

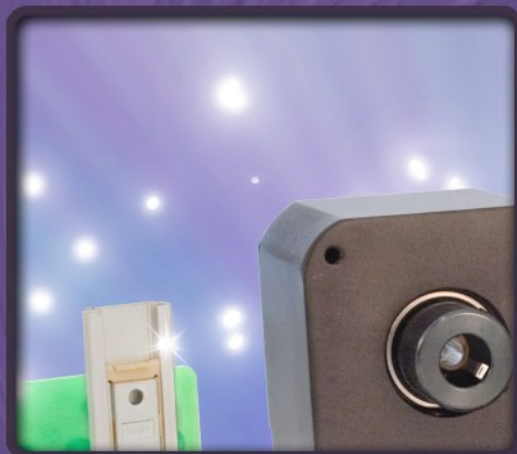
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There are two ways to access the information on parts you are looking for, as shown below:

METHOD 1: If you know the part number

The **Part Number Index**, on page **xii**, will direct you to the appropriate page. Match the part number as closely to one of the entries in the **Part Number Index**. The dots denote variable characters on the page. Then, go to the page number indicated. Often, the series will continue on to the facing page.

Example:

Part Number Series

PART NUMBER	PAGE	PART NUMBER	PAGE
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A 2Z11-...	232	A 6Z13MT...	48
A 6A14M..D..	51	A 6Z16-...	3
A 6A14M..S..	50	A 6Z16M...	3
A 6A14M..T..	51	A 7A87-...	220
A 6B 8-14	54	A 7C15-..	219

Page Number

METHOD 1: If you know the name of the item

The Alphabetical Index is at the end of this catalog. We have tried to make as many entries as possible to make it easier for you to find the products you are looking for. Consequently, the same page may be referenced under several headings.

Example:

Product Name

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Heavy-Duty Polymer M250®	117
High-Temperature Polymer T500®	123
Linear, Polymer J®	135
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NOTE: This table contains the timing belts featured in this catalog only and represents the addition of new sizes on the existing series and new products. Additional belts are shown in our other catalogs (D785, D790 and D265) or check our Web site: www.sdp-si.com.

Profile	Pitch		Pages	Single - Sided	Double - Sided	Neoprene	Polymer * Compound	Comments
	Inch	mm						
MXL	.080	2.032	3-5					New sizes added
			24 & 25					New product
XL	.200	5.08	6 & 7					New sizes added
			26 & 27					New product
L	.375	9.525	8 & 9					New sizes added
			28					New product
HTD®	.118	3	10 & 11					New sizes added
	.197	5	12 & 13					New sizes added
GT®2	.079	2	14 & 15					New sizes added
			29					New product
	.118	3	16 & 17					New sizes added
			30					New product
			18 & 19					New product
	.197	5	20					New sizes added
			31					New product
			21					New product
Coni-Drive	.3937	10	48				**	New product

* TruMotion® Timing Belt

** Polyurethane reinforced with steel tensile cords

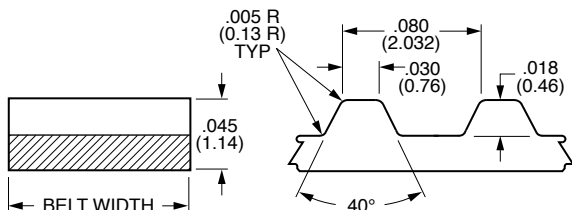


MXL Timing Belts – .080" or 2.03 mm Pitch

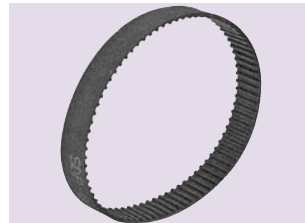
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■ NEOPRENE

■ 1/8, 3/16, 1/4, 5/16 & 3/8 INCH - 3, 4.5, 6, 8 & 9.5 mm WIDE



NOTE: Dimensions in () are mm.



Continued on the next page

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene

BREAKING STRENGTH: 51 lbs per 1/8 (72 N per 1 mm) belt width;
not representative of the load-carrying capacity
of the belt.

WORKING TENSION: 18 lbs for 1 in. belt (80 N for 25.4 mm belt).

For more information, see the technical section.

TEMPERATURE RANGE: -30°F to +185°F (-34°C to +85°C)

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 6 Z 1 6 -	012	1/8	A 6Z16-041018 is a 41 Groove 3/16 Wide Belt.
	No. of Grooves Code (See tables below)	018	3/16	
		025	1/4	
		031	5/16	
		037	3/8	
M E T R I C	A 6 Z 1 6 M	030	3 mm	A 6Z16M085045 is an 85 Groove 4.5 mm Wide Belt.
	No. of Grooves Code (See tables below)	045	4.5 mm	
		060	6 mm	
		080	8 mm	
		095	9.5 mm	

Groove Code	Pitch Length	
	Inch	mm
036	2.88	73.15
037	2.96	75.18
039	3.12	79.25
040	3.20	81.28
041	3.28	83.31
042	3.36	85.34
043	3.44	87.38
044	3.52	89.41
045	3.60	91.44
046	3.68	93.47
047	3.76	95.5
048	3.84	97.54
049	3.92	99.57
050	4.00	101.6
052	4.16	105.66
053	4.24	107.7

Groove Code	Pitch Length	
	Inch	mm
054	4.32	109.73
055	4.40	111.76
056	4.48	113.79
057	4.56	115.82
058	4.64	117.86
059	4.72	119.89
060	4.80	121.92
061	4.88	123.95
062	4.96	125.98
063	5.04	128.02
064	5.12	130.05
065	5.20	132.08
067	5.36	136.14
068	5.44	138.18
069	5.52	140.21
070	5.60	142.24

Groove Code	Pitch Length	
	Inch	mm
071	5.68	144.27
072	5.76	146.3
073	5.84	148.34
074	5.92	150.37
075	6.00	152.4
076	6.08	154.43
077	6.16	156.46
078	6.24	158.5
079	6.32	160.53
080	6.40	162.56
081	6.48	164.59
082	6.56	166.62
083	6.64	168.66
084	6.72	170.69
085	6.80	172.72
086	6.88	174.75

Groove Code	Pitch Length	
	Inch	mm
087	6.96	176.78
088	7.04	178.82
089	7.12	180.85
090	7.20	182.88
091	7.28	184.91
092	7.36	186.94
093	7.44	188.98
094	7.52	191.01
095	7.60	193.04
096	7.68	195.07
097	7.76	197.1
098	7.84	199.14
099	7.92	201.17
100	8.00	203.2
101	8.08	205.23
102	8.16	207.26

Special Widths - cut to size from sleeves available from stock.
Pulleys are available with inch or metric standards.



MXL Timing Belts – .080" or 2.03 mm Pitch

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■ NEOPRENE
■ 1/8, 3/16, 1/4, 5/16 & 3/8 INCH - 3, 4.5, 6, 8 & 9.5 mm WIDE

 Continued from the previous page
 and Continued on the next page

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 6 Z 1 6 –	012	1/8	A 6Z16-160025 is a 160 Groove 1/4 Wide Belt.
	No. of Grooves Code (See tables below)	018	3/16	
	Width Code (See right)	025	1/4	
		031	5/16	
		037	3/8	
M E T R I C	A 6 Z 1 6 M	030	3 mm	A 6Z16M130095 is a 130 Groove 9.5 mm Wide Belt.
	No. of Grooves Code (See tables below)	045	4.5 mm	
	Width Code (See right)	060	6 mm	
		080	8 mm	
		095	9.5 mm	

Groove Code	Pitch Length		Groove Code	Pitch Length		Groove Code	Pitch Length		Groove Code	Pitch Length	
	Inch	mm		Inch	mm		Inch	mm		Inch	mm
103	8.24	209.3	135	10.80	274.32	167	13.36	339.34	225	18.00	457.2
104	8.32	211.33	136	10.88	276.35	169	13.52	343.41	226	18.08	459.23
105	8.40	213.36	137	10.96	278.38	170	13.60	345.44	228	18.24	463.3
106	8.48	215.39	138	11.04	280.42	171	13.68	347.47	229	18.32	465.33
107	8.56	217.42	139	11.12	282.45	175	14.00	355.6	230	18.40	467.36
108	8.64	219.46	140	11.20	284.48	177	14.16	359.66	232	18.56	471.42
109	8.72	221.49	142	11.36	288.54	180	14.40	365.76	234	18.72	475.49
110	8.80	223.52	143	11.44	290.58	184	14.72	373.89	235	18.80	477.52
112	8.96	227.58	144	11.52	292.61	186	14.88	377.95	236	18.88	479.55
114	9.12	231.65	145	11.60	294.64	188	15.04	382.02	239	19.12	485.65
115	9.20	233.68	146	11.68	296.67	190	15.20	386.08	240	19.20	487.68
117	9.36	237.74	147	11.76	298.7	192	15.36	390.14	243	19.44	493.78
118	9.44	239.78	148	11.84	300.74	194	15.52	394.21	245	19.60	497.84
119	9.52	241.81	149	11.92	302.77	195	15.60	396.24	248	19.84	503.94
120	9.60	243.84	150	12.00	304.8	196	15.68	398.27	249	19.92	505.97
*121	9.68	245.87	151	12.08	306.83	200	16.00	406.4	250	20.00	508
122	9.76	247.9	153	12.24	310.9	203	16.24	412.5	251	20.08	510.03
123	9.84	249.94	154	12.32	312.93	204	16.32	414.53	255	20.40	518.16
124	9.92	251.97	155	12.40	314.96	205	16.40	416.56	256	20.48	520.19
125	10.00	254	156	12.48	316.99	208	16.64	422.66	260	20.80	528.32
126	10.08	256.03	158	12.64	321.06	210	16.80	426.72	262	20.96	532.38
127	10.16	258.06	159	12.72	323.09	212	16.96	430.78	265	21.20	538.48
128	10.24	260.1	160	12.80	325.12	215	17.20	436.88	267	21.36	542.54
129	10.32	262.13	162	12.96	329.18	216	17.28	438.91	268	21.44	544.58
130	10.40	264.16	163	13.04	331.22	220	17.60	447.04	271	21.68	550.67
131	10.48	266.19	164	13.12	333.25	221	17.68	449.07	273	21.84	554.74
132	10.56	268.22	165	13.20	335.28	222	17.76	451.1	275	22.00	558.8
134	10.72	272.29	166	13.28	337.31	224	17.92	455.17	280	22.40	568.96

*To be discontinued when present stock is depleted.

 Special Widths - cut to size from sleeves available from stock.
 Pulleys are available with inch or metric standards.



MXL Timing Belts – .080" or 2.03 mm Pitch

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■ NEOPRENE

■ 1/8, 3/16, 1/4, 5/16 & 3/8 INCH - 3, 4.5, 6, 8 & 9.5 mm WIDE

Continued from the previous page

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
INCH	A 6 Z 1 6 –	012	1/8	A 6Z16-290031 is a 290 Groove 5/16 Wide Belt.
	No. of Grooves Code (See tables below)	018	3/16	
	Width Code (See right)	025	1/4	
		031	5/16	
		037	3/8	
METRIC	A 6 Z 1 6 M	030	3 mm	A 6Z16M355045 is a 355 Groove 4.5 mm Wide Belt.
	No. of Grooves Code (See tables below)	045	4.5 mm	
	Width Code (See right)	060	6 mm	
		080	8 mm	
		095	9.5 mm	

Groove Code	Pitch Length		Groove Code	Pitch Length		Groove Code	Pitch Length		Groove Code	Pitch Length	
	Inch	mm		Inch	mm		Inch	mm		Inch	mm
281	22.48	570.99	340	27.20	690.88	421	33.68	855.47	498	39.84	1011.94
285	22.80	579.12	342	27.36	694.94	424	33.92	861.57	500	40.00	1016
288	23.04	585.22	343	27.44	696.98	425	34.00	863.6	505	40.40	1026.16
290	23.20	589.28	347	27.76	705.1	427	34.16	867.66	516	41.28	1048.51
295	23.60	599.44	350	28.00	711.2	431	34.48	875.79	522	41.76	1060.7
297	23.76	603.5	354	28.32	719.33	434	34.72	881.89	524	41.92	1064.77
298	23.84	605.54	355	28.40	721.36	435	34.80	883.92	525	42.00	1066.8
300	24.00	609.6	356	28.48	723.39	436	34.88	885.95	532	42.56	1081.02
305	24.40	619.76	358	28.64	727.46	440	35.20	894.08	535	42.80	1087.12
308	24.64	625.86	359	28.72	729.49	442	35.36	898.14	537	42.96	1091.18
310	24.80	629.92	360	28.80	731.52	447	35.76	908.3	540	43.20	1097.28
312	24.96	633.98	364	29.12	739.65	448	35.84	910.34	543	43.44	1103.38
315	25.20	640.08	365	29.20	741.68	453	36.24	920.5	546	43.68	1109.47
318	25.44	646.18	371	29.68	753.87	458	36.64	930.66	548	43.84	1113.54
320	25.60	650.24	372	29.76	755.9	463	37.04	940.82	550	44.00	1117.6
322	25.76	654.3	380	30.40	772.16	464	37.12	942.85	571	45.68	1160.27
323	25.84	656.34	388	31.04	788.42	466	37.28	946.91	591	47.28	1200.91
324	25.92	658.37	390	31.20	792.48	468	37.44	950.98	592	47.36	1202.94
325	26.00	660.4	397	31.76	806.7	472	37.76	959.1	599	47.92	1217.17
326	26.08	662.43	400	32.00	812.8	473	37.84	961.14	600	48.00	1219.2
328	26.24	666.5	402	32.16	816.86	475	38.00	965.2	612	48.96	1243.58
330	26.40	670.56	405	32.40	822.96	480	38.40	975.36	648	51.84	1316.74
332	26.56	674.62	408	32.64	829.06	482	38.56	979.42	665	53.20	1351.28
334	26.72	678.69	410	32.80	833.12	487	38.96	989.58	681	54.48	1383.79
336	26.88	682.75	412	32.96	837.18	488	39.04	991.62	694	55.52	1410.21
337	26.96	684.78	413	33.04	839.22	490	39.20	995.68	913	73.04	1855.22
338	27.04	686.82	419	33.52	851.41	493	39.44	1001.78	*1189	95.12	2416.05
339	27.12	688.85	420	33.60	853.44	497	39.76	1009.9			

*The catalog number for this length belt is **A 6Z16** **B89**

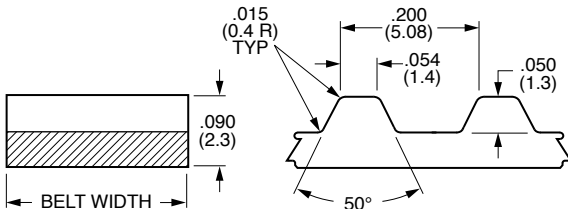
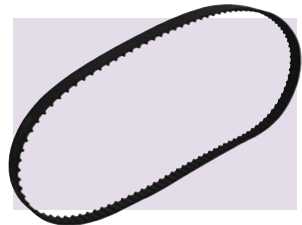
Special Widths - cut to size from sleeves available from stock.
Pulleys are available with inch or metric standards.

SDP/SI

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

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XL Timing Belts – 1/5" or 5.08 mm Pitch**■ NEOPRENE****■ 1/4, 5/16 & 3/8 INCH - 6, 8 & 9.5 mm WIDE****NOTE:** Dimensions in () are mm size.

Continued on the next page

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 113 lbs per 1/8 (158 N per 1 mm) belt width;
not representative of the load-carrying capacity
of the belt.**WORKING TENSION:** 28 lbs for 1 in. belt (125 N for 25.4 mm belt).

For more information, see the technical section.

TEMPERATURE RANGE: -30°F to +185°F (-34°C to +85°C)

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 6 R 3 -			
	No. of Grooves Code (See tables below)	Width Code (See right)		
				A 6 R 3-034037 is a 34 Groove 3/8 Wide Belt.
M E T R I C	A 6 R 3 M			
	No. of Grooves Code (See tables below)	Width Code (See right)		
				A 6 R 3M060080 is a 60 Groove 8 mm Wide Belt.

Groove Code	Pitch Length	
	Inch	mm
021	4.2	106.68
023	4.6	116.84
025	5.0	127
027	5.4	137.16
028	5.6	142.24
029	5.8	147.32
030	6.0	152.4
031	6.2	157.48
032	6.4	162.56
033	6.6	167.64
034	6.8	172.72
035	7.0	177.8
036	7.2	182.88
037	7.4	187.96
038	7.6	193.04
039	7.8	198.12
040	8.0	203.2
041	8.2	208.28
042	8.4	213.36
043	8.6	218.44

Groove Code	Pitch Length	
	Inch	mm
044	8.8	223.52
045	9.0	228.6
046	9.2	233.68
047	9.4	238.76
048	9.6	243.84
049	9.8	248.92
050	10.0	254
051	10.2	259.08
052	10.4	264.16
053	10.6	269.24
054	10.8	274.32
055	11.0	279.4
056	11.2	284.48
057	11.4	289.56
058	11.6	294.64
059	11.8	299.72
060	12.0	304.8
061	12.2	309.88
062	12.4	314.96
063	12.6	320.04

Groove Code	Pitch Length	
	Inch	mm
064	12.8	325.12
065	13.0	330.2
066	13.2	335.28
067	13.4	340.36
068	13.6	345.44
069	13.8	350.52
070	14.0	355.6
071	14.2	360.68
072	14.4	365.76
073	14.6	370.84
074	14.8	375.92
075	15.0	381
076	15.2	386.08
077	15.4	391.16
078	15.6	396.24
079	15.8	401.32
080	16.0	406.4
081	16.2	411.48
082	16.4	416.56
083	16.6	421.64

Groove Code	Pitch Length	
	Inch	mm
084	16.8	426.72
085	17.0	431.8
086	17.2	436.88
087	17.4	441.96
088	17.6	447.04
089	17.8	452.12
090	18.0	457.2
091	18.2	462.28
092	18.4	467.36
093	18.6	472.44
094	18.8	477.52
095	19.0	482.6
096	19.2	487.68
097	19.4	492.76
098	19.6	497.84
099	19.8	502.92
100	20.0	508
101	20.2	513.08
102	20.4	518.16
103	20.6	523.24

Special Widths - cut to size from sleeves available from stock.

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Stock Drive Products/Sterling Instrument

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XL Timing Belts – 1/5" or 5.08 mm Pitch

■ NEOPRENE

■ 1/4, 5/16 & 3/8 INCH - 6, 8 & 9.5 mm WIDE

Continued from the previous page

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 6 R 3 –	025	1/4	A 6R 3-110025 is a 110 Groove 1/4 Wide Belt.
	No. of Grooves Code (See tables below)	031	5/16	
	Width Code (See right)	037	3/8	
M E T R I C	A 6 R 3 M	060	6 mm	A 6R 3M155060 is a 155 Groove 6 mm Wide Belt.
	No. of Grooves Code (See tables below)	080	8 mm	
	Width Code (See right)	095	9.5 mm	

Groove Code	Pitch Length	
	Inch	mm
104	20.8	528.32
105	21.0	533.4
106	21.2	538.48
107	21.4	543.56
109	21.8	553.72
110	22.0	558.8
111	22.2	563.88
112	22.4	568.96
113	22.6	574.04
114	22.8	579.12
115	23.0	584.2
116	23.2	589.28
117	23.4	594.36
118	23.6	599.44
120	24.0	609.6
121	24.2	614.68
122	24.4	619.76
123	24.6	624.84
124	24.8	629.92
125	25.0	635
127	25.4	645.16
128	25.6	650.24
129	25.8	655.32
130	26.0	660.4
131	26.2	665.48
132	26.4	670.56
133	26.6	675.64
134	26.8	680.72
135	27.0	685.8
136	27.2	690.88
137	27.4	695.96
138	27.6	701.04

Groove Code	Pitch Length	
	Inch	mm
140	28.0	711.2
142	28.4	721.36
143	28.6	726.44
145	29.0	736.6
146	29.2	741.68
148	29.6	751.84
149	29.8	756.92
150	30.0	762
151	30.2	767.08
153	30.6	777.24
155	31.0	787.4
157	31.4	797.56
158	31.6	802.64
160	32.0	812.8
161	32.2	817.88
165	33.0	838.2
166	33.2	843.28
169	33.8	858.52
170	34.0	863.6
172	34.4	873.76
174	34.8	883.92
175	35.0	889
176	35.2	894.08
178	35.6	904.24
180	36.0	914.4
181	36.2	919.48
182	36.4	924.56
185	37.0	939.8
186	37.2	944.88
188	37.6	955.04
190	38.0	965.2
191	38.2	970.28

Groove Code	Pitch Length	
	Inch	mm
192	38.4	975.36
193	38.6	980.44
194	38.8	985.52
195	39.0	990.6
196	39.2	995.68
198	39.6	1005.84
200	40.0	1016
202	40.4	1026.16
204	40.8	1036.32
206	41.2	1046.48
207	41.4	1051.56
210	42.0	1066.8
212	42.4	1076.96
215	43.0	1092.2
216	43.2	1097.28
217	43.4	1102.36
219	43.8	1112.52
222	44.4	1127.76
225	45.0	1143
227	45.4	1153.16
228	45.6	1158.24
230	46.0	1168.4
234	46.8	1188.72
235	47.0	1193.8
240	48.0	1219.2
243	48.6	1234.44
245	49.0	1244.6
246	49.2	1249.68
249	49.8	1264.92
250	50.0	1270
253	50.6	1285.24
*254	50.8	1290.32

Groove Code	Pitch Length	
	Inch	mm
257	51.4	1305.56
261	52.2	1325.88
262	52.4	1330.96
*266	53.2	1351.28
270	54.0	1371.6
274	54.8	1391.92
277	55.4	1407.16
280	56.0	1422.4
282	56.4	1432.56
283	56.6	1437.64
285	57.0	1447.8
290	58.0	1473.2
296	59.2	1503.68
304	60.8	1544.32
306	61.2	1554.48
315	63.0	1600.2
331	66.2	1681.48
335	67.0	1701.8
336	67.2	1706.88
345	69.0	1752.6
368	73.6	1869.44
380	76.0	1930.4
384	76.8	1950.72
385	77.0	1955.8
405	81.0	2057.4
414	82.8	2103.12
425	85.0	2159
430	86.0	2184.4
444	88.8	2255.52
450	90.0	2286
510	102.0	2590.8
590	118.0	2997.2

*To be discontinued when present stock is depleted.

Special Widths - cut to size from sleeves available from stock.

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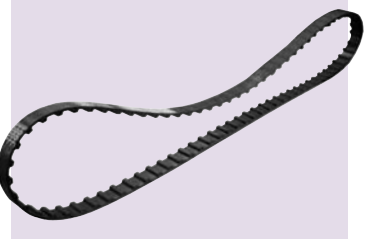
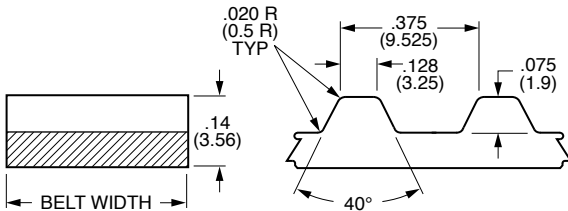
Phone: 516-326-3300

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L Timing Belts – 3/8" or 9.525 mm Pitch

■ NEOPRENE

■ 1/2 & 3/4 INCH - 12.5 & 19 mm WIDE

**NOTE:** Dimensions in () are mm size.

Continued on the next page

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene**TEMPERATURE RANGE:** -30°F to +185°F (-34°C to +85°C)**BREAKING STRENGTH:** 125 lbs per 1/8 (175 N per 1 mm) belt width; not representative of the load-carrying capacity of the belt.

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 6 R 4 —	050 075	1/2 3/4	A 6 R 4-092075 is a 92 Groove 3/4 Wide Belt.
	No. of Grooves Code (See tables below) Width Code (See right)			
M E T R I C	A 6 R 4 M	125 190	12.5 mm 19 mm	A 6 R 4M046190 is a 46 Groove 19 mm Wide Belt.
	No. of Grooves Code (See tables below) Width Code (See right)			

Groove Code	Pitch Length	
	Inch	mm
026	9.750	247.65
029	10.875	276.23
033	12.375	314.33
035	13.125	333.38
036	13.500	342.9
038	14.250	361.95
040	15.000	381
041	15.375	390.53
042	15.750	400.05
044	16.500	419.1
045	16.875	428.63
046	17.250	438.15

Groove Code	Pitch Length	
	Inch	mm
047	17.625	447.68
050	18.750	476.25
052	19.500	495.3
053	19.875	504.83
054	20.250	514.35
055	20.625	523.88
056	21.000	533.4
058	21.750	552.45
060	22.500	571.5
062	23.250	590.55
063	23.625	600.08
064	24.000	609.6

Groove Code	Pitch Length	
	Inch	mm
065	24.375	619.13
066	24.750	628.65
067	25.125	638.18
068	25.500	647.7
069	25.875	657.23
070	26.250	666.75
072	27.000	685.8
074	27.750	704.85
076	28.500	723.9
080	30.000	762
081	30.375	771.53
082	30.750	781.05

Groove Code	Pitch Length	
	Inch	mm
084	31.500	800.1
085	31.875	809.63
086	32.250	819.15
089	33.375	847.73
090	33.750	857.25
092	34.500	876.3
094	35.250	895.35
096	36.000	914.4
098	36.750	933.45
100	37.500	952.5
104	39.000	990.6
105	39.375	1000.13

Special Widths - cut to size from sleeves available from stock.
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Stock Drive Products/Sterling Instrument

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L Timing Belts – 3/8" or 9.525 mm Pitch

■ NEOPRENE

■ 1/2 & 3/4 INCH - 12.5 & 19 mm WIDE

Continued from the previous page

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
INCH	A 6 R 4 -	050 075	1/2 3/4	A 6R 4-117075 is a 117 Groove 3/4 Wide Belt.
	No. of Grooves Code (See tables below) Width Code (See right)			
METRIC	A 6 R 4 M	125 190	12.5 mm 19 mm	A 6R 4M230125 is a 230 Groove 12.5 mm Wide Belt.
	No. of Grooves Code (See tables below) Width Code (See right)			

Groove Code	Pitch Length	
	Inch	mm
108	40.500	1028.7
112	42.000	1066.8
114	42.750	1085.85
116	43.500	1104.9
117	43.875	1114.43
119	44.625	1133.48
120	45.000	1143
123	46.125	1171.58
124	46.500	1181.1
*126	47.250	1200.15
128	48.000	1219.2

Groove Code	Pitch Length	
	Inch	mm
136	51.000	1295.4
140	52.500	1333.5
144	54.000	1371.6
146	54.750	1390.65
151	56.625	1438.28
152	57.000	1447.8
154	57.750	1466.85
155	58.125	1476.38
160	60.000	1524
161	60.375	1533.53
165	61.875	1571.63

Groove Code	Pitch Length	
	Inch	mm
168	63.000	1600.2
174	65.250	1657.35
176	66.000	1676.4
186	69.750	1771.65
192	72.000	1828.8
194	72.750	1847.85
195	73.125	1857.38
208	78.000	1981.2
210	78.750	2000.25
215	80.625	2047.88
218	81.750	2076.45

Groove Code	Pitch Length	
	Inch	mm
228	85.500	2171.7
230	86.250	2190.75
235	88.125	2238.38
240	90.000	2286
244	91.500	2324.1
250	93.750	2381.25
252	94.500	2400.3
294	110.250	2800.35
340	127.500	3238.5
*590	221.250	5619.75

*To be discontinued when present stock is depleted.

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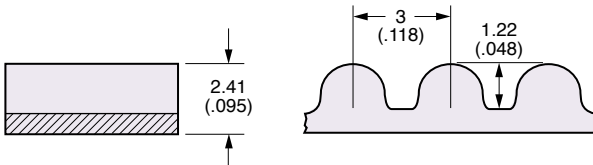
SDP/SI

Stock Drive Products/Sterling Instrument

HTD® Timing Belts – 3 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6 & 9 mm WIDE**

NOTE: Dimensions in () are inch size

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 158 N per 1 mm (113 lbs per 1/8) belt width;
not representative of the load-carrying capacity
of the belt.**WORKING TENSION:** 285 N for 25.4 mm belt (64 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)

Continued on the next page

CATALOG NUMBER DESIGNATION:A 6 R 2 3 M **No. of Grooves
Code**

(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A 6R23M088060 is an 88 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
029	87	3.425
034	102	4.016
035	105	4.134
036	108	4.252
037	111	4.370
039	108	4.252
040	120	4.724
041	123	4.843
042	126	4.961
043	129	5.079
044	132	5.197
045	135	5.315
047	141	5.551
048	144	5.669
049	147	5.787
050	150	5.906
051	153	6.024
052	156	6.142
053	159	6.260
054	162	6.378
055	165	6.496
056	168	6.614

Groove Code	Pitch Length	
	mm	Inch
057	171	6.732
058	174	6.850
059	177	6.968
060	180	7.087
061	183	7.205
062	186	7.323
063	189	7.441
064	192	7.559
065	195	7.677
066	198	7.795
067	201	7.913
068	204	8.031
069	207	8.150
070	210	8.268
071	213	8.386
072	216	8.504
073	219	8.622
074	222	8.740
075	225	8.858
076	228	8.976
078	234	9.213
079	237	9.331

Groove Code	Pitch Length	
	mm	Inch
080	240	9.449
081	243	9.567
082	246	9.685
083	249	9.803
084	252	9.921
085	255	10.039
086	258	10.157
087	261	10.276
088	264	10.394
089	267	10.512
090	270	10.630
092	276	10.866
093	279	10.984
094	282	11.102
095	285	11.220
096	288	11.339
097	291	11.457
098	294	11.575
099	297	11.693
100	300	11.811
101	303	11.929
102	306	12.047

Groove Code	Pitch Length	
	mm	Inch
103	309	12.165
104	312	12.283
105	315	12.402
106	318	12.520
108	324	12.756
109	327	12.874
110	330	12.992
111	333	13.110
112	336	13.228
113	339	13.346
114	342	13.465
115	345	13.583
117	351	13.819
119	357	14.055
120	360	14.173
121	363	14.291
122	366	14.409
123	369	14.528
124	372	14.646
125	375	14.764
127	381	15.000
128	384	15.118

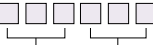
Special Widths - cut to size from sleeves available from stock.
Pulleys are available with metric or inch standards.

HTD® Timing Belts – 3 mm Pitch

Stock Drive Products/Sterling Instrument

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■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6 & 9 mm WIDE****CATALOG NUMBER DESIGNATION:**A 6 R 2 3 M **No. of Grooves
Code**

(See tables below)

Width Code
(See right)

Continued from the previous page

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A 6R23M186060 is a 186 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
129	387	15.236
130	390	15.354
131	393	15.472
132	396	15.591
133	399	15.709
134	402	15.827
135	405	15.945
137	411	16.181
139	417	16.417
140	420	16.535
141	423	16.654
142	426	16.772
144	432	17.008
145	435	17.126
146	438	17.244
147	441	17.362
148	444	17.480
149	447	17.598
153	459	18.071
154	462	18.189
155	465	18.307
156	468	18.425
157	471	18.543
158	474	18.661
159	477	18.779
160	480	18.898
161	483	19.016
162	486	19.134
163	489	19.252
164	492	19.370
167	501	19.724
168	504	19.843
170	510	20.079
171	513	20.197
172	516	20.315

Groove Code	Pitch Length	
	mm	Inch
173	519	20.433
174	522	20.551
175	525	20.669
176	528	20.787
177	531	20.905
179	537	21.142
183	549	21.614
184	552	21.732
186	558	21.968
188	564	22.205
189	567	22.323
190	570	22.441
191	573	22.559
192	576	22.677
193	579	22.795
194	582	22.913
195	585	23.031
197	591	23.268
198	594	23.386
199	597	23.504
200	600	23.622
202	606	23.858
203	609	23.976
204	612	24.094
209	627	24.685
211	633	24.921
213	639	25.157
215	645	25.394
216	648	25.512
217	651	25.630
218	654	25.748
219	657	25.866
220	660	25.984
221	663	26.102
222	666	26.221

Groove Code	Pitch Length	
	mm	Inch
223	669	26.339
224	672	26.457
227	681	26.811
228	684	26.929
229	687	27.047
231	693	27.283
232	696	27.402
233	699	27.520
234	702	27.638
235	705	27.756
237	711	27.992
240	720	28.346
241	723	28.465
244	732	28.819
245	735	28.937
246	738	29.055
250	750	29.528
251	753	29.646
261	783	30.827
265	795	31.299
268	804	31.653
274	822	32.362
275	825	32.480
279	837	32.953
281	843	33.189
286	858	33.780
287	861	33.898
291	873	34.370
294	882	34.724
297	891	35.079
300	900	35.433
305	915	36.024
312	936	36.850
315	945	37.205
317	951	37.441

Groove Code	Pitch Length	
	mm	Inch
327	981	38.622
334	1002	39.449
342	1026	40.394
345	1035	40.748
346	1038	40.866
350	1050	41.339
352	1056	41.575
354	1062	41.811
356	1068	42.047
357	1071	42.165
360	1080	42.520
362	1086	42.756
370	1110	43.701
375	1125	44.291
385	1155	45.472
396	1188	46.772
397	1191	46.890
409	1227	48.307
415	1245	49.016
420	1260	49.606
421	1263	49.724
445	1335	52.559
500	1500	59.055
504	1512	59.527
510	1530	60.236
523	1569	61.772
529	1587	62.480
600	1800	70.866
621	1863	73.346
630	1890	74.409
642	1926	75.827
652	1956	77.008
668	2004	78.897

Special Widths - cut to size from sleeves available from stock.
Pulleys are available with metric or inch standards.

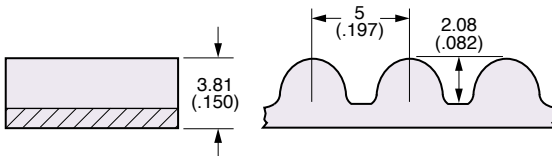
SDP/SI

Stock Drive Products/Sterling Instrument

HTD® Timing Belts – 5 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6, 9 & 15 mm WIDE**

NOTE: Dimensions in () are inch size.



Continued on the next page

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 316 N per 1 mm (226 lbs per 1/8) belt width;
not representative of the load-carrying capacity
of the belt.**WORKING TENSION:** 454 N for 25.4 mm belt (102 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)**CATALOG NUMBER DESIGNATION:**

A 6 R 2 5 M

No. of Grooves
Code

(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354
150	15 mm	.591

Example: A 6R25M059150 is a 59 Groove 15 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
024	120	4.724
035	175	6.890
036	180	7.087
038	190	7.480
040	200	7.874
043	215	8.465
045	225	8.858
046	230	9.055
048	240	9.449
049	245	9.646
051	255	10.039
052	260	10.236
053	265	10.433
054	270	10.630
055	275	10.827
056	280	11.024
057	285	11.220
059	295	11.614
060	300	11.811

Groove Code	Pitch Length	
	mm	Inch
061	305	12.008
062	310	12.205
064	320	12.598
065	325	12.795
066	330	12.992
067	335	13.189
068	340	13.386
069	345	13.583
070	350	13.780
072	360	14.173
073	365	14.370
074	370	14.567
075	375	14.764
077	385	15.157
080	400	15.748
081	405	15.945
082	410	16.142
083	415	16.339
084	420	16.535

Groove Code	Pitch Length	
	mm	Inch
085	425	16.732
090	450	17.717
092	460	18.110
093	465	18.307
095	475	18.701
096	480	18.898
099	495	19.488
100	500	19.685
104	520	20.472
105	525	20.669
107	535	21.063
110	550	21.654
111	555	21.850
112	560	22.047
113	565	22.244
115	575	22.638
116	580	22.835
117	585	23.031
118	590	23.228

Groove Code	Pitch Length	
	mm	Inch
120	600	23.622
122	610	24.016
123	615	24.213
124	620	24.409
125	625	24.606
127	635	25.000
128	640	25.197
129	645	25.394
131	655	25.787
133	665	26.181
134	670	26.378
136	680	26.772
137	685	26.968
139	695	27.362
140	700	27.559
142	710	27.953
144	720	28.346
148	740	29.134
149	745	29.331

Special Widths - cut to size from sleeves available from stock.
Pulleys are available with metric or inch standards.

SDP/SI

Stock Drive Products/Sterling Instrument

HTD® Timing Belts – 5 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6, 9 & 15 mm WIDE**

Continued from the previous page

CATALOG NUMBER DESIGNATION:**A 6 R 2 5 M** ☐ ☐ ☐ ☐ ☐**No. of Grooves
Code**

(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354
150	15 mm	.591

Example: A 6R25M188060 is a 188 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
150	750	29.528
151	755	29.724
153	765	30.118
154	770	30.315
155	775	30.512
158	790	31.102
160	800	31.496
162	810	31.890
165	825	32.480
166	830	32.677
167	835	32.874
169	845	33.268
170	850	33.465
172	860	33.858
174	870	34.252
178	890	35.039
180	900	35.433
184	920	36.220
185	925	36.417

Groove Code	Pitch Length	
	mm	Inch
186	930	36.614
187	935	36.811
188	940	37.008
190	950	37.402
193	965	37.992
195	975	38.386
196	980	38.583
197	985	38.779
200	1000	39.370
205	1025	40.354
207	1035	40.748
208	1040	40.945
210	1050	41.339
220	1100	43.307
223	1115	43.898
225	1125	44.291
227	1135	44.685
229	1145	45.079
235	1175	46.260

Groove Code	Pitch Length	
	mm	Inch
239	1195	47.047
240	1200	47.244
245	1225	48.228
247	1235	48.622
250	1250	49.213
254	1270	50.000
259	1295	50.984
270	1350	53.150
275	1375	54.134
276	1380	54.331
284	1420	55.905
300	1500	59.055
304	1520	59.843
315	1575	62.008
319	1595	62.795
327	1635	64.370
338	1690	66.535
344	1720	67.716
358	1790	70.472

Groove Code	Pitch Length	
	mm	Inch
360	1800	70.866
374	1870	73.622
379	1895	74.606
389	1945	76.575
396	1980	77.953
400	2000	78.740
420	2100	82.677
422	2110	83.071
450	2250	88.583
470	2350	92.520
505	2525	99.409
552	2760	108.661
624	3120	122.834
634	3170	124.803
640	3200	125.984
686	3430	135.039
760	3800	149.606

Special Widths - cut to size from sleeves available from stock.

Pulleys are available with metric or inch standards.

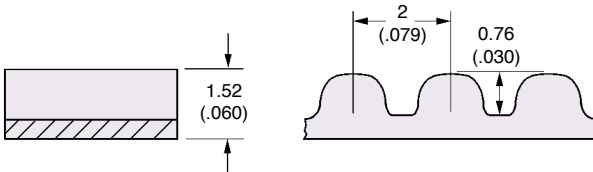
SDP/SI

Stock Drive Products/Sterling Instrument

GT®2 Timing Belts – 2 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **3, 6 & 9 mm WIDE****NOTE:** Dimensions in () are inch size.**MATERIAL:** Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 86 N per 1 mm (62 lbs per 1/8) belt width;
not representative of the load-carrying capacity of the belt.**WORKING TENSION:** 111 N for 25.4 mm belt (25 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)

Continued on the next page

CATALOG NUMBER DESIGNATION:**A 6 R 5 1 M** [] [] [] [] []**No. of Grooves
Code**
(See tables below)**Width Code**
(See right)

Width Code	Belt Width	Equivalent Inch Width
030	3 mm	.118
060	6 mm	.236
090	9 mm	.354

Example: A 6R51M086060 is an 86 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
027	54	2.126
029	58	2.283
030	60	2.362
033	66	2.598
036	72	2.835
037	74	2.913
038	76	2.992
039	78	3.071
041	82	3.228
042	84	3.307
043	86	3.386
044	88	3.465
045	90	3.543
046	92	3.622
047	94	3.701
048	96	3.780
049	98	3.858
050	100	3.937
051	102	4.016
053	106	4.173
054	108	4.252
055	110	4.331
056	112	4.409
058	116	4.567
059	118	4.646
060	120	4.724
061	122	4.803
062	124	4.882

Groove Code	Pitch Length	
	mm	Inch
063	126	4.961
064	128	5.039
065	130	5.118
066	132	5.197
067	134	5.276
068	136	5.354
069	138	5.433
070	140	5.512
071	142	5.591
072	144	5.669
073	146	5.748
074	148	5.827
075	150	5.906
076	152	5.984
077	154	6.063
078	156	6.142
079	158	6.220
080	160	6.299
081	162	6.378
082	164	6.457
083	166	6.535
084	168	6.614
085	170	6.693
086	172	6.772
087	174	6.850
088	176	6.929
089	178	7.008
090	180	7.087

Groove Code	Pitch Length	
	mm	Inch
091	182	7.165
092	184	7.244
093	186	7.323
094	188	7.402
095	190	7.480
096	192	7.559
097	194	7.638
098	196	7.717
100	200	7.874
101	202	7.953
102	204	8.031
103	206	8.110
104	208	8.189
105	210	8.268
106	212	8.346
107	214	8.425
108	216	8.504
110	220	8.661
112	224	8.819
113	226	8.898
114	228	8.976
115	230	9.055
116	232	9.134
118	236	9.291
120	240	9.449
121	242	9.528
122	244	9.606
124	248	9.764

Groove Code	Pitch Length	
	mm	Inch
125	250	9.842
126	252	9.921
127	254	10.000
128	256	10.079
129	258	10.157
130	260	10.236
132	264	10.394
133	266	10.472
134	268	10.551
135	270	10.630
137	274	10.787
139	278	10.945
140	280	11.024
141	282	11.102
142	284	11.181
143	286	11.260
144	288	11.339
145	290	11.417
146	292	11.496
147	294	11.575
150	300	11.811
151	302	11.890
152	304	11.969
154	308	12.126
155	310	12.205
157	314	12.362
159	318	12.520
160	320	12.598

Special Widths - cut to size from sleeves available from stock.

SDP/SI

Stock Drive Products/Sterling Instrument

GT®2 Timing Belts – 2 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE

■ NEOPRENE

■ 3, 6 & 9 mm WIDE

Continued from the previous page

CATALOG NUMBER DESIGNATION:A 6 R 5 1 M ☐ ☐ ☐ ☐ ☐ ☐No. of Grooves
Code
(See tables below)Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
030	3 mm	.118
060	6 mm	.236
090	9 mm	.354

Example: A 6R51M218060 is an 218 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
161	322	12.677
162	324	12.756
163	326	12.835
164	328	12.913
165	330	12.992
166	332	13.071
168	336	13.228
169	338	13.307
170	340	13.386
171	342	13.465
172	344	13.543
173	346	13.622
175	350	13.779
176	352	13.858
177	354	13.937
178	356	14.016
179	358	14.094
180	360	14.173
182	364	14.331
183	366	14.409
186	372	14.646
188	376	14.803
190	380	14.961
191	382	15.039
193	386	15.197
196	392	15.433
197	394	15.512
200	400	15.748
203	406	15.984
206	412	16.220
210	420	16.535
213	426	16.772
214	428	16.850
215	430	16.929

Groove Code	Pitch Length	
	mm	Inch
218	436	17.165
220	440	17.323
222	444	17.480
223	446	17.559
224	448	17.638
226	452	17.795
228	456	17.953
230	460	18.110
233	466	18.346
235	470	18.504
237	474	18.661
239	478	18.819
240	480	18.898
242	484	19.055
243	486	19.134
244	488	19.213
246	492	19.370
247	494	19.449
250	500	19.685
251	502	19.764
252	504	19.842
253	506	19.921
258	516	20.315
262	524	20.630
264	528	20.787
265	530	20.866
267	534	21.024
272	544	21.417
275	550	21.654
276	552	21.732
279	558	21.969
280	560	22.047
285	570	22.441
286	572	22.520

Groove Code	Pitch Length	
	mm	Inch
288	576	22.677
289	578	22.756
290	580	22.835
293	586	23.071
299	598	23.543
300	600	23.622
303	606	23.858
308	616	24.252
315	630	24.803
317	634	24.961
320	640	25.197
323	646	25.433
330	660	25.984
335	670	26.378
338	676	26.614
345	690	27.165
348	696	27.401
351	702	27.638
363	726	28.583
371	742	29.213
372	744	29.291
376	752	29.606
380	760	29.921
386	772	30.394
391	782	30.787
400	800	31.496
405	810	31.890
408	816	32.126
424	848	33.386
426	852	33.543
430	860	33.858
433	866	34.094
446	892	35.118
450	900	35.433

Groove Code	Pitch Length	
	mm	Inch
465	930	36.614
475	950	37.402
488	976	38.425
497	994	39.134
502	1004	39.528
514	1028	40.472
516	1032	40.630
533	1066	41.969
534	1068	42.047
555	1110	43.701
570	1140	44.882
582	1164	45.827
590	1180	46.457
605	1210	47.638
614	1228	48.346
617	1234	48.583
628	1256	49.449
655	1310	51.575
660	1320	51.969
672	1344	52.913
680	1360	53.543
693	1386	54.567
717	1434	56.457
762	1524	60.000
779	1558	61.339
830	1660	65.354
844	1688	66.457
850	1700	66.929
905	1810	71.260
915	1830	72.047
925	1850	72.835
930	1860	73.228
955	1910	75.197
*1105	2210	87.008

*The catalog number for this length belt is A 6R51MB05 ☐ ☐ ☐

Special Widths - cut to size from sleeves available from stock.

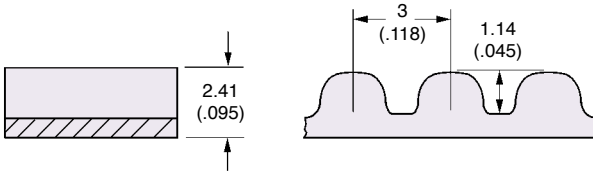
SDP/SI

Stock Drive Products/Sterling Instrument

GT®2 Timing Belts – 3 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6 & 9 mm WIDE**

NOTE: Dimensions in () are inch size.



Continued on the next page

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 158 N per 1 mm (113 lbs per 1/8) belt width;
not representative of the load-carrying capacity
of the belt.**WORKING TENSION:** 507 N for 25.4 mm belt (114 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)**CATALOG NUMBER DESIGNATION:**

A 6 R 5 3 M

No. of Grooves
Code

(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A 6R53M085060 is an 85 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
033	99	3.898
035	105	4.134
037	111	4.370
040	120	4.724
041	123	4.843
043	129	5.079
045	135	5.315
048	144	5.669
050	150	5.906
053	159	6.260
055	165	6.496
058	174	6.850
059	177	6.969
060	180	7.087
061	183	7.205

Groove Code	Pitch Length	
	mm	Inch
062	186	7.323
063	189	7.441
064	192	7.559
065	195	7.677
066	198	7.795
067	201	7.914
068	204	8.031
070	210	8.268
072	216	8.504
073	219	8.622
075	225	8.858
077	231	9.094
078	234	9.213
080	240	9.449
081	243	9.567

Groove Code	Pitch Length	
	mm	Inch
082	246	9.685
084	252	9.921
085	255	10.039
089	267	10.512
090	270	10.630
092	276	10.866
094	282	11.102
095	285	11.220
096	288	11.339
097	291	11.457
098	294	11.575
100	300	11.811
101	303	11.929
103	309	12.165
104	312	12.283

Groove Code	Pitch Length	
	mm	Inch
108	324	12.756
110	330	12.992
113	339	13.346
116	348	13.700
118	354	13.937
119	357	14.055
120	360	14.173
121	363	14.291
125	375	14.764
128	384	15.118
129	387	15.236
130	390	15.354
131	393	15.472
133	399	15.709
136	408	16.063

Special Widths - cut to size from sleeves available from stock.

SDP/SI

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

GT®2 Timing Belts – 3 mm Pitch■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6 & 9 mm WIDE****CATALOG NUMBER DESIGNATION:**

Continued from the previous page

A 6 R 5 3 M ☐ ☐ ☐ ☐ ☐

No. of Grooves **Width Code**
Code **(See right)**
 (See tables below)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A 6R53M170060 is an 170 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
138	414	16.299
140	420	16.535
148	444	17.480
149	447	17.598
150	450	17.716
152	456	17.953
158	474	18.661
160	480	18.898
161	483	19.016
163	489	19.252
165	495	19.488
167	501	19.724

Groove Code	Pitch Length	
	mm	Inch
168	504	19.843
170	510	20.079
171	513	20.197
174	522	20.551
179	537	21.142
180	540	21.260
184	552	21.732
187	561	22.087
188	564	22.205
190	570	22.441
194	582	22.913
196	588	23.150

Groove Code	Pitch Length	
	mm	Inch
200	600	23.622
207	621	24.449
210	630	24.803
219	657	25.866
228	684	26.929
232	696	27.402
245	735	28.937
250	750	29.527
262	786	30.945
280	840	33.071
283	849	33.425
299	897	35.315

Groove Code	Pitch Length	
	mm	Inch
308	924	36.378
315	945	37.205
350	1050	41.338
360	1080	42.520
424	1272	50.079
512	1536	60.472
529	1587	62.480
564	1692	66.614
687	2061	81.142

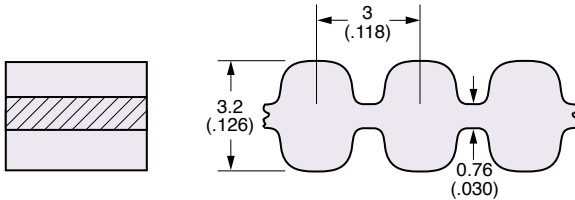
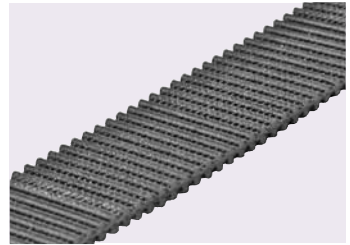
Special Widths - cut to size from sleeves available from stock.

SDP/SI**GT®2 Double-Sided Timing Belts – 3 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6 & 9 mm WIDE****NOTE:** Dimensions in () are inch size.

Continued on the next page

MATERIAL: Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 190 N per 1 mm (135 lbs per 1/8) belt width;
not representative of the load-carrying capacity
of the belt.**WORKING TENSION:** 507 N for 25.4 mm belt (114 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)**CATALOG NUMBER DESIGNATION:****A 6 R 5 3 M D** **No. of Grooves
Code**
(See tables below)**Width Code**
(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A 6R53MD125090 is a 125 Groove 9 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
124	372	14.646
125	375	14.764
127	381	15.000
128	384	15.118
129	387	15.236
130	390	15.354
131	393	15.472
132	396	15.591
133	399	15.709
135	405	15.945
137	411	16.181
138	414	16.299

Groove Code	Pitch Length	
	mm	Inch
139	417	16.417
140	420	16.535
142	426	16.772
144	432	17.008
145	435	17.126
146	438	17.244
148	444	17.480
149	447	17.598
153	459	18.071
155	465	18.307
156	468	18.425
157	471	18.543

Groove Code	Pitch Length	
	mm	Inch
158	474	18.661
160	480	18.898
161	483	19.016
162	486	19.134
163	489	19.252
164	492	19.370
167	501	19.724
168	504	19.842
170	510	20.079
171	513	20.197
173	519	20.433
175	525	20.669

Groove Code	Pitch Length	
	mm	Inch
176	528	20.787
177	531	20.905
179	537	21.142
184	552	21.732
186	558	21.968
188	564	22.205
190	570	22.441
192	576	22.677
195	585	23.031
197	591	23.268
199	597	23.504
200	600	23.622

Special Widths - cut to size from sleeves available from stock.

Pulleys are available with metric or inch standards.

SDP/SI**GT®2 Double-Sided Timing Belts – 3 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **6 & 9 mm WIDE**

Continued from the previous page

CATALOG NUMBER DESIGNATION:**A 6 R 5 3 M D** **No. of Grooves
Code**
(See tables below)**Width Code**
(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A 6R53MD245090 is a 245 Groove 9 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
202	606	23.858
203	609	23.976
204	612	24.094
209	627	24.685
210	630	24.803
211	633	24.921
213	639	25.157
215	645	25.394
216	648	25.512
218	654	25.748
219	657	25.866
221	663	26.102
223	669	26.339
228	684	26.929

Groove Code	Pitch Length	
	mm	Inch
229	687	27.047
232	696	27.402
237	711	27.992
245	735	28.937
246	738	29.055
250	750	29.528
251	753	29.646
262	786	30.945
265	795	31.299
274	822	32.362
279	837	32.953
280	840	33.071
281	843	33.189
291	873	34.370

Groove Code	Pitch Length	
	mm	Inch
294	882	34.724
297	891	35.079
300	900	35.433
305	915	36.024
315	945	37.205
317	951	37.441
327	981	38.622
334	1002	39.449
342	1026	40.394
345	1035	40.748
350	1050	41.339
352	1056	41.575
354	1062	41.811
360	1080	42.520

Groove Code	Pitch Length	
	mm	Inch
375	1125	44.291
385	1155	45.472
397	1191	46.890
421	1263	49.724
445	1335	52.559
500	1500	59.055
504	1512	59.527
512	1536	60.472
529	1587	62.480
652	1956	77.008
668	2004	78.897
687	2061	81.142

Special Widths - cut to size from sleeves available from stock.
Pulleys are available with metric or inch standards.

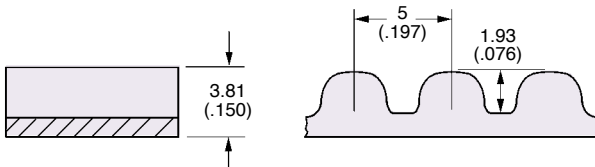
SDP/SI

Stock Drive Products/Sterling Instrument

GT®2 Timing Belts – 5 mm Pitch

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **9 & 15 mm WIDE****NOTE:** Dimensions in () are inch size.**MATERIAL:** Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 315 N per 1 mm (226 lbs per 1/8) belt width;
not representative of the load-carrying capacity of the belt.**WORKING TENSION:** 712 N for 25.4 mm belt (160 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)**CATALOG NUMBER DESIGNATION:****A 6 R 5 5 M** **No. of Grooves Code**

(See tables below)

Width Code

(See right)

Width Code	Belt Width	Equivalent Inch Width
090	9 mm	.354
150	15 mm	.591

Example: A 6R55M095090 is an 95 Groove 9 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
040	200	7.874
045	225	8.858
050	250	9.842
053	265	10.433
055	275	10.827
056	280	11.024
057	285	11.220
060	300	11.811
065	325	12.795
066	330	12.992
068	340	13.386
070	350	13.780
071	355	13.976
072	360	14.173
075	375	14.764

Groove Code	Pitch Length	
	mm	Inch
080	400	15.748
081	405	15.945
082	410	16.142
083	415	16.339
085	425	16.732
090	450	17.716
092	460	18.110
095	475	18.701
098	490	19.291
100	500	19.685
102	510	20.079
105	525	20.669
106	530	20.866
107	535	21.063
108	540	21.260

Groove Code	Pitch Length	
	mm	Inch
110	550	21.654
113	565	22.244
115	575	22.638
116	580	22.835
120	600	23.622
125	625	24.606
130	650	25.590
133	665	26.181
140	700	27.559
150	750	29.528
155	775	30.512
160	800	31.496
163	815	32.087
170	850	33.465
172	860	33.858

Groove Code	Pitch Length	
	mm	Inch
180	900	35.433
190	950	37.401
200	1000	39.370
210	1050	41.338
230	1150	45.276
254	1270	50.000
260	1300	51.181
290	1450	57.087
300	1580	59.055
320	1600	62.992
344	1720	67.716
351	1755	69.094
370	1850	72.835
420	2100	82.677
488	2440	96.063

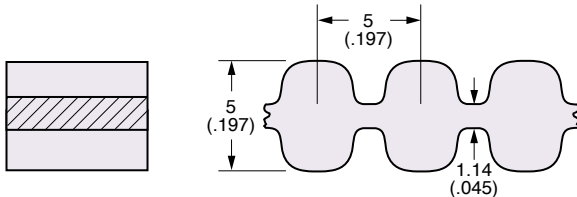
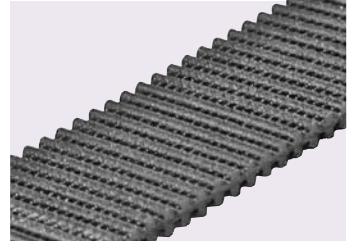
Special Widths - cut to size from sleeves available from stock.

