375	.500
-632	.562	.260	.187	-678	.615	.281	.812	-724	.500	.378	.750
-633	.562	.260	.250	-679	.625	.281	.750	-725	.560	.379	.375
-634	.562	.260	.312	-680	1.120	.281	.437	-726	.500	.380	.250
-635	.562	.260	.375	-681	.985	.285	.250	-727	.500	.380	.422
-636	.562	.260	.437	-682	.945	.290	.065	-728	.938	.380	.250
-637	.562	.260	.500	-683	.500	.310	.750	-729	.500	.385	.156
-638	.562	.260	.625	-684	.745	.310	.062	-730	.500	.385	1.000
-639	.562	.260	.750	-685	1.000	.310	.125	-731	.740	.385	.203
-640	.562	.260	.875	-686	.623	.311	.812	-732	.625	.386	.609
-641	.562	.260	1.000	-687	.425	.312	1.000	-733	.562	.388	.700
-642	.625	.260	.125	-688	.500	.312	.156	-734	.500	.390	.125
-643	.625	.260	.187	-689	.500	.312	.250	-735	.500	.390	.187
-644	.625	.260	.250	-690	.750	.312	.390	-736	.500	.390	.250
-645	.625	.260	.312	-691	.750	.312	.765	-737	.500	.390	.312
-646	.625	.260	.375	-692	.812	.312	.125	-738	.500	.390	.375
-647	.625	.260	.437	-693	.875	.312	.125	-739	.500	.390	.437
-648	.625	.260	.500	-694	.617	.313	.266	-740	.500	.390	.500
-649	.625	.260	.625	-695	.590	.314	.359	-741	.500	.390	.625
-650	.625	.260	.750	-696	.405	.315	.250	-742	.500	.390	.750
-651	.625	.260	.875	-697	.460	.315	.140	-743	.500	.390	.875
-652	.625	.260	1.000	-698	.750	.315	.100	-744	.500	.390	1.000
-653	.687	.260	.125	-699	.360	.316	.250	-745	.562	.390	.125
-654	.687	.260	.187	-700	.567	.318	.547	-746	.562	.390	.187
-655	.687	.260	.250	-701	.510	.320	.875				
-656	.687	.260	.312	-702	.550	.320	.435				

(continued next page)

Tolerances on all dimensions +/- .010

.2570 I.D. to .390 I.D.

ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

*Available in other materials.
See materials list in index.
Other sizes available on request.

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-747	.562	.390	.250	-804	.750	.460	.250	-862	1.035	.900	.205
-748	.562	.390	.312	-805	.750	.460	.312	-863	1.750	.928	.281
-749	.562	.390	.375	-806	.750	.460	.375	-864	1.250	1.000	.250
-750	.562	.390	.437	-807	.750	.460	.437	-865	1.562	1.031	.187
-751	.562	.390	.500	-808	.750	.460	.500	-866	1.750	1.031	.150
-752	.562	.390	.625	-809	.750	.460	.625	-867	1.750	1.062	.150
-753	.562	.390	.750	-810	.750	.460	.750	-868	1.312	1.078	.750
-754	.562	.390	.875	-811	.750	.460	.875	-869	2.045	1.170	.450
-755	.562	.390	1.000	-812	.750	.460	1.000	-870	1.500	1.187	.359
-756	.625	.390	.125	-813	.750	.485	.310	-871	2.135	1.760	.125
-757	.625	.390	.187	-814	.750	.490	.343				
-758	.625	.390	.250	-815	.618	.500	.484				
-759	.625	.390	.312	-816	.625	.500	.511				
-760	.625	.390	.375	-817	.735	.500	.375				
-761	.625	.390	.437	-818	.987	.500	.375				
-762	.625	.390	.500	-819	1.250	.500	.250				
-763	.625	.390	.625	-820	1.375	.500	.125				
-764	.625	.390	.750	-821	.620	.504	.812				
-765	.625	.390	.875	-822	.718	.504	.385				
-766	.625	.390	1.000	-823	.668	.506	.937				
-767	.687	.390	.125	-824	.620	.507	1.687				
-768	.687	.390	.187	-825	.626	.507	.500				
-769	.687	.390	.250	-826	.775	.507	.250				
-770	.687	.390	.312	-827	.750	.515	.155				
-771	.687	.390	.375	-828	.656	.516	.500				
-772	.687	.390	.437	-829	.803	.520	.500				
-773	.687	.390	.500	-830	.875	.520	.200				
-774	.687	.390	.625	-831	1.000	.525	.500				
-775	.687	.390	.750	-832	.718	.526	.218				
-776	.687	.390	.875	-833	.718	.526	.281				
-777	.687	.390	1.000	-834	.750	.530	.230				
-778	.750	.390	.125	-835	1.000	.530	.125				
-779	.750	.390	.187	-836	.870	.531	.391				
-780	.750	.390	.250	-837	.840	.546	.215				
-781	.750	.390	.312	-838	2.000	.562	.125				
-782	.750	.390	.375	-839	.890	.575	.140				
-783	.870	.395	.130	-840	.750	.580	.820				
-784	1.000	.405	.100	-841	.900	.580	.150				
-785	.625	.425	.875	-842	.700	.600	.140				
-786	.625	.437	.250	-843	1.250	.625	.250				
-787	.625	.440	.125	-844	1.380	.625	.505				
-788	.870	.440	.130	-845	.800	.640	.125				
-789	.570	.450	.030	-846	1.320	.640	.250				
-790	.625	.450	.875	-847	1.040	.650	.170				
-791	.687	.460	.125	-849	1.375	.656	.125				
-792	.687	.460	.187	-850	1.750	.687	.250				
-793	.687	.460	.250	-851	.875	.690	.156				
-794	.687	.460	.312	-852	1.062	.740	.187				
-795	.687	.460	.375	-853	1.250	.750	.250				
-796	.687	.460	.437	-854	1.620	.750	.125				
-797	.687	.460	.500	-855	1.000	.755	.203				
-799	.687	.460	.625	-856	1.000	.760	.165				
-799	.687	.460	.750	-857	1.515	.765	.250				
-800	.687	.460	.875	-858	1.000	.800	.195				
-801	.687	.460	1.000	-859	1.057	.812	.125				
-802	.750	.460	.125	-860	1.312	.812	.562				
-803	.750	.460	.187	-861	1.250	.875	.250				

Tolerances on all dimensions +/- .010

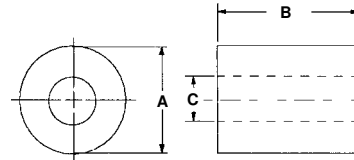
.390 I.D. to 1.760 I.D.

MACHINED FLUOROPLASTIC SPACERS

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-37	PVDF
-30	Tefzel®	-40	PFA, (Teflon®)
-31	FEP®	-41	Halar®
-32	PCTFE		



ROUND SPACERS

Part No. D208 - (Size Code No.) - (Material Code No.)

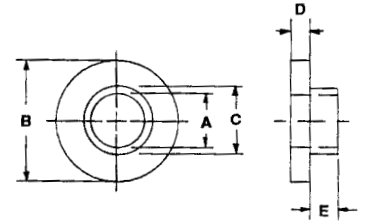
Size Code No.	A	B	C	Screw Size	Size Code No.	A	B	C	Screw Size
-1	.145	.390	.095	#2	-45	.500	.250	.190	#10
-2	.200	.125	.100	#4	-46	.500	.375	.190	#10
-3	.225	.145	.115	#4	-47	.500	.255	.260	#1/4
-4	.230	.125	.155	#6	-48	.500	1.740	.190	#10
-5	.245	.390	.195	#10	-49	.510	.310	.150	#6
-6	.250	.280	.190	#10	-50	.550	.435	.320	#5/16
-7	.250	.185	.075	#2	-51	.570	.250	.165	#8
-8	.250	.155	.165	#8	-52	.570	.275	.190	#10
-9	.250	.715	.125	#4	-53	.570	.030	.450	#7/16
-10	.255	.190	.130	#4	-54	.580	.250	.375	#3/8
-11	.270	.135	.170	#8	-55	.612	.235	.060	—
-12	.270	.130	.175	#8	-56	.605	.370	.165	#8
-13	.300	.135	.210	#10	-57	.615	.090	.250	#1/4
-14	.305	.155	.125	#4	-58	.625	.125	.440	#7/16
-15	.350	.250	.170	#8	-59	.635	.875	.265	#1/4
-16	.350	.062	.180	#8	-60	.700	.140	.600	#9/16
-17	.365	.062	.125	#4	-61	.735	.250	.200	#10
-18	.365	.120	.120	#4	-62	.735	.375	.500	#7/16
-19	.370	.595	.250	#1/4	-63	.745	.062	.310	#5/16
-20	.375	.250	.255	#1/4	-64	.750	.310	.485	#7/16
-21	.375	.100	.165	#8	-65	.750	.820	.580	#9/16
-22	.375	.500	.250	#1/4	-66	.750	1.500	.255	#1/4
-23	.375	.110	.105	#4	-67	.750	.100	.315	#5/16
-24	.375	.340	.250	#1/4	-68	.750	.155	.515	#1/2
-25	.375	.812	.174	#8	-69	.870	.255	.250	#1/4
-26	.380	.255	.280	#1/4	-70	.870	.130	.395	#3/8
-27	.405	.250	.315	#5/16	-71	.870	.130	.440	#7/16
-28	.405	.375	.330	#5/16	-72	.940	.062	.275	#1/4
-29	.425	1.000	.312	#5/16	-73	.945	.062	.240	#12
-30	.430	.250	.205	#10	-74	.945	.065	.290	#1/4
-31	.460	.140	.315	#5/16	-75	.975	.420	.320	#5/16
-32	.490	.220	.250	#1/4	-76	1.000	.195	.800	#3/4
-33	.490	.425	.150	#6	-77	1.000	.165	.760	#3/4
-34	.495	.180	.200	#10	-78	1.000	.100	.405	#3/8
-35	.495	.435	.260	#1/4	-79	1.000	.125	.310	#5/16
-36	.490	.110	.120	#4	-80	1.035	.205	.900	#7/8
-37	.495	.415	.190	#10	-81	1.250	.250	.500	#7/16
-38	.495	.500	.190	#10	-82	1.250	.250	1.000	#1
-39	.495	.620	.190	#10	-83	1.250	.250	.875	#7/8
-40	.495	.925	.250	#1/4	-84	1.250	.250	.625	#5/8
-41	.500	.165	.165	#8	-85	1.250	.250	.750	#3/4
-42	.500	.030	.375	#3/8	-86	1.320	.250	.640	#5/8
-43	.500	.750	.310	#5/16	-87	1.380	.505	.625	#5/8
-44	.500	.187	.195	#10	-88	1.510	.250	.765	#3/4

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1	.046	.187	.140	.015	.015	-46	.093	.250	.152	.031	.025
-2	.055	.250	.125	.028	.028	-47	.093	.250	.152	.062	.025
-3	.055	.344	.125	.016	.060	-48	.093	.250	.157	.046	.046
-4	.061	.105	.084	.047	.047	-49	.093	.250	.185	.031	.025
-5	.063	.156	.090	.031	.025	-50	.093	.250	.185	.062	.025
-6	.063	.156	.092	.013	.017	-51	.093	.265	.157	.026	.015
-7	.063	.156	.122	.031	.025	-52	.093	.281	.158	.094	.125
-8	.063	.187	.090	.031	.025	-53	.093	.289	.215	.062	.062
-9	.063	.187	.119	.031	.078	-54	.093	.312	.122	.031	.025
-10	.063	.187	.119	.031	.187	-55	.093	.312	.122	.062	.025
-11	.063	.187	.122	.031	.025	-56	.093	.312	.152	.031	.025
-12	.063	.187	.125	.025	.030	-57	.093	.312	.152	.062	.025
-13	.063	.187	.125	.040	.020	-58	.093	.312	.185	.031	.025
-14	.063	.250	.090	.031	.025	-59	.093	.312	.185	.062	.025
-15	.063	.250	.122	.031	.025	-60	.093	.317	.183	.060	.030
-16	.063	.250	.156	.032	.075	-61	.093	.375	.122	.031	.025
-17	.075	.197	.118	.031	.281	-62	.093	.375	.122	.062	.025
-18	.076	.297	.124	.230	.125	-63	.093	.375	.152	.031	.025
-19	.076	.230	.140	.230	.020	-64	.093	.375	.152	.062	.025
-20	.078	.215	.150	.031	.050	-65	.093	.375	.185	.031	.025
-21	.080	.500	.305	.031	.047	-66	.093	.375	.185	.062	.025
-22	.083	.240	.123	.018	.022	-67	.093	.437	.185	.031	.025
-23	.083	.240	.135	.018	.022	-68	.093	.437	.185	.062	.025
-24	.085	.182	.131	.062	.031	-69	.095	.189	.119	.062	.031
-25	.085	.182	.131	.078	.031	-70	.095	.250	.187	.047	.672
-26	.089	.187	.119	.031	.016	-71	.095	.260	.154	.016	.016
-27	.093	.140	.115	.015	.004	-72	.097	.312	.160	.047	.016
-28	.093	.187	.122	.025	.031	-73	.098	.218	.170	.062	.031
-29	.093	.187	.122	.062	.025	-74	.098	.240	.150	.031	.031
-30	.093	.195	.120	.031	.062	-75	.098	.312	.138	.031	.020
-31	.093	.200	.120	.031	.062	-76	.099	.312	.128	.031	.031
-32	.093	.205	.125	.031	.078	-77	.100	.228	.138	.047	.031
-33	.093	.205	.125	.031	.109	-78	.100	.250	.114	.047	.031
-34	.093	.205	.125	.031	.187	-79	.100	.250	.114	.047	.094
-35	.093	.218	.122	.031	.025	-80	.101	.218	.152	.031	.025
-36	.093	.218	.122	.062	.025	-81	.101	.218	.152	.062	.025
-37	.093	.218	.152	.031	.025	-82	.101	.224	.152	.038	.062
-38	.093	.218	.152	.062	.025	-83	.101	.234	.123	.062	.031
-39	.093	.219	.154	.033	.008	-84	.101	.250	.152	.031	.025
-40	.093	.228	.122	.031	.031	-85	.101	.250	.152	.062	.025
-41	.093	.234	.124	.020	.007	-86	.101	.250	.160	.034	.078
-42	.093	.250	.122	.062	.025	-87	.101	.250	.171	.031	.015
-43	.093	.250	.122	.031	.025	-88	.101	.250	.185	.031	.025
-44	.093	.250	.124	.031	.025						
-45	.093	.250	.140	.031	.020						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.046 I.D. to .101 I.D.

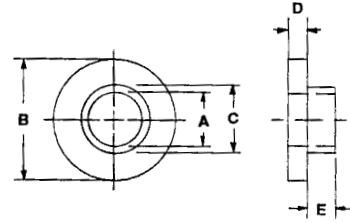
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-89	.101	.250	.185	.031	.050	-134	.112	.325	.140	.145	.185
-90	.101	.250	.185	.062	.025	-135	.112	.350	.300	.016	.171
-91	.101	.250	.185	.062	.050	-136	.113	.215	.139	.065	.035
-92	.101	.296	.203	.055	.055	-137	.113	.250	.140	.046	.046
-93	.101	.312	.152	.031	.025	-138	.113	.245	.150	.062	.018
-94	.101	.312	.152	.062	.025	-139	.113	.250	.143	.047	.047
-95	.101	.312	.165	.062	.063	-140	.113	.250	.187	.032	.032
-96	.101	.312	.185	.031	.025	-141	.113	.312	.203	.031	.062
-97	.101	.312	.185	.031	.050	-142	.113	.375	.244	.062	.020
-98	.101	.312	.185	.062	.025	-143	.114	.240	.135	.062	.047
-99	.101	.312	.185	.062	.050	-144	.114	.240	.138	.062	.047
-100	.101	.312	.216	.031	.025	-145	.115	.235	.132	.125	.047
-101	.101	.312	.216	.031	.050	-146	.115	.200	.136	.020	.030
-102	.101	.312	.216	.062	.025	-147	.115	.210	.137	.039	.032
-103	.101	.312	.216	.062	.050	-148	.115	.200	.140	.031	.031
-104	.101	.375	.152	.031	.025	-149	.115	.203	.140	.047	.031
-105	.101	.375	.152	.062	.025	-150	.115	.216	.135	.047	.031
-106	.101	.375	.185	.031	.025	-151	.115	.218	.135	.047	.031
-107	.101	.375	.185	.031	.050	-152	.115	.234	.147	.047	.047
-108	.101	.375	.185	.062	.025	-153	.115	.235	.137	.047	.031
-109	.101	.375	.185	.062	.050	-154	.115	.235	.140	.047	.094
-110	.101	.375	.187	.070	.062	-155	.115	.235	.145	.047	.094
-111	.101	.375	.203	.020	.020	-156	.115	.235	.145	.047	.125
-112	.101	.375	.216	.031	.025	-157	.115	.235	.145	.047	.250
-113	.101	.375	.216	.031	.050	-158	.115	.240	.139	.047	.031
-114	.101	.375	.216	.062	.025	-159	.115	.242	.140	.047	.109
-115	.101	.375	.216	.062	.050	-160	.115	.242	.140	.047	.125
-116	.101	.437	.185	.031	.025	-161	.115	.250	.143	.031	.062
-117	.101	.437	.185	.031	.050	-162	.115	.250	.145	.047	.109
-118	.101	.437	.185	.062	.025	-163	.115	.250	.145	.047	.140
-119	.101	.437	.185	.062	.050	-164	.115	.250	.145	.047	.171
-120	.101	.437	.216	.031	.025	-165	.115	.250	.150	.171	.218
-121	.101	.437	.216	.031	.050	-166	.115	.250	.156	.047	.047
-122	.101	.437	.216	.062	.025	-167	.115	.281	.175	.031	.062
-123	.101	.437	.216	.062	.050	-168	.115	.312	.149	.062	.062
-124	.101	.500	.216	.031	.025	-169	.115	.312	.187	.062	.016
-125	.101	.500	.216	.031	.050	-170	.115	.315	.150	.062	.031
-126	.101	.500	.216	.062	.025	-171	.115	.343	.185	.062	.025
-127	.101	.500	.216	.062	.050	-172	.115	.368	.146	.078	.203
-128	.102	.250	.169	.031	.062	-173	.115	.370	.145	.078	.203
-129	.109	.200	.138	.031	.047	-174	.116	.250	.185	.050	.062
-130	.110	.235	.135	.047	.156	-175	.116	.250	.185	.112	.062
-131	.111	.250	.124	.047	.016	-176	.116	.250	.187	.031	.062
-132	.112	.200	.134	.030	.031						
-133	.112	.200	.137	.030	.080						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.101 I.D. to .116 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-177	.116	.200	.135	.078	.031	-234	.116	.437	.279	.062	.050
-178	.116	.250	.150	.031	.016	-235	.116	.437	.310	.031	.027
-179	.116	.250	.185	.031	.027	-236	.116	.437	.310	.031	.050
-180	.116	.250	.185	.031	.047	-237	.116	.437	.310	.062	.027
-181	.116	.250	.185	.031	.050	-238	.116	.437	.310	.062	.050
-182	.116	.250	.185	.062	.027	-239	.116	.468	.216	.031	.027
-183	.116	.250	.185	.062	.047	-240	.116	.468	.216	.031	.050
-184	.116	.250	.185	.062	.050	-241	.116	.468	.216	.062	.027
-185	.116	.279	.187	.062	.063	-242	.116	.468	.216	.062	.050
-186	.116	.312	.185	.031	.027	-243	.116	.468	.248	.031	.027
-187	.116	.312	.185	.031	.047	-244	.116	.468	.248	.031	.050
-188	.116	.312	.185	.031	.050	-245	.116	.468	.248	.062	.027
-189	.116	.312	.185	.062	.027	-246	.116	.468	.248	.062	.050
-190	.116	.312	.185	.062	.050	-247	.116	.468	.279	.031	.027
-191	.116	.312	.216	.031	.027	-248	.116	.468	.279	.031	.050
-192	.116	.312	.216	.031	.050	-249	.116	.468	.279	.062	.027
-193	.116	.312	.216	.062	.027	-250	.116	.468	.279	.062	.050
-194	.116	.312	.216	.062	.050	-251	.116	.468	.310	.031	.027
-195	.116	.316	.158	.047	.094	-252	.116	.468	.310	.031	.050
-196	.116	.343	.248	.031	.027	-253	.116	.468	.310	.062	.027
-197	.116	.343	.248	.031	.050	-254	.116	.468	.310	.062	.050
-198	.116	.343	.248	.062	.027	-255	.116	.500	.248	.031	.027
-199	.116	.343	.248	.062	.050	-256	.116	.500	.248	.031	.050
-200	.116	.375	.185	.031	.027	-257	.116	.500	.248	.062	.027
-201	.116	.375	.185	.031	.050	-258	.116	.500	.248	.062	.050
-202	.116	.375	.185	.062	.027	-259	.116	.500	.279	.031	.027
-203	.116	.375	.185	.062	.050	-260	.116	.500	.279	.031	.050
-204	.116	.375	.193	.078	.156	-261	.116	.500	.279	.062	.027
-205	.116	.375	.216	.031	.027	-262	.116	.500	.279	.062	.050
-206	.116	.375	.216	.031	.050	-263	.116	.500	.310	.031	.027
-207	.116	.375	.216	.062	.027	-264	.116	.500	.310	.031	.050
-208	.116	.375	.216	.062	.050	-265	.116	.500	.310	.062	.027
-209	.116	.375	.248	.031	.027	-266	.116	.500	.310	.062	.050
-210	.116	.375	.248	.031	.050	-267	.116	.562	.248	.031	.027
-211	.116	.375	.248	.062	.027	-268	.116	.562	.248	.031	.050
-212	.116	.375	.248	.062	.050	-269	.116	.562	.248	.062	.027
-213	.116	.375	.279	.031	.027	-270	.116	.562	.248	.062	.050
-214	.116	.375	.279	.031	.050	-271	.116	.562	.279	.031	.027
-215	.116	.375	.279	.062	.027	-272	.116	.562	.279	.031	.050
-216	.116	.375	.279	.062	.050	-273	.116	.562	.279	.062	.027
-217	.116	.378	.194	.078	.156	-274	.116	.562	.279	.062	.050
-218	.116	.378	.255	.031	.125	-275	.116	.562	.310	.031	.027
-219	.116	.437	.185	.031	.027	-276	.116	.562	.310	.031	.050
-220	.116	.437	.185	.031	.050	-277	.116	.562	.310	.062	.027
-221	.116	.437	.185	.062	.027	-278	.116	.562	.310	.062	.050
-222	.116	.437	.185	.062	.050	-279	.116	.625	.248	.031	.027
-223	.116	.437	.216	.031	.027	-280	.116	.625	.248	.031	.050
-224	.116	.437	.216	.031	.050	-281	.116	.625	.248	.062	.027
-225	.116	.437	.216	.062	.027	-282	.116	.625	.248	.062	.050
-226	.116	.437	.216	.062	.050	-283	.116	.625	.279	.031	.027
-227	.116	.437	.248	.031	.027	-284	.116	.625	.279	.031	.050
-228	.116	.437	.248	.031	.050	-285	.116	.625	.279	.062	.027
-229	.116	.437	.248	.062	.027	-286	.116	.625	.279	.062	.050
-230	.116	.437	.248	.062	.050	-287	.116	.625	.310	.031	.027
-231	.116	.437	.279	.031	.027	-288	.116	.625	.310	.031	.050
-232	.116	.437	.279	.031	.050						
-233	.116	.437	.279	.062	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.116 I.D. to .116 I.D.

