

## MATERIALS

MATERIAL ROD & BAR	ORDERING CODE	MATERIAL SPECIFICATIONS	RoHS COMPLIANT
Aluminum	AL	QQ-A-225/3, QQ-A225/6, AMS 4120, QQ-A-225/8, AMS 4117, QQ-A-200/9, AMS 4156	YES
Brass	B	ASTM-B-16, ASTM-B927/B927M-09, ASTM B453	YES
Nylon	N	LP-410A, D 4066	YES
Phenolic – Paper	PH	MIL-P-79 Type PBE, MIL-I-24768/10	YES
Phenolic – Tube	PH	MIL-P-79 TYPE PGB, MIL-I-24768/11	YES
Phenolic – Linen	PHL	MIL-P-79 Type FBE, MIL-I-24768/13	YES
Steel	S	ASTM -A108-07, ASTM-A108-13	YES
Stainless Steel	SS	ASTM-A-581, A-582	YES
Teflon	TE	ASTM-1710	YES
Delrin	D	ASTM-D-4181	YES

\* Non RoHS Compliant Finish

## FINISH CODES

*1	Cadmium (Commercial) (Special Order Only)	25	Black Oxide, Brass MIL-F-495E
*2	Cadmium QQ-P-416F-Class 2 Type-1 (Clear Chromate) (Special Order Only)	26	Black Oxide, Stainless Steel, Steel MIL-DTL-13924D, Class 1 and 4
*3	Cadmium QQ-P-416F-Class 2 Type-2 (Yellow Chromate) (Special Order Only)	27	Electro Tin Solder (60/40) MIL-F-14072D / M222
4	Chrome Over Nickel	28	Zinc Plate .0002 ASTM-B-633 (Yellow Chromate)
5	Nickel QQ-N-290A Class 1 Grade G	29	Brushed Finish – Handles Only
*6	Iridite #14 (Gold) MIL-DTL-5541F	30	Brushed Finish – Clear Lacquer – Handles Only
7	Iridite (Clear) MIL-DTL-5541F	31	Brushed Satin – Handles Only
8	Chemical Film Per MIL-DTL-5541, Class 1A, Dyed Blue	32	Brushed Satin – Clear Anodize – Handles Only
*9	Alodine 1200	33	Brushed Satin – Black Anodize – Handles Only
10	Chrome QQ-C-320B Class 1 Type I (Bright Finish)	34	Satin Finish – Clear Anodize
11	Chrome QQ-C-320B Class 1 Type II (Satin Finish)	35	Satin Finish – Black Anodize
12	Zinc .0002 ASTM-B-633 (Clear Chromate)	36	Anodize MIL-A-8625F Black High Luster
13	Bright Dip – Brass	37	Ductile Nickel
14	Bright Tin ASTM B545 over Copper Flash Mil-C-14550B	38	Polished Nickel – Handles Only
15	Hot Tin Dip MIL-T-10727C Type II	39	Caustic Etch and Lacquer
16	Electro Tin ASTM B545-13 Class A, B or C	40	Semi-Frost Anodize (Clear)
19	Caustic Etch	41	Semi-Frost Anodize (Black)
20	Passivate MIL-F-14072F	42	Black Zinc
21	Anodize MIL-A-8625F – Type II Class 2 (Sulfuric) Chemical Seal (Dark Grey)	43	Blue Zinc
22	Anodize MIL-A-8625F – Type II Class 1 (Sulfuric) Hot Water Seal (Clear)	44	Electro Tin with Nickel Undercoat Per Mil-T-10727C
23	Anodize MIL-A-8625F – Type II Class 2 (Sulfuric) Chemical Seal (Yellow Green)	45	Passivate QQ-P-35C Type VI
24	Anodize MIL-A-8625F – Type II Class 2 (Sulfuric) Chemical Seal (Black)	46	Passivate ASTM A967 / A967M-13 Nitric 1
		47	Passivate ASTM A380 / A380M-13
		48	Passivate AMS 2700E Method 1

## NOTES

Responsibility ends with customer inspection or 10 days after customer receives parts. No returns will be accepted without prior approval from factory in writing.