SDP/SI**GT®2 Double-Sided Timing Belts – 5 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ **TRUE METRIC®** PROFILE■ **NEOPRENE**■ **9 & 15 mm WIDE****NOTE:** Dimensions in () are inch size.**MATERIAL:** Nylon Covered, Fiberglass Reinforced, Neoprene**BREAKING STRENGTH:** 385 N per 1 mm (275 lbs per 1/8) belt width;
not representative of the load-carrying capacity
of the belt.**WORKING TENSION:** 712 N for 25.4 mm belt (160 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -34°C to +85°C (-30°F to +185°F)**CATALOG NUMBER DESIGNATION:****A 6 R 5 5 M D** [] [] [] [] []**No. of Grooves
Code**

(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
090	9 mm	.354
150	15 mm	.591

Example: A 6R55MD085150 is a 85 Groove 15 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
080	400	15.748
081	405	15.945
085	425	16.732
090	450	17.717
100	500	19.685
107	535	21.063
113	565	22.244
115	575	22.638
116	580	22.835
120	600	23.622
125	625	24.606
130	650	25.591
140	700	27.559
142	710	27.953
148	740	29.134
149	745	29.331
150	750	29.528

Groove Code	Pitch Length	
	mm	Inch
153	765	30.118
158	790	31.102
160	800	31.496
163	815	32.087
166	830	32.677
167	835	32.874
170	850	33.465
174	870	34.252
178	890	35.039
180	900	35.433
185	925	36.417
190	950	37.402
195	975	38.359
197	985	38.779
200	1000	39.370
210	1050	41.339
223	1115	43.898

Groove Code	Pitch Length	
	mm	Inch
225	1125	44.291
230	1150	45.276
239	1195	47.047
250	1250	49.213
254	1270	50.000
259	1295	50.984
260	1300	51.181
275	1375	54.134
284	1420	55.905
290	1450	57.087
315	1575	62.008
319	1595	62.795
320	1600	62.992
327	1635	64.370
338	1690	66.535
344	1720	67.716
351	1755	69.094

Groove Code	Pitch Length	
	mm	Inch
358	1790	70.472
360	1800	70.866
379	1895	74.606
389	1945	76.575
396	1980	77.953
400	2000	78.740
422	2110	83.071
450	2250	88.583
505	2525	99.409
552	2760	108.661
624	3120	122.834
634	3170	124.803
640	3200	125.984
686	3430	135.039
760	3800	149.606

Special Widths - cut to size from sleeves available from stock.

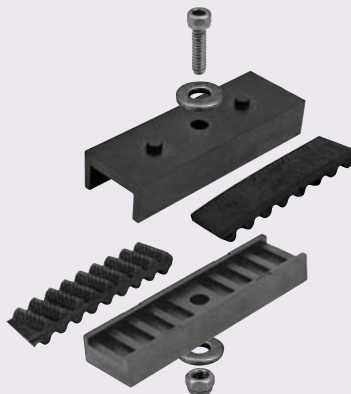
Pulleys are available with metric or inch standards.

Timing Belt Clamps hold open-ended belts used in reciprocating or linear drives and provide outstanding clamping strength for the belts.

For reciprocating synchronous drives, see page **32**.

These compact, lightweight clamps made from polycarbonate resin offer a low-cost, off-the-shelf solution when space and inertia are concerns.

These patent pending clamps accommodate simple and double-sided timing belts and are supplied with stainless steel assembly hardware.



Page. 32

For linear drives, see pages **33-38**.

These clamps are made of aluminum and are available in the following pitches:

XL-1/5 inch, L-3/8 inch, HTD®5 & 8 mm, GT®2-2,3,5 & 8 mm, AT5 & 10 mm and T5 & 10 mm.

A variety of sizes are stocked to accommodate many belt widths and are supplied with all the hardware necessary for assembly.



Page. 33-38

WHY CHOOSE THIS BELT?**CLEAN RUNNING****Polymer-Free Nylon Tooth Facing Provides:**

- Reduced dust operation
- Durable wear surface
- Long life
- Frictional loss is kept to a minimum
- Low noise levels

OUTSTANDING PERFORMANCE**Multiple Tooth Profiles:**

- Enhanced capacity through full tooth-to-sprocket contact

PROTECTION**Cream-Colored Polymer Compound Body:**

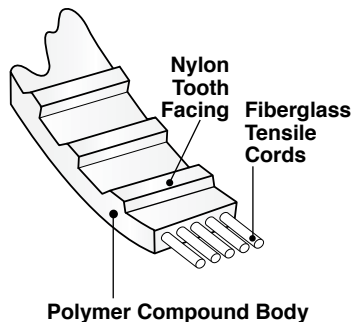
- Withstands high and low temperatures
-40°F to +220°F (-40°C to +104°C)

STRENGTH**Fiberglass Tensile Cord Insures:**

- Resistance to elongation
- High flex life

RoHS COMPLIANT**APPLICATIONS**

- Medical Equipment
- Data Storage Equipment
- Printers and Plotters
- Office Equipment

**Available in:**

- MXL
- XL
- L
- GT®2 – 2, 3 and 5 mm
and other pitches



SDP/SI

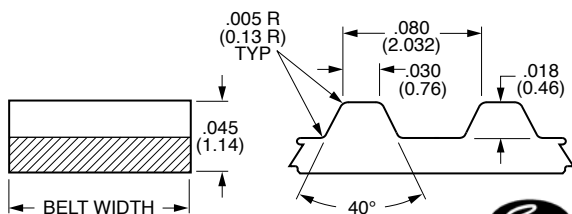
Stock Drive Products/Sterling Instrument

Phone: 516-328-3300

Fax: 516-326-8827

MXL Timing Belts – .080" or 2.03 mm Pitch

- PowerGrip® TruMotion® ■ 1/8, 3/16, 1/4, 5/16 & 3/8 INCH - 3, 4.5, 6, 8 & 9.5 mm WIDE
 ■ NON-MARKING ■ POLYMER COMPOUND ■ LOW DUST ■ RoHS COMPLIANT



NOTE: Dimensions in () are mm.



Continued on the next page

MATERIAL: Cream-Colored Polymer Compound, Fiberglass Reinforced Body with Nylon Tooth Facing for Reduced Dust.

BREAKING STRENGTH: 51 lbs per 1/8 (72 N per 1 mm) belt width; not representative of the load-carrying capacity of the belt.

WORKING TENSION: 15 lbs for 1 in. belt (67 N for 25.4 mm belt).

For more information, see the technical section.

TEMPERATURE RANGE: -40°F to +220°F (-40°C to +104°C)

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 2 6 Z 1 6 -	012	1/8	A26Z16-040018 is a 40 Groove 3/16 Wide Belt.
	No. of Grooves Code (See tables below) Width Code (See right)	018	3/16	
		025	1/4	
		031	5/16	
		037	3/8	
M E T R I C	A 2 6 Z 1 6 M	030	3 mm	A26Z16M085045 is an 85 Groove 4.5 mm Wide Belt.
	No. of Grooves Code (See tables below) Width Code (See right)	045	4.5 mm	
		060	6 mm	
		080	8 mm	
		095	9.5 mm	

Groove Code	Pitch Length	
	Inch	mm
040	3.20	81.28
042	3.36	85.34
045	3.60	91.44
047	3.76	95.5
050	4.00	101.6
054	4.32	109.73
055	4.40	111.76
057	4.56	115.82
058	4.64	117.86
059	4.72	119.89
060	4.80	121.92
061	4.88	123.95

Groove Code	Pitch Length	
	Inch	mm
064	5.12	130.05
065	5.20	132.08
067	5.36	136.14
068	5.44	138.18
070	5.60	142.24
071	5.68	144.27
072	5.76	146.3
074	5.92	150.37
076	6.08	154.43
077	6.16	156.46
079	6.32	160.53
080	6.40	162.56

Groove Code	Pitch Length	
	Inch	mm
082	6.56	166.62
083	6.64	168.66
085	6.80	172.72
087	6.96	176.78
088	7.04	178.82
090	7.20	182.88
092	7.36	186.94
093	7.44	188.98
094	7.52	191.01
095	7.60	193.04
097	7.76	197.1
100	8.00	203.2

Groove Code	Pitch Length	
	Inch	mm
102	8.16	207.26
103	8.24	209.3
105	8.40	213.36
106	8.48	215.39
107	8.56	217.42
108	8.64	219.46
109	8.72	221.49
110	8.80	223.52
112	8.96	227.58
114	9.12	231.65
120	9.60	243.84
122	9.76	247.9

Special Widths - cut to size from sleeves available from stock.

Pulleys are available with inch or metric standards.



MXL Timing Belts – .080" or 2.03 mm Pitch

Stock Drive Products/Sterling Instrument ■ Phone: 516-328-3300 ■ Fax: 516-326-8827

- PowerGrip® TruMotion® ■ 1/8, 3/16, 1/4, 5/16 & 3/8 INCH - 3, 4.5, 6, 8 & 9.5 mm WIDE
 ■ NON-MARKING ■ POLYMER COMPOUND ■ LOW DUST ■ RoHS COMPLIANT

Continued from the previous page

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 2 6 Z 1 6 –	012	1/8	A26Z16-165025 is a 165 Groove 1/4 Wide Belt.
	No. of Grooves Code (See tables below)	018	3/16	
	Width Code (See right)	025	1/4	
		031	5/16	
		037	3/8	
M E T R I C	A 2 6 Z 1 6 M	030	3 mm	A26Z16M153095 is a 153 Groove 9.5 mm Wide Belt.
	No. of Grooves Code (See tables below)	045	4.5 mm	
	Width Code (See right)	060	6 mm	
		080	8 mm	
		095	9.5 mm	

Groove Code	Pitch Length	
	Inch	mm
123	9.84	249.94
125	10.00	254
126	10.08	256.03
130	10.40	264.16
132	10.56	268.22
140	11.20	284.48
144	11.52	292.61
150	12.00	304.8
153	12.24	310.9
155	12.40	314.96
165	13.20	335.28
166	13.28	337.31
170	13.60	345.44
175	14.00	355.6

Groove Code	Pitch Length	
	Inch	mm
180	14.40	365.76
184	14.72	373.89
190	15.20	386.08
195	15.60	396.24
200	16.00	406.4
208	16.64	422.66
210	16.80	426.72
212	16.96	430.78
215	17.20	436.88
221	17.28	449.07
222	17.76	451.1
225	18.00	457.2
230	18.40	467.36
245	19.60	497.84

Groove Code	Pitch Length	
	Inch	mm
248	19.84	503.94
249	19.92	505.97
250	20.00	508
251	20.08	510.03
260	20.80	528.32
265	21.20	538.48
280	22.40	568.96
295	23.60	599.44
300	24.00	609.6
315	25.20	640.08
324	25.92	658.37
347	27.76	705.1
371	29.68	753.87
372	29.76	755.9

Groove Code	Pitch Length	
	Inch	mm
400	32.00	812.8
412	32.96	837.18
424	33.92	861.57
434	34.72	881.89
435	34.80	883.92
440	35.20	894.08
453	36.24	920.5
487	38.96	989.58
498	39.84	1011.94
600	48.00	1219.2
612	48.96	1243.58
648	51.84	1316.74

Special Widths - cut to size from sleeves available from stock.
 Pulleys are available with inch or metric standards.

SDPSI

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

XL Timing Belts – 1/5" or 5.08 mm Pitch

■ PowerGrip® TruMotion®

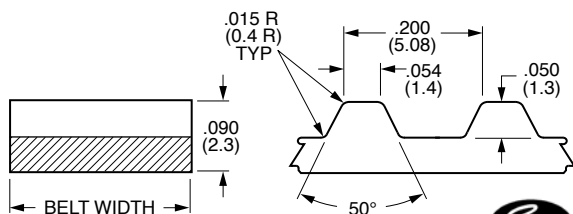
■ 1/4, 5/16 & 3/8 INCH - 6, 8 & 9.5 mm WIDE

■ NON-MARKING

■ POLYMER COMPOUND

■ LOW DUST

■ RoHS COMPLIANT



NOTE: Dimensions in () are mm.



Continued on the next page

MATERIAL: Cream-Colored Polymer Compound, Fiberglass Reinforced Body with Nylon Tooth Facing for Reduced Dust

BREAKING STRENGTH: 113 lbs per 1/8 (158 N per 1 mm) belt width; not representative of the load-carrying capacity of the belt.

WORKING TENSION: 23 lbs for 1 in. belt (102 N for 25.4 mm belt).

For more information, see the technical section.

TEMPERATURE RANGE: -40°F to +220°F (-40°C to +104°C)

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 2 6 R 3 –			
	No. of Grooves Code	Width Code		
	(See tables below)	(See right)		
		025 031 037	1/4 5/16 3/8	A26R 3-034037 is a 34 Groove 3/8 Wide Belt.
M E T R I C	A 2 6 R 3 M			
	No. of Grooves Code	Width Code		
	(See tables below)	(See right)		
		060 080 095	6 mm 8 mm 9.5 mm	A26R 3M060080 is a 60 Groove 8 mm Wide Belt.

Groove Code	Pitch Length	
	Inch	mm
021	4.2	106.68
025	5.0	127
027	5.4	137.16
028	5.6	142.24
029	5.8	147.32
030	6.0	152.4
031	6.2	157.48
032	6.4	162.56
033	6.6	167.64
034	6.8	172.72
035	7.0	177.8
036	7.2	182.88

Groove Code	Pitch Length	
	Inch	mm
037	7.4	187.96
038	7.6	193.04
039	7.8	198.12
040	8.0	203.2
041	8.2	208.28
042	8.4	213.36
043	8.6	218.44
044	8.8	223.52
045	9.0	228.6
046	9.2	233.68
047	9.4	238.76
048	9.6	243.84

Groove Code	Pitch Length	
	Inch	mm
049	9.8	248.92
050	10.0	254
051	10.2	259.08
053	10.6	269.24
054	10.8	274.32
055	11.0	279.4
056	11.2	284.48
057	11.4	289.56
058	11.6	294.64
060	12.0	304.8
061	12.2	309.88
062	12.4	314.96

Groove Code	Pitch Length	
	Inch	mm
063	12.6	320.04
064	12.8	325.12
065	13.0	330.2
066	13.2	335.28
067	13.4	340.36
068	13.6	345.44
069	13.8	350.52
070	14.0	355.6
071	14.2	360.68
072	14.4	365.76
073	14.6	370.84
074	14.8	375.92

Special Widths - cut to size from sleeves available from stock.
Pulleys are available with inch or metric standards.



XL Timing Belts – 1/5" or 5.08 mm Pitch

Stock Drive Products/Sterling Instrument
Phone: 516-326-3300
Fax: 516-326-8827
■ PowerGrip® TruMotion®
■ 1/4, 5/16 & 3/8 INCH - 6, 8 & 9.5 mm WIDE
■ NON-MARKING
■ POLYMER COMPOUND
■ LOW DUST
■ RoHS COMPLIANT

Continued from the previous page

CATALOG NUMBER DESIGNATION:		Width Code	Belt Width	Example
I N C H	A 2 6 R 3 - No. of Grooves Code (See tables below) Width Code (See right)	025 031 037	1/4 5/16 3/8	A26R 3-092025 is a 92 Groove 1/4 Wide Belt.
	A 2 6 R 3 M No. of Grooves Code (See tables below) Width Code (See right)	060 080 095	6 mm 8 mm 9.5 mm	A26R 3M097060 is a 97 Groove 6 mm Wide Belt.
	M E T R I C			

Groove Code	Pitch Length	
	Inch	mm
075	15.0	381
076	15.2	386.08
077	15.4	391.16
078	15.6	396.24
079	15.8	401.32
080	16.0	406.4
081	16.2	411.48
082	16.4	416.56
083	16.6	421.64
084	16.8	426.72
085	17.0	431.8
086	17.2	436.88
087	17.4	441.96
088	17.6	447.04
089	17.8	452.12
090	18.0	457.2
091	18.2	462.28
092	18.4	467.36
093	18.6	472.44
094	18.8	477.52
095	19.0	482.6
096	19.2	487.68
097	19.4	492.76
100	20.0	508
101	20.2	513.08

Groove Code	Pitch Length	
	Inch	mm
102	20.4	518.16
103	20.6	523.24
105	21.0	533.4
106	21.2	538.48
107	21.4	543.56
109	21.8	553.72
110	22.0	558.8
111	22.2	563.88
113	22.6	574.04
114	22.8	579.12
115	23.0	584.2
116	23.2	589.28
117	23.4	594.36
118	23.6	599.44
120	24.0	609.6
122	24.4	619.76
123	24.6	624.84
125	25.0	635
127	25.4	645.16
129	25.8	655.32
130	26.0	660.4
131	26.2	665.48
132	26.4	670.56
133	26.6	675.64
134	26.8	680.72

Groove Code	Pitch Length	
	Inch	mm
137	27.4	695.96
140	28.0	711.2
143	28.6	726.44
145	29.0	736.6
148	29.6	751.84
150	30.0	762
153	30.6	777.24
155	31.0	787.4
158	31.6	802.64
160	32.0	812.8
161	32.2	817.88
165	33.0	838.2
169	33.8	858.52
170	34.0	863.6
172	34.4	873.76
174	34.8	883.92
175	35.0	889
176	35.2	894.08
181	36.2	919.48
185	37.0	939.8
190	38.0	965.2
192	38.4	975.36
195	39.0	990.6
200	40.0	1016
206	41.2	1046.48

Groove Code	Pitch Length	
	Inch	mm
210	42.0	1066.8
212	42.4	1076.96
216	43.2	1097.28
219	43.8	1112.52
222	44.4	1127.76
225	45.0	1143
227	45.4	1153.16
230	46.0	1168.4
234	46.8	1188.72
240	48.0	1219.2
243	48.6	1234.44
246	49.2	1249.68
249	49.8	1264.92
250	50.0	1270
253	50.6	1285.24
262	52.4	1330.96
277	55.4	1407.16
285	57.0	1447.8
290	58.0	1473.2
296	59.2	1503.68
306	61.2	1554.48
315	63.0	1600.2
336	67.2	1706.88
345	69.0	1752.6
385	77.0	1955.8
425	85.0	2159

Special Widths - cut to size from sleeves available from stock.

Pulleys are available with inch or metric standards.

SDPSI

Stock Drive Products/Sterling Instrument

Phone: 516-328-3300

Fax: 516-326-8827

L Timing Belts – 3/8" or 9.525 mm Pitch

■ PowerGrip® TruMotion®

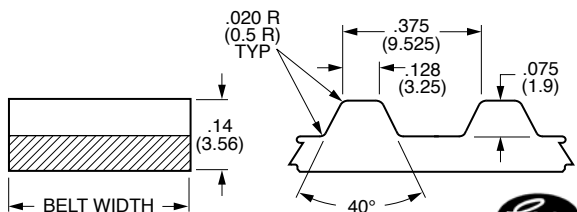
■ 1/2 & 3/4 INCH - 12.5 & 19 mm WIDE

■ NON-MARKING

■ POLYMER COMPOUND

■ LOW DUST

■ RoHS COMPLIANT



NOTE: Dimensions in () are mm.



MATERIAL: Cream-Colored Polymer Compound, Fiberglass Reinforced Body with Nylon Tooth Facing for Reduced Dust

BREAKING STRENGTH: 125 lbs per 1/8 (175 N per 1 mm) belt width; not representative of the load-carrying capacity of the belt.

WORKING TENSION: 40 lbs for 1 in. belt (178 N for 25.4 mm belt).

For more information, see the technical section.

TEMPERATURE RANGE: -40°F to +220°F (-40°C to +104°C)

CATALOG NUMBER DESIGNATION:				Width Code	Belt Width	Example
I N C H	A 2 6 R 4 -			050 075	1/2 3/4	A26R 4-092075 is a 92 Groove 3/4 Wide Belt.
	No. of Grooves Code (See tables below)	Width Code (See right)				
M E T R I C	A 2 6 R 4 M			125 190	12.5 mm 19 mm	A26R 4M046190 is a 46 Groove 19 mm Wide Belt.
	No. of Grooves Code (See tables below)	Width Code (See right)				

Groove Code	Pitch Length	
	Inch	mm
033	314.33	12.375
036	342.90	13.5
040	381.00	15
041	390.53	15.375
042	400.05	15.75
044	419.10	16.5
046	438.15	17.25
047	447.68	17.625
050	476.25	18.75
052	495.30	19.5
053	504.83	19.875
054	514.35	20.25

Groove Code	Pitch Length	
	Inch	mm
056	533.40	21
058	552.45	21.75
060	571.50	22.5
064	609.60	24
066	628.65	24.75
068	647.70	25.5
070	666.75	26.25
072	685.80	27
076	723.90	28.5
080	762.00	30
084	800.10	31.5
086	819.15	32.25

Groove Code	Pitch Length	
	Inch	mm
092	876.30	34.5
098	933.45	36.75
100	952.50	37.5
104	990.60	39
112	1066.80	42
119	1133.50	44.625
120	1143.00	45
128	1219.20	48
136	1295.40	51
144	1371.60	54
151	1438.30	56.625
152	1447.80	57

Groove Code	Pitch Length	
	Inch	mm
155	1476.38	58.125
160	1524.00	60
168	1600.20	63
176	1676.40	66
192	1828.80	72
195	1857.38	73.125
218	2076.50	81.75
240	2286.00	90
244	2324.10	91.5
252	2400.30	94.5
294	2800.40	110.25

Special Widths - cut to size from sleeves available from stock.

Pulleys are available with inch or metric standards.

SDP/SI

Stock Drive Products/Sterling Instrument

GT®2 Timing Belts – 2 mm Pitch

Phone: 516-326-3300 Fax: 516-326-8827

■ PowerGrip® TruMotion®

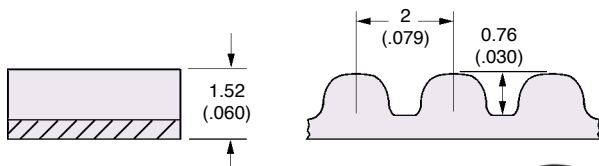
■ POLYMER COMPOUND

■ 3, 6 & 9 mm WIDE

■ NON-MARKING

■ LOW DUST

■ RoHS COMPLIANT



NOTE: Dimensions in () are inch.



MATERIAL: Cream-Colored Polymer Compound, Fiberglass Reinforced Body with Nylon Tooth Facing for Reduced Dust.

BREAKING STRENGTH: 86 N per 1 mm (62 lbs per 1/8 in.) belt width; not representative of the load-carrying capacity of the belt.

WORKING TENSION: 89 N for 25.4 mm belt (20 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -40°C to +104°C (-40°F to +220°F)

CATALOG NUMBER DESIGNATION:

A 2 6 R 5 1 M

No. of Grooves
Code

(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
030	3 mm	.118
060	6 mm	.236
090	9 mm	.354

Example: A26R51M086060 is an 86 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
048	96	3.780
050	100	3.937
056	112	4.409
062	124	4.882
063	126	4.961
065	130	5.118
066	132	5.197
067	134	5.276
068	136	5.354
070	140	5.512
076	152	5.984
079	158	6.220
080	160	6.299
082	164	6.457
083	166	6.535
084	168	6.614
086	172	6.772
089	178	7.008

Groove Code	Pitch Length	
	mm	Inch
090	180	7.087
093	186	7.323
096	192	7.559
100	200	7.874
101	202	7.953
104	208	8.189
105	210	8.268
106	212	8.346
108	216	8.504
110	220	8.661
112	224	8.819
118	236	9.291
120	240	9.449
125	250	9.842
126	252	9.921
129	258	10.157
137	274	10.787
139	278	10.945

Groove Code	Pitch Length	
	mm	Inch
140	280	11.024
143	286	11.260
150	300	11.811
160	320	12.598
161	322	12.677
166	332	13.071
171	342	13.465
173	346	13.622
175	350	13.779
180	360	14.173
182	364	14.331
185	370	14.567
190	380	14.961
193	386	15.197
200	400	15.748
203	406	15.984
210	420	16.535
214	428	16.850

Groove Code	Pitch Length	
	mm	Inch
228	456	17.953
235	470	18.504
237	474	18.661
244	488	19.213
252	504	19.842
264	528	20.787
276	552	21.732
280	560	22.047
288	576	22.677
300	600	23.622
320	640	25.197
348	696	27.401
372	744	29.291
424	848	33.386
582	1164	45.827
779	1558	61.339

Special Widths - cut to size from sleeves available from stock.

SDP/SI

Stock Drive Products/Sterling Instrument

GT®2 Timing Belts – 3 mm Pitch

Phone: 516-326-3300 Fax: 516-326-8827

■ PowerGrip® TruMotion®

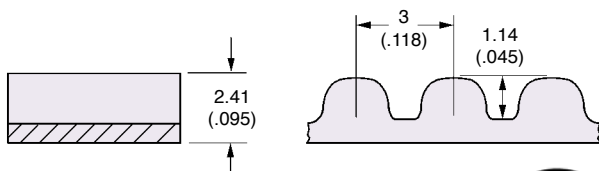
■ NON-MARKING

■ POLYMER COMPOUND

■ LOW DUST

■ 6 & 9 mm WIDE

■ RoHS COMPLIANT



NOTE: Dimensions in () are inch.



MATERIAL: Cream-Colored Polymer Compound, Fiberglass Reinforced Body with Nylon Tooth Facing for Reduced Dust.

BREAKING STRENGTH: 158 N per 1 mm (113 lbs per 1/8) belt width; not representative of the load-carrying capacity of the belt.

WORKING TENSION: 409 N for 25.4 mm belt (92 lbs for 1 in. belt).

For more information, see the technical section.

TEMPERATURE RANGE: -40°C to +104°C (-40°F to +220°F)

CATALOG NUMBER DESIGNATION:**A 2 6 R 5 3 M** ☐ ☐ ☐ ☐ ☐No. of Grooves
Code

(See tables below)

Width Code

(See right)

Width Code	Belt Width	Equivalent Inch Width
060	6 mm	.236
090	9 mm	.354

Example: A26R53M085060 is an 85 Groove 6 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
033	99	3.898
037	111	4.370
041	123	4.843
043	129	5.079
045	135	5.315
050	150	5.906
053	159	6.260
060	180	7.087
061	183	7.205
063	189	7.441
067	201	7.914
070	210	8.268
073	219	8.622
075	225	8.858

Groove Code	Pitch Length	
	mm	Inch
080	240	9.449
081	243	9.567
084	252	9.921
085	255	10.039
089	267	10.512
094	282	11.102
097	291	11.457
100	300	11.811
113	339	13.346
116	348	13.700
119	357	14.055
120	360	14.173
125	375	14.764
130	390	15.354

Groove Code	Pitch Length	
	mm	Inch
131	393	15.472
138	414	16.299
140	420	16.535
148	444	17.480
149	447	17.598
158	474	18.661
160	480	18.898
161	483	19.016
163	489	19.252
168	504	19.843
170	510	20.079
179	537	21.142
184	552	21.732
188	564	22.205

Groove Code	Pitch Length	
	mm	Inch
200	600	23.622
210	630	24.803
228	684	26.929
232	696	27.402
245	735	28.937
250	750	29.527
262	786	30.945
280	840	33.071
315	945	37.205
350	1050	41.338
360	1080	42.520
424	1272	50.079
512	1536	60.472
687	2061	81.142

Special Widths - cut to size from sleeves available from stock.

SDP/SI

Stock Drive Products/Sterling Instrument

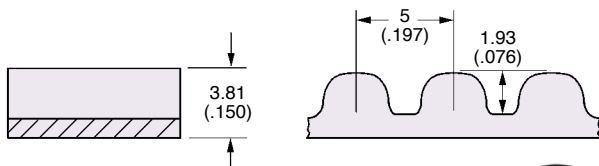
GT®2 Timing Belts – 5 mm Pitch

Phone: 516-326-3300 Fax: 516-326-8827

- PowerGrip® TruMotion®
 ■ NON-MARKING

- POLYMER COMPOUND
 ■ LOW DUST

- 9 & 15 mm WIDE
 ■ RoHS COMPLIANT



NOTE: Dimensions in () are inch.



MATERIAL: Cream-Colored Polymer Compound, Fiberglass Reinforced Body with Nylon Tooth Facing for Reduced Dust.

BREAKING STRENGTH: 315 N per 1 mm (226 lbs per 1/8) belt width; not representative of the load-carrying capacity of the belt.

WORKING TENSION: 578 N for 25.4 mm belt (130 lbs for 1 in. belt). For more information, see the technical section.

TEMPERATURE RANGE: -40°C to +104°C (-40°F to +220°F)

CATALOG NUMBER DESIGNATION:A 2 6 R 5 5 M

No. of Grooves
Code
(See tables below)

Width Code
(See right)

Width Code	Belt Width	Equivalent Inch Width
090	9 mm	.354
150	15 mm	.591

Example: A26R55M090090 is a 90 Groove 9 mm Wide Belt.

Groove Code	Pitch Length	
	mm	Inch
060	300	11.811
071	355	13.976
075	375	14.764
080	400	15.748
081	405	15.945
085	425	16.732
090	450	17.716

Groove Code	Pitch Length	
	mm	Inch
100	500	19.685
107	535	21.063
113	565	22.244
115	575	22.638
116	580	22.835
120	600	23.622
125	625	24.606

Groove Code	Pitch Length	
	mm	Inch
130	650	25.590
140	700	27.559
150	750	29.528
160	800	31.496
163	815	32.087
170	850	33.465
180	900	35.433

Groove Code	Pitch Length	
	mm	Inch
200	1000	39.370
230	1150	45.276
260	1300	51.181
290	1450	57.087
320	1600	62.992
344	1720	67.716
351	1755	69.094

Special Widths - cut to size from sleeves available from stock.

SDP/SI

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

Timing Belt Clamps

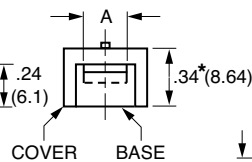
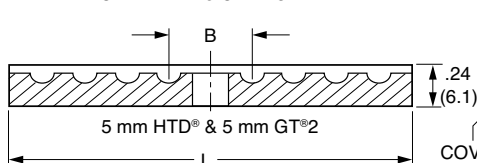
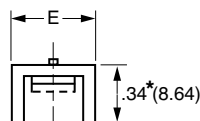
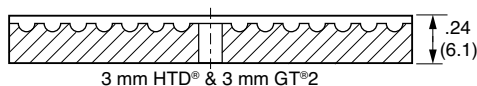
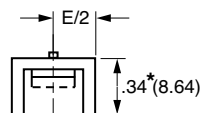
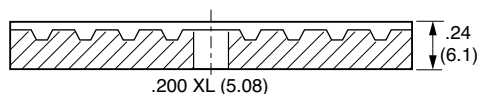
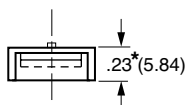
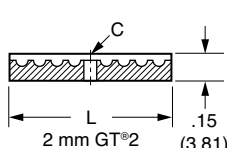
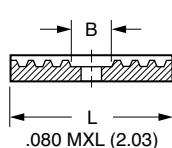
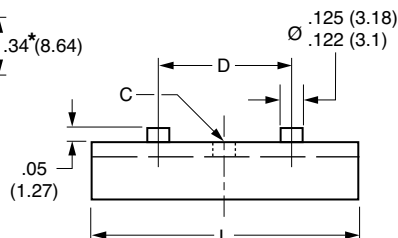
■ FOR RECIPROCATING DRIVES

■ COMPACT

■ LOW INERTIA

■ PATENT PENDING

■ FOR SINGLE-AND DOUBLE-SIDED BELTS

**NOTE:** Dimensions in () are mm sizes**MATERIAL:** Base & Cover – Black Polycarbonate
Hardware – 303 Stainless Steel

Catalog Number	Pitch	For Belt Widths		A	B	C	D	E Cover Width	L
		Inch	Metric						
A 6M16M030	MXL .080	1/8	3	.135 (3.43)	.160 (4.06)	.093 (2.36)	.500 (12.7)	.32 (8.13)	.750 (19.05)
A 6M16M045		3/16	4.5	.197 (5)		.093 (2.36)		.39 (9.91)	
A 6M16M060		1/4	6	.260 (6.6)		.125 (3.18)		.45 (11.43)	
A 6M16M080		5/16	8	.322 (8.18)		.145 (3.68)		.50 (12.7)	
A 6M16M095	XL .200	3/8	9.5	.385 (9.78)	.380 (9.65)	.145 (3.68)	1.000 (25.4)	.57 (14.48)	1.880 (47.75)
A 6M 3M060		1/4	6	.265 (6.73)		.125 (3.18)		.50 (12.7)	
A 6M 3M080		5/16	8	.327 (8.31)		.145 (3.68)		.63 (16)	
A 6M 3M095		3/8	9.5	.390 (9.91)		.145 (3.68)		.63 (16)	
A 6M51M030	GT2 (2 mm)	3	7.62	.130 (3.3)	.168 (4.27)	.093 (2.36)	.500 (12.7)	.32 (8.13)	.750 (19.05)
A 6M51M060		6	15.24	.250 (6.35)		.125 (3.18)		.45 (11.43)	
A 6M51M090		9	22.86	.370 (9.4)		.145 (3.68)		.57 (14.48)	
A 6M53M060	HTD & GT2 (3 mm)	6	15.24	.250 (6.35)	.298 (7.57)	.125 (3.18)	1.000 (25.4)	.50 (12.7)	1.880 (47.75)
A 6M53M090		9	22.86	.370 (9.4)		.145 (3.68)		.63 (16)	
A 6M55M060	HTD & GT2 (5 mm)	6	15.24	.250 (6.35)	.430 (10.92)	.125 (3.18)	1.000 (25.4)	.50 (12.7)	1.880 (47.75)
A 6M55M090		9	22.86	.370 (9.4)		.145 (3.68)		.63 (16)	
A 6M55M150		15	38.1	.605 (15.37)		.145 (3.68)		.87 (22.1)	

NOTE: Supplied with Hex Socket Cap Screw, Flat Washers & Elastic Stop Nut.

*Dimensions when used with single sided belts.

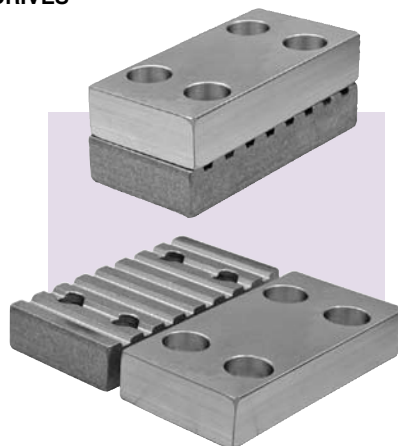
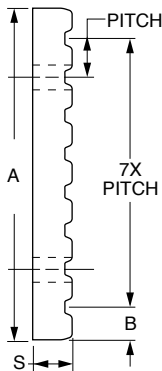
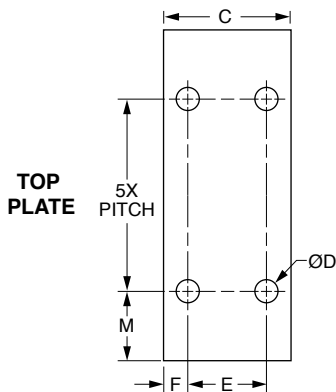
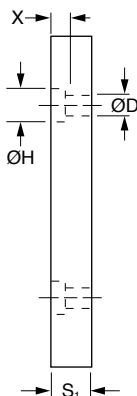
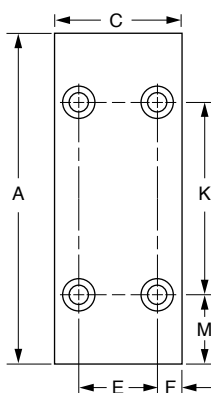
SDP/SI**XL & L Timing Belt Clamp Kit – 1/5" & 3/8" Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ USED IN LINEAR DRIVES

**BOTTOM PLATE****XL • 1/5 INCH PITCH**

F in. (mm)	M in. (mm)	S in. (mm)	H in. (mm)	K in. (mm)	X in. (mm)	S ₁ in. (mm)
.290 (7.4)	.370 (9.4)	.320 (8.1)	.375 (9.5)	1.000 (25.4)	.190 (4.8)	.380 (9.65)

L • 3/8 INCH PITCH

F in. (mm)	M in. (mm)	S in. (mm)	H in. (mm)	K in. (mm)	X in. (mm)	S ₁ in. (mm)
.370 (9.4)	.685 (17.4)	.590 (15)	.531 (13.5)	1.875 (47.6)	.320 (8.1)	.630 (16)

Timing Belt Clamp Kit Includes:

Top and Bottom Plate and Hardware for Assembly

MATERIAL: Aluminum

Sold as Kit

XL • 1/5 INCH PITCH

Catalog Number	Belt Width in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	Toothed + Flat Plate Total Weight (with hardware) lb. (kg)
A16A 3-025	.25 (6.35)	1.740 (44.2)	.170 (4.3)	1.09 (27.7)	.221 (5.6)	.51 (13)	.12 (0.054)
A16A 3-031	.3125 (7.94)			1.15 (29.2)		.57 (14.5)	.13 (0.060)
A16A 3-037	.375 (9.53)			1.22 (31)		.64 (16.3)	.14 (0.064)

L • 3/8 INCH PITCH

Catalog Number	Belt Width in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	Toothed + Flat Plate Total Weight (with hardware) lb. (kg)
A16A 4-050	.500 (12.7)	3.245 (82.4)	.310 (7.9)	1.62 (41.1)	.344 (8.7)	.88 (22.4)	.58 (0.263)
A16A 4-075	.750 (19.1)			1.87 (47.5)		1.13 (28.7)	.67 (0.304)

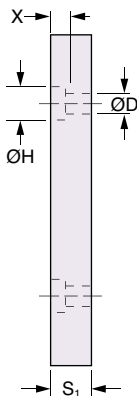
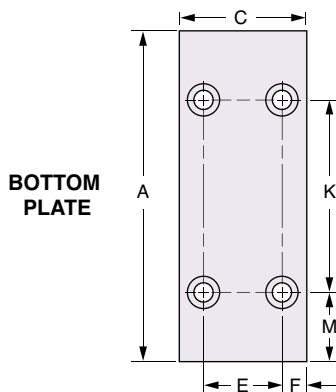
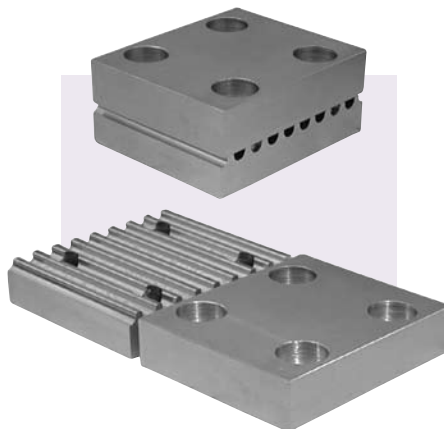
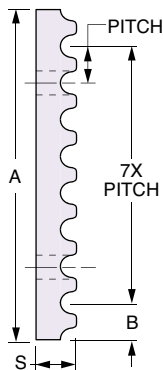
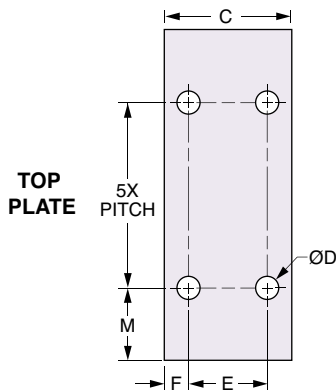
NOTE: Hardware for kit includes screws, washers and hex nuts for assembly.For replacement hardware kit, order: **A16A 3-BOLT KIT** XL 1/5 Inch Pitch**A16A 4-BOLT KIT** L 3/8 Inch Pitch

SDP/SI**HTD® Timing Belt Clamp Kit – 5 mm & 8 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ USED IN LINEAR DRIVES**5 mm PITCH**

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
7.5 (.295)	10 (.394)	8 (.315)	10 (.394)	25 (.984)	5 (.197)	10 (.394)

8 mm PITCH

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
10 (.394)	16 (.630)	15 (.591)	15 (.591)	40 (1.574)	8 (.315)	16 (.630)

Timing Belt Clamp Kit Includes:

Top and Bottom Plate and Hardware for Assembly

MATERIAL: Aluminum

Sold as Kit

HTD® • 5 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A25M09	6 (.236) & 9 (.354)	45 (1.772)	5 (.197)	31.5 (1.24)	5.5 (.217)	16.5 (.650)	0.068 (.15)
A16A25M15	15 (.591)			36.5 (1.44)		21.5 (.846)	0.068 (.15)
A16A25M25	25 (.984)			46.5 (1.83)		31.5 (1.24)	0.100 (.22)

HTD® • 8 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A28M20	20 (.787)	72 (2.835)	8 (.315)	50.5 (1.988)	9 (.354)	30.5 (1.201)	0.272 (.60)
A16A28M30	30 (1.181)			60.5 (2.382)		40.5 (1.594)	0.331 (.73)
A16A28M50	50 (1.969)			80.5 (3.169)		60.5 (2.382)	0.449 (.99)

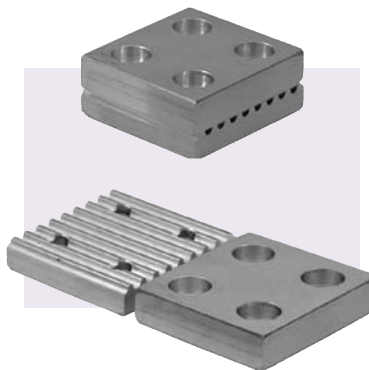
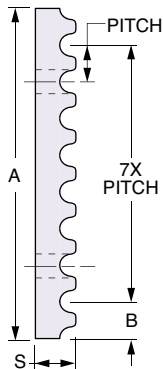
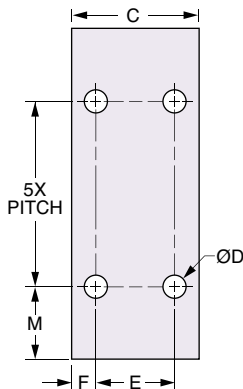
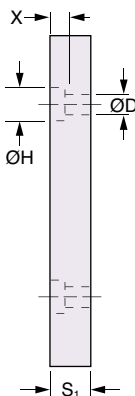
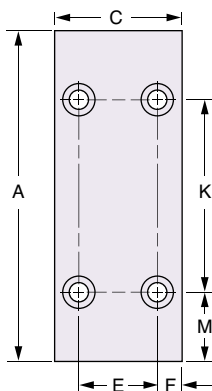
NOTE: Hardware for kit includes screws, washers and hex nuts for assembly.For replacement hardware kit, order: **A16A25MBOLTKit** HTD®5 mm Pitch**A16A28MBOLTKit** HTD®8 mm Pitch

SDP/SI**GT®2 Timing Belt Clamp Kit – 2 mm & 3 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ USED IN LINEAR DRIVES**TOP
PLATE****BOTTOM
PLATE****2 mm PITCH**

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
4.7 (.185)	4 (.157)	4 (.157)	4.4 (.173)	10 (.394)	2 (.079)	4 (.157)

3 mm PITCH

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
5.8 (.228)	6 (.236)	5 (.197)	6.5 (.256)	15 (.591)	3 (.118)	6 (.236)

Timing Belt Clamp Kit Includes:

Top and Bottom Plate and Hardware for Assembly

MATERIAL: Aluminum

Sold as Kit

GT®2 • 2 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A51M04	4 (.157)	18 (.709)	2 (.079)	16.8 (.661)	2.4 (.094)	7.4 (.291)	0.006 (.01)
A16A51M06	6 (.236)			18.8 (.740)		9.4 (.370)	0.015 (.03)
A16A51M09	9 (.354)			21.8 (.858)		12.4 (.488)	0.017 (.04)

GT®2 • 3 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A53M06	6 (.236)	27 (1.063)	3 (.118)	22 (.866)	3.4 (.134)	10.4 (.409)	0.016 (.04)
A16A53M09	9 (.354)			25 (.984)		13.4 (.528)	0.019 (.04)

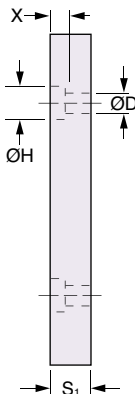
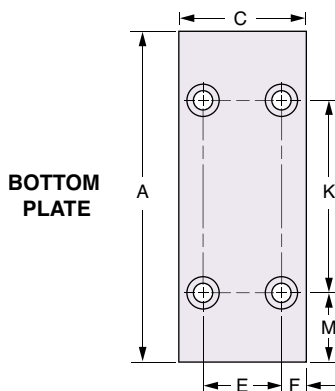
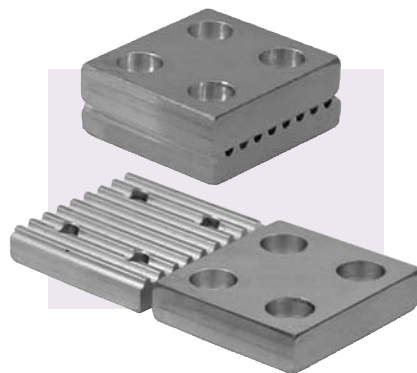
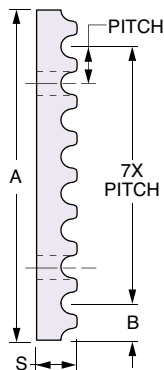
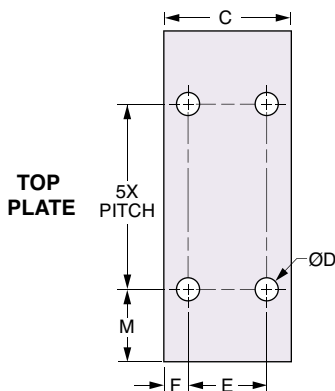
NOTE: Hardware for kit includes screws, washers and hex nuts for assembly.For replacement hardware kit, order: **A16A51MBOLTKIT** GT®2 2 mm Pitch**A16A53MBOLTKIT** GT®2 3 mm Pitch

SDP/SI**GT®2 Timing Belt Clamp Kit – 5 mm & 8 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ USED IN LINEAR DRIVES

5 mm PITCH						
F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
7.5 (.295)	10 (.394)	8 (.315)	10 (.394)	25 (.984)	5 (.197)	10 (.394)

8 mm PITCH						
F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
10 (.394)	16 (.630)	15 (.591)	15 (.591)	40 (1.575)	8 (.315)	16 (.630)

MATERIAL: Aluminum

Timing Belt Clamp Kit Includes:

Top and Bottom Plate and Hardware for Assembly

Sold as Kit

GT®2 • 5 mm PITCH							Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	
A16A55M09	9 (.354)	45 (1.772)	5 (.197)	30.5 (1.201)	5.5 (.217)	15.5 (.610)	0.056 (.12)
A16A55M15	15 (.591)			37 (1.457)		22 (.866)	0.074 (.16)
A16A55M25	25 (.984)			47 (1.850)		32 (1.260)	0.096 (.21)

GT®2 • 8 mm PITCH							Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	
A16A58M20	20 (.787)	72 (2.835)	8 (.315)	50.5 (1.988)	9 (.354)	30.5 (1.201)	0.272 (.60)
A16A58M30	30 (1.181)			60.5 (2.382)		40.5 (1.594)	0.334 (.73)
A16A58M50	50 (1.968)			81 (3.189)		61 (2.401)	0.448 (.99)

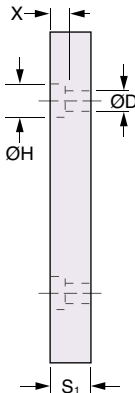
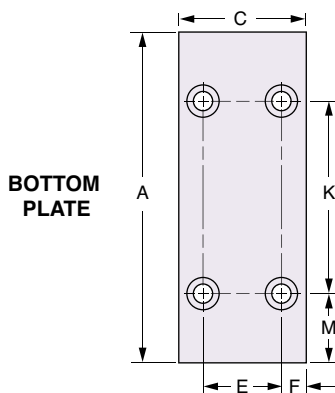
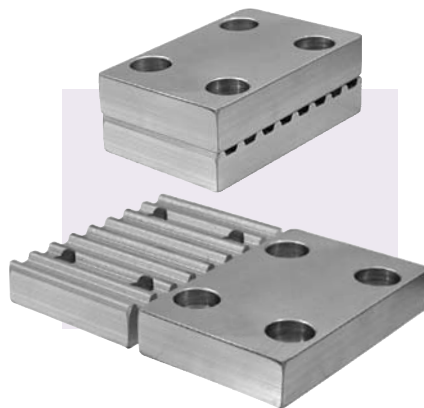
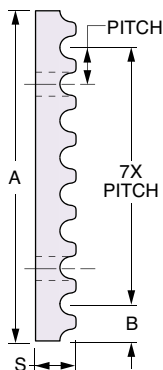
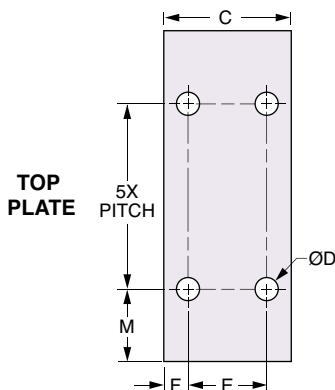
NOTE: Hardware for kit includes screws, washers and hex nuts for assembly.For replacement hardware kit, order: **A16A55MBOLTKIT** GT®2 5 mm Pitch**A16A58MBOLTKIT** GT®2 8 mm Pitch

SDP/SI**AT Timing Belt Clamp Kit – 5 mm & 10 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ USED IN LINEAR DRIVES**5 mm PITCH**

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
7.5 (.295)	9 (.354)	8 (.315)	10 (.394)	25 (.984)	5 (.197)	10 (.394)

10 mm PITCH

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
10 (.394)	17.5 (.689)	15 (.591)	15 (.591)	50 (1.969)	8 (.315)	16 (.630)

Timing Belt Clamp Kit Includes:

Top and Bottom Plate and Hardware for Assembly

MATERIAL: Aluminum

Sold as Set

AT • 5 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A45M06	6 (.236)	43 (1.693)	4 (.157)	27.5 (1.083)	5.5 (.217)	12.5 (.492)	0.050 (.11)
A16A45M10	10 (.3937)			31.5 (1.240)		16.5 (.650)	0.060 (.13)
A16A45M16	16 (.630)			37.5 (1.476)		22.5 (.886)	0.068 (.15)
A 16A45M25	25 (.984)			46.5 (1.831)		31.5 (1.240)	0.091 (.2)

AT • 10 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A49M16	16 (.630)	85 (3.346)	7.5 (.295)	46.5 (1.831)	9 (.354)	26.5 (1.043)	0.313 (.69)
A16A49M25	25 (.984)			55.5 (2.185)		35.5 (1.398)	0.363 (.8)
A16A49M32	32 (1.260)			62.5 (2.461)		42.5 (1.673)	0.422 (.93)

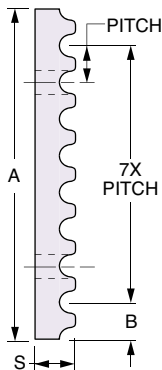
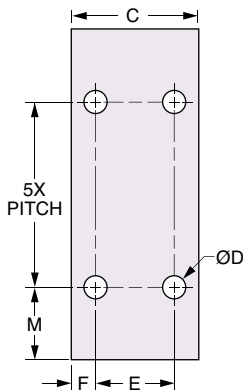
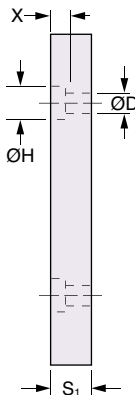
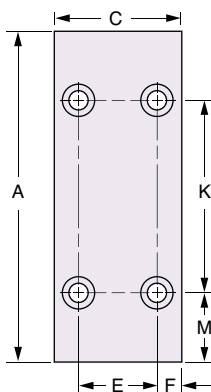
NOTE: Hardware for kit includes screws, washers and hex nuts for assembly.For replacement hardware kit, order: **A16A45MBOLTKIT** AT5 mm Pitch**A16A49MBOLTKIT** AT10 mm Pitch

SDP/SI**T Timing Belt Clamp Kit – 5 mm & 10 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ USED IN LINEAR DRIVES**TOP
PLATE****BOTTOM
PLATE****5 mm PITCH**

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
7.5 (.295)	9 (.354)	8 (.315)	10 (.394)	25 (.984)	5 (.197)	10 (.394)

10 mm PITCH

F mm (in.)	M mm (in.)	S mm (in.)	H mm (in.)	K mm (in.)	X mm (in.)	S ₁ mm (in.)
10 (.394)	18.5 (.728)	15 (.591)	15 (.591)	50 (1.969)	8 (.315)	16 (.630)

Timing Belt Clamp Kit Includes:

Top and Bottom Plate and Hardware for Assembly

MATERIAL: Aluminum

Sold as Kit

T • 5 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A35M06	6 (.236)	43 (1.693)	4 (.157)	27.5 (1.083)	5.5 (.217)	12.5 (.492)	0.050 (.11)
A16A35M10	10 (.3937)			31.5 (1.240)		16.5 (.650)	0.070 (.15)
A16A35M16	16 (.630)			37.5 (1.476)		22.5 (.886)	0.070 (.15)
A 16A35M25	25 (.984)			46.5 (1.831)		31.5 (1.240)	0.090 (.2)

T • 10 mm PITCH

Catalog Number	Belt Width mm (in.)	A mm (in.)	B mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)	Toothed + Flat Plate Total Weight (with hardware) kg (lb.)
A16A39M16	16 (.630)	87 (3.425)	8.5 (.335)	46 (1.811)	9 (.354)	26 (1.024)	0.313 (.69)
A16A39M25	25 (.984)			55 (2.165)		35 (1.378)	0.372 (.82)
A16A39M32	32 (1.260)			62 (2.441)		42 (1.654)	0.431 (.95)

NOTE: Hardware for kit includes screws, washers and hex nuts for assembly.For replacement hardware kit, order: **A16A35MBOLTKIT** T5 mm Pitch**A16A39MBOLTKIT** T10 mm Pitch

L Timing Belt Pulleys – 3/8" Pitch

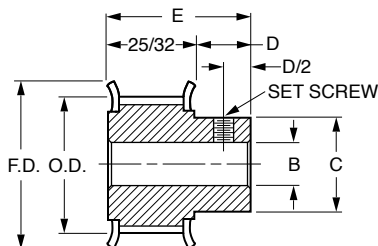
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ STEEL