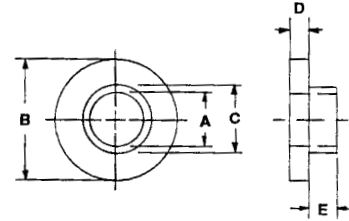
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-289	.116	.625	.310	.062	.027	-334	.126	.312	.185	.031	.047
-290	.116	.625	.310	.062	.050	-335	.126	.312	.185	.031	.050
-291	.117	.220	.135	.032	.040	-336	.126	.312	.185	.047	.047
-292	.118	.250	.137	.070	.036	-337	.126	.312	.185	.062	.027
-293	.118	.250	.139	.047	.125	-338	.126	.312	.185	.062	.050
-294	.118	.250	.143	.031	.062	-339	.126	.312	.188	.094	.020
-295	.118	.281	.177	.031	.015	-340	.126	.312	.190	.045	.040
-296	.120	.234	.136	.020	.044	-341	.126	.312	.216	.031	.027
-297	.120	.202	.145	.016	.047	-342	.126	.312	.216	.031	.050
-298	.120	.210	.145	.016	.047	-343	.126	.312	.216	.062	.027
-299	.120	.375	.220	.031	.031	-344	.126	.312	.216	.062	.050
-300	.120	.224	.154	.031	.062	-345	.126	.312	.225	.062	.042
-301	.120	.224	.154	.031	.437	-346	.126	.313	.188	.063	.031
-302	.120	.250	.138	.047	.062	-347	.126	.343	.218	.050	.012
-303	.120	.250	.191	.032	.027	-348	.126	.343	.248	.031	.027
-304	.120	.253	.136	.047	.078	-349	.126	.343	.248	.031	.050
-305	.120	.291	.154	.062	.234	-350	.126	.343	.248	.062	.027
-306	.120	.312	.170	.062	.062	-351	.126	.343	.248	.062	.050
-307	.120	.312	.180	.062	.031	-352	.126	.370	.255	.085	.040
-308	.120	.312	.190	.045	.045	-353	.126	.375	.185	.031	.027
-309	.120	.312	.203	.047	.031	-354	.126	.375	.185	.031	.050
-310	.120	.312	.214	.031	.031	-355	.126	.375	.185	.062	.027
-311	.120	.375	.190	.040	.022	-356	.126	.375	.185	.062	.050
-312	.121	.375	.245	.031	.063	-357	.126	.375	.187	.047	.031
-313	.121	.375	.265	.031	.094	-358	.126	.375	.190	.040	.040
-314	.122	.230	.142	.023	.041	-359	.126	.375	.216	.031	.027
-315	.122	.250	.144	.200	.062	-360	.126	.375	.216	.031	.050
-316	.122	.230	.142	.016	.047	-361	.126	.375	.216	.062	.027
-317	.124	.375	.124	.031	.062	-362	.126	.375	.216	.062	.050
-318	.124	.313	.219	.031	.031	-363	.126	.375	.248	.031	.027
-319	.125	.240	.185	.031	.094	-364	.126	.375	.248	.031	.050
-320	.125	.625	.500	.100	.125	-365	.126	.375	.248	.062	.027
-321	.126	.265	.157	.031	.031	-366	.126	.375	.248	.062	.050
-322	.126	.312	.185	.047	.047	-367	.126	.375	.250	.095	.030
-323	.126	.245	.199	.063	.093	-368	.126	.375	.250	.127	.035
-324	.126	.250	.170	.020	.020	-369	.126	.375	.279	.031	.027
-325	.126	.250	.185	.031	.027	-370	.126	.375	.279	.031	.050
-326	.126	.250	.185	.031	.050	-371	.126	.375	.279	.062	.027
-327	.126	.250	.185	.062	.027	-372	.126	.375	.279	.062	.050
-328	.126	.250	.185	.062	.050	-373	.126	.375	.312	.050	.050
-329	.126	.250	.186	.047	.171	-374	.126	.437	.171	.062	.031
-330	.126	.265	.157	.031	.031	-375	.126	.437	.185	.031	.027
-331	.126	.265	.157	.035	.028	-376	.126	.437	.185	.031	.050
-332	.126	.312	.175	.062	.025						
-333	.126	.312	.185	.031	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.116 I.D. to .126 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-377	.126	.437	.185	.062	.027	-434	.126	.562	.310	.031	.050
-378	.126	.437	.185	.062	.050	-435	.126	.562	.310	.062	.027
-379	.126	.437	.216	.031	.027	-436	.126	.562	.310	.062	.050
-380	.126	.437	.216	.031	.050	-437	.126	.625	.248	.031	.027
-381	.126	.437	.216	.062	.027	-438	.126	.625	.248	.031	.050
-382	.126	.437	.216	.062	.050	-439	.126	.625	.248	.062	.027
-383	.126	.437	.248	.031	.027	-440	.126	.625	.248	.062	.050
-384	.126	.437	.248	.031	.050	-441	.126	.625	.279	.031	.027
-385	.126	.437	.248	.062	.027	-442	.126	.625	.279	.031	.050
-386	.126	.437	.248	.062	.050	-443	.126	.625	.279	.062	.027
-387	.126	.437	.279	.031	.027	-444	.126	.625	.279	.062	.050
-388	.126	.437	.279	.031	.050	-445	.126	.625	.310	.031	.027
-389	.126	.437	.279	.062	.027	-446	.126	.625	.310	.031	.050
-390	.126	.437	.279	.062	.050	-447	.126	.625	.310	.062	.027
-391	.126	.437	.310	.031	.027	-448	.126	.625	.310	.062	.050
-392	.126	.437	.310	.031	.050	-449	.127	.312	.170	.062	.047
-393	.126	.437	.310	.062	.027	-450	.128	.312	.185	.078	.031
-394	.126	.437	.310	.062	.050	-451	.128	.234	.150	.046	.046
-395	.126	.438	.219	.047	.047	-452	.128	.281	.193	.062	.055
-396	.126	.468	.216	.031	.027	-453	.128	.312	.185	.031	.062
-397	.126	.468	.216	.031	.050	-454	.128	.312	.185	.031	.078
-398	.126	.468	.216	.062	.027	-455	.128	.312	.185	.050	.024
-399	.126	.468	.216	.062	.050	-456	.128	.312	.187	.047	.094
-400	.126	.468	.248	.031	.027	-457	.128	.312	.187	.047	.100
-401	.126	.468	.248	.031	.050	-458	.128	.312	.218	.031	.062
-402	.126	.468	.248	.062	.027	-459	.128	.320	.265	.040	.085
-403	.126	.468	.248	.062	.050	-460	.128	.345	.185	.062	.028
-404	.126	.468	.279	.031	.027	-461	.128	.375	.185	.031	.020
-405	.126	.468	.279	.031	.050	-462	.128	.378	.185	.050	.024
-406	.126	.468	.279	.062	.027	-463	.128	.437	.215	.053	.020
-407	.126	.468	.279	.062	.050	-464	.130	.312	.180	.085	.032
-408	.126	.468	.310	.031	.027	-465	.130	.228	.175	.078	.053
-409	.126	.468	.310	.031	.050	-466	.130	.250	.195	.031	.125
-410	.126	.468	.310	.062	.027	-467	.130	.308	.223	.038	.022
-411	.126	.468	.310	.062	.050	-468	.130	.312	.154	.031	.312
-412	.126	.469	.279	.062	.050	-469	.130	.335	.187	.040	.085
-413	.126	.500	.248	.031	.027	-470	.130	.343	.190	.031	.031
-414	.126	.500	.248	.031	.050	-471	.130	.375	.250	.062	.045
-415	.126	.500	.248	.062	.027	-472	.130	.437	.192	.031	.044
-416	.126	.500	.248	.062	.050	-473	.132	.343	.206	.024	.020
-417	.126	.500	.279	.031	.027	-474	.132	.355	.242	.060	.080
-418	.126	.500	.279	.031	.050	-475	.133	.343	.219	.062	.118
-419	.126	.500	.279	.062	.027	-476	.135	.325	.183	.085	.062
-420	.126	.500	.279	.062	.050	-477	.135	.296	.235	.031	.218
-421	.126	.500	.310	.031	.027	-478	.135	.312	.187	.031	.015
-422	.126	.500	.310	.031	.050	-479	.135	.328	.187	.062	.035
-423	.126	.500	.310	.062	.027	-480	.135	.328	.187	.063	.010
-424	.126	.500	.310	.062	.050	-481	.135	.343	.226	.062	.040
-425	.126	.562	.248	.031	.027	-482	.135	.437	.187	.062	.015
-426	.126	.562	.248	.031	.050	-483	.135	.438	.250	.031	.140
-427	.126	.562	.248	.062	.027	-484	.136	.250	.187	.032	.032
-428	.126	.562	.248	.062	.050	-485	.136	.250	.187	.063	.032
-429	.126	.562	.279	.031	.027	-486	.136	.312	.185	.050	.024
-430	.126	.562	.279	.031	.050	-487	.136	.312	.187	.062	.032
-431	.126	.562	.279	.062	.027	-488	.136	.312	.198	.062	.046
-432	.126	.562	.279	.062	.050						
-433	.126	.562	.310	.031	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.126 I. D. to .136 I. D.

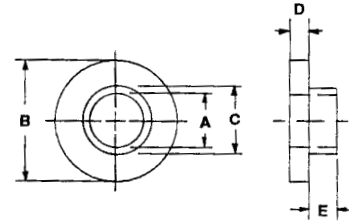
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-489	.136	.313	.219	.031	.031	-534	.140	.500	.312	.090	.062
-490	.136	.375	.195	.047	.109	-535	.140	.313	.187	.023	.039
-491	.136	.375	.245	.062	.078	-536	.140	.313	.187	.031	.016
-492	.136	.375	.248	.062	.094	-537	.140	.324	.204	.062	.031
-493	.136	.562	.437	.031	.031	-538	.140	.328	.187	.064	.086
-494	.138	.293	.218	.047	.187	-539	.140	.340	.250	.078	.047
-495	.138	.375	.240	.062	.109	-540	.140	.343	.185	.031	.027
-496	.138	.375	.250	.094	.062	-541	.140	.343	.185	.031	.050
-497	.139	.250	.186	.031	.031	-542	.140	.343	.185	.062	.027
-498	.139	.310	.183	.062	.016	-543	.140	.343	.185	.062	.050
-499	.140	.312	.178	.050	.048	-544	.140	.343	.216	.031	.027
-500	.140	.312	.185	.027	.062	-545	.140	.343	.216	.031	.050
-501	.140	.312	.185	.050	.062	-546	.140	.343	.216	.062	.027
-502	.140	.312	.185	.062	.050	-547	.140	.343	.216	.062	.050
-503	.140	.281	.200	.062	.031	-548	.140	.343	.221	.062	.016
-504	.140	.375	.235	.030	.060	-549	.140	.343	.248	.031	.027
-505	.140	.375	.237	.180	.060	-550	.140	.343	.248	.031	.050
-506	.140	.343	.248	.050	.062	-551	.140	.343	.248	.062	.027
-507	.140	.250	.185	.031	.027	-552	.140	.343	.248	.062	.050
-508	.140	.250	.185	.031	.050	-553	.140	.349	.248	.047	.062
-509	.140	.250	.185	.062	.027	-554	.140	.375	.185	.016	.094
-510	.140	.250	.185	.062	.050	-555	.140	.375	.185	.031	.027
-511	.140	.250	.187	.032	.032	-556	.140	.375	.185	.031	.050
-512	.140	.250	.187	.063	.032	-557	.140	.375	.185	.031	.062
-513	.140	.250	.190	.062	.047	-558	.140	.375	.185	.031	.094
-514	.140	.252	.186	.031	.031	-559	.140	.375	.185	.045	.035
-515	.140	.260	.190	.062	.047	-560	.140	.375	.185	.062	.031
-516	.140	.290	.170	.047	.031	-561	.140	.375	.185	.062	.050
-517	.140	.290	.170	.047	.047	-562	.140	.375	.199	.218	.078
-518	.140	.290	.170	.047	.250	-563	.140	.375	.216	.031	.027
-519	.140	.295	.234	.031	.218	-564	.140	.375	.216	.031	.050
-520	.140	.312	.170	.047	.062	-565	.140	.375	.216	.062	.027
-521	.140	.312	.180	.031	.031	-566	.140	.375	.216	.062	.050
-522	.140	.312	.185	.031	.027	-567	.140	.375	.218	.062	.047
-523	.140	.312	.185	.031	.031	-568	.140	.375	.248	.031	.027
-524	.140	.312	.185	.060	.040	-569	.140	.375	.248	.031	.050
-525	.140	.312	.185	.062	.027	-570	.140	.375	.248	.062	.027
-526	.140	.312	.185	.062	.032	-571	.140	.375	.248	.062	.050
-527	.140	.312	.185	.062	.050	-572	.140	.375	.250	.094	.062
-528	.140	.312	.198	.031	.031	-573	.140	.375	.279	.031	.027
-529	.140	.312	.210	.055	.035	-574	.140	.375	.279	.031	.050
-530	.140	.312	.216	.031	.027	-575	.140	.375	.279	.062	.027
-531	.140	.312	.216	.031	.050	-576	.140	.375	.279	.062	.050
-532	.140	.312	.216	.062	.027						
-533	.140	.312	.216	.062	.050						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.136 I.D. to .140 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-577	.140	.381	.185	.062	.047	-634	.140	.500	.279	.031	.050
-578	.140	.400	.275	.125	.125	-635	.140	.500	.279	.062	.027
-579	.140	.437	.185	.031	.027	-636	.140	.500	.279	.062	.050
-580	.140	.437	.185	.031	.050	-637	.140	.500	.310	.031	.027
-581	.140	.437	.185	.062	.027	-638	.140	.500	.310	.031	.050
-582	.140	.437	.185	.062	.050	-639	.140	.500	.310	.062	.027
-583	.140	.437	.216	.031	.027	-640	.140	.500	.310	.062	.050
-584	.140	.437	.216	.031	.050	-641	.140	.562	.185	.031	.027
-585	.140	.437	.216	.062	.027	-642	.140	.562	.185	.031	.050
-586	.140	.437	.216	.062	.050	-643	.140	.562	.185	.062	.027
-587	.140	.437	.248	.031	.027	-644	.140	.562	.185	.062	.050
-588	.140	.437	.248	.031	.050	-645	.140	.562	.216	.031	.027
-589	.140	.437	.248	.062	.027	-646	.140	.562	.216	.031	.050
-590	.140	.437	.248	.062	.050	-647	.140	.562	.216	.062	.027
-591	.140	.437	.279	.031	.027	-648	.140	.562	.216	.062	.050
-592	.140	.437	.279	.031	.050	-649	.140	.562	.248	.031	.027
-593	.140	.437	.279	.062	.027	-650	.140	.562	.248	.031	.050
-594	.140	.437	.279	.062	.050	-651	.140	.562	.248	.062	.027
-595	.140	.437	.310	.031	.027	-652	.140	.562	.248	.062	.050
-596	.140	.437	.310	.031	.050	-653	.140	.562	.279	.031	.027
-597	.140	.437	.310	.062	.027	-654	.140	.562	.279	.031	.050
-598	.140	.437	.310	.062	.050	-655	.140	.562	.279	.062	.027
-599	.140	.468	.185	.031	.027	-656	.140	.562	.279	.062	.050
-600	.140	.468	.185	.031	.050	-657	.140	.562	.310	.031	.027
-601	.140	.468	.185	.062	.027	-658	.140	.562	.310	.031	.050
-602	.140	.468	.185	.062	.050	-659	.140	.562	.310	.062	.027
-603	.140	.468	.216	.031	.027	-660	.140	.562	.310	.062	.050
-604	.140	.468	.216	.031	.050	-661	.140	.578	.185	.062	.047
-605	.140	.468	.216	.062	.027	-662	.140	.625	.185	.031	.027
-606	.140	.468	.216	.062	.050	-663	.140	.625	.185	.031	.050
-607	.140	.468	.248	.031	.027	-664	.140	.625	.185	.062	.027
-608	.140	.468	.248	.031	.050	-665	.140	.625	.185	.062	.050
-609	.140	.468	.248	.062	.027	-666	.140	.625	.216	.031	.027
-610	.140	.468	.248	.062	.047	-667	.140	.625	.216	.031	.050
-611	.140	.468	.248	.062	.050	-668	.140	.625	.216	.062	.027
-612	.140	.468	.279	.031	.027	-669	.140	.625	.216	.062	.050
-613	.140	.468	.279	.031	.050	-670	.140	.625	.248	.031	.027
-614	.140	.468	.279	.062	.027	-671	.140	.625	.248	.031	.050
-615	.140	.468	.279	.062	.050	-672	.140	.625	.248	.062	.027
-616	.140	.468	.310	.031	.027	-673	.140	.625	.248	.062	.050
-617	.140	.468	.310	.031	.050	-674	.140	.625	.279	.031	.027
-618	.140	.468	.310	.062	.027	-675	.140	.625	.279	.031	.050
-619	.140	.468	.310	.062	.050	-676	.140	.625	.279	.062	.027
-620	.140	.470	.312	.078	.281	-677	.140	.625	.279	.062	.050
-621	.140	.500	.185	.031	.027	-678	.140	.625	.310	.031	.027
-622	.140	.500	.185	.031	.050	-679	.140	.625	.310	.031	.050
-623	.140	.500	.185	.062	.027	-680	.140	.625	.310	.062	.027
-624	.140	.500	.185	.062	.050	-681	.140	.625	.310	.062	.050
-625	.140	.500	.216	.031	.027	-682	.141	.234	.187	.062	.063
-626	.140	.500	.216	.031	.050	-683	.141	.375	.240	.062	.031
-627	.140	.500	.216	.062	.027	-684	.141	.257	.187	.062	.031
-628	.140	.500	.216	.062	.050	-685	.141	.312	.187	.062	.031
-629	.140	.500	.248	.031	.027	-686	.141	.330	.206	.062	.031
-630	.140	.500	.248	.031	.050	-687	.141	.344	.189	.109	.047
-631	.140	.500	.248	.062	.027	-688	.141	.374	.246	.031	.031
-632	.140	.500	.248	.062	.050						
-633	.140	.500	.279	.031	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.140 I. D. to .141 I. D.

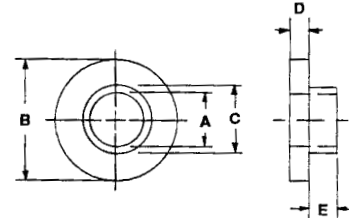
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-689	.141	.375	.237	.062	.032	-734	.160	.300	.194	.047	.062
-690	.141	.415	.243	.156	.047	-735	.160	.343	.220	.047	.031
-691	.141	.418	.243	.109	.062	-736	.160	.575	.430	.060	.200
-692	.141	.500	.234	.064	.045	-737	.160	.625	.435	.094	.031
-693	.141	.500	.318	.031	.016	-738	.161	.359	.218	.031	.015
-694	.141	.500	.318	.031	.047	-739	.161	.433	.275	.078	.091
-695	.142	.265	.205	.031	.156	-740	.162	.300	.210	.062	.031
-696	.143	.313	.175	.031	.031	-741	.162	.625	.250	.032	.046
-697	.144	.312	.187	.060	.030	-742	.163	.437	.213	.046	.046
-698	.144	.312	.234	.047	.062	-743	.165	.437	.265	.040	.050
-699	.144	.312	.234	.047	.125	-744	.165	.437	.312	.062	.031
-700	.144	.375	.250	.047	.100	-745	.165	.500	.250	.078	.016
-701	.144	.437	.250	.062	.125	-746	.165	.625	.281	.031	.016
-702	.144	.437	.312	.062	.050	-747	.167	.375	.246	.031	.062
-703	.145	.250	.203	.062	.125	-748	.167	.375	.246	.062	.031
-704	.145	.375	.250	.062	.062	-749	.167	.500	.250	.125	.437
-705	.145	.375	.250	.063	.031	-750	.168	.375	.250	.062	.047
-706	.145	.375	.265	.062	.016	-751	.168	.375	.250	.062	.125
-707	.145	.385	.240	.062	.031	-752	.168	.437	.250	.069	.031
-708	.145	.500	.275	.094	.047	-753	.169	.312	.218	.062	.031
-709	.145	.500	.375	.063	.031	-754	.169	.375	.215	.062	.031
-710	.146	.328	.218	.047	.047	-755	.169	.375	.215	.063	.062
-711	.147	.500	.230	.062	.031	-756	.169	.375	.250	.031	.031
-712	.147	.500	.358	.062	.078	-757	.169	.562	.312	.125	.031
-713	.148	.380	.220	.062	.203	-758	.170	.312	.250	.062	.063
-714	.149	.375	.250	.062	.025	-759	.170	.344	.202	.062	.140
-715	.150	.355	.250	.040	.090	-760	.170	.375	.234	.062	.031
-716	.150	.380	.244	.078	.047	-761	.171	.625	.248	.050	.031
-717	.150	.500	.330	.062	.062	-762	.171	.421	.279	.040	.190
-718	.150	.750	.250	.062	.250	-763	.171	.312	.216	.031	.027
-719	.152	.296	.203	.038	.085	-764	.171	.312	.216	.031	.050
-720	.152	.378	.199	.055	.027	-765	.171	.312	.216	.062	.027
-721	.152	.750	.359	.094	.062	-766	.171	.312	.216	.062	.050
-722	.153	.296	.219	.015	.007	-767	.171	.343	.216	.031	.027
-723	.156	.500	.250	.031	.094	-768	.171	.343	.216	.031	.050
-724	.156	.312	.250	.062	.187	-769	.171	.343	.216	.062	.027
-725	.156	.375	.250	.042	.010	-770	.171	.343	.216	.062	.050
-726	.156	.400	.243	.047	.047	-771	.171	.343	.248	.031	.027
-727	.156	.557	.422	.185	.055	-772	.171	.343	.248	.031	.050
-728	.156	.428	.245	.062	.031	-773	.171	.343	.248	.062	.027
-729	.156	.437	.245	.062	.031	-774	.171	.343	.248	.062	.050
-730	.156	.437	.250	.062	.063	-775	.171	.345	.209	.062	.047
-731	.156	.500	.250	.094	.031	-776	.171	.375	.195	.031	.062
-732	.156	.500	.312	.031	.031						
-733	.156	.562	.437	.062	.060						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.141 I.D. to .171 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-777	.171	.375	.216	.031	.027	-834	.171	.500	.310	.031	.027
-778	.171	.375	.216	.031	.050	-835	.171	.500	.310	.031	.050
-779	.171	.375	.216	.062	.027	-836	.171	.500	.310	.062	.027
-780	.171	.375	.216	.062	.050	-837	.171	.500	.310	.062	.050
-781	.171	.375	.248	.031	.027	-838	.171	.500	.375	.063	.031
-782	.171	.375	.248	.031	.050	-839	.171	.510	.250	.062	.406
-783	.171	.375	.248	.062	.027	-840	.171	.562	.216	.031	.027
-784	.171	.375	.248	.062	.050	-841	.171	.562	.216	.031	.050
-785	.171	.375	.250	.062	.031	-842	.171	.562	.216	.062	.027
-786	.171	.375	.279	.031	.027	-843	.171	.562	.216	.062	.050
-787	.171	.375	.279	.031	.050	-844	.171	.562	.248	.031	.027
-788	.171	.375	.279	.062	.027	-845	.171	.562	.248	.031	.050
-789	.171	.375	.279	.062	.050	-846	.171	.562	.248	.062	.027
-790	.171	.437	.216	.031	.027	-847	.171	.562	.248	.062	.050
-791	.171	.437	.216	.031	.050	-848	.171	.562	.279	.031	.027
-792	.171	.437	.216	.062	.027	-849	.171	.562	.279	.031	.050
-793	.171	.437	.216	.062	.050	-850	.171	.562	.279	.062	.027
-794	.171	.437	.248	.031	.027	-851	.171	.562	.279	.062	.050
-795	.171	.437	.248	.031	.050	-852	.171	.562	.310	.031	.027
-796	.171	.437	.248	.062	.027	-853	.171	.562	.310	.031	.050
-797	.171	.437	.248	.062	.050	-a54	.171	.562	.310	.062	.027
-798	.171	.437	.279	.031	.027	-855	.171	.562	.310	.062	.050
-799	.171	.437	.279	.031	.050	-856	.171	.625	.216	.031	.027
-800	.171	.437	.279	.062	.027	-857	.171	.625	.216	.031	.050
-801	.171	.437	.279	.062	.050	-858	.171	.625	.216	.062	.027
-802	.171	.437	.310	.031	.027	-859	.171	.625	.216	.062	.050
-803	.171	.437	.310	.031	.050	-860	.171	.625	.248	.031	.027
-804	.171	.437	.310	.062	.027	-861	.171	.625	.248	.031	.050
-805	.171	.437	.310	.062	.050	-862	.171	.625	.248	.062	.027
-806	.171	.468	.216	.031	.027	-863	.171	.625	.248	.062	.050
-807	.171	.468	.216	.031	.050	-864	.171	.625	.279	.031	.027
-808	.171	.468	.216	.062	.027	-865	.171	.625	.279	.031	.050
-809	.171	.468	.248	.031	.027	-866	.171	.625	.279	.062	.027
-810	.171	.468	.248	.031	.050	-867	.171	.625	.279	.062	.050
-811	.171	.468	.248	.062	.027	-868	.171	.625	.310	.031	.027
-812	.171	.468	.248	.062	.050	-869	.171	.625	.310	.031	.050
-813	.171	.468	.279	.031	.027	-870	.171	.625	.310	.062	.027
-814	.171	.468	.279	.031	.050	-871	.171	.625	.310	.062	.050
-815	.171	.468	.279	.062	.027	-872	.171	.630	.248	.031	.047
-816	.171	.468	.279	.062	.050	-873	.172	.500	.312	.140	.078
-817	.171	.468	.310	.031	.027	-874	.172	.375	.218	.063	.063
-818	.171	.468	.310	.031	.050	-875	.172	.375	.246	.063	.031
-819	.171	.468	.310	.062	.027	-876	.172	.625	.310	.062	.047
-820	.171	.468	.310	.062	.050	-877	.173	.344	.205	.062	.375
-821	.171	.500	.216	.031	.027	-878	.173	.345	.205	.062	.375
-822	.171	.500	.216	.031	.050	-879	.173	.500	.370	.063	.093
-823	.171	.500	.216	.062	.027	-880	.175	.340	.220	.062	.094
-824	.171	.500	.216	.062	.050	-881	.175	.437	.260	.038	.050
-825	.171	.500	.248	.031	.027	-882	.175	.500	.312	.060	.023
-826	.171	.500	.248	.031	.050	-883	.175	.500	.312	.060	.055
-827	.171	.500	.248	.062	.027	-884	.176	.505	.242	.028	.062
-828	.171	.500	.248	.062	.050	-885	.176	.500	.243	.028	.062
-829	.171	.500	.250	.100	.087	-886	.176	.493	.376	.094	.406
-830	.171	.500	.279	.031	.027	-887	.184	.312	.234	.031	.187
-831	.171	.500	.279	.031	.050	-888	.187	.312	.250	.062	.031
-832	.171	.500	.279	.062	.027						
-833	.171	.500	.279	.062	.050						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.171 I.D. to .187 I.D.

