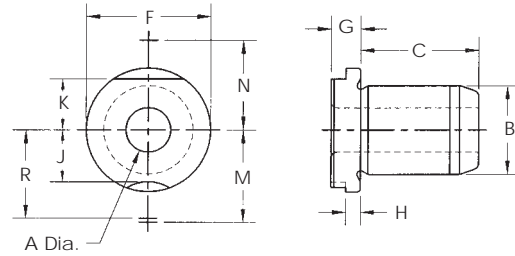


Fixed Renewable
Type F
Finish Ground O.D.



Inside Diameter Range Size (A)	Outside Diameter Finish Ground Size (B)	Length Inches (C)	ANSI Symbol	Price Code	Lock Screw Clamps
#80 - #70 (.0135 - .0280)	3/16"	*1/4	F-12-4	233	LS-0
		*5/16	F-12-5	235	
		*3/8	F-12-6	237	
		*1/2	F-12-8	238	
#69 - 3/64" (.0292 - .0469)	3/16"	1/4	F-12-4	214	LS-0
		*5/16	F-12-5	216	
		*3/8	F-12-6	219	
		*1/2	F-12-8	221	
#55 - 1/16" (.0520 - .0625)	3/16"	1/4	F-12-4	182	LS-0
		*5/16	F-12-5	184	
		*3/8	F-12-6	186	
		*1/2	F-12-8	187	
		*5/8	F-12-10	191	
		*3/4	F-12-12	197	
#52 - #40 (.0635 - .0980)	3/16"	1/4	F-12-4	141	LS-0
		*5/16	F-12-5	142	
		3/8	F-12-6	144	
		*1/2	F-12-8	147	
		*5/8	F-12-10	151	
#39 - 9/64" (.0995 - .1400)	1/4"	1/4	F-16-4	136	TW-2
		5/16	F-16-5	136	
		*3/8	F-16-6	138	
		*1/2	F-16-8	141	
#80 - #70 (.0135 - .0280)	5/16"	*1/4	F-20-4	233	FC-01 LS-1 RC-01
		*5/16	F-20-5	235	
		*3/8	F-20-6	237	
		*1/2	F-20-8	238	
		*3/4	F-20-12	260	
#69 - 3/64" (.0292 - .0469)	5/16"	*5/16	F-20-5	216	LS-1 FC-01 FC-11 RC-01
		*3/8	F-20-6	220	
		*1/2	F-20-8	221	
		*3/4	F-20-12	230	
#55 - 1/16" (.0520 - .0625)	5/16"	*5/16	F-20-5	184	LS-1 FC-01 FC-11 RC-01
		*3/8	F-20-6	186	
		*1/2	F-20-8	187	
#52 - #43 (.0635 - .0890)	5/16"	*3/4	F-20-12	197	LS-1 FC-01 FC-11 RC-01
		5/16	F-20-5	142	
		*3/8	F-20-6	144	
		*1/2	F-20-8	147	
#42 - #31 (.0935 - .1200)	5/16"	*3/4	F-20-12	154	LS-1 FC-01 FC-11 RC-01
		*1	F-20-16	172	
		5/16	F-20-5	136	
		3/8	F-20-6	138	
		*1/2	F-20-8	141	

Inside Diameter Range Size (A)	Outside Diameter Finish Ground Size (B)	Length Inches (C)	ANSI Symbol	Price Code	Lock Screw Clamps
1/8" - #10 (.1250 - .1935)	5/16"	5/16	F-20-5	135	LS-1 FC-01 FC-11 RC-01
		3/8	F-20-6	136	
		1/2	F-20-8	139	
		5/8	F-20-10	143	
		*3/4	F-20-12	148	
		*1	F-20-16	161	
#10 - #1 (.1935 - .2280)	3/8"	*1 3/8	F-20-22	184	TW-2
		1/4	F-24-4	117	
		5/16	F-24-5	120	
		3/8	F-24-6	122	
		1/2	F-24-8	125	
		5/8	F-24-10	126	
A - L (.2340 - .2900)	7/16"	3/4	F-24-12	128	TW-2
		*1	F-24-16	135	
		1/4	F-28-4	117	
		5/16	F-28-5	120	
		3/8	F-28-6	122	
		1/2	F-28-8	125	
#28 - 3/16" (.1405 - .1875)	1/2"	5/8	F-28-10	126	LS-1 FC-01 FC-11 RC-01
		*1	F-28-16	135	
		5/16	F-32-5	126	
		3/8	F-32-6	128	
		1/2	F-32-8	130	
		*3/4	F-32-12	135	
		*1	F-32-16	142	
		*1 3/8	F-32-22	152	
#12 - 11/32" (.1890 - .3437)	1/2"	*1 1/2	F-32-24	157	LS-1 FC-01 FC-11 RC-01
		*1 3/4	F-32-28	164	
		5/16	F-32-5	120	
		3/8	F-32-6	122	
		1/2	F-32-8	124	
		3/4	F-32-12	128	
		*1	F-32-16	135	
		*1 3/8	F-32-22	147	
M - 11/32" (.2950 - .3437)	9/16"	*1 1/2	F-32-24	150	TW-2
		*1 3/4	F-32-28	155	
		1/4	F-36-4	117	
		5/16	F-36-5	120	
		3/8	F-36-6	122	
		1/2	F-36-8	125	
		5/8	F-36-10	126	TW-2
		3/4	F-36-12	128	
		1	F-36-16	135	

* Counterbore, leaving correct drill bearing and chip clearance. Metric sizes are available.