■ DOUBLE FLANGE



SECTION A-A



FOR 1/2" BELTS

MATERIAL: Steel

FINISH: Black Oxide

Catalog Number	No. of Grooves	P.D. (REF)	O.D.*	F.D. ± 1/64	B Bore + .001 - .000	E Length ± 1/64	C Hub Dia. ± 1/64	D Hub Proj.	Set Screw
A 6F 4-10DF5012	10	1.194	1.164	1.42	.375	1-9/64	.81	23/64	#10-24
A 6F 4-10DF5016					.500				
A 6F 4-12DF5012	12	1.432	1.402	1.65	.375	1-1/4	1.06	31/64	#10-24
A 6F 4-12DF5016					.500				
A 6F 4-14DF5012	14	1.671	1.641	1.89	.375	1-1/4	1.13	31/64	#10-24
A 6F 4-14DF5016					.500				
A 6F 4-16DF5012	16	1.910	1.880	2.13	.375	1-25/64	1.44	39/64	1/4-20
A 6F 4-16DF5016					.500				
A 6F 4-17DF5012	17	2.029	1.999	2.24	.375	1-25/64	1.50	39/64	1/4-20
A 6F 4-17DF5016					.500				
A 6F 4-18DF5012	18	2.149	2.119	2.36	.375	1-25/64	1.56	39/64	1/4-20
A 6F 4-18DF5016					.500				
A 6F 4-19DF5012	19	2.268	2.238	2.52	.375	1-25/64	1.63	39/64	1/4-20
A 6F 4-19DF5016					.500				
A 6F 4-20DF5012	20	2.387	2.357	2.62	.375	1-25/64	1.69	39/64	1/4-20
A 6F 4-20DF5016					.500				
A 6F 4-21DF5012	21	2.507	2.477	2.76	.375	1-7/16	1.88	43/64	1/4-20
A 6F 4-21DF5016					.500				
A 6F 4-22DF5012	22	2.626	2.596	2.95	.375	1-1/2	2.00	47/64	1/4-20
A 6F 4-22DF5016					.500				
A 6F 4-24DF5012	24	2.865	2.835	3.11	.375	1-1/2	2.25	47/64	1/4-20
A 6F 4-24DF5016					.500				
A 6F 4-26DF5012	26	3.104	3.074	3.39	.375	1-1/2	2.25	47/64	1/4-20
A 6F 4-26DF5016					.500				
A 6F 4-28DF5012	28	3.342	3.312	3.58	.375	1-1/2	2.25	47/64	1/4-20
A 6F 4-28DF5016					.500				
A 6F 4-30DF5012	30	3.581	3.551	3.82	.375	1-1/2	2.25	47/64	1/4-20
A 6F 4-30DF5016					.500				
A 6F 4-32DF5012	32	3.820	3.790	4.02	.375	1-41/64	2.56	55/64	1/4-20
A 6F 4-32DF5016					.500				

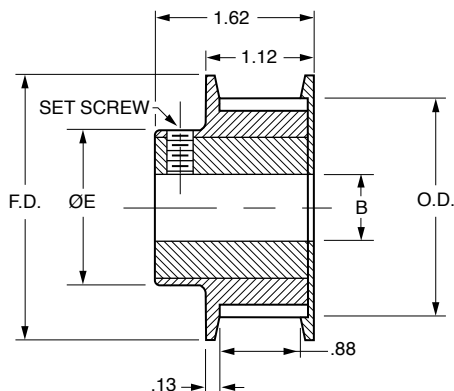
*O.D. Tolerance: 10 to 17 grooves is +.003, -.000
18 to 32 grooves is +.004, -.000

HTD® Timing Belt Pulleys – 8 mm Pitch

■ MOLDED WITH INSERT

■ **TRUE METRIC®** PROFILE

■ DOUBLE FLANGE

**FOR 20 mm BELTS (.787 INCH)**

MATERIAL: Pulley – Nylon – Black, Fiberglass Reinforced
Insert – Aluminum

Catalog Number	No. of Grooves	P.D.	O.D. ±.005	F.D.	B Bore +.0015 +.0005	E Hub	Set Screw
A 6E28-014DF2016 A 6E28-014DF2020	14	1.404	1.350	1.75	.5000 .6250	1.12	#10-24
A 6E28-018DF2016 A 6E28-018DF2020	18	1.804	1.751	2.15	.5000 .6250	1.50	#10-24 1/4-20
A 6E28-022DF2016 A 6E28-022DF2020	22	2.206	2.152	2.56	.5000 .6250	1.50	#10-24 1/4-20
A 6E28-024DF2016 A 6E28-024DF2020 A 6E28-024DF2024	24	2.406	2.352	2.75	.5000 .6250 .7500	1.50	#10-24 1/4-20 1/4-20
A 6E28-026DF2016 A 6E28-026DF2020	26	2.607	2.553	2.95	.5000 .6250	1.50	#10-24 1/4-20
A 6E28-028DF2016 A 6E28-028DF2020	28	2.807	2.753	3.15	.5000 .6250	1.50	#10-24 1/4-20

Other bore sizes available on special request

HTD® Timing Belt Pulleys – 8 mm Pitch

Stock Drive Products/Sterling Instrument

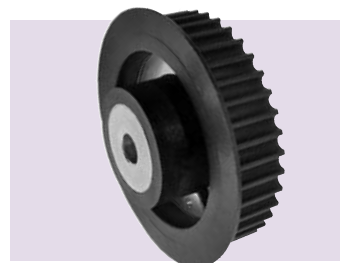
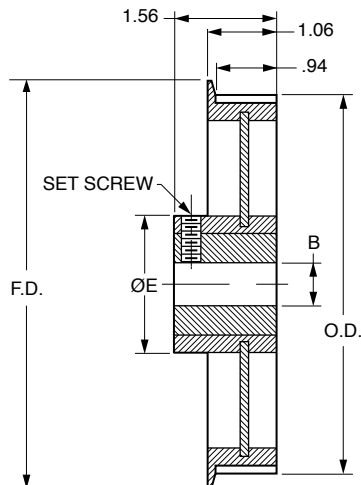
Phone: 516-326-3300

Fax: 516-326-8827

■ MOLDED WITH INSERT

■ **TRUE METRIC®** PROFILE

■ SINGLE FLANGE



FOR 20 mm BELTS (.787 INCH)

MATERIAL: Pulley – Nylon – Black, Fiberglass Reinforced
Insert – Aluminum

Catalog Number	No. of Grooves	P.D.	O.D. ±.005	F.D.	B Bore +.0015 +.0005	E Hub	Set Screw
A 6E28-030SF2016	30	3.008	2.954	3.35	.5000	1.50	#10-24
A 6E28-030SF2020					.6250		1/4-20
A 6E28-032SF2016	32	3.208	3.154	3.54	.5000	1.50	#10-24
A 6E28-034SF2016	34	3.409	3.355	3.82	.5000	2.00	#10-24
A 6E28-036SF2016					.5000		#10-24
A 6E28-036SF2020	36	3.609	3.555	3.93	.6250	2.00	1/4-20
A 6E28-038SF2016	38	3.810	3.756	4.13	.5000	2.00	#10-24
A 6E28-040SF2016					.5000		#10-24
A 6E28-040SF2020	40	4.010	3.956	4.33	.6250	2.00	1/4-20
A 6E28-044SF2016	44	4.411	4.357	4.77	.5000	2.00	#10-24
A 6E28-048SF2020	48	4.812	4.758	5.16	.6250	2.00	1/4-20
A 6E28-056SF2020	56	5.614	5.560	5.95	.6250	2.00	1/4-20

Other bore sizes available on special request

GT[®]2 Timing Belt Pulleys – 2 mm Pitch

Stock Drive Products/Sterling Instrument

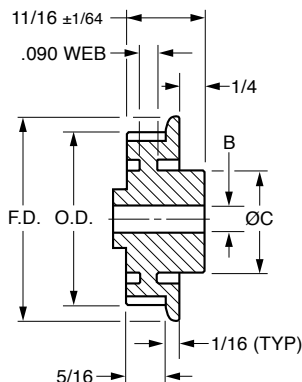
Phone: 516-326-3300

Fax: 516-326-8827

■ MOLDED

■ **TRUE METRIC[®]** PROFILE

■ SINGLE FLANGE



FOR 6 mm BELTS (.236 INCH)

MATERIAL: Polycarbonate, Fiberglass Reinforced

Catalog Number	No. of Grooves	P.D.	O.D.	F.D.	B Bore +.001 -.000	C Hub
A 6L51-012SF0604	12	.301	.281	.47	.125	7/16
A 6L51-013SF0604	13	.326	.306	.51		
A 6L51-014SF0604	14	.351	.331	.53		
A 6L51-015SF0604	15	.376	.356	.55		
A 6L51-016SF0604	16	.401	.381	.58		
A 6L51-018SF0606	18	.451	.431	.63	.1875	1/2
A 6L51-020SF0606	20	.501	.481	.68		
A 6L51-021SF0606	21	.526	.506	.70		
A 6L51-022SF0606	22	.551	.531	.73		
A 6L51-024SF0606	24	.602	.582	.78		
A 6L51-028SF0608	28	.702	.682	.88	.250	11/16
A 6L51-030SF0608	30	.752	.732	.93		
A 6L51-032SF0608	32	.802	.782	.98		
A 6L51-036SF0608	36	.902	.882	1.09		11/16
A 6L51-040SF0608	40	1.003	.983	1.19		
A 6L51-042SF0608	42	1.053	1.033	1.24	.3125	11/16
A 6L51-044SF0608	44	1.103	1.083	1.29		
A 6L51-048SF0608	48	1.203	1.183	1.39		
A 6L51-060SF0608	60	1.504	1.484	1.70		11/16
A 6L51-065SF0610	65	1.629	1.609	1.82		
A 6L51-072SF0610	72	1.805	1.785	2.00		
A 6L51-080SF0610	80	2.005	1.985	2.21		
A 6L51-090SF0610	90	2.256	2.236	2.46		
A 6L51-100SF0610	100	2.506	2.486	2.71	.3125	11/16
A 6L51-110SF0610	110	2.757	2.737	2.97		
A 6L51-120SF0610	120	3.008	2.988	3.22		
A 6L51-130SF0610	130	3.258	3.238	3.48		

- NOTES:**
1. Pulleys with 12 to 40 grooves do not have webs.
 2. Also available with set screws or pinning holes on special order.
 3. Special modifications available on request.

■ MOLDED

■ **TRUE METRIC®** PROFILE

■ SINGLE FLANGE

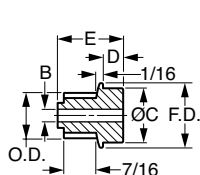


Fig. 1

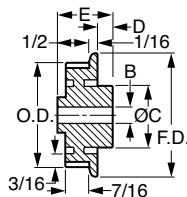
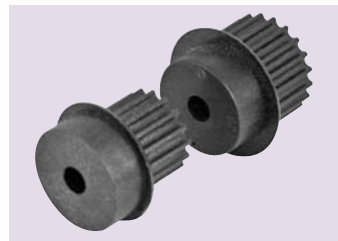


Fig. 2



FOR 9 mm BELTS (.354 INCH)

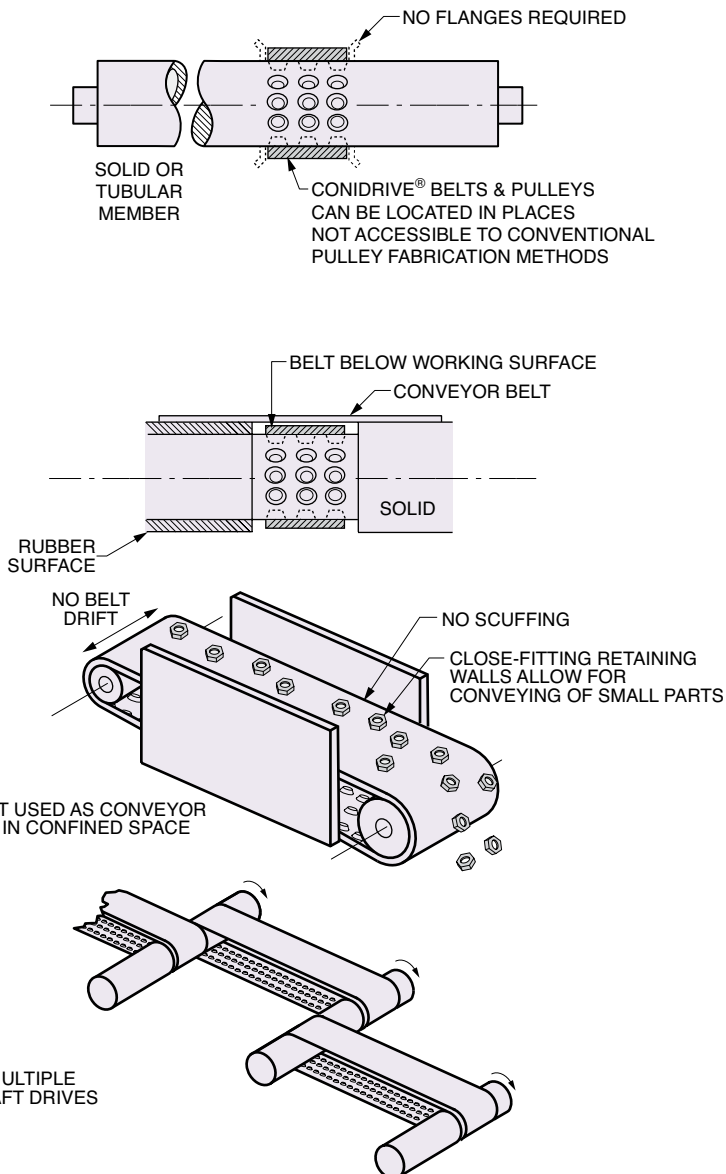
MATERIAL: Polycarbonate, Fiberglass Reinforced

Catalog Number	Fig. No.	No. of Grooves	P.D.	O.D.	F.D.	B Bore +.001 -.000	E Length	C Hub	D Hub Proj.
A 6L53-016SF0906	1	16	.602	.572	.82	.1875	13/16	11/16	1/4
A 6L53-017SF0906	2 (Solid)	17	.639	.609	.87			11/16	
A 6L53-018SF0906		18	.677	.647	.93				
A 6L53-019SF0906		19	.714	.684	.93				
A 6L53-020SF0906		20	.752	.722	.93				
A 6L53-022SF0906			22	.827	.797	1.06	.250	13/16	3/4 7/8 7/8 7/8
A 6L53-025SF0908	2	25	.940	.910	1.19				
A 6L53-028SF0908		28	1.053	1.023	1.24				
A 6L53-032SF0908	2	32	1.203	1.173	1.44				
A 6L53-036SF0908		36	1.353	1.323	1.57				
A 6L53-040SF0908		40	1.504	1.474	1.76				
A 6L53-048SF0908		48	1.805	1.775	2.02				

NOTE: Pulleys with 16 to 28 grooves do not have webs.

Conidrive® Systems have distinct advantages over present synchronous drives.

Shown below are some examples of applications with solutions unique to Conidrive® Components.



Conidrive® pulleys are manufactured by SDP as standard catalog items and as custom parts to your specifications.

All CONIDRIVE® N10 belt and pulley systems should be designed, incorporating the design data shown below to ensure reliability and long-life operation.

CONIDRIVE® N10 belts are available in Endless Style and as Belt Stock.

• Rotational Belt Drives

The power transmitting capability is dependent on various parameters; namely torque to be transmitted, the rpm of the smallest pulley (driver), the number of teeth on the drive & driven pulleys and the number of teeth on the belt. However, in all cases, the allowable belt tension values shown in **Tables 1, 2 and 4** must not be exceeded. It is advisable to remain below these values if shock loads are anticipated.

• Reciprocating Belt Drives

Reciprocating belt drives employing belt stock materials can be selected based on an allowable static load of 8 lbs. per engaging tooth and belt load from static and acceleration forces not to exceed values indicated in **Table 4**.

• Horsepower Calculations

H.P. to be transmitted - **3/4**

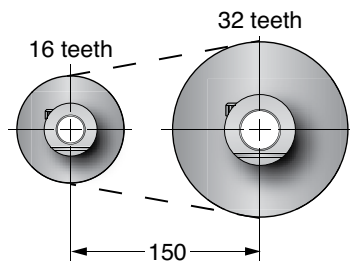
rpm of small pulley (driver) - **1750**

Belt style - **2 row**

Small pulley DIA. (mm) - **49.49 (16 teeth)**

Large pulley DIA. (mm) - **100.42 (32 teeth)**

Center distance - **150 mm**



• Step 1 - Determine no. of teeth in engagement at small pulley

N = No. of teeth in engagement

n = No. of cavities per row in small pulley

D = Diameter of large pulley (mm)

d = Diameter of small pulley (mm)

C.D. = Center distance (mm)

$$N = \frac{n}{360} \left[180 - \frac{60 (D - d)}{C.D.} \right]$$

$$N = \frac{20}{360} \left[180 - \frac{60 (100.42 - 49.49)}{150} \right]$$

$$N = 8.868$$

• Step 2 - Calculating horsepower using graphs provided

By interpolating the maximum allowable force in **Table 1**

TANGENTIAL FORCE = **400 N**

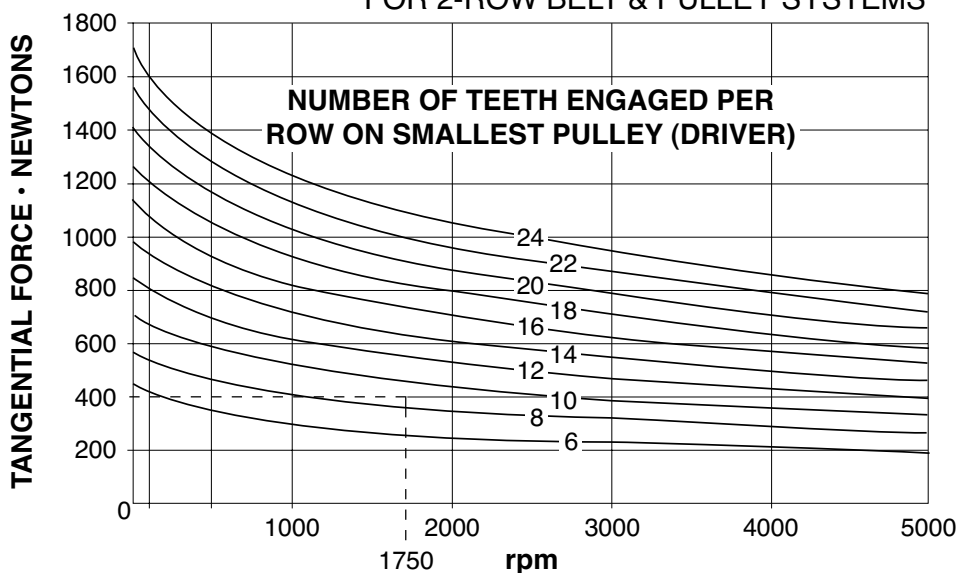
$$\text{H.P.} = \frac{\text{TANGENTIAL FORCE} \times \text{PULLEY DIA.} \times \text{rpm}}{14.34 \times 10^{-6}}$$

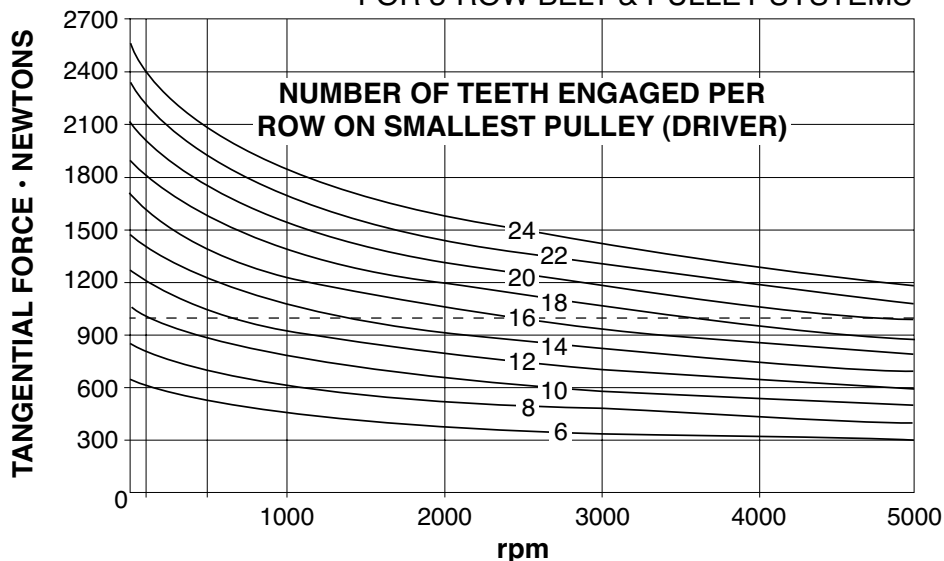
$$\text{H.P.} = \frac{400 \times 49.49 \times 1750}{14.34 \times 10^{-6}}$$

$$\text{H.P.} = 2.41$$

Therefore, belt/pulley selection can transmit
3/4 H.P. with a theoretical safety factor of **3.21**

• **Table 1** **TANGENTIAL FORCE VS. rpm**
FOR 2-ROW BELT & PULLEY SYSTEMS



• **Table 2****TANGENTIAL FORCE VS. rpm**
FOR 3-ROW BELT & PULLEY SYSTEMS• **Table 3**Minimum no. of pulley teeth per row - **16**Minimum inner idler diameter - **40 mm**Minimum outer idler diameter - **50 mm****NOTE:** Inner idlers must have pockets to receive belt projections.• **Table 4****Allowable belt tension (N)**

Belt Width (mm)	10	20	30
Belt Stock	650	1300	1950
Endless Belts	—	650	975

Can't find the sizes you need?
Other sizes available on special order.

SDP/SI**Conidrive® Timing Belts – 10 mm Pitch**

Stock Drive Products/Sterling Instrument

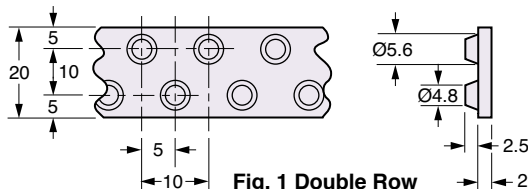
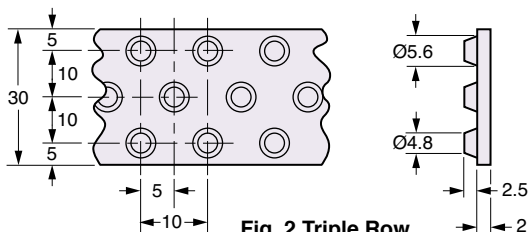
Phone: 516-326-3300

Fax: 516-326-8827

■ SELF-GUIDING

■ CONTINUOUS ROLLING ACTION

■ LOW NOISE & VIBRATION

**Fig. 1 Double Row****Fig. 2 Triple Row****FEATURES:**

- **Self-guiding system:** no side flanges needed on pulleys
- **Nondirectional:** same meshing performance in both directions of belt travel
- **Polygon-free:** smooth rolling around pulleys thanks to contact with flat belt area
- **Noise-minimized and low-vibration:** continuous rolling, smooth meshing of conical projections into recesses
- **Homogenous distribution of forces in the belt:** no force components acting laterally thanks to symmetrical cone geometry and balanced tension member arrangement (S/Z winding)

MATERIAL: Polyurethane Reinforced with Steel Tensile Cords
OPERATING TEMPERATURE: -30°C to +80°C

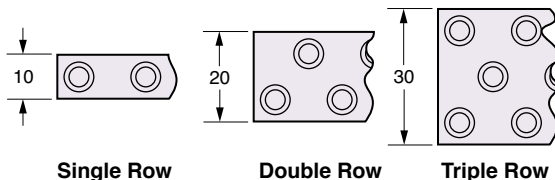
Catalog Number		Length mm
Fig. 1 Double Row	Fig. 2 Triple Row	
A 6Z13MD0500	A 6Z13MT0500	500
A 6Z13MD0600	A 6Z13MT0600	600
A 6Z13MD0700	A 6Z13MT0700	700
A 6Z13MD0800	A 6Z13MT0800	800
A 6Z13MD0900	A 6Z13MT0900	900
A 6Z13MD1000	A 6Z13MT1000	1000

SDP/SI**Conidrive® Timing Belt Stock – 10 mm Pitch**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

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**Single Row****Double Row****Triple Row**

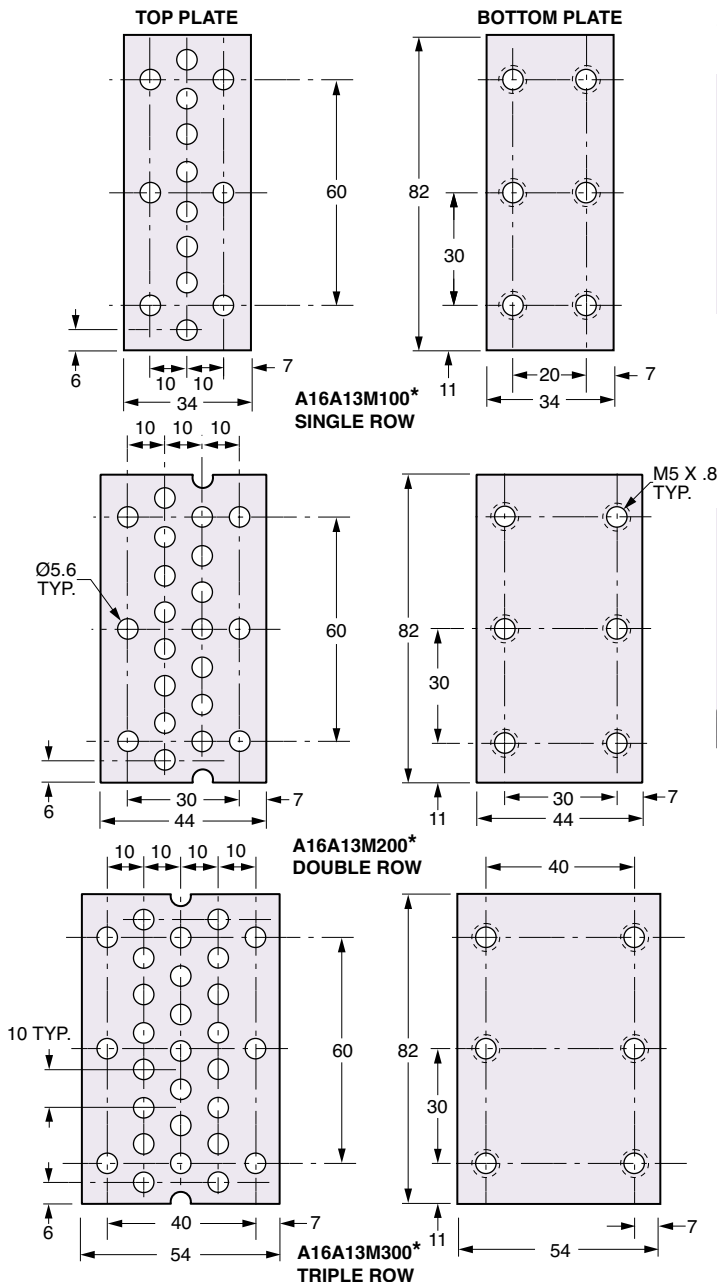
MATERIAL: Polyurethane Reinforced with Steel Tensile Cords
OPERATING TEMPERATURE: -30°C to +80°C

Priced Per Meter

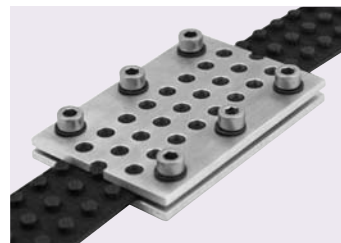
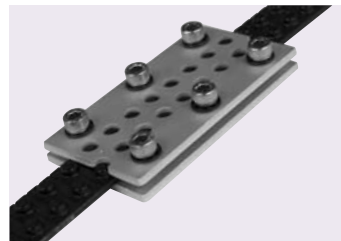
Catalog Number	No. of Rows	Allowable Static Tensile Load N	Max. Available Length m
A 6Z13MCS	Single	650	50
A 6Z13MCD	Double	1300	
A 6Z13MCT	Triple	1950	

APPLICATIONS:

Metering, positioning, conveying and oscillating drives where belt lengths required are longer than standard endless belts.

Conidrive® Mounting Plates**■ ALUMINUM ALLOY - 3.18 mm THICK**

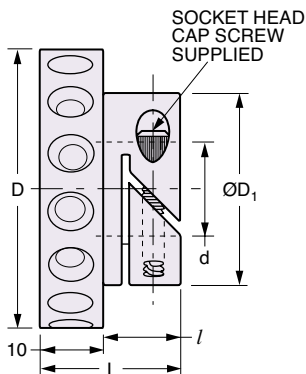
*Supplied with socket head cap screws and internal lock washers.



■ NO FLANGES

■ FAIRLOC® HUB

■ NONCHORDAL ACTION

**Single Row****FEATURES:**

- Self-Guiding
- No Flanges Required
- No Chordal Effect
- Smooth Running
- Fairloc® Hub
- Nonmarring of Shaft

MATERIAL: Aluminum Alloy**FINISH:** Clear Anodized

Catalog Number	No. of Cavities Per Row	D O.D.	d Bore +0.025	L Length	D ₁ Hub	l Hub Proj.
A 6A14M16S10 A 6A14M16S12	16	49.49	10 12	23	32	13
A 6A14M20S10 A 6A14M20S12	20	62.22	10 12	23	32	13
A 6A14M24S10 A 6A14M24S12	24	74.95	10 12	23	32	13
A 6A14M28S10 A 6A14M28S12	28	87.69	10 12	23	32	13
A 6A14M32S10 A 6A14M32S12	32	100.42	10 12	23	32	13
A 6A14M36S10 A 6A14M36S12	36	113.15	10 12	23	32	13
A 6A14M40S10 A 6A14M40S12	40	125.89	10 12	23 28.5	32 38	13 18.5
A 6A14M44S12 A 6A14M44S16	44	138.62	12 16	28.5	38	18.5
A 6A14M48S12 A 6A14M48S16	48	151.35	12 16	28.5	38	18.5

■ NO FLANGES

■ FAIRLOC® HUB

■ NONCHORDAL ACTION

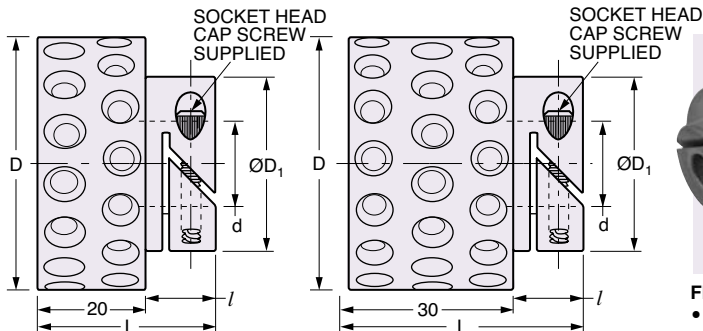


Fig. 1
Double Row

Fig. 2
Triple Row

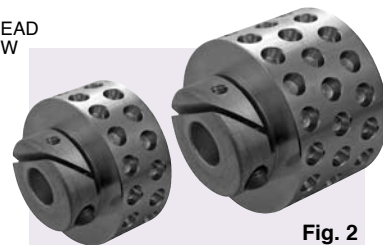


Fig. 1

Fig. 2

FEATURES:

- Self-Guiding
- No Flanges Required
- No Chordal Effect
- Smooth Running
- Fairloc® Hub
- Nonmarring of Shaft

MATERIAL: Aluminum Alloy

FINISH: Clear Anodized

Catalog Number	Fig. No.	No. of Cavities Per Row	D O.D.	d Bore +0.025	L Length	D ₁ Hub	l Hub Proj.
A 6A14M16D16	1	16	49.49	16	38.5	38	18.5
A 6A14M16D20				20	42	49.5	22
A 6A14M24D16		24	74.95	16	38.5	38	18.5
A 6A14M24D20				20	42	49.5	22
A 6A14M32D16		32	100.42	16	38.5	38	18.5
A 6A14M32D20				20	42	49.5	22
A 6A14M48D16	2	48	151.35	16	38.5	38	18.5
A 6A14M48D20				20	42	49.5	22
A 6A14M16T16		16	49.49	16	48.5	38	18.5
A 6A14M16T20				20	52	49.5	22
A 6A14M24T16		24	74.95	16	48.5	38	18.5
A 6A14M24T20				20	52	49.5	22
A 6A14M32T16		32	100.42	16	48.5	38	18.5
A 6A14M32T20				20	52	49.5	22
A 6A14M48T16		48	151.35	16	48.5	38	18.5
A 6A14M48T20				20	52	49.5	22

NOTE: Other sizes available on special order.

Ladder Chain & Sprockets – .185 Pitch

Stock Drive Products/Sterling Instrument

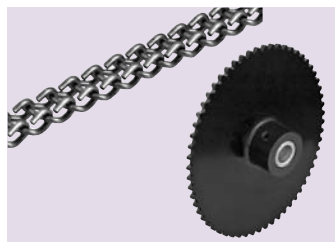
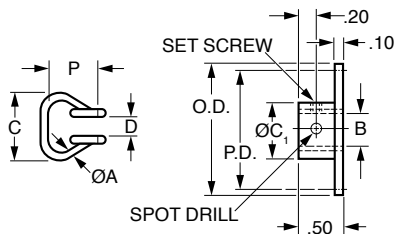
Phone: 516-326-3300

Fax: 516-326-8827

■ SIZE 19

■ MOLDED WITH METAL INSERT

■ .10 FACE



LADDER CHAIN

Priced Per Foot

Catalog Number	Material	p Pitch	Links Per Foot	A Wire	C Outside Width	D Inside Width	Yield Point lb.
A 6C 8-19	Steel	.185	65	.041	.305	.120	30
A 6C88-19	High-Tensile Steel						55
A 6B 8-19	Brass						18
A 6Y 8-19	Stainless Steel						30

SPROCKETS

MATERIAL: Acetal, Black

INSERT: Brass, Knurled



Catalog Number	No. of Teeth	P.D.	O.D.	B* Bore +.001 -.000	C ₁ Hub
A 6Z 8-192006	20	1.18	1.35	.1875	.62
A 6Z 8-192008				.250	
A 6Z 8-192206	22	1.30	1.47	.1875	.62
A 6Z 8-192208				.250	.62
A 6Z 8-192210				.3125	.75
A 6Z 8-192406	24	1.42	1.59	.1875	.62
A 6Z 8-192408				.250	.62
A 6Z 8-192410				.3125	.75
A 6Z 8-192506	25	1.47	1.64	.1875	.62
A 6Z 8-192508				.250	.62
A 6Z 8-192510				.3125	.75
A 6Z 8-193006	30	1.77	1.94	.1875	.62
A 6Z 8-193008				.250	.62
A 6Z 8-193010				.3125	.75
A 6Z 8-193206	32	1.88	2.05	.1875	.62
A 6Z 8-193208				.250	.62
A 6Z 8-193210				.3125	.75
A 6Z 8-193606	36	2.12	2.29	.1875	.62
A 6Z 8-193608				.250	.62
A 6Z 8-193610				.3125	.75
A 6Z 8-194006	40	2.35	2.52	.1875	.62
A 6Z 8-194008				.250	.62
A 6Z 8-194010				.3125	.75
A 6Z 8-194806	48	2.82	2.99	.1875	.62
A 6Z 8-194808				.250	.62
A 6Z 8-194810				.3125	.75
A 6Z 8-195406	54	3.18	3.35	.1875	.62
A 6Z 8-195408				.250	.62
A 6Z 8-195410				.3125	.75
A 6Z 8-196010	60	3.53	3.70	.3125	.75
A 6Z 8-197210					

*Sprockets with .1875 bore have a #4-40 set screw and spot drill.

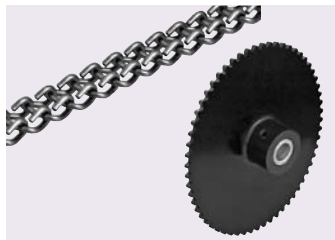
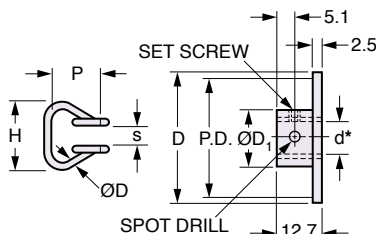
Sprockets with .250 bore have a #6-32 set screw and spot drill.

Sprockets with .3125 bore have a #8-32 set screw and spot drill.

■ SIZE 19

■ MOLDED WITH METAL INSERT

■ 2.5 mm FACE

**LADDER CHAIN**

Priced Per Meter

Catalog Number	Material	P Pitch	Links Per Meter	D Wire	H Outside Width	s Inside Width	Yield Point N
A 6C 8M19	Steel	4.7	213	1.04	7.7	3	133
A 6C8M19	High-Tensile Steel						245
A 6B 8M19	Brass						80.4
A 6Y 8M19	Stainless Steel						133

SPROCKETS**MATERIAL:** Acetal, Black**INSERT:** Brass, Knurled

Catalog Number	No. of Teeth	P.D.	D	d* Bore +0.025	D ₁ Hub
A 6Z 8M192004 A 6Z 8M192006	20	30	34.3	4 6	15.8
A 6Z 8M192204 A 6Z 8M192206 A 6Z 8M192208	22	33	37.3	4 6 8	15.8 15.8 19
A 6Z 8M192404 A 6Z 8M192406 A 6Z 8M192408	24	36	40.3	4 6 8	15.8 15.8 19
A 6Z 8M192504 A 6Z 8M192506 A 6Z 8M192508	25	37.4	41.7	4 6 8	15.8 15.8 19
A 6Z 8M193004 A 6Z 8M193006 A 6Z 8M193008	30	44.9	49.2	4 6 8	15.8 15.8 19
A 6Z 8M193204 A 6Z 8M193206 A 6Z 8M193208	32	47.9	52.2	4 6 8	15.8 15.8 19
A 6Z 8M193604 A 6Z 8M193606 A 6Z 8M193608	36	53.8	58.1	4 6 8	15.8 15.8 19
A 6Z 8M194004 A 6Z 8M194006 A 6Z 8M194008	40	59.8	64.1	4 6 8	15.8 15.8 19
A 6Z 8M194804 A 6Z 8M194806 A 6Z 8M194808	48	71.7	76	4 6 8	15.8 15.8 19
A 6Z 8M195404 A 6Z 8M195406 A 6Z 8M195408	54	80.6	85	4 6 8	15.8 15.8 19
A 6Z 8M196008 A 6Z 8M197208	60 72	89.6 107.5	93.9 111.8	8	19

*Sprockets with 4 mm bore have a M2.5 set screw and spot drill.

6 mm bore have a M3 set screw and spot drill.

8 mm bore have a M4 set screw and spot drill.

Ladder Chain & Sprockets — .353 Pitch

Stock Drive Products/Sterling Instrument

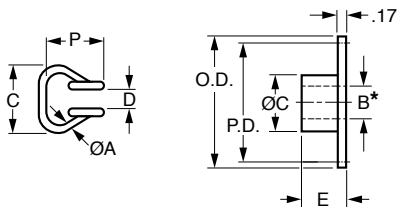
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■ SIZE 14

■ MOLDED

■ .17 FACE



LADDER CHAIN

Priced Per Foot

Catalog Number	Material	P Pitch	Links Per Foot	A Wire	C Outside Width	D Inside Width	Yield Point lb.
A 6C 8-14	Steel	.353	34	.080	.555	.205	80
A 6C88-14	High-Tensile Steel						150
A 6B 8-14	Brass						45
A 6Y 8-14	Stainless Steel						80

SPROCKETS

MATERIAL: Acetal, Black

Catalog Number	No. of Teeth	P.D.	O.D.	B* Bore Nom.	C Hub	E Length
A 6M 8-140808	8	.92	1.14	.250	.49	.42
A 6M 8-141008	10	1.14	1.36	.250	.49	.47
A 6M 8-141208	12	1.36	1.58	.375	.62	.57
A 6M 8-141212				.500	.75	.57
A 6M 8-141216				.250	.49	.47
A 6M 8-141308	13	1.48	1.69	.375	.62	.57
A 6M 8-141312				.500	.75	.57
A 6M 8-141316				.375	.62	.57
A 6M 8-141412	14	1.59	1.79	.500	.75	.57
A 6M 8-141416				.375	.62	.57
A 6M 8-141512				.500	.75	.57
A 6M 8-141516	15	1.70	1.90	.375	.62	.57
A 6M 8-141612				.500	.75	.57
A 6M 8-141616				.375	.62	.57
A 6M 8-141816	18	2.03	2.22	.500	.75	.57
A 6M 8-142016	20	2.26	2.44			
A 6M 8-142216	22	2.48	2.65			
A 6M 8-142416	24	2.70	2.92			
A 6M 8-142516	25	2.82	3.02			
A 6M 8-143016	30	3.38	3.56			
A 6M 8-143216	32	3.60	3.78			
A 6M 8-143616	36	4.05	4.25			
A 6M 8-144016	40	4.50	4.71			
A 6M 8-144816	48	5.40	5.58			

*Bore is sized for press fit. Use straight knurl on shafting for maximum torque.

Ladder Chain & Sprockets — .353 Pitch

Stock Drive Products/Sterling Instrument

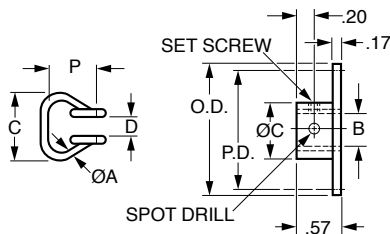
Phone: 516-326-3300

Fax: 516-326-8827

■ SIZE 14

■ MOLDED

■ .17 FACE


LADDER CHAIN

Priced Per Foot

Catalog Number	Material	P Pitch	Links Per Foot	A Wire Dia.	C Outside Width	D Inside Width	Yield Point lb.
A 6C 8-14	Steel	.353	34	.080	.555	.205	80
A 6C88-14	High-Tensile Steel						150
A 6B 8-14	Brass						45
A 6Y 8-14	Stainless Steel						80

SPROCKETS
MATERIAL: Acetal, Black
INSERT: Brass, Knurled

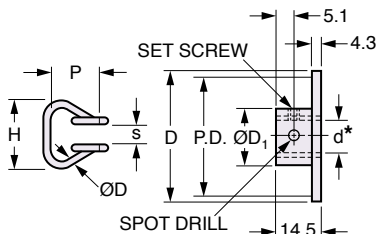

Catalog Number	No. of Teeth	P.D.	O.D.	B* Bore +.001 -.000	C Hub Dia.
A 6Z 8-141206 A 6Z 8-141208	12	1.36	1.58	.1875 .250	.62
A 6Z 8-141306 A 6Z 8-141308	13	1.48	1.69	.1875 .250	
A 6Z 8-141406 A 6Z 8-141408	14	1.59	1.79	.1875 .250	
A 6Z 8-141508 A 6Z 8-141510	15	1.70	1.90	.250 .3125	
A 6Z 8-141608 A 6Z 8-141610	16	1.81	2.00	.250 .3125	.75
A 6Z 8-141810 A 6Z 8-142010 A 6Z 8-142210	18 20 22	2.03 2.26 2.48	2.22 2.44 2.65	.3125	
A 6Z 8-142410 A 6Z 8-142510 A 6Z 8-143010	24 25 30	2.70 2.82 3.38	2.92 3.02 3.56		
A 6Z 8-143210 A 6Z 8-143610 A 6Z 8-144010 A 6Z 8-144810	32 36 40 48	3.60 4.05 4.50 5.40	3.78 4.25 4.71 5.58		

*Sprockets with .1875 bore have a #4-40 set screw and spot drill.
 .250 bore have a #6-32 set screw and spot drill.
 .3125 bore have a #8-32 set screw and spot drill.

■ SIZE 14

■ MOLDED WITH METAL INSERT

■ 4.3 mm FACE

**LADDER CHAIN**

Priced Per Meter

Catalog Number	Material	P Pitch	Links Per Meter	D Wire	H Outside Width	s Inside Width	Yield Point N
A 6C 8M14	Steel	8.9	112	2	14.1	5.2	353
A 6C8M14	High-Tensile Steel						667
A 6B 8M14	Brass						201
A 6Y 8M14	Stainless Steel						353

SPROCKETS**MATERIAL:** Acetal, Black**INSERT:** Brass, Knurled

Catalog Number	No. of Teeth	P.D.	D	d* Bore +0.025	D ₁ Hub
A 6Z 8M141204	12	34.6	40.1	4	15.8
A 6Z 8M141206				6	
A 6Z 8M141304	13	37.4	42.7	4	
A 6Z 8M141306				6	
A 6Z 8M141404	14	40.3	45.5	4	19
A 6Z 8M141406				6	
A 6Z 8M141506	15	43.1	48.3	6	
A 6Z 8M141508				8	
A 6Z 8M141606	16	46	50.8	6	15.8
A 6Z 8M141608				8	
A 6Z 8M141808	18	51.6	56.4	8	19
A 6Z 8M142008	20	57.3	62		
A 6Z 8M142208	22	63	67.3		
A 6Z 8M142408	24	68.7	74.2		
A 6Z 8M142508	25	71.6	76.7		
A 6Z 8M143008	30	85.8	90.4		
A 6Z 8M143208	32	91.5	96		
A 6Z 8M143608	36	102.9	108		
A 6Z 8M144008	40	114.3	120		
A 6Z 8M144808	48	137.1	141.7		

*Sprockets with: 4 mm bore have a M3 set screw and spot drill.

6 mm bore have a M4 set screw and spot drill.

8 mm bore have a M5 set screw and spot drill.

Posi-Drive Belts – 32 Pitch

Stock Drive Products/Sterling Instrument

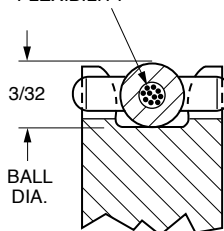
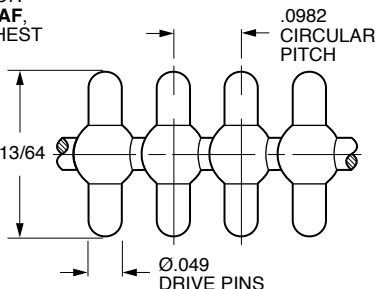
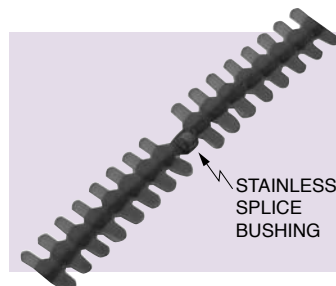
Phone: 516-326-3300

Fax: 516-326-8827

■ **SINGLE CORE**

CORE:

SS, STAINLESS STEEL FOR
LOWEST STRETCH...OR AF,
ARAMID FIBER FOR HIGHEST
FLEXIBILITY

■ **POLYURETHANE**■ **COLOR - DARK BLUE****BELT DATA****CATALOG NUMBER DESIGNATION:****S 7 9 1 2 Y - C 3 2**

Aramid Fiber Core AF

Stainless Steel Core SS

No. of
Drive Pins

Belt Core	Belt Core Code	Min. No. of Teeth in Mesh	Min. Pulley Dia. in.	Recom. Operating Speed rpm	Max. Operating Belt Tension lb.
Aramid	AF	8	.500	1800	4.04
Steel	SS	8	.750		6.07

Example: S7912Y-C32SS095 is a 95 Pin Stainless Steel Drive Belt.

MATERIAL: Body – Molded Polyurethane**Core** – Aramid Fiber or Stainless Steel

OPERATING TEMPERATURE RANGE: -15°F to +180°F for AF
-65°F to +180°F for SS

No. of Drive Pins	Pitch Length
64	6.283
80	7.854
95	9.327
112	10.996
126	12.370
128	12.566
144	14.137
158	15.512
176	17.279
189	18.557
208	20.420
220	21.598
240	23.562
252	24.740
272	26.704
283	27.784
304	29.845

No. of Drive Pins	Pitch Length
315	30.923
336	32.987
346	33.967
368	36.128
377	37.011
400	39.270
408	40.055
432	42.412
440	43.197
464	45.553
471	46.238
480	47.124
496	48.695
512	50.265
528	51.836
544	53.407
560	54.978

No. of Drive Pins	Pitch Length
576	56.549
592	58.120
608	59.690
624	61.261
640	62.832
656	64.402
672	65.973
688	67.544
704	69.115
720	70.686
736	72.257
752	73.827
768	75.398
784	76.969
800	78.540

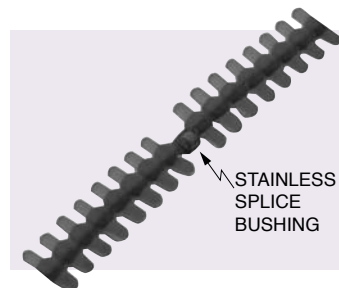
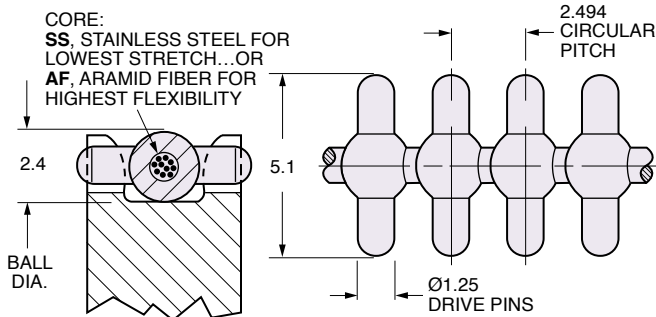
These belts are also sold by the foot, in continuous lengths up to 100 feet.

Catalog Number	Belt Core
S7912Y-C32AF	Aramid Fiber
S7912Y-C32SS	Stainless Steel

■ SINGLE CORE

■ POLYURETHANE

■ COLOR - DARK BLUE

**BELT DATA****CATALOG NUMBER DESIGNATION:**

S 7 9 1 2 Y M C 3 2

Aramid Fiber Core

AF

Stainless Steel Core

SS

No. of
Drive Pins

Belt Core	Belt Core Code	Min. No. of Teeth in Mesh	Min. Pulley Dia.	Recom. Operating Speed rpm	Max. Operating Belt Tension N
Aramid	AF	8	12.7	1800	18
Steel	SS	8	19.1		27

Example: S7912YMC32SS064 is a 64 Pin Stainless Steel Core Drive Belt.

MATERIAL: Body – Molded Polyurethane

Core – Aramid Fiber or Stainless Steel

OPERATING TEMPERATURE RANGE: -26°C to +82°C for AF

-54°C to +82°C for SS

No. of Drive Pins	Pitch Length
64	159.6
80	199.5
95	236.9
112	279.3
126	314.2
128	319.2
144	359.1
158	394
176	438.9
189	471.3
208	518.7
220	548.6
240	598.5
252	628.4
272	678.3
283	705.7
304	758.1

No. of Drive Pins	Pitch Length
315	785.4
336	837.9
346	862.8
368	917.7
377	940.1
400	997.5
408	1017.4
432	1077.3
440	1097.2
464	1157
471	1174.4
480	1196.9
496	1236.9
512	1276.7
528	1316.6
544	1356.5
560	1396.4

No. of Drive Pins	Pitch Length
576	1436.3
592	1476.2
608	1516.1
624	1556
640	1595.9
656	1635.8
672	1675.7
688	1715.6
704	1755.5
720	1795.4
736	1835.3
752	1875.2
768	1915.1
784	1955
800	1994.9

These belts are also sold by the meter, in continuous lengths up to 30.4 meters.

Catalog Number	Belt Core
S7912YMC32AF	Aramid Fiber
S7912YMC32SS	Stainless Steel

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A-Type Shaftloc®	
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Pressure Locking Hub Connectors	
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Metric Sizes	67
Fastlock Shaft Collars	
Inch Sizes	68
Metric Sizes	69
Stroke Adjustment Shaft Collars & Rubber Bumpers	70

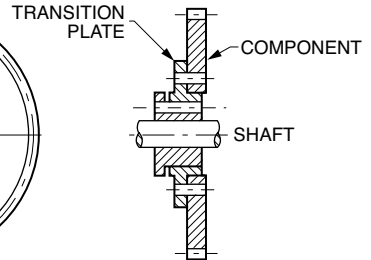
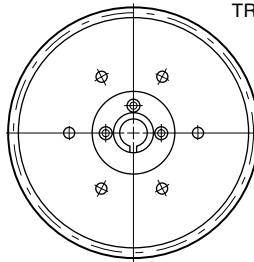
A SUPERIOR WAY TO FASTEN ROTATING COMPONENTS

PATENTED

Excelling because of its simplicity, it contains all structural features in only two parts. This new development is the Shaftloc®—a patented device (United States Patent No. 5,067,846 and No. 6,000,875), — manufactured and marketed by Stock Drive Products.

The usefulness of wedges and inclined surfaces for the lifting of heavy loads has been well-known for centuries.

Similarly, the usefulness of tapered, conical surfaces has also been appreciated; in this case, for their ability to produce large forces.



PREVIOUS METHOD

An example of such an application is the use of a tapered cylindrical split bushing (see illustration) to fasten a rotating component to a shaft. The axial force, which results from tightening the bolts, is translated into amplified radial forces that close the split bushing.

In this way, fastening of the component to the shaft is achieved. A disadvantage of this particular method is that the component must have a tapered bore.

A modification of this method, so that it can be used to fasten components with cylindrical bores, involves the use of a transition plate which contains the tapered bore.

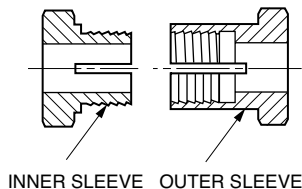
However, the Shaftloc® design is the ULTIMATE in fastening methods for the following reasons:

Shaftloc® has only two parts:

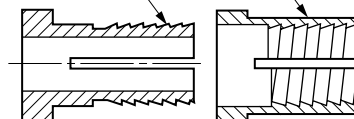
A slotted outer sleeve and a slotted inner sleeve, both of which have hexagonal heads. The outer sleeve is cylindrical on its outside diameter, and threaded on its inside diameter. Conversely, the inner sleeve is threaded on its outside diameter, and cylindrical on its inside diameter. The thread is unique in that it is not symmetrical and that it creates a continuous inclined surface.

How Shaftloc® works:

The shallow angle of the thread produces large amplifications of forces, resulting in substantial torque transmission capability between the component and the shaft.



**STYLE 1:
A 7Z37-series
Double-Ended**



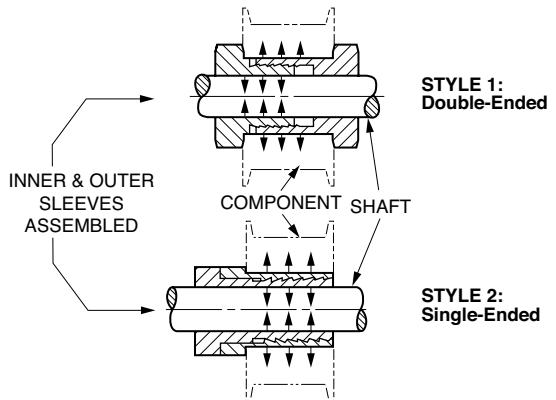
**STYLE 2:
A 7Z39-series
Single-Ended**

Style1: Double-Ended

When the two sleeves are threaded into each other with a component placed between them, tightening the sleeves will cause the outer one to expand and the inner one to contract.

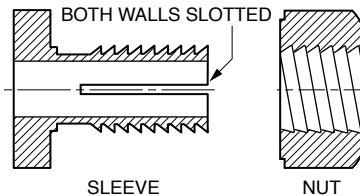
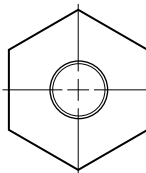
Style2: Single-Ended

When the two sleeves are threaded into each other and slipped into the component, tightening the sleeves will cause the outer one to expand and the inner one to contract.