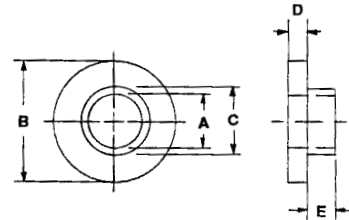
Shank O.D. -.005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-889	.187	.375	.245	.031	.140	-934	.194	.437	.248	.062	.027
-890	.187	.375	.265	.062	.031	-935	.194	.437	.248	.062	.050
-891	.187	.437	.281	.093	.093	-936	.194	.437	.279	.031	.027
-892	.187	.437	.372	.046	.078	-937	.194	.437	.279	.031	.050
-893	.187	.500	.250	.031	.047	-938	.194	.437	.279	.062	.027
-894	.187	.562	.312	.046	.078	-939	.194	.437	.279	.062	.050
-895	.187	1.500	.281	.062	.062	-940	.194	.437	.310	.031	.027
-896	.188	.375	.250	.047	.031	-941	.194	.437	.310	.031	.050
-897	.188	.406	.278	.058	.088	-942	.194	.437	.310	.062	.027
-898	.188	.437	.313	.062	.063	-943	.194	.437	.310	.062	.050
-899	.188	.500	.280	.062	.045	-944	.194	.441	.248	.062	.047
-900	.190	.488	.250	.125	.156	-945	.194	.468	.248	.031	.027
-901	.190	.500	.250	.062	.156	-946	.194	.468	.248	.031	.050
-902	.190	.500	.312	.125	.046	-947	.194	.468	.248	.062	.027
-903	.190	.625	.310	.031	.062	-948	.194	.468	.248	.062	.050
-904	.190	.625	.375	.062	.047	-949	.194	.468	.279	.031	.027
-905	.190	.750	.315	.094	.875	-950	.194	.468	.279	.031	.050
-906	.191	.406	.275	.062	.053	-951	.194	.468	.279	.062	.027
-907	.191	.531	.279	.062	.040	-952	.194	.468	.279	.062	.050
-908	.192	.630	.255	.067	.036	-953	.194	.468	.310	.031	.027
-909	.192	.281	.233	.020	.015	-954	.194	.468	.310	.031	.050
-910	.192	.375	.245	.047	.047	-955	.194	.468	.310	.062	.027
-911	.193	.290	.250	.016	.125	-956	.194	.468	.310	.062	.050
-912	.193	.440	.312	.043	.137	-957	.194	.468	.341	.031	.027
-913	.193	.500	.318	.031	.031	-958	.194	.468	.341	.031	.050
-914	.193	.500	.318	.031	.047	-959	.194	.468	.341	.062	.027
-915	.193	.500	.318	.031	.078	-960	.194	.468	.341	.062	.050
-916	.193	.500	.368	.062	.025	-961	.194	.500	.248	.031	.027
-917	.194	.500	.248	.027	.031	-962	.194	.500	.248	.031	.050
-918	.194	.375	.312	.125	.062	-963	.194	.500	.248	.062	.027
-919	.194	.343	.248	.031	.027	-964	.194	.500	.248	.062	.050
-920	.194	.343	.248	.031	.050	-965	.194	.500	.279	.031	.027
-921	.194	.343	.248	.062	.027	-966	.194	.500	.279	.031	.050
-922	.194	.343	.248	.062	.050	-967	.194	.500	.279	.062	.027
-923	.194	.375	.248	.031	.027	-968	.194	.500	.279	.062	.050
-924	.194	.375	.248	.031	.050	-969	.194	.500	.310	.031	.027
-925	.194	.375	.248	.062	.027	-970	.194	.500	.310	.031	.050
-926	.194	.375	.248	.062	.047	-971	.194	.500	.310	.062	.027
-927	.194	.375	.248	.062	.050	-972	.194	.500	.310	.062	.050
-928	.194	.375	.279	.031	.027	-973	.194	.500	.341	.031	.027
-929	.194	.375	.279	.031	.050	-974	.194	.500	.341	.031	.050
-930	.194	.375	.279	.062	.027	-975	.194	.500	.341	.062	.027
-931	.194	.375	.279	.062	.050	-976	.194	.500	.341	.062	.050
-932	.194	.437	.248	.031	.027						
-933	.194	.437	.248	.031	.050						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.187 I.D. to .194 I.D.

Shank O.D. - .005/+000
Shank Thickness +/- .005
Shank I.D. + .005/-000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-977	.194	.500	.371	.031	.027	-1034	.194	.750	.248	.031	.050
-978	.194	.500	.371	.031	.050	-1035	.194	.750	.248	.062	.027
-979	.194	.500	.371	.062	.027	-1036	.194	.750	.248	.062	.050
-980	.194	.500	.371	.062	.050	-1037	.194	.750	.279	.031	.027
-981	.194	.562	.248	.031	.027	-1038	.194	.750	.279	.031	.050
-982	.194	.562	.248	.031	.050	-1039	.194	.750	.279	.062	.027
-983	.194	.562	.248	.062	.027	-1040	.194	.750	.279	.062	.050
-984	.194	.562	.248	.062	.050	-1041	.194	.750	.310	.031	.027
-985	.194	.562	.279	.031	.027	-1042	.194	.750	.310	.031	.050
-986	.194	.562	.279	.031	.050	-1043	.194	.750	.310	.062	.027
-987	.194	.562	.279	.062	.027	-1044	.194	.750	.310	.062	.050
-988	.194	.562	.279	.062	.050	-1045	.194	.750	.341	.031	.027
-989	.194	.562	.310	.031	.027	-1046	.194	.750	.341	.031	.050
-990	.194	.562	.310	.031	.050	-1047	.194	.750	.341	.062	.027
-991	.194	.562	.310	.062	.027	-1048	.194	.750	.341	.062	.050
-992	.194	.562	.310	.062	.050	-1049	.194	.750	.371	.031	.027
-993	.194	.562	.341	.031	.027	-1051	.194	.750	.371	.031	.050
-994	.194	.562	.341	.031	.050	-1052	.194	.750	.371	.062	.027
-995	.194	.562	.341	.062	.027	-1053	.194	.750	.371	.062	.050
-996	.194	.562	.341	.062	.050	-1054	.194	.750	.432	.031	.027
-997	.194	.562	.371	.031	.027	-1055	.194	.750	.432	.031	.050
-998	.194	.562	.371	.031	.050	-1056	.194	.750	.432	.062	.027
-999	.194	.562	.371	.062	.027	-1057	.194	.750	.432	.062	.050
-1000	.194	.562	.371	.062	.050	-1058	.194	.750	.495	.031	.027
-1001	.194	.562	.432	.031	.027	-1059	.194	.750	.495	.031	.050
-1002	.194	.562	.432	.031	.050	-1060	.194	.750	.495	.062	.027
-1003	.194	.562	.432	.062	.027	-1061	.194	.750	.495	.062	.050
-1004	.194	.562	.432	.062	.050	-1062	.195	.260	.399	.060	.030
-1005	.194	.625	.248	.031	.027	-1063	.195	.375	.240	.039	.023
-1006	.194	.625	.248	.031	.050	-1064	.195	.437	.310	.047	.053
-1007	.194	.625	.248	.062	.027	-1065	.195	.490	.310	.250	.187
-1008	.194	.625	.248	.062	.050	-1066	.195	.531	.248	.040	.030
-1009	.194	.625	.279	.031	.027	-1067	.195	.630	.437	.078	.078
-1010	.194	.625	.279	.031	.050	-1068	.195	.640	.380	.062	.062
-1011	.194	.625	.279	.062	.027	-1069	.196	.380	.254	.055	.120
-1012	.194	.625	.279	.062	.050	-1070	.196	.312	.250	.062	.031
-1013	.194	.625	.310	.031	.027	-1071	.196	.375	.246	.062	.032
-1014	.194	.625	.310	.031	.050	-1072	.196	.375	.308	.062	.031
-1015	.194	.625	.310	.062	.027	-1073	.196	.390	.287	.078	.187
-1016	.194	.625	.310	.062	.050	-1074	.196	.437	.255	.031	.031
-1017	.194	.625	.341	.031	.027	-1075	.196	.440	.303	.031	.140
-1018	.194	.625	.341	.031	.050	-1076	.196	.500	.274	.045	.095
-1019	.194	.625	.341	.062	.027	-1077	.196	.625	.312	.094	.062
-1020	.194	.625	.341	.062	.050	-1078	.196	.625	.375	.031	.031
-1021	.194	.625	.371	.031	.027	-1079	.197	.408	.240	.187	.062
-1022	.194	.625	.371	.031	.050	-1080	.198	.500	.240	.062	.063
-1023	.194	.625	.371	.062	.027	-1081	.198	.588	.253	.031	.031
-1024	.194	.625	.371	.062	.050	-1082	.198	.750	.247	.075	.039
-1025	.194	.625	.432	.031	.027	-1083	.199	.433	.312	.062	.125
-1026	.194	.625	.432	.031	.050	-1084	.199	.468	.305	.078	.055
-1027	.194	.625	.432	.062	.027	-1085	.200	.399	.260	.375	.062
-1028	.194	.625	.432	.062	.050	-1086	.200	.399	.260	.062	.375
-1029	.194	.625	.495	.031	.027	-1087	.200	.437	.245	.062	.016
-1030	.194	.625	.495	.031	.050	-1088	.200	.500	.240	.062	.032
-1031	.194	.625	.495	.062	.027	-1089	.200	.500	.240	.062	.063
-1032	.194	.625	.495	.062	.050						
-1033	.194	.750	.248	.031	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.194 I.D. to .200 I.D.

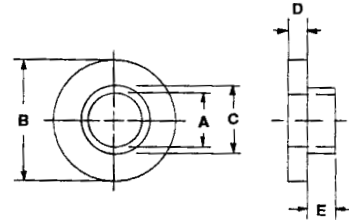
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1090	.200	.500	.281	.062	.094	-1135	.219	.437	.310	.031	.050
-1091	.200	.500	.312	.062	.312	-1136	.219	.437	.310	.062	.027
-1092	.201	.375	.280	.062	.125	-1137	.219	.437	.310	.062	.050
-1093	.201	.437	.281	.047	.047	-1138	.219	.468	.279	.031	.027
-1094	.201	.635	.425	.140	1.109	-1139	.219	.468	.279	.031	.050
-1095	.201	.750	.358	.125	.031	-1140	.219	.468	.279	.062	.027
-1096	.201	1.000	.358	.125	.031	-1141	.219	.468	.279	.062	.050
-1097	.201	1.375	.358	.125	.031	-1142	.219	.468	.310	.031	.027
-1098	.201	1.375	.500	.105	.020	-1143	.219	.468	.310	.031	.050
-1099	.203	.500	.375	.055	.125	-1144	.219	.468	.310	.062	.027
-1100	.203	.390	.313	.078	.078	-1145	.219	.468	.310	.062	.050
-1101	.203	.438	.267	.031	.094	-1146	.219	.468	.341	.031	.027
-1102	.203	.438	.267	.062	.094	-1147	.219	.468	.341	.031	.050
-1103	.203	.437	.300	.062	.063	-1148	.219	.468	.341	.062	.027
-1104	.203	.437	.307	.062	.063	-1149	.219	.468	.341	.062	.050
-1105	.203	.468	.296	.062	.031	-1150	.219	.500	.279	.031	.027
-1106	.203	.500	.250	.093	.032	-1151	.219	.500	.279	.031	.050
-1107	.203	.750	.312	.062	.109	-1152	.219	.500	.279	.062	.027
-1108	.203	.750	.312	.093	.093	-1153	.219	.500	.279	.062	.050
-1109	.203	1.000	.298	.062	.062	-1154	.219	.500	.310	.031	.027
-1110	.205	.620	.312	.047	.047	-1155	.219	.500	.310	.031	.050
-1111	.206	.380	.277	.070	.042	-1156	.219	.500	.310	.062	.027
-1112	.206	.500	.281	.062	.078	-1157	.219	.500	.310	.062	.050
-1113	.206	.590	.324	.045	.016	-1158	.219	.500	.341	.031	.027
-1114	.208	.437	.281	.062	.016	-1159	.219	.500	.341	.031	.050
-1115	.208	.615	.315	.047	.047	-1160	.219	.500	.341	.062	.027
-1116	.210	.437	.281	.055	.025	-1161	.219	.500	.341	.062	.050
-1117	.210	.635	.380	.042	.090	-1162	.219	.500	.371	.031	.027
-1118	.212	.343	.272	.031	.025	-1163	.219	.500	.371	.031	.050
-1119	.215	.562	.365	.109	.062	-1164	.219	.500	.371	.062	.027
-1120	.218	.375	.281	.050	.030	-1165	.219	.500	.371	.062	.050
-1121	.218	.500	.310	.062	.063	-1166	.219	.562	.279	.031	.027
-1122	.218	.500	.310	.125	.062	-1167	.219	.562	.279	.031	.050
-1123	.218	.500	.373	.055	.070	-1168	.219	.562	.279	.062	.027
-1124	.218	.500	.375	.045	.090	-1169	.219	.562	.279	.062	.050
-1125	.218	.500	.375	.062	.063	-1170	.219	.562	.310	.031	.027
-1126	.219	.375	.279	.031	.027	-1171	.219	.562	.310	.031	.050
-1127	.219	.375	.279	.031	.050	-1172	.219	.562	.310	.062	.027
-1128	.219	.375	.279	.062	.027	-1173	.219	.562	.310	.062	.050
-1129	.219	.375	.279	.062	.050	-1174	.219	.562	.341	.031	.027
-1130	.219	.437	.279	.031	.027	-1175	.219	.562	.341	.031	.050
-1131	.219	.437	.279	.031	.050	-1176	.219	.562	.341	.062	.027
-1132	.219	.437	.279	.062	.027	-1177	.219	.562	.341	.062	.050
-1133	.219	.437	.279	.062	.050						
-1134	.219	.437	.310	.031	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.200 I.D. to .219 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1178	.219	.562	.371	.031	.027	-1235	.220	.408	.240	.062	.187
-1179	.219	.562	.371	.031	.050	-1236	.225	.437	.282	.062	.375
-1180	.219	.562	.371	.062	.027	-1237	.230	.395	.299	.078	.109
-1181	.219	.562	.371	.062	.050	-1238	.230	.450	.310	.016	.047
-1182	.219	.562	.432	.031	.027	-1239	.230	.500	.307	.020	.011
-1183	.219	.562	.432	.031	.050	-1240	.233	.500	.340	.078	.055
-1184	.219	.562	.432	.062	.027	-1241	.234	.500	.343	.031	.031
-1185	.219	.562	.432	.062	.050	-1242	.234	.745	.282	.031	.187
-1186	.219	.625	.279	.031	.027	-1243	.247	.550	.380	.062	.468
-1187	.219	.625	.279	.031	.050	-1244	.248	.551	.380	.062	.250
-1188	.219	.625	.279	.062	.027	-1245	.250	.425	.310	.062	.062
-1189	.219	.625	.279	.062	.050	-1246	.250	.500	.375	.062	.437
-1190	.219	.625	.310	.031	.027	-1247	.250	.600	.370	.125	.125
-1191	.219	.625	.310	.031	.050	-1248	.250	.625	.375	.093	.047
-1192	.219	.625	.310	.062	.027	-1249	.250	.734	.488	.125	.062
-1193	.219	.625	.310	.062	.050	-1250	.250	.750	.375	.156	.468
-1194	.219	.625	.341	.031	.027	-1251	.251	1.050	.750	.187	.312
-1195	.219	.625	.341	.031	.050	-1252	.252	.625	.343	.062	.125
-1196	.219	.625	.341	.062	.027	-1253	.252	.625	.343	.125	.062
-1197	.219	.625	.341	.062	.050	-1254	.252	.375	.312	.125	.062
-1198	.219	.625	.371	.031	.027	-1255	.252	.500	.312	.031	.031
-1199	.219	.625	.371	.031	.050	-1256	.252	.500	.312	.040	.028
-1200	.219	.625	.371	.062	.027	-1257	.252	.500	.312	.062	.032
-1201	.219	.625	.371	.062	.050	-1258	.252	.500	.312	.062	.063
-1202	.219	.625	.432	.031	.027	-1259	.252	.500	.312	.031	.031
-1203	.219	.625	.432	.031	.050	-1260	.252	.500	.312	.062	.031
-1204	.219	.625	.432	.062	.027	-1261	.252	.500	.372	.062	.025
-1205	.219	.625	.432	.062	.050	-1262	.252	.500	.375	.031	.032
-1206	.219	.625	.495	.031	.027	-1263	.252	.625	.343	.125	.062
-1207	.219	.625	.495	.031	.050	-1264	.252	.625	.437	.062	.032
-1208	.219	.625	.495	.062	.027	-1265	.252	.750	.312	.062	.063
-1209	.219	.625	.495	.062	.050	-1266	.253	.750	.341	.050	.031
-1210	.219	.750	.279	.031	.027	-1267	.253	.437	.278	.040	.030
-1211	.219	.750	.279	.031	.050	-1268	.253	.437	.310	.031	.027
-1212	.219	.750	.279	.062	.027	-1269	.253	.437	.310	.031	.031
-1213	.219	.750	.279	.062	.050	-1270	.253	.437	.310	.031	.050
-1214	.219	.750	.310	.031	.027	-1271	.253	.437	.310	.062	.027
-1215	.219	.750	.310	.031	.050	-1272	.253	.437	.310	.062	.050
-1216	.219	.750	.310	.062	.027	-1273	.253	.437	.312	.062	.094
-1217	.219	.750	.310	.062	.050	-1274	.253	.468	.310	.031	.027
-1218	.219	.750	.341	.031	.027	-1275	.253	.468	.310	.031	.050
-1219	.219	.750	.341	.031	.050	-1276	.253	.468	.310	.062	.027
-1220	.219	.750	.341	.062	.027	-1277	.253	.468	.310	.062	.050
-1221	.219	.750	.341	.062	.050	-1278	.253	.468	.341	.031	.027
-1222	.219	.750	.371	.031	.027	-1279	.253	.468	.341	.031	.050
-1223	.219	.750	.371	.031	.050	-1280	.253	.468	.341	.062	.027
-1224	.219	.750	.371	.062	.027	-1281	.253	.468	.341	.062	.050
-1225	.219	.750	.371	.062	.050	-1282	.253	.500	.310	.031	.027
-1226	.219	.750	.432	.031	.027	-1283	.253	.500	.310	.031	.050
-1227	.219	.750	.432	.031	.050	-1284	.253	.500	.310	.062	.027
-1228	.219	.750	.432	.062	.027	-1285	.253	.500	.310	.062	.050
-1229	.219	.750	.432	.062	.050	-1286	.253	.500	.341	.031	.027
-1230	.219	.750	.495	.031	.027	-1287	.253	.500	.341	.031	.050
-1231	.219	.750	.495	.031	.050	-1288	.253	.500	.341	.062	.027
-1232	.219	.750	.495	.062	.027	-1289	.253	.500	.341	.062	.050
-1233	.219	.750	.495	.062	.050						
-1234	.220	.375	.260	.031	.093						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.219 I.D. to .253 I.D.

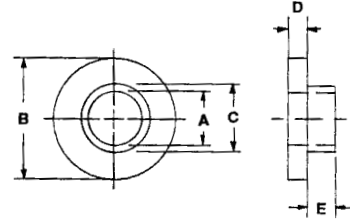
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1290	.253	.500	.371	.031	.027	-1337	.253	.750	.310	.031	.050
-1291	.253	.500	.371	.031	.050	-1338	.253	.750	.310	.062	.027
-1292	.253	.500	.371	.062	.027	-1339	.253	.750	.310	.062	.050
-1293	.253	.500	.371	.062	.050	-1340	.253	.750	.341	.031	.027
-1294	.253	.562	.310	.031	.027	-1341	.253	.750	.341	.031	.050
-1295	.253	.562	.310	.031	.050	-1342	.253	.750	.341	.062	.027
-1296	.253	.562	.310	.062	.027	-1343	.253	.750	.341	.062	.050
-1297	.253	.562	.310	.062	.050	-1344	.253	.750	.371	.031	.027
-1298	.253	.562	.341	.031	.027	-1345	.253	.750	.371	.031	.047
-1299	.253	.562	.341	.031	.050	-1346	.253	.750	.371	.031	.050
-1300	.253	.562	.341	.062	.027	-1347	.253	.750	.371	.062	.027
-1301	.253	.562	.341	.062	.050	-1348	.253	.750	.371	.062	.050
-1302	.253	.562	.371	.031	.027	-1349	.253	.750	.432	.031	.207
-1303	.253	.562	.371	.031	.050	-1350	.253	.750	.432	.031	.050
-1304	.253	.562	.371	.062	.027	-1351	.253	.750	.432	.062	.027
-1305	.253	.562	.371	.062	.050	-1352	.253	.750	.432	.062	.050
-1306	.253	.562	.432	.031	.027	-1353	.253	.750	.495	.031	.027
-1307	.253	.562	.432	.031	.050	-1354	.253	.750	.495	.031	.050
-1308	.253	.562	.432	.062	.027	-1355	.253	.750	.495	.062	.027
-1309	.253	.562	.432	.062	.050	-1356	.253	.750	.495	.062	.050
-1310	.253	.562	.495	.031	.027	-1357	.254	.498	.375	.062	.687
-1311	.253	.562	.495	.031	.050	-1358	.254	.630	.375	.062	.187
-1312	.253	.562	.495	.062	.027	-1359	.255	.437	.275	.010	.040
-1313	.253	.562	.495	.062	.050	-1360	.255	.464	.312	.016	.078
-1314	.253	.615	.310	.031	.047	-1361	.255	.467	.312	.047	.125
-1315	.253	.625	.310	.031	.027	-1362	.255	.500	.341	.047	.069
-1316	.253	.625	.310	.031	.050	-1363	.255	.513	.312	.062	.375
-1317	.253	.625	.310	.062	.027	-1364	.255	.550	.375	.062	.422
-1318	.253	.625	.310	.062	.050	-1365	.255	.562	.375	.062	.437
-1319	.253	.625	.341	.031	.027	-1366	.255	.625	.322	.062	.187
-1320	.253	.625	.341	.031	.050	-1367	.255	.625	.375	.125	.812
-1321	.253	.625	.341	.062	.027	-1368	.256	.348	.290	.031	.062
-1322	.253	.625	.341	.062	.050	-1369	.256	.437	.355	.109	.060
-1323	.253	.625	.371	.031	.027	-1370	.257	.500	.375	.170	.125
-1324	.253	.625	.371	.031	.050	-1371	.257	.500	.343	.062	.094
-1325	.253	.625	.371	.062	.027	-1372	.257	.675	.480	.094	.062
-1326	.253	.625	.371	.062	.050	-1373	.257	.730	.375	.250	.343
-1327	.253	.625	.432	.031	.027	-1374	.258	.500	.375	.063	.031
-1328	.253	.625	.432	.031	.050	-1375	.258	.753	.409	.078	.047
-1329	.253	.625	.432	.062	.027	-1376	.258	.760	.410	.078	.047
-1330	.253	.625	.432	.062	.050	-1377	.260	.625	.300	.057	.032
-1331	.253	.625	.495	.031	.027	-1378	.260	.750	.365	.050	.031
-1332	.253	.625	.495	.031	.050	-1379	.260	.425	.377	.062	.171
-1333	.253	.625	.495	.062	.027	-1380	.260	.437	.310	.060	.052
-1334	.253	.625	.495	.062	.050	-1381	.260	.500	.312	.031	.031
-1335	.253	.740	.341	.031	.047						
-1336	.253	.750	.310	.031	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.253 I.D. to .260 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1382	.260	.515	.312	.062	.140	-1439	.317	.625	.432	.062	.050
-1383	.260	.550	.305	.078	.047	-1440	.317	.625	.495	.031	.027
-1384	.260	.555	.300	.078	.047	-1441	.317	.625	.495	.031	.050
-1385	.260	.562	.300	.047	.047	-1442	.317	.625	.495	.062	.027
-1386	.260	.562	.375	.094	.062	-1443	.317	.625	.495	.062	.050
-1387	.260	.625	.375	.125	.812	-1444	.317	.750	.371	.031	.027
-1388	.260	.625	.400	.125	.750	-1445	.317	.750	.371	.031	.050
-1389	.260	.625	.437	.078	.078	-1446	.317	.750	.371	.062	.027
-1390	.260	.630	.327	.062	.125	-1447	.317	.750	.371	.062	.050
-1391	.260	.750	.375	.062	.031	-1448	.317	.750	.432	.031	.027
-1392	.260	.750	.385	.140	.687	-1449	.317	.750	.432	.031	.050
-1393	.265	.492	.318	.031	.078	-1450	.317	.750	.432	.062	.027
-1394	.266	.500	.365	.062	.032	-1451	.317	.750	.432	.062	.050
-1395	.266	.697	.359	.062	.125	-1452	.317	.750	.495	.031	.027
-1396	.266	.740	.371	.094	.125	-1453	.317	.750	.495	.031	.050
-1397	.266	.740	.375	.094	.343	-1454	.317	.750	.495	.062	.027
-1398	.266	.750	.380	.094	.078	-1455	.317	.750	.495	.062	.050
-1399	.266	.750	.380	.094	.218	-1456	.319	.500	.375	.063	.031
-1400	.266	.875	.484	.093	.062	-1457	.320	.625	.405	.139	.066
-1401	.270	.720	.485	.062	.156	-1458	.320	.500	.375	.062	.046
-1402	.270	2.111	.603	.125	.703	-1459	.320	.735	.368	.031	.062
-1403	.281	.625	.312	.062	.063	-1460	.323	.750	.375	.047	.047
-1404	.281	.750	.500	.062	.063	-1461	.325	.780	.525	.100	.048
-1405	.281	1.000	.562	.125	.020	-1462	.328	.687	.437	.125	.125
-1406	.289	.531	.352	.031	.031	-1463	.328	.693	.437	.062	.125
-1407	.290	.674	.500	.094	.187	-1464	.332	.872	.617	.125	.500
-1408	.295	.625	.375	.062	.031	-1465	.343	1.000	.562	.125	.020
-1409	.296	.531	.339	.037	.036	-1466	.345	.625	.470	.062	.040
-1410	.305	.750	.437	.125	.032	-1467	.349	.502	.399	.031	.125
-1411	.306	.825	.445	.094	.406	-1468	.370	.750	.500	.078	.312
-1412	.308	.428	.350	.125	.047	-1469	.375	.750	.500	.031	.125
-1413	.312	.500	.368	.031	.025	-1470	.375	.750	.500	.110	.125
-1414	.312	.750	.434	.171	.422	-1471	.375	.750	.500	.125	.125
-1415	.313	.500	.375	.031	.016	-1472	.375	.750	.500	.195	.125
-1416	.313	.500	.437	.062	.032	-1473	.375	1.000	.500	.031	.125
-1417	.313	.625	.500	.062	.032	-1474	.375	1.000	.500	.110	.125
-1418	.315	.500	.375	.031	.062	-1475	.375	1.000	.500	.125	.125
-1419	.316	.620	.370	.062	.500	-1476	.375	1.000	.500	.195	.125
-1420	.317	.500	.371	.031	.027	-1477	.375	.625	.490	.062	.031
-1421	.317	.500	.371	.031	.050	-1478	.375	.625	.500	.031	.047
-1422	.317	.500	.371	.062	.027	-1479	.375	.625	.500	.047	.047
-1423	.317	.500	.371	.062	.050	-1480	.375	.687	.500	.093	.063
-1424	.317	.562	.371	.031	.027	-1481	.375	.725	.437	.156	.156
-1425	.317	.562	.371	.031	.050	-1482	.375	.740	.500	.062	.187
-1426	.317	.562	.371	.062	.027	-1483	.375	.743	.443	.062	.187
-1427	.317	.562	.371	.062	.050	-1484	.375	.743	.500	.094	.109
-1428	.317	.562	.432	.031	.027	-1485	.375	.750	.500	.062	.032
-1429	.317	.562	.432	.031	.050	-1486	.375	.750	.500	.062	.125
-1430	.317	.562	.432	.062	.027	-1487	.375	.750	.500	.094	.031
-1431	.317	.562	.432	.062	.050	-1488	.375	.750	.500	.125	.031
-1432	.317	.625	.371	.031	.027	-1489	.375	.750	.500	.125	.062
-1433	.317	.625	.371	.031	.050	-1490	.375	.875	.500	.062	1.000
-1434	.317	.625	.371	.062	.027	-1491	.375	1.000	.500	.062	.031
-1435	.317	.625	.371	.062	.050	-1492	.375	1.000	.625	.062	.032
-1436	.317	.625	.432	.031	.027	-1493	.375	1.005	.500	.062	.312
-1437	.317	.625	.432	.031	.050						
-1438	.317	.625	.432	.062	.027						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.260 I.D. to .375 I.D.