Fixed Renewable

Type F

Finish Ground O.D.

Continued from previous page

Inside Diameter Range Size (A)	Outside Diameter Finish Ground Size (B)	Length Inches (C)	ANSI Symbol	Price Code	Lock Screw Clamps
S - 7/16" (.3480 - .4375)	5/8" .6250 .6248	3/8	F-40-6	123	TW-2
		1/2	F-40-8	123	
		5/8	F-40-10	125	
		3/4	F-40-12	126	
		1	F-40-16	130	
		1 1/4	F-40-20	147	
9/32" - 9/16" (.2812 - .5625)	3/4" .7500 .7498	3/8	F-48-6	122	FC-01 FC-11 LS-1 RC-01
		1/2	F-48-8	123	
		3/4	F-48-12	126	
		1	F-48-16	130	
		1 3/8	F-48-22	147	
		1 1/2	F-48-24	151	
		1 3/4	F-48-28	156	
		2 1/8	F-48-40	166	
		*2 1/2	F-48-28	226	
		*3	F-48-48	257	
35/64" - 21/32" (.5469 - .6562)	7/8" .8750 .8748	1/2	F-56-8	135	TW-7
		5/8	F-56-10	136	
		3/4	F-56-12	136	
		1	F-56-16	141	
		1 1/4	F-56-22	148	
		1 1/2	F-56-24	152	
15/32" - 25/32" (.4687 - .7812)	1" 1.0000 .9998	1/2	F-64-8	135	FC-02 FC-12 LS-2 RC-02
		3/4	F-64-12	136	
		1	F-64-16	141	
		1 3/8	F-64-22	148	
		1 1/2	F-64-24	153	
		1 3/4	F-64-28	161	
		2 1/8	F-64-34	177	
		2 1/2	F-64-40	234	
		3	F-64-48	259	

Inside Diameter Range Size (A)	Outside Diameter Finish Ground Size (B)	Length Inches (C)	ANSI Symbol	Price Code	Lock Screw Clamps
23/32" - 1 1/16" (.7187 - 1.0625)	1 3/8" 1.3750 1.3747	3/4	F-88-12	164	LS-2 RC-02
		1	F-88-16	175	
		1 3/8	F-88-22	184	
		1 1/2	F-88-24	190	
		1 3/4	F-88-28	198	
		2 1/8	F-88-34	212	
		2 1/2	F-88-40	244	
		3	F-88-48	266	
31/32" - 1 13/32" (.9687 - 1.4062)	1 3/4" 1.7500 1.7497	3/4	F-112-12	202	FC-3 FC-13 LS-3 RC-03
		1	F-112-16	191	
		1 3/8	F-112-22	202	
		1 1/2	F-112-24	210	
		1 3/4	F-112-28	220	
		2 1/8	F-112-34	233	
		2 1/2	F-112-40	252	
		3	F-112-48	266	
1 11/32" - 1 7/8" (1.3437 - 1.8750)	2 1/4" 2.2500 2.2496	3/4	F-144-12	239	FC-3 FC-13 LS-3 RC-03
		1	F-144-16	228	
		1 3/8	F-144-22	239	
		1 1/2	F-144-24	243	
		1 3/4	F-144-28	245	
		2 1/8	F-144-34	256	
		2 1/2	F-144-40	263	
		3	F-144-48	271	

* Counterbore, leaving correct drill bearing and chip clearance. Metric sizes are available.

DIMENSIONAL DATA ANSI FIXED RENEWABLE HEAD DIMENSIONS									
Body O.D. (B)	(F)	(G)	(H)	(J)	(K)	(M)	(N)	(R)	Lock Screw
3/16"	5/16"	3/16"	3/32"	3/32"				17/64"	LS-0
1/4"	7/16"	1/4"	1/8"	9/64"				23/64"	TW-2
5/16"	35/64"	1/4"	1/8"	11/64"	11/64"	5/8"	11/16"	1/2"	LS-1
3/8"	5/8"	1/4"	1/8"	15/64"				29/64"	TW-2
7/16"	5/8"	1/4"	1/8"	15/64"				29/64"	TW-2
1/2"	51/64"	1/4"	1/8"	19/64"	17/64"	3/4"	25/32"	5/8"	LS-1
9/16"	7/8"	1/4"	1/8"	23/64"				37/64"	TW-2
5/8"	7/8"	1/4"	1/8"	23/64"				37/64"	TW-2
3/4"	1-3/64"	1/4"	1/8"	27/64"	25/64"	7/8"	57/64"	3/4"	LS-1
7/8"	1-1/4"	3/8"	3/16"	31/64"				53/64"	TW-7
1"	1-27/64"	3/8"	3/16"	19/32"	1/2"	1-7/64"	1-9/64"	59/64"	LS-2
1-3/8"	1-51/64"	3/8"	3/16"	25/32"	11/16"	1-19/64"	1-21/64"	1-7/64"	LS-2
1-3/4"	2-19/64"	3/8"	3/16"	1"	7/8"	1-41/64"	1-33/64"	1-25/64"	LS-3
2-1/4"	2-51/64"	3/8"	3/16"	1-1/4"	1-1/8"	1-57/64"	1-49/64"	1-41/64"	LS-3