Style 3: Shaftloc® M-Type

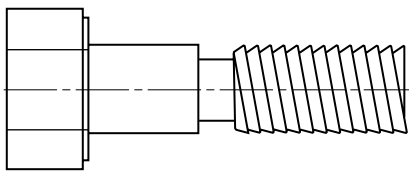
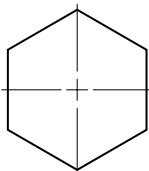
Two-piece construction consists of a slotted sleeve and a nut, both of hexagonal shape. Used as a locking device for rigidly mounting mechanical components on a shaft. Tightening the nut next to the component causes the slotted sleeve to contract by gripping the shaft and clamping the part to the sleeve at the same time.



STYLE 3:
Shaftloc®
M-Type

Style 4: Shaftloc® A-Type

Two-piece construction consists of a bolt and a nut which becomes a vibration-resistant fastener when the nut is tightened to embrace the component mounted to it. The two-piece unit uses the wedging action between the shallow thread inclines of the nut and bolt when the nut is tightened against the component mounted on the bolt.



BOLT

NUT

STYLE 4:
Shaftloc®
A-Type

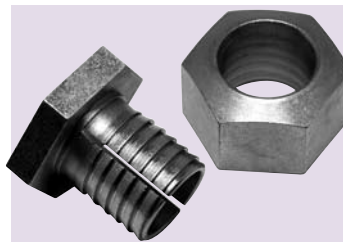
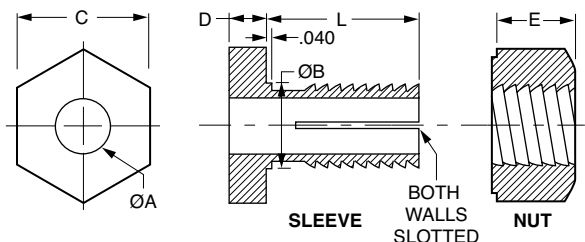
DISTINCT ADVANTAGES OF SHAFTLOC® OVER OTHER FASTENING DEVICES:

- Simplicity of design – few parts
- No marring of shafts
- Easy repositioning or synchronizing of rotating components.
- Ease of assembly
- Applicability to small shaft diameters
- Availability in all stainless steel construction
- Ability to be used for stationary breadboard or production structures
- Low-cost

■ SELF-LOCKING

■ VIBRATION-RESISTANT

■ STAINLESS STEEL

PATENTED**FEATURES:**

- Nonmarring of shaft
- Installed with standard tools
- Reusable

MATERIAL: 416 Stainless Steel, Passivated

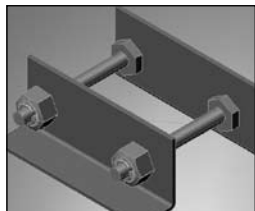
Sold in Pairs

Catalog Number	A +.001 -.000	B +.000 -.001	C	D	E	L
A 7Z36-0842	.250	.3125	.50	.15	.27	.42
A 7Z36-1260	.375	.500	.75	.15	.45	.60
A 7Z36-1671	.500	.625	.94	.20	.56	.71

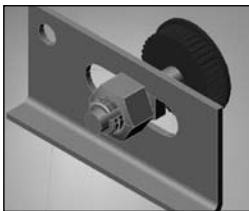
NOTE: Special sizes available upon request.

Diameters A and B concentric within .0005 T.I.R.

Used as a locking device for rigidly mounting mechanical components onto a shaft. Due to its asymmetric thread geometry, a large radial clamping force is produced when the nut is tightened. It is a precision, dynamically balanced product suitable for high-speed applications. This simple two-piece keyless fastener can be installed within seconds, reducing assembly costs. Tightening the nut causes the slotted sleeve to contract, gripping the shaft and clamping the part to the sleeve at the same time. Keyways and screws are now obsolete; can be installed on shafts with existing keyways.



A superior method for building frames, mounting shafts, pins, rails or any cylindrical components to thin sheet metal or plastic walls.



Ideal in slots or oversized holes used for shaft position or belt tension adjustment applications.



Mounts hubless gears, sprockets, pulleys, cams or any thin walled components onto a shaft. Offers infinite radial and axial adjustments and quick lock and release action.



SDP/SI

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

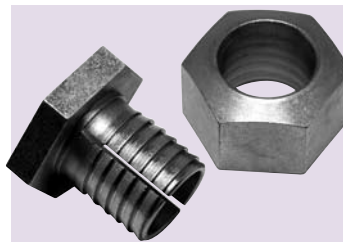
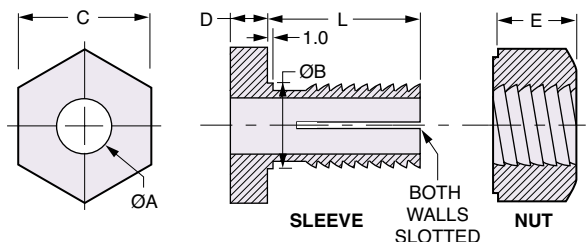
Fax: 516-326-8827

M-Type Shaftloc®

■ SELF-LOCKING

■ VIBRATION-RESISTANT

■ STAINLESS STEEL

PATENTED**FEATURES:**

- Nonmarring of shaft
- Installed with standard tools
- Reusable

MATERIAL: 416 Stainless Steel, Passivated

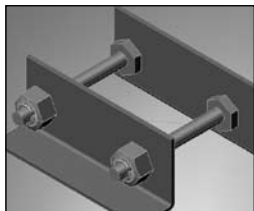
Sold in Pairs

Catalog Number	A +0.025	B -0.025	C	D	E	L
A 7Z36M0612	6	10	14	4	7	12
A 7Z36M1016	10	14	18	4	12	16
A 7Z36M1218	12	16	24	5	14	18

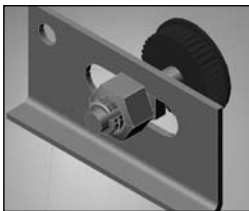
NOTE: Special sizes available upon request.

Diameters A and B concentric within 0.013 T.I.R.

Used as a locking device for rigidly mounting mechanical components onto a shaft. Due to its asymmetric thread geometry, a large radial clamping force is produced when the nut is tightened. It is a precision, dynamically balanced product suitable for high-speed applications. This simple two-piece keyless fastener can be installed within seconds, reducing assembly costs. Tightening the nut causes the slotted sleeve to contract, gripping the shaft and clamping the part to the sleeve at the same time. Keyways and screws are now obsolete; can be installed on shafts with existing keyways.



A superior method for building frames, mounting shafts, pins, rails or any cylindrical components to thin sheet metal or plastic walls.



Ideal in slots or oversized holes used for shaft position or belt tension adjustment applications.



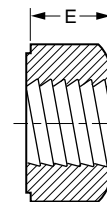
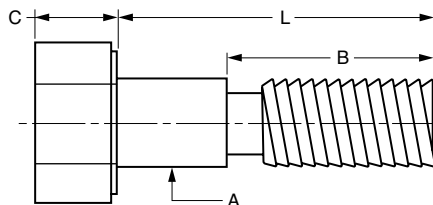
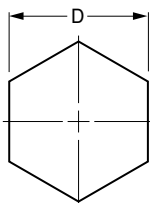
Mounts hubless gears, sprockets, pulleys, cams or any thin walled components onto a shaft. Offers infinite radial and axial adjustments and quick lock and release action.



■ SELF-LOCKING

■ VIBRATION-RESISTANT

■ STAINLESS STEEL

PATENTED**FEATURES:**

- Installed with standard tools
- Reusable

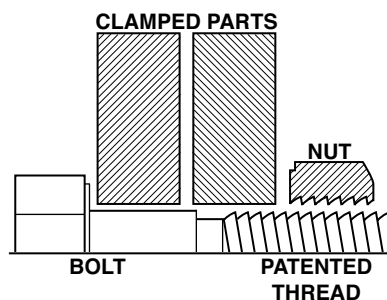
BOLT**NUT****MATERIAL:** 416 Stainless Steel, Passivated

Sold in Pairs

Catalog Number	A +.000 -.002	L	B	C	D	E
A 7Z38-0812		.75				
A 7Z38-0816	.250	1.00	.75	.16	.44	.23
A 7Z38-0820		1.25				
A 7Z38-1012		.75				
A 7Z38-1016	.3125	1.00	.75	.20	.50	.27
A 7Z38-1020		1.25				
A 7Z38-1216		1.00				
A 7Z38-1220	.375	1.25	1.00	.29	.56	.34
A 7Z38-1224		1.50				
A 7Z38-1620		1.25				
A 7Z38-1624	.500	1.50	1.25	.32	.75	.45
A 7Z38-1628		1.75				

NOTE: Special sizes available upon request.

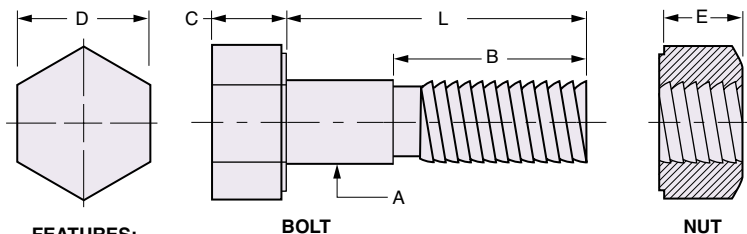
These vibration-resistant fasteners employ asymmetric threads to self-lock. The two-piece unit uses the wedging action between the shallow thread inclines of the nut and bolt for self-locking when the nut encounters resistance. The nut turns freely until it contacts parts being clamped together and additional turns wedge them into a locked and vibration-resistant condition.



■ SELF-LOCKING

■ VIBRATION-RESISTANT

■ STAINLESS STEEL

PATENTED**FEATURES:**

- Installed with standard tools
- Reusable

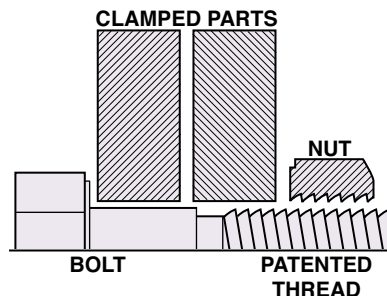
MATERIAL: 416 Stainless Steel, Passivated

Sold in Pairs

Catalog Number	A -0.05	L	B	C	D	E
A 7Z38M0619	6.5	19	19	4	10	6.1
A 7Z38M0625		25				
A 7Z38M0632		32				
A 7Z38M0820	8	20	20	5	14	7
A 7Z38M0825		25				
A 7Z38M0832		32				
A 7Z38M1025	10	25	25	7	16	8.9
A 7Z38M1032		32				
A 7Z38M1038		38				
A 7Z38M1332	13	32	32	8	18	11.7
A 7Z38M1338		38				
A 7Z38M1345		45				

NOTE: Special sizes available upon request.

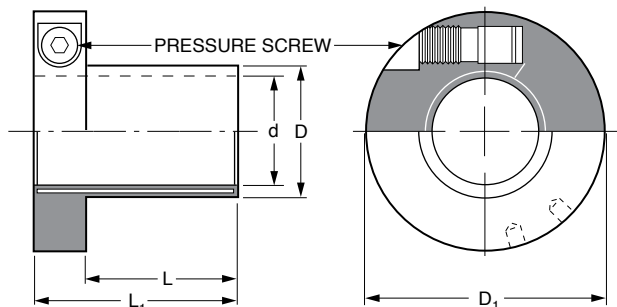
These vibration-resistant fasteners employ asymmetric threads to self-lock. The two-piece unit uses the wedging action between the shallow thread inclines of the nut and bolt for self-locking when the nut encounters resistance. The nut turns freely until it contacts parts being clamped together and additional turns wedge them into a locked and vibration-resistant condition.



■ NO WEAR OR STRESS ON COMPONENT

■ EASY TO USE

■ SPACE SAVER



These connectors are designed for fast and accurate repositioning of the hub. It has just one screw for pressurizing in radial position. No space is used along the shaft for mounting tools. They are made up of a double-walled sleeve and flange filled with a pressure medium.

OPERATION:

When the pressure screw is tightened to the recommended tightening torque, the double-walled sleeve expands uniformly against shaft and hub and creates a rigid joint. Dismantling is done by loosening the screw which returns the connector to its original dimensions. It can then easily be dismantled.

FEATURES:

- Fast and frequent mounting / dismantling with only one set screw.
- Radial screw positioning saves space along the shaft.
- Accurate positioning. No axial movement when mounted.
- Uniform surface pressure against shaft and hub prevents damage to surfaces and enables the use of small diameter hubs.
- Handles temperature range -22°F to 180°F.

MATERIAL: Hardened Steel

Catalog Number	d* Nom. I.D.	D**	D ₁ O.D.	L Length	L ₁ OAL	T Torque lb. ft.	Screw Tightening Torque lb. ft.
S21BPY-625185157	.625	.748	1.850	1.02	1.57	39	3.6
S21BPY-750199165	.750	.906	1.988	1.10	1.65	63	
S21BPY-A00232193	1.000	1.220	2.323	1.38	1.93	140	
S21BPY-A25269220	1.250	1.535	2.697	1.65	2.20	317	15.5
S21BPY-A50333283	1.500	1.811	3.327	2.04	2.83	656	

NOTE: Pressure screw must not be tightened when not mounted or else pressure may deform the unit.

CONNECTOR TOLERANCES

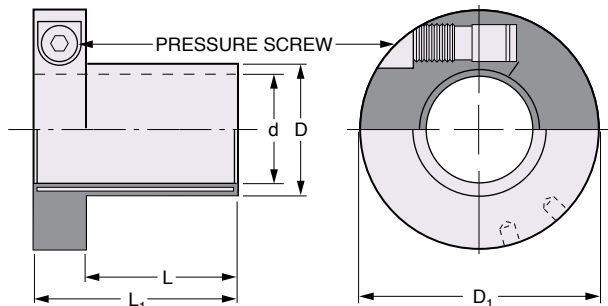
*Shaft O.D.Tolerance: .625 - .0007 .750 - 1.000 - .0013 1.250 - 1.500 - .0015
**Hub Bore Tolerance: .748 - .901 +.0008 1.220 - 1.811 +.0010

NOTE: Shaft and Hub as provided and used by customer.

■ NO WEAR OR STRESS ON COMPONENT

■ EASY TO USE

■ SPACE SAVER



These connectors are designed for fast and accurate repositioning of the hub. It has just one screw for pressurizing in radial position. No space is used along the shaft for mounting tools. They are made up of a double-walled sleeve and flange filled with a pressure medium.

OPERATION:

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FEATURES:

- Fast and frequent mounting / dismantling with only one set screw.
- Radial screw positioning saves space along the shaft.
- Accurate positioning. No axial movement when mounted.
- Uniform surface pressure against shaft and hub prevents damage to surfaces and enables the use of small diameter hubs.
- Handles temperature range -30°C to +82°C.

MATERIAL: Hardened Steel

Catalog Number	d Nom. I.D.	D**	D ₁ O.D.	L Length	L ₁ OAL	T Torque N·m	Screw Tightening Torque N·m
S21BPYM154639	15	18	45	25	39	46.1	4.9
S21BPYM195042	19	23	50.5	28	42	85.4	
S21BPYM205144	20	24	51.5	30	44	109.8	
S21BPYM225546	22	27	55.5	32	46	130.1	
S21BPYM245747	24	29	57.5	33	47	189.8	
S21BPYM255849	25	30	58	35	49	229.1	
S21BPYM306454	30	36	64.5	40	54	379.6	
S21BPYM357359	35	42	73	45	59	639.9	21
S21BPYM408675	40	48	86.5	55	75	1099.5	
S21BPYM459378	45	54	93	58	78	1399.2	

NOTE: Pressure screw must not be tightened when not mounted or else pressure may deform the unit.

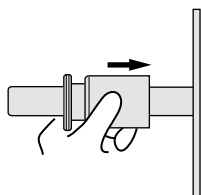
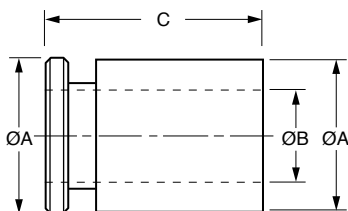
CONNECTOR TOLERANCES

*Shaft O.D. Tolerance: 15 mm -.027 19 – 30 mm -.033 35 – 45 mm -.039
**Hub Bore Tolerance: 18 – 30 mm +.021 35 – 50 mm +.025 54 mm +.030

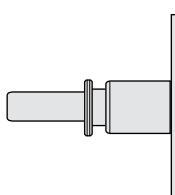
NOTE: Shaft and Hub as provided and used by customer.

■ NO TOOLS NEEDED

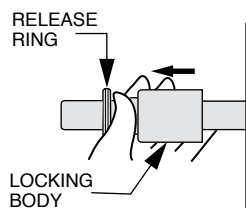
■ USABLE FOR NONHARDENED SHAFTS



Slide locking collar onto
shaft to correct position



Locking collar
holds position.



To release, hold body and pull
release ring. This makes the
"gap" between the body and
ring larger allowing the
Fastlock to Slide off easily.

MATERIAL:

Inner Body – 303 Stainless Steel

Outer Sleeve – 303 Stainless Steel

Balls – 440C Stainless Steel

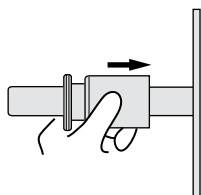
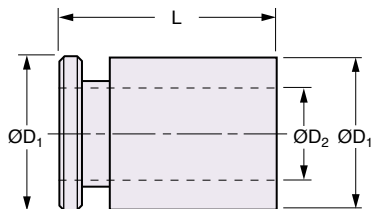
Spring – 302 Stainless Steel

Catalog Number	A	B Shaft +.001 -.015	C Overall Length	Weight lb.
S25FLY-0250	.73	.250	1.00	.07
S25FLY-0313	.73	.3125	1.00	.07
S25FLY-0375	.85	.375	1.78	.18
S25FLY-0500	1.10	.500		.29
S25FLY-0625	1.10	.625	1.78	.23
S25FLY-0750	1.23	.750		.28
S25FLY-0875	1.45	.875	1.78	.41
S25FLY-1000	1.45	1.000	1.78	.32
S25FLY-1250	2.23	1.250	1.87	1.12
S25FLY-1500	2.23	1.500		.87
S25FLY-1625	2.35	1.625	1.87	.91
S25FLY-1750	2.72	1.750		1.42
S25FLY-2000	2.95	2.000		1.54

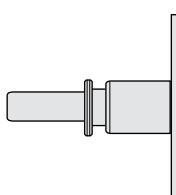
Fastlock Shaft Collars

■ NO TOOLS NEEDED

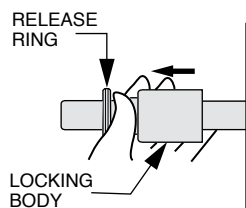
■ USABLE FOR NONHARDENED SHAFTS



Slide locking collar onto shaft to correct position



Locking collar holds position.



To release, hold body and pull release ring. This makes the "gap" between the body and ring larger allowing the **Fastlock** to Slide off easily.

MATERIAL:

Inner Body – 303 Stainless Steel

Outer Sleeve – 303 Stainless Steel

Balls – 440C Stainless Steel

Spring – 302 Stainless Steel

Catalog Number	D ₁	D ₂ Shaft +0.03 -0.35	L Overall Length	Weight kg
S25FLYM0394	22	10		0.08
S25FLYM0591	28	15	45	0.13
S25FLYM0630	28	16		0.12
S25FLYM0787		20		0.22
S25FLYM0866	37	22	45	0.20
S25FLYM0984		25		0.16
S25FLYM1181	50	30	45	0.34
S25FLYM1260	57	32	48	0.52
S25FLYM1380	57	35	48	0.46
S25FLYM1575	60	40	48	0.42

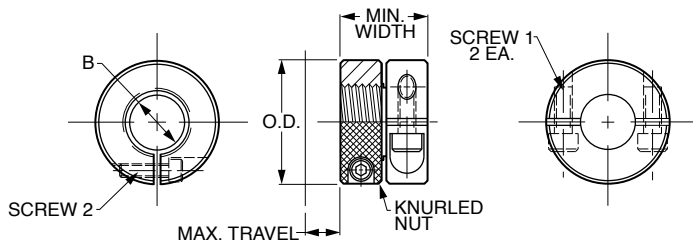
SDPSI

Inch Inch Inch Inch Inch Inch Inch

Stroke Adjust. Shaft Collars & Rubber Bumpers

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ EASY AND PRECISE STROKE ADJUSTMENT ■ UP TO .44 IN. FINE STROKE ADJUSTMENT

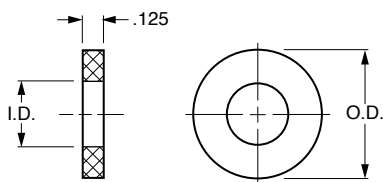


Catalog Number		O.D.	B +.001 -.000	Min. Width	Max.* Travel	Screw 1	Screw 2	Max. Axial Load Capacity lb.	
Stainless Steel	Carbon Steel, Black Oxide							Stainless Steel	Steel
S21SAC-025063	S21SAC-025063S	5/8	.250	15/32	.19	#4-40	#2-56	390	790
S21SAC-038088	S21SAC-038088S	7/8	.375	15/32	.16	#6-32	#2-56	460	660
S21SAC-050113	S21SAC-050113S	1-1/8	.500	3/4	.32	#8-32	#5-40	690	1310
S21SAC-063131	S21SAC-063131S	1-5/16	.625	3/4	.32	#8-32	#6-32	570	1210
S21SAC-075150	S21SAC-075150S	1-1/2	.750	7/8	.38	#10-32	#6-32	1200	3600
S21SAC-100175	S21SAC-100175S	1-3/4	1.000	7/8	.38	#10-32	#8-32	730	3450
S21SAC-125206	S21SAC-125206S	2-1/16	1.250					2450	3260
S21SAC-138225	S21SAC-138225S	2-1/4	1.375	1	.44	1/4-20	#8-32	2640	3220
S21SAC-150238	S21SAC-150238S	2-3/8	1.500					2840	3180

*Max. Width = Min.Width + Max. Travel

■ OIL- AND CHEMICAL-RESISTANT

■ SHOCK ABSORBER FOR COMPRESSION LOADS



MATERIAL: Buna N70 Durometer

OPERATING TEMPERATURE: -20°F to +250°F

Catalog Number	I.D.	O.D.
S79RUB-025063	.25	.63
S79RUB-038088	.38	.88
S79RUB-050113	.50	1.13
S79RUB-063131	.63	1.31
S79RUB-075150	.75	1.50
S79RUB-100175	1.00	1.75
S79RUB-125206	1.25	2.06
S79RUB-138225	1.38	2.25
S79RUB-150238	1.50	2.38

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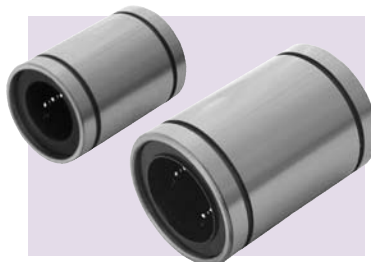
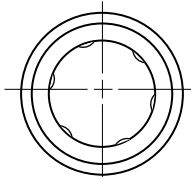
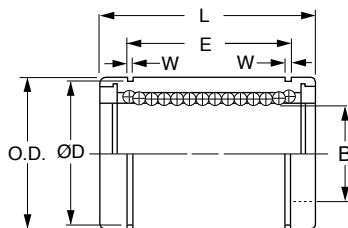
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Linear Ball Bearings – Closed Type

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- LOW FRICTION COEFFICIENT ■ HIGH POSITIONING ACCURACY
 ■ HIGH LOAD CAPACITY ■ QUIET MOVEMENT ■ LONG TRAVEL LIFE



MATERIAL: Sleeve and Balls – AISI 52100 Steel
 Retainer – Duracon M90

Catalog Number	Ball Circuit	B* Bore	O.D. [□]	L ^Δ Length	E [§] Groove Distance	W Groove Width	D Groove	Load Capacity	
								Dynamic lbf	Static lbf
S99LBC-025075 □	4	.2500	.5000	.750	.511	.0390	.4687	46	60
S99LBC-038063 □		.3750	.6250	.875	.636		.5880	51	71
S99LBC-050088 □	4	.5000	.8750	1.250	.963	.0459	.8209	115	176
S99LBC-063113 □		.6250	1.1250	1.500	1.104	.0559	1.0590	174	265
S99LBC-075125 □	5	.7500	1.2500	1.625	1.166	.0559	1.1760	194	308
S99LBC-100156 □	6	1.0000	1.5625	2.250	1.755	.0679	1.4687	220	353
S99LBC-125200 □	6	1.2500	2.0000	2.625	2.005	.0679	1.8859	353	616
S99LBC-150238 □		1.5000	2.3750	3.000	2.412	.0859	2.2389	490	904

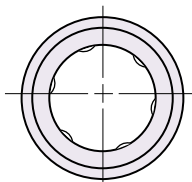
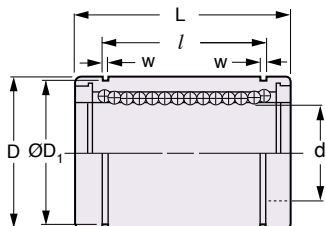
NOTE: To order bearings with no seals, use catalog numbers as they are. To order bearings with seals at both ends, add "S" to the end of catalog number.

BEARING TOLERANCES

* B Tolerance:	.2500, .3750, .5000 & .6250	+0.000 / -.00025
	.7500 & 1.0000	+0.000 / -.00030
	1.2500 & 1.5000	+0.000 / -.00035
□ O.D. Tolerance:	.5000	+0.000 / -.00045
	.6250, .8750 & 1.1250	+0.000 / -.00050
	1.2500 & 1.5625	+0.000 / -.00065
	2.0000 & 2.3750	+0.000 / -.00075
Δ L Tolerance:	.750, .875, 1.250, 1.500 & 1.625	+0.000 / -.008
	2.250, 2.625 & 3.000	+0.000 / -.012
§ E Tolerance:	.511, .636, .963, 1.104 & 1.166	+0.000 / -.008
	1.755, 2.005 & 2.412	+0.000 / -.012

SDP/SI**Linear Ball Bearings – Closed Type****Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827**

- LOW FRICTION COEFFICIENT ■ HIGH POSITIONING ACCURACY
 ■ HIGH LOAD CAPACITY ■ QUIET MOVEMENT ■ LONG TRAVEL LIFE



MATERIAL: Sleeve and Balls – AISI 52100 Steel
 Retainer – Duracon M90

Catalog Number	Ball Circuit	d* Bore	D** O.D.	L Δ Length	l $\S$ Groove Distance	w Groove Width	D ₁ Groove	Load Capacity	
								Dynamic N	Static N
☐ S99LBCM003010 ☐	4	3	7	10	—	—	—	69	105
☐ S99LBCM004012 ☐		4	8	12	—	—	—	88	127
☐ S99LBCM005022 ☐		5	12	22	14.5	1.1	11.5	206	265
☐ S99LBCM008025 ☐	4	8	16	25	16.5	1.1	15.2	265	402
☐ S99LBCM010029 ☐		10	19	29	22	1.3	18	372	549
☐ S99LBCM012032 ☐		12	22	32	22.9	1.3	21	510	784
☐ S99LBCM016036 ☐	4	16	26	36	24.9	1.3	24.9	578	892
☐ S99LBCM020045 ☐	5	20	32	45	31.5	1.6	30.3	862	1370
☐ S99LBCM025058 ☐	6	25	40	58	44.1	1.85	37.5	980	1570
☐ S99LBCM030068 ☐	6	30	47	68	52.1	1.85	44.5	1570	2740
☐ S99LBCM040080 ☐		40	62	80	60.6	2.15	59	2160	4020
☐ S99LBCM050100 ☐		50	75	100	77.6	2.65	72	3820	7940
☐ S99LBCM060125 ☐		60	90	125	101.7	3.15	86.5	4700	9800

NOTE: To order bearings with no seals, use catalog numbers as they are. To order bearings with seals at both ends, add "S" to the end of catalog number.

☐ These part numbers are not available with seals.

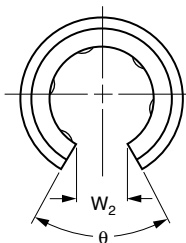
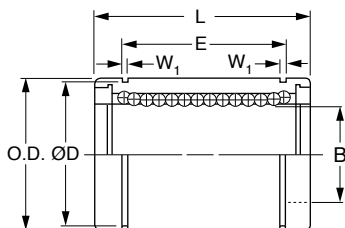
BEARING TOLERANCES

*d Tolerance:	3, 4, 5, 8 10 & 12 mm	+0.008 / 0
	16 & 20 mm	+0.009 / -0.001
	25 & 30 mm	+0.011 / -0.001
	40, 50 & 60 mm	+0.013 / -0.002
**D Tolerance:	7, 8, 12 & 16 mm	0 / -0.008
	19, 22 & 26 mm	0 / -0.009
	32, 40 & 47 mm	0 / -0.011
	62 & 75 mm	0 / -0.013
	90 mm	0 / -0.015
Δ L Tolerance:	10 & 12 mm	0 / -0.120
	22, 25, 29, 32, 36 & 45 mm	0 / -0.200
	58, 68, 80 & 100 mm	0 / -0.300
	125 mm	0 / -0.400
$\S$ l Tolerance:	14.5, 16.5, 22, 22.9, 24.9 & 31.5 mm	0 / -0.200
	44.1, 52.1, 60.6 & 77.6 mm	0 / -0.300
	101.7 mm	0 / -0.400

Linear Ball Bearings – Open Type

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- LOW FRICTION COEFFICIENT
- HIGH POSITIONING ACCURACY
- HIGH LOAD CAPACITY
- QUIET MOVEMENT
- LONG TRAVEL LIFE



MATERIAL: Sleeve and Balls – AISI 52100 Steel
Retainer – Duracon M90

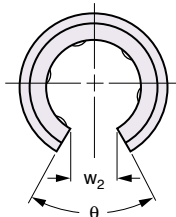
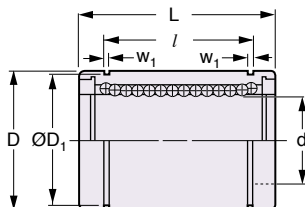
Catalog Number	Ball Circuit	B* Bore	O.D. [□]	L ^Δ Length	E [§] Groove Distance	W ₁ Groove Width	D Groove	W ₂ Slot Width	θ Slot Angle	Load Capacity	
										Dynamic lbf	Static lbf
S99LBO-050088 ☐	3	.5000	.8750	1.250	.963	.0459	.8209	.34	80°	115	176
S99LBO-063113 ☐		.6250	1.1250	1.500	1.104	.0559	1.0590	.38		174	265
S99LBO-075125 ☐	4	.7500	1.2500	1.625	1.166	.0559	1.1760	.44	60°	194	308
S99LBO-100156 ☐	5	1.0000	1.5625	2.250	1.755	.0679	1.4687	.56	50°	220	353
S99LBO-125200 ☐	5	1.2500	2.0000	2.625	2.005	.0679	1.8859	.63	50°	353	616
S99LBO-150238 ☐		1.5000	2.3750	3.000	2.412	.0859	2.2389	.75		490	904

NOTE: To order bearings with no seals, use catalog numbers as they are. To order bearings with seals at both ends, add "S" to the end of catalog number.

BEARING TOLERANCES

*B Tolerance:	.5000 & .6250	+ .0000 / - .00025
	.7500 & 1.0000	+ .0000 / - .00030
	1.2500 & 1.5000	+ .0000 / - .00035
□O.D. Tolerance:	.8750 & 1.1250	+ .0000 / - .00050
	1.2500 & 1.5625	+ .0000 / - .00065
	2.0000 & 2.3750	+ .0000 / - .00075
Δ L Tolerance:	1.250, 1.500 & 1.625	+ .000 / - .008
	2.250, 2.625 & 3.000	+ .000 / - .012
§ E Tolerance:	.963, 1.104 & 1.166	+ .000 / - .008
	1.755, 2.005 & 2.412	+ .000 / - .012

- LOW FRICTION COEFFICIENT ■ HIGH POSITIONING ACCURACY
 ■ HIGH LOAD CAPACITY ■ QUIET MOVEMENT ■ LONG TRAVEL LIFE



MATERIAL: Sleeve and Balls – AISI 52100 Steel
 Retainer – Duracon M90

Catalog Number	Ball Circuit	d* Bore	D** O.D.	LΔ Length	l§ Groove Distance	w1 Groove Width	D1 Groove	w2 Slot Width	θ Slot Angle	Load Capacity	
										Dynamic N	Static N
S99LBOM010029 ☐	3	10	19	29	22	1.3	18	6.8	80°	372	549
S99LBOM012032 ☐		12	22	32	22.9		21	7.5	78°	510	784
S99LBOM016036 ☐		16	26	36	24.9		24.9	10	78°	578	892
S99LBOM020045 ☐	4	20	32	45	31.5	1.6	30.3	10	60°	862	1370
S99LBOM025058 ☐	5	25	40	58	44.1	1.85	37.5	12.5	60°	980	1570
S99LBOM030068 ☐	5	30	47	68	52.1	1.85	44.5	12.5	50°	1570	2740
S99LBOM040080 ☐	5	40	62	80	60.6	2.15	59	16.8	50°	2160	4020
S99LBOM050100 ☐		50	75	100	77.6	2.65	72	21	50°	3820	7940
S99LBOM060125 ☐		60	90	125	101.7	3.15	86.5	27.2	54°	4700	9800

NOTE: To order bearings with no seals, use catalog numbers as they are. To order bearings with seals at both ends, add "S" to the end of catalog number.

BEARING TOLERANCES

*d Tolerance:	10 & 12 mm	+0.008 / 0
	16 & 20 mm	+0.009 / -0.001
	25 & 30 mm	+0.011 / -0.001
	40, 50 & 60 mm	+0.013 / -0.002
**D Tolerance:	19, 22 & 26 mm	0 / -0.009
	32, 40 & 47 mm	0 / -0.011
	62 & 75 mm	0 / -0.013
	90 mm	0 / -0.015
Δ L Tolerance:	29, 32, 36 & 45 mm	0 / -0.200
	58, 68, 80 & 100 mm	0 / -0.300
	125 mm	0 / -0.400
§ l Tolerance:	22, 22.9, 24.9 & 31.5 mm	0 / -0.200
	44.1, 52.1, 60.6 & 77.6 mm	0 / -0.300
	101.7 mm	0 / -0.400

Selection Chart:

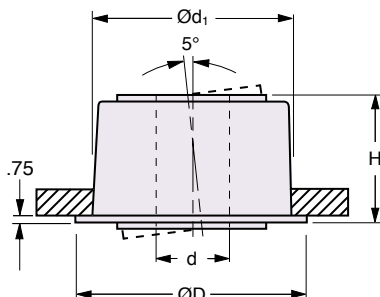
- Items with page numbers are in this catalog.
For items with shaded background, please consult our other SDP/SI catalogs or our Web site: **www.sdp-si.com**
- The part numbers with the “-” in the 7th character denotes inch size bore and “M” in the 7th character signify metric size bore.

Type	Bearing Material				
	Sintered Bronze	PTFE Bronze	Acetal	Needle Roller Bearing	Needle Roller Clutch Bearing
Press-Fit Self-Aligning	A 7Z41-		A 7Z44-	A 7Z47-	
	A 7Z41M (P. 77)		A 7Z44M (P.87)	A 7Z47M	
Self-Clinching Self-Aligning	A 7Z40-	A 7Z60- (P.78)	A 7Z43- (P.88)	A 7Z46- (P.92)	
	A 7Z40M	A 7Z60M (P.80)	A 7Z43M (P.90)	A 7Z46M (P.94)	
Self-Clinching Nonaligning		A 7Z61- (P.82)		A 7Z48- (P.92)	A 7Z49-
		A 7Z61M (P.84)		A 7Z48M (P.94)	A 7Z49M
Flange-Mounted Self-Aligning	A 7Z42-	A 7Z62- (P.96)	A 7Z45-	A 7Z56- (P.101)	
	A 7Z42M	A 7Z62M (P.97)	A 7Z45M (P.100)	A 7Z56M	
Flange-Mounted Nonaligning		A 7Z63- (P.98)		A 7Z57- (P.102)	
		A 7Z63M (P.99)		A 7Z57M (P.103)	
Pillow Block-Mounted Self-Aligning	A 7Z31- (P.104)	A 7Z32- (P.106)		A 7Z33- (P.108)	
	A 7Z31M (P.105)	A 7Z32M (P.107)		A 7Z33M (P.109)	

■ PRESS-FIT INSTALLATION

■ SELF-ALIGNING TO $\pm 5^\circ$

■ SELF-LUBRICATING



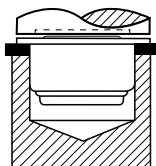
MATERIAL: Bearing – Oil-Impregnated Sintered Bronze
 Retainer – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -29°C to +93°C

Catalog Number	d Nom. I.D.	Actual I.D. +0.02	d ₁ Panel Hole Diameter +0.07	D Flange Diameter	H Height Along Centerline	Max. Speed rpm	Max. Radial Load N
A 7Z41MPSB04M	4	4.01	12.7	14.2	9.6	24170	800
A 7Z41MPSB06M	6	6.02	12.7	14.2	9.6	16110	1530
A 7Z41MPSB08M	8	8.02	15.9	17.4	10.8	12120	1850
A 7Z41MPSB10M	10	10.02	15.9	17.4	10.8	9700	1850
A 7Z41MPSB12M	12	12.03	20.6	22.2	15.2	8060	2550
A 7Z41MPSB15M	15	15.03	27	28.5	19.6	6460	7000

SHAFT REQUIREMENTS:

Any material, HRB 95 min., with a
 0.4 μ m or finer finish.

**INSTALLATION NOTES:**

1. The punch must be relieved to accommodate protruding insert.
2. **DO NOT PRESS BEARING ON INSERT!**

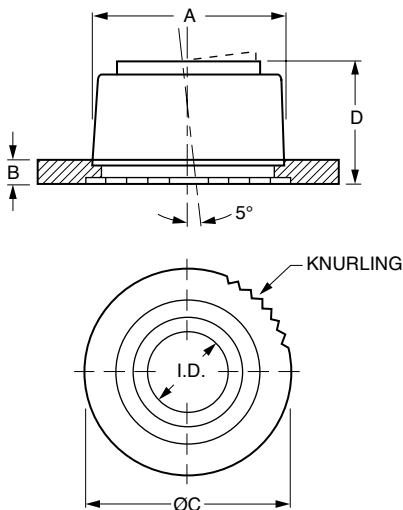
Did You Know?

... That Fairloc® is a specially designed hub-fastening device that has many unique advantages over set screw or keyway methods?

Self-Clinching PTFE Bronze Pressbearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- **EXTREME TEMPERATURE RANGE** ■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**
 ■ **IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS**



See next page for installation data

FEATURES:

- Knurling ensures secure self-clinching
- Simple quick installation
- Major assembly and production savings
- Mounting blocks not necessary

MATERIAL: Bearing – PTFE-Impregnated Porous Bronze
 Retainer – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -330°F to +380°F

Catalog Number	Nom I.D.	A Panel Hole Dia. +.003 -.000	B Min. Panel Thickness	C Knurl O.D.	D Height Along Centerline	Max. Speed rpm	Max. Radial Load lbf
A 7Z60-FSDU187	3/16	.500	.04	.55	.40	8040	360
A 7Z60-FSDU250	1/4	.625	.06	.67	.46	6020	430
A 7Z60-FSDU312	5/16	.625	.06	.67	.46	4820	430
A 7Z60-FSDU375	3/8	.812	.06	.87	.64	4010	600
A 7Z60-FSDU500	1/2	1.063		1.10	.77	3010	950
A 7Z60-FSDU625	5/8	1.250	.09	1.30	.89	2410	1150
A 7Z60-FSDU750	3/4	1.250		1.30	.87	2010	1150

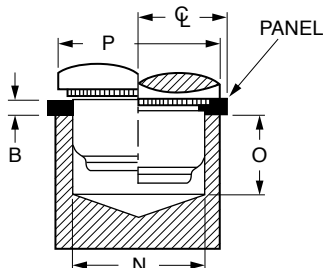
SHAFT DIAMETERS

Nom. Shaft Diameter	Maximum Diameter	Minimum Diameter
3/16	.1865	.1858
1/4	.2490	.2481
5/16	.3115	.3106
3/8	.3740	.3731
1/2	.4990	.4980
5/8	.6240	.6230
3/4	.7491	.7479

SHAFT RECOMMENDATIONS:

Any material, soft or hard, with a 16 μ in.
 or finer finish.

- EXTREME TEMPERATURE RANGE
- SELF-ALIGNING TO $\pm 5^\circ$
- SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS

**INSTALLATION:**

1. Punch or drill and ream a hole of diameter **A** in panel as specified in the table below. Panel material R_s 65 max.
DO NOT DEBURR OR BREAK EDGE OF HOLE.
2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter **N**, a minimum depth of **O** and a Press Tool diameter of **P**, install the bearing assembly into the panel by constantly applying a force of **F**, per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!**TOOLING AND INSTALLATION DATA**

See previous page for product specifications

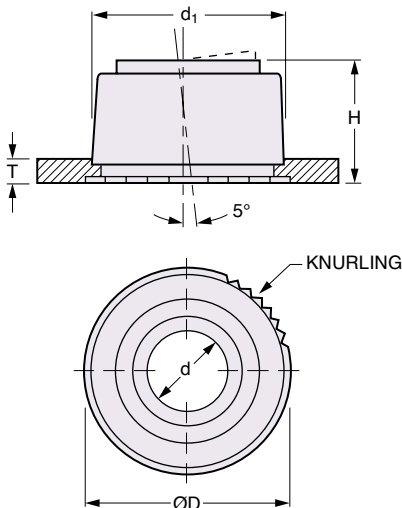
Nominal Shaft Diameter	A Panel Hole Dia. +.003 -.000	N Anvil Diameter +.005 -.000	O Minimum Anvil Depth	P Press Tool Min. Dia.	Q Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel tons
3/16	.500	.515	.60	.75	.375	5.0
1/4	.625	.640	.66	.87	.453	5.5
5/16	.625	.640	.66	.87	.453	5.5
3/8	.812	.827	.84	1.07	.500	5.5
1/2	1.063	1.078	.97	1.30	.750	6.0
5/8	1.250	1.265	1.09	1.50	.750	
3/4	1.250	1.265	1.09	1.50	.800	

Did You Know?

...That Fairloc® hubbed components (see gears, pulleys, couplings and shaft extenders) allow unlimited retightening on the shaft without marring the shaft? They are especially suitable for applications requiring phase adjustment or frequent replacement.

SDPSI**Self-Clinching PTFE Bronze Pressbearings****Stock Drive Products/Sterling Instrument****Phone: 516-328-3300****Fax: 516-326-8827**

- **EXTREME TEMPERATURE RANGE** ■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**
 ■ **IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS**



The projections shown are per ISO convention.



See next page for installation data

FEATURES:

- Knurling ensures secure self-clinching
- Simple quick installation
- Major assembly and production savings
- Mounting blocks not necessary

MATERIAL:

Bearing – PTFE-Impregnated Porous Bronze

Retainer – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -201°C to +195°C

Catalog Number	d Nom. I.D.	d ₁ Panel Hole Dia. +0.07	T Min. Panel Thickness	D Knurl O.D.	H Height Along Centerline	Max. Speed rpm	Max. Radial Load N
A 7Z60MFSDU04	4	12.7	1	14	10.2	9540	1530
A 7Z60MFSDU06	6	15.9	1.5	17	11.5	6360	1780
A 7Z60MFSDU08	8	15.9	1.5	17	11.5	4770	1780
A 7Z60MFSDU10	10	20.6		22	16.3	3820	2550
A 7Z60MFSDU12	12	20.6	1.5	22	15.9	3180	2550
A 7Z60MFSDU16	16	27	2	28	19.5	2390	4800
A 7Z60MFSDU18	18	31.8	2.3	33	22.5	2120	6200

SHAFT DIAMETERS

Nom. Shaft Diameter	Maximum Diameter	Minimum Diameter
4	4.000	3.992
6	5.990	5.978
8	7.987	7.972
10	9.987	9.972
12	11.984	11.966
16	15.984	15.966
18	17.984	17.966

SHAFT REQUIREMENTS:

Any material, soft or hard, with a
0.4 μ m or finer finish.



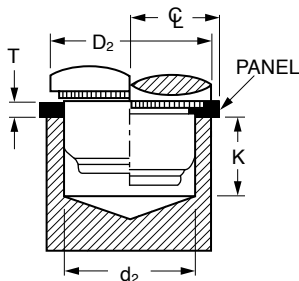
Self-Clinching PTFE Bronze Pressbearings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

- EXTREME TEMPERATURE RANGE
- SELF-ALIGNING TO $\pm 5^\circ$
- SELF-LUBRICATING
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INSTALLATION:

1. Punch or drill and ream a hole of diameter d_1 in panel as specified in the table below. Panel hardness HRB 65 max.

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter d_2 , a minimum depth of K and a Press Tool diameter of D_2 , install the bearing assembly into the panel by constantly applying a force of F , per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!

TOOLING AND INSTALLATION DATA

See previous page for product specifications

Nominal Shaft Diameter	d_1 Panel Hole Diameter +0.07	d_2 Anvil Diameter +0.1	K Minimum Anvil Depth	D_2 Press Tool Minimum Diameter	C Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel kN
4	12.7	13.15	15.2	19	9.5	45
6	15.9	16.35	16.5	22	11.5	49
8	15.9	16.35	16.5	22	11.5	49
10	20.6	21.05	21.3	27	12.7	49
12	20.6	21.05	20.9	27	12.7	49
16	27	27.45	24.5	33	19	54
18	31.8	32.25	27.5	38	19	54

Did You Know?

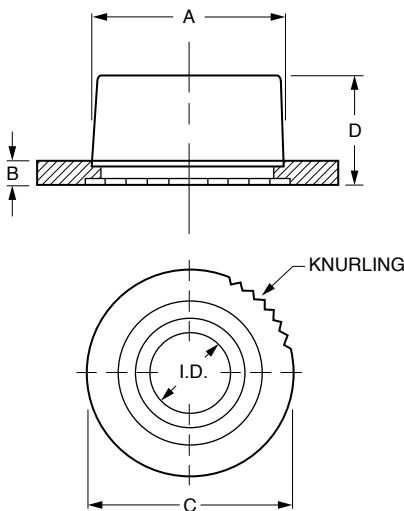
...You can obtain additional literature by viewing our Web site on the INTERNET?

<http://www.sdp-si.com>

Self-Clinching PTFE Bronze Pressbearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-328-3300 ■ Fax: 516-326-8827

- **EXTREME TEMPERATURE RANGE** ■ **NONALIGNING** ■ **SELF-LUBRICATING**
 ■ **IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS**



See next page for installation data

FEATURES:

- Knurling ensures secure self-clinching
- Simple quick installation
- Major assembly and production savings
- Mounting blocks not necessary

MATERIAL: Bearing – PTFE-Impregnated Porous Bronze
 Retainer – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -330°F to +380°F

Catalog Number	Nom I.D.	A Panel Hole Dia. +.003 -.000	B Min. Panel Thickness	C Knurl O.D.	D Bearing Height	Max. Speed rpm	Max. Radial Load lbf
A 7Z61-FSDU187	3/16	.375	.04	.42	.29	8040	360
A 7Z61-FSDU250	1/4	.500	.04	.55	.36	6020	430
A 7Z61-FSDU312	5/16	.500	.04	.55	.50	4820	430
A 7Z61-FSDU375	3/8	.625	.06	.67	.48	4010	600
A 7Z61-FSDU500	1/2	.812	.06	.87	.49	3010	950
A 7Z61-FSDU625	5/8	.875	.06	.92	.62	2410	1150
A 7Z61-FSDU750	3/4	1.063	.075	1.10	.62	2010	1150

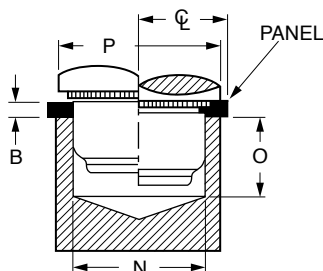
SHAFT DIAMETERS

Nom. Shaft Diameter	Maximum Diameter	Minimum Diameter
3/16	.1865	.1858
1/4	.2490	.2481
5/16	.3115	.3106
3/8	.3740	.3731
1/2	.4990	.4980
5/8	.6240	.6230
3/4	.7491	.7479

SHAFT RECOMMENDATIONS:

Any material, soft or hard, with a 16 μ in.
 or finer finish.

- EXTREME TEMPERATURE RANGE
- NONALIGNING
- SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS

**INSTALLATION:**

1. Punch or drill and ream a hole of diameter **A** in panel as specified in the table below. Panel material R_B 65 max.

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter **N**, a minimum depth of **O** and a Press Tool diameter of **P**, install the bearing assembly into the panel by constantly applying a force of **F**, per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!

TOOLING AND INSTALLATION DATA

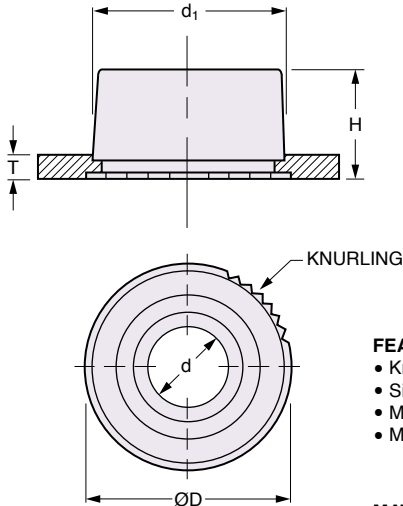
See previous page for product specifications

Nominal Shaft Diameter	A Panel Hole Dia. +.003 -.000	N Anvil Diameter +.005 -.000	O Minimum Anvil Depth	P Press Tool Min. Dia.	Q Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel tons
3/16	.375	.390	.49	.62	.250	2.0
1/4	.500	.515	.56	.75	.375	5.0
5/16	.500	.515	.70	.75	.375	5.0
3/8	.625	.640	.68	.87	.453	5.5
1/2	.812	.827	.69	1.07	.500	5.5
5/8	.875	.890	.82	1.12	.625	6.0
3/4	1.063	1.078	.82	1.30	.750	6.0

Did You Know?

...That Fairloc® hubbed components (see gears, pulleys, couplings and shaft extenders) allow unlimited retightening on the shaft without marring the shaft? They are especially suitable for applications requiring phase adjustment or frequent replacement.

- EXTREME TEMPERATURE RANGE ■ NONALIGNING ■ SELF-LUBRICATING
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See next page for installation data

FEATURES:

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- Simple quick installation
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- Mounting blocks not necessary

MATERIAL: Bearing – PTFE-Impregnated Porous Bronze

Retainer – Carbon Steel, Black Oxide Finish

The projections shown are per ISO convention.

OPERATING TEMPERATURE: -201°C to +195°C

Catalog Number	d Nom. I.D.	d ₁ Panel Hole Dia. +0.07	T Min. Panel Thickness	D Knurl O.D.	H Bearing Height	Max. Speed rpm	Max. Radial Load N
A 7Z61MFSDU04	4	9.5	1	10.5	6.7	9540	1530
A 7Z61MFSDU06	6	12.7		14	8.7	6360	1780
A 7Z61MFSDU08	8		1.5		10.7	4770	1780
A 7Z61MFSDU10	10	15.9		17	12.9	3820	2550
A 7Z61MFSDU12	12	20.6	1.5	22	12.9	3180	2550
A 7Z61MFSDU16	16	22.2	1.5	23	14.9	2390	4800
A 7Z61MFSDU18	18	27	2	28	17.9	2120	4800

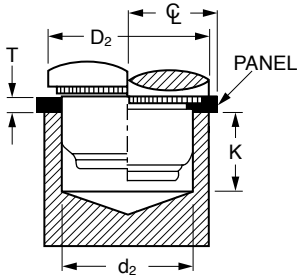
SHAFT DIAMETERS

Nom. Shaft Diameter	Maximum Diameter	Minimum Diameter
4	4.000	3.992
6	5.990	5.978
8	7.987	7.972
10	9.987	9.972
12	11.984	11.966
16	15.984	15.966
18	17.984	17.966

SHAFT REQUIREMENTS:

Any material, soft or hard, with a 0.4 µm or finer finish.

- EXTREME TEMPERATURE RANGE ■ NONALIGNING ■ SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS

**INSTALLATION:**

1. Punch or drill and ream a hole of diameter d_1 in panel as specified in the table below. Panel hardness HRB 65 max.

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter d_2 , a minimum depth of K and a Press Tool diameter of D_2 , install the bearing assembly into the panel by constantly applying a force of F , per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!**TOOLING AND INSTALLATION DATA**

See previous page for product specifications

Nominal Shaft Diameter	d_1 Panel Hole Diameter +0.07	d_2 Anvil Diameter +0.1	K Minimum Anvil Depth	D_2 Press Tool Minimum Diameter	C Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel kN
4	9.5	9.95	11.7	15.5	6.4	18
6	12.7	13.15	13.7	19	9.5	45
8	15.9	16.35	15.7	22	11.5	49
10	20.6	21.05	17.9	27	12.7	49
12	22.2	22.65	19.9	28	15.9	54
16	27	27.45	22.9	33	19	54

Did You Know?

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<http://www.sdp-si.com>

DON'T SEE IT... GO ONLINE TO [SDP-SI.COM](http://www.sdp-si.com) FOR OUR FULL INVENTORY!



BEARINGS

SDP/SI ON-LINE eStore offers: Linear Ball Bearings, Sleeve Bearings, Retaining Rings, Sintered Bearings, Precision Bearings, Thrust Bearings, Bearing Blocks, Frelon® Lined Pillow Blocks, Needle Roller Bearings, Pillow Blocks, Plastic Bearings, Pressure Bearings, Non-Metallic Bearings, Retaining Rings, Spherical Miniature.

Click on [Inch] or [Metric] to go directly to our eStore and shop online. Click on Press for press release.