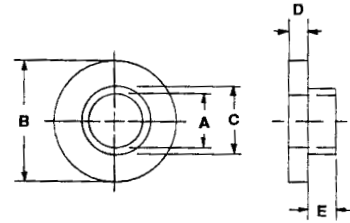
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-38	G-10 Fiber Glass
-27	PVC	-40	PFA, (Teflon®)
-28	CPVC	-46	Polycarbonate
-18	Nylon 6/6, (natural)	-60	Nylon 6/6, 30% Short Glass-filled
-29	Teflon®	-62	Acetal
-37	PVDF		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1494	.376	.743	.437	.062	.187	-1540	.385	.750	.556	.062	.027
-1495	.378	.625	.448	.031	.031	-1541	.385	.750	.556	.062	.050
-1496	.378	.625	.495	.062	.031	-1542	.385	.750	.616	.031	.027
-1497	.378	.750	.498	.031	.156	-1543	.385	.750	.616	.031	.050
-1498	.378	.750	.498	.062	.187	-1544	.385	.750	.616	.062	.027
-1499	.378	.750	.505	.078	.250	-1545	.385	.750	.616	.062	.050
-1500	.380	.565	.500	.375	.062	-1546	.385	.875	.432	.031	.027
-1501	.380	.750	.505	.060	.060	-1547	.385	.875	.432	.031	.050
-1502	.380	.625	.437	.031	.031	-1548	.385	.875	.432	.062	.027
-1503	.380	.625	.442	.032	.025	-1549	.385	.875	.432	.062	.050
-1504	.380	.625	.500	.062	.020	-1550	.385	.875	.495	.031	.027
-1505	.380	.625	.500	.062	.312	-1551	.385	.875	.495	.031	.050
-1506	.380	.812	.558	.093	.040	-1552	.385	.875	.495	.062	.027
-1507	.380	.980	.556	.125	.250	-1553	.385	.875	.495	.062	.050
-1508	.382	1.000	.500	.062	.562	-1554	.385	.875	.556	.031	.027
-1509	.383	.620	.434	.047	.031	-1555	.385	.875	.556	.031	.050
-1510	.383	.743	.502	.078	.312	-1556	.385	.875	.556	.062	.027
-1511	.384	.748	.504	.125	.359	-1557	.385	.875	.556	.062	.050
-1512	.385	.562	.433	.250	.062	-1558	.385	.875	.616	.031	.027
-1513	.385	.625	.498	.031	.062	-1559	.385	.875	.616	.031	.050
-1514	.385	.562	.432	.031	.027	-1560	.385	.875	.616	.062	.027
-1515	.385	.562	.432	.031	.050	-1561	.385	.875	.616	.062	.050
-1516	.385	.562	.432	.062	.027	-1562	.385	1.000	.432	.031	.027
-1517	.385	.562	.432	.062	.050	-1563	.385	1.000	.432	.031	.050
-1518	.385	.570	.470	.062	.375	-1564	.385	1.000	.432	.062	.027
-1519	.385	1.000	.618	.172	.250	-1565	.385	1.000	.432	.062	.050
-1520	.385	.625	.432	.031	.027	-1566	.385	1.000	.495	.031	.027
-1521	.385	.625	.432	.031	.050	-1567	.385	1.000	.495	.031	.050
-1522	.385	.625	.432	.062	.027	-1568	.385	1.000	.495	.062	.027
-1523	.385	.625	.432	.062	.050	-1569	.385	1.000	.495	.062	.050
-1524	.385	.625	.495	.031	.027	-1570	.385	1.000	.556	.031	.027
-1525	.385	.625	.495	.031	.050	-1571	.385	1.000	.556	.031	.050
-1526	.385	.625	.495	.062	.027	-1572	.385	1.000	.556	.062	.027
-1527	.385	.625	.495	.062	.050	-1573	.385	1.000	.556	.062	.050
-1528	.385	.625	.500	.062	.032	-1574	.385	1.000	.616	.031	.027
-1529	.385	.687	.562	.125	.030	-1575	.385	1.000	.616	.031	.050
-1530	.385	.750	.432	.031	.027	-1576	.385	1.000	.616	.062	.027
-1531	.385	.750	.432	.031	.050	-1577	.385	1.000	.616	.062	.050
-1532	.385	.750	.432	.062	.027	-1578	.386	.562	.443	.031	.050
-1533	.385	.750	.432	.062	.050	-1579	.386	.688	.484	.031	.046
-1534	.385	.750	.495	.031	.027	-1580	.390	.625	.500	.313	.062
-1535	.385	.750	.495	.031	.050	-1581	.390	.625	.500	.375	.062
-1536	.385	.750	.495	.062	.027	-1582	.390	.750	.577	.094	.109
-1537	.385	.750	.495	.062	.050	-1583	.406	.625	.500	.031	.031
-1538	.385	.750	.556	.031	.027						
-1539	.385	.750	.556	.031	.050						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.376 I.D. to .406 I.D.

Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH PERFORMANCE PLASTIC SHOULDER WASHERS (continued)

Part No. FN112 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1584	.406	.945	.470	.078	.531	-1642	.510	1.230	.980	.062	.094
-1585	.409	.625	.574	.050	.085	-1643	.515	.750	.556	.062	.027
-1586	.430	.750	.500	.187	.047	-1644	.515	.750	.556	.062	.050
-1587	.435	.735	.490	.187	.047	-1645	.515	.750	.556	.093	.027
-1588	.435	1.739	1.095	.203	.203	-1646	.515	.750	.556	.093	.050
-1589	.437	.625	.498	.031	.047	-1647	.515	.750	.616	.062	.027
-1590	.437	.750	.562	.062	.031	-1648	.515	.750	.616	.062	.050
-1591	.440	.875	.630	.125	.375	-1649	.515	.750	.616	.093	.027
-1592	.443	.625	.495	.031	.027	-1650	.515	.750	.616	.093	.050
-1593	.443	.625	.495	.031	.050	-1651	.515	.875	.556	.062	.027
-1594	.443	.625	.495	.062	.027	-1652	.515	.875	.556	.062	.050
-1595	.443	.625	.495	.062	.050	-1653	.515	.875	.556	.093	.027
-1596	.443	.750	.495	.031	.027	-1654	.515	.875	.556	.093	.050
-1597	.443	.750	.495	.031	.050	-1655	.515	.875	.616	.062	.027
-1598	.443	.750	.495	.062	.027	-1656	.515	.875	.616	.062	.050
-1599	.443	.750	.495	.062	.050	-1657	.515	.875	.616	.093	.027
-1600	.443	.750	.556	.031	.027	-1658	.515	.875	.616	.093	.050
-1601	.443	.750	.556	.031	.050	-1659	.515	1.000	.556	.062	.027
-1602	.443	.750	.556	.062	.027	-1660	.515	1.000	.556	.062	.050
-1603	.443	.750	.556	.062	.050	-1661	.515	1.000	.556	.093	.027
-1604	.443	.750	.616	.031	.027	-1662	.515	1.000	.556	.093	.050
-1605	.443	.750	.616	.031	.050	-1663	.515	1.000	.616	.062	.027
-1606	.443	.750	.616	.062	.027	-1664	.515	1.000	.616	.062	.050
-1607	.443	.750	.616	.062	.050	-1665	.515	1.000	.616	.093	.027
-1608	.443	.875	.495	.031	.027	-1666	.515	1.000	.616	.093	.050
-1609	.443	.875	.495	.031	.050	-1667	.515	1.000	.616	.094	.031
-1610	.443	.875	.495	.062	.027	-1668	.515	1.105	.752	.125	.281
-1611	.443	.875	.495	.062	.050	-1669	.515	1.125	.740	.062	.094
-1612	.443	.875	.556	.031	.027	-1670	.520	.734	.562	.062	.055
-1613	.443	.875	.556	.031	.050	-1671	.520	.825	.620	.062	.500
-1614	.443	.875	.556	.062	.027	-1672	.538	1.252	.600	.062	.406
-1615	.443	.875	.556	.062	.050	-1673	.550	.790	.625	.047	.422
-1616	.443	.875	.616	.031	.027	-1674	.562	.875	.687	.062	.094
-1617	.443	.875	.616	.031	.050	-1675	.569	.750	.616	.062	.050
-1618	.443	.875	.616	.062	.027	-1676	.569	.750	.616	.093	.050
-1619	.443	.875	.616	.062	.050	-1677	.569	.875	.616	.062	.050
-1620	.443	1.000	.495	.031	.027	-1678	.569	.875	.616	.093	.050
-1621	.443	1.000	.495	.031	.050	-1679	.569	1.000	.616	.062	.050
-1622	.443	1.000	.495	.062	.027	-1680	.569	1.000	.616	.093	.050
-1623	.443	1.000	.495	.062	.050	-1681	.569	1.125	.616	.062	.050
-1624	.443	1.000	.556	.031	.027	-1682	.569	1.125	.616	.093	.050
-1625	.443	1.000	.556	.031	.050	-1683	.569	1.250	.616	.062	.050
-1626	.443	1.000	.556	.062	.027	-1684	.569	1.250	.616	.093	.050
-1627	.443	1.000	.556	.062	.050	-1685	.612	1.064	.787	.062	.062
-1628	.443	1.000	.616	.031	.027	-1686	.617	.880	.750	.047	.203
-1629	.443	1.000	.616	.031	.050	-1687	.625	.875	.687	.062	.063
-1630	.443	1.000	.616	.062	.027	-1688	.627	1.245	.875	.125	.500
-1631	.443	1.000	.616	.062	.050	-1689	.671	1.000	.750	.062	.062
-1632	.445	.875	.530	.500	.100	-1690	.695	.995	.787	.125	.625
-1633	.471	1.251	.528	.062	.406	-1691	.695	.995	.792	.125	.187
-1634	.500	.745	.560	.031	.312	-1692	.750	1.250	.875	.062	.024
-1635	.500	1.125	.700	.094	.437	-1693	.765	1.500	.859	.060	.020
-1636	.505	.750	.562	.062	.025	-1694	.765	1.125	.875	.094	.031
-1637	.505	.875	.569	.032	.032	-1695	.806	2.060	1.050	.125	.500
-1638	.505	1.000	.750	.062	.032						
-1639	.508	.688	.543	.031	.047						
-1640	.508	.890	.560	.040	.030						
-1641	.508	1.000	.770	.078	.109						

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.406 I.D. to .806 I.D.

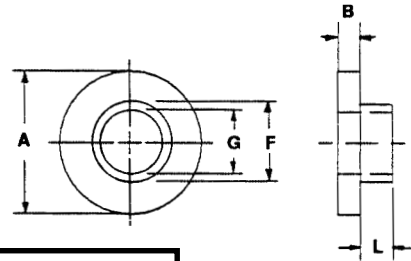
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

FLUROPLASTIC SHOULDER WASHERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-37	PVDF
-30	Tefzel®	-40	PFA (Teflon®)
-31	FEP®	-41	Halar®
-32	PCTFE		

*Available in other materials. See materials list in index.
Other sizes available on request.



Part No. D212 - (Size Code No.) - (Material Code No.)

Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. F	Shank I.D. G	Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. F	Shank I.D. G
-1	.047	.105	.047	.084	.061	-52	.062	.312	.062	.170	.120
-2	.031	.228	.031	.122	.093	-53	.047	.312	.062	.170	.120
-3	.031	.182	.078	.131	.085	-54	.125	.312	.047	.234	.144
-4	.016	.187	.031	.119	.089	-55	.016	.250	.031	.150	.116
-5	.062	.195	.031	.120	.093	-56	.218	.295	.031	.234	.140
-6	.031	.200	.078	.135	.116	-57	.031	.312	.062	.250	.196
-7	.187	.187	.031	.119	.063	-58	.172	.250	.047	.145	.115
-8	.078	.205	.031	.125	.093	-59	.047	.250	.031	.185	.116
-9	.109	.205	.031	.125	.093	-60	.109	.235	.047	.140	.115
-10	.187	.205	.031	.125	.093	-61	.140	.250	.047	.145	.115
-11	.047	.202	.016	.145	.120	-62	.187	.312	.062	.250	.156
-12	.062	.224	.031	.154	.120	-63	.094	.240	.031	.185	.125
-13	.156	.235	.047	.135	.110	-64	.047	.250	.047	.143	.115
-14	.062	.200	.031	.120	.093	-65	.109	.250	.047	.145	.115
-15	.047	.210	.016	.145	.120	-66	.062	.312	.047	.170	.140
-16	.047	.230	.016	.142	.122	-67	.047	.250	.062	.185	.116
-17	.031	.218	.047	.135	.115	-68	.031	.240	.047	.139	.115
-18	.437	.224	.031	.154	.120	-69	.031	.205	.031	.157	.126
-19	.031	.235	.047	.137	.115	-70	.031	.312	.062	.187	.141
-20	.047	.200	.031	.138	.109	-71	.312	.312	.031	.154	.130
-21	.218	.250	.172	.150	.115	-72	.187	.312	.031	.234	.184
-22	.031	.240	.031	.150	.098	-73	.218	.295	.031	.234	.140
-23	.031	.228	.047	.138	.100	-74	.062	.300	.047	.194	.160
-24	.125	.235	.047	.140	.115	-75	.016	.312	.047	.160	.090
-25	.125	.290	.016	.250	.193	-76	.094	.312	.047	.187	.128
-26	.047	.234	.047	.147	.115	-77	.062	.312	.047	.234	.144
-27	.094	.235	.047	.145	.115	-78	.031	.312	.047	.203	.120
-28	.125	.235	.047	.145	.115	-79	.031	.313	.031	.219	.136
-29	.031	.250	.062	.187	.140	-80	.250	.290	.047	.170	.140
-30	.047	.260	.062	.190	.140	-81	.047	.328	.047	.218	.146
-31	.672	.250	.047	.187	.095	-82	.047	.340	.078	.250	.140
-32	.062	.250	.031	.143	.118	-83	.062	.289	.062	.215	.093
-33	.016	.260	.016	.154	.095	-84	.047	.290	.047	.170	.140
-34	.125	.250	.047	.130	.118	-85	.047	.312	.031	.185	.116
-35	.156	.265	.031	.205	.142	-86	.094	.316	.047	.158	.116
-36	.094	.235	.047	.140	.115	-87	.031	.324	.062	.204	.140
-37	.250	.235	.047	.145	.115	-88	.375	.344	.062	.195	.170
-38	.062	.312	.062	.149	.115	-89	.094	.340	.062	.220	.175
-39	.094	.312	.062	.149	.115	-90	.375	.345	.062	.205	.173
-40	.016	.250	.047	.124	.111	-91	.062	.349	.047	.248	.140
-41	.125	.250	.031	.195	.130	-92	.172	.350	.016	.300	.112
-42	.031	.250	.047	.114	.100	-93	.375	.344	.062	.205	.173
-43	.062	.250	.031	.143	.155	-94	.062	.375	.031	.195	.171
-44	.062	.250	.031	.169	.102	-95	.406	.500	.062	.250	.171
-45	.094	.250	.047	.114	.100	-96	.031	.375	.062	.250	.171
-46	.125	.281	.094	.158	.093	-97	.047	.375	.047	.245	.192
-47	.187	.293	.047	.218	.138	-98	.094	.375	.031	.260	.220
-48	.172	.250	.047	.186	.125	-99	.109	.375	.047	.195	.136
-49	.016	.310	.062	.183	.139	-100	.047	.380	.078	.244	.150
-50	.016	.312	.062	.187	.115						
-51	.031	.312	.031	.185	.140						

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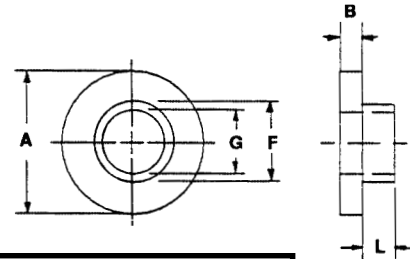
Tolerances:
 Flange O.D. +/- .005
 Flange Thickness +/- .005
 Shank O.D. - .005/+0.00
 Shank Thickness +/- .005
 Shank I.D. + .005/-0.00

FLUOROPLASTIC SHOULDER WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-37	PVDF
-30	Tefzel®	-40	PFA (Teflon®)
-31	FEP®	-41	Halar®
-32	PCTFE		

*Available in other materials. See materials list in index.
Other sizes available on request.



Part No. D212 - (Size Code No.) - (Material Code No.)

Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. F	Shank I.D. G	Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. F	Shank I.D. G
-101	.094	.375	.031	.185	.140	-152	.437	.500	.125	.250	.167
-102	.031	.375	.031	.250	.169	-153	.062	.562	.094	.375	.260
-103	.047	.375	.062	.218	.140	-154	.187	.625	.062	.322	.255
-104	.031	.375	.062	.246	.167	-155	.047	.630	.031	.310	.253
-105	.062	.437	.062	.313	.188	-156	.062	.640	.062	.380	.195
-106	.031	.375	.062	.185	.140	-157	.047	.625	.031	.248	.171
-107	.031	.375	.062	.308	.196	-158	.047	.625	.062	.375	.190
-108	.203	.370	.078	.145	.115	-159	.047	.555	.078	.300	.260
-109	.078	.375	.218	.199	.140	-160	.375	.437	.062	.282	.225
-110	.047	.375	.062	.185	.140	-161	.437	.562	.062	.375	.255
-111	.062	.375	.094	.250	.140	-162	.094	.500	.062	.281	.200
-112	.031	.385	.062	.240	.145	-163	.031	.500	.094	.250	.156
-113	.062	.375	.094	.250	.138	-164	.312	.500	.062	.312	.200
-114	.094	.375	.062	.248	.136	-165	.031	.500	.031	.312	.252
-115	.047	.375	.062	.248	.194	-166	.016	.500	.078	.250	.165
-116	.109	.375	.062	.240	.138	-167	.094	.500	.062	.343	.257
-117	.094	.375	.016	.185	.140	-168	.187	.500	.250	.310	.195
-118	.156	.375	.078	.193	.116	-169	.437	.500	.062	.375	.250
-119	.062	.375	.062	.250	.145	-170	.156	.500	.062	.250	.190
-120	.140	.375	.031	.245	.187	-171	.156	.500	.125	.250	.190
-121	.203	.380	.062	.220	.148	-172	.031	.500	.031	.312	.260
-122	.187	.390	.078	.287	.196	-173	.031	.500	.031	.318	.193
-123	.078	.390	.078	.313	.203	-174	.078	.500	.031	.318	.265
-124	.125	.400	.125	.275	.140	-175	.078	.500	.031	.318	.193
-125	.047	.400	.047	.243	.156	-176	.016	.500	.031	.318	.141
-126	.047	.415	.156	.243	.141	-177	.047	.500	.031	.318	.193
-127	.062	.400	.109	.243	.141	-178	.047	.500	.031	.318	.141
-128	.187	.408	.062	.240	.220	-179	.062	.500	.062	.330	.150
-129	.031	.437	.062	.245	.156	-180	.047	.500	.031	.305	.080
-130	.031	.425	.062	.245	.156	-181	.140	.515	.062	.312	.260
-131	.375	.437	.062	.282	.225	-182	.047	.562	.047	.300	.260
-132	.062	.425	.062	.310	.250	-183	.062	.562	.109	.365	.215
-133	.094	.438	.031	.267	.203	-184	.422	.550	.062	.375	.255
-134	.140	.440	.031	.303	.196	-185	.031	.562	.125	.312	.169
-135	.187	.743	.062	.437	.376	-186	.375	.570	.062	.470	.385
-136	.047	.468	.062	.248	.140	-187	.047	.578	.062	.185	.140
-137	.375	.399	.062	.260	.220	-188	.047	.615	.047	.315	.208
-138	.094	.438	.062	.267	.203	-189	.047	.625	.125	.310	.172
-139	.187	.745	.031	.282	.234	-190	.750	.625	.125	.400	.260
-140	.140	.438	.031	.250	.135	-191	.125	.630	.062	.327	.260
-141	.078	.464	.016	.312	.255	-192	.500	.620	.062	.370	.316
-142	.172	.425	.062	.377	.260	-193	.187	.630	.062	.375	.254
-143	.047	.437	.047	.281	.201	-194	.375	.513	.062	.312	.255
-144	.047	.620	.047	.312	.205	-195	.125	.467	.047	.312	.255
-145	.062	.750	.031	.368	.320	-196	.031	.625	.062	.375	.295
-146	.047	.625	.094	.375	.250	-197	.125	.687	.125	.437	.328
-147	.062	.687	.094	.485	.257	-198	.031	.500	.062	.312	.252
-148	.125	.687	.062	.359	.266	-199	.312	.625	.062	.500	.380
-149	.047	.688	.016	.543	.500	-200	.125	.600	.125	.370	.250
-150	.031	.437	.031	.310	.253						
-151	.047	.500	.094	.275	.145						

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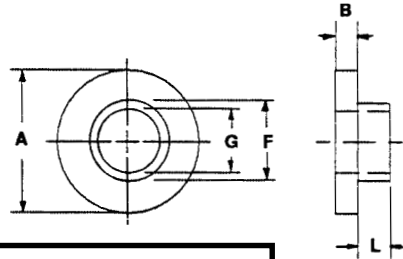
Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005
Shank O.D. - .005/+0.000
Shank Thickness +/- .005
Shank I.D. + .005/-0.000

FLUOROPLASTIC SHOULDER WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-37	PVDF
-30	Tefzel®	-40	PFA (Teflon®)
-31	FEP®	-41	Halar®
-32	PCTFE		



Part No. D212 - (Size Code No.) - (Material Code No.)

Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. F	Shank I.D. G	Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. F	Shank I.D. G
-201	.156	.715	.156	.437	.375	-223	.218	.750	.094	.380	.266
-202	.156	.720	.062	.485	.270	-224	.062	.750	.094	.359	.152
-203	.187	.743	.062	.443	.375	-225	.031	.750	.125	.500	.375
-204	.344	.750	.094	.375	.266	-226	.062	.750	.031	.560	.500
-205	.125	.750	.094	.380	.266	-227	.500	.825	.062	.620	.520
-206	.078	.750	.094	.380	.266	-228	1.000	.875	.062	.500	.375
-207	.047	.750	.187	.500	.430	-229	.375	.875	.125	.625	.440
-208	.062	.735	.125	.500	.250	-230	.187	.995	.125	.792	.695
-209	.109	.750	.094	.500	.375	-231	.625	.995	.125	.787	.695
-210	.047	.735	.187	.490	.435	-232	.109	.750	.094	.577	.390
-211	.187	.750	.062	.500	.375	-233	.422	.790	.047	.625	.550
-212	.125	.750	.062	.500	.375	-234	.406	.825	.094	.445	.306
-213	.047	.750	.031	.371	.263	-235	.203	.880	.047	.750	.630
-214	.422	.750	.172	.434	.312	-236	.150	1.000	.125	.562	.390
-215	.250	.750	.078	.500	.378	-237	.031	1.000	.094	.616	.515
-216	.250	.750	.062	.250	.150	-238	.562	1.000	.062	.500	.382
-217	.468	.750	.156	.375	.250	-239	.109	1.000	.078	.770	.508
-218	.047	.750	.031	.341	.253	-240	.062	1.000	.062	.298	.203
-219	.688	.750	.140	.385	.260	-241	.437	1.125	.094	.700	.500
-220	.312	.755	.031	.560	.500	-242	.094	1.125	.062	.740	.515
-221	.125	.700	.062	.437	.328	-243	.094	1.230	.062	.980	.510
-222	.047	.750	.047	.375	.323	-244	.281	1.105	.125	.752	.515

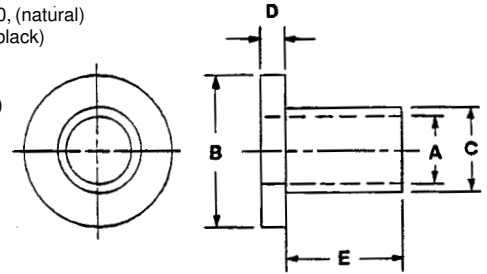
Tolerances:
 Flange O.D. +/- .005
 Flange Thickness +/- .005
 Shank O.D. - .005/+ .000
 Shank Thickness +/- .005
 Shank I.D. + .005/- .000

HIGH TECHNOLOGY PLASTIC SHOULDER BUSHINGS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-24	Delrin®	-40	PFA, (Teflon®)
-4	Lexan®, (black)	-27	PVC	-41	Halar®
-5	Ultem® 1000	-28	CPVC	-60	Nylon 6/6, 30% Short Glass-filled
-9	Celcon®	-29	Teflon®	-77	Ultem® 2300, (natural)
-10	Celcon®, Glass-filled	-30	Tefzel®	-78	Nylon 6/6, (black)
-11	Polypropylene	-32	PCTFE	-213	Vespel®
-13	Polyethylene	-33	Polysulfone	-272	PVC, (white)
-14	ABS	-35	Noryl®	-273	PVC, (black)
-15	PEEK™	-37	PVDF		
-18	Nylon 6/6, (natural)	-38	Fiber Glass G10		
-23	Nylon Super Tough	-39	UHMW®		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. DN211 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1	.089	.250	.158	.030	.135	-42	.174	.375	.218	.062	.187
-2	.093	.187	.125	.062	.125	-43	.174	.375	.218	.062	.250
-3	.093	.187	.125	.062	.187	-44	.174	.375	.218	.062	.312
-4	.093	.187	.125	.062	.250	-45	.174	.375	.218	.062	.375
-5	.093	.187	.125	.062	.312	-46	.174	.375	.218	.062	.437
-6	.093	.187	.125	.062	.375	-47	.174	.375	.218	.062	.500
-7	.105	.510	.305	.065	.080	-48	.180	.375	.305	.400	.160
-8	.120	.330	.220	.030	.285	-49	.180	.410	.250	.035	.140
-9	.120	.625	.250	.065	.250	-50	.180	.430	.305	.070	.215
-10	.125	.250	.156	.062	.125	-51	.180	.430	.305	.078	.250
-11	.125	.250	.156	.062	.187	-52	.185	.430	.310	.060	.250
-12	.125	.250	.156	.062	.250	-53	.185	.435	.250	.120	.130
-13	.125	.310	.180	.065	.335	-54	.185	.435	.310	.060	.230
-14	.125	.437	.250	.040	.103	-55	.185	.435	.316	.070	.230
-15	.125	.500	.240	.060	.030	-56	.185	.440	.305	.065	.255
-16	.130	.355	.150	.065	.080	-57	.185	.500	.310	.125	.155
-17	.130	.375	.320	.125	.125	-58	.187	.500	.322	.060	.310
-18	.135	.375	.250	.065	.085	-59	.190	.370	.250	.125	.080
-19	.135	.555	.215	.133	.102	-60	.190	.400	.280	.065	.630
-20	.140	.315	.233	.055	.045	-61	.190	.435	.250	.065	.095
-21	.140	.367	.232	.095	.085	-62	.190	.440	.315	.060	.255
-22	.140	.375	.185	.045	.045	-63	.190	.490	.370	.105	.270
-23	.140	.375	.235	.060	.030	-64	.190	.500	.250	.125	.165
-24	.140	.437	.279	.037	.077	-65	.190	.505	.255	.065	.170
-25	.140	.443	.260	.150	.105	-66	.190	1.000	.365	.060	.165
-26	.140	.490	.255	.060	.065	-67	.195	.440	.250	.125	.255
-27	.140	.490	.260	.060	.170	-68	.195	.620	.370	.070	.557
-28	.145	.290	.205	.035	.147	-69	.195	.750	.320	.065	.250
-29	.147	.312	.172	.062	.125	-70	.200	.437	.250	.062	.187
-30	.147	.312	.172	.062	.187	-71	.200	.437	.250	.062	.250
-31	.150	.230	.194	.015	.040	-72	.200	.437	.250	.062	.312
-32	.150	.390	.245	.080	.045	-73	.200	.437	.250	.062	.375
-33	.150	.580	.235	.062	.320	-74	.200	.437	.250	.062	.437
-34	.150	.590	.200	.062	.255	-75	.200	.437	.250	.062	.500
-35	.150	.730	.290	.125	.425	-76	.200	.440	.250	.063	.095
-36	.165	.250	.235	.022	.110	-77	.200	.440	.253	.065	.060
-37	.165	.340	.205	.065	.130	-78	.205	.425	.315	.070	.320
-38	.165	.340	.205	.065	.625	-79	.215	.435	.340	.310	.135
-39	.170	.350	.210	.065	.095	-80	.215	.555	.365	.105	.055
-40	.170	.750	.320	.065	.250						
-41	.170	.990	.365	.155	.190						

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Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.089 I.D. to .215 I.D.