All parts are stocked in plain finish. Parts will be plated to customer specification.

The items in this catalog are designed and manufactured to be functional. Engineering evaluation and quality assurance evaluations should be accomplished with functionality as a prime criteria.

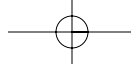
RAF reserves the right to change any specifications, tolerances and plating types, for any products listed in this REFERENCE MANUAL without prior notice, provided the function of the item is not changed.

All custom (non-catalog) items are subject to an over shipment or under shipment of up to 10% of the order quantity. The price quotation from RAF will clearly identify these items.

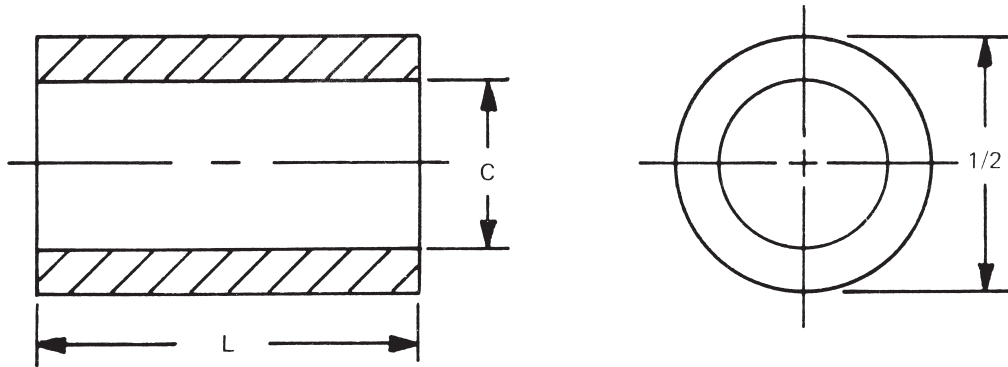


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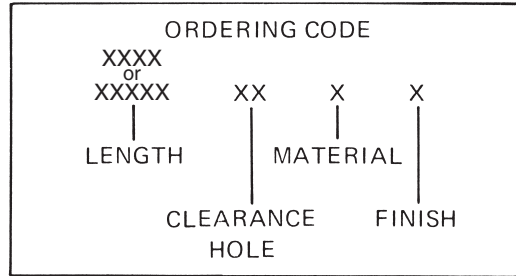


# 1/2 ROUND SPACERS



See page 9 for finish codes  
For non-standard parts contact Sales Office

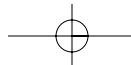
LENGTH	PART NO.
3/32	1215A
1/8	1215
5/32	1215T
3/16	1216
7/32	1216T
1/4	1217
9/32	1217T
5/16	1218
11/32	1218T
3/8	1219
13/32	1219T
7/16	1220
15/32	1220T
1/2	1221
17/32	1221T
9/16	1222
19/32	1222T
5/8	1223
21/32	1223T
11/16	1224
23/32	1224T
3/4	1225
25/32	1225T
13/16	1226
27/32	1226T
7/8	1227
29/32	1227T
15/16	1228
31/32	1228T
1"	1229



LENGTH	PART NO.
1-1/16	1230
1-1/8	1231
1-3/16	1232
1-1/4	1233
1-5/16	1234
1-3/8	1235
1-7/16	1236
1-1/2	1237
1-9/16	1238
1-5/8	1239
1-11/16	1240
1-3/4	1241
1-13/16	1242
1-7/8	1243
1-15/16	1244
2"	1245

HOLE CLEARANCE CODE	
+ .010 - .000	CODE
.140	6
.166	8
.192	10
.218	12
.252	25

MATERIAL	CODE	RoHS
Aluminum	AL	YES
Brass	B	YES
Stainless Steel	SS	YES
Steel	S	YES
Nylon	N	YES
Phenolic	PH	YES



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