PRODUCTS	BUY ONLINE	ABOUT US	CAPABILITIES	CATALOGS	CONTACT US	HOME
Ball Bearings-Metal [Inch] [Metric]	Ball Bearings-Plastic [Inch] [Metric]	Linear Ball Bearings [Inch] [Metric] • Press				
Linear Bearings Frelon® Lined [Inch] [Metric]	Needle Roller Bearings [Inch] [Metric]	Needle Roller Inner Races [Inch] [Metric]				
Banded Thrust Bearings [Inch]	Thrust Bearings [Inch] [Metric]	Thrust Bearings Retainers & Balls [Inch] [Metric]				
Press Bearings Flange Mounted Sleeve [Inch] [Metric]	Press Bearings Self-Clinching Roller Clutch [Inch]	Press Bearings Press-Fit Sleeve Bearing [Inch] [Metric]				
Press Bearings • Self Clinching Sleeve Bearing [Inch] [Metric]	Sintered Bronze, Brass-Cored [Inch]	Sintered Bronze, Brass-Solid [Inch] [Metric]				
Sleeve Bearings, Frelon® Lined [Inch]	Sleeve Bearings Frelon® Lined [Inch] [Metric]	Sleeve Bearings • Sintered Bronze Commercial Series [Inch] [Metric]				
Sleeve Bearings • Sintered Bronze Ultra Precision Series [Inch] [Metric]	Bearing Blocks [Inch] [Metric]	Pillow Blocks Frelon® Lined [Inch] [Metric]				

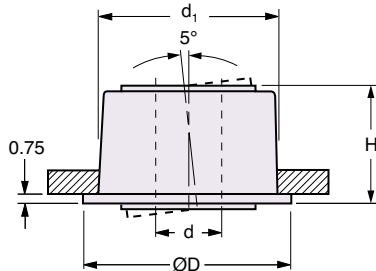


<http://www.sdp-si.com/eStore/CoverPg/bearings.htm>

■ PRESS-FIT INSTALLATION

■ SELF-ALIGNING TO $\pm 5^\circ$

■ SELF-LUBRICATING



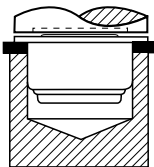
MATERIAL: Bearing – PTFE-Filled Acetal
Retainer – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -40°C to +149°C

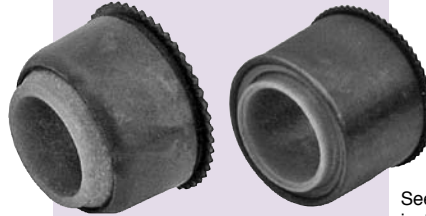
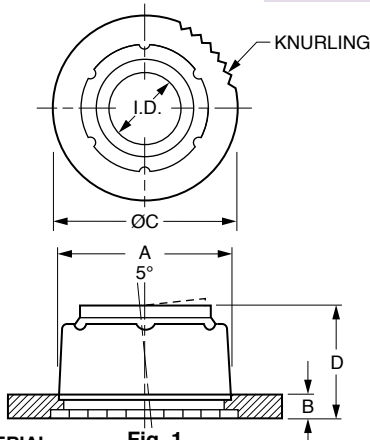
Catalog Number	d Nom. I.D.	Actual I.D. +0.05	d ₁ Panel Hole Dia. +0.07	D Flange Dia.	H Height Along Centerline	Max. Speed rpm	Max. Radial Load N
A 7Z44MPSD04MAF	4	4.02	12.7	14.2	9.6	4620	150
A 7Z44MPSD06MAF	6	6.02	12.7	14.2	9.6	3080	270
A 7Z44MPSD08MAF	8	8.03	15.9	17.4	10.8	2300	530
A 7Z44MPSD10MAF	10	10.03	15.9	17.4	10.8	1840	860
A 7Z44MPSD12MAF	12	12.03	20.6	22.2	14.9	1540	1330
A 7Z44MPSD15MAF	15	15.03	27	28.5	19.6	1240	1870

SHAFT REQUIREMENTS:

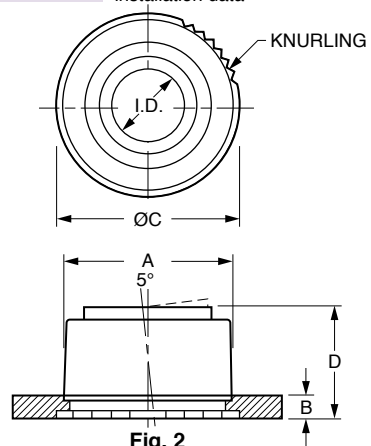
Any material, soft or hard, with a
0.4 μm or finer finish.

**INSTALLATION NOTES:**

1. The punch must be relieved to accommodate protruding insert.
2. **DO NOT PRESS BEARING ON INSERT!**

■ **SELF-CLINCHING**■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**See next page for
installation data**Fig. 1****MATERIAL:****Bearing** – PTFE-Filled Acetal**Retainer** – Carbon Steel, Black Oxide Finish
or 300 Series Stainless Steel

Δ Carbon Steel, Zinc Plated.

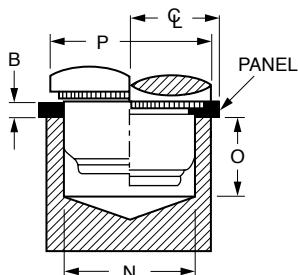
When stock is depleted,
Carbon Steel, Black Oxide Finish
will be supplied.**Fig. 2****SHAFT REQUIREMENTS:**Any material, soft or hard, with a
16 μ in. or finer finish.**OPERATING TEMPERATURE:** -40°F to +300°F

Catalog Number*	Fig. No.	Nom. I.D.	Actual I.D.		A Panel Hole Dia. +.003 -.000	B Min. Panel Thickness	C Knurl O.D.	D Height Along Centerline	Max. Speed rpm	Max. Radial Load lbf
			Min.	Max.						
A 7Z43-F□D093AF	1	3/32	.0940	.0970	.234		.28	.19	7500	20
Δ A 7Z43-F□D125AF		1/8	.1260	.1280	.297	.04	.34	.23	5720	30
Δ A 7Z43-F□D187AF		3/16	.1885	.1905	.375	.04	.42	.28	3820	50
A 7Z43-F□D250AF	1	1/4	.2510	.2530	.375	.04	.42	.28	2890	70
Δ A 7Z43-F□D312AF		5/16	.3135	.3155	.547	.06	.60	.39	2320	120
Δ A 7Z43-F□D375AF	2	3/8	.3760	.3780	.625	.06	.67	.45	1920	190
A 7Z43-F□D500AF		1/2	.5010	.5040	.812		.87	.65	1450	320
A 7Z43-F□D625AF	2	5/8	.6260	.6280	1.063	.075	1.11	.77	1160	450
A 7Z43-F□D750AF		3/4	.7510	.7530	1.250	.09	1.30	.89	970	640

*To complete the Catalog Number, specify:

☐ for a **Carbon Steel Retainer**
 or ☒ for a **Stainless Steel Retainer**.

Example: For a Carbon Steel retainer, specify
 Catalog Number A 7Z43-FSD250AF.

■ **SELF-CLINCHING**■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING****INSTALLATION:**

1. Punch or drill and ream a hole of diameter **A** in panel as specified in the table below. Panel hardness R_B 65 max., R_B 75 max. (stainless steel retainer).

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter **N**, a minimum depth of **O** and a Press Tool diameter of **P**, install the bearing assembly into the panel by constantly applying a force of **F**, per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!**TOOLING AND INSTALLATION DATA**

See previous page for product specifications

Nominal Shaft Diameter	A Panel Hole Diameter +.003 -.000	N Anvil Diameter +.005 -.000	O Minimum Anvil Depth	P Press Tool Min. Dia.	C Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel tons
3/32	.234	.247	.39	.48	.187	1.0
1/8	.297	.312	.43	.54	.218	1.5
3/16	.375	.390	.48	.62	.250	2.0
1/4	.375	.390	.48	.62	.250	2.0
5/16	.547	.562	.59	.80	.406	5.0
3/8	.625	.640	.65	.87	.453	5.5
1/2	.812	.827	.85	1.07	.500	5.5
5/8	1.063	1.078	.97	1.31	.750	6.0
3/4	1.250	1.265	1.09	1.50	.750	8.0

Did You Know?

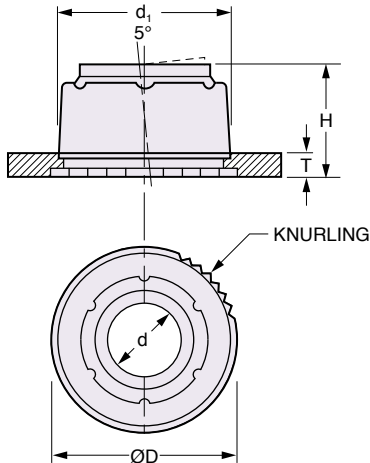
...That Section 5 of the D790 Inch master catalog contains over 200 ball bearings and 90 oil-impregnated sintered bronze bearings in addition to many linear bearings and pillow blocks?

Acetal Pressbearings

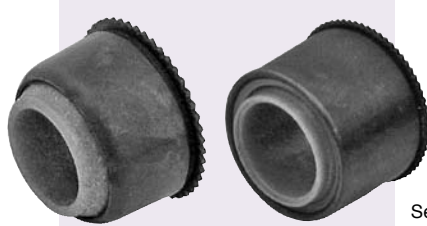
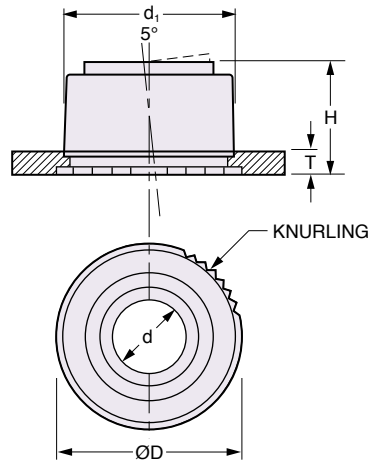
■ SELF-CLINCHING

■ SELF-ALIGNING TO $\pm 5^\circ$

■ SELF-LUBRICATING

**Fig. 1**

The projections shown are per ISO convention.

See next page
for installation data**Fig. 2****MATERIAL:****Bearing** – PTFE-Filled Acetal**Retainer** – Carbon Steel, Black Oxide Finish
or 300 Series Stainless Steel

Δ Carbon Steel, Zinc Plated.

When stock is depleted,
Carbon Steel, Black Oxide Finish
will be supplied.**SHAFT REQUIREMENTS:**Any material, soft or hard, with a
 $0.4 \mu\text{m}$ or finer finish.**OPERATING TEMPERATURE:** -40°C to $+149^\circ\text{C}$

Catalog Number*	Fig. No.	d Nom. I.D.	Actual I.D.		d ₁ Panel Hole Dia. +0.07	T Min. Panel Thickness	D Knurl O.D.	H Height Along Centerline	Max. Speed rpm	Max. Radial Load N
			Min.	Max.						
A 7Z43MF □ D02MAF	1	2	2.06	2.10	5.9	1	7.2	4.9	9220	60
A 7Z43MF □ D04MAF		4	4.02	4.07	7.5		8.7	6	4620	150
A 7Z43MF □ D06MAF	1	6	6.02	6.07	9.5	1	10.6	6.9	3080	270
A 7Z43MF □ D08MAF		8	8.03	8.08	13.9	1.5	15.3	10	2300	530
Δ A 7Z43MF □ D10MAF	2	10	10.03	10.08	15.9	1.5	17	11.4	1840	860
A 7Z43MF □ D12MAF		12	12.03	12.08	20.6		22	16.5	1540	1330
A 7Z43MF □ D15MAF	2	15	15.03	15.08	27	2	28	19.4	1240	1870
A 7Z43MF □ D18MAF		18	18.03	18.08	31.8	2.3	33	22.4	1030	2680

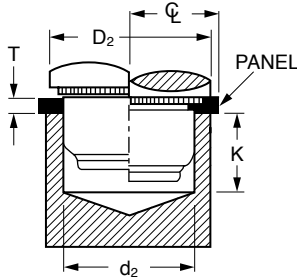
*To complete the Catalog Number, specify:

[S] for a Carbon Steel Retainer
or [X] for a Stainless Steel Retainer.Example: For a Carbon Steel retainer, specify Catalog
Number A 7Z43MFS□D08MAF.

■ SELF-CLINCHING

■ SELF-ALIGNING TO $\pm 5^\circ$

■ SELF-LUBRICATING

**INSTALLATION:**

1. Punch or drill and ream a hole of diameter d_1 in panel as specified in the table below. Panel hardness HRB 65 max., HRB 75 max. (Stainless Steel retainer).

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter d_2 , a minimum depth of K and a Press Tool diameter of D_2 , install the bearing assembly into the panel by constantly applying a force of F , per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!**TOOLING AND INSTALLATION DATA**

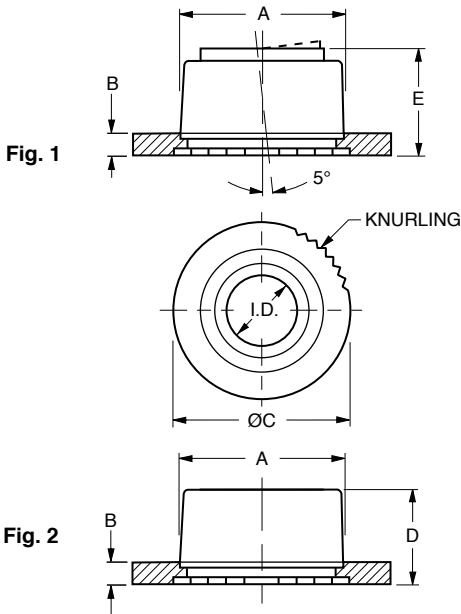
See previous page for product specifications

Nominal Shaft Diameter	d_1 Panel Hole Diameter +0.07	d_2 Anvil Diameter +0.1	K Minimum Anvil Depth	D_2 Press Tool Minimum Diameter	C Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel kN
2	5.9	6.35	9.9	12.2	4.7	9
4	7.5	7.95	11	13.7	5.5	14
6	9.5	9.95	11.9	15.6	6.4	18
8	13.9	14.35	15	20.3	10.3	45
10	15.9	16.35	16.4	22	11.5	49
12	20.6	21.05	21.5	27	12.7	
15	27	27.45	24.5	33	19	54
18	31.8	32.25	27.4	38		

Did You Know?

...We have a well-equipped machine shop with state-of-the-art machinery.
We can customize to your specifications for a nominal fee.

■ SELF-CLINCHING

■ SELF-ALIGNING TO $\pm 5^\circ$ OR NONALIGNING

See next page for installation data

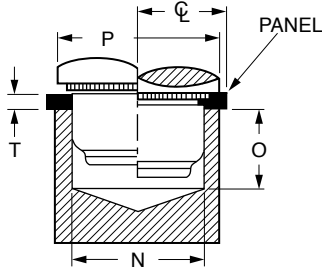
FEATURES:

- High-speed, high-load applications
- Knurling ensures secure self-clinching
- Simple quick installation
- Major assembly and production savings
- Mounting blocks not necessary

MATERIAL: Bearing – Drawn Cup Needle
Housing – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -22°F to +212°F

Catalog Number	Nom. I.D.	A Panel Hole Dia. +.003 -.000	B Min. Panel Thickness	C Knurl O.D.	D Bearing Height	E Height Along Centerline	Max. Speed rpm	Max. Radial Load lbf
FIG. 1 SELF-ALIGNING								
A 7Z46-FSN125	1/8	.500	.04	.55	—	.40	31500	360
A 7Z46-FSN187	3/16	.625	.06	.67	—	.46	21000	430
A 7Z46-FSN250	1/4	.625	.06	.67	—	.46	44000	430
A 7Z46-FSN312	5/16	.812	.06	.87	—	.64	35500	600
A 7Z46-FSN375	3/8	.812	.06	.87	—	.64	29500	600
A 7Z46-FSN500	1/2	1.063	.075	1.10	—	.77	22000	950
A 7Z46-FSN625	5/8	1.250	.09	1.30	—	.89	17600	1830
FIG. 2 NONALIGNING								
A 7Z48-FSN125	1/8	.375	.04	.42	.312	—	31500	360
A 7Z48-FSN187	3/16	.500	.04	.55	.500	—	21000	430
A 7Z48-FSN250	1/4	.625	.06	.67	.440	—	44000	430
A 7Z48-FSN312	5/16	.812	.06	.87	.440	—	35500	600
A 7Z48-FSN375	3/8	.812	.06	.87	.440	—	29500	600
A 7Z48-FSN500	1/2	.875	.06	.92	.500	—	22000	950
A 7Z48-FSN625	5/8	1.063	.075	1.10	.625	—	17600	1830
A 7Z48-FSN750	3/4	1.250	.09	1.30	.625	—	14700	1830

■ **SELF-CLINCHING**■ **SELF-ALIGNING TO $\pm 5^\circ$ OR NONALIGNING****INSTALLATION:**

1. Punch or drill and ream a hole of diameter **A** in panel as specified in the table below. Panel hardness Rb 65 max.

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.

3. Using an anvil with diameter **N**, a minimum depth of **O** and a Press Tool diameter of **P**, install the bearing assembly into the panel by constantly applying a force of **F**, per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!**TOOLING AND INSTALLATION DATA**

See previous page for product specifications

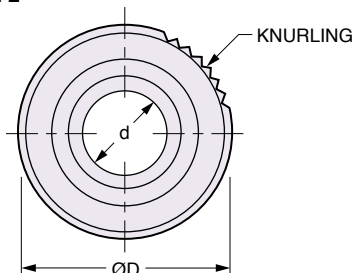
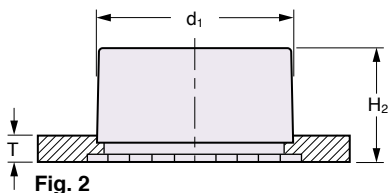
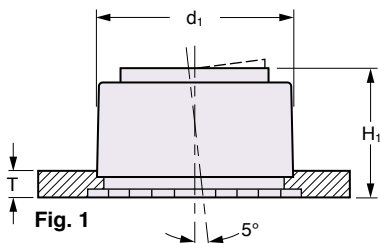
Nominal Shaft Diameter	A Panel Hole Dia. +.003 -.000	N Anvil Diameter +.005 -.000	O Minimum Anvil Depth	P Press Tool Min. Dia.	C Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel tons
FIG. 1 SELF-ALIGNING						
1/8	.500	.515	.60	.75	.375	5.0
3/16	.625	.640	.66	.87	.453	5.5
1/4	.625	.640	.66	.87	.453	5.5
5/16	.812	.828	.84	1.07	.500	5.5
3/8	.812	.828	.84	1.07	.500	5.5
1/2	1.063	1.078	.97	1.30	.750	6.0
5/8	1.250	1.270	1.09	1.50	.750	8.0
FIG. 2 NONALIGNING						
1/8	.375	.390	.51	.62	.250	2.0
3/16	.500	.515	.70	.75	.375	5.0
1/4	.625	.640	.64	.87	.453	5.5
5/16	.812	.828	.64	1.07	.500	5.5
3/8	.875	.890	.70	1.12	.625	6.0
1/2	1.063	1.078	.82	1.30	.750	6.0
5/8	1.250	1.270	.83	1.50	.750	8.0

SHAFT DIAMETERS**SELF-ALIGNING AND NONALIGNING**

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
1/8	.1250	.1247
3/16	.1875	.1872
1/4	.2500	.2495
5/16	.3125	.3120
3/8	.3750	.3745
1/2	.5000	.4995
5/8	.6250	.6245
3/4	.7500	.7495

SHAFT REQUIREMENTS:

Any material, Rc 58 to 64, with a 16 μ in. or finer finish.

■ **SELF-CLINCHING**■ **SELF-ALIGNING TO $\pm 5^\circ$ OR NONALIGNING****FEATURES:**

- High-speed, high-load applications
- Knurling ensures secure self-clinching
- Simple quick installation
- Major assembly and production savings
- Mounting blocks not necessary

MATERIAL: **Bearing** – Drawn Cup Needle
Housing – Carbon Steel, Black Oxide Finish

The projections shown are per ISO convention.

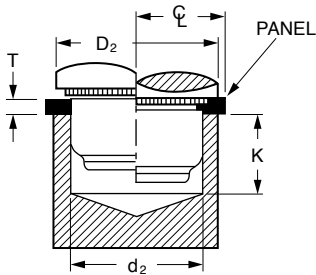
OPERATING TEMPERATURE: -30°C to +100°C

Catalog Number	d Nom. I.D.	d ₁ Panel Hole Dia. +0.07	T Min. Panel Thickness	D Knurl O.D.	H ₂ Bearing Height	H ₁ Height Along Centerline	Max. Speed rpm	Max. Radial Load N
FIG. 1 SELF-ALIGNING								
A 7Z46MFSN04M	4	15.9	1.5	17	—	11.6	41000	1780
A 7Z46MFSN06M	6	15.9	1.5	17	—	11.6	35000	1830
A 7Z46MFSN08M	8	20.6	1.5	22	—	16.3	28000	1830
A 7Z46MFSN10M	10	20.6	1.5	22	—	16.3	23000	2550
A 7Z46MFSN12M	12	27	2	28	—	19.5	20000	2550
A 7Z46MFSN15M	15	31.8	2.3	33	—	22.5	16000	7800
FIG. 2 NONALIGNING								
A 7Z48MFSN06M	6	15.9	1.5	17	10.8	—	35000	1830
A 7Z48MFSN08M	8	15.9	1.5	17	11.1	—	28000	2500
A 7Z48MFSN10M	10	20.6	1.5	22	12.7	—	23000	2500
A 7Z48MFSN12M	12	20.6	1.5	22	12.7	—	20000	4000
A 7Z48MFSN15M	15	27	2.3	28	18.7	—	16000	7800
A 7Z48MFSN18M	18	31.8	2.3	33	16	—	13000	7800

Needle Roller Pressbearings

■ SELF-CLINCHING

■ SELF-ALIGNING TO $\pm 5^\circ$ OR NONALIGNING



INSTALLATION:

1. Punch or drill and ream a hole of diameter d_1 in panel as specified in the table below. Panel hardness HRB 65 max.

DO NOT DEBURR OR BREAK EDGE OF HOLE.

2. Place bearing assembly in hole. The slight interference fit assures centering the assembly in the mounting hole.
3. Using an anvil with diameter d_2 , a minimum depth of K and a Press Tool diameter of D_2 , install the bearing assembly into the panel by constantly applying a force of F , per the table, until the assembly is flush with the panel surface.

DO NOT USE HAMMER BLOWS!

TOOLING AND INSTALLATION DATA

See previous page for product specifications

Nominal Shaft Diameter	d ₁ Panel Hole +0.07	d ₂ Anvil +0.1	K Minimum Anvil Depth	D ₂ Press Tool Minimum Dia.	℄ Min. Dist. Centerline to Panel Edge	F Install Force Cold-Rolled Steel kN
FIG. 1	SELF-ALIGNING					
4 6	15.9	16.35	16.6	22	11.5	49
8 10	20.6	21.05	21.3	27	12.7	49
12 15	27 31.8	27.45 32.25	24.5 27.5	33 38	19	54
FIG. 2	NONALIGNING					
6 8	15.9	16.35	15.8 16.1	22	11.5	49
10 12	20.6	21.05	17.7	27	12.7	49
15 18	27 31.8	27.45 32.25	23.7 21	33 38	19	54

SHAFT DIAMETERS

SELF-ALIGNING & NONALIGNING

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
4	4.000	3.992
6	6.000	5.992
8	8.000	7.991
10	10.000	9.991
12	12.000	11.989
15	15.000	14.989
18	18.000	17.989

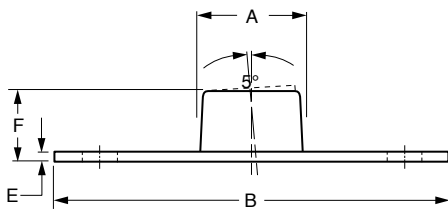
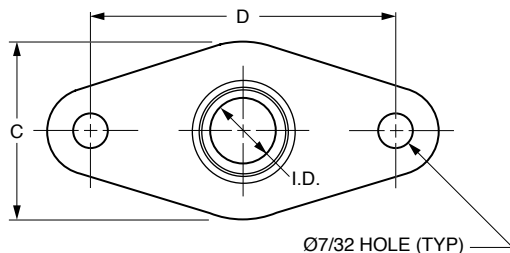
SHAFT REQUIREMENTS:

Any material, HRC 58 to 64, with a 0.4 μm or finer finish.

Flange-Mounted PTFE Bronze Pressbearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- EXTREME TEMPERATURE RANGE
- SELF-ALIGNING TO $\pm 5^\circ$
- SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS

**MATERIAL:****Bearing** – PTFE-Impregnated Porous Bronze**Retainer** – Carbon Steel, Black Oxide Finish**OPERATING TEMPERATURE:** -330°F to +380°F

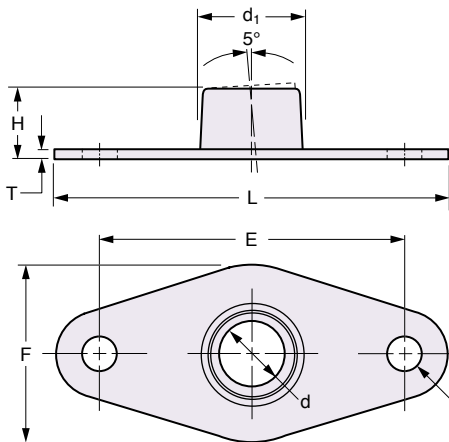
Catalog Number	Nom. I.D.	A Clearance Hole Diameter (Ref.)	B Overall Length	C Overall Width	D Mounting Distance	E Nominal Flange Thickness	F Height Along Centerline	Max. Speed rpm	Max. Radial Load lbf
A 7Z62-FDU250	1/4	21/32	2.10	1.19	1.53	.06	.46	6020	430
A 7Z62-FDU312	5/16	21/32	2.10	1.19	1.53	.06	.46	4820	430
A 7Z62-FDU375	3/8	27/32	2.35	1.43	1.78	.06	.64	4010	600
A 7Z62-FDU500	1/2	1-3/32	2.35	1.56	1.78	.09	.77	3010	950
A 7Z62-FDU625	5/8	1-9/32	2.35	1.85	1.78	.09	.89	2410	1150
A 7Z62-FDU750	3/4	1-9/32	2.35	1.85	1.78	.09	.87	2010	1150

SHAFT DIAMETERS

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
1/4	.2490	.2481
5/16	.3115	.3106
3/8	.3740	.3731
1/2	.4990	.4980
5/8	.6240	.6230
3/4	.7491	.7479

SHAFT RECOMMENDATIONS:Any material, soft or hard, with a 16 μ in. or finer finish.

- EXTREME TEMPERATURE RANGE
- SELF-ALIGNING TO $\pm 5^\circ$
- SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS



Ø5.5 HOLE (TYP)

The projections shown are per ISO convention.

**MATERIAL:****Bearing** – PTFE-Impregnated Porous Bronze**Retainer** – Carbon Steel, Black Oxide Finish**OPERATING TEMPERATURE:** -201°C to +195°C

Catalog Number	d Nom. I.D.	d ₁ Clearance Hole Diameter (Ref.)	L Overall Length	F Overall Width	E Mounting Distance	T Nominal Flange Thickness	H Height Along Centerline	Max. Speed rpm	Max. Radial Load N
*A 7Z62MFDU04	4	13	45	22.2	31	1.2	10.2	23885	3360
A 7Z62MFDU06	6	16.5	53	30.2	39	1.5	11.5	6360	1550
A 7Z62MFDU08	8	16.5	53	30.2	39	1.5	11.5	4770	1550
A 7Z62MFDU10	10	22	60	36.5	45.2	1.5	16.3	3820	2550
A 7Z62MFDU12	12	22		36.5		1.5	15.9	3180	
A 7Z62MFDU16	16	28	60	39.7	45.2	2.3	19.5	2390	4800
A 7Z62MFDU18	18	33		47		2.3	22.5	2120	

*To be discontinued when present stock is depleted.

SHAFT DIAMETERS

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
4	4.000	3.992
6	5.990	5.978
8	7.987	7.972
10	9.987	9.972
12	11.984	11.966
16	15.984	15.966
18	17.984	17.966

SHAFT REQUIREMENTS:Any material, soft or hard, with a 0.4 μm or finer finish.

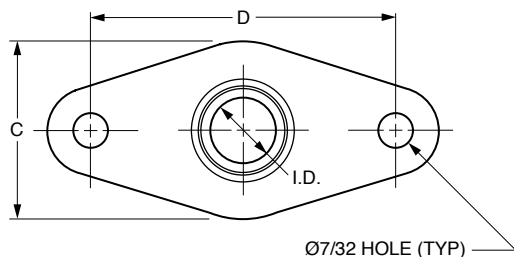
Flange-Mounted PTFE Bronze Pressbearings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

- EXTREME TEMPERATURE RANGE
- NONALIGNING
- SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS

**MATERIAL:**

Bearing – PTFE-Impregnated Porous Bronze

Retainer – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -330°F to +380°F

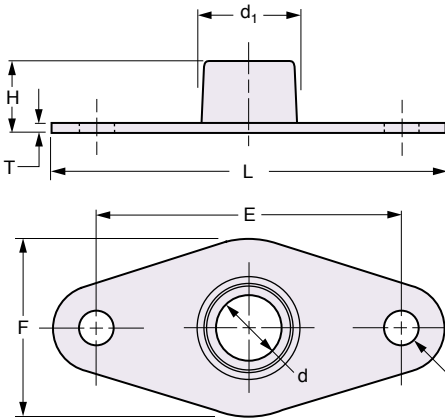
Catalog Number	Nom. I.D.	A Clearance Hole Diameter (Ref.)	B Overall Length	C Overall Width	D Mounting Distance	E Nominal Flange Thickness	F Height	Max. Speed rpm	Max. Radial Load lbf
A 7Z63-FDU250	1/4	17/32	1.80	.88	1.21	.05	.36	6020	430
A 7Z63-FDU312	5/16	17/32	1.80	.88	1.21	.05	.50	4820	430
A 7Z63-FDU375	3/8	21/32	2.09	1.19	1.53	.06	.48	4010	600
A 7Z63-FDU500	1/2	27/32	2.09	1.26	1.53	.09	.49	3010	950
A 7Z63-FDU625	5/8	29/32	2.09	1.26	1.53	.09	.62	2410	1150
A 7Z63-FDU750	3/4	1-3/32	2.35	1.56	1.78	.09	.62	2010	1150

SHAFT DIAMETERS

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
1/4	.2490	.2481
5/16	.3115	.3106
3/8	.3740	.3731
1/2	.4990	.4980
5/8	.6240	.6230
3/4	.7491	.7479

SHAFT RECOMMENDATIONS:Any material, soft or hard, with a 16 μ in. or finer finish.

- EXTREME TEMPERATURE RANGE
- NONALIGNING
- SELF-LUBRICATING
- IDEAL FOR ALL TYPES OF ROTATING, OSCILLATING AND SLIDING MOTIONS



Ø5.5 HOLE (TYP)

The projections shown are per ISO convention.

**MATERIAL:****Bearing** – PTFE-Impregnated Porous Bronze**Retainer** – Carbon Steel, Black Oxide Finish**OPERATING TEMPERATURE:** -201°C to +195°C

Catalog Number	d Nom. I.D.	d ₁ Clearance Hole Diameter (Ref.)	L Overall Length	F Overall Width	E Mounting Distance	T Nominal Flange Thickness	H Height	Max. Speed rpm	Max. Radial Load N
*A 7Z63MFDU04	4	10.3	45	22.2	31	1.2	6.7	23885	3360
A 7Z63MFDU06	6	13					8.7	6360	1550
A 7Z63MFDU08	8						10.7	4770	1550
A 7Z63MFDU10	10	16.5	53	30.2	39	1.5	12.9	3820	2550
A 7Z63MFDU12	12	22	60	36.5	45	1.5	12.9	3180	4800
A 7Z63MFDU16	16	23	53	32	39	2.3	14.9	2390	4800
A 7Z63MFDU18	18	28	60	39.7	45	2.3	17.9	2120	4800

* To be discontinued when present stock is depleted.

SHAFT DIAMETERS

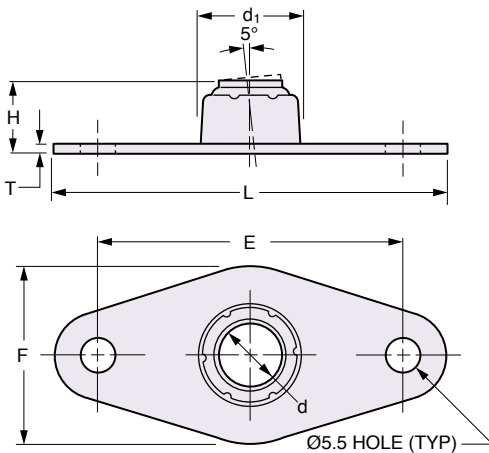
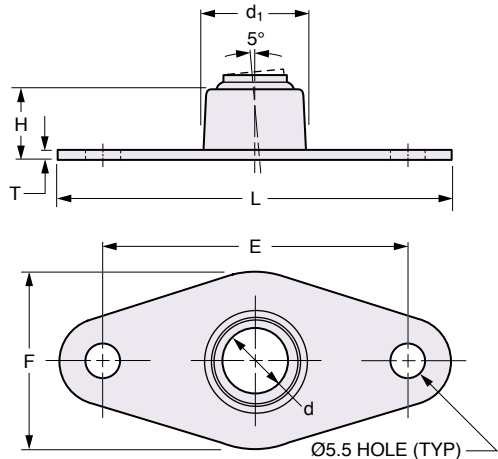
Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
4	4.000	3.992
6	5.990	5.978
8	7.987	7.972
10	9.987	9.972
12	11.984	11.966
16	15.984	15.966
18	17.984	17.966

SHAFT REQUIREMENTS:Any material, soft or hard, with a
0.4 μ m or finer finish.

■ FLANGE-MOUNTED

■ SELF-ALIGNING TO $\pm 5^\circ$

■ SELF-LUBRICATING

**Fig. 1****Fig. 2**

The projections shown are per ISO convention.

SHAFT REQUIREMENTS:Any material, soft or hard, with a 0.4 μm or finer finish.**MATERIAL:** Bearing – PTFE-Filled Acetal

Flange & Retainer – Carbon Steel, Black Oxide Finish

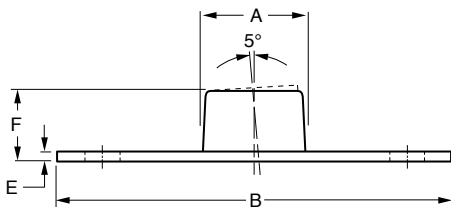
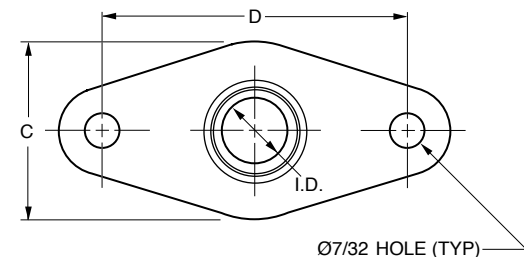
OPERATING TEMPERATURE: -40°C to +149°C

Catalog Number	Fig. No.	d Nom. I.D.	Actual I.D. +0.05	d ₁ Clearance Hole Diameter (Ref.)	L Overall Length	F Overall Width	E Mounting Distance	T Nominal Flange Thickness	H Height Along Centerline	Max. Speed rpm	Max. Radial Load N
A 7Z45MBFM06MAF	1	6	6.02	11	45	22	31	1.2	6.9	3080	270
A 7Z45MBFM08MAF		8	8.03	17	53	30	39	1.6	10	2300	530
A 7Z45MBFM10MAF	2	10	10.03	17	53	30	39	1.6	11.4	1840	860
A 7Z45MBFM12MAF		12	12.03	22	60	36.5	45		16.5	1540	1330
A 7Z45MBFM15MAF		15	15.03	28		39.7	45	2.3	19.4	1240	1870
A 7Z45MBFM18MAF		18	18.03	33	60	47	45.2		22.4	1030	2600
A 7Z45MBFM20MAF		20	20.03	33		47	45.2		22.4	900	2600

Flange-Mounted Needle Roller Pressbearings

■ FLANGE-MOUNTED

■ SELF-ALIGNING TO $\pm 5^\circ$



MATERIAL: Bearing – Drawn Cup Needle
Housing – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -22°F to +212°F

Catalog Number	Nom. I.D.	A Clearance Hole Diameter (Ref.)	B Overall Length	C Overall Width	D Mounting Distance	E Nominal Flange Thickness	F Height Along Centerline	Max. Speed rpm	Max. Radial Load lbf
*A 7Z56-BFM125N	1/8	17/32	1.80	.88	1.22	.05	.40	31500	360
*A 7Z56-BFM187N	3/16	21/32	2.10	1.19	1.53	.06	.46	21000	430
A 7Z56-BFM250N	1/4	21/32	2.10	1.19	1.53	.06	.46	44000	600
A 7Z56-BFM312N	5/16	27/32	1.78	1.25	1.22	.09	.64	35500	600
A 7Z56-BFM375N	3/8	27/32	1.78	1.25	1.22	.09	.64	29500	600
A 7Z56-BFM500N	1/2	1-3/32	2.34	1.56	1.78	.09	.77	22000	950
A 7Z56-BFM625N	5/8	1-9/32	2.34	1.85	1.78	.09	.89	17600	1150

*To be discontinued when present stock is depleted.

SHAFT DIAMETERS

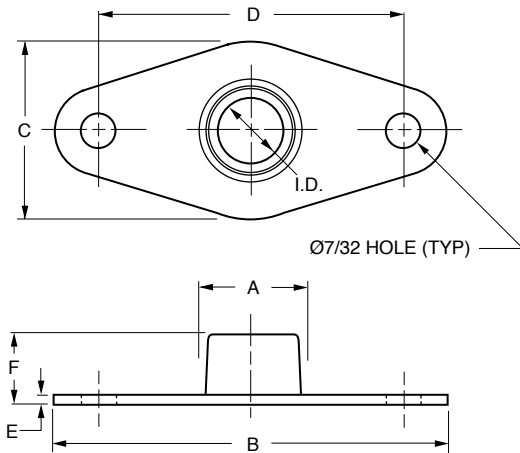
Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
1/8	.1250	.1247
3/16	.1875	.1872
1/4	.2500	.2495
5/16	.3125	.3120
3/8	.3750	.3745
1/2	.5000	.4995
5/8	.6250	.6245

SHAFT REQUIREMENTS:

Any material, Rc 58 to 64, with a 16 μ in. or finer finish.

■ FLANGE-MOUNTED

■ NONALIGNING

**MATERIAL:** Bearing – Drawn Cup Needle

Housing – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -22°F to +212°F

Catalog Number	Nom. I.D.	A Clearance Hole Diameter (Ref.)	B Overall Length	C Overall Width	D Mounting Distance	E Nominal Flange Thickness	F Height	Max. Speed rpm	Max. Radial Load lbf
*A 7Z57-BFM125N	1/8	13/32	1.80	.88	1.22	.05	.312	31500	240
A 7Z57-BFM250N	1/4	21/32	2.10	1.19	1.53	.06	.440	44000	600
A 7Z57-BFM312N	5/16	21/32	2.10	1.19	1.53	.06	.440	35500	600
A 7Z57-BFM375N	3/8	27/32	1.78	1.25	1.22	.09	.440	29500	600
A 7Z57-BFM500N	1/2	29/32	2.10	1.26	1.53		.500	22000	950
A 7Z57-BFM625N	5/8	1-3/32	2.34	1.56	1.78	.09	.735	17600	1150
A 7Z57-BFM750N	3/4	1-9/32	2.34	1.56	1.78		.625	14700	1500

*To be discontinued when present stock is depleted.

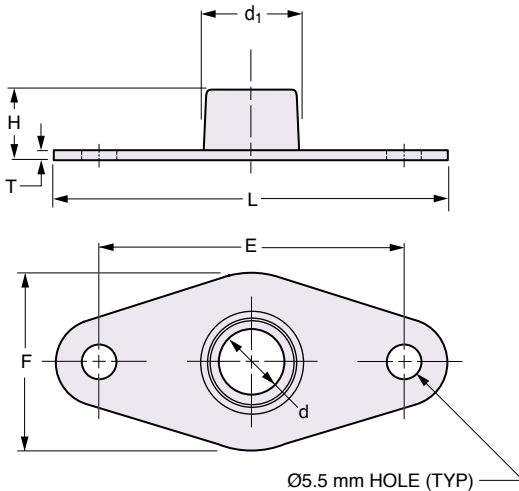
SHAFT DIAMETERS

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
1/8	.1250	.1247
1/4	.2500	.2495
5/16	.3125	.3120
3/8	.3750	.3745
1/2	.5000	.4995
5/8	.6250	.6245
3/4	.7500	.7495

SHAFT REQUIREMENTS:Any material, Rc 58 to 64, with a 16 μ in. or finer finish.

■ FLANGE-MOUNTED

■ NONALIGNING



The projections shown are per ISO convention.

MATERIAL: Bearing – Drawn Cup Needle

Housing – Carbon Steel, Black Oxide Finish

OPERATING TEMPERATURE: -30°C to +100°C



Catalog Number	d Nom. I.D.	d ₁ Clearance Hole Diameter (Ref.)	L Overall Length	F Overall Width	E Mounting Distance	T Nominal Flange Thickness	H Height	Max. Speed rpm	Max. Radial Load N
A 7Z57MBFM06MN	6								
A 7Z57MBFM08MN	8	16.7	53	30	38.8	1.5	10.8 11.1	35000 28000	2550
A 7Z57MBFM10MN	10	22	45	31.8	31	2.3	12.7	23000	2550
A 7Z57MBFM12MN	12							20000	4000
A 7Z57MBFM15MN	15	28	60	39.6	45.2	2.3	18.7	16000	4800
A 7Z57MBFM18MN	18	32.5					16	13000	6380

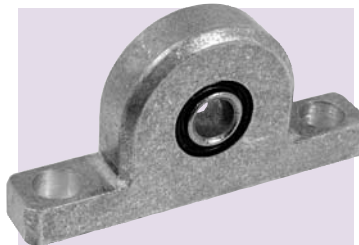
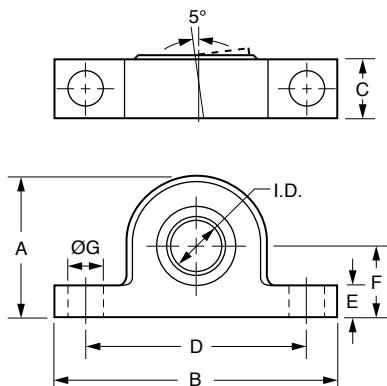
SHAFT DIAMETERS

Nominal Shaft Diameter	Maximum Diameter	Minimum Diameter
6	6.000	5.992
8	8.000	7.991
10	10.000	9.991
12	12.000	11.989
15	15.000	14.989
18	18.000	17.989

SHAFT REQUIREMENTS:

Any material, HRC 58 to 64, with a
0.4 μ m or finer finish.

- **PILLOW BLOCK-MOUNTED** ■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**
 ■ **LIGHTWEIGHT** ■ **CORROSION-RESISTANT**



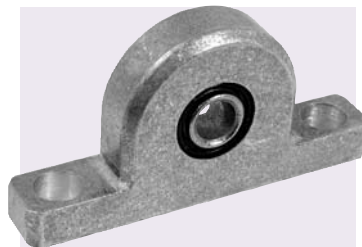
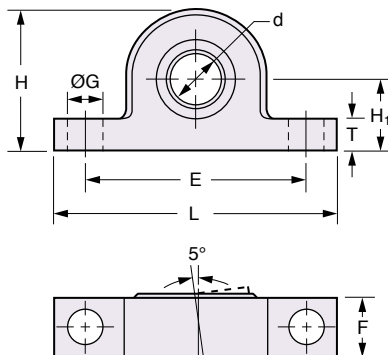
MATERIAL: Bearing – Sintered Bronze SAE 840
Pillow Block – Sintered Aluminum

OPERATING TEMPERATURE: -20°F to 200°F

Catalog Number	Nom. I.D.	I.D. Actual		A Overall Height	B Overall Length	C Overall Width
		Max.	Min.			
A 7Z31-PB0250B	1/4	.2513	.2508	1-1/8	2-1/4	3/8
A 7Z31-PB0312B	5/16	.3140	.3133			7/16
A 7Z31-PB0375B	3/8	.3765	.3758			7/16
A 7Z31-PB0500B	1/2	.5017	.5010	1-15/16	3-1/4	5/8
A 7Z31-PB0625B	5/8	.6270	.6260			25/32
A 7Z31-PB0750B	3/4	.7520	.7510			29/32
A 7Z31-PB0875B	7/8	.8780	.8760	1-15/16	4	29/32
A 7Z31-PB1000B	1	1.0030	1.0010			

Catalog Number	D Mounting Distance	E Nominal Flange Thickness	F Height To Centerline	G Mounting Hole	Max. Speed rpm	Max. Radial Load lb.
A 7Z31-PB0250B	1-3/4	1/4	9/16	9/32	15270	210
A 7Z31-PB0312B					12240	
A 7Z31-PB0375B					10180	220
A 7Z31-PB0500B					7640	
A 7Z31-PB0625B	2-1/2	5/16	3/4	11/32	6110	380
A 7Z31-PB0750B	3-1/8		1		5090	480
A 7Z31-PB0875B	3-1/8	13/32	1	11/32	4850	380
A 7Z31-PB1000B	4	9/16	1-1/4	9/16	4500	1000

- **PILLOW BLOCK-MOUNTED** ■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**
 ■ **LIGHTWEIGHT** ■ **CORROSION-RESISTANT**



The projections shown are per ISO convention.

MATERIAL: Bearing – Sintered Bronze SAE 840
Pillow Block – Sintered Aluminum

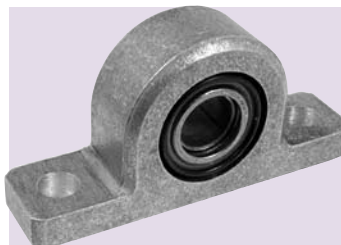
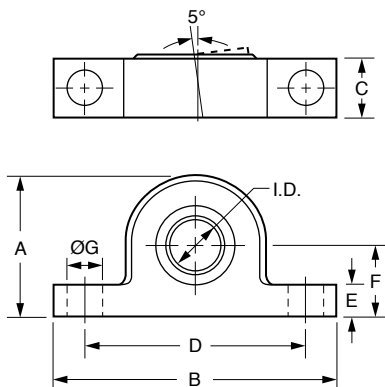
OPERATING TEMPERATURE: -29°C to 93°C

Catalog Number	d Nom. I.D.	d I.D. Actual		H Overall Height	L Overall Length	F Overall Width
		Max.	Min.			
A 7Z31MPB006MB	6	6.04	6.02	28.5	57	9.5
A 7Z31MPB008MB	8	8.04	8.02			11
A 7Z31MPB010MB	10	10.04	10.02			11
A 7Z31MPB012MB	12	12.05	12.03			16
A 7Z31MPB015MB	15	15.05	15.03	39.5	82.5	20
A 7Z31MPB018MB	18	18.05	18.03	39.5	82.5	23
A 7Z31MPB020MB	20	20.08	20.03	39.5	82.5	23
A 7Z31MPB025MB	25	25.07	25.03	65	127	23

Catalog Number	E Mounting Distance	T Nominal Flange Thickness	H ₁ Height To Centerline	G Mounting Hole	Max. Speed rpm	Max. Radial Load N
A 7Z31MPB006MB	44.5	7	14.5	6.5	16110	940
A 7Z31MPB008MB					12120	960
A 7Z31MPB010MB					9700	960
A 7Z31MPB012MB					8060	
A 7Z31MPB015MB	63.5	9	19	8	6460	1700
A 7Z31MPB018MB	63.5	9	19	8	5380	1500
A 7Z31MPB020MB	63.5	9	19	8	5200	1500
A 7Z31MPB025MB	101.5	14.3	32	14.5	4600	4450

SDP/SI *Inch Inch Inch Inch Inch Inch Inch* **Pillow Block-Mounted PTFE Bronze Pressbearings**
 Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- **PILLOW BLOCK-MOUNTED** ■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**
 ■ **LIGHTWEIGHT** ■ **CORROSION-RESISTANT**



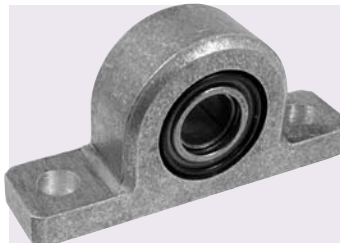
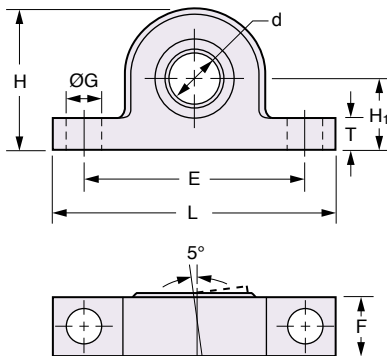
MATERIAL: Bearing – Porous Sintered Bronze with
 PTFE Solid Lubricant Impregnant
 Pillow Block – Sintered Aluminum

OPERATING TEMPERATURE: -330°F to 540°F

Catalog Number	Nom. I.D.	Recommended Shaft Diameter		A Overall Height	B Overall Length	C Overall Width
		Max.	Min.			
A 7Z32-PB0250P	1/4	.2490	.2481	1-1/8	2-1/4	7/16
A 7Z32-PB0312P	5/16	.3115	.3106	1-1/8	2-1/4	5/8
A 7Z32-PB0375P	3/8	.3740	.3731	1-9/16	3-1/4	25/32
A 7Z32-PB0500P	1/2	.4990	.4980	1-9/16	3-1/4	7/8
A 7Z32-PB0625P	5/8	.6240	.6230	1-9/16	3-1/4	7/8
A 7Z32-PB0750P	3/4	.7491	.7479	2-9/16	5	29/32
A 7Z32-PB1000P	1	.9991	.9979			

Catalog Number	D Mounting Distance	E Nominal Flange Thickness	F Height To Centerline	G Mounting Hole	Max. Speed rpm	Max. Radial Load lb.
A 7Z32-PB0250P	1-3/4	1/4	9/16	9/32	6020	210
A 7Z32-PB0312P					4820	210
A 7Z32-PB0375P	1-3/4	1/4	9/16	9/32	4010	210
A 7Z32-PB0500P	2-1/2	5/16	3/4	11/32	3010	380
A 7Z32-PB0625P	2-1/2	5/16	3/4	11/32	2410	330
A 7Z32-PB0750P	2-1/2	5/16	3/4	11/32	2010	330
A 7Z32-PB1000P	4	9/16	1 1/4	9/16	1500	1000

- **PILLOW BLOCK-MOUNTED** ■ **SELF-ALIGNING TO $\pm 5^\circ$** ■ **SELF-LUBRICATING**
 ■ **LIGHTWEIGHT** ■ **CORROSION-RESISTANT**



The projections shown are per ISO convention

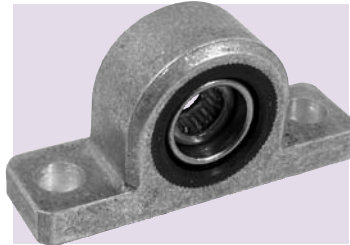
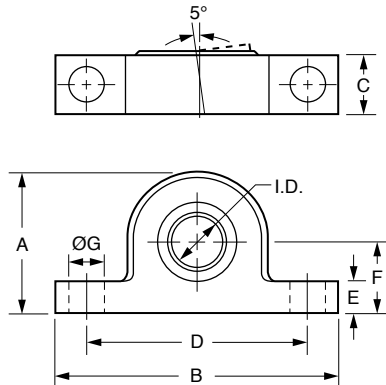
MATERIAL: Bearing – Porous Sintered Bronze with
PTFE Solid Lubricant Impregnant
Pillow Block – Sintered Aluminum

OPERATING TEMPERATURE: -201°C to 282°C

Catalog Number	d Nom. I.D.	Recommended Shaft Diameter		H Overall Height	L Overall Length	F Overall Width
		Max.	Min.			
A 7Z32MPB006MP	6	5.990	5.978	28.5	57	11
A 7Z32MPB008MP	8	7.987	7.972			16
A 7Z32MPB010MP	10	9.987	9.972			
A 7Z32MPB012MP	12	11.984	11.966	39.5 39.5 49.2 65	82.5 82.5 100 127	20
A 7Z32MPB016MP	16	15.984	15.966			23
A 7Z32MPB018MP	18	17.984	17.966			23
A 7Z32MPB020MP	20	19.980	19.959			23
A 7Z32MPB025MP	25	24.980	24.959			23

Catalog Number	E Mounting Distance	T Nominal Flange Thickness	H ₁ Height To Centerline	G Mounting Hole	Max. Speed rpm	Max. Radial Load N
A 7Z32MPB006MP	44.5	6.5	14.5	7	6360	950
A 7Z32MPB008MP					4770	
A 7Z32MPB010MP					3820	950
A 7Z32MPB012MP					2180	1000
A 7Z32MPB016MP	63.5	8	19	9	2390	1500
A 7Z32MPB018MP	63.5	8	19	9	2120	1500
A 7Z32MPB020MP	79.4	8	25	9	1900	1700
A 7Z32MPB025MP	101	14.5	32	14.3	1500	4500

- PILLOW BLOCK-MOUNTED ■ SELF-ALIGNING TO $\pm 5^\circ$ ■ SELF-LUBRICATING
 ■ LIGHTWEIGHT ■ CORROSION-RESISTANT



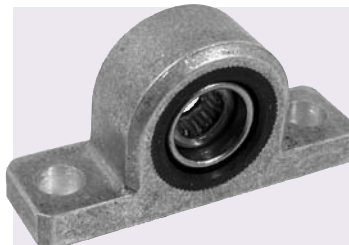
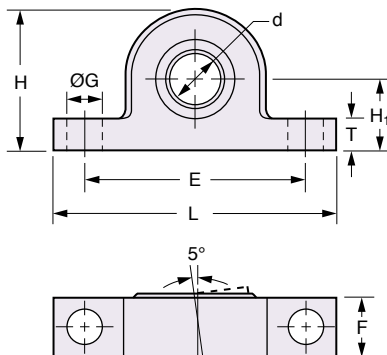
MATERIAL: Bearing – Drawn Cup Needle Roller
 Pillow Block – Sintered Aluminum

OPERATING TEMPERATURE: -22°F to 212°F

Catalog Number	Nom. I.D.	Recommended Shaft Diameter		A Overall Height	B Overall Length	C Overall Width
		Max.	Min.			
A 7Z33-PB250N	1/4	.2500	.2495	1-1/8	2-1/4	7/16
A 7Z33-PB312N	5/16	.3125	.3120			5/8
A 7Z33-PB375N	3/8	.3750	.3745	1-1/8	2-1/4	5/8
A 7Z33-PB500N	1/2	.5000	.4995	1-9/16	3-1/4	25/32
A 7Z33-PB625N	5/8	.6500	.6245	1-9/16	3-1/4	7/8
A 7Z33-PB750N	3/4	.7500	.7495	2-9/16	5	29/32

Catalog Number	D Mounting Distance	E Nominal Flange Thickness	F Height To Centerline	G Mounting Hole	Max. Speed rpm	Max. Radial Load lb.
A 7Z33-PB250N	1-3/4	1/4	9/16	9/32	44000	210
A 7Z33-PB312N					35000	
A 7Z33-PB375N	1-3/4	1/4	9/16	9/32	29500	220
A 7Z33-PB500N	2-1/2	5/16	3/4	11/32	22000	380
A 7Z33-PB625N	2-1/2	5/16	3/4	11/32	17600	330
A 7Z33-PB750N	4	9/16	1-1/4	9/16	14700	1000

- PILLOW BLOCK-MOUNTED ■ SELF-ALIGNING TO $\pm 5^\circ$ ■ SELF-LUBRICATING
 ■ LIGHTWEIGHT ■ CORROSION-RESISTANT



The projections shown are per ISO convention.