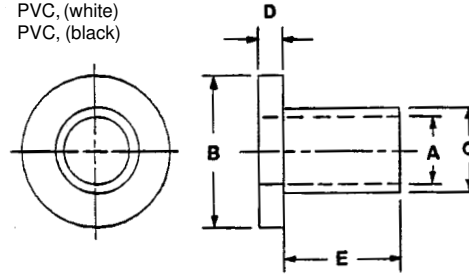
Shank O.D. - .005/+000
Shank Thickness +/- .005
Shank I.D. + .005/-000

HIGH TECHNOLOGY PLASTIC SHOULDER BUSHINGS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-24	Delrin®	-40	PFA, (Teflon®)
-4	Lexan®, (black)	-27	PVC	-41	Halar®
-5	Ultem® 1000	-28	CPVC	-60	Nylon 6/6, 30% Short Glass-filled
-9	Celcon®	-29	Teflon®	-77	Ultem® 2300, (natural)
-10	Celcon®, Glass-filled	-30	Tefzel®	-78	Nylon 6/6, (black)
-11	Polypropylene	-32	PCTFE	-213	Vespel®
-13	Polyethylene	-33	Polysulfone	-272	PVC, (white)
-14	ABS	-35	Noryl®	-273	PVC, (black)
-15	PEEK™	-37	PVDF		
-18	Nylon 6/6, (natural)	-38	Fiber Glass G10		
-23	Nylon Super Tough	-39	UHMW®		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. DN211 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-81	.220	.750	.320	.065	.250	-122	.316	.562	.374	.025	.156
-82	.228	.660	.356	.115	.282	-123	.316	.625	.373	.187	.396
-83	.235	.490	.370	.040	.035	-124	.316	.650	.375	.062	.270
-84	.240	.495	.400	.060	.085	-125	.335	.870	.617	.130	.490
-85	.240	.740	.350	.065	.250	-126	.356	.700	.566	.090	.700
-86	.240	.750	.495	.330	.160	-127	.365	1.238	.685	.310	.185
-87	.241	.408	.307	.031	.165	-128	.375	.555	.500	.060	.100
-88	.246	.406	.312	.031	.165	-129	.375	.755	.490	.130	1.010
-89	.250	.385	.310	.035	.720	-130	.375	.755	.493	.125	.030
-90	.250	.440	.310	.030	.130	-131	.375	.995	.490	.175	.050
-91	.250	.460	.350	.210	.740	-132	.385	.750	.500	.185	.065
-92	.250	.625	.378	.065	.315	-133	.388	.562	.438	.025	.265
-93	.251	.437	.281	.022	.086	-134	.400	.750	.500	.130	.090
-94	.252	.562	.380	.120	.260	-135	.406	.562	.500	.032	.250
-95	.254	.437	.310	.028	.156	-136	.415	.750	.560	.080	.550
-96	.254	.560	.372	.062	.500	-137	.420	.615	.500	.375	.315
-97	.254	.600	.372	.125	.250	-138	.430	.750	.500	.187	.036
-98	.255	.420	.315	.060	.180	-139	.500	.875	.620	.065	.190
-99	.255	.505	.365	.065	.370	-140	.505	.810	.690	.130	.370
-100	.255	.755	.320	.065	.250	-141	.515	.875	.625	.062	.620
-101	.256	.625	.344	.063	.328	-142	.750	1.000	.800	.030	.155
-102	.260	.430	.315	.063	.087	-143	.900	2.175	1.110	.125	1.000
-103	.260	.435	.340	.060	.025	-144	.930	1.500	1.010	.040	.265
-104	.260	.495	.370	.030	.045						
-105	.260	.500	.310	.065	.125						
-106	.260	.500	.312	.062	.187						
-107	.260	.500	.312	.062	.250						
-108	.260	.500	.312	.062	.312						
-109	.260	.500	.312	.062	.375						
-110	.260	.500	.312	.062	.437						
-111	.260	.500	.312	.062	.500						
-112	.260	.500	.315	.065	.075						
-113	.260	.750	.365	.130	.050						
-114	.305	.600	.382	.035	.125						
-115	.305	.615	.550	.063	.437						
-116	.308	.500	.375	.031	.156						
-117	.310	.500	.370	.035	.225						
-118	.310	.560	.455	.060	.085						
-119	.310	.870	.436	.090	.340						
-120	.312	.500	.380	.023	.146						
-121	.316	.468	.374	.025	.218						

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.220 I.D. to .930 I.D.

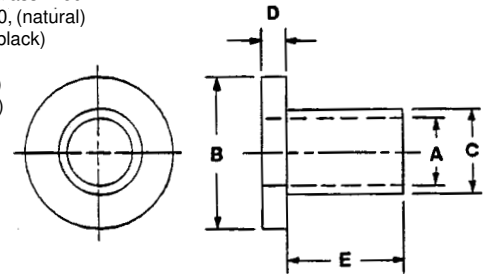
Shank O.D. -.005/+0.000
Shank Thickness +/- .005
Shank I.D. +.005/-0.000

HIGH TECHNOLOGY PLASTIC SHOULDER BUSHINGS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-24	Delrin®	-40	PFA, (Teflon®)
-4	Lexan®, (black)	-27	PVC	-41	Halar®
-5	Ultem® 1000	-28	CPVC	-60	Nylon 6/6, 30% Short Glass-filled
-9	Celcon®	-29	Teflon®	-77	Ultem® 2300, (natural)
-10	Celcon®, Glass-filled	-30	Tefzel®	-78	Nylon 6/6, (black)
-11	Polypropylene	-32	PCTFE	-213	VespeI®
-13	Polyethylene	-33	Polysulfone	-272	PVC, (white)
-14	ABS	-35	Noryl®	-273	PVC, (black)
-15	PEEK™	-37	PVDF		
-18	Nylon 6/6, (natural)	-38	Fiber Glass G10		
-23	Nylon Super Tough	-39	UHMW®		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. DN211 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1	.089	.250	.158	.030	.135	-42	.174	.375	.218	.062	.187
-2	.093	.187	.125	.062	.125	-43	.174	.375	.218	.062	.250
-3	.093	.187	.125	.062	.187	-44	.174	.375	.218	.062	.312
-4	.093	.187	.125	.062	.250	-45	.174	.375	.218	.062	.375
-5	.093	.187	.125	.062	.312	-46	.174	.375	.218	.062	.437
-6	.093	.187	.125	.062	.375	-47	.174	.375	.218	.062	.500
-7	.105	.510	.305	.065	.080	-48	.180	.375	.305	.400	.160
-8	.120	.330	.220	.030	.285	-49	.180	.410	.250	.035	.140
-9	.120	.625	.250	.065	.250	-50	.180	.430	.305	.070	.215
-10	.125	.250	.156	.062	.125	-51	.180	.430	.305	.078	.250
-11	.125	.250	.156	.062	.187	-52	.185	.430	.310	.060	.250
-12	.125	.250	.156	.062	.250	-53	.185	.435	.250	.120	.130
-13	.125	.310	.180	.065	.335	-54	.185	.435	.310	.060	.230
-14	.125	.437	.250	.040	.103	-55	.185	.435	.316	.070	.230
-15	.125	.500	.240	.060	.030	-56	.185	.440	.305	.065	.255
-16	.130	.355	.150	.065	.080	-57	.185	.500	.310	.125	.155
-17	.130	.375	.320	.125	.125	-58	.187	.500	.322	.060	.310
-18	.135	.375	.250	.065	.085	-59	.190	.370	.250	.125	.080
-19	.135	.555	.215	.133	.102	-60	.190	.400	.280	.065	.630
-20	.140	.315	.233	.055	.045	-61	.190	.435	.250	.065	.095
-21	.140	.367	.232	.095	.085	-62	.190	.440	.315	.060	.255
-22	.140	.375	.185	.045	.045	-63	.190	.490	.370	.105	.270
-23	.140	.375	.235	.060	.030	-64	.190	.500	.250	.125	.165
-24	.140	.437	.279	.037	.077	-65	.190	.505	.255	.065	.170
-25	.140	.443	.260	.150	.105	-66	.190	1.000	.365	.060	.165
-26	.140	.490	.255	.060	.065	-67	.195	.440	.250	.125	.255
-27	.140	.490	.260	.060	.170	-68	.195	.620	.370	.070	.557
-28	.145	.290	.205	.035	.147	-69	.195	.750	.320	.065	.250
-29	.147	.312	.172	.062	.125	-70	.200	.437	.250	.062	.187
-30	.147	.312	.172	.062	.187	-71	.200	.437	.250	.062	.250
-31	.150	.230	.194	.015	.040	-72	.200	.437	.250	.062	.312
-32	.150	.390	.245	.080	.045	-73	.200	.437	.250	.062	.375
-33	.150	.580	.235	.062	.320	-74	.200	.437	.250	.062	.437
-34	.150	.590	.200	.062	.255	-75	.200	.437	.250	.062	.500
-35	.150	.730	.290	.125	.425	-76	.200	.440	.250	.063	.095
-36	.165	.250	.235	.022	.110	-77	.200	.440	.253	.065	.060
-37	.165	.340	.205	.065	.130	-78	.205	.425	.315	.070	.320
-38	.165	.340	.205	.065	.625	-79	.215	.435	.340	.310	.135
-39	.170	.350	.210	.065	.095	-80	.215	.555	.365	.105	.055
-40	.170	.750	.320	.065	.250						
-41	.170	.990	.365	.155	.190						

(continued next page)

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.089 I.D. to .215 I.D.

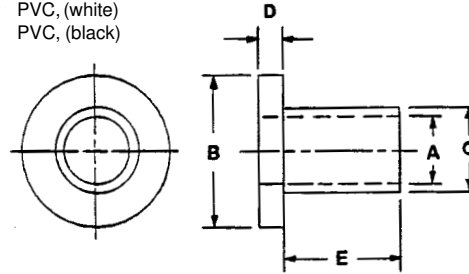
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

HIGH TECHNOLOGY PLASTIC SHOULDER BUSHINGS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-24	Delrin®	-40	PFA, (Teflon®)
-4	Lexan®, (black)	-27	PVC	-41	Halar®
-5	Ultem® 1000	-28	CPVC	-60	Nylon 6/6,
-9	Celcon®	-29	Teflon®		30% Short Glass-filled
-10	Celcon®, Glass-filled	-30	Tefzel®	-77	Ultem® 2300, (natural)
-11	Polypropylene	-32	PCTFE	-78	Nylon 6/6, (black)
-13	Polyethylene	-33	Polysulfone	-213	VespeI®
-14	ABS	-35	Noryl®	-272	PVC, (white)
-15	PEEK™	-37	PVDF	-273	PVC, (black)
-18	Nylon 6/6, (natural)	-38	Fiber Glass G10		
-23	Nylon Super Tough	-39	UHMW®		

*Available in other materials.
See materials list in index.
Other sizes available on request.



Part No. DN211 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-81	.220	.750	.320	.065	.250	-122	.316	.562	.374	.025	.156
-82	.228	.660	.356	.115	.282	-123	.316	.625	.373	.187	.396
-83	.235	.490	.370	.040	.035	-124	.316	.650	.375	.062	.270
-84	.240	.495	.400	.060	.085	-125	.335	.870	.617	.130	.490
-85	.240	.740	.350	.065	.250	-126	.356	.700	.566	.090	.700
-86	.240	.750	.495	.330	.160	-127	.365	1.238	.685	.310	.185
-87	.241	.408	.307	.031	.165	-128	.375	.555	.500	.060	.100
-88	.246	.406	.312	.031	.165	-129	.375	.755	.490	.130	1.010
-89	.250	.385	.310	.035	.720	-130	.375	.755	.493	.125	.030
-90	.250	.440	.310	.030	.130	-131	.375	.995	.490	.175	.050
-91	.250	.460	.350	.210	.740	-132	.385	.750	.500	.185	.065
-92	.250	.625	.378	.065	.315	-133	.388	.562	.438	.025	.265
-93	.251	.437	.281	.022	.086	-134	.400	.750	.500	.130	.090
-94	.252	.562	.380	.120	.260	-135	.406	.562	.500	.032	.250
-95	.254	.437	.310	.028	.156	-136	.415	.750	.560	.080	.550
-96	.254	.560	.372	.062	.500	-137	.420	.615	.500	.375	.315
-97	.254	.600	.372	.125	.250	-138	.430	.750	.500	.187	.036
-98	.255	.420	.315	.060	.180	-139	.500	.875	.620	.065	.190
-99	.255	.505	.365	.065	.370	-140	.505	.810	.690	.130	.370
-100	.255	.755	.320	.065	.250	-141	.515	.875	.625	.062	.620
-101	.256	.625	.344	.063	.328	-142	.750	1.000	.800	.030	.155
-102	.260	.430	.315	.063	.087	-143	.900	2.175	1.110	.125	1.000
-103	.260	.435	.340	.060	.025	-144	.930	1.500	1.010	.040	.265
-104	.260	.495	.370	.030	.045						
-105	.260	.500	.310	.065	.125						
-106	.260	.500	.312	.062	.187						
-107	.260	.500	.312	.062	.250						
-108	.260	.500	.312	.062	.312						
-109	.260	.500	.312	.062	.375						
-110	.260	.500	.312	.062	.437						
-111	.260	.500	.312	.062	.500						
-112	.260	.500	.315	.065	.075						
-113	.260	.750	.365	.130	.050						
-114	.305	.600	.382	.035	.125						
-115	.305	.615	.550	.063	.437						
-116	.308	.500	.375	.031	.156						
-117	.310	.500	.370	.035	.225						
-118	.310	.560	.455	.060	.085						
-119	.310	.870	.436	.090	.340						
-120	.312	.500	.380	.023	.146						
-121	.316	.468	.374	.025	.218						

Tolerances:
Flange O.D. +/- .005
Flange Thickness +/- .005

.220 I.D. to .930 I.D.

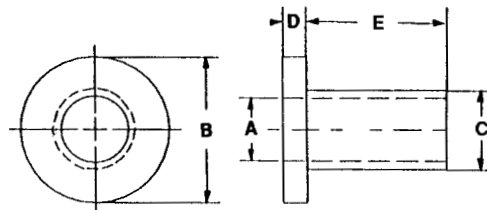
Shank O.D. - .005/+0.00
Shank Thickness +/- .005
Shank I.D. + .005/-0.00

HIGH PERFORMANCE PLASTIC SCREW INSULATORS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem®1000	-39	UHMW
-11	Polypropylene	-60	Nylon 6/6, 30% Short Glass-filled
-13	Polyethylene	-77	Ultem® 2300, (natural)
-15	PEEK™	-78	Nylon 6/6, (black)
-18	Nylon 6/6, (natural)	-90	PEEK™, 30% Short Glass-filled
-24	Delrin®	-108	Polypropylene, 30% Glass-filled
-27	PVC, (gray)	-229	Radel® R5000, Polyphenylsulfone
-28	CPVC	-231	Radel® R5100 NT15, Polyphenylsulfone
-33	Polysulfone	-272	PVC, (white)
-35	Noryl®	-273	PVC, (black)
-38	Fiber Glass G10	-274	PVC, (clear)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MOLDED SCREW INSULATORS starting on page 140-141.



Part No. FN109 - (Size Code No.) - (Material Code No.)

Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A Shank I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1	.090	.181	.120	.047	.125	-31	.200	.399	.260	.062	.140
-2	.090	.181	.120	.047	.187	-32	.200	.399	.260	.062	.187
-3	.090	.181	.120	.047	.250	-33	.200	.399	.260	.062	.250
-4	.090	.181	.120	.047	.375	-34	.200	.399	.260	.062	.375
-5	.115	.235	.145	.047	.031	-35	.200	.399	.260	.062	.500
-6	.115	.235	.145	.047	.047	-36	.200	.399	.260	.062	.562
-7	.115	.235	.145	.047	.062	-37	.200	.399	.260	.062	.625
-8	.115	.235	.145	.047	.094	-38	.200	.399	.260	.062	.750
-9	.115	.235	.145	.047	.125	-39	.260	.513	.312	.062	.125
-90	.115	.235	.145	.047	.150	-40	.260	.513	.312	.062	.140
-10	.115	.235	.145	.047	.156	-41	.260	.513	.312	.062	.187
-11	.115	.235	.145	.047	.187	-42	.260	.513	.312	.062	.250
-12	.115	.235	.145	.047	.250	-43	.260	.513	.312	.062	.375
-13	.115	.235	.145	.047	.375	-44	.260	.513	.312	.062	.500
-14	.115	.235	.145	.047	.500	-45	.260	.513	.312	.062	.625
-15	.140	.290	.170	.047	.047	-46	.260	.513	.312	.062	.750
-16	.140	.290	.170	.047	.062	-47	.320	.620	.360	.062	.125
-17	.140	.290	.170	.047	.094	-48	.320	.620	.360	.062	.250
-18	.140	.290	.170	.047	.125	-49	.320	.620	.360	.062	.375
-19	.140	.290	.170	.047	.156	-50	.320	.620	.360	.062	.500
-20	.140	.290	.170	.047	.187	-51	.320	.620	.360	.062	.625
-21	.140	.290	.170	.047	.250						
-22	.140	.290	.170	.047	.375						
-23	.140	.290	.170	.047	.500						
-24	.173	.344	.205	.062	.125						
-25	.173	.344	.205	.062	.140						
-26	.173	.344	.205	.062	.250						
-27	.173	.344	.205	.062	.375						
-28	.173	.344	.205	.062	.500						
-29	.173	.344	.205	.062	.625						
-30	.173	.344	.205	.062	.750						

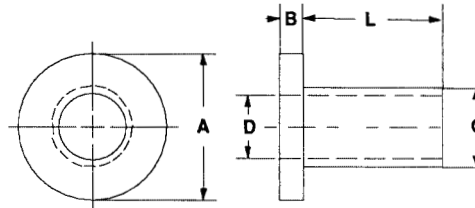
Tolerances: Flange O.D. +/- .005
Flange Thickness +/- .005
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
Shank I.D. + .005/- .000

FLUOROPLASTIC SCREW INSULATORS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-37	PVDF
-30	Tefzel®	-40	PFA (Teflon®)
-31	FEP®	-41	Halar®
-32	PCTFE		

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MOLDED SCREW INSULATORS starting on page 140-141.



Part No. D203 - (Size Code No.) - (Material Code No.)

Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. C	Shank I.D. D	Size Code No.	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. C	Shank I.D. D
-1	.125	.181	.047	.120	.090	-27	.375	.344	.062	.205	.173
-2	.187	.181	.047	.120	.090	-28	.500	.344	.062	.205	.173
-3	.250	.181	.047	.120	.090	-29	.625	.344	.062	.205	.173
-4	.375	.181	.047	.120	.090	-30	.750	.344	.062	.205	.173
-5	.031	.235	.047	.145	.115	-31	.140	.399	.062	.260	.200
-6	.047	.235	.047	.145	.115	-32	.187	.399	.062	.260	.200
-7	.062	.235	.047	.145	.115	-33	.250	.399	.062	.260	.200
-8	.094	.235	.047	.145	.115	-34	.375	.399	.062	.260	.200
-9	.125	.235	.047	.145	.115	-35	.500	.399	.062	.260	.200
-10	.156	.235	.047	.145	.115	-36	.562	.399	.062	.260	.200
-11	.187	.235	.047	.145	.115	-37	.625	.399	.062	.260	.200
-12	.250	.235	.047	.145	.115	-38	.750	.399	.062	.260	.200
-13	.375	.235	.047	.145	.115	-39	.125	.513	.062	.312	.260
-14	.500	.235	.047	.145	.115	-40	.140	.513	.062	.312	.260
-15	.047	.290	.047	.170	.140	-41	.156	.513	.062	.312	.260
-16	.062	.290	.047	.170	.140	-42	.187	.513	.062	.312	.260
-17	.094	.290	.047	.170	.140	-43	.250	.513	.062	.312	.260
-18	.125	.290	.047	.170	.140	-44	.375	.513	.062	.312	.260
-19	.156	.290	.047	.170	.140	-45	.500	.513	.062	.312	.260
-20	.187	.290	.047	.170	.140	-46	.625	.513	.062	.312	.260
-21	.250	.290	.047	.170	.140	-47	.750	.513	.062	.312	.260
-22	.375	.290	.047	.170	.140	-48	.125	.620	.062	.360	.320
-23	.500	.290	.047	.170	.140	-49	.250	.620	.062	.360	.320
-24	.125	.344	.062	.205	.173	-50	.375	.620	.062	.360	.320
-25	.140	.344	.062	.205	.173	-51	.500	.620	.062	.360	.320
-26	.250	.344	.062	.205	.173	-52	.625	.620	.062	.360	.320

Tolerances: Flange O.D. +/- .005
Flange Thickness +/- .005
Shank O.D. - .005/+ .000
Shank Thickness +/- .005
I.D. + .005/- .000

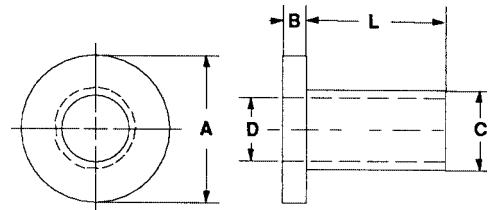
HIGH TECHNOLOGY PLASTIC METRIC SCREW INSULATORS

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MOLDED SCREW INSULATORS starting on page 140-141.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-228	Radel® AG330, 30% Glass-filled
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-229	Radel® R5000, Polyphenylsulfone
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)		
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)		
-15	PEEK™	-35	Noryl®	-213	Vespe®		
-18	Nylon 6/6, (natural)	-37	PVDF	-226	Radel® A200, Polyethersulfone		
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

ALL DIMENSIONS GIVEN IN MILLIMETERS



Part No. F108 - (Size Code No.) - (Material Code No.)

Size Code No.	Screw Size	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. C	Shank I.D. D	Size Code No.	Screw Size	Shank Thk. L	Flange O.D. A	Flange Thk. B	Shank O.D. C	Shank I.D. D
-1	M2 x 0,4	3	4,2	1,0	3,0	2,1	-18	M4 x 0,7	7	8,2	1,5	6,0	4,1
-2	M2 x 0,4	4	4,2	1,0	3,0	2,1	-19	M4 x 0,7	9	8,2	1,5	6,0	4,1
-3	M2 x 0,4	5	4,2	1,0	3,0	2,1	-20	M5 x 0,8	3	10,2	2,0	7,0	5,1
-4	M2 x 0,4	6	4,2	1,0	3,0	2,1	-21	M5 x 0,8	4	10,2	2,0	7,0	5,1
-5	M3 x 0,5	1	6,2	1,0	4,0	3,1	-22	M5 x 0,8	5	10,2	2,0	7,0	5,1
-6	M3 x 0,5	2	6,2	1,0	4,0	3,1	-23	M5 x 0,8	7	10,2	2,0	7,0	5,1
-7	M3 x 0,5	3	6,2	1,0	4,0	3,1	-24	M5 x 0,8	9	10,2	2,0	7,0	5,1
-8	M3 x 0,5	4	6,2	1,0	4,0	3,1	-25	M6 x 1,0	4	12,2	2,0	8,0	6,1
-9	M3 x 0,5	5	6,2	1,0	4,0	3,1	-26	M6 x 1,0	6	12,2	2,0	8,0	6,1
-10	M3 x 0,5	6	6,2	1,0	4,0	3,1	-27	M6 x 1,0	8	12,2	2,0	8,0	6,1
-11	M3 x 0,5	7	6,2	1,0	4,0	3,1	-28	M6 x 1,0	10	12,2	2,0	8,0	6,1
-12	M3 x 0,5	8	6,2	1,0	4,0	3,1	-29	M6 x 1,0	12	12,2	2,0	8,0	6,1
-13	M3 x 0,5	9	6,2	1,0	4,0	3,1	-30	M8 x 1,25	4	14,2	2,5	10,0	8,1
-14	M3 x 0,5	10	6,2	1,0	4,0	3,1	-31	M8 x 1,25	6	14,2	2,5	10,0	8,1
-15	M4 x 0,7	3	8,2	1,5	6,0	4,1	-32	M8 x 1,25	8	14,2	2,5	10,0	8,1
-16	M4 x 0,7	4	8,2	1,5	6,0	4,1	-33	M8 x 1,25	10	14,2	2,5	10,0	8,1
-17	M4 x 0,7	5	8,2	1,5	6,0	4,1	-34	M8 x 1,25	12	14,2	2,5	10,0	8,1

Tolerance on all dimensions: +/- .13mm

BUSHINGS

*Available in the following materials:

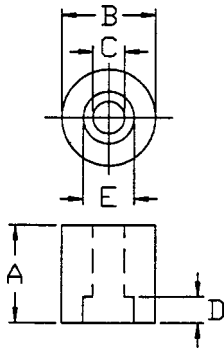
Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-40	PFA, (Teflon®)
-18	Nylon 6/6, (natural)	-46	Polycarbonate
-27	PVC	-60	Nylon 6/6, 30% Short Glass-filled
-28	CPVC	-62	Acetal
-29	Teflon®		
-37	PVDF		
-38	G-10 Fiber Glass		

*Available in other materials.
See materials list in index.

Call Crafttech for quote on BUSHINGS (pages 228 and 229).
Tell us Part No. and Material Code No. followed with
dimensions to match line drawing (and drawing # if applicable).

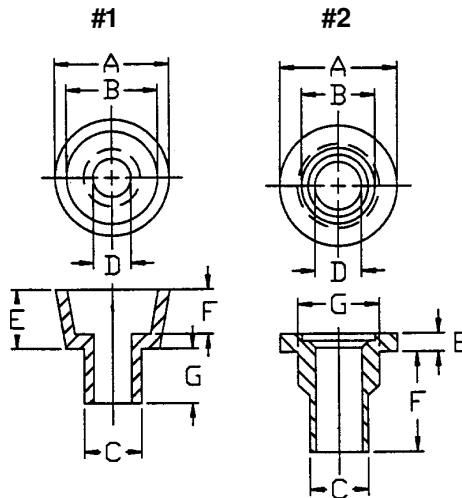
COUNTERBORE BUSHINGS

Part No. DN198



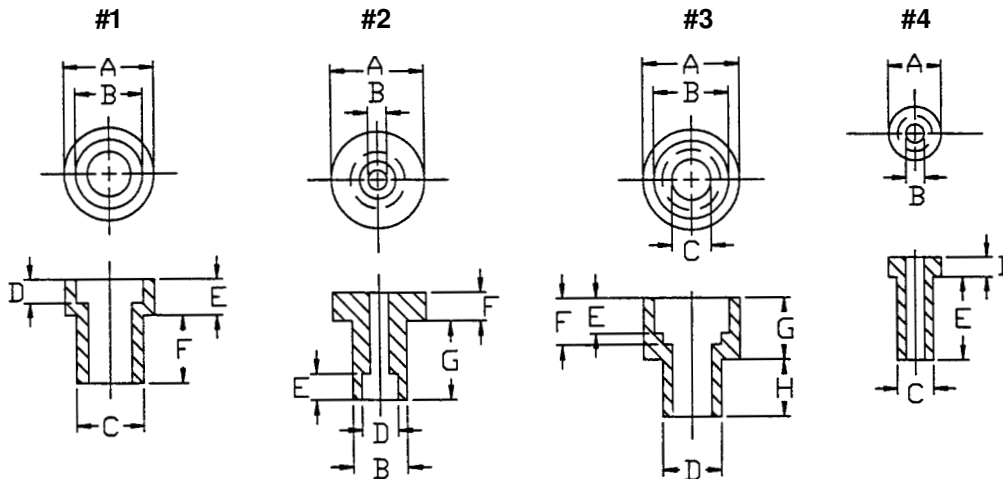
COUNTERSUNK BUSHINGS

Part No. D217



SPECIAL COUNTERBORE BUSHINGS

Part No. D216



*Available in the following materials:

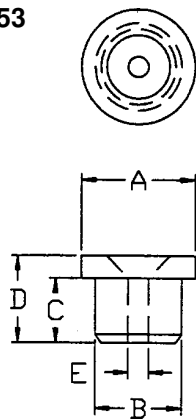
Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-40	PFA, (Teflon®)
-18	Nylon 6/6, (natural)	-46	Polycarbonate
-27	PVC	-60	Nylon 6/6, 30% Short Glass-filled
-28	CPVC	-62	Acetal
-29	Teflon®		
-37	PVDF		
-38	G-10 Fiber Glass		

*Available in other materials.
See materials list in index.

Call Craftech for quote on BUSHINGS (pages 228 and 229).
Tell us Part No. and Material Code No. followed with
dimensions to match line drawing (and drawing # if applicable).

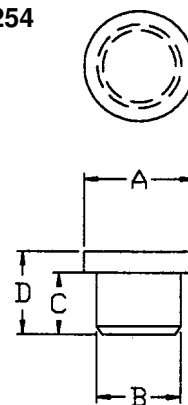
CIRCUIT BOARD BUSHINGS

Part No. DN253



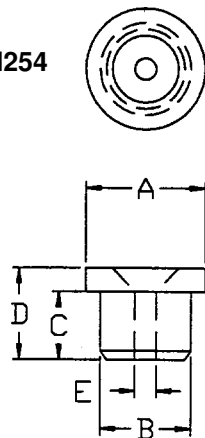
CIRCUIT BOARD PLUG BUSHINGS

Part No. DNF254



COUNTERSUNK CIRCUIT BOARD BUSHINGS

Part No. DN254



MACHINED STANDOFFS

*Available in the following materials:

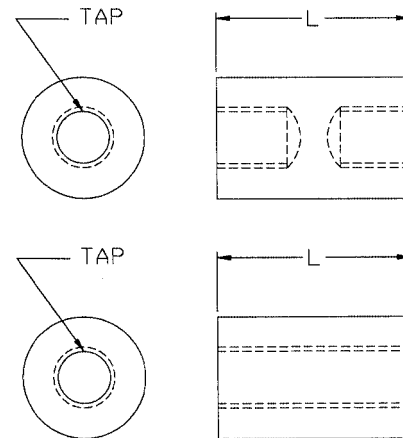
Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-62	Acetal
-15	PEEK™	-37	PVDF	-60	Nylon 6/6, 30% Short Glass -filled
-27	PVC	-38	G-10 Fiber Glass		
-28	CPVC	-40	Teflon®, (PFA)		
-29	Teflon®	-46	Polycarbonate		
-31	FEP				

*Available in other materials.
See materials list in index.
Other sizes available on request.

ROUND STANDOFFS

(Part No.) - (Size Code No.) - (Material Code No.)
(below) (pages 231-232) (above)

<p>Part No. EN101 - (Size Code No.) - (Material Code No.) 3/16" Diameter <i>(3/16" diameter available from 1/8" to 2" length only.)</i></p>
<p>Part No. EN102 - (Size Code No.) - (Material Code No.) 1/4" Diameter</p>
<p>Part No. EN103 - (Size Code No.) - (Material Code No.) 5/16" Diameter</p>
<p>Part No. EN104 - (Size Code No.) - (Material Code No.) 3/8" Diameter</p>
<p>Part No. EN105 - (Size Code No.) - (Material Code No.) 1/2" Diameter</p>
<p>Part No. EN106 - (Size Code No.) - (Material Code No.) 5/8" Diameter</p>
<p>Part No. EN107 - (Size Code No.) - (Material Code No.) 3/4" Diameter</p>



Standoffs are drilled straight through up to 3/4" lengths.

ROUND STANDOFFS and HEX STANDOFFS SIZE CODE CHART

Size Code No.	Length	Thread Size	Size Code No.	Length	Thread Size	Size Code No.	Length	Thread Size
-1	1/8	4-40	-51	8	4-40	-101	5 3/4	6-32
-2	3/16	4-40	-52	8 1/4	4-40	-102	6	6-32
-3	1/4	4-40	-53	8 1/2	4-40	-103	6 1/4	6-32
-4	5/16	4-40	-54	8 3/4	4-40	-104	6 1/2	6-32
-5	3/8	4-40	-55	9	4-40	-105	6 3/4	6-32
-6	7/16	4-40	-56	9 1/4	4-40	-106	7	6-32
-7	1/2	4-40	-57	9 1/2	4-40	-107	7 1/4	6-32
-8	9/16	4-40	-58	9 3/4	4-40	-108	7 1/2	6-32
-9	5/8	4-40	-59	10	4-40	-109	7 3/4	6-32
-10	3/4	4-40	-60	1 1/8	6-32	-110	8	6-32
-11	7/8	4-40	-61	3/16	6-32	-111	8 1/4	6-32
-12	1	4-40	-62	1/4	6-32	-112	8 1/2	6-32
-13	1 1/16	4-40	-63	5/16	6-32	-113	8 3/4	6-32
-14	1 1/8	4-40	-64	3/8	6-32	-114	9	6-32
-15	1 3/16	4-40	-65	7/16	6-32	-115	9 1/4	6-32
-16	1 1/4	4-40	-66	1/2	6-32	-116	9 1/2	6-32
-17	1 5/16	4-40	-67	9/16	6-32	-117	9 3/4	6-32
-18	1 3/8	4-40	-68	5/8	6-32	-118	10	6-32
-19	1 7/16	4-40	-69	3/4	6-32	-119	1 1/8	8-32
-20	1 1/2	4-40	-70	7/8	6-32	-120	3/16	8-32
-21	1 9/16	4-40	-71	1	6-32	-121	1/4	8-32
-22	1 5/8	4-40	-72	1 1/16	6-32	-122	5/16	8-32
-23	1 3/4	4-40	-73	1 1/8	6-32	-123	3/8	8-32
-24	1 7/8	4-40	-74	1 3/16	6-32	-124	7/16	8-32
-25	2	4-40	-75	1 1/4	6-32	-125	1/2	8-32
-26	2 1/8	4-40	-76	1 5/16	6-32	-126	9/16	8-32
-27	2 1/4	4-40	-77	1 3/8	6-32	-127	5/8	8-32
-28	2 3/8	4-40	-78	1 7/16	6-32	-128	3/4	8-32
-29	2 1/2	4-40	-79	1 1/2	6-32	-129	7/8	8-32
-30	2 3/4	4-40	-80	1 9/16	6-32	-130	1	8-32
-31	3	4-40	-81	1 5/8	6-32	-131	1 1/16	8-32
-32	3 1/4	4-40	-82	1 3/4	6-32	-132	1 1/8	8-32
-33	3 1/2	4-40	-83	1 7/8	6-32	-133	1 3/16	8-32
-34	3 3/4	4-40	-84	2	6-32	-134	1 1/4	8-32
-35	4	4-40	-85	2 1/8	6-32	-135	1 5/16	8-32
-36	4 1/4	4-40	-86	2 1/4	6-32	-136	1 3/8	8-32
-37	4 1/2	4-40	-87	2 3/8	6-32	-137	1 7/16	8-32
-38	4 3/4	4-40	-88	2 1/2	6-32	-138	1 1/2	8-32
-39	5	4-40	-89	2 3/4	6-32	-139	1 9/16	8-32
-40	5 1/4	4-40	-90	3	6-32	-140	1 5/8	8-32
-41	5 1/2	4-40	-91	3 1/4	6-32	-141	1 3/4	8-32
-42	5 3/4	4-40	-92	3 1/2	6-32	-142	1 7/8	8-32
-43	6	4-40	-93	3 3/4	6-32	-143	2	8-32
-44	6 1/4	4-40	-94	4	6-32	-144	2 1/8	8-32
-45	6 1/2	4-40	-95	4 1/4	6-32	-145	2 1/4	8-32
-46	6 3/4	4-40	-96	4 1/2	6-32	-146	2 3/8	8-32
-47	7	4-40	-97	4 3/4	6-32	-147	2 1/2	8-32
-48	7 1/4	4-40	-98	5	6-32	-148	2 3/4	8-32
-49	7 1/2	4-40	-99	5 1/4	6-32			
-50	7 3/4	4-40	-100	5 1/2	6-32			

(continued next page)

1/4-20 available for Part Nos. EN105, EN106, EN107, EN112, EN113 and EN114.

MACHINED STANDOFFS (continued)

ROUND STANDOFFS and HEX STANDOFFS SIZE CODE CHART

Size Code No.	Length	Thread Size	Size Code No.	Length	Thread Size	Size Code No.	Length	Thread Size
-149	3	8-32	-199	1 5/8	10-32	-249	1 1/16	1/4-20
-150	3 1/4	8-32	-200	1 3/4	10-32	-250	1 1/8	1/4-20
-151	3 1/2	8-32	-201	1 7/8	10-32	-251	1 3/16	1/4-20
-152	3 3/4	8-32	-202	2	10-32	-252	1 1/4	1/4-20
-153	4	8-32	-203	2 1/8	10-32	-253	1 5/16	1/4-20
-154	4 1/4	8-32	-204	2 1/4	10-32	-254	1 3/8	1/4-20
-155	4 1/2	8-32	-205	2 3/8	10-32	-255	1 7/16	1/4-20
-156	4 3/4	8-32	-206	2 1/2	10-32	-256	1 1/2	1/4-20
-157	5	8-32	-207	2 3/4	10-32	-257	1 9/16	1/4-20
-158	5 1/4	8-32	-208	3	10-32	-258	1 5/8	1/4-20
-159	5 1/2	8-32	-209	3 1/4	10-32	-259	1 3/4	1/4-20
-160	5 3/4	8-32	-210	3 1/2	10-32	-260	1 7/8	1/4-20
-161	6	8-32	-211	3 3/4	10-32	-261	2	1/4-20
-162	6 1/4	8-32	-212	4	10-32	-262	2 1/8	1/4-20
-163	6 1/2	8-32	-213	4 1/4	10-32	-263	2 1/4	1/4-20
-164	6 3/4	8-32	-214	4 1/2	10-32	-264	2 3/8	1/4-20
-165	7	8-32	-215	4 3/4	10-32	-265	2 1/2	1/4-20
-166	7 1/4	8-32	-216	5	10-32	-266	2 3/4	1/4-20
-167	7 1/2	8-32	-217	5 1/4	10-32	-267	3	1/4-20
-168	7 3/4	8-32	-218	5 1/2	10-32	-268	3 1/4	1/4-20
-169	8	8-32	-219	5 3/4	10-32	-269	3 1/2	1/4-20
-170	8 1/4	8-32	-220	6	10-32	-270	3 3/4	1/4-20
-171	8 1/2	8-32	-221	6 1/4	10-32	-271	4	1/4-20
-172	8 3/4	8-32	-222	6 1/2	10-32	-272	4 1/4	1/4-20
-173	9	8-32	-223	6 3/4	10-32	-273	4 1/2	1/4-20
-174	9 1/4	8-32	-224	7	10-32	-274	4 3/4	1/4-20
-175	9 1/2	8-32	-225	7 1/4	10-32	-275	5	1/4-20
-176	9 3/4	8-32	-226	7 1/2	10-32	-276	5 1/4	1/4-20
-177	10	8-32	-227	7 3/4	10-32	-277	5 1/2	1/4-20
-178	1/8	10-32	-228	8	10-32	-278	5 3/4	1/4-20
-179	3/16	10-32	-229	8 1/4	10-32	-279	6	1/4-20
-180	1/4	10-32	-230	8 1/2	10-32	-280	6 1/4	1/4-20
-181	5/16	10-32	-231	8 3/4	10-32	-281	6 1/2	1/4-20
-182	3/8	10-32	-232	9	10-32	-282	6 3/4	1/4-20
-183	7/16	10-32	-233	9 1/4	10-32	-283	7	1/4-20
-184	1/2	10-32	-234	9 1/2	10-32	-284	7 1/4	1/4-20
-185	9/16	10-32	-235	9 3/4	10-32	-285	7 1/2	1/4-20
-186	5/8	10-32	-236	10	10-32	-286	7 3/4	1/4-20
-187	3/4	10-32	-237	1/8	1/4-20	-287	8	1/4-20
-188	7/8	10-32	-238	3/16	1/4-20	-288	8 1/4	1/4-20
-189	1	10-32	-239	1/4	1/4-20	-289	8 1/2	1/4-20
-190	1 1/16	10-32	-240	5/16	1/4-20	-290	8 3/4	1/4-20
-191	1 1/8	10-32	-241	3/8	1/4-20	-291	9	1/4-20
-192	1 3/16	10-32	-242	7/16	1/4-20	-292	9 1/4	1/4-20
-193	1 1/4	10-32	-243	1/2	1/4-20	-293	9 1/2	1/4-20
-194	1 5/16	10-32	-244	9/16	1/4-20	-294	9 3/4	1/4-20
-195	1 3/8	10-32	-245	5/8	1/4-20	-295	10	1/4-20
-196	1 7/16	10-32	-246	3/4	1/4-20			
-197	1 1/2	10-32	-247	7/8	1/4-20			
-198	1 9/16	10-32	-248	1	1/4-20			

1/4-20 available for Part Nos. EN105, EN106, EN107, EN112, EN113 and EN114.

*Available in the following materials:

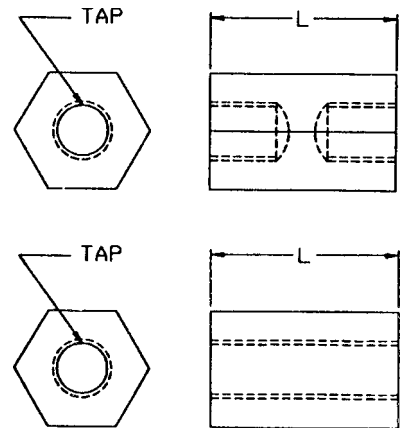
Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-62	Acetal
-15	PEEK™	-37	PVDF	-60	Nylon 6/6, 30% Short Glass -filled
-27	PVC	-38	G-10 Fiber Glass		
-28	CPVC	-40	Teflon®, (PFA)		
-29	Teflon®	-46	Polycarbonate		
-31	FEP				

*Available in other materials.
See materials list in index.
Other sizes available on request.

HEX STANDOFFS

(Part No.) - (Size Code No.) - (Material Code No.)
(below) (pages 231-232) (above)

<p>Part No. EN108 - (Size Code No.) - (Material Code No.) 3/16" AF</p>
<p>Part No. EN109 - (Size Code No.) - (Material Code No.) 1/4" AF</p>
<p>Part No. EN110 - (Size Code No.) - (Material Code No.) 5/16" AF</p>
<p>Part No. EN111 - (Size Code No.) - (Material Code No.) 3/8" AF</p>
<p>Part No. EN112 - (Size Code No.) - (Material Code No.) 1/2" AF</p>
<p>Part No. EN113 - (Size Code No.) - (Material Code No.) 5/8" AF</p>
<p>Part No. EN114 - (Size Code No.) - (Material Code No.) 3/4" AF</p>



Standoffs are drilled straight through up to 3/4" lengths.

STANDOFFS (continued)

*Available in the following materials:

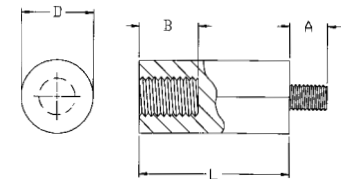
Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-62	Acetal
-15	PEEK™	-37	PVDF	-60	Nylon 6/6, 30% Short Glass -filled
-27	PVC	-38	G-10 Fiber Glass		
-28	CPVC	-40	Teflon®, (PFA)		
-29	Teflon®	-46	Polycarbonate		
-31	FEP				

*Available in other materials. See materials list in index. Other sizes available on request.

ROUND MALE-FEMALE STANDOFFS

3/16" Dia. - Part No. EN170 - (Size Code No.) - (Material Code No.)

Size Code No.	Length	Thd.	Size Code No.	Length	Thd.	Size Code No.	Length	Thd.	Size Code No.	Length	Thd.
-1	3/16 *	2-56	-8	11/16	2-56	-16	1/4 **	4-40	-23	11/16	4-40
-2	1/4	2-56	-9	3/4	2-56	-17	5/16	4-40	-24	3/4	4-40
-3	5/16	2-56	-11	13/16	2-56	-18	3/8	4-40	-25	13/16	4-40
-4	3/8	2-56	-12	7/8	2-56	-19	7/16	4-40	-26	7/8	4-40
-40	7/16	2-56	-13	15/16	2-56	-20	1/2	4-40	-27	15/16	4-40
-5	1/2	2-56	-14	1	2-56	-21	9/16	4-40	-28	1	4-40
-6	9/16	2-56	-15	3/16 *	4-40	-22	5/8	4-40			
-7	5/8	2-56									



Thread	A	B
2-56	5/32	3/16
4-40	3/16	1/4

* 3/16" lengths tapped 1/8".
** 1/4" lengths tapped 3/16".

1/4" Dia. - Part No. EN171 - (Size Code No.) - (Material Code No.)

Size Code No.	Length	Thd.	Size Code No.	Length	Thd.	Size Code No.	Length	Thd.	Size Code No.	Length	Thd.
-1	1/4 **	4-40	-13	1 3/4	4-40	-25	1 3/8	6-32	-37	1	8-32
-2	3/8	4-40	-14	1 7/8	4-40	-26	1 1/2	6-32	-38	1 1/8	8-32
-3	1/2	4-40	-15	2	4-40	-27	1 5/8	6-32	-39	1 1/4	8-32
-4	5/8	4-40	-16	1/4 **	6-32	-28	1 3/4	6-32	-40	1 3/8	8-32
-5	3/4	4-40	-17	3/8 ***	6-32	-29	1 7/8	6-32	-41	1 1/2	8-32
-6	7/8	4-40	-18	1/2	6-32	-30	2	6-32	-42	1 5/8	8-32
-7	1	4-40	-19	5/8	6-32	-31	1/4 **	8-32	-43	1 3/4	8-32
-8	1 1/8	4-40	-20	3/4	6-32	-32	3/8 ***	8-32	-44	1 7/8	8-32
-9	1 1/4	4-40	-21	7/8	6-32	-33	1/2	8-32	-45	2	8-32
-10	1 3/8	4-40	-22	1	6-32	-34	5/8	8-32			
-11	1 1/2	4-40	-23	1 1/8	6-32	-35	3/4	8-32			
-12	1 5/8	4-40	-24	1 1/4	6-32	-36	7/8	8-32			

Thread	A	B
4-40	3/16	1/4
6-32	1/4	3/8
8-32	3/8	7/16

* 1/4" lengths tapped 3/16".
** 3/8" lengths tapped 1/4".
*** 1/2" lengths tapped 3/8".

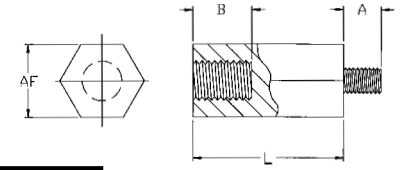
STANDOFFS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-62	Acetal
-15	PEEK™	-37	PVDF	-60	Nylon 6/6, 30% Short Glass -filled
-27	PVC	-38	G-10 Fiber Glass		
-28	CPVC	-40	Teflon®, (PFA)		
-29	Teflon®	-46	Polycarbonate		
-31	FEP				

*Available in other materials. See materials list in index. Other sizes available on request.

HEX MALE-FEMALE STANDOFFS



1/4" AF - Part No. EN174 - (Size Code No.) - (Material Code No.)

Size Code No.	Length	Thd.	Size Code No.	Length	Thd.	Size Code No.	Length	Thd.	Size Code No.	Length	Thd.
-1	1/4 *	4-40	-13	1 3/4	4-40	-24	1 1/4	6-32	-35	3/4	8-32
-2	3/8	4-40	-14	1 7/8	4-40	-240	1 5/16	6-32	-36	7/8	8-32
-3	1/2	4-40	-15	2	4-40	-25	1 3/8	6-32	-37	1	8-32
-4	5/8	4-40	-16	1/4 *	6-32	-26	1 1/2	6-32	-38	1 1/8	8-32
-5	3/4	4-40	-17	3/8 **	6-32	-27	1 5/8	6-32	-39	1 1/4	8-32
-6	7/8	4-40	-18	1/2	6-32	-28	1 3/4	6-32	-40	1 3/8	8-32
-7	1	4-40	-180	9/16	6-32	-29	1 7/8	6-32	-41	1 1/2	8-32
-8	1 1/8	4-40	-19	5/8	6-32	-30	2	6-32	-42	1 5/8	8-32
-9	1 1/4	4-40	-20	3/4	6-32	-31	1/4 *	8-32	-43	1 3/4	8-32
-10	1 3/8	4-40	-21	7/8	6-32	-32	3/8 **	8-32	-44	1 7/8	8-32
-11	1 1/2	4-40	-22	1	6-32	-33	1/2 ***	8-32	-45	2	8-32
-12	1 5/8	4-40	-23	1 1/8	6-32	-34	5/8	8-32			

Thread	A	B
4-40	3/16	1/4
6-32	1/4	3/8
8-32	3/8	7/16

* 1/4" lengths tapped 3/16".
 ** 3/8" lengths tapped 1/4".
 *** 1/2" lengths tapped 3/8".

3/8" AF - Part No. EN173 - (Size Code No.) - (Material Code No.)