MATERIAL: Bearing – Drawn Cup Needle
 Pillow Block – Sintered Aluminum

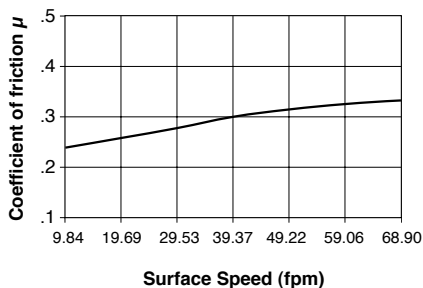
OPERATING TEMPERATURE: -30°C to 100°C

Catalog Number	d Nom. I.D.	Recommended Shaft Diameter		H Overall Height	L Overall Length	F Overall Width
		Max.	Min.			
A 7Z33MPB06MN	6	6.000	5.992			11
A 7Z33MPB08MN	8	8.000	7.991	28.5	57	16
A 7Z33MPB10MN	10	10.000	9.991	28.5	57	16
A 7Z33MPB12MN	12	12.000	11.989	39.5	82.5	20
A 7Z33MPB15MN	15	15.000	14.989	39.5	82.5	23
A 7Z33MPB18MN	18	18.000	17.989	65	127	

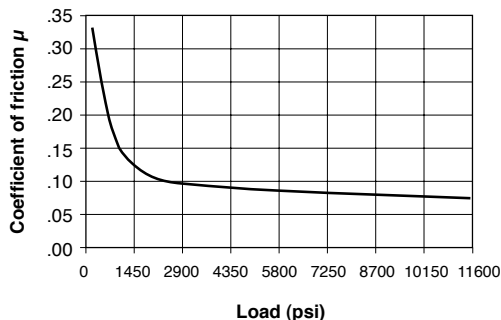
Catalog Number	E Mounting Distance	T Nominal Flange Thickness	H ₁ Height To Centerline	G Mounting Hole	Max. Speed rpm	Max. Radial Load N
A 7Z33MPB06MN					35000	
A 7Z33MPB08MN	44.5	6.5	14.5	7	28000	940
A 7Z33MPB10MN	44.5	6.5	14.5	7	23000	960
A 7Z33MPB12MN	63.5	8	19	8.7	20000	1700
A 7Z33MPB15MN	63.5	8	19	8.7	16000	1500
A 7Z33MPB18MN	101	14.5	32	14.3	14700	4450

■ PART 1 OF 2. FOR MORE PROPERTIES, SEE PAGE 122

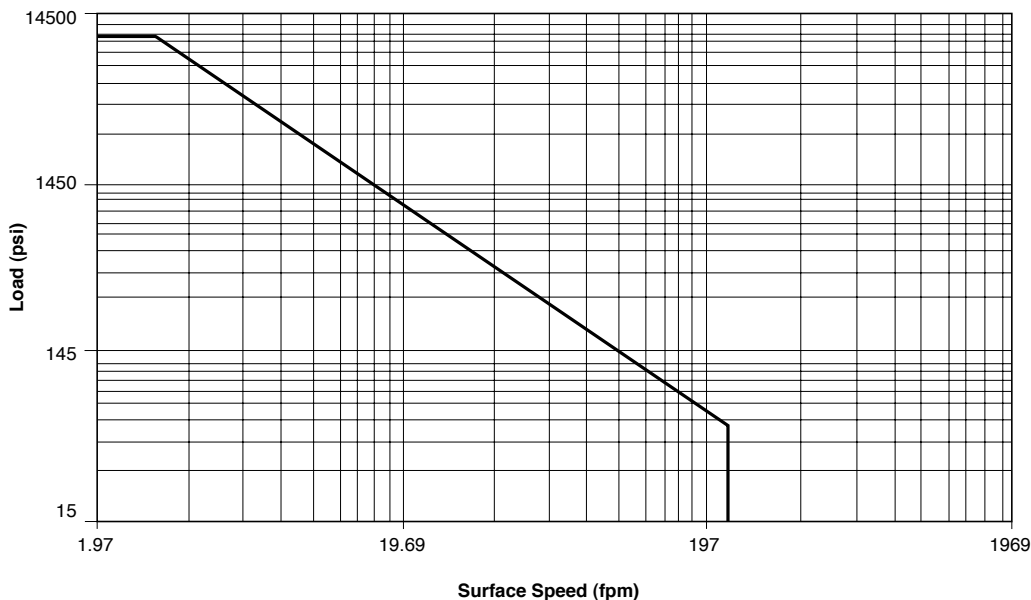
Material:	G300® (1)	T500® (2)	M250® (3)	L280® (4)	J® (5)
					
Product Pages:	P. 112	P. 124	P. 118	P. 130	P. 136
GENERAL PROPERTIES					
Density g/cm ³	1.45	1.44	1.14	1.24	1.49
Color	Dark gray	Black	Charcoal	Yellow	Yellow
Max. moisture absorption at 23°C / 50% r.h. % weight	0.7	0.1	1.4	1.3	0.3
Max. moisture absorption % weight	4	0.5	7.6	6.5	1.3
Coefficient of sliding friction, dynamic against steel μ	0.08 ... 0.15	0.09 ... 0.27	0.1 ... 0.3	0.08 ... 0.23	0.06 ... 0.18
p x v-value, max. (dry) (kgf/cm ² x m/min)	257	808	73	141	208
MECHANICAL PROPERTIES					
Modulus of elasticity N/mm ²	7798	8098	838	3499	2399
Tensile strength at 20°C N/mm ²	210	170	112	125	73
Compressive strength N/mm ²	78	100	52	61	60
Max. permissible static surface pressure (20°C) N/mm ²	80	150	18	60	35
Shore D-hardness	81	85	79	77	81
For Additional Data:	(1) See P.111	(2) See P.123	(3) See P.117	(4) See P.129	(5) See P.135

■ G300® POLYMER


Graph 1: Coefficient of friction of G300® as a result of the running speed; $p = 108$ psi



Graph 2: Coefficient of friction of G300® as a result of the load; $v = 1.97$ fpm

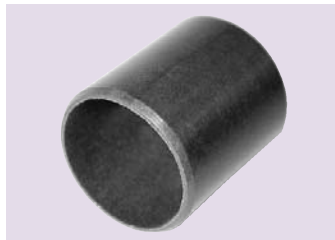
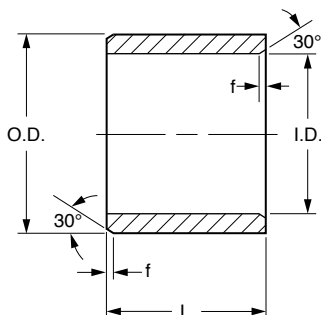


Graph 3: Permissible $p \times v$ - values for G300® running dry against a steel shaft, at 68°F.

General Purpose Sleeve Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- MAINTENANCE-FREE ■ DRY RUNNING ■ HIGH WEAR RESISTANCE
■ ABOVE AVERAGE LOADS



MATERIAL: G300® Polymer

TEMPERATURE RANGE: -40°F to +266°F

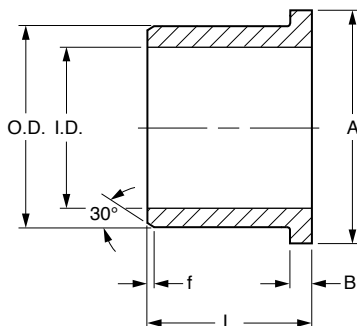
Catalog Number	I.D.	O.D.	L	I.D. After Pressfit		Housing Bore		Shaft Size		f
				Max.	Min.	Max.	Min.	Max.	Min.	
S99GGP-020304 S99GGP-030406	1/8 3/16	3/16 1/4	1/4 3/8	.1269 .1892	.1251 .1873	.1878 .2503	.1873 .2497	.1243 .1865	.1236 .1858	.019
S99GGP-040504 S99GGP-040506 S99GGP-040508 S99GGP-040512	1/4	5/16	1/4 3/8 1/2 3/4	.2521	.2498	.3128	.3122	.2490	.2481	.019
S99GGP-060704 S99GGP-060708 S99GGP-060808 S99GGP-060812	3/8	15/32 1/2	1/4 1/2 3/4	.3773 .3783	.3750 .3760	.4691 .5015	.4684 .5010	.3740 .3750	.3731 .3741	.019
S99GGP-080904 S99GGP-080908 S99GGP-080916 S99GGP-081008 S99GGP-081012	1/2	19/32 5/8	1/4 1/2 1 3/4	.5030 .5040	.5003 .5013	.5941 .6260	.5934 .6250	.4990 .5000	.4980 .4990	.031
S99GGP-101108 S99GGP-101112 S99GGP-101116 S99GGP-101208 S99GGP-101216	5/8	23/32 3/4	1/2 3/4 1 1/2	.6280 .6290	.6253 .6263	.7192 .7510	.7184 .7500	.6240 .6250	.6230 .6240	.031
S99GGP-121408 S99GGP-121412 S99GGP-121416 S99GGP-121424	3/4	7/8	1/2 3/4 1 1-1/2	.7541	.7507	.8755	.8747	.7491	.7479	.031
S99GGP-141612 S99GGP-141616	7/8	1	3/4 1	.8791	.8757	1.0005	.9997	.8741	.8729	.031
S99GGP-161808 S99GGP-161812 S99GGP-161816 S99GGP-161824	1	1-1/8	1/2 3/4 1 1-1/2	1.0041	1.0007	1.1255	1.1247	.9991	.9979	.031

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

General Purpose Flanged Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- MAINTENANCE-FREE ■ DRY-RUNNING ■ HIGH WEAR RESISTANCE
 ■ ABOVE AVERAGE LOADS



Continued on the next page

MATERIAL: G300® Polymer

TEMPERATURE RANGE: -40°F to +266°F

Catalog Number	I.D.	O.D.	L	A	B	I.D. After Pressfit	
						Max.	Min.
S99GGF-020304	1/8	3/16	1/4	.312		.1269	.1251
S99GGF-030406	3/16	1/4	3/8	.375	.032	.1892	.1873
S99GGF-040504	1/4	5/16	1/4	.500	.032	.2521	.2498
S99GGF-040506			3/8				
S99GGF-040508			1/2				
S99GGF-040512			3/4				
S99GGF-060704	3/8	15/32	1/4	.687	.046	.3773	.3750
S99GGF-060706			3/8				
S99GGF-060708			1/2				
S99GGF-080904	1/2	19/32	1/4	.875	.046	.5030	.5003
S99GGF-080906			3/8				
S99GGF-080908			1/2				
S99GGF-080916			1				

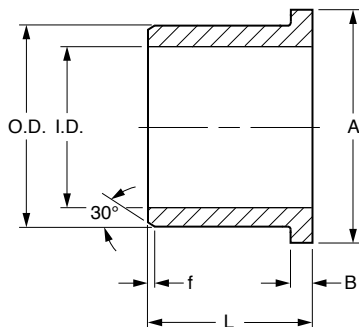
Catalog Number	Housing Bore		Shaft Size		f
	Max.	Min.	Max.	Min.	
S99GGF-020304	.1878	.1873	.1243	.1236	.019
S99GGF-030406	.2503	.2497	.1865	.1858	
S99GGF-040504	.3128	.3122	.2490	.2481	.019
S99GGF-040506					
S99GGF-040508					
S99GGF-040512					
S99GGF-060704	.4691	.4684	.3740	.3731	.019
S99GGF-060706					
S99GGF-060708					
S99GGF-080904	.5941	.5934	.4990	.4980	.031
S99GGF-080906					
S99GGF-080908					
S99GGF-080916					

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

General Purpose Flanged Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-328-3300 ■ Fax: 516-326-8827

- MAINTENANCE-FREE ■ DRY-RUNNING ■ HIGH WEAR RESISTANCE
 ■ ABOVE AVERAGE LOADS



Continued from the previous page

MATERIAL: G300® Polymer

TEMPERATURE RANGE: -40°F to +266°F

Catalog Number	I.D.	O.D.	L	A	B	I.D. After Pressfit	
						Max.	Min.
S99GGF-101108 S99GGF-101112 S99GGF-101116	5/8	23/32	1/2 3/4 1	.937	.046	.6280	.6253
S99GGF-121408 S99GGF-121412 S99GGF-121416 S99GGF-121424	3/4	7/8	1/2 3/4 1 1-1/2	1.125	.062	.7541	.7507
S99GGF-141612 S99GGF-141616	7/8	1	3/4 1	1.250	.062	.8791	.8757
S99GGF-161808 S99GGF-161812 S99GGF-161816 S99GGF-161824	1	1-1/8	1/2 3/4 1 1-1/2	1.375	.062	1.0041	1.0007

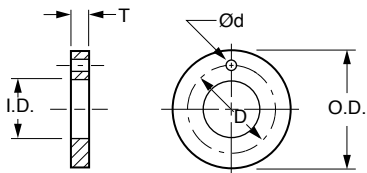
Catalog Number	Housing Bore		Shaft Size		f
	Max.	Min.	Max.	Min.	
S99GGF-101108 S99GGF-101112 S99GGF-101116	.7192	.7184	.6240	.6230	.031
S99GGF-121408 S99GGF-121412 S99GGF-121416 S99GGF-121424	.8755	.8747	.7491	.7479	.031
S99GGF-141612 S99GGF-141616	1.0005	.9997	.8741	.8729	.031
S99GGF-161808 S99GGF-161812 S99GGF-161816 S99GGF-161824	1.1255	1.1247	.9991	.9979	.031

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

■ GENERAL PURPOSE

■ ECONOMICAL

■ ISO 3547-1

**SPECIFICATIONS:**

Tensile Strength at 68°F – 30,400 psi

Compressive Strength – 11,300 psi

Coefficient of Friction – 0.08 - 0.15
(dynamic against steel)

PV Value, max. (dry) – 12,000 psi x fpm

FEATURES:

- Maintenance-Free
- Dry Running
- High Wear Resistance
- Resistant to Dust and Dirt
- Vibration Damping

MATERIAL: G300® Polymer**TEMPERATURE RANGE:** Continuous – -40°F to +266°F

Intermittent – +428°F

Catalog Number	I.D. +.010 -.000	O.D. +.000 -.010	T Thickness +.000 -.002	D ±.005	d +.015 +.005
S99GGT-038063040	.375	.625	.0400	*	*
S99GGT-050088059	.500	.875	.0585	.692	.067
S99GGT-063113059	.625	1.125	.0585	.880	.099
S99GGT-075125059	.750	1.250		1.005	.099
S99GGT-088150059	.875	1.500	.0585	1.192	.130
S99GGT-100175059	1.000	1.750		1.380	.130

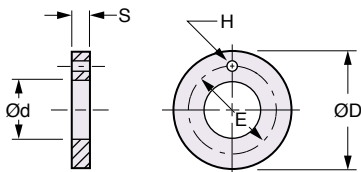
NOTE: Other sizes available upon request.

*No hole

■ GENERAL PURPOSE

■ ECONOMICAL

■ DIN-1494

**SPECIFICATIONS:**Tensile Strength at 20°C – 2137 kgf/cm²Compressive Strength – 794 kgf/cm²Coefficient of Friction – 0.08...0.15
(dynamic against steel)PV Value, max. (dry) – 256 kgf/cm² x m/min**FEATURES:**

- Maintenance-Free
- Dry Running
- High Wear Resistance
- Resistant to Dust and Dirt
- Vibration Damping

MATERIAL: G300® Polymer**TEMPERATURE RANGE:** Continuous – -40°C to +130°C

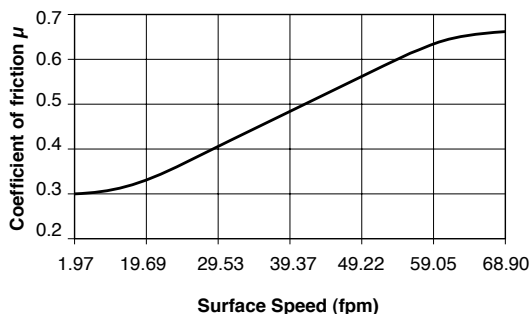
Intermittent – +220°C

Catalog Number	d +0.25	D -0.25	S -0.05	E ±0.12	H +0.375 +0.125
S99GGTM050906	5	9.5	0.6	*	*
S99GGTM062015	6	20	1.5	13	1.5
S99GGTM071305	7	13	0.5	*	*
S99GGTM081515	8	15	1.5	11.5	1.5
S99GGTM101810	10	18	1	*	*
S99GGTM122415	12	24	1.5	18	1.5
S99GGTM152415	15	24		19.5	1.5
S99GGTM183215	18	32	1.5	25	2
S99GGTM203615	20	36		28	3

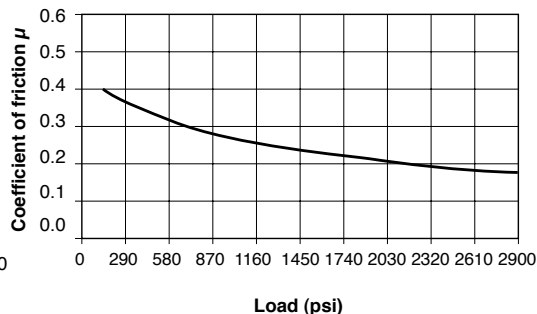
NOTE: Other sizes available upon request.

*No hole

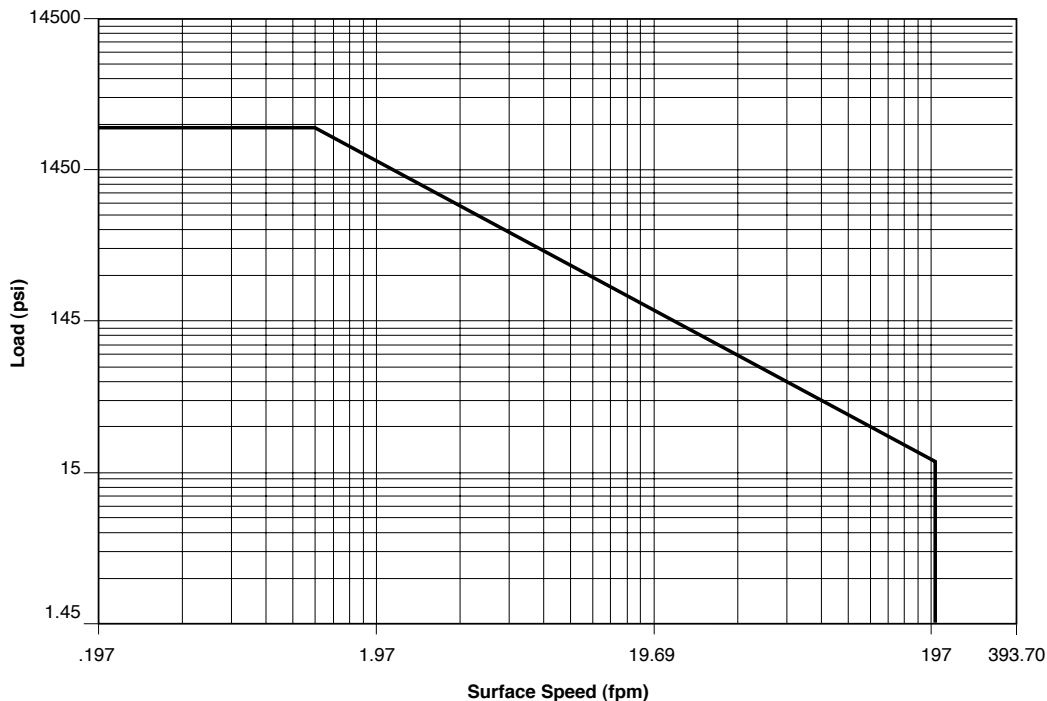
■ M250® POLYMER



**Graph 1: Coefficient of friction of M250® as a result of the surface speed;
p = 108 psi**



Graph 2: Coefficient of friction of M250® as a result of the load; v = 1.97 fpm

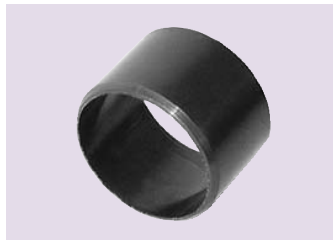
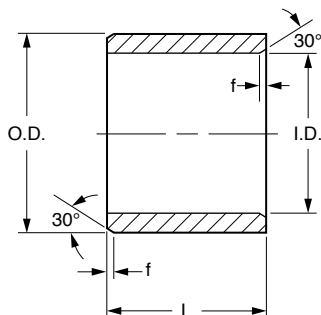


Graph 3: Permissible p x v value for M250® running dry against a steel shaft, at 68°F.

Heavy-Duty Sleeve Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-328-3300 ■ Fax: 516-328-8827

- EXCELLENT VIBRATION DAMPENING
- HIGH IMPACT RESISTANCE
- ALLOWS DIRT PENETRATION FOR SHAFT PROTECTION



MATERIAL: M250® Polymer

TEMPERATURE RANGE: -40°F to +176°F

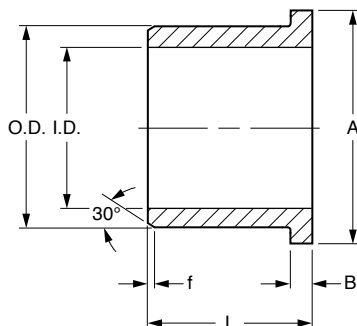
Catalog Number	I.D.	O.D.	L	I.D. After Pressfit		Housing Bore		Shaft Size		f
				Max.	Min.	Max.	Min.	Max.	Min.	
S99GHP-020304 S99GHP-020404	1/8	3/16 1/4	1/4	.1280	.1262	.1990	.1985	.1250	.1241	.019
S99GHP-030404 S99GHP-030406 S99GHP-030504 S99GHP-030506	3/16	1/4	1/4 3/8	.1905	.1887	.2515	.2510	.1875	.1866	
		5/16	1/4 3/8	.1905	.1887	.3140	.3135	.1875	.1866	
S99GHP-040506 S99GHP-040508 S99GHP-040604 S99GHP-040606 S99GHP-040608	1/4	5/16	3/8 1/2	.2539	.2516	.3140	.3135	.2500	.2491	.019
		3/8	1/4 3/8 1/2	.2539	.2516	.3765	.3760	.2500	.2491	.019
S99GHP-060806 S99GHP-060808 S99GHP-060812	3/8	1/2	3/8 1/2 3/4	.3789	.3766	.5015	.5010	.3750	.3741	.019
S99GHP-081004 S99GHP-081006 S99GHP-081008 S99GHP-081012 S99GHP-081016	1/2	5/8	1/4 3/8 1/2 3/4 1	.5027	.5020	.6260	.6250	.5000	.4990	.031
S99GHP-101208 S99GHP-101216 S99GHP-101312 S99GHP-101316	5/8	3/4	1/2 1	.6297	.6270	.7510	.7500	.6250	.6240	.031
		13/16	3/4 1	.6297	.6270	.8135	.8125	.6250	.6240	.031
S99GHP-121412 S99GHP-121416 S99GHP-121424	3/4	7/8	3/4 1 1-1/2	.7541	.7507	.8755	.8747	.7491	.7479	.031
S99GHP-141612 S99GHP-141616	7/8	1	3/4 1	.8809	.8775	1.0010	1.0000	.8750	.8740	.031
S99GHP-161812 S99GHP-161816 S99GHP-161824	1	1-1/8	3/4 1 1-1/2	1.0059	1.0025	1.1260	1.1250	1.0000	.9990	.031

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

Heavy-Duty Flanged Bearings

Stock Drive Products/Sterling Instrument Phone: 516-326-3300 Fax: 516-326-8827

- EXCELLENT VIBRATION DAMPENING ■ HIGH IMPACT RESISTANCE
- ALLOWS DIRT PENETRATION FOR SHAFT PROTECTION



Continued on the next page

MATERIAL: M250® Polymer

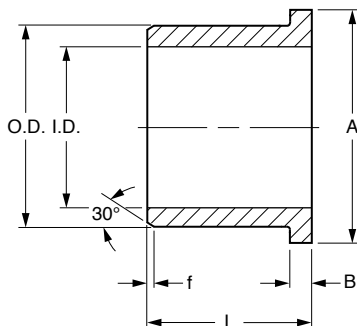
TEMPERATURE RANGE: -40°F to +176°F

Catalog Number	I.D.	O.D.	L	A	B	I.D. After Pressfit	
						Max.	Min.
S99GHF-020304 S99GHF-020404	1/8	3/16 1/4	1/4	.3125 .360	.032 .047	.1280	.1262
S99GHF-030404 S99GHF-030406	3/16	1/4	1/4 3/8	.375	.032	.1905	.1887
S99GHF-030504 S99GHF-030506		5/16	1/4 3/8	.370	.047	.1905	.1887
S99GHF-040506 S99GHF-040508	1/4	5/16	3/8 1/2	.4375	.032	.2539	.2516
S99GHF-040604 S99GHF-040606		3/8	1/4 3/8	.560	.047	.2539	.2516
S99GHF-040608			1/2				
S99GHF-060806 S99GHF-060808 S99GHF-060812		1/2	3/8 1/2 3/4	.625	.062	.3789	.3766
S99GHF-081004 S99GHF-081006	1/2	5/8	1/4 3/8	.875	.062	.5047	.5020

Catalog Number	Housing Bore		Shaft Size		f
	Max.	Min.	Max.	Min.	
S99GHF-020304 S99GHF-020404	.1885	.1880	.1250	.1241	.019
S99GHF-030404 S99GHF-030406	.2515	.2510	.1875	.1866	.019
S99GHF-030504 S99GHF-030506	.3140	.3135	.1875	.1866	.019
S99GHF-040506 S99GHF-040508			.2500	.2491	.019
S99GHF-040604 S99GHF-040606 S99GHF-040608	.3765	.3760	.2500	.2491	.019
S99GHF-060806 S99GHF-060808 S99GHF-060812	.5015	.5010	.3750	.3741	.019
S99GHF-081004 S99GHF-081006	.6260	.6250	.5000	.4990	.031

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

- EXCELLENT VIBRATION DAMPENING
- HIGH IMPACT RESISTANCE
- ALLOWS DIRT PENETRATION FOR SHAFT PROTECTION



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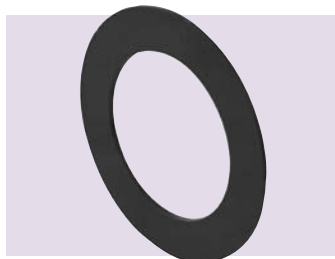
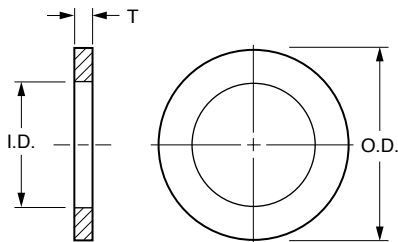
MATERIAL: M250® Polymer

TEMPERATURE RANGE: -40°F to +176°F

Catalog Number	I.D.	O.D.	L	A	B	I.D. After Pressfit	
						Max.	Min.
S99GHF-081008 S99GHF-081012 S99GHF-081016	1/2	5/8	1/2 3/4 1	.875	.062	.5047	.5020
S99GHF-101208 S99GHF-101216	5/8	3/4	1/2 1	1.000	.062	.6297	.6270
S99GHF-101312 S99GHF-101316		13/16	3/4 1	1.063	.156		
S99GHF-121412 S99GHF-121416 S99GHF-121424	3/4	7/8	3/4 1 1-1/2	1.125	.062	.7559	.7525
S99GHF-141612 S99GHF-141616	7/8	1	3/4 1	1.250	.062	.8809	.8775
S99GHF-161812 S99GHF-161816 S99GHF-161824	1	1-1/8	3/4 1 1-1/2	1.375	.062	1.0059	1.0025

Catalog Number	Housing Bore		Shaft Size		f
	Max.	Min.	Max.	Min.	
S99GHF-081008 S99GHF-081012 S99GHF-081016	.6260	.6250	.5000	.4990	.031
S99GHF-101208 S99GHF-101216	.7510	.7500	.6250	.6240	
S99GHF-101312 S99GHF-101316	.8135	.8125	.6250	.6240	.031
S99GHF-121412 S99GHF-121416 S99GHF-121424	.8760	.8750	.7500	.7490	
S99GHF-141612 S99GHF-141616	1.0010	1.0000	.8750	.8740	.031
S99GHF-161812 S99GHF-161816 S99GHF-161824	1.1260	1.1250	1.0000	.9990	

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

**SPECIFICATIONS:**

Tensile Strength – at 68°F (16240 psi)

Coefficient of friction, dynamic against steel – 0.1-0.3 μ **FEATURES:**

- Excellent vibration damping
- Resistant to edge loading
- High-impact resistance

TEMPERATURE RANGE: -40°F to +176°F

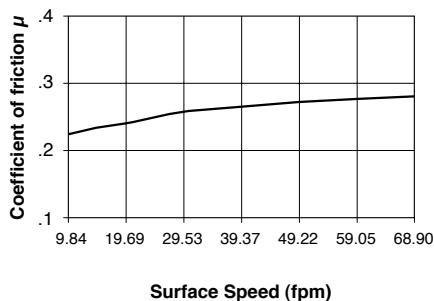
MATERIAL: M250® Polymer

SHORT-TERM TEMPERATURE: +338°F Max.

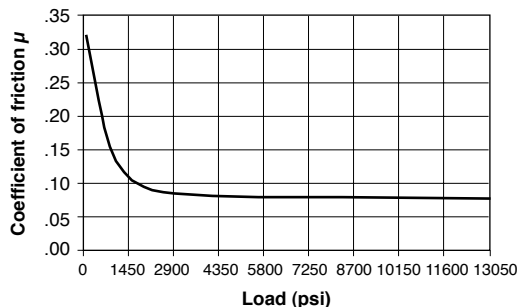
Catalog Number	Nom. I.D.	I.D.		O.D.		T
		Min.	Max.	Min.	Max.	
S99GMT-025062090	1/4	.2251	.2510	.6094	.6201	.0902
S99GMT-031069080	5/16	.3185	.3272	.6766	.6874	.0802
S99GMT-038075090	3/8	.3811	.3941	.7370	.7500	.0902
S99GMT-050082090	1/2	.5031	.5101	.8071	.8220	.0902
S99GMT-063100094	5/8	.6303	.6374	.9870	1.0000	.0944
S99GMT-075106094	3/4	.7602	.7677	1.0500	1.0634	.0944
S99GMT-100150125	1	1.0157	1.0268	1.4843	1.5000	.1252
S99GMT-125214098	1-1/4	1.2835	1.2996	2.1220	2.1402	.0980
S99GMT-150250125	1-1/2	1.5067	1.5220	2.4847	2.5000	.1252

■ PART 2 OF 2. FOR MORE PROPERTIES, SEE PAGE 110

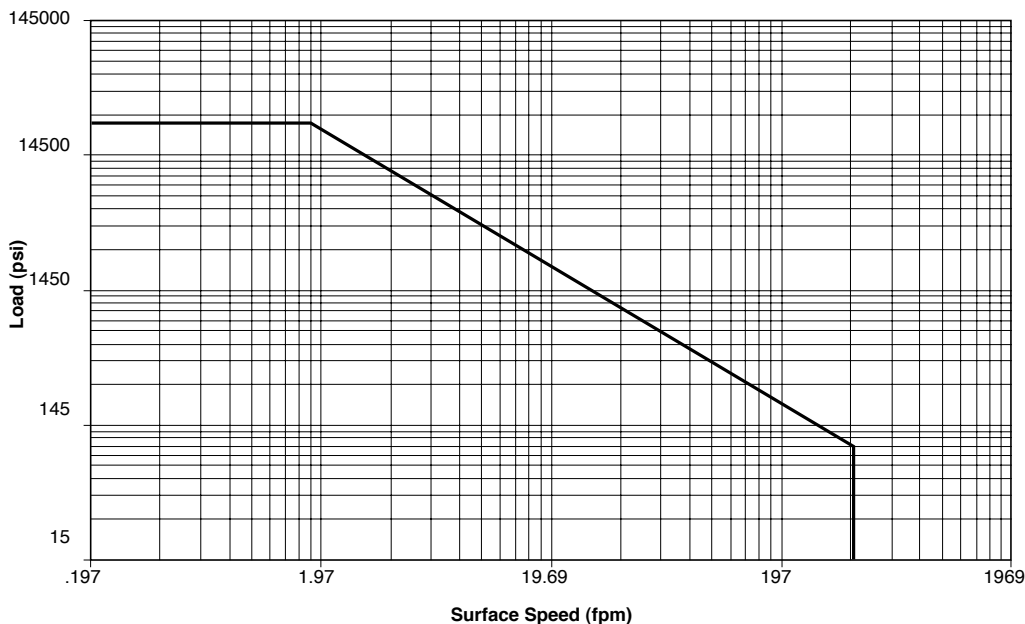
Material:	G300® (1)	T500® (2)	M250® (3)	L280® (4)	J® (5)
					
Product Pages:	P. 112	P. 124	P. 118	P. 130	P. 136
PHYSICAL AND THERMAL PROPERTIES					
Max. long-term application temperature °C	130	250	80	90	90
Max. short-term application temperature °C	220	315	170	180	120
Min. application temperature °C	-40	-100	-40	-40	-50
Thermal conductivity (W/m x K)	0.24	0.6	0.24	0.24	0.25
Coefficient of thermal expansion (at 23°C) (K ⁻¹ x 10 ⁻⁵)	9	5	10	9	10
ELECTRICAL PROPERTIES					
Specific volume resistance Ωcm	>10 ¹³	>10 ⁵	>10 ¹³	>10 ¹³	>10 ¹³
Surface resistance Ω	>10 ¹¹	>10 ³	>10 ¹¹	>10 ¹²	>10 ¹²
For Additional Data:	(1) See P.111	(2) See P.123	(3) See P.117	(4) See P.129	(5) See P.135

T500® POLYMER


Graph 1: Coefficient of friction for T500® as a result of the surface speed; p = 108 psi, shaft Cold Rolled Steel



Graph 2: Coefficient of friction for T500® as a result of the load; v = 1.97 fpm



Graph 3: Permissible p x v values for T500® running dry against a steel shaft, at 68°F.

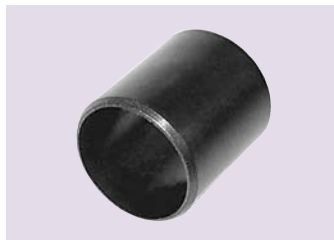
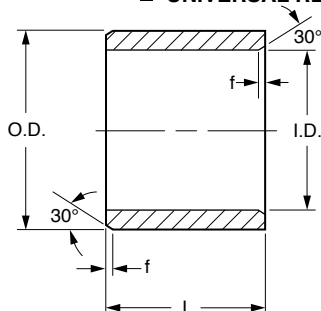
High-Temperature Sleeve Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ VERY LOW MOISTURE ABSORPTION

■ HIGH COMPRESSIVE STRENGTH

■ UNIVERSAL RESISTANCE TO CHEMICALS



MATERIAL: T500® Polymer

TEMPERATURE RANGE: -148°F to +482°F

Catalog Number	I.D.	O.D.	L	I.D. After Pressfit		Housing Bore		Shaft Size		f
				Max.	Min.	Max.	Min.	Max.	Min.	
S99GTP-020303 S99GTP-020306	1/8	3/16	3/16 3/8	.1269	.1251	.1878	.1873	.1243	.1236	.019
S99GTP-030404 S99GTP-030406	3/16	1/4	1/4 3/8	.1892	.1873	.2503	.2497	.1865	.1858	.019
S99GTP-040504 S99GTP-040506 S99GTP-040508	1/4	5/16	1/4 3/8 1/2	.2521	.2498	.3128	.3122	.2490	.2481	.019
S99GTP-060704 S99GTP-060706 S99GTP-060708	3/8	15/32	1/4 3/8 1/2	.3773	.3750	.4691	.4684	.3740	.3731	.019
S99GTP-080904 S99GTP-080906 S99GTP-080908 S99GTP-080912 S99GTP-080916	1/2	19/32	1/4 3/8 1/2 3/4 1	.5030	.5003	.5941	.5934	.4990	.4980	.031
S99GTP-101104 S99GTP-101106 S99GTP-101108 S99GTP-101112 S99GTP-101116	5/8	23/32	1/4 3/8 1/2 3/4 1	.6280	.6253	.7192	.7184	.6240	.6230	.031
S99GTP-121408 S99GTP-121412 S99GTP-121416	3/4	7/8	1/2 3/4 1	.7541	.7507	.8755	.8747	.7491	.7479	.031
S99GTP-141612 S99GTP-141616	7/8	1	3/4 1	.8791	.8757	1.0005	.9997	.8741	.8729	.031
S99GTP-161808 S99GTP-161812 S99GTP-161816 S99GTP-161824	1	1-1/8	1/2 3/4 1 1-1/2	1.0041	1.0007	1.1255	1.1247	.9991	.9979	.031

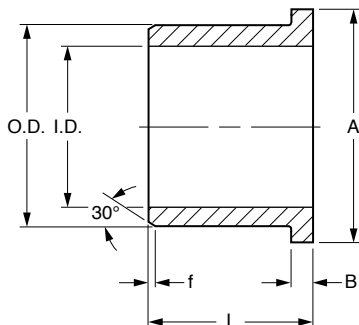
NOTE: For additional information concerning the bearing material, see pages 110 & 122.



High-Temperature Flanged Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- VERY LOW MOISTURE ABSORPTION
- HIGH COMPRESSIVE STRENGTH
- UNIVERSAL RESISTANCE TO CHEMICALS



Continued on the next page

MATERIAL: T500® Polymer

TEMPERATURE RANGE: -148°F to +482°F

Catalog Number	I.D.	O.D.	L	A	B	I.D. After Pressfit	
						Max.	Min.
S99GTF-020303 S99GTF-020306	1/8	3/16	3/16 3/8	.312	.032	.1269	.1251
S99GTF-030404 S99GTF-030406	3/16	1/4	1/4 3/8	.375	.032	.1892	.1873
S99GTF-040504 S99GTF-040506 S99GTF-040508 S99GTF-040512	1/4	5/16	1/4 3/8 1/2 3/4	.500	.032	.2521	.2498
S99GTF-060704 S99GTF-060706 S99GTF-060708	3/8	15/32	1/4 3/8 1/2	.687	.046	.3773	.3750
S99GTF-080904 S99GTF-080906 S99GTF-080908 S99GTF-080916	1/2	19/32	1/4 3/8 1/2 1	.875	.046	.5030	.5003

Catalog Number	Housing Bore		Shaft Size		f
	Max.	Min.	Max.	Min.	
S99GTF-020303 S99GTF-020306	.1878	.1873	.1243	.1236	.019
S99GTF-030404 S99GTF-030406	.2503	.2497	.1865	.1858	.019
S99GTF-040504 S99GTF-040506 S99GTF-040508 S99GTF-040512	.3128	.3122	.2490	.2481	.019
S99GTF-060704 S99GTF-060706 S99GTF-060708	.4691	.4684	.3740	.3731	.019
S99GTF-080904 S99GTF-080906 S99GTF-080908 S99GTF-080916	.5941	.5934	.4990	.4980	.031

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

High-Temperature Flanged Bearings

Stock Drive Products/Sterling Instrument

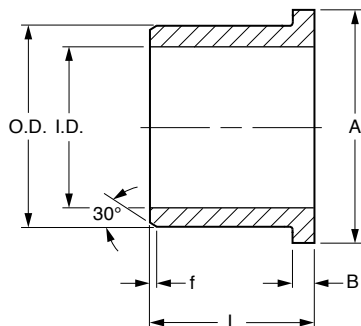
Phone: 516-326-3300

Fax: 516-326-8827

■ VERY LOW MOISTURE ABSORPTION

■ HIGH COMPRESSIVE STRENGTH

■ UNIVERSAL RESISTANCE TO CHEMICALS



Continued from the previous page

MATERIAL: T500® Polymer

TEMPERATURE RANGE: -148°F to +482°F

Catalog Number	I.D.	O.D.	L	A	B	I.D. After Pressfit	
						Max.	Min.
S99GTF-101108 S99GTF-101112 S99GTF-101116	5/8	23/32	1/2 3/4 1	.937	.046	.6280	.6253
S99GTF-121408 S99GTF-121412 S99GTF-121416	3/4	7/8	1/2 3/4 1	1.125	.062	.7541	.7507
S99GTF-141612 S99GTF-141616	7/8	1	3/4 1	1.250	.062	.8791	.8757
S99GTF-161808 S99GTF-161812 S99GTF-161816 S99GTF-161824	1	1-1/8	1/2 3/4 1 1-1/2	1.375	.062	1.0041	1.0007

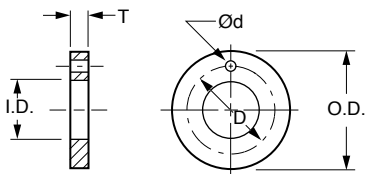
Catalog Number	Housing Bore		Shaft Size		f
	Max.	Min.	Max.	Min.	
S99GTF-101108 S99GTF-101112 S99GTF-101116	.7192	.7184	.6240	.6230	.031
S99GTF-121408 S99GTF-121412 S99GTF-121416	.8755	.8747	.7491	.7479	.031
S99GTF-141612 S99GTF-141616	1.0005	.9997	.8741	.8729	.031
S99GTF-161808 S99GTF-161812 S99GTF-161816 S99GTF-161824	1.1255	1.1247	.9991	.9979	.031

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

■ HIGH LOAD

■ HIGH-TEMPERATURE

■ HIGH-SPEED

**SPECIFICATIONS:**

Tensile Strength at 68°F – 24,600 psi

Compressive Strength – 14,500 psi

Coefficient of Friction – .090 - .270
(dynamic against steel)

PV Value, max. (dry) – 37,700 psi x fpm

FEATURES:

- High Compression Strength
- Chemical-Resistant
- Very Low Moisture Absorption
- Great Wear Resistance

MATERIAL: T500® Polymer**OPERATING TEMPERATURE:** Continuous – -148°F to +482°F
Intermittent – +599°F

Catalog Number	I.D. +.010 -.000	O.D. +.000 -.010	T Thickness +.000 -.002	D ±.005	d +.015 +.005
S99GTT-050088059	.500	.875		.692	.067
S99GTT-063113059	.625	1.125	.0585	.880	.099
S99GTT-075125059	.750	1.250		1.005	.099
S99GTT-088138059	.875	1.375		1.125	
S99GTT-088150059	.875	1.500	.0585	1.192	.130
S99GTT-100175059	1.000	1.750		1.380	
S99GTT-113163059	1.125	1.625		*	*
S99GTT-125213059	1.250	2.125	.0585	1.692	.161
S99GTT-175275059	1.750	2.750		2.255	.192
S99GTT-200300090	2.000	3.000	.0895	2.505	.192

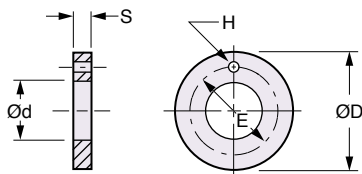
*No hole

■ HIGH LOAD

■ HIGH-TEMPERATURE

■ HIGH-SPEED

■ ISO 3547-1

**SPECIFICATIONS:**Tensile Strength at 20°C – 1733 kgf/cm²Compressive Strength – 1019 kgf/cm²Coefficient of Friction – 0.09...0.27
(dynamic against steel)PV Value, max. (dry) – 808 kgf/cm² x m/min**FEATURES:**

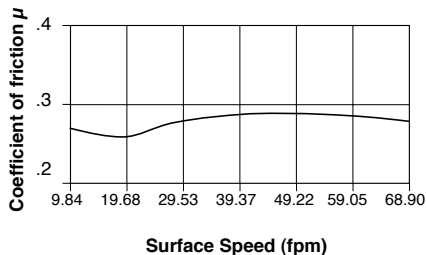
- High Compression Strength
- Chemical-Resistant
- Very Low Moisture Absorption
- Great Wear Resistance

MATERIAL: T500® Polymer**OPERATING TEMPERATURE:** Continuous – -100°C to +250°C

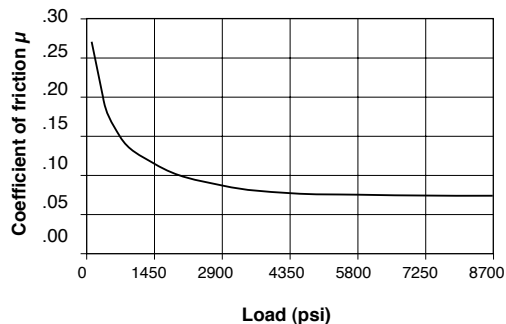
Intermittent – +315°C

Catalog Number	d + 0.25	D - 0.25	S Thickness - 0.05	E ± 0.12	H + 0.375 + 0.125
S99GTTM062015	6	20	1.5	13	1.5
S99GTTM081815	8	18	1.5	13	1.5
S99GTTM101810	10	18	1	*	*
S99GTTM122415	12	24		18	1.5
S99GTTM142615	14	26	1.5	20	2
S99GTTM152415	15	24		19.5	1.5
S99GTTM163015	16	30		22	2
S99GTTM183215	18	32	1.5	25	2
S99GTTM203615	20	36		28	3
S99GTTM223815	22	38		30	
S99GTTM244215	24	42	1.5	33	3
S99GTTM264415	26	44		35	
S99GTTM284815	28	48		38	
S99GTTM325415	32	54	1.5	38	4
S99GTTM386215	38	62		50	
S99GTTM426615	42	66	1.5	84	
S99GTTM487420	48	74	2	61	
S99GTTM527820	52	78	2	65	
S99GTTM629020	62	90	2	76	

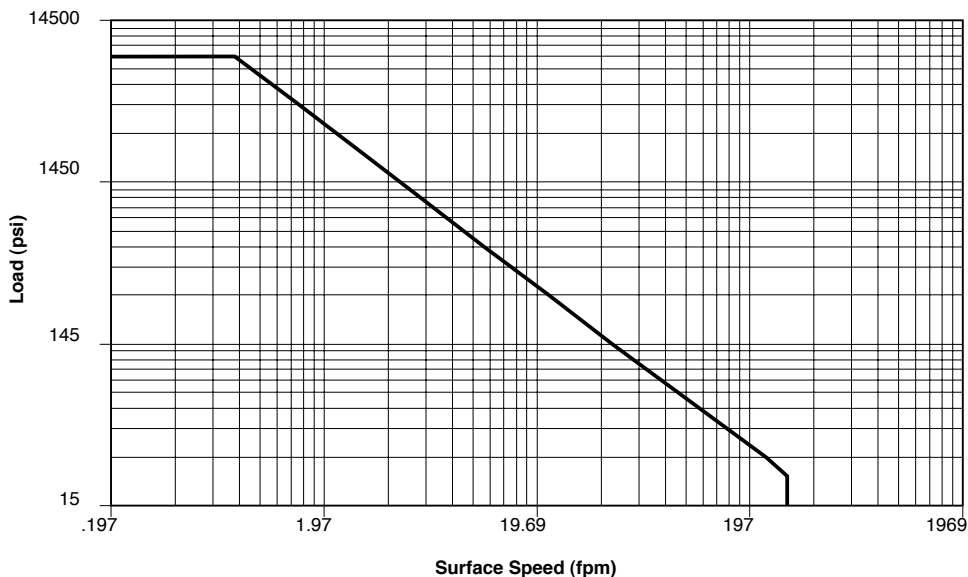
*No hole

■ L280® POLYMER


Graph 1: Coefficient of friction of L280® as a result of the surface speed; p = 108 psi, shaft made of Cold Rolled Steel



Graph 2: Coefficient of friction of L280® as a result of the load; v = 1.97 fpm



Graph 3: Permissible p x v - values for L280® running dry against a steel shaft, at 68°F.



Stock Drive Products/Sterling Instrument ■ Phone: 516-328-3300 ■ Fax: 516-326-8827

-
- Technical drawing of a hook bolt. The front view (left) shows a bolt with a hexagonal head and a threaded shank. Dimensions labeled are: W (total width), H (head width), B (head height), and A (shank length). The side view (right) shows the hook profile. Dimensions labeled are: D (hook width), L (total height), F (height from shank to hook center), and T (shank thickness).



OPERATING TEMPERATURE: -40°F to +194°F

Catalog Number*	B**	D	T Thread Size	H	W	F	A	L	Shaft Size	
									Min.	Max.
S62GMR-025075 ☐	.2500	.750	1/4-28	.250	.365	1.562	1.000	1.937	.2485	.2500
S62GMR-031088 ☐	.3125	.875	5/16-24	.312	.437	1.875	1.250	2.313	.3110	.3125
S62GMR-038100 ☐	.3750	1.000	3/8-24	.359	.500	1.938	1.250	2.438	.3735	.3750
S62GMR-050131 ☐	.5000	1.312	1/2-20	.453	.625	2.428	1.500	3.094	.4983	.5000
S62GMR-063150 ☐	.6250	1.500	5/8-18	.484	.750	2.625	1.625	3.375	.6233	.6250
S62GMR-075175 ☐	.7500	1.750	3/4-16	.593	.875	2.875	1.750	3.750	.7479	.7500
S62GMR-100275 ☐	1.0000	2.750	1-12	1.000	1.375	4.125	2.350	5.500	.9980	1.0000

****Bore Tolerance:** .2500 to .3750 +.0033
+.0010
.5000 & .6250 +.0040
+.0013
.7500 & 1.0000 +.0049
+.0016

Male Plastic Rod End Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- MAINTENANCE-FREE ■ SELF-LUBRICATING ■ LIGHTWEIGHT
 ■ COMPENSATES FOR ALIGNMENT ERRORS AND EDGE LOADS

Continued from the previous page

Catalog Number	Max. Angle of Pivot	Max. Static Tensile Strength lb.		Max. Radial Load lb.	
		Short-Term	Long-Term	Short-Term	Long-Term
S62GMR-025075 ☐	25°	202	101	22	11
S62GMR-031088 ☐		247	123	33	16
S62GMR-038100 ☐	22°	337	168	78	39
S62GMR-050131 ☐		562	281	101	50
S62GMR-063150 ☐	22°	186	393	134	67
S62GMR-075175 ☐	22°	876	438	224	112
S62GMR-100275 ☐	20°	989	494	292	146

Catalog Number	Min. Thread Engagement in.	Max. Thread Strength ft. lb.	Max. Torque Strength Through Ball ft. lb.
S62GMR-025075 ☐	.700	2.95	.74
S62GMR-031088 ☐	.875	7.38	1.48
S62GMR-038100 ☐	.875	11.06	2.21
S62GMR-050131 ☐	1.050	25.82	6.64
S62GMR-063150 ☐	1.137	36.88	8.85
S62GMR-075175 ☐	1.226	51.63	18.44
S62GMR-100275 ☐	1.488	62.70	33.19

NOTE: For additional information concerning the bearing material, see pages 110 & 122.

Did You Know?

...That we provide a center distance program online to automate your timing belt and pulley design at:
<http://sdp-si.com/cd/default.htm>

Female Plastic Rod End Bearings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

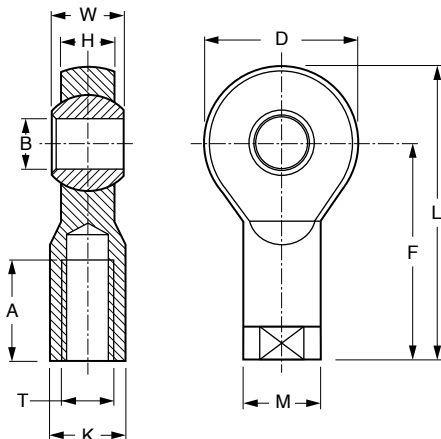
Fax: 516-326-8827

■ MAINTENANCE-FREE

■ SELF-LUBRICATING

■ LIGHTWEIGHT

■ COMPENSATES FOR ALIGNMENT ERRORS AND EDGE LOADS



Continued on the next page

MATERIAL: Body – Thermoplastic

Ball – L280® Polymer

OPERATING TEMPERATURE: -40°F to +194°F

Catalog Number*	B**	D	T Thread Size	M	H	W	F	A	L	K Wrench Size	Shaft Size	
											Min.	Max.
S62GFR-025075 ☐	.2500	.750	1/4-28	.469	.272	.365	1.312	.687	1.687	.375	.2485	.2500
S62GFR-031088 ☐	.3125	.875	5/16-24	.500	.340	.437	1.375	.687	1.813	.437	.3110	.3125
S62GFR-038100 ☐	.3750	1.000	3/8-24	.687	.394	.500	1.625	.812	2.125	.562	.3735	.3750
S62GFR-050131 ☐	.5000	1.312	1/2-20	.875	.487	.625	2.125	1.062	2.781	.750	.4983	.5000
S62GFR-063150 ☐	.6250	1.500	5/8-18	1.000	.545	.750	2.500	1.375	3.250	.875	.6235	.6250
S62GFR-075175 ☐	.7500	1.750	3/4-16	1.125	.676	.875	2.875	1.562	3.750	1.000	.7479	.7500
S62GFR-100275 ☐	1.0000	2.750	1-12	1.625	1.000	1.375	4.125	2.125	5.500	1.500	.9980	1.0000

NOTE: For additional information concerning the bearing material, see pages 110 & 122.*To complete Catalog Number, specify **R** for Right-Hand Thread or **L** for Left-Hand Thread.**Bore Tolerance: .2500 to .3750 +.0033
+.0010.5000 & .6250 +.0040
+.0013.7500 & 1.0000 +.0049
+.0016

Female Plastic Rod End Bearings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- MAINTENANCE-FREE ■ SELF-LUBRICATING ■ LIGHTWEIGHT
 ■ COMPENSATES FOR ALIGNMENT ERRORS AND EDGE LOADS

Continued from the previous page

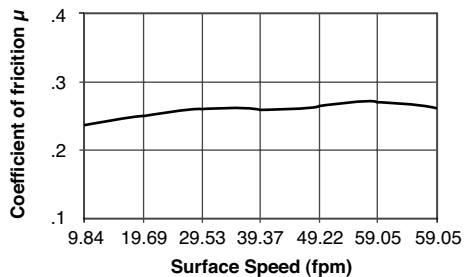
Catalog Number	Max. Angle of Pivot	Max. Static Tensile Strength lb.		Max. Radial Load lb.	
		Short-Term	Long-Term	Short-Term	Long-Term
S62GFR-025075 ☐	25°	248	124	90	45
S62GFR-031088 ☐		383	192	112	56
S62GFR-038100 ☐	22°	450	225	225	112
S62GFR-050131 ☐		585	293	337	169
S62GFR-063150 ☐	22°	1103	551	382	191
S62GFR-075175 ☐	22°	1260	630	517	259
S62GFR-100275 ☐	20°	1349	674	584	293

Catalog Number	Min. Thread Engagement in.	Max. Thread Strength ft. lb.
S62GFR-025075 ☐	.480	3.68
S62GFR-031088 ☐		4.42
S62GFR-038100 ☐	.568	5.16
S62GFR-050131 ☐	.743	16.96
S62GFR-063150 ☐	.962	22.12
S62GFR-075175 ☐	1.093	29.50
S62GFR-100275 ☐	1.488	33.92

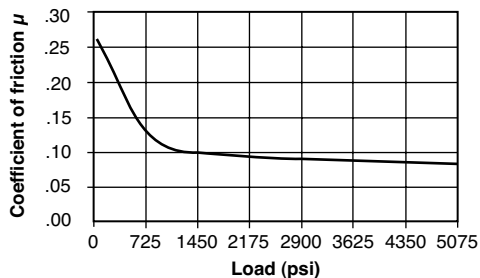
NOTE: For additional information concerning the bearing material, see pages 110 & 122.

Did You Know?

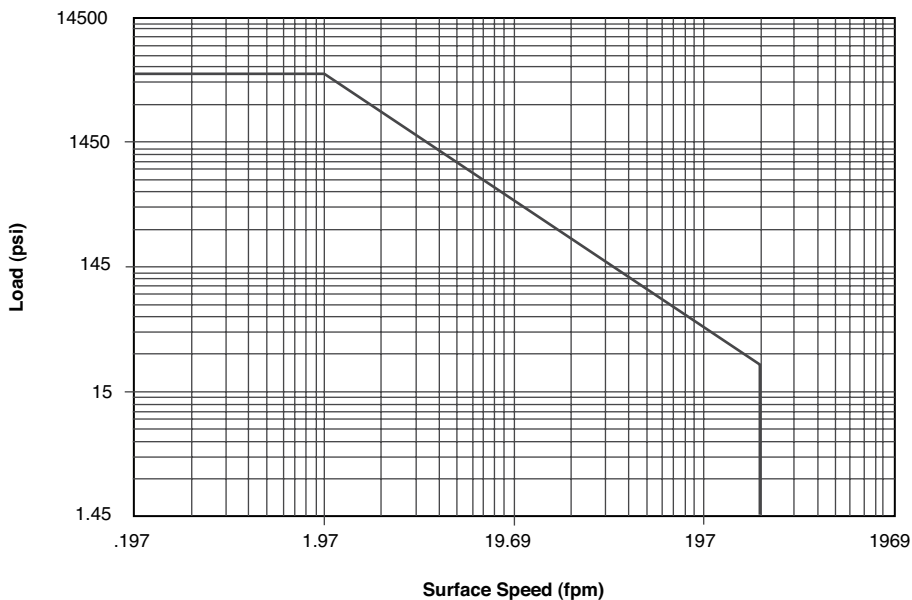
...That **SDP/SI** is well-equipped to handle the design and manufacture of parts based on customers' specifications. In most instances, we can supply a Certificate of Compliance or Material and Process Certifications. Please call, fax or e-mail your requirements to our Sales Department or Application Engineering.