Size Code No.	Lgth	Thread	Size Code No.	Lgth	Thread	Size Code No.	Lgth	Thread	Size Code No.	Lgth	Thread
-1	1/4 *	4-40	-29	1/4 *	6-32	-57	1/4 *	8-32	-85	1/4 *	10-32
-2	3/8	4-40	-30	3/8 **	6-32	-58	3/8 **	8-32	-86	3/8 **	10-32
-3	1/2	4-40	-31	1/2	6-32	-59	1/2	8-32	-87	1/2 ***	10-32
-4	5/8	4-40	-32	5/8	6-32	-60	5/8	8-32	-88	5/8	10-32
-5	3/4	4-40	-33	3/4	6-32	-61	3/4	8-32	-89	3/4	10-32
-6	7/8	4-40	-34	7/8	6-32	-62	7/8	8-32	-90	7/8	10-32
-7	1	4-40	-35	1	6-32	-63	1	8-32	-91	1	10-32
-8	1 1/8	4-40	-36	1 1/8	6-32	-64	1 1/8	8-32	-92	1 1/8	10-32
-9	1 1/4	4-40	-37	1 1/4	6-32	-65	1 1/4	8-32	-93	1 1/4	10-32
-10	1 3/8	4-40	-38	1 3/8	6-32	-66	1 3/8	8-32	-94	1 3/8	10-32
-11	1 1/2	4-40	-39	1 1/2	6-32	-67	1 1/2	8-32	-95	1 1/2	10-32
-12	1 5/8	4-40	-40	1 5/8	6-32	-68	1 5/8	8-32	-96	1 5/8	10-32
-13	1 3/4	4-40	-41	1 3/4	6-32	-69	1 3/4	8-32	-97	1 3/4	10-32
-14	1 7/8	4-40	-42	1 7/8	6-32	-70	1 7/8	8-32	-98	1 7/8	10-32
-15	2	4-40	-43	2	6-32	-71	2	8-32	-99	2	10-32
-16	2 1/4	4-40	-44	2 1/4	6-32	-72	2 1/4	8-32	-100	2 1/4	10-32
-17	2 1/2	4-40	-45	2 1/2	6-32	-73	2 1/2	8-32	-101	2 1/2	10-32
-18	2 3/4	4-40	-46	2 3/4	6-32	-74	2 3/4	8-32	-102	2 3/4	10-32
-19	3	4-40	-47	3	6-32	-75	3	8-32	-103	3	10-32
-20	3 1/4	4-40	-48	3 1/4	6-32	-76	3 1/4	8-32	-104	3 1/4	10-32
-21	3 1/2	4-40	-49	3 1/2	6-32	-77	3 1/2	8-32	-105	3 1/2	10-32
-22	3 3/4	4-40	-50	3 3/4	6-32	-78	3 3/4	8-32	-106	3 3/4	10-32
-23	4	4-40	-51	4	6-32	-79	4	8-32	-107	4	10-32
-24	4 1/4	4-40	-52	4 1/4	6-32	-80	4 1/4	8-32	-108	4 1/4	10-32
-25	4 1/2	4-40	-53	4 1/2	6-32	-81	4 1/2	8-32	-109	4 1/2	10-32
-26	4 3/4	4-40	-54	4 3/4	6-32	-82	4 3/4	8-32	-110	4 3/4	10-32
-27	5	4-40	-55	5	6-32	-83	5	8-32	-111	5	10-32
-28	6	4-40	-56	6	6-32	-84	6	8-32	-112	6	10-32

Thread	A	B
4-40	3/16	1/4
6-32	1/4	3/8
8-32	3/8	7/16
10-32	3/8	1/2

* 1/4" lengths tapped 3/16".
 ** 3/8" lengths tapped 1/4".
 *** 1/2" lengths tapped 3/8".

THREADED ROD

*Available in the following materials:

Material Code		Material Code		Material Code	
No.	Material Name	No.	Material Name	No.	Material Name
-3	Lexan®, (clear)	-23	Nylon Super Tough	-39	UHMW®
-5	Ultem® 1000	-24	Delrin®, (white)	-40	PFA, (Teflon®)
-9	Celcon®	-25	Delrin® AF	-41	Halar®
-10	Celcon® Glass-filled	-27	PVC	-42	Nylatron® GS
-11	Polypropylene	-28	CPVC	-46	Polycarbonate
-12	Polystyrene	-29	Teflon®	-57	Torlon®
-13	Polyethylene	-30	Tefzel®	-60	Nylon 6/6, 30% Short Glass-filled
-14	ABS	-31	FEP®	-77	Ultem® 2300, (natural)
-15	PEEK™	-32	PCTFE	-214	Fiberglass, Vinyl Ester
-18	Nylon 6/6, (natural)	-33	Polysulfone		
-20	Nylon MDS	-35	Noryl®		
-22	Nylon 612	-37	PVDF		

Other materials available on request.

STANDARD THREADED ROD and METRIC THREADED ROD

Part No. **D200** - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	Size Code No.	Thread Size
-1	4-40	-25	1/2-24
-2	4-48	-26	9/16-14
-3	5-40	-27	9/16-20
-4	5-44	-28	5/8-11
-5	6-32	-29	5/8-18
-6	6-40	-30	5/8-24
-7	8-32	-31	3/4-10
-8	8-36	-32	3/4-14
-9	10-24	-33	3/4-16
-10	10-32	-34	3/4-20
-11	12-24	-35	7/8-9
-12	1/4-20	-36	7/8-14
-13	1/4-28	-37	1-8
-14	1/4-56	-38	1-12
-15	5/16-18	-39	1-14
-16	5/16-24	-40	1 1/8-7
-17	5/16-32	-41	1 1/8-12
-18	3/8-16	-42	1 1/4-7
-19	3/8-24	-43	1 1/4-12
-20	3/8-32	-44	1 3/8-6
-21	7/16-14	-45	1 3/8-12
-22	7/16-20	-46	1 1/2-6
-23	1/2-13	-47	1 1/2-7
-24	1/2-20	-48	1 1/2-12

Available in the following METRIC sizes:

Size Code No.	Nominal Diameter	Pitch
-49	M2	0,40
-50	M2,5	0,45
-51	M3	0,50
-52	M3,5	0,60
-53	M4	0,70
-54	M5	0,80
-55	M6	1,00
-56	M7	1,00
-57	M8	1,25
-58	M10	1,50
-59	M12	1,75
-60	M14	2,00
-61	M16	2,00
-62	M18	2,50
-63	M20	2,50

THREADED ROD (continued)

*Available in the following materials:

Material Code		Material Code		Material Code	
No.	Material Name	No.	Material Name	No.	Material Name
-3	Lexan®, (clear)	-23	Nylon Super Tough	-39	UHMW®
-5	Ultem® 1000	-24	Delrin®, (white)	-40	PFA, (Teflon®)
-9	Celcon®	-25	Delrin® AF	-41	Halar®
-10	Celcon® Glass-filled	-27	PVC	-42	Nylatron® GS
-11	Polypropylene	-28	CPVC	-46	Polycarbonate
-12	Polystyrene	-29	Teflon®	-57	Torlon®
-13	Polyethylene	-30	Tefzel®	-60	Nylon 6/6, 30% Short Glass-filled
-14	ABS	-31	FEP®	-77	Ultem® 2300, (natural)
-15	PEEK™	-32	PCTFE	-214	Fiberglass, Vinyl Ester
-18	Nylon 6/6, (natural)	-33	Polysulfone		
-20	Nylon MDS	-35	Noryl®		
-22	Nylon 612	-37	PVDF		

Other materials available on request.

ACME THREADED ROD

Part No. D2300 - (Size Code No.) - (Material Code No.)

Size Code No.	Size	Thread	Size Code No.	Size	Thread
-1	1/4	12	-10	1	4
-2	3/8	12	-11	1	5
-3	3/8	8	-12	1	6
-4	1/2	10	-13	1	10
-5	1/2	5	-14	1-1/4	4
-6	5/8	8	-15	1-1/4	5
-7	5/8	5	-16	1-1/2	4
-8	3/4	6	-17	1-1/2	5
-9	3/4	10			

**For ACME NUTS,
see pages 116 and 117.**

MILITARY STANDARD FASTENERS and COMPONENTS

Certified to Military Standard Specifications

MACHINE SCREWS, NUTS AND WASHERS, CAPS AND PLUGS

MANUFACTURED TO MIL-1-45208A, MIL-STD-45662 and MIL-STD-105

M45595/2	Washer, Shoulder, Polytetrafluoroethylene
M45595/8-01 P	Washer, Shoulder, Phenolic, paper based.
M45595/8-01 F	Washer, Shoulder, Phenolic, fabric based
MS18212	Nylon Pan Head Machine Screws
MS18211	Nylon Flat Head 82° and 100° Machine Screws
MS24679	Nylon Plain Cap Nut, Low Crown
MS24680	Nylon Plain Cap Nut, High Crown
MS27129	Nylon Finishing Washers, Countersunk
MS51858	Nylon Plain Hexagon Nut
MS51859	Nylon Flat Washers
Mil-C-5501/1	Hydraulic fittings plugs, high density polyethylene <i>(see page 282)</i>
Mil-C-5501/2R	Threaded fittings, polypropylene
Mil-C-5501/5R	Threaded pipe plugs, square head, oil and heat resistant high density polyethylene <i>(see page 282 and 283)</i>
Mil-C-5501/7	Tapered caps and plugs, low density polyethylene <i>(see page 264-266)</i>
Mil-C-5501/8	Thin wall tubing plugs, low density polyethylene <i>(see page 280)</i>
Mil-C-5501/9	Tube caps, low density polyethylene <i>(see page 272)</i>
Mil-C-5501/11	Threaded caps, low density polyethylene <i>(see page 277)</i>
NAS 813	Electrical connector caps, low density polyethylene <i>(see page 274)</i>
NAS 814	Threaded caps, low density polyethylene <i>(see page 277)</i>
NAS 815	Hydraulic fitting plugs, high density polyethylene
NAS 816	Wide flange tapered caps and plugs, low density polyethylene <i>(see page 267-268)</i>
NAS 820	Electrical connector plugs, low density polyethylene <i>(see page 279)</i>
NAS 831	Electrical connector caps, low density polyethylene <i>(see page 274)</i>
NAS 837	Electrical connector plugs, low density polyethylene <i>(see page 279)</i>
NAS 840	Thermal pipe plugs, high density polyethylene <i>(see page 282-283)</i>
NAS 843	Thin wall tubing plugs, low density polyethylene <i>(see page 280)</i>
NAS 844	Tube caps, low density polyethylene <i>(see page 272-273)</i>

For a fast quote on military parts listed above,
please call Craftech Industries at 800-833-5130 or 518-828-5001.

CHEMICAL RESISTANCE DATA

Chemical Name	Plastic																									
	ABS	Acetal	Acrylic	AI	CPVC	ECTFE	ETFE	FEP	Isoplast™	Nylon	PBT	PC	PE-HD	PEEK	PEI	PET	PFA	PP	PPS	PS	PSU	PTFE	PVC(I)	PVC(II)	PVDF	UHMW-PE
Acetaldehyde Aq.	D	A	D	A	D	-	-	-	-	B	-	D	C	A	-	A	-	C	A	D	-	A	D	D	-	A
Acetic Acid Aq.	-	B	B	A	A	A	A	A	A	C	C	D	-	A	A	B	B	-	A	A	A	A	A	A	B	A
Acetone	D	B	D	-	D	A	-	-	D	A	-	C	A	B	C	B	-	A	A	D	B	A	D	D	D	-
Alcohols, Aliphatic	-	A	D	A	-	A	-	-	-	B	A	-	-	A	A	A	-	-	A	A	-	-	-	A	-	A
Aluminum Chloride Aq.	-	-	-	A	A	-	A	A	A	-	A	A	B	A	-	A	B	A	A	A	-	A	A	A	-	A
Aluminum Sulphate Aq.	-	-	-	A	A	A	-	-	A	-	A	A	A	A	-	-	-	A	A	A	-	A	A	A	-	A
Ammonia Gas	-	-	-	-	A	A	-	-	A	C	-	-	A	A	-	A	-	A	-	-	-	-	A	A	-	-
Ammonium Carbonate Aq.	-	-	-	-	A	A	-	-	A	A	A	D	A	A	-	A	-	A	A	A	-	A	A	A	-	-
Ammonium Chloride Aq.	-	-	-	A	A	A	-	-	A	A	A	C	A	A	A	A	-	A	A	A	-	A	A	A	-	A
Amyl Acetate	-	-	D	A	-	-	-	-	D	A	-	-	D	A	-	-	-	D	A	-	-	A	D	D	-	A
Aniline	-	A	D	A	D	A	-	-	-	C	-	-	A	A	-	A	-	C	A	D	-	A	D	D	C	A
Antimony Trichloride Aq.	-	-	A	-	A	A	-	-	-	C	-	-	A	A	-	-	-	A	-	A	-	-	A	A	-	-
Barium Chloride Aq.	-	-	A	A	A	A	-	-	-	A	A	-	A	A	-	-	-	A	A	A	-	A	A	A	-	A
Barium Sulphate Aq.	-	-	-	-	A	A	-	-	A	-	A	-	A	A	-	-	-	A	-	A	-	A	A	A	-	-
Benzene	D	A	D	-	D	A	-	-	A	A	-	D	D	A	-	A	-	A	A	D	D	A	D	D	C	-
Benzene Sulphate Aq.	-	-	-	C	-	A	-	-	-	D	-	-	A	A	-	-	-	-	A	-	-	A	-	-	B	C
Bleaching Lye	C	-	-	A	A	A	-	-	-	C	-	-	B	A	-	-	-	B	-	-	-	-	A	A	-	A
Boric Acid Aq.	-	-	-	-	A	A	-	-	A	A	D	-	A	A	-	A	-	A	A	C	-	A	A	A	A	-
Boron Trifluoride	-	-	-	-	A	-	-	-	-	D	-	-	A	-	-	-	-	A	-	-	-	A	A	A	-	-
Bromine Aq.	-	-	-	A	D	A	-	-	-	D	-	-	D	B	-	-	-	D	A	-	-	-	A	D	-	A
Butanol	-	-	-	A	A	-	-	-	-	B	-	-	A	A	-	B	-	-	A	D	C	A	A	D	-	A
Butyric Acid Aq.	-	-	C	-	-	-	-	-	D	B	C	-	D	A	A	-	-	D	A	C	-	A	-	-	A	-
Butyric Acid	D	-	D	-	-	-	-	-	D	C	C	-	D	A	-	-	-	D	A	C	-	A	A	D	A	-
Calcium Hypochlorite	-	-	-	-	-	A	-	-	A	D	-	C	A	A	-	A	-	A	A	-	-	-	A	A	-	-
Camphor	-	-	-	-	-	-	-	-	-	A	-	-	-	A	-	-	-	-	A	-	-	-	-	-	-	-
Carbon Tetrachloride	D	A	-	A	C	A	-	-	A	A	-	-	D	A	A	A	-	D	A	-	A	A	C	D	A	A

(continued next page)

Grade Code:

- A** - No attack, possibly slight absorption. Negligible effect on mechanical properties.
- B** - Slight attack by absorption. Some swelling and a small reduction in mechanical properties likely.
- C** - Moderate attack of appreciable absorption. Material will have limited life.
- D** - Material will decompose or dissolve in a short time.

Data from Laird Plastics except ETFE, FEP, PFA, Isoplast, PS, PTFE and PEI.

Data on ETFE, FEP AND PFA are from LNP.

Data on PEI from GE.

Data on Isoplast from THE DOW CHEMICAL COMPANY.

CHEMICAL RESISTANCE DATA (continued)

Chemical Name	Plastic																									
	ABS	Acetal	Acrylic	AI	CPVC	ECTFE	ETFE	FEP	Isoplast™	Nylon	PBT	PC	PE-HD	PEEK	PEI	PET	PFA	PP	PPS	PS	PSU	PTFE	PVC(I)	PVC(II)	PVDF	UHMW-PE
Chloral Hydrate	-	-	-	-	A	-	-	-	-	D	-	-	D	A	-	-	-	D	-	-	-	A	A	A	-	-
Chlorine Aq.	-	-	-	-	A	-	-	-	-	D	-	-	C	A	-	-	-	B	-	-	D	-	A	A	B	-
Chloroform	D	-	-	A	D	A	D	-	-	D	-	D	C	A	D	D	-	D	A	-	D	A	D	D	B	-
Chlorosulphonic Acid Aq.	-	-	D	-	-	A	-	-	-	D	C	-	D	A	-	-	-	C	D	C	-	A	C	C	D	-
Chrome Alum Aq.	-	-	-	-	-	-	-	-	-	A	-	-	-	A	-	-	-	-	-	-	-	-	A	A	-	-
Chromic Acid Aq.	-	-	D	A	A	A	-	-	-	C	C	C	A	A	A	A	-	A	B	C	D	A	A	D	B	A
Citric Acid Aq.	B	-	C	-	A	A	-	-	A	C	C	A	A	A	A	A	-	A	A	-	A	A	A	A	A	-
Creosote	-	-	-	-	-	-	-	-	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-
Cresylic Acid	-	-	-	-	A	A	-	-	-	D	C	-	D	A	-	-	-	D	-	C	-	A	A	C	A	-
Cyclohexanol	-	-	-	A	D	A	-	-	B	B	-	-	D	A	-	A	-	D	A	D	-	A	D	D	-	A
Cyclohexanone	-	-	-	A	D	A	-	-	D	A	-	-	D	A	A	A	-	D	-	D	D	A	D	D	-	A
Detergents, Organic	-	-	-	-	A	A	-	-	A	A	-	-	-	A	A	A	-	-	A	-	-	-	A	A	-	A
Dibutylphalate	-	-	-	A	-	-	-	-	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	A
Diesel Oil	-	-	A	A	-	A	-	-	-	A	-	-	-	A	A	A	-	-	A	-	-	A	-	-	-	A
Dioxan	-	A	-	A	-	A	-	-	-	A	-	-	-	A	-	A	-	-	-	-	-	A	-	-	-	A
Edible Oils	-	A	-	A	-	-	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	-	-	-	-	A
Ether, Diethyl	-	A	-	A	-	-	-	-	-	A	A	-	-	A	A	A	-	-	A	D	-	A	-	-	-	A
Ethyl Acetate	D	A	D	A	-	A	-	-	D	A	-	D	-	A	C	-	-	A	A	-	-	A	D	D	-	A
Ethylene Dichloride	D	-	-	A	D	A	-	-	-	B	-	-	C	A	-	A	-	D	A	-	-	A	D	D	-	-
Ethylene Glycol Aq.	-	-	A	A	A	A	A	A	A	B	-	C	D	A	-	-	A	A	A	-	A	A	A	A	A	A
Ferrous Chloride Aq.	-	-	A	-	A	A	-	-	A	C	A	-	A	A	-	-	-	-	A	A	-	A	A	A	A	-
Fluorine	-	-	-	-	A	A	-	-	-	D	-	-	-	D	-	-	-	C	-	-	-	-	A	A	-	C
Fluosilicic Acid Aq.	-	-	-	-	-	A	-	-	-	D	C	-	C	-	-	-	-	A	A	C	-	A	-	-	-	A
Freon 12 (Arclon 12)	-	-	-	-	A	A	-	-	-	A	-	A	A	A	A	A	-	A	B	-	-	-	A	A	-	-
Formaldehyde Aq.	-	A	A	A	A	A	-	-	A	B	-	C	A	A	-	A	-	A	A	D	A	A	A	B	-	A
Formic Acid Aq.	-	D	D	D	A	A	-	-	A	C	C	A	A	B	A	B	-	-	A	-	-	A	A	A	A	A
Fruit Juices	A	-	-	A	A	A	-	-	A	B	A	C	-	A	-	A	-	A	A	-	-	-	A	A	-	A
Glycerine	A	-	A	A	A	A	-	-	A	A	-	A	A	A	-	A	-	A	A	D	A	A	A	A	-	A
Heptane	-	A	-	A	-	A	-	-	A	A	-	C	-	A	-	A	-	-	A	D	A	A	A	A	-	A
Hydrobromic Acid Aq.	A	-	-	-	-	A	-	-	-	D	C	-	-	D	-	-	-	C	A	C	A	-	A	A	A	A
Hydrochloric Acid Aq.	-	-	A	-	A	A	A	A	A	-	D	A	A	A	A	A	B	A	A	C	A	A	A	A	A	A
Hydrofluoric Acid Aq.	C	D	C	A	-	A	-	-	D	C	A	B	B	D	-	B	A	A	D	C	B	A	A	A	A	A

(continued next page)

CHEMICAL RESISTANCE DATA (continued)

Chemical Name	Plastic																									
	ABS	Acetal	Acrylic	AI	CPVC	ECTFE	ETFE	FEP	Isoplast™	Nylon	PBT	PC	PE-HD	PEEK	PEI	PET	PFA	PP	PPS	PS	PSU	PTFE	PVC(I)	PVC(II)	PVDF	UHMW-PE
Hydrogenate Vegetable Oils	-	-	-	A	-	-	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	-	-	-	-	A
Hydrogen Peroxide Aq. .5%	-	-	-	-	-	A	-	-	A	C	-	A	A	A	-	A	-	A	A	-	A	-	A	A	B	A
0.01	-	-	-	-	-	A	-	-	A	-	-	A	-	A	-	A	-	-	A	-	A	-	-	-	B	A
0.03	-	D	-	-	-	A	-	-	A	D	-	A	-	A	-	A	-	-	A	-	A	-	-	-	B	A
Hydrogen Sulphide Aq.	-	C	A	-	A	A	-	-	-	B	D	-	A	A	-	C	-	A	A	-	-	A	A	A	A	A
Hydroquinone	-	-	-	-	-	A	-	-	-	B	-	-	A	A	-	-	-	A	-	-	-	A	A	A	-	-
Iodine (in Alcohol)	-	-	-	-	-	A	-	-	-	D	-	-	D	A	-	-	-	B	-	-	-	-	-	-	B	A
Iodine (in Pot. Iodine) Aq.	-	-	-	-	-	A	-	-	-	D	-	-	D	A	-	-	-	B	-	-	-	-	-	-	-	A
Isopropylalcohol	C	A	-	-	-	A	-	-	A	B	-	-	A	A	A	A	-	A	A	-	-	-	-	-	A	A
Lactic Acid Aq. 10%	-	B	-	A	-	A	-	-	A	C	B	A	A	A	-	A	-	A	A	A	-	A	A	A	A	A
0.9	-	-	-	A	-	A	-	-	A	-	C	-	-	A	-	-	-	-	A	C	-	A	-	-	B	A
Lead Acetate Aq.	-	-	-	-	A	A	-	-	A	B	-	-	A	A	-	-	-	A	A	-	-	A	A	A	-	A
Linseed Oil	-	A	-	A	A	A	-	-	-	A	A	A	D	A	-	-	-	-	-	-	A	-	A	A	-	A
Lubricating Oil (Petroleum)	-	A	-	A	A	-	-	-	A	A	A	B	C	A	A	A	-	C	A	A	-	-	A	A	-	A
Magnesium Chloride Aq.	-	A	-	A	A	A	-	-	A	A	A	A	A	A	-	A	-	A	A	A	-	A	A	A	-	A
Malcics Acid	-	-	-	-	A	A	-	-	-	-	C	-	A	A	-	-	A	A	-	-	-	A	A	A	A	A
Maonie Acid Aq.	-	-	-	-	-	-	-	-	-	-	C	-	-	A	-	-	A	-	-	C	-	A	-	-	B	-
Mercuric Chloride Aq.	-	B	A	-	A	A	-	-	A	C	A	-	A	A	-	-	-	A	-	A	A	-	A	A	-	A
Methyl Acetate	-	B	-	-	-	A	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	A	-	-	-	-
Methyl Ethyl Ketone	D	B	D	A	D	A	-	-	D	A	D	D	D	A	D	A	-	D	A	D	-	A	D	D	-	A
Methyl Chloride	-	C	-	-	D	A	-	-	D	C	-	D	D	A	-	D	-	D	A	-	D	A	D	D	-	B
Milk	B	A	-	-	A	A	-	-	A	A	-	A	A	A	-	A	-	A	A	-	A	-	A	A	-	A
Mineral Oils	-	A	-	A	A	A	-	-	A	A	A	C	B	A	-	-	-	C	A	-	-	-	A	A	A	A
Naphthalene	D	-	-	-	D	A	-	-	A	A	-	-	B	A	A	A	-	B	A	-	-	-	D	D	C	A
Nickel Sulphate Aq.	-	-	A	-	A	A	-	-	A	A	-	A	A	A	-	-	-	A	A	A	-	A	A	A	-	A
Nitric Acide Aq. .1%	B	D	A	-	A	A	B	A	A	C	C	A	A	A	A	-	A	A	-	A	-	A	A	A	A	A

(continued next page)

Grade Code:

- A** - No attack, possibly slight absorption. Negligible effect on mechanical properties.
- B** - Slight attack by absorption. Some swelling and a small reduction in mechanical properties likely.
- C** - Moderate attack of appreciable absorption. Material will have limited life.
- D** - Material will decompose or dissolve in a short time.

Data from Laird Plastics except ETFE, FEP, PFA, Isoplast, PS, PTFE and PEI.

Data on ETFE, FEP AND PFA are from LNP.

Data on PEI from GE.

Data on Isoplast from THE DOW CHEMICAL COMPANY.

CHEMICAL RESISTANCE DATA (continued)

Chemical Name	Plastic																									
	ABS	Acetal	Acrylic	AI	CPVC	ECTFE	ETFE	FEP	Isoplast™	Nylon	PBT	PC	PE-HD	PEEK	PEI	PET	PFA	PP	PPS	PS	PSU	PTFE	PVC(I)	PVC(II)	PVDF	UHMW-PE
Nitric Acide Aq. 10%	-	D	-	-	A	A	B	-	B	D	D	-	-	A	A	C	B	-	A	C	A	A	A	A	B	A
Olcic Acid	-	C	-	-	-	A	-	-	-	A	C	C	A	A	-	-	A	B	A	C	A	A	A	A	A	A
Oxalic Acid Aq.	-	C	A	-	A	A	-	-	-	C	C	-	A	A	-	-	A	A	A	D	A	A	A	A	C	A
Ozone	-	C	-	-	A	A	-	-	-	C	-	D	D	A	-	A	-	C	-	-	A	-	A	A	B	A
Paraffin	-	A	-	A	-	A	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	-	A	-	-	A
Perchloric Acid Aq.	-	C	-	-	A	A	-	-	A	D	C	-	B	A	-	A	A	C	-	C	-	A	A	A	A	A
Petrol	-	A	-	A	-	A	-	-	-	A	A	-	A	A	-	A	-	-	A	D	-	-	-	-	-	A
Phenol Aq.	-	D	-	-	-	A	-	-	D	D	-	-	-	D	D	C	-	-	-	D	-	A	-	-	C	B
Phosphoric Acid Aq 3%	-	C	-	A	A	A	-	-	-	-	C	-	-	A	A	A	A	-	A	B	A	A	A	A	A	A
Phosphoric Acid aq. 10%	-	C	-	A	A	A	-	-	-	D	D	-	-	A	A	B	B	-	A	C	A	A	A	A	A	A
Phthalic Acid Aq.	-	-	-	-	-	-	-	-	-	B	C	-	-	A	-	-	A	-	-	D	-	A	-	-	B	A
Potassium Bicarb. Aq.	-	-	-	-	A	-	-	-	A	A	-	-	A	A	A	A	-	A	A	-	-	-	A	A	-	A
Potassium Chloride Aq.	A	-	A	-	A	A	-	-	A	A	A	A	A	A	A	A	-	A	A	A	-	A	A	A	-	A
Potassium Ferrocyanide Aq.	-	-	A	-	A	A	-	-	A	A	-	-	-	A	-	-	-	-	-	-	-	-	A	A	-	A
Propane Gas	-	-	-	-	A	A	-	-	-	A	-	-	D	B	-	A	-	C	A	-	-	A	A	A	-	A
Salicylic Acid	-	-	-	-	-	A	-	-	-	A	C	-	-	A	-	A	A	-	-	D	-	A	-	-	A	A
Silicone Fluids	D	-	-	A	-	A	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	-	-	-	-	A
Silver Nifrate	-	A	-	-	A	A	-	-	-	A	A	-	A	A	-	A	-	A	A	A	-	A	A	A	-	-
Soap Solutions	B	A	-	-	A	A	-	-	-	A	-	-	A	A	-	A	-	A	A	-	-	-	A	A	-	A
Sodium Acetate Aq.	-	-	A	-	A	A	-	-	A	B	A	-	A	A	-	A	-	A	A	A	-	A	A	A	A	-
Sodium Becarbonate Aq.	-	A	A	A	A	A	-	-	A	A	-	A	A	A	-	A	-	B	A	-	-	A	A	A	-	A
Sodium Hypochlorite 15%Cl	-	C	A	A	-	A	-	-	A	D	-	A	A	A	-	A	-	A	B	A	A	A	A	A	-	A
Sodium Nitrate Aq.	-	A	A	-	A	A	-	-	A	C	A	-	A	A	-	A	-	A	A	A	-	A	A	A	-	A
Stannic Chloride Aq.	-	-	-	-	-	-	-	-	A	A	A	-	A	A	-	-	-	A	-	-	-	A	-	-	-	-
Stearic Acid	-	-	-	-	A	A	-	-	-	A	C	-	A	A	-	-	A	A	A	-	-	A	A	A	A	A
Styrene (Momomer)	-	-	-	-	-	A	-	-	-	A	-	-	-	A	-	C	-	-	A	C	-	-	-	-	-	-
Sulphuric Acid Aq. 2%	B	D	D	A	A	A	B	A	A	C	C	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A
0.05	-	D	-	A	-	A	-	-	-	D	D	-	-	A	A	A	B	-	A	C	A	A	A	A	B	A
Sulphurous Acid Aq.	-	C	A	-	A	A	-	-	-	D	C	-	A	A	-	C	A	A	-	C	-	A	A	A	A	A
Tallow	-	-	-	A	-	-	-	-	-	A	-	-	A	A	-	-	-	-	A	-	-	-	-	-	-	A
Tar	-	-	-	A	-	A	-	-	-	B	-	D	-	A	-	-	-	-	A	-	-	-	-	-	-	-
Toluene	-	A	-	A	D	-	-	-	-	A	-	-	D	A	D	A	-	D	A	-	D	-	D	D	B	B

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CHEMICAL RESISTANCE DATA (continued)

Chemical Name	Plastic																									
	ABS	Acetal	Acrylic	AI	CPVC	ECTFE	ETFE	FEP	Isoplast™	Nylon	PBT	PC	PE-HD	PEEK	PEI	PET	PFA	PP	PPS	PS	PSU	PTFE	PVC(I)	PVC(II)	PVDF	UHMW-PE
Transformer Oil	-	-	D	A	-	A	A	A	-	A	-	-	-	A	A	-	B	-	A	-	-	-	-	-	-	A
Trichlorethylene	-	B	-	A	D	A	-	-	C	B	-	-	D	A	D	-	-	D	A	-	D	-	D	D	-	B
Triethanolamine	-	-	-	D	-	A	-	-	-	A	-	D	A	A	-	A	-	A	A	-	-	-	A	A	-	A
Turpentine	D	A	-	A	A	A	-	-	A	A	-	-	D	A	-	-	-	D	A	D	B	A	A	C	-	A
Trisodium Phosphate Aq.	-	-	A	-	A	A	-	-	-	-	C	-	A	A	-	B	-	A	A	-	-	-	A	A	-	-
Urea	-	A	-	-	A	A	-	-	-	A	-	A	A	A	-	B	-	A	A	-	-	-	A	A	-	A
Vaseline	B	A	-	A	A	A	-	-	-	A	-	-	A	A	-	-	-	-	A	-	-	-	A	A	-	A
Vegetable Oils	C	A	-	A	-	A	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	A	-	-	-	A
Vinegar	A	B	-	A	A	A	-	-	A	C	-	-	A	A	-	A	-	A	A	-	-	-	A	A	-	A
Vinyl Chloride	-	-	-	-	-	-	-	-	-	A	-	-	-	A	-	-	-	-	A	-	-	-	-	-	-	-
Water	A	A	-	A	A	A	A	A	A	A	C	A	A	A	-	A	A	A	A	A	A	A	A	A	-	A
Wax (Molten)	C	A	-	A	-	A	-	-	-	A	-	-	-	A	-	A	-	-	A	-	-	-	-	-	-	A
White Spirit	-	A	-	-	A	A	-	-	-	A	-	-	-	A	-	-	-	-	A	-	-	-	-	-	-	A
Wines and Spirits	B	-	-	A	A	A	-	-	-	B	-	A	-	A	-	A	-	-	A	-	-	-	A	A	-	A
Xylene	D	-	D	A	D	A	-	-	A	D	-	-	D	A	C	A	-	D	A	D	D	A	D	D	-	B
Xylenol	-	-	-	A	-	A	-	-	-	D	-	-	-	A	-	-	-	-	-	D	-	A	-	-	-	-
Zinc Chloride Aq.	-	-	A	-	-	A	-	-	A	C	A	C	A	A	A	-	-	A	A	A	A	A	A	A	-	A

Grade Code:

- A** - No attack, possibly slight absorption. Negligible effect on mechanical properties.
- B** - Slight attack by absorption. Some swelling and a small reduction in mechanical properties likely.
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Data on Isoplast from THE DOW CHEMICAL COMPANY.

GUIDE TO PLASTICS

Acetal (Delrin®, Celcon®) - Acetals display good impact resistance, dimensional stability and outstanding surface hardness due to their high degree of crystallinity. They have high dielectric strength and are resistant to many solvents. They also exhibit negligible water absorption. Typical applications include roller bearings, gears, reels, counters, control cams, valves, and pump parts.

CPVC - Chlorinating PVC results in a polymer that has all of PVC's good qualities, plus improved fire retardance, weatherability, a higher maximum working temp. and light-fastness.

Engage® - Ethylene alpha-olefin copolymer bridges the gap between plastics and rubber properties. Key performance benefits include toughness, flexibility, light weight, high clarity, and UV stability. It resists low temperature brittleness and can be engineered to offer specific levels of flexibility to meet a range of technical requirements.

Halar® (ECTFE) - Ethylene-Chlorotrifluoroethylene copolymer exhibits better mechanical properties than many other fluoroplastics. But like other fluoroplastics, its flame retardance, chemical resistance and low dielectric constant remain constant over a wide temperature range. These qualities make it suitable for use in such products as electrical insulation, monofilament, tank linings, housings, and electrical components. It may be usefully employed at temperatures from the cryogenic range to about 330°F.

Isoplast™ - Isoplast urethane resins are high tensile strength, chemically resistant resins originally developed for medical use. They are available in long glass fiber-filled grades. Isoplast combines the toughness and dimensional stability of amorphous resins with the chemical resistance of crystalline materials. The long fibre reinforced grades are strong enough to replace some metals in load bearing applications.

Kynar® (PVDF) - Polyvinylidene fluorides has a useful temperature range of -148°F to 302°F. It has good strength, creep resistance and weatherability. Like some other chlorinated engineering plastics, it will not support combustion in air.

Lexan® (PC) - Polycarbonate exhibits the highest impact strength over a range of temperatures from -60°F to 270°F. It is fine for all precision parts, or where transparency is desired. Its water-clear transmittance (89%) makes it excellent for visors or guards. It shows good creep resistance and has a temperature-independent dielectric constant, as well as good insulating properties.

Noryl® (PPE) - Modified polyphenylene ether is one of the more widely known engineering plastics and has gained UL and FDA approval for a broad spectrum of moldable and foamable grades. It has good impact strength at low temperatures and is resistant to many agents, including steam. It may be furnished in either unreinforced or reinforced grades and remains stable when processed. Yield strength of reinforced grades is comparable to aluminum. Typical end uses include computer and electric housings, automotive body parts, and piping.

Nylon 6/6 - All grades possess toughness and resiliency and have high fatigue strength. Resistance to oils and hydrocarbon solvents is also good. Almost all formulations are also self-extinguishing and retain stable mechanical properties at temperatures from -75°F to above 225°F. They are widely used for latches, cams, gears, and many other moving parts due to their excellent abrasion and impact resistance. Nylon is also available in a variety of cast forms and molybdenum disulphide filled grades (Nylatron® GS).

Nylon 46 - Bridges the price-performance gap between traditional nylons and high performance materials. Suitable for both extrusion and injection molding, Nylon 46 offers a range of functionality including extensive UL classifications and specialized wear and bearing grades.

PCTFE - Polychlorotrifluoroethylene is highly transparent. It also exhibits good electrical properties, and is resistant to most common solvents at room temperature. PCTFE is less permeable to gasses and water vapor than any other transparent film.

PEEK™ - Polyetheretherketone is a material which has excellent chemical resistance and is rated for continuous service to 470°F. It is tough and strong, with low creep, and has the best fire safety rating of all thermoplastics. It tolerates radiation to 1100 Mrads without undergoing significant change. Applications include engine parts, aerospace components and other uses which require PEEK's unique qualities.

PES® - Crystal clear polyethersulfone has truly outstanding creep resistance, dimensional stability, and excellent mechanical properties. It can withstand continuous use in air and water at temperatures to above 350°F. It has low flammability and minimal smoke emission during burning. Its weatherability and solvent resistance are also good. Since PES is sterilizable, it has a wide variety of medical applications. Other applications include electronic components of all types, and structural parts.

PFA® - Perfluoroalkoxy resins, which are marketed under the Teflon® trademark, have properties similar to FEP and PTFE. However, unlike FEP, PFA may be used to temperatures of approximately 500°F. While PFA shares PTFE's chemical resistance and low coefficient of friction, it is also a moldable, and extrudable material. Some applications include packing and seals, cable sheathing, and fire-retardant insulation.

Polycarbonate - This material exhibits the highest impact strength over a range of temperatures from -60°F to 270°F. It is fine for all precision parts, or where transparency is desired. Its water-clear transmittance (89%) makes it excellent for visors or guards. It shows good creep resistance and has a temperature-independent dielectric constant, as well as good insulating properties.

Polyethylene (PE) - Because of its flexibility at low temperatures, excellent electrical resistance and low dielectric constant, Polyethylene is unique. PE's self-lubricating properties also make it ideal for applications such as rollers, skids and other end-uses which call for a non-stick, low-friction material. PE is available in a wide range of densities and formulations.

Polypropylene (PP) - has good impact resistance and structural rigidity. It is unaffected by any solvent at room temperatures. It has excellent insulating properties and is extremely lightweight. Its high fatigue strength makes it a top choice under cyclic loading conditions.

Polystyrene (PS) - is naturally clear. It exhibits excellent chemical resistance and is more resistant to irradiation than is PE or PP. Electrical resistance is also good. This, plus the ease with PS can be painted or shielded, has led to extensive electrical and electronic applications. PS is also often used in appliances and housings. Special high gloss and high impact grades are also widely available.

Polysulfone (PSO) - is a naturally transparent, true engineering plastic whose electrical and mechanical properties are constant up to temperatures above 320°F. It is also rated for continuous service in steam to 300°F. It shows excellent resistance to alkalis, acids and salts, as well as to many hydrocarbons. PSO is suited for microwave use, and may also be plated or glass-filled. Amongst its varied uses are many medical, automotive, and electronic applications.

PVC - Polyvinylchloride exhibits little or no water absorption. Since it is chlorinated, PVC also possesses natural flame retardant qualities. PVCs are available in a wide variety of colors and varying compositions. They are typically employed in packaging, water and chemical piping assemblies, appliances, furniture and other components.

RADEL® A-200 - is a polyethersulfone resin offering high heat deflection temperatures, excellent toughness and dimensional stability, and superior resistance to steam, boiling water, and mineral acids. Other desirable properties include thermal stability, creep resistance, and inherent flame resistance. Grade A-200 is a medium viscosity grade that can be used for either extrusion or injection molding. It is transparent and injection-moldable to close tolerances.

RADEL® AG-330 - is a 30% glass fiber reinforced polyethersulfone compound. Adding glass fiber to Radel A-300 polyethersulfone substantially increases the rigidity, tensile strength, creep resistance, dimensional stability, and chemical resistance of the material, while maintaining most of its other basic characteristics. The combination of structural properties and cost effectiveness makes this resin an attractive alternative to metals in many engineering applications. Radel AG-330 is an opaque, grayish material in its natural form and may be readily colored.

RADEL® R-5000 - is a polyphenylsulfone resin offering exceptional hydrolytic stability, and toughness that is superior to other commercially-available, high-temperature engineering resins. It offers high deflection temperatures and outstanding resistance to environmental stress cracking. The polymer is inherently flame retardant, and also has excellent thermal stability and good electrical properties. Radel R-5000 resin is a transparent injection molding grade.

Ryton® PPS - This exceptionally strong, thermally stable, corrosion resistant engineering thermoplastic retains structural integrity under the most demanding conditions of temperature and physical abuse. In continuous-service applications, Ryton® PPS boasts UL temperature indices up to 240°C with outstanding dimensional stability, and it can withstand short-term exposures to temperatures greater than 500°F. It is inherently flame retardant and exhibits low smoke emission and non-toxic gas generation. Ryton® PPS is resistant to a broad spectrum of solvents, organic acids and alkalis.

Teflon® (PTFE) - An extremely low coefficient of friction makes Polytetrafluoroethylene the ideal choice where surface wear might otherwise be a problem. PTFE also exhibits a useful service life from below -100°F, to temperatures of over 500°F. Its resistance to solvents is also excellent throughout a wide range of temperatures. Its low dielectric constant and electrical resistance also remain constant throughout this range.

Tefzel® (ETFE) - Ethylene-tetrafluoroethylene copolymer is a high impact material with properties similar to ETFE. It is commonly used to manufacture pumps, valves, computer housings, and other electrical components.

Torlon® (PAI) - Polyamide-imide possesses a combination of great mechanical strength, the ability to withstand radiation, usability from approximately -300°F to 500°F, and resistance to most chemicals at room temperature. It is also flame retardant and gives off almost no smoke when burned. It is available in unreinforced and reinforced grades and is readily machinable. This combination of assets makes it a good metal substitute for aerospace and electronic applications.

ULTEM - Unreinforced ULTEM® (polyetherimide) keeps its hardness, and mechanical properties from -40°F, up to temperatures of 356°F. It is radiation-resistant, microwave transparent and is naturally flame-retardant. Reinforced grades have even higher mechanical strength. Because of its unequalled properties, ULTEM® is the ideal replacement for steel and other metals. It also has a wide range of electronic and medical applications.

UHMW® - While Ultra-High Molecular Weight Polyethylene retains the inherent qualities of low-density polyethylene, its increased toughness allows its use in a wide variety of rugged applications. It is commonly employed to provide rollers, cams, impellers and bumper guards. Because of its high lubricity, it is also used to coat conveyer-belts, ramps and hoppers. UHMW's imperviousness to attack by steam and chemicals, and its continued good performance at low temperatures, has also enabled it to gain FDA approval for a variety of applications within the food and drug industries.

Vespel® - is a high performance polyimide material which can operate continuously from cryogenic temperatures to 550°F (288°C), with excursions to 900°F (482°C). Vespel parts exhibit superior performance in a variety of applications requiring low wear and long life in severe environments.

Craftech Industries Materials List (Alphabetical)

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-14	ABS	-195	Nylon 46, 30% Glass-filled,	-272	PVC, (white)
-62	Acetal		Flame Retardant, Heat Stabilized	-226	Radel® A-200,
-26	Acrylic	-22	Nylon 612		Polyethersulfone
-9	Celcon®	-78	Nylon 6/6, (black)	-234	Radel® AG-320, 20% Glass-
-10	Celcon®, Glass-filled	-18	Nylon 6/6, (natural)		filled Polyethersulfone
-100	Celenex®, 3300 Glass-filled	-215	Nylon 6/6, (white)	-228	Radel® AG-330,30% Glass-
-28	CPVC	-19	Nylon 6/6, 20% Short		filled Polyethersulfone
-25	Delrin® AF		Glass-filled	-231	Radel® R5100 NT15,
-24	Delrin®, (white)	-60	Nylon 6/6, 30% Short		Polyphenylsulfone
-63	Delrin®, (black)		Glass-filled	-229	Radel® R5500,
-64	Delrin®, 25% Short	-32	PCTFE		Polyphenylsulfone
	Glass-filled	-16	PEK®	-232	Radel® R5500 BK937,
-44	Ertalon®	-15	PEEK®		Polyphenylsulfone, (black)
-43	Ertalyte®	-151	PEEK®, (black)	-233	Radel® R5500 NT,
-31	FEP®	-97	PEEK® UHP (Ultra-High Purity)		Polyphenylsulfone,
-214	Fiberglass-Vinyl Ester	-90	PEEK®, 30% Glass-filled		(amber)
-38	Fiber Glass G10	-152	PEEK®, 450G, (black)	-217	Rexolite®
-58	Fiber Glass G11	-7	PES®	-223	Rexolite® 1422
-59	Fiber Vulcanized	-8	PES®, 30% Glass-filled	-211	Rulon®
-41	Halar®	-54	Phenolic Cotton	-207	Rulon® LR
-82	Isoplast™, 101	-55	Phenolic Linen	-49	Rynite®
-83	Isoplast™, 202	-53	Phenolic Paper	-218	Ryton®, 40% Glass-filled,
-84	Isoplast™, 301	-46	Polycarbonate, (clear)		(black), PPS
-85	Isoplast™, 302	-47	Polycarbonate Glass-filled	-48	Ryton®, 40% Short Glass-
-824	Isoplast™, 30% Short Glass	-68	Polyester PBT		filled
	Fiber, (natural)	-67	Polyester TPE Elastomer	-105	Supec®, 40% Glass-filled
-81	Isoplast™, 40% Long Glass	-13	Polyethylene	-50	Techtron (PPS)
	Fiber, (gray)	-131	Polyethylene, High Density,	-29	Teflon®
			(black)	-40	Teflon®, (PFA)
-74	Isoplast™, 40% Long Glass	-80	Polypropylene, (black)	-296	Teflon® (PTFE), 15%
	Fiber, (natural)	-112	Polypropylene, (gray)		Glass-filled
-37	Kynar®, (PVDF)	-11	Polypropylene, (natural)	-290	Teflon® (PTFE), Virgin 25%
-371	Kynar®, (black)	-79	Polypropylene, (white)		Glass-filled
-372	Kynar®, (white)	-111	Polypropylene Glass-filled,	-291	Teflon®, Virgin, (black)
			(natural)	-293	Teflon®, 10% Glass-filled,
-4	Lexan®, (black)	-116	Polypropylene, Glass-filled,		(gray)
-3	Lexan®, (clear)		(white)	-294	Teflon®, 20% Glass-filled
-61	Lexan®, 20% Short Glass-	-108	Polypropylene, 30% Short	-30	Tetzel®
	filled		Glass-filled, (white)	-57	Torlon®
-73	Lexan®, 30% Glass-filled	-113	Polypropylene, 40% Glass-	-39	UHMW®
-45	Lexan®, 30% Long Glass		filled, (black)	-5	Ultem® 1000
	Fiber, (black)	-12	Polystyrene	-216	Ultem® 1000, (black)
-35	Noryl®	-56	Polystyrene Cross-Link	-6	Ultem® 2300, (black)
-36	Noryl®, Glass-filled	-33	Polysulfone	-77	Ultem® 2300, (natural)
-42	Nylatron® GS	-50	PPS	-699	Ultem® 2300, Regrind,
-72	Nylon, Fire Retardant	-51	PPS, 20% Short Glass-		(black)
-21	Nylon Graphite-filled		filled	-771	Ultem® 2300R, (natural)
-70	Nylon, Heat Stabilized	-520	PPS, 30% Carbon Fiber,	-208	Valox 315, (natural)
-20	Nylon MDS		(black)	-209	Valox, 15% Glass-filled,
-23	Nylon Super Tough	-52	PPS, 40% Long Glass-filled		(black)
-1	Nylon, 30% Long Glass- filled	-17	PPS, 50% Long Glass Fiber	-95	Vectra A115
-2	Nylon, 30% Long Glass-	-273	PVC, (black)	-212	Vespel SP211
	filled, (black), UV	-274	PVC, (clear)	-213	Vespel®
-71	Nylon, 35% Long Glass-filled		PVC, (gray)	-461	Zelux W
-194	Nylon 46, 30% Glass-filled,				
	Heat Stabilized				

Craftech Industries Materials List (Numerical)

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-1	Nylon, 30% Long Glass-filled	-52	PPS, 40% Long Glass-filled		Heat Stabilized
-2	Nylon, 30% Long Glass-filled, (black), UV	-53	Phenolic Paper	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-3	Lexan®, (clear)	-54	Phenolic Cotton		
-4	Lexan®, (black)	-55	Phenolic Linen	-207	Rulon® L R
-5	Ultem® 1000	-56	Polystyrene Cross-Link	-208	Valox 315, (natural)
-6	Ultem® 2300, (black)	-57	Torlon®	-209	Valox, 15% Glass-filled, (black)
-7	PES®	-58	Fiber Glass G11	-211	Rulon®
-8	PES®, 30% Glass-filled	-59	Fiber Vulcanized	-212	VespelSP211
-9	Celcon®	-60	Nylon 6/6, 30% Short Glass-filled	-213	Vespel®
-10	Celcon®, Glass-filled	-61	Lexan®, 20% Short Glass-filled	-214	Fiberglass-Vinyl Ester
-11	Polypropylene, (natural)	-62	Acetal	-215	Nylon 6/6, (white)
-12	Polystyrene	-63	Delrin®, (black)	-216	Ultem® 1000, (black)
-13	Polyethylene	-64	Delrin®, 25% Short Glass-filled	-217	Rexolite®
-14	ABS	-67	Polyester TPE Elastomer	-218	Ryton®, 40% Glass-filled, (black), PPS
-15	PEEK®	-68	Polyester PBT	-223	Rexolite® 1422
-16	PEK®	-70	Nylon, Heat Stabilized	-226	Radel® A-200, Polyethersulfone
-17	PPS, 50% Long Glass Fiber	-71	Nylon, 35% Long Glass-filled	-228	Radel® AG-330, 30% Glass-filled
-18	Nylon 6/6, (natural)	-72	Nylon, Fire Retardant		Poltethersulfone
-19	Nylon 6/6, 20% Short Glass-filled	-73	Lexan®, 30% Glass-filled	-229	Radel® R5500, Polyphenylsulfone
-20	Nylon MDS	-74	Isoplast™, 40% Long Glass Fiber, (natural)	-231	Radel® R5100 NT15, Polyphenylsulfone
-21	Nylon Graphite-filled	-77	Ultem® 2300, (natural)	-232	Radel® R5500 BK937, Polyphenylsulfone, (black)
-22	Nylon 612	-78	Nylon 6/6, (black)	-233	Radel® R5500 NT, Polyphenylsulfone, (amber)
-23	Nylon Super Tough	-79	Polypropylene, (white)	-234	Radel® AG-320, 20% Glass-filled
-24	Delrin®	-80	Polypropylene, (black)	-273	PVC, (black)
-25	Delrin® AF	-81	Isoplast®, 40% Long Glass Fiber, (gray)	-274	PVC, (clear)
-26	Acrylic	-82	Isoplast™, 101	-290	Teflon® (PTFE), Virgin 25% Glass-filled
-27	PVC, (gray)	-83	Isoplast™, 202	-291	Teflon®, Virgin, (black)
-28	CPVC	-84	Isoplast™, 301	-293	Teflon®, 10% Glass-filled, (gray)
-29	Teflon®	-85	Isoplast™, 302	-294	Teflon®, 20% Glass-filled
-30	Tetzel®	-90	PEEK®, 30% Glass-filled	-296	Teflon® (PTFE), 15% Glass-filled
-31	FEP®	-95	Vectra A115	-371	Kynar®, (black)
-32	PCTFE	-97	PEEK®, UHP (Ultra-High Purity)	-372	Kynar®, (white)
-33	Polysulfone	-100	Celenex®, 3300 Glass-filled	-461	Zelux W
-35	Noryl®	-105	Supec®, 40% Glass-filled	-520	PPS, 30% Carbon Fiber, (black)
-36	Noryl®, Glass-filled	-108	Polypropylene, 30% Short Glass-filled, (white)	-699	Ultem® 2300, Re grind, (black)
-37	Kynar®, (PVDF)	-111	Polypropylene, Glass-filled, (black)	-771	Ultem® 2300R, (natural)
-38	Fiber Glass G10	-112	Polypropylene, (gray)	-824	Isoplast™, 30% Short Glass Fiber, (natural)
-39	UHMW®	-113	Polypropylene, Glass-filled, (white)		
-40	Teflon®, (PFA)	-116	Polypropylene, Glass-filled, (white)		
-41	Halar®	-131	Polyethylene, High Density, (black)		
-42	Nylatron® GS	-151	PEEK®, (black)		
-43	Ertalyte®	-194	Nylon 46, 30% Glass-filled,		
-44	Ertalon®				
-45	Lexan®, 30% Long Glass Fiber, (black)				
-46	Polycarbonate, (clear)				
-47	Polycarbonate Glass-filled				
-48	Ryton®, 40% Short Glass-filled				
-49	Rynite®				
-50	Techtron (PPS)				
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