■ J[®] POLYMER

Graph 1: Coefficient of friction of J[®] Polymer as a result of the surface speed; $p = 108$ psi



Graph 2: Coefficient of friction of J[®] Polymer as a result of load, $v = 1.97$ fpm

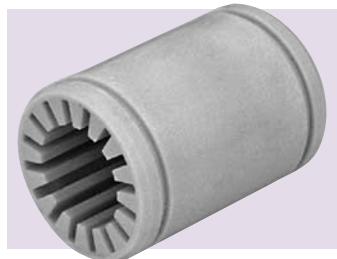
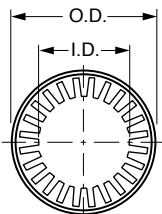
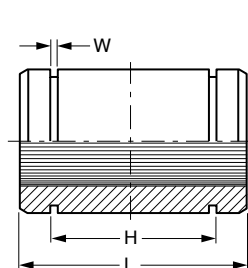


Graph 3: Permissible $p \times v$ value for J[®] Polymer running dry against steel shaft, at 68° F

Linear Plastic Bearings – Closed Series

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ CAN BE USED WITH ALUMINUM SHAFTING

**SHAFT RECOMMENDATIONS:**

Hard anodized aluminum, 8-16 RMS surface finish.
Other materials such as stainless steel, ceramic, case-hardened steel & chrome plated steel can be used, but if hardness is below Rc 50 and surface finish is outside 8-16 RMS, overall service life may be affected.

FEATURES:

- Self-Lubricating
- Corrosion- & Dirt-Resistant
- Lightweight
- Maintenance-Free
- Vibration Dampening
- Secured by Retaining Ring (not included)

OPERATING TEMPERATURE: Continuous – -58°F to +194°F
Intermittent – up to +248°F

MATERIAL: J® Polymer

Catalog Number	Nominal I.D.*	O.D. Δ h7	L Length -.012	H Groove Distance +.008	W Groove Width +.004	Load Capacity		Weight lb.
						Dynamic lbf	Static lbf	
S99GSP-050088125	.500	.875	1.250	1.012	.052	80	555	.02
S99GSP-063113150	.625	1.125	1.500	1.095	.062	141	992	.04
S99GSP-075125162	.750	1.250	1.620	1.250	.062	204	1428	.05
S99GSP-100156225	1.000	1.5625	2.250	1.864	.074	294	2062	.09
S99GSP-125200263	1.250	2.000	2.625	1.984	.074	595	4163	.18
S99GSP-150238300	1.500	2.375	3.000	2.390	.095	816	5710	.28
S99GSP-200300400	2.000	3.000	4.000	3.163	.111	1452	10152	.55

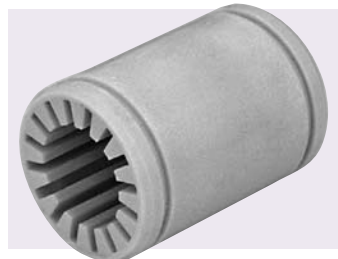
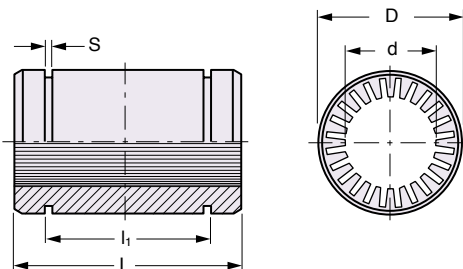
APPLICABLE RETAINING RINGS

Bearing Reference	Catalog Numbers
S99GSP-050088125	A 9Q27-087
S99GSP-063113150	A 9Q27-112
S99GSP-075125162	A 9Q27-125
S99GSP-100156225	A 9Q27-156
S99GSP-125200263	A 9Q27-200
S99GSP-150238300	A 9Q27-237
S99GSP-200300400	A 9Q27-300

BEARING TOLERANCES

*I.D. Tolerance:	.500 to .625 is +.0013, +.0030
	.750 to 1.000 is +.0016, +.0036
	1.250 to 1.500 is +.0020, +.0044
	2.000 is +.0024, +.0053
Δ O.D. Tolerance:	.875 to 1.125 is +.000, -.00083
	1.250 to 1.5625 is +.000, -.00098
	2.000 to 3.000 is +.000, -.00118

■ CAN BE USED WITH ALUMINUM SHAFTING

**SHAFT RECOMMENDATIONS:**

Hard anodized aluminum, 8-16 RMS surface finish. Other materials such as stainless steel, ceramic, case-hardened steel & chrome plated steel can be used, but if hardness is below HRC 50 and surface finish is outside 8-16 RMS, overall service life may be affected.

FEATURES:

- Self-Lubricating
- Corrosion- & Dirt-Resistant
- Lightweight
- Maintenance-Free
- Vibration Dampening
- Secured by Retaining Ring (not included)

OPERATING TEMPERATURE: Continuous – -50°C to +90°C
Intermittent – up to +120°C

MATERIAL: J[®] Polymer

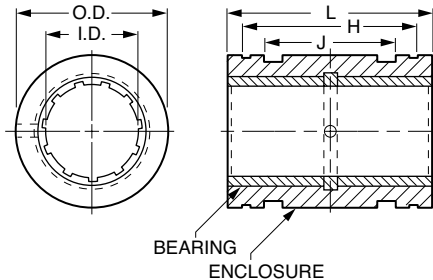
Catalog Number	d* Bore	D ^Δ h7	L Length - 0.3	L ₁ Groove Distance +0.2	S Groove Width +0.1	Load Capacity		Weight g
						Dynamic N	Static N	
S99GSPM0816025	8	16	25	16.2	1.1	249	1748	9
S99GSPM1019029	10	19	29	21.6	1.3	360	2535	14
S99GSPM1222032	12	22	32	22.6	1.3	476	3558	21
S99GSPM1628036	16	26	36	24.6	1.3	716	5035	28
S99GSPM2032045	20	32	45	31.2	1.6	1121	7873	49
S99GSPM2540058	25	40	58	43.7	1.85	1810	12686	108
S99GSPM3047068	30	47	68	51.7	1.85	2549	17846	162
S99GSPM4062080	40	62	80	60.3	2.15	3999	27997	334
S99GSPM5075100	50	75	100	77.3	2.65	6250	43748	579

APPLICABLE RETAINING RINGS

Bearing Reference	Catalog Numbers
S99GSPM0816025	—
S99GSPM1019029	MD047MQB019
S99GSPM1222032	MD047MQB022
S99GSPM1628036	MD047MQB026
S99GSPM2032045	MD047MQB032
S99GSPM2540058	MD047MQB040
S99GSPM3047068	MD047MQB047
S99GSPM4062080	MD047MQB062
S99GSPM5075100	MD047MQB075

BEARING TOLERANCES

*d Tolerance:	8 mm + 0.025, + 0.061
	10 mm - 16 mm + 0.032, + 0.075
	20 mm - 30 mm + 0.040, + 0.092
	40 mm + 0.050, + 0.112
	50 mm + 0.060, + 0.134
ΔD Tolerance:	16 mm + 0.000, - 0.018
	19 mm - 26 mm + 0.000, - 0.021
	32 mm - 47 mm + 0.000, - 0.025
	62 mm - 75 mm + 0.000, - 0.030

**SHAFT RECOMMENDATIONS:**

Hard anodized aluminum, 8-16 RMS surface finish. Other materials such as stainless steel, ceramic, case-hardened steel & chrome plated steel can be used, but if hardness is below Rc 50 and surface finish is outside 8-16 RMS, overall service life may be affected.

FEATURES:

- Self-Lubricating
- Corrosion- & Dirt-Resistant
- Maintenance-Free
- Vibration Dampening

MATERIAL:

Body – Aluminum, Anodized

Bearing – J® Polymer

OPERATING TEMPERATURE: Continuous – -58°F to +194°F

Intermittent – up to +248°F

Catalog Number	Nominal I.D.*	O.D. ^Δ h7	L Length h10	H Retaining Ring Spacing	J O-Ring Spacing	Load Capacity	
						Dynamic lbf	Static lbf
S99GLP-038062087	.375	.617	.870	.652	.243	118	828
S99GLP-050087125	.500	.867	1.250	.987	.282	225	1575
S99GLP-063112150	.625	1.117	1.500	1.136	.313	338	2365
S99GLP-075124162	.750	1.242	1.620	1.198	.313	439	3077
S99GLP-100155225	1.000	1.555	2.250	1.789	.500	811	5678
S99GLP-125199262	1.250	1.988	2.620	2.039	.625	1184	8287
S99GLP-150236300	1.500	2.363	3.000	2.463	.750	1622	11358
S99GLP-200299400	2.000	2.988	4.000	3.249	1.000	2885	20198

APPLICABLE RETAINING RINGS & O-RINGS

Bearing Reference	Catalog Numbers	
	Retaining Ring	O-Ring
S99GLP-038062087	A 9Q27-062	A 6R11-040025
S99GLP-050087125	A 9Q27-087	A 6R11-04004
S99GLP-063112150	A 9Q27-112	A 6R11-04006
S99GLP-075124162	A 9Q27-125	A 6R11-04010
S99GLP-100155225	A 9Q27-156	A 6R11-04012
S99GLP-125199262	A 9Q27-200	A 6R11-04016
S99GLP-150236300	A 9Q27-237	A 6R11-04020
S99GLP-200299400	A 9Q27-300	A 6R11-04021

BEARING TOLERANCES

***I.D. Tolerance:** .375 to 1.000 is +.0016, +.0032
1.250 to 1.500 is +.0020, +.0041
2.000 is +.0024, +.0051

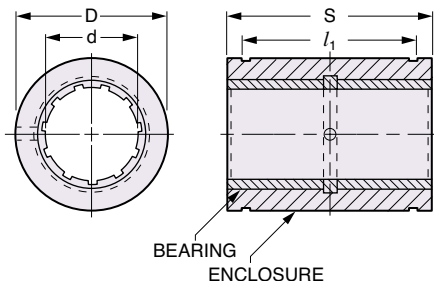
ΔO.D. Tolerance: .867 to 1.117 is +.000, -.00083
1.242 to 1.555 is +.000, -.00098
1.988 to 2.988 is +.000, -.00118

SDP/SI

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

Linear Plain Bearings – Closed Series**SHAFT RECOMMENDATIONS:**

Hard anodized aluminum, 8-16 RMS surface finish.
Other materials such as stainless steel, ceramic, case-hardened steel & chrome plated steel can be used, but if hardness is below HRC 50 and surface finish is outside 8-16 RMS, overall service life may be affected.

FEATURES:

- Self-Lubricating
- Corrosion- & Dirt-Resistant
- Maintenance-Free
- Vibration Dampening

MATERIAL:**Body** – Aluminum, Anodized**Bearing** – J® Polymer**OPERATING TEMPERATURE:** Continuous – -14°C to +90°C

Intermittent – up to +120°C

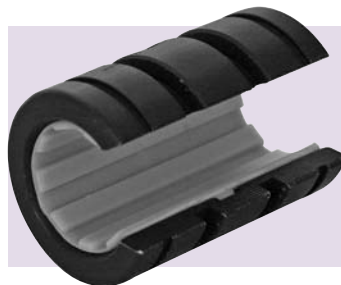
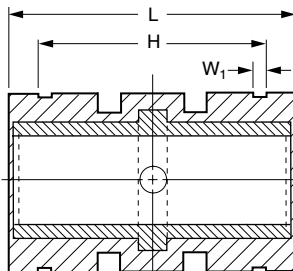
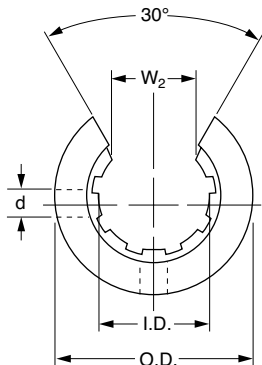
Catalog Number	d* Bore	D Δ h7	S Length	l_1 Retaining Ring Spacing	Load Capacity	
					Dynamic @ 725 psi N	Static @ 5075 psi N
S99GLPM101929	10	19	29	21.6	725	5075
S99GLPM122232	12	22	32	22.6	961	6721
S99GLPM162636	16	26	36	24.6	1441	10080
S99GLPM203245	20	32	45	31.2	2251	15751
S99GLPM254058	25	40	58	43.7	3625	25372
S99GLPM304768	30	47	68	51.7	5098	35696
S99GLPM406280	40	62	80	60.3	7998	55998
S99GLPM5075A0	50	75	100	77.3	12499	87496

APPLICABLE RETAINING RINGS

Bearing Reference	Catalog Numbers
	Retaining Ring
S99GLPM101929	MD0471MQB019
S99GLPM122232	MD0471MQB022
S99GLPM162636	MD0471MQB026
S99GLPM203245	MD0471MQB032
S99GLPM254058	MD0471MQB040
S99GLPM304768	MD0471MQB047
S99GLPM406280	MD0471MQB062
S99GLPM5075A0	MD0471MQB075

BEARING TOLERANCES

*d Tolerance:	10 to 16 mm + 0.030, + 0.088
	20 & 25 mm + 0.030, + 0.091
	30 mm + 0.040, + 0.110
	40 mm + 0.040, + 0.115
	50 mm + 0.050, + 0.130
ΔD Tolerance:	19 to 26 mm + 0.000, - 0.021
	32 to 40 mm + 0.000, - 0.025

■ DIMENSIONS EQUIVALENT TO THE STANDARD FOR RECIRCULATING BALL BEARING**SHAFT RECOMMENDATIONS:**

Hard anodized aluminum, 8-16 RMS surface finish. Other materials such as stainless steel, ceramic, case-hardened steel & chrome plated steel can be used, but if hardness is below Rc 50 and surface finish is outside 8-16 RMS, overall service life may be affected.

FEATURES:

- Self-lubricating
- Open, anodized aluminum adapter for supported shafts
- Maintenance-free
- Secure bearing with set screws (not included)

MATERIAL: Bearing – J® Polymer

Body – Aluminum, Anodized

Catalog Number	I.D.*	O.D. ^Δ	L Length ±.012	H Groove Distance	W ₁ Groove Width	d +.004	W ₂
S99GLZ-050088125	.5000	.8750	1.250	.979	.052		.394
S99GLZ-063113150	.6250	1.1250	1.500	1.124	.062	.136	.433
S99GLZ-075125163	.7500	1.2500	1.625	1.186	.062		.492
S99GLZ-100156225	1.0000	1.5625	2.250	1.773	.074	.136	.630
S99GLZ-125200263	1.2500	2.0000	2.625	2.023	.074	.201	.709
S99GLZ-150238300	1.5000	2.3750	3.000	2.440	.095	.201	.866
S99GLZ-200300400	2.0000	3.0000	4.000	3.222	.111	.265	1.181

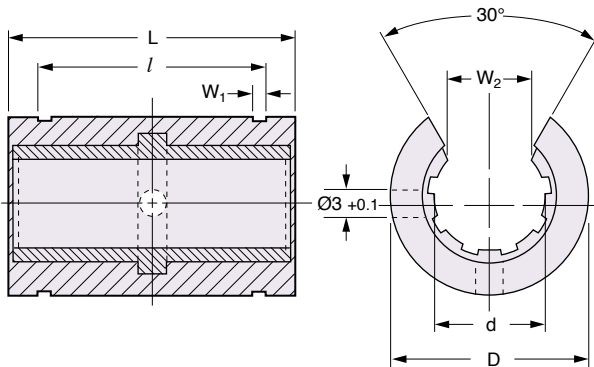
Catalog Number	Load Capacity (lbf)					
	Dynamic p = 725 psi			Static p = 5075 psi		
	0°	90°	180°	0°	90°	180°
S99GLZ-050088125	226	154	80	1585	1078	555
S99GLZ-063113150	340	231	118	2378	1617	832
S99GLZ-075125163	408	277	143	2854	1942	998
S99GLZ-100156225	590	400	206	4123	2804	1443
S99GLZ-125200263	1189	809	416	8323	5659	2912
S99GLZ-150238300	1631	1109	571	11418	7765	3996
S99GLZ-200300400	2900	1972	1015	20300	13804	7104

TOLERANCES

*Bearing	.500 to 1.000	+.0016, +.0032
I.D. Tolerance	1.250 & 1.500	+.0020, +.0041
	2.000	+.0024, +.0051

ΔHousing Bore	.8750 & 1.1250	+.0008, -.0000
Tolerance	1.2500 & 1.5625	+.001, -.0000
	1.5625	+.0005, -.0000
	2.0000 to 3.0000	+.001, -.0000

■ EQUIVALENT TO THE STANDARD FOR RECIRCULATING BALL BEARING



The projections shown are per ISO convention.

SHAFT RECOMMENDATIONS:

Hard anodized aluminum, 8-16 RMS surface finish. Other materials such as stainless steel, ceramic, case-hardened steel & chrome plated steel can be used, but if hardness is below HRC 50 and surface finish is outside 8-16 RMS, overall service life may be affected.

MATERIAL: Bearing – J® Polymer
Body – Aluminum, Anodized

FEATURES:

- Self-lubricating
- Open, anodized aluminum adapter for supported shafts
- Maintenance-free
- Secure bearing with set screws (not included)

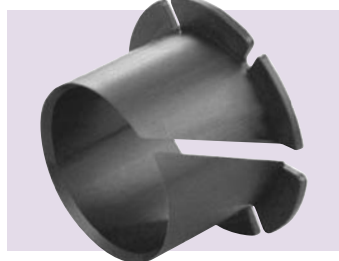
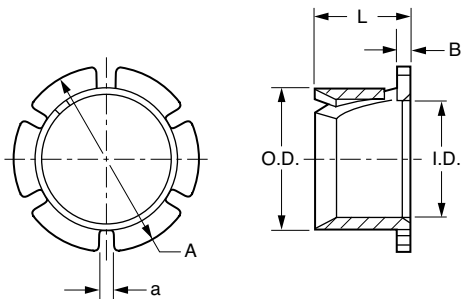
Catalog Number	d* I.D.	D ^Δ	L Length ±0.3	l Groove Distance	W ₁ Groove Width	W ₂
S99GLZM1019029	10	19	29	21.6	1.3	7.3
S99GLZM1222032	12	22	32	22.6	1.3	9
S99GLZM1626036	16	26	36	24.6	1.3	11.6
S99GLZM2032045	20	32	45	31.2	1.6	12
S99GLZM2540058	25	40	58	43.7	1.85	14.5
S99GLZM3047068	30	47	68	51.7	1.85	16.6
S99GLZM4062080	40	62	80	60.3	2.15	21
S99GLZM5075100	50	75	100	77.3	2.65	25.5

Catalog Number	Load Capacity (N)					
	Dynamic p = 51 kgf / cm ²			Static p = 356.8 kgf / cm ²		
	0°	90°	180°	0°	90°	180°
S99GLZM1019029	163	112	44	1141	766	308
S99GLZM1222032	215	142	54	1510	999	377
S99GLZM1626036	323	222	89	2266	1560	623
S99GLZM2032045	505	404	202	3540	2832	1416
S99GLZM2540058	815	663	342	5704	4646	2396
S99GLZM3047068	1146	955	512	8025	6684	3584
S99GLZM4062080	1798	1530	854	12588	10714	5993
S99GLZM5075100	2810	2413	1377	19670	16919	13769

TOLERANCES

*Bearing I.D. Tolerance:	10 to 16	+0.030,	+0.088
	20 & 25	+0.030,	+0.091
	30	+0.040,	+0.110
	40	+0.040,	+0.115
	50	+0.050,	+0.130

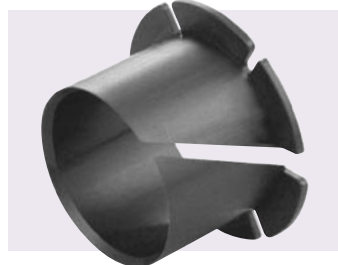
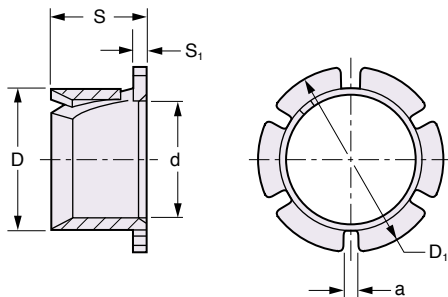
ΔHousing Bore Tolerance:	19 to 26	+0.021
	32 to 47	+0.025
	62 & 75	+0.030

**FEATURES:**

- Low Clearance
- Maintenance-Free
- Economical
- High Precision
- High Wear Resistance

MATERIAL: M250® Polymer**TEMPERATURE RANGE:** Continuous – -40°F to +176°F
Intermittent – +338°F

Catalog Number	I.D.	O.D.	L Length	A Flange Dia.	B Flange Width	a	Recommended			
							Housing Bore		Shaft Size	
							Min.	Max.	Min.	Max.
S99GMY-019023188	3/16	.234	3/16	5/16	.025		.2268	.2339	.1865	.1875
S99GMY-025030250	1/4	.296	1/4	13/32	.025	.039	.2878	.2965	.2490	.2500
S99GMY-031037313	5/16	.374	5/16	1/2	.03		.3657	.3744	.3115	.3125
S99GMY-038044375	3/8	.437	3/8	19/32		.039	.4264	.4370	.3740	.3750
S99GMY-044050438	7/16	.499	7/16	21/32	.03	.039	.4890	.4996	.4365	.4375
S99GMY-050075500	1/2	.562	1/2	3/4		.059	.5512	.5618	.4990	.5000
S99GMY-063069625	5/8	.687	5/8	15/16	.03		.6724	.6870	.6240	.6250
S99GMY-075113750	3/4	.812	3/4	1-1/8	.03	.059	.7988	.8118	.7490	.7500
S99GMY-088144875	7/8	.937	7/8	1-5/16	.03		.9240	.9370	.8740	.8750
S99GMY-100150875	1	1.093	7/8	1-1/2	.045		1.0803	1.0933	.9985	1.0000



The projections shown are per ISO convention.

FEATURES:

- Low Clearance
- Maintenance-Free
- Economical
- High Precision
- High Wear Resistance

MATERIAL: M250® Polymer

TEMPERATURE RANGE: Continuous – -40°C to +80°C
Intermittent – +170°C

Catalog Number	d	D	S Length	D ₁ Flange Dia.	S ₁ Flange Width	a	Recommended			
							Housing Bore		Shaft Size	
							Min.	Max.	Min.	Max.
S99GMYM040504	4	5.2	4	7	0.6	1	5.02	5.20	3.975	4.000
S99GMYM050605	5	6.2	5	8			5.98	6.20	4.975	5.000
S99GMYM060706	6	7.2	6	9.5			6.98	7.20	5.975	6.000
S99GMYM081008	8	9.6	8	12	0.8	1	9.38	9.60	7.975	8.000
S99GMYM101210	10	11.6	10	15			11.33	11.60	9.975	10.000
S99GMYM121412	12	13.6	12	18			13.33	13.60	11.975	12.000
S99GMYM141614	14	15.6	14	21	0.8	1	15.33	15.60	13.975	14.000
S99GMYM161816	16	17.6	16	24			17.33	17.60	15.975	16.000
S99GMYM202220	20	21.6	20	30			21.27	21.60	19.975	20.000
S99GMYM252825	25	27.4	25	37.5			27.07	27.40	24.962	25.000

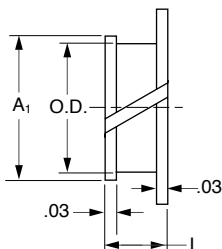
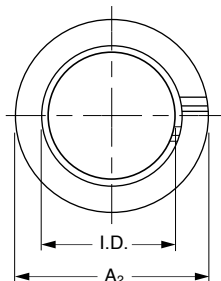
Clip Bearings with Double Flange

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ FOR USE WITH SHEET METAL PLATES



FEATURES:

- Easy Installation
- Maintenance-Free & Self-Lubricating
- Smooth Operation
- Good Wear Resistance
- Used for Both Rotational & Linear Movements
- Lightweight

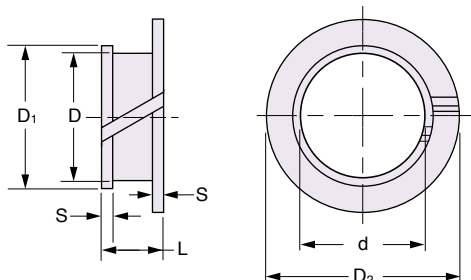
MATERIAL: M250® Polymer

TEMPERATURE RANGE: Continuous – -40°F to +176°F
Intermittent – +338°F

Catalog Number	I.D.	O.D.	Flange Diameter		L Length	Recommended				
			A ₁	A ₂		Housing Bore		Shaft Size		Sheet Metal Thickness
						Min.	Max.	Min.	Max.	
S99GMC-192514 S99GMC-192520	3/16	.2343	1/4	5/16	.138 .200	.2272	.2343	.1865	.1875	.040 – .075 .072 – .135
S99GMC-253414 S99GMC-253420	1/4	.3125	11/32	7/16	.138 .200	.3038	.3125	.2490	.2500	.040 – .075 .072 – .135
S99GMC-314114 S99GMC-314120	5/16	.375	13/32	1/2	.138 .200	.3663	.3750	.3115	.3125	.040 – .075 .072 – .135
S99GMC-384714 S99GMC-384720	3/8	.4375	15/32	9/16	.138 .200	.4269	.4375	.3740	.3750	.040 – .075 .072 – .135
S99GMC-445314 S99GMC-445320	7/16	.500	17/32	5/8	.138 .200	.4894	.5000	.4365	.4375	.040 – .075 .072 – .135
S99GMC-505914 S99GMC-505920	1/2	.5625	19/32	11/16	.138 .200	.5519	.5625	.4990	.5000	.040 – .075 .072 – .135
S99GMC-637214 S99GMC-637220	5/8	.6875	23/32	7/8	.200 .200	.6769	.6875	.6240	.6250	.040 – .075 .072 – .135
S99GMC-758414 S99GMC-758420	3/4	.8125	27/32	1.00	.200 .200	.7995	.8125	.7490	.7500	.040 – .075 .072 – .135

Clip Bearings with Double Flange

■ FOR USE WITH SHEET METAL PLATES



The projections shown are per ISO convention.

**FEATURES:**

- Easy Installation
- Maintenance-Free & Self-Lubricating
- Smooth Operation
- Good Wear Resistance
- Used for Both Rotational & Linear Movements
- Lightweight

MATERIAL: M250® Polymer

TEMPERATURE RANGE: Continuous — -40°C to +80°C
Intermittent — +170°C

Catalog Number	d	D	Flange Diameter		S Flange Width	L Length	Recommended				
			D ₁	D ₂			Housing Bore		Shaft Size		Sheet Metal Thickness
					Min.		Max.	Min.	Max.		
S99GMCM0304832	3	4.2	4.8	6	0.6	3.2	4.020	4.200	2.975	3.000	1.45...1.92
S99GMCM0304842						4.2					2.45...2.92
S99GMCM0405932	4	5.2	5.9	7	0.6	3.2	5.020	5.200	3.975	4.000	1.45...1.92
S99GMCM0405942						4.2					2.45...2.92
S99GMCM0506832	5	6.2	6.8	8	0.6	3.2	5.980	6.200	4.975	5.000	1.45...1.92
S99GMCM0506842						4.2					2.45...2.92
S99GMCM0607832	6	7.2	7.8	11	0.6	3.2	5.800	7.200	5.975	6.000	1.45...1.92
S99GMCM0607842						4.2					2.45...2.92
S99GMCM0607852						5.2					3.45...3.92
S99GMCM0709846	7	9	9.8	13	0.8	4.6	8.780	9.000	6.975	7.000	2.45...2.92
S99GMCM0810436	8	9.6	10.4			3.6	9.380	9.600	7.975	8.000	1.45...1.92
S99GMCM0810446	8	9.6	10.4			4.6	9.380	9.600	7.975	8.000	2.45...2.92
S99GMCM0911436	9	10.6	11.4	14	0.8	3.6	10.330	10.600	8.975	9.000	1.45...1.92
S99GMCM1012436	10	11.6	12.4	15		3.6	11.330	11.600	9.975	10.000	1.45...1.92
S99GMCM1012446	10	11.6	12.4	15		4.6	11.330	11.600	9.975	10.000	2.45...2.92
S99GMCM1214436	12	13.6	14.4	17	0.8	3.6	13.330	13.600	11.975	12.000	1.45...1.92
S99GMCM1214446						4.6					2.45...2.92
S99GMCM1214456						5.6					3.45...3.92
S99GMCM1416446	14	15.6	16.4	19	0.8	4.6	15.330	15.600	13.975	14.000	2.45...2.92
S99GMCM1618436	16	17.6	18.4	21		3.6	17.330	17.600	15.975	16.000	1.45...1.92
S99GMCM1618446	16	17.6	18.4	21		4.6	17.330	17.600	15.975	16.000	2.45...2.92
S99GMCM1821050	18	20	21	23	1	5	19.670	20.000	17.975	18.000	2.45...2.92
S99GMCM2023050	20	22	23	25			21.670	22.000	19.975	20.000	
S99GMCM2528050	25	27	28	30			26.670	27.000	24.975	25.000	

Nonmetallic Sleeve Bearings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ MACHINED

■ SELF-LUBRICATING

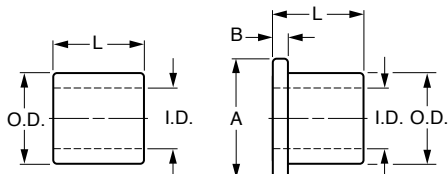
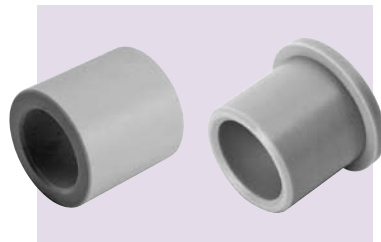


Fig. 1

Fig. 2


MATERIAL: Ertalyte TX Polyester

COLOR: Gray

TEMPERATURE RANGE: 32°F to 210°F

Catalog Number	I.D. $+0.0015$ -0.0000	O.D. $+0.002$ -0.000	L ± 0.005 Length	A ± 0.005 Flange Dia.	B ± 0.003 Flange Width
FIG. 1 PLAIN BEARINGS					
A 7P 6-P0408E A 7P 6-P0412E	.128	.252	1/4 3/8	—	—
A 7P 6-P0608E A 7P 6-P0612E			1/4 3/8		
A 7P 6-P0808E A 7P 6-P0812E A 7P 6-P0816E	.253	.377	1/4 3/8 1/2		
A 7P 6-P1012E A 7P 6-P1016E			3/8 1/2		
A 7P 6-P1212E A 7P 6-P1216E	.379	.503	3/8 1/2		
A 7P 6-P1616E A 7P 6-P1624E			1/2 3/4		

FIG. 2 FLANGED BEARINGS					
A 7P 6-F0608E A 7P 6-F0612E	.190	.315	1/4 3/8	7/16	1/16
A 7P 6-F0812E A 7P 6-F0816E			3/8 1/2	1/2	1/16
A 7P 6-F1012E A 7P 6-F1016E	.316	.440	3/8 1/2	9/16	1/16
A 7P 6-F1212E A 7P 6-F1216E			3/8 1/2	5/8	1/16
A 7P 6-F1616E A 7P 6-F1624E	.504	.753	1/2 3/4	1	3/32

ROLLERS INTECH Power-Core	148
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ROLLERS IN CAM FOLLOWER APPLICATIONS	149
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FEED ROLLERS

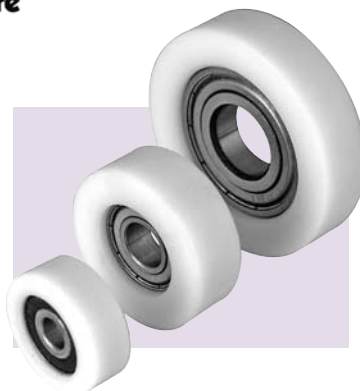
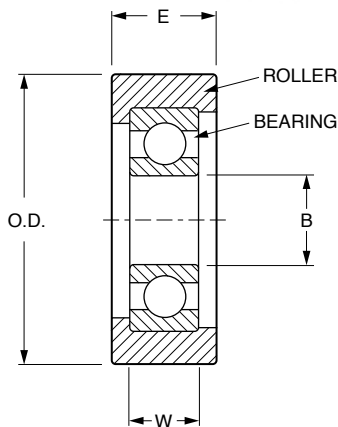
Urethane Surface without Bearing, with Hub	
Inch Sizes	150
Metric Sizes	151
Urethane Surface without Bearing, without Hub	
Inch Sizes	152
Metric Sizes	153

IDLER ROLLERS

Neoprene Surface with Polymer Bearing (inch sizes)	154
Urethane Surface with Sintered Bronze Bearing (metric sizes)	155
Urethane Surface with Polymer Bearing	
Inch Sizes	156
Metric Sizes	157
Urethane Surface with Ball Bearing	
Inch Sizes	158
Metric Sizes	159

- WITH BEARING ■ NYLON SURFACE ■ FOR LOADS OF 50 TO 230 POUNDS

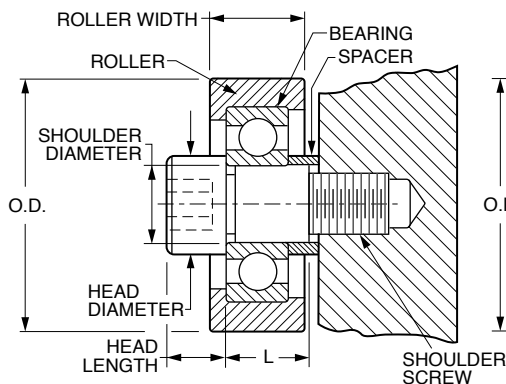
INTECH Power-Core™



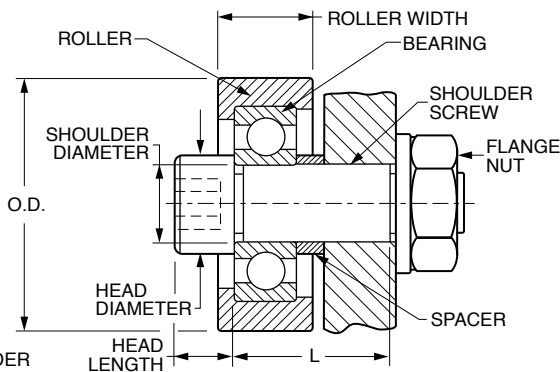
MATERIAL: Roller – Cast Nylon 12 (PA12G)

Bearing – Ball bearing shielded on both sides

Catalog Number	O.D.	B Bore +.000 -.005	W Bearing Width	E Roller Width	Load Capacity lb.
S7NPCY-25081	.812	.250	.196	.274	50
S7NPCY-25100	1.000	.250	.281	.390	90
S7NPCY-38131	1.312	.375	.281	.500	140
S7NPCY-38138	1.375	.375	.281	.500	150
S7NPCY-50150	1.500	.500	.312	.438	160
S7NPCY-50200	2.000	.500	.312	.500	230



Short
(Fixed Follower Applications)



Long
(Rocker Arm Follower Applications)

COMPONENTS:

Rollers

Made of **Cast Nylon (Polyamide-12)** material which has unique benefits:

- Runs quieter than metal
- Has low rolling resistance
- Absorbs vibration and shocks
- Maintains dimensional stability under adverse conditions
- Eliminates wear to rail and track

Bearings

Precision ball bearings are totally enclosed and metal shielded on both sides to prevent dirt and moisture penetration and thus better performance and longer life of the unit.

Shoulder Screws

Made of heat-treated alloy steel ground to a highly polished finish. They are undercut under the head allowing head to flush mount to surface.

CAPACITY:

Up to 200 lbs vertical load

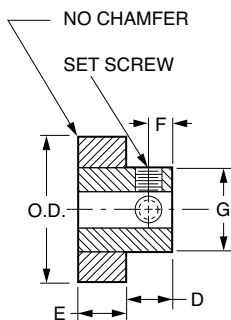
APPLICATION:

For consistent, reliable and long-lasting operations in any application involving rail and track mechanism.

NOTES: For selection of shoulder screws, please see catalog D790 pages 10-3 ~ 10-6.
For selection of shaft spacers, please see catalog D790 page 10-39.

■ WITHOUT BEARING

■ URETHANE SURFACE



SECTION A-A

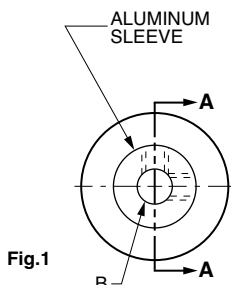
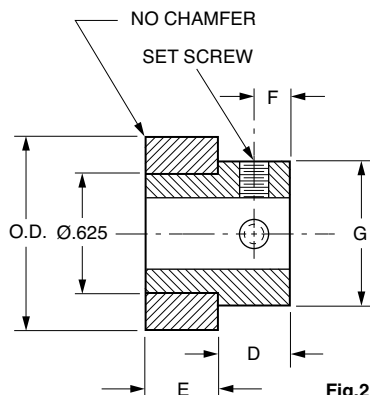
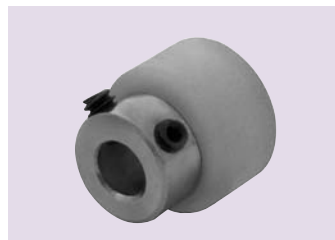


Fig.1



SECTION A-A

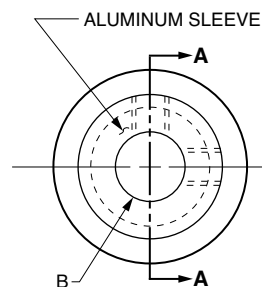


Fig.2

MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter

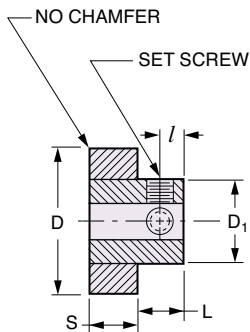
Sleeve – Aluminum

Catalog Number	Fig.	O.D. ± .003	B Bore + .0005 - .0000	E Face Width ± .010	D Hub Proj.	F	G Sleeve O.D.	Set Screw
A 7T 5-UR05618	1	.562	.1875	.250	.250	.125	.437	#4-40
A 7T 5-UR07518		.750						
A 7T 5-UR06225		.625						
A 7T 5-UR07525		.750						
A 7T 5-UR08725	2	.875	.2500	.375	.250	.125	.500	#6-32
A 7T 5-UR10037		1.000						
A 7T 5-UR12537		1.250						
A 7T 5-UR15037		1.500						
A 7T 5-UR15050	1	1.500	.5000	.500	.500	.250	1.000	1/4-20
A 7T 5-UR17550		1.750					1.250	
A 7T 5-UR20050		2.000					1.375	

NOTE: All feed rollers supplied with 2 set screws.

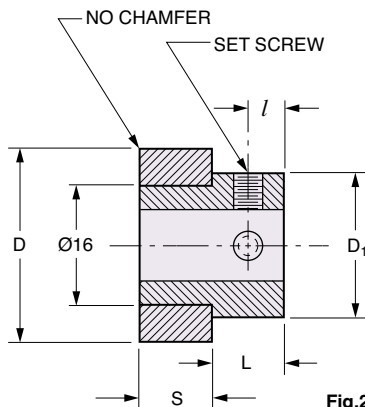
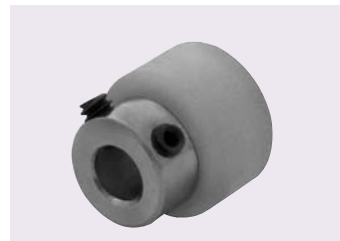
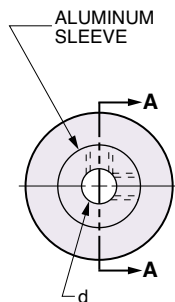
■ WITHOUT BEARING

■ URETHANE SURFACE



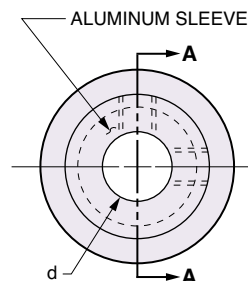
SECTION A-A

Fig.1



SECTION A-A

Fig.2



MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter
Sleeve – Aluminum

Catalog Number	Fig.	D ±0.075	d Bore +0.0127	S Face Width ± 0.25	L Hub Proj.	l	D ₁ Sleeve O.D.	Set Screw
A 7T 5MUR1405	1	14	5	6.35	6.35	3.17	11.1	M3
A 7T 5MUR1905		19						
A 7T 5MUR1606		16						
A 7T 5MUR1906		19						
A 7T 5MUR2206	2	22	6	9.52	6.35	3.17	12.7	M4
A 7T 5MUR2510		25						
A 7T 5MUR3210		32						
A 7T 5MUR3810		38						
A 7T 5MUR3812	1	38	10	9.52	9.52	4.76	20.62	M5
A 7T 5MUR4412		44					25.4	
A 7T 5MUR5012		50					25.4	
							31.75	
							34.9	M6

NOTE: All feed rollers supplied with 2 set screws.

■ WITHOUT BEARING

■ URETHANE SURFACE

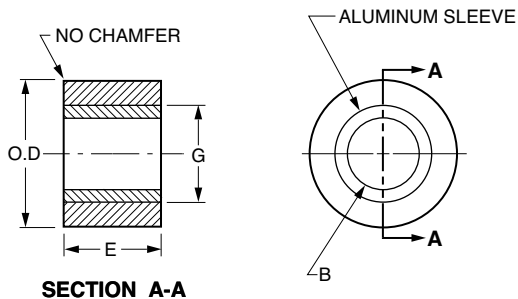


Fig. 1 (WITHOUT CHAMFER)

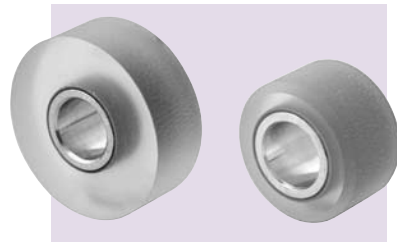


Fig. 1

Fig. 2

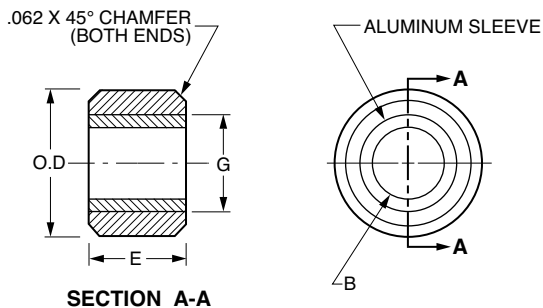


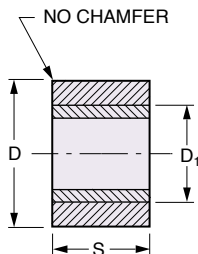
Fig. 2 (WITH CHAMFER)

MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter
Sleeve – Aluminum

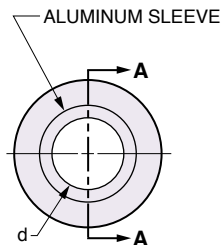
Catalog Number	Fig.	O.D. ±.003	B Bore +.0005 -.0000	E Face Width ±.010	G Sleeve O.D.
A 7M 5-UR05025A	1	.500	.2500	.250	.344
A 7M 5-UR05025B				.718	
A 7M 5-UR05025C				.500	
A 7M 5-UR06737				.250	
A 7M 5-UR07537	2	.813	.3750	.500	.500
A 7M 5-UR08137				.500	
A 7M 5-UR09237				.484	
A 7M 5-UR11237A				.438	
A 7M 5-UR11237B	1	1.125	.3750	.688	.500
A 7M 5-UR19837				.688	
A 7M 5-UR19850A		1.988	.5000	.750	
A 7M 5-UR19850B				1.000	

■ WITHOUT BEARING

■ URETHANE SURFACE



SECTION A-A

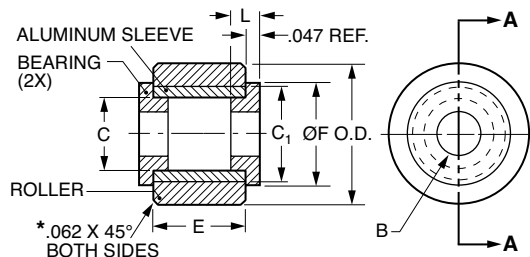


MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter
Sleeve – Aluminum

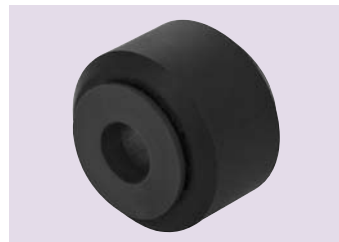
Catalog Number	D ±0.075	d Bore +0.013	S Face Width ± 0.25	D ₁ Sleeve O.D.
A 7M 5MUR1206A	12	6	6.35	8.74
A 7M 5MUR1206B			18.2	
A 7M 5MUR1206C			12.7	
A 7M 5MUR1710	17	10	6.35	12.7
A 7M 5MUR1910	19		12.7	
A 7M 5MUR2010	20		12.7	
A 7M 5MUR2310	23		12.3	17.47
A 7M 5MUR2810A	28		11.12	12.7
A 7M 5MUR2810B			17.47	
A 7M 5MUR5010	50		17.47	34.92
A 7M 5MUR5012A	50	12	19.05	34.92
A 7M 5MUR5012B			25.4	

■ WITH POLYMER BEARING

■ NEOPRENE SURFACE



SECTION A-A



MATERIAL: Roller – Neoprene 60 Durometer, Black
Ground Outside Diameter

Sleeve – Aluminum Alloy

Bearing – M250® Polymer

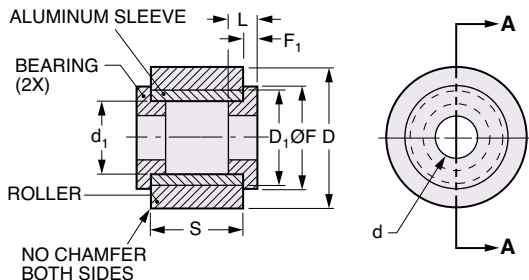
Catalog Number	O.D.	B Bore	E Face Width ±.010	L Bearing Length	F Flange Dia.	C Sleeve I.D.	C ₁ Sleeve O.D.
A 7ZB5-IRG05025B	.500	.1250 $^{+.0030}_{+.0012}$	.718	.1875	.360	.250	.344
*A 7ZB5-IRG06737	.672	.2500 $^{+.0039}_{+.0016}$	.250	.1250	.560	.375	.500
A 7ZB5-IRG07537	.750		.500				
A 7ZB5-IRG08137	.813		.500				
A 7ZB5-IRG09237	.922		.484				.688
A 7ZB5-IRG11237A	1.125		.438				.500
A 7ZB5-IRG11237B	1.125		.688				.500
A 7ZB5-IRG19837	1.988		.688				1.375

*Catalog number A 7ZB5-IRG06737 has .010 x 45° chamfer on both sides.

Idler Rollers

■ WITH SINTERED BRONZE BEARING

■ URETHANE SURFACE

**SECTION A-A**

MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter

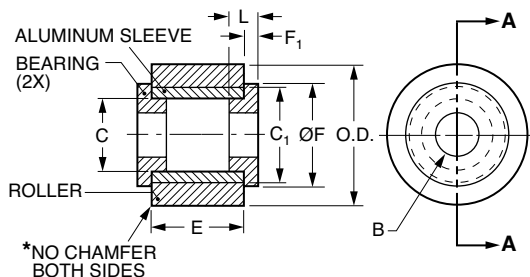
Sleeve – Aluminum Alloy

Bearing – Sintered Bronze

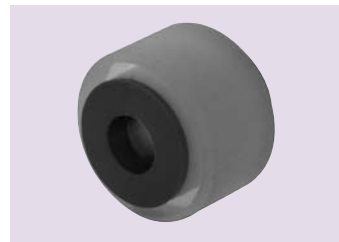
Catalog Number	D O.D.	d Bore +0.038	S Face Width ±0.25	L Bearing Length	F Flange Dia.	F ₁ Flange Thick- ness	d ₁ Sleeve I.D.	D ₁ Sleeve O.D.		
A 7Z 5MUR1203A	12	3	6.35	4	9	1.5	6	8.74		
A 7Z 5MUR1203B			18.2							
A 7Z 5MUR1203C			12.7							
A 7Z 5MUR1706	17	6	6.35	4	14	2	10	12.7		
A 7Z 5MUR1906	19		12.7							
A 7Z 5MUR2006	20		12.7							
A 7Z 5MUR2306	23		12.3					17.47		
A 7Z 5MUR2806A	28		11.12					12.7		
A 7Z 5MUR2806B			17.47					34.92		
A 7Z 5MUR5006	50	8		8	16	3	12	34.92		
A 7Z 5MUR5008A	50		19.05		16	3				
A 7Z 5MUR5008B			25.4							

■ WITH POLYMER BEARING

■ URETHANE SURFACE



SECTION A-A



MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter

Sleeve – Aluminum Alloy

Bearing – M250® Polymer

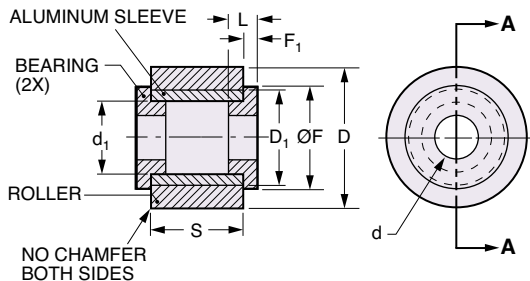
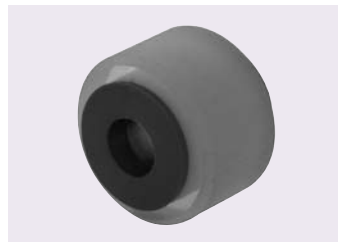
Catalog Number	O.D.	B Bore	E Face Width ±.010	L Bearing Length	F Flange Dia.	F ₁ Flange Thick- ness Ref.	C Sleeve I.D.	C ₁ Sleeve O.D.
A 7ZB5-URG05025A	.500	.1250 ^{+.0030} _{+.0012}	.250	.1250	.360	.047	.250	.344
A 7ZB5-URG05025B			.718	.1875				
A 7ZB5-URG05025C			.500	.1250				
A 7ZB5-URG06737	.672	.2500 ^{+.0039} _{+.0016}	.250	.1250	.560	.047	.375	.500
A 7ZB5-URG07537	.750		.500					
*A 7ZB5-URG08137	.813		.500					
A 7ZB5-URG09237	.922		.484					.688
A 7ZB5-URG11237A	1.125		.438					.500
A 7ZB5-URG11237B			.688					
A 7ZB5-URG19837	1.988		.688	.1250	.625	.062	.375	1.375
A 7ZB5-URG19850A	1.988	.3750 ^{+.0039} _{+.0016}	.750	.1875	.625	.062	.625	1.375
A 7ZB5-URG19850B			1.000					

*Catalog number A 7ZB5-URG08137 has .062 x 45° chamfer on both sides.

Idler Rollers

■ WITH POLYMER BEARING

■ URETHANE SURFACE

**SECTION A-A**

MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter

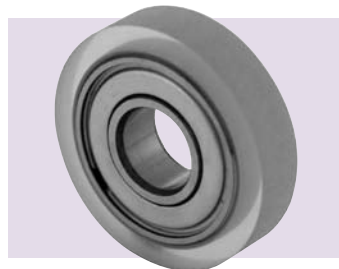
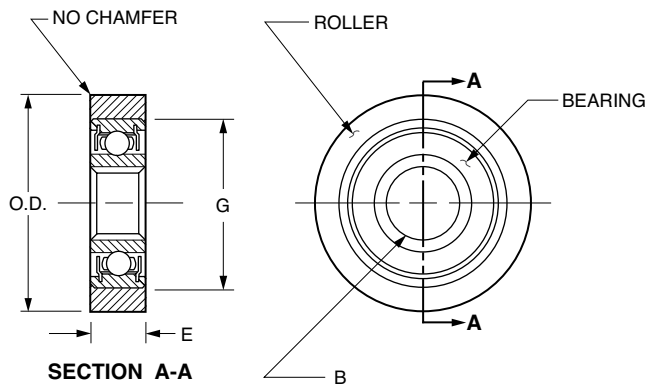
Sleeve – Aluminum Alloy

Bearing – M250® Polymer

Catalog Number	D O.D.	d Bore	S Face Width ±0.25	L Bearing Length	F Flange Dia.	F ₁ Flange Thick- ness Ref.	d ₁ Sleeve I.D.	D ₁ Sleeve O.D.
A 7ZB5MURG1203A	12	3 ^{+0.080} +0.020	6.35	4	9	1.5	6	8.74
A 7ZB5MURG1203B			18.2					
A 7ZB5MURG1203C			12.7					
A 7ZB5MURG1706	17	6 ^{+0.105} +0.030	6.35	4	14	2	10	12.7
A 7ZB5MURG1906	19		12.7					
A 7ZB5MURG2006	20		12.7					
A 7ZB5MURG2306	23		12.3					17.47
A 7ZB5MURG2806A	28		11.12					
A 7ZB5MURG2806B			17.47					12.7
A 7ZB5MURG5006	50		17.47	4	16	3	10	34.92
A 7ZB5MURG5008A	50	8 ^{+0.120} +0.040	19.05	8	16	3	12	34.92
A 7ZB5MURG5008B			25.4					

■ WITH DOUBLE-SHIELDED ABEC 3 BEARING

■ URETHANE SURFACE



MATERIAL: Roller – Urethane 60 Durometer
Ground Outside Diameter

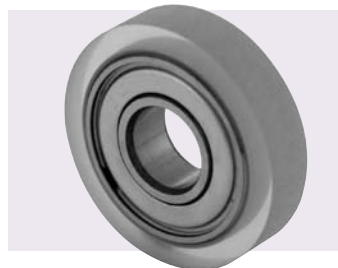
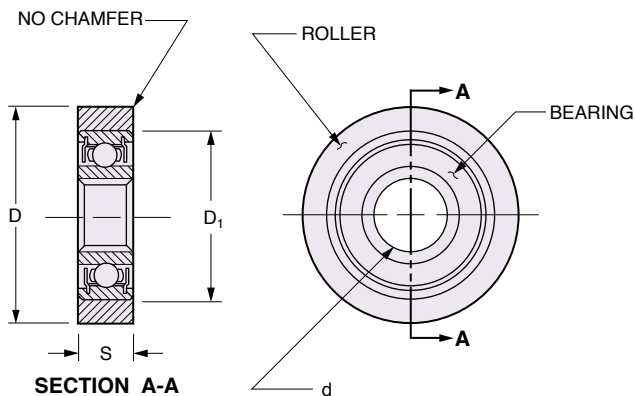
Bearing, Double-Shielded – Stainless Steel

Catalog Number	O.D. ± .003	B Bore + .0000 - .0002	E Face Width ± .010	G
A 7Z 8-URBB05018	.500			
A 7Z 8-URBB07518	.750	.1875	.125	.375
A 7Z 8-URBB06225	.625			
A 7Z 8-URBB07525	.750	.2500	.187	.500
A 7Z 8-URBB11237	1.125			
A 7Z 8-URBB15037	1.500	.3750	.281	.875
A 7Z 8-URBB11250	1.125			
A 7Z 8-URBB15050	1.500	.5000	.281	.875

Idler Rollers

■ WITH DOUBLE-SHIELDED ABEC 3 BEARING

■ URETHANE SURFACE

**MATERIAL:** Roller – Urethane 60 Durometer

Ground Outside Diameter

Bearing, Double-Shielded – Stainless Steel

Catalog Number	D ± 0.075	d Bore - 0.005	S Face Width ± 0.25	D ₁
A 7Z 8MURBB1205	12	5	3	9
A 7Z 8MURBB1905	19			
A 7Z 8MURBB1606	16	6	5	13
A 7Z 8MURBB1906	19			
A 7Z 8MURBB2810	28	10	7	19
A 7Z 8MURBB3810	38			
A 7Z 8MURBB3812	38	12	8	28
A 7Z 8MURBB4412	44			

Rigid and Flexible Couplings Application Considerations

As compared with flexible couplings, rigid couplings have limited application. Rigid couplings do not have the ability to compensate for shaft misalignments and are therefore used where shafts are already positioned in precise lateral and angular alignment. Any misalignment between shafts will create high stresses and support bearing loads.

Rigid couplings by virtue of their simple rugged design are generally able to transmit more power than flexible couplings of comparable size, but this is not an important advantage except in high horsepower applications.

Flexible couplings are designed to accommodate various types of load conditions. No one type of coupling can

provide the universal solution to all coupling problems; hence many designs are available, each possessing construction features to accommodate one or more types of application requirements. Successful coupling selection requires a clear understanding of application conditions. The major factors governing coupling selection are:

- Torque and Horsepower
- Shaft Misalignment
- Lateral and Axial Flexibility of Couplings
- Torsional Flexibility
- Backlash
- Rotational Velocity Error
- Service Conditions



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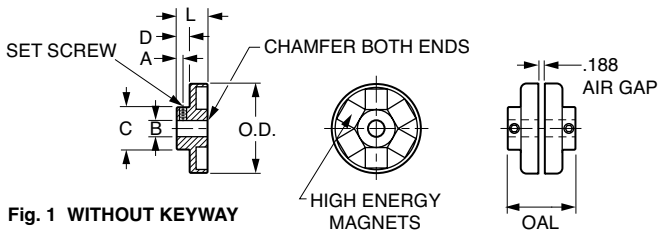


Fig. 1 WITHOUT KEYWAY

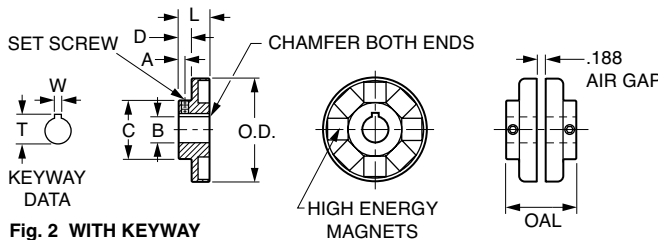


Fig. 2 WITH KEYWAY



• CAUTION • CAUTION • CAUTION •
Be prepared for strong magnetic attraction between the magnet hubs.

MISALIGNMENT COMPENSATION:

Max. Angular Offset – 3°

Max. Parallel Offset – .25

MAX. OPERATING TEMP: 176°F**TO MAKE COUPLING:**

Select two hub halves with the same O.D. from the table below.

MATERIAL: Hub – 416 Stainless Steel

Set Screw – Stainless Steel

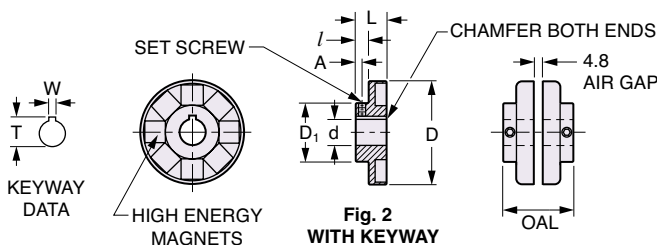
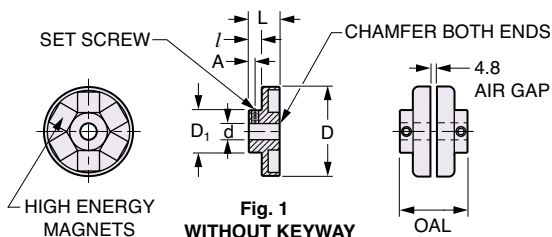
Magnet – NdFeB, Nickel Plated

Priced Per Hub Half

Catalog Number	Fig. No.	O.D.	B Bore +.001 -.000	L	C Hub Dia.	D Hub lgth.	A	Set Screw Cup Point	No. of Magnets	Specifications for Two Hub Halves					
										OAL	Torque lb. in.	Break-away Torque lb. in.	Max. rpm	HP @ 1750 rpm	Weight (max.) lb.
S50DCM-17	1	1.72	Solid	.59	.81	.25	.12	—	6	1.37	4	5	26000	.08	.50
S50DCM-17H03			.1875												
S50DCM-17H04			.250					#8-32							
S50DCM-17H05			.3125												
S50DCM-20	1	1.97	Solid	.59	1.12	.25	.12	—	8	1.37	6	8	23000	.17	.60
S50DCM-20H04			.250												
S50DCM-20H05			.3125					#10-32							
S50DCM-20H06			.375												
S50DCM-20H08	2		.500	.75	1.50	.35	.16	#10-32	10	1.69	9	12	19000	.25	1.2
S50DCM-24	1	Solid													
S50DCM-24H06	2	2.36	.375												
S50DCM-24H08			.500												
S50DCM-24H10			.625												
S50DCM-24H12			.750	1.00	2.00	.53	.28	#10-32	14	2.19	15	20	16000	.43	2.5
S50DCM-29	1	Solid													
S50DCM-29H08	2	2.86	.500												
S50DCM-29H10			.625												
S50DCM-29H12			.750												
S50DCM-29H14			.875												
S50DCM-29H16			1.000	#1/4-20											

• Fig. 2 KEYWAY DIMENSIONS

Bore	.500	.625	.750	.875	1.000
W Width (+.002)	.1250	.1875	.1875	.1875	.2500
T Height (+.010)	.560	.709	.837	.964	1.114

Magnetic Disk Couplings**• CAUTION • CAUTION • CAUTION •**

Be prepared for strong magnetic attraction between the magnet hubs.

MISALIGNMENT COMPENSATION:

Max. Angular Offset – 3°

Max. Parallel Offset – 6.35 mm

MAX. OPERATING TEMP: 80°C

The projections shown are per ISO convention.

TO MAKE COUPLING:

Select two hub halves with the same O.D. from the table below.

MATERIAL: Hub – 416 Stainless Steel

Set Screw – Stainless Steel

Magnet – NdFeB, Nickel Plated

Priced Per Hub Half

Catalog Number	Fig. No.	D O.D.	d* Bore H8	D ₁ Hub Dia.	L	l Hub lgth.	A	Set Screw Cup Point	No. of Magnets	Specifications for Two Hub Halves																
										OAL	Torque N • m	Break-away Torque N • m	Max. rpm	HP @ 1750 rpm	Weight (max.) kg											
S50DCMM43	1	43.7	Solid	20.6	15	6.35	3	—	6	34.8	0.5	0.6	26000	0.08	0.22											
S50DCMM43H05			5																							
S50DCMM43H06			6																							
S50DCMM50	1	50	Solid	28.5	15	6.35	3	—	8	34.8	0.7	0.9	23000	0.17	0.27											
S50DCMM50H06			6																							
S50DCMM50H08			8																							
S50DCMM50H10	2	50	10	28.5	15	6.35	3	M5	8	34.8	0.7	0.9	23000	0.17	0.27											
S50DCMM50H11			11																							
S50DCMM50H12			12																							
S50DCMM60	1	60	Solid	38	19	9	4	—	10	43	1	1.4	19000	0.25	0.55											
S50DCMM60H10			10																							
S50DCMM60H11			11																							
S50DCMM60H12	2	60	12	38	19	9	4	M5	10	43	1	1.4	19000	0.25	0.55											
S50DCMM60H14			14																							
S50DCMM60H18			18																							
S50DCMM60H19	1	60	19	38	19	9	4	M5	10	43	1	1.4	19000	0.25	0.55											
S50DCMM73			Solid					51								25.4	13.5	7	—	14	55.6	1.7	2.3	16000	0.43	1.13
S50DCMM73H11			11																							
S50DCMM73H12	2	73	12	M5	14	55.6	1.7		2.3	16000	0.43	1.13														
S50DCMM73H14			14																							
S50DCMM73H19			19																							

• Fig. 2 KEYWAY DIMENSIONS

Bore	11	12	14	18	19
W Width (+0.05)	4	4	5	6	6
T Height (+0.25)	12.8	13.8	16.3	20.8	21.8

*Bore Tolerance: 5 & 6 mm +0.018

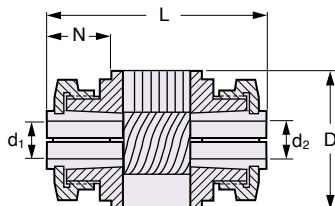
8 & 10 mm +0.022

11 to 18 mm +0.027

19 mm +0.033

■ ZERO BACKLASH

■ LIGHTWEIGHT

**MISALIGNMENT COMPENSATION**

Max. Angular Offset – 3°

Max. Lateral Offset – See Table Below

MATERIAL: 7075-T651 Aluminum

Max. Speed: 5000 rpm

Catalog Number	D	d ₁ Δ Bore H7	d ₂ Δ Bore H7	N	L	Max. Lateral Offset	Max.* Torque N • m	Torsional Stiffness N • m/rad	Approx. Weight grams
S54MHCM190404	19.1	4	4	8	28	0.08	4	90	22
S54MHCM190405		4	5						
S54MHCM190406		4	6						
S54MHCM190408		4	8						
S54MHCM190505		5	5						
S54MHCM190506		5	6						
S54MHCM190508		5	8						
S54MHCM190606		6	6						
S54MHCM190608		6	8						
S54MHCM190808		8	8						
S54MHCM250505	25.4	5	5	11	40	0.10	8	130	30
S54MHCM250506		5	6						
S54MHCM250508		5	8						
S54MHCM250510		5	10						
S54MHCM250606		6	6						
S54MHCM250608		6	8						
S54MHCM250610		6	10						
S54MHCM250808		8	8						
S54MHCM250810		8	10						
S54MHCM251010		10	10						
S54MHCM310606	31.8	6	6	16	58	0.15	14	200	60
S54MHCM310608		6	8						
S54MHCM310610		6	10						
S54MHCM310612		6	12						
S54MHCM310808		8	8						
S54MHCM310810		8	10						
S54MHCM310812		8	12						
S54MHCM311010		10	10						
S54MHCM311012		10	12						
S54MHCM311212		12	12						

ΔBore Tolerance: 4 to 6 mm +0.012
 8 & 10 mm +0.015
 12 mm +0.018

*Select the size so that
 (Applicable Torque) x (Service Factor)
 is less than the allowable maximum torque

Service Factor

Shock & Reversing	2
Nonreversing	1.5
Steady Load	1

■ MODULAR PREBORED HUB BUSHINGS

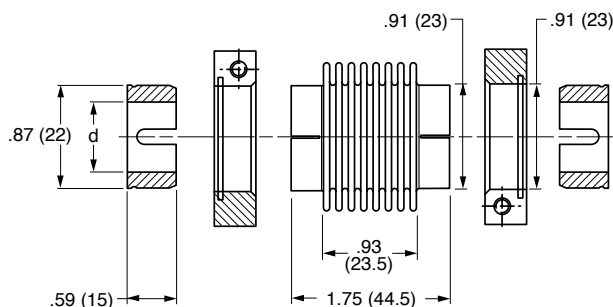
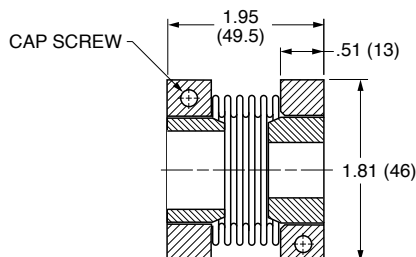


Fig. 1

Fig. 2

Fig. 3

Fig. 2

Fig. 1

- FEATURES:**
- Backlash-Free Torque Transmissions
 - High Torsional Rigidity
 - High-Speed Torque Transmission
 - Low-Mass Moment of Inertia

• BUSHING

Fig. No.	Catalog Number	Material	Bore d	Transmissible Torque lb. ft.
1	S50SFX-00038118	Aluminum	.3756 / .3750	8
	S50SFX-00050118		.5007 / .5000	12
	S50SFX-00063118		.6257 / .6250	12
	S50SFX-00075118		.7508 / .7500	

• CLAMP

2	S35SFX-00122169	Aluminum
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• BELLOWS

3	S60SFX-00213122	Stainless Steel
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NOTES: Dimensions in () are mm.

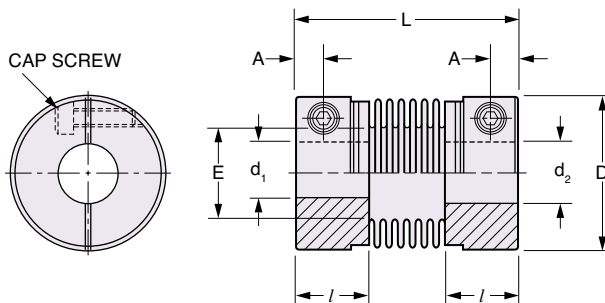
See catalog D790 pages 6-13 ~ 6-16 for larger sizes of inch size couplings

See catalog D785 pages 6-11 ~ 6-15 for metric size couplings

■ ZERO BACKLASH

■ MAINTENANCE-FREE

■ STAINLESS STEEL



The projections shown are per ISO convention.

MATERIAL: Hubs – Stainless Steel

Bellows – Stainless Steel

Cap Screws – Stainless Steel

Catalog Number	d ₁ Bore	d ₂ Bore	D	l	L	E Bellows I.D.	A	Cap Screw	Max. Bore
S50MFBMS12H04H04	4	4	12	7.5	23.5	7	2.25	M2	5
S50MFBMS12H04H05	4	5							
S50MFBMS12H05H05	5	5							
S50MFBMS16H05H05	5	5	16	9	26.5	9.5	3	M2.5	6.35
S50MFBMS16H05H06	5	6							
S50MFBMS16H06H06	6	6							
S50MFBMS20H06H06	6	6	20	10	32	12.5	3.5	M2.5	8
S50MFBMS20H06H08	6	8							
S50MFBMS20H08H08	8	8							
S50MFBMS25H08H08	8	8	25	12	36.5	15	4.5	M3	10
S50MFBMS25H08H10	8	10							
S50MFBMS25H10H10	10	10							
S50MFBMS32H08H08	8	8	32	13.5	42	21	5	M4	14
S50MFBMS32H10H10	10	10							
S50MFBMS32H10H14	10	14							
S50MFBMS32H12H12	12	12							
S50MFBMS32H14H14	14	14							

Coupling Series (Ref. only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m ²	Static Torsional Stiffness N • m/rad	Allowed Parallel Offset mm	Allowed Angular Offset deg	Allowed Axial Play mm	Weight* grams
S50MFBMS12_H_ _	0.5	1	13000	2.1 x 10 ⁻⁷	100	0.1	1.5	+0.4, -1.2	9.2
S50MFBMS16_H_ _	1	2	9500	8.1 x 10 ⁻⁷	150				22
S50MFBMS20_H_ _	1.5	3	7700	2.3 x 10 ⁻⁶	220	0.15	2	+0.6, -1.8	38
S50MFBMS25_H_ _	2	4	6100	6.9 x 10 ⁻⁶	330	0.15		+0.6, -1.8	74
S50MFBMS32_H_ _	3	6	4800	2.1 x 10 ⁻⁵	490	0.2		+0.8, -2.5	130

*Values with max. bore diameter.

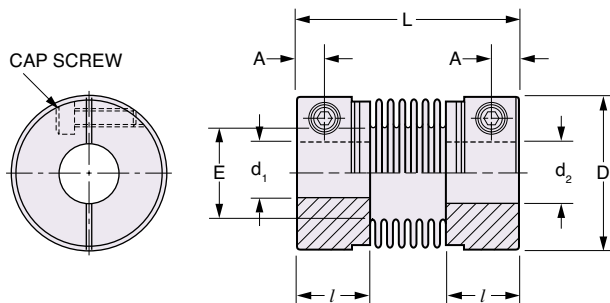
Recommended Shaft Tolerance h7: 4, 5 & 6 mm -0.012
 8 & 10 mm -0.015
 12 & 14 mm -0.018

NOTE: Other bore sizes and combinations
 are available on special order.

Split Hub Type Bellows Couplings

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ ZERO BACKLASH ■ MAINTENANCE-FREE ■ PHOSPHOR BRONZE BELLOWS



The projections shown are per ISO convention.

MATERIAL: Hubs – Aluminum Alloy
 Bellows – Phosphor Bronze
 Cap Screws – Steel, Black Oxide Finish

Catalog Number	d ₁ Bore	d ₂ Bore	D	l	L	E Bellows I.D.	A	Cap Screw	Max. Bore
S50MFBMA12H04H04	4	4							
S50MFBMA12H04H05	4	5	12	7.5	23.5	7	2.25	M2	5
S50MFBMA12H05H05	5	5							
S50MFBMA16H05H05	5	5							
S50MFBMA16H05H06	5	6	16	9	26.5	9.5	3	M2.5	6.35
S50MFBMA16H06H06	6	6							
S50MFBMA20H06H06	6	6							
S50MFBMA20H06H08	6	8	20	10	32	12.5	3.5	M2.5	8
S50MFBMA20H08H08	8	8							
S50MFBMA25H08H08	8	8							
S50MFBMA25H08H10	8	10	25	12	36.5	15	4.5	M3	10
S50MFBMA25H10H10	10	10							
S50MFBMA32H08H08	8	8							
S50MFBMA32H10H10	10	10							
S50MFBMA32H10H12	10	12	32	13.5	42	21	5	M4	14
S50MFBMA32H10H14	10	14							
S50MFBMA32H12H12	12	12							

Coupling Series (Ref. only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m ²	Static Torsional Stiffness N • m/rad	Allowed Parallel Offset mm	Allowed Angular Offset deg	Allowed Axial Play mm	Weight* grams
S50MFBMA12 _H _	0.3	0.6	13000	9.7 x 10 ⁻⁸	82				
S50MFBMA16 _H _	0.5	1	9500	3.7 x 10 ⁻⁷	110	0.1	1.5	+0.4, -1.2	3.8 9.8
S50MFBMA20 _H _	0.8	1.6	7700	1 x 10 ⁻⁶	180	0.15		+0.6, -1.8	16
S50MFBMA25 _H _	1.3	2.6	6100	3.1 x 10 ⁻⁶	240	0.15	2	+0.6, -1.8	32
S50MFBMA32 _H _	2	4	4800	9.6 x 10 ⁻⁶	330	0.2		+0.8, -2.5	58

*Values with max. bore diameter.

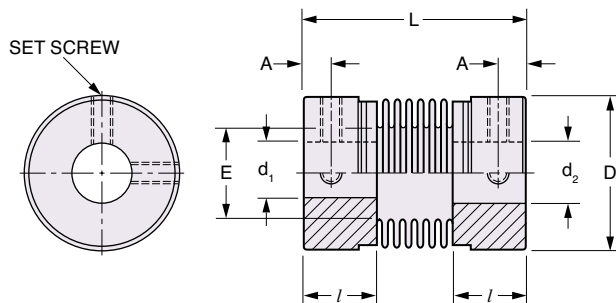
Recommended Shaft Tolerance h7: 4, 5 & 6 mm -0.012
 8 & 10 mm -0.015
 12 & 14 mm -0.018

NOTE: Other bore sizes and combinations are available on special order.

■ ZERO BACKLASH

■ MAINTENANCE-FREE

■ STAINLESS STEEL



The projections shown are per ISO convention.



Continued on the next page

MATERIAL: Hubs – Stainless Steel

Bellows – Stainless Steel

Set Screws – Stainless Steel

Catalog Number	d ₁ ** Bore H8	d ₂ ** Bore H8	D	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMS12P03P03	3	3	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMS12P03P05	3	5							
S50MFBMS12P04P04	4	4							
S50MFBMS12P04P06	4	6							
S50MFBMS12P05P06	5	6	16	9	26.5	9.5	3	M3	8
S50MFBMS16P04P04	4	4							
S50MFBMS16P05P05	5	5							
S50MFBMS16P06P06	6	6							
S50MFBMS16P06P08	6	8	20	10	32	12.5	3.5	M3	10
S50MFBMS20P05P05	5	5							
S50MFBMS20P06P06	6	6							
S50MFBMS20P06P08	6	8							
S50MFBMS20P08P08	8	8	20	10	32	12.5	3.5	M3	10
S50MFBMS20P10P10	10	10							

Coupling Series (Ref. only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m ²	Static Torsional Stiffness N • m/rad	Allowed Parallel Offset mm	Allowed Angular Offset deg	Allowed Axial Play mm	Weight* grams
S50MFBMS12_P__	0.5	1	32000	2.1×10^{-7}	100	0.1	1.5	+0.4, -1.2	9.1
S50MFBMS16_P__	1	2	24000	8×10^{-7}	150	0.1	1.5	+0.4, -1.2	20
S50MFBMS20_P__	1.5	3	19000	2.3×10^{-6}	220	0.15	2	+0.6, -1.8	37

*Values with max. bore diameter.

**Bore Tolerance:

3 mm + 0.014

4, 5 & 6 mm + 0.018

8 & 10 mm + 0.022

NOTES: 1. The recommended tolerances for the shafts are h6 or h7.

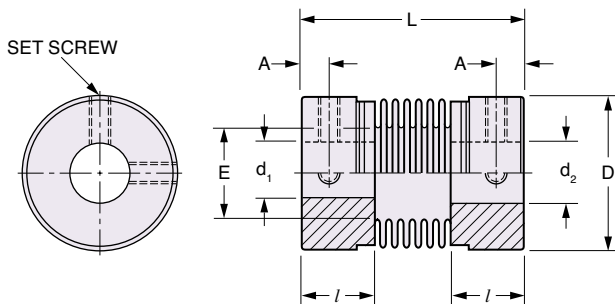
2. Other bore sizes and combinations are available on special order.

3. Couplings with a bore diameter of 4 mm or less have one set screw in each hub.

■ ZERO BACKLASH

■ MAINTENANCE-FREE

■ STAINLESS STEEL



The projections shown are per ISO convention.



Continued from the previous page

MATERIAL: Hubs – Stainless Steel

Bellows – Stainless Steel

Set Screws – Stainless Steel

Catalog Number	d ₁ ** Bore H8	d ₂ ** Bore H8	D	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMS25P06P06	6	6	25	12	36.5	15	4.5	M4	12
S50MFBMS25P06P12	6	12							
S50MFBMS25P08P08	8	8							
S50MFBMS25P08P10	8	10							
S50MFBMS25P10P10	10	10							
S50MFBMS32P08P08	8	8	32	13.5	42	21	5.5	M4	16
S50MFBMS32P10P10	10	10							
S50MFBMS32P10P14	10	14							
S50MFBMS32P12P12	12	12							

Coupling Series (Ref. only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m ²	Static Torsional Stiffness N • m/rad	Allowed Parallel Offset mm	Allowed Angular Offset deg	Allowed Axial Play mm	Weight* grams
S50MFBMS25_P_	2	4	15000	7 x 10 ⁻⁶	330	0.15	2	+0.6, -1.8	73
S50MFBMS32_P_	3	6	12000	2.1 x 10 ⁻⁵	490	0.2		+0.8, -2.5	130

*Values with max. bore diameter.

**Bore Tolerance:

6 mm + 0.018

8 & 10 mm + 0.022

12 & 14 mm + 0.027

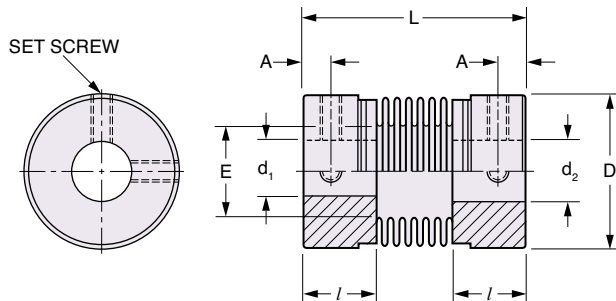
NOTES:

1. The recommended tolerances for the shafts are h6 or h7.
2. Other bore sizes and combinations are available on special order.

■ ZERO BACKLASH

■ MAINTENANCE-FREE

■ PHOSPHOR BRONZE BELLOWS



The projections shown are per ISO convention.



Continued on the next page

MATERIAL: Hubs – Aluminum Alloy

Bellows – Phosphor Bronze

Set Screws – Steel, Black Oxide Finish

Catalog Number	d ₁ ** Bore H8	d ₂ ** Bore H8	D	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMA12P03P03	3	3	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMA12P04P05	4	5							
S50MFBMA12P05P05	5	5							
S50MFBMA12P05P06	5	6							
S50MFBMA12P06P06	6	6							
S50MFBMA16P04P04	4	4	16	9	26.5	9.5	3	M3	8
S50MFBMA16P05P05	5	5							
S50MFBMA16P05P06	5	6							
S50MFBMA16P06P06	6	6							
S50MFBMA16P06P08	6	8							
S50MFBMA20P06P06	6	6	20	10	32	12.5	3.5	M3	10
S50MFBMA20P06P08	6	8							
S50MFBMA20P06P10	6	10							
S50MFBMA20P08P08	8	8							
S50MFBMA20P10P10	10	10							

Coupling Series (Ref. only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m ²	Static Torsional Stiffness N • m/rad	Allowed Parallel Offset mm	Allowed Angular Offset deg	Allowed Axial Play mm	Weight* grams
S50MFBMA12_P__	0.3	0.6	32000	9 x 10 ⁻⁸	82	0.1	1.5	+0.4, -1.2	4.1
S50MFBMA16_P__	0.5	1	24000	3.5 x 10 ⁻⁷	110	0.1	1.5	+0.4, -1.2	9
S50MFBMA20_P__	0.8	1.6	19000	9.9 x 10 ⁻⁷	180	0.15	2	+0.6, -1.8	16

*Values with max. bore diameter.

**Bore Tolerance:
 3 mm + 0.014
 4, 5 & 6 mm + 0.018
 8 & 10 mm + 0.022

NOTES: 1. The recommended tolerances for the shafts are h6 or h7.

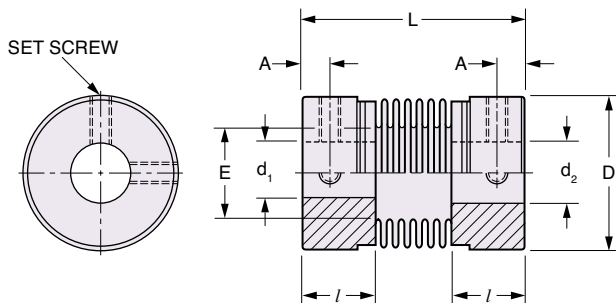
2. Other bore sizes and combinations are available on special order.

3. Couplings with a bore diameter of 4 mm or less have one set screw in each hub.

■ ZERO BACKLASH

■ MAINTENANCE-FREE

■ PHOSPHOR BRONZE BELLOWS



The projections shown are per ISO convention.



Continued from the previous page

MATERIAL: Hubs – Aluminum Alloy

Bellows – Phosphor Bronze

Set Screws – Steel, Black Oxide Finish

Catalog Number	d ₁ ** Bore H8	d ₂ ** Bore H8	D	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMA25P06P06	6	6	25	12	36.5	15	4.5	M4	12
S50MFBMA25P08P08	8	8							
S50MFBMA25P10P10	10	10							
S50MFBMA25P10P12	10	12							
S50MFBMA25P12P12	12	12	32	13.5	42	21	5.5	M4	16
S50MFBMA32P08P08	8	8							
S50MFBMA32P08P14	8	14							
S50MFBMA32P10P10	10	10							
S50MFBMA32P12P12	12	12							

Coupling Series (Ref. only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m ²	Static Torsional Stiffness N • m/rad	Allowed Parallel Offset mm	Allowed Angular Offset deg	Allowed Axial Play mm	Weight* grams
S50MFBMA25_P_	1.3	2.6	15000	3.1 x 10 ⁻⁶	240	0.15	2	+0.6, -1.8	32
S50MFBMA32_P_	2	4	12000	9.2 x 10 ⁻⁶	330	0.2		+0.8, -2.5	57

*Values with max. bore diameter.

**Bore Tolerance:

6 mm + 0.018

8 & 10 mm + 0.022

12 & 14 mm + 0.027

NOTES:

1. The recommended tolerances for the shafts are h6 or h7.
2. Other bore sizes and combinations are available on special order.

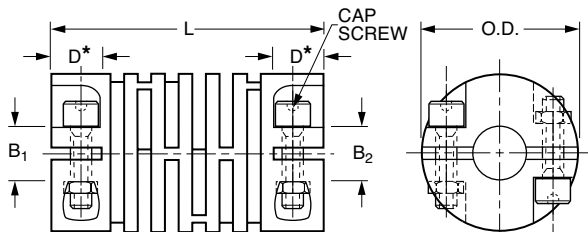
Slit Type Plastic Couplings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

- LOW COST ■ UV RESISTANT ■ VOLTAGE & RF ISOLATION ■ SPLIT TYPE HUB



This lightweight molded patented coupling can replace many stainless/aluminum slit type couplings with low cost and improved operation. There is no windup or backlash or any derating for reversing applications. To insure a tight fit between the shaft and the coupling, a metal screw-to-metal nut design is used and does not utilize threads cut into the molded piece.



Sizes: 13 thru 19



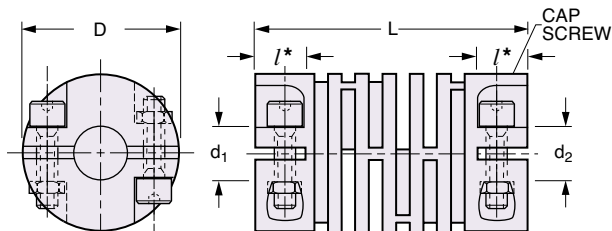
Size: 25

MATERIAL: Coupling – Engineered Polymer
Fasteners – Stainless Steel

Temperature Range: -4°F to +284°F

Catalog Number	Size	O.D.	B ₁ Bore +.0015 -.0000	B ₂ Bore +.0015 -.0000	L Length	D*	Cap Screw	Max. Parallel Offset	Max. Angular Offset	Max. Torque in. lb.	Torsional Stiffness in. lb./deg
S50TLC-50H12H12 S50TLC-50H12H18 S50TLC-50H12H25	13	.500	.125	.125 .187 .250	.710	.200	M2	.006	3°	4.5	.85
S50TLC-50H18H18 S50TLC-50H18H25 S50TLC-50H25H25			.187	.187 .250 .250							
S50TLC-75H18H18 S50TLC-75H18H25 S50TLC-75H18H31 S50TLC-75H18H37			.187	.187 .250 .312 .375							
S50TLC-75H25H25 S50TLC-75H25H31 S50TLC-75H25H37	19	.750	.250	.250 .312 .375	1.100	.270	M2.5	.008	4°	17	1.85
S50TLC-75H31H31 S50TLC-75H31H37 S50TLC-75H37H37			.312	.312 .375 .375							
S50TLC-98H31H31 S50TLC-98H31H37 S50TLC-98H31H50			.312	.312 .375 .500							
S50TLC-98H37H37 S50TLC-98H37H50 S50TLC-98H50H50	25	.980	.375	.375 .500 .500	1.400	.390	M3	.012	5°	33	2.78
			.375	.375 .500 .500							
			.500	.500 .500 .500							

*D = max. shaft penetration depth.

SDP/SI**Slit Type Plastic Couplings****Stock Drive Products/Sterling Instrument****Phone: 516-326-3300****Fax: 516-326-8827**■ **LOW COST**■ **UV RESISTANT**■ **VOLTAGE & RF ISOLATION**■ **SPLIT TYPE HUB**

The projections shown are per ISO convention.

This lightweight molded patented coupling can replace many stainless/aluminum split type couplings with low cost and improved operation. There is no windup or backlash or any derating for reversing applications. To insure a tight fit between the shaft and the coupling, a metal screw-to-metal nut design is used and does not utilize threads cut into the molded piece.



MATERIAL: Coupling – Engineered Polymer
Fasteners – Stainless Steel

Temperature Range: -20°C to +140°C

Catalog Number	Size	D	d ₁ Bore +0.04 0	d ₂ Bore +0.04 0	L Length	l*	Cap Screw	Max. Parallel Offset	Max. Angular Offset	Max. Torque N•m	Torsional Stiffness N•m/rad
S50TLCM13H03H03	13	12.7	3	3	18	5	M2	0.15	3°	0.5	5.2
S50TLCM13H03H04				4							
S50TLCM13H03H05				5							
S50TLCM13H03H06				6							
S50TLCM13H04H04			4	4							
S50TLCM13H04H05				5							
S50TLCM13H04H06				6							
S50TLCM13H05H05			5	5							
S50TLCM13H05H06				6							
S50TLCM13H06H06				6							
S50TLCM19H05H05	19	19	5	5	28	6.8	M2.5	0.2	4°	2	10
S50TLCM19H05H06				6							
S50TLCM19H05H08				8							
S50TLCM19H06H06			6	6							
S50TLCM19H06H08				8							
S50TLCM19H08H08				8							
S50TLCM25H06H06	25	25	6	6	36	10	M3	0.3	5°	3.8	18
S50TLCM25H06H08				8							
S50TLCM25H06H10				10							
S50TLCM25H06H12			8	8							
S50TLCM25H08H08				10							
S50TLCM25H08H10				12							
S50TLCM25H08H12			10	10							
S50TLCM25H10H10				12							
S50TLCM25H10H12				12							
S50TLCM25H12H12			12	12							

*/ = max. shaft penetration depth.

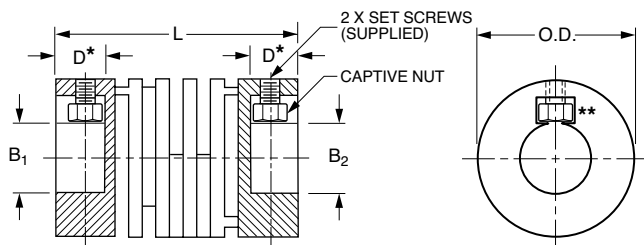
Slit Type Plastic Couplings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ LOW COST ■ UV RESISTANT ■ VOLTAGE & RF ISOLATION ■ SET SCREW TYPE



**On larger bores, the I.D. may partially intrude into the captive nut cavity.

This lightweight molded patented coupling can replace many stainless/aluminum slit type couplings with low cost and improved operation. There is no windup or backlash or any derating for reversing applications. To insure a tight fit between the shaft and the coupling, a metal screw-to-metal nut design is used and does not utilize threads cut into the molded piece.

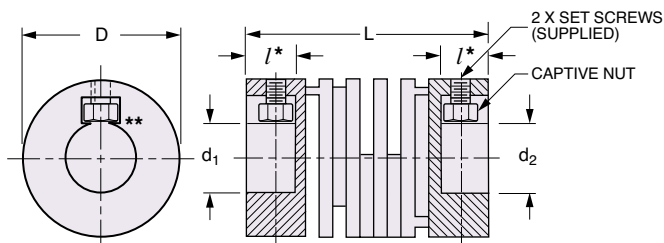
MATERIAL: Coupling – Engineered Polymer
Fasteners – Stainless Steel

Temperature Range: -4°F to +284°F

Catalog Number	Size	O.D.	B ₁ Bore +.0015 -.0000	B ₂ Bore +.0015 -.0000	L Length	D*	Set Screw	Max. Parallel Offset	Max. Angular Offset	Max. Torque in. lb.	Torsional Stiffness in. lb./deg
S50TLS-50P12P12 S50TLS-50P12P18 S50TLS-50P12P25	13	.500	.125	.125 .187 .250	.710	.200	M2	.006	3°	4.5	.85
S50TLS-50P18P18 S50TLS-50P18P25 S50TLS-50P25P25			.187 .187 .250	.187 .250 .250							
S50TLS-75P18P18 S50TLS-75P18P25 S50TLS-75P18P31 S50TLS-75P18P37			.187	.187 .250 .312 .375							
S50TLS-75P25P25 S50TLS-75P25P31 S50TLS-75P25P37	19	.750	.250	.250 .312 .375	1.100	.270	M2.5	.008	4°	17	1.85
S50TLS-75P31P31 S50TLS-75P31P37 S50TLS-75P37P37			.312 .312 .375	.312 .375 .375							
S50TLS-98P31P31 S50TLS-98P31P37 S50TLS-98P31P50 S50TLS-98P37P37 S50TLS-98P37P50 S50TLS-98P50P50	25	.980	.312 .375 .375 .500	.312 .375 .500 .500	1.400	.390	M4	.012	5°	33	2.78

*D = max. shaft penetration depth.

- LOW COST ■ UV RESISTANT ■ VOLTAGE & RF ISOLATION ■ SET SCREW TYPE



The projections shown are per ISO convention.

This lightweight molded patented coupling can replace many stainless/aluminum slit type couplings with low cost and improved operation. There is no windup or backlash or any derating for reversing applications. To insure a tight fit between the shaft and the coupling, a metal screw-to-metal nut design is used and does not utilize threads cut into the molded piece.



**On larger bores, the I.D. may partially intrude into the captive nut cavity.

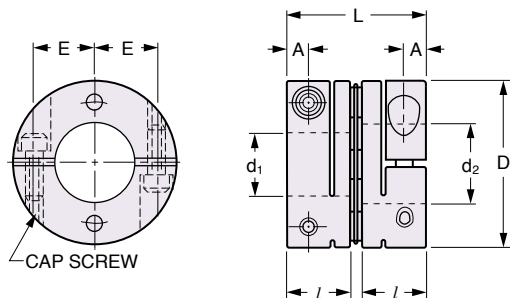
MATERIAL: Coupling – Engineered Polymer
Fasteners – Stainless Steel

Temperature Range: -20°C to +140°C

Catalog Number	Size	D	d ₁ Bore +0.04 0	d ₂ Bore +0.04 0	L Length	l*	Set Screw	Max. Parallel Offset	Max. Angular Offset	Max. Torque N • m	Torsional Stiffness N • m/rad
S50TLSM13P03P03	13	12.7	3	3	18	5	M2	0.15	3°	0.5	5.2
S50TLSM13P03P04				4							
S50TLSM13P03P05				5							
S50TLSM13P03P06				6							
S50TLSM13P04P04			4	4							
S50TLSM13P04P05				5							
S50TLSM13P04P06				6							
S50TLSM13P05P05	13	12.7	5	5	18	5	M2	0.15	3°	0.5	5.2
S50TLSM13P05P06				6							
S50TLSM13P06P06				6							
S50TLSM19P05P05	19	19	5	5	28	6.8	M2.5	0.2	4°	2	10
S50TLSM19P05P06				6							
S50TLSM19P05P08				8							
S50TLSM19P06P06			6	6							
S50TLSM19P06P08				8							
S50TLSM19P08P08				8							
S50TLSM25P06P06	25	25	6	6	36	10	M4	0.3	5°	3.8	18
S50TLSM25P06P08				8							
S50TLSM25P06P10				10							
S50TLSM25P06P12			8	8							
S50TLSM25P08P08				10							
S50TLSM25P08P10				12							
S50TLSM25P10P10	25	25	10	10	36	10	M4	0.3	5°	3.8	18
S50TLSM25P10P12				12							
S50TLSM25P12P12				12							

*l = max. shaft penetration depth.

- ZERO BACKLASH ■ SPLIT TYPE HUB ■ HIGH TORSIONAL STIFFNESS
 ■ HIGH RESPONSE ■ HIGH TORQUE



CAP SCREW



Continued on the next page

The projections shown are per ISO convention.

MATERIAL: Collars & Disks – Stainless Steel
 Hubs – Stainless Steel
 Bolts & Screws – Stainless Steel

Catalog Number	D	d_1^* Bore	d_2^* Bore	L	l	A	E	Cap Screw	Max.** Bore
S50XBSMS15H03H03	15	3	3	16	7.5	2.3	5.25	M2	6
S50XBSMS15H04H04		4	4						
S50XBSMS15H06H06		6	6						
S50XBSMS19H06H06	19	6	6	19	9	2.5	7.1	M2	8
S50XBSMS19H06H08		6	8						
S50XBSMS19H08H08		8	8						
S50XBSMS25H08H08	25	8	8	23.6	11	3.5	9.25	M2.5	12
S50XBSMS25H08H10		8	10						
S50XBSMS25H10H10		10	10						
S50XBSMS27H10H10	27	10	10	23.6	11	3.5	10.25	M2.5	14
S50XBSMS27H10H12		10	12						
S50XBSMS27H12H12		12	12						

*Shaft Tolerance (h7): 3 to 6 mm -0.012
 8 & 10 mm -0.015
 12 mm -0.018

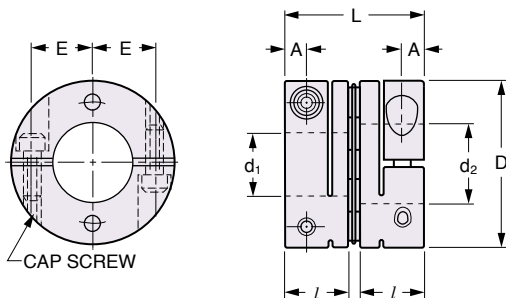
**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Angular Offset	Max. Axial Motion	Weight Δ grams
S50XBSMS15H...	0.5	42000	2.3×10^{-7}	500	0.5°	±0.1	15
S50XBSMS19H...	1	33000	7.4×10^{-7}	1000	1°	±0.1	29
S50XBSMS25H...	1.2	25000	2.8×10^{-6}	1500	1°	±0.2	53
S50XBSMS27H...	1.5	23000	3.8×10^{-6}	2100	1°	±0.2	67

Δ Based on max. bore dimension.

- ZERO BACKLASH ■ SPLIT TYPE HUB ■ HIGH TORSIONAL STIFFNESS
 ■ HIGH RESPONSE ■ HIGH TORQUE



Continued from the previous page

The projections shown are per ISO convention.

MATERIAL: Collars & Disks – Stainless Steel
 Hubs – Stainless Steel
 Bolts & Screws – Stainless Steel

MISALIGNMENT COMPENSATION
 Max. Angular Offset – 1°

Catalog Number	D	d_1^* Bore	d_2^* Bore	L	l	A	E	Cap Screw	Max.** Bore
S50XBMS34H12H12	34	12	12	26.2	12	4	13	M3	16
S50XBMS34H12H16		12	16						
S50XBMS34H16H16		16	16						
S50XBMS39H16H16	39	16	16	32.8	15	5	14.5	M4	20
S50XBMS39H20H20		20	20						
S50XBMS44H16H16	44	16	16	32.8	15	5	17	M4	22
S50XBMS44H16H20		16	20						
S50XBMS44H20H20		20	20						
S50XBMS56H20H20	56	20	20	43.2	20	6	21.25	M5	28
S50XBMS56H20H25		20	25						
S50XBMS56H25H25		25	25						

*Shaft Tolerance (h7): 12 & 16 mm -0.018
 20 & 25 mm -0.021

**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Axial Motion	Weight Δ grams
S50XBMS34H...	3.5	18000	1.1×10^{-5}	3800	± 0.3	115
S50XBMS39H...	5	16000	2.3×10^{-5}	5500	± 0.3	185
S50XBMS44H...	7	14000	3.9×10^{-5}	7000	± 0.3	305
S50XBMS56H...	15	11000	1.4×10^{-4}	15000	± 0.4	610

Δ Based on max. bore dimension.

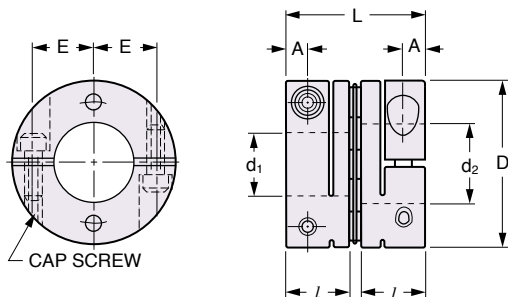
■ ZERO BACKLASH

■ SPLIT TYPE HUB

■ HIGH TORSIONAL STIFFNESS

■ HIGH RESPONSE

■ HIGH TORQUE



The projections shown are per ISO convention.



Continued on the next page

MATERIAL: Collars & Disks – Stainless Steel

Hubs – Aluminum Alloy

Bolts & Screws – Steel, Black Oxide

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	L	l	A	E	Cap Screw	Max.** Bore
S50XBSMA15H03H03	15	3	3	16	7.5	2.3	5.25	M2	6
S50XBSMA15H04H04		4	4						
S50XBSMA15H06H06		6	6						
S50XBSMA19H06H06	19	6	6	19	9	2.5	7.1	M2	8
S50XBSMA19H06H08		6	8						
S50XBSMA19H08H08		8	8						
S50XBSMA25H08H08	25	8	8	23.6	11	3.5	9.25	M2.5	12
S50XBSMA25H08H10		8	10						
S50XBSMA25H10H10		10	10						
S50XBSMA27H10H10	27	10	10	23.6	11	3.5	10.25	M2.5	14
S50XBSMA27H10H12		10	12						
S50XBSMA27H12H12		12	12						

*Shaft Tolerance (h7):
 3 to 6 mm -0.012
 8 & 10 mm -0.015
 12 mm -0.018

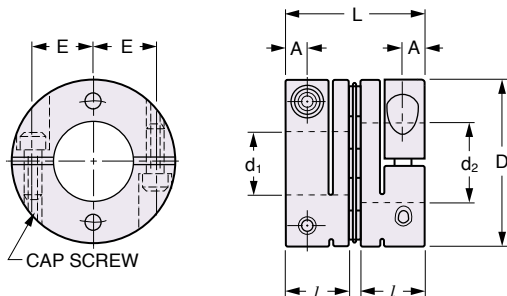
**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Angular Offset	Max. Axial Motion	Weight ^Δ grams
S50XBSMA15H...	0.6	42000	9.8×10^{-8}	300	0.5°	±0.1	5
S50XBSMA19H...	1	33000	2.9×10^{-7}	600	1°	±0.1	9
S50XBSMA25H...	2	25000	1.1×10^{-6}	1300	1°	±0.2	17
S50XBSMA27H...	2.2	23000	1.4×10^{-6}	1600	1°	±0.2	21

^ΔBased on max. bore dimension.

- ZERO BACKLASH ■ SPLIT TYPE HUB ■ HIGH TORSIONAL STIFFNESS
- HIGH RESPONSE ■ HIGH TORQUE



The projections shown are per ISO convention.



Continued from the previous page

MATERIAL: Collars & Disks – Stainless Steel
Hubs – Aluminum Alloy
Bolts & Screws – Steel, Black Oxide

MISALIGNMENT COMPENSATION
Max. Angular Offset – 1°

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	L	l	A	E	Cap Screw	Max.** Bore
S50XBMA34H12H12	34	12	12	26.2	12	4	13	M3	16
S50XBMA34H12H16		12	16						
S50XBMA34H16H16		16	16						
S50XBMA39H16H16	39	16	16	32.8	15	5	14.5	M4	20
S50XBMA39H20H20		20	20						
S50XBMA44H16H16		16	16						
S50XBMA44H16H20	44	16	20	32.8	15	5	17	M4	22
S50XBMA44H20H20		20	20						
S50XBMA56H20H20		20	20	43.2	20	6	21.25	M5	28
S50XBMA56H20H25	56	20	25						
S50XBMA56H25H25		25	25						

*Shaft Tolerance (h7): 12 & 16 mm -0.018
20 & 25 mm -0.021

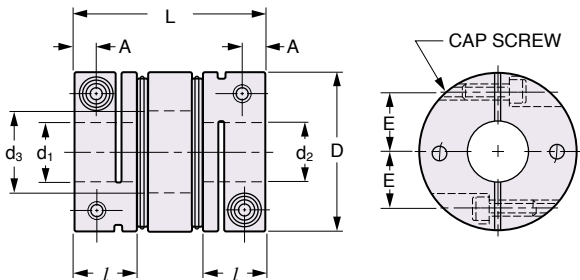
**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Axial Motion	Weight ^Δ grams
S50XBMA34H...	4.2	18000	4×10^{-6}	2500	±0.3	43
S50XBMA39H...	8	16000	9.8×10^{-6}	4600	±0.3	83
S50XBMA44H...	10	14000	1.6×10^{-5}	6000	±0.3	105
S50XBMA56H...	25	11000	5.7×10^{-4}	14000	±0.4	232

^ΔBased on max. bore dimension.

- ZERO BACKLASH ■ SPLIT TYPE HUB ■ HIGH TORSIONAL STIFFNESS
 ■ HIGH RESPONSE ■ HIGH TORQUE



Continued on the next page

The projections shown are per ISO convention.

MATERIAL: Collars & Disks – Stainless Steel
 Hubs & Spacer – Stainless Steel
 Bolts & Screws – Stainless Steel

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	d ₃	L	l	A	E	Cap Screw	Max.** Bore
S50XBWMS15H03H03	15	3	3	6.1	22	7.5	2.3	5.25	M2	6
S50XBWMS15H04H04		4	4							
S50XBWMS15H06H06		6	6							
S50XBWMS19H06H06	19	6	6	9.5	25.5	9	2.5	7.1	M2	8
S50XBWMS19H06H08		6	8							
S50XBWMS19H08H08		8	8							
S50XBWMS25H08H08	25	8	8	12.5	32.2	11	3.5	9.25	M2.5	12
S50XBWMS25H08H10		8	10							
S50XBWMS25H10H10		10	10							
S50XBWMS27H10H10	27	10	10	14.5	32.2	11	3.5	10.25	M2.5	14
S50XBWMS27H10H12		10	12							
S50XBWMS27H12H12		12	12							

*Shaft Tolerance (h7): 3 to 6 mm -0.012
 8 & 10 mm -0.015
 12 mm -0.018

**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Lateral Offset	Max. Angular Offset	Max. Axial Motion	Weight ^Δ grams
S50XBWMS15H...	0.5	42000	5 x 10 ⁻⁷	300	0.05	1°	±0.2	20
S50XBWMS19H...	1	33000	1.6 x 10 ⁻⁶	550	0.15	2°	±0.2	38
S50XBWMS25H...	1.2	25000	6.1 x 10 ⁻⁶	1100	0.2	2°	±0.4	71
S50XBWMS27H...	1.5	23000	8.2 x 10 ⁻⁶	1300	0.2	2°	±0.4	88

^ΔBased on max. bore dimension.

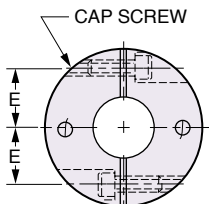
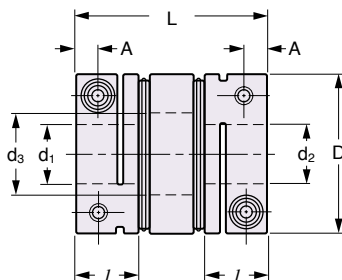
■ ZERO BACKLASH

■ SPLIT TYPE HUB

■ HIGH TORSIONAL STIFFNESS

■ HIGH RESPONSE

■ HIGH TORQUE



The projections shown are per ISO convention.

Continued from the previous page

MATERIAL: Collars & Disks – Stainless Steel
 Hubs & Spacer – Stainless Steel
 Bolts & Screws – Stainless Steel

MISALIGNMENT COMPENSATION
 Max. Angular Offset – 2°

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	d ₃	L	l	A	E	Cap Screw	Max.** Bore
S50XBWMS34H12H12	34	12	12	16.5	37.4	12	4	13	M3	16
S50XBWMS34H12H16		12	16							
S50XBWMS34H16H16		16	16							
S50XBWMS39H12H12	39	12	12	20.5	46.6	15	5	14.5	M4	20
S50XBWMS39H16H16		16	16							
S50XBWMS44H16H16	44	16	16	23	46.6	15	5	17	M4	22
S50XBWMS44H16H20		16	20							
S50XBWMS44H20H20		20	20							
S50XBWMS56H20H20	56	20	20	28.5	60.4	20	6	21.25	M5	28
S50XBWMS56H20H25		20	25							
S50XBWMS56H25H25		25	25							

*Shaft Tolerance (h7): 12 & 16 mm -0.018
 20 & 25 mm -0.021

**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Lateral Offset	Max. Axial Motion	Weight ^Δ grams
S50XBWMS34H...	3.5	18000	2.5 × 10 ⁻⁵	1800	0.25	±0.6	160
S50XBWMS39H...	5	16000	5.1 × 10 ⁻⁵	3500	0.3	±0.6	260
S50XBWMS44H...	7	14000	8.9 × 10 ⁻⁵	5500	0.3	±0.6	400
S50XBWMS56H...	15	11000	2.9 × 10 ⁻⁴	10000	0.3	±0.8	800

^ΔBased on max. bore dimension.

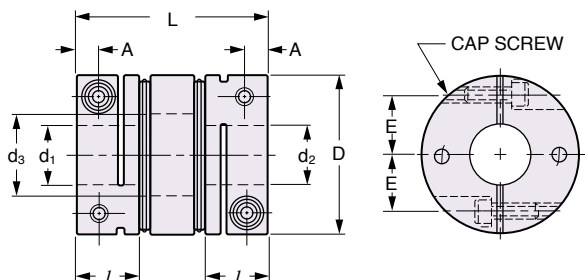
■ ZERO BACKLASH

■ SPLIT TYPE HUB

■ HIGH TORSIONAL STIFFNESS

■ HIGH RESPONSE

■ HIGH TORQUE



The projections shown are per ISO convention.



Continued on the next page

MATERIAL: Collars & Disks – Stainless Steel
 Hubs & Spacer – Aluminum Alloy
 Bolts & Screws – Steel, Black Oxide

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	d ₃	L	l	A	E	Cap Screw	Max.** Bore
S50XBWMA15H03H03	15	3	3	6.1	22	7.5	2.3	5.25	M2	6
S50XBWMA15H04H04		4	4							
S50XBWMA15H06H06		6	6							
S50XBWMA19H06H06	19	6	6	9.5	25.5	9	2.5	7.1	M2	8
S50XBWMA19H06H08		6	8							
S50XBWMA19H08H08		8	8							
S50XBWMA25H08H08	25	8	8	12.5	32.2	11	3.5	9.25	M2.5	12
S50XBWMA25H08H10		8	10							
S50XBWMA25H10H10		10	10							
S50XBWMA27H10H10	27	10	10	14.5	32.2	11	3.5	10.25	M2.5	14
S50XBWMA27H10H12		10	12							
S50XBWMA27H12H12		12	12							

*Shaft Tolerance (h7): 3 to 6 mm -0.012
 8 & 10 mm -0.015
 12 mm -0.018

**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Lateral Offset	Max. Angular Offset	Max. Axial Motion	Weight ^Δ grams
S50XBWMA15H...	0.6	42000	2.2 x 10 ⁻⁷	200	0.05	1°	±0.2	7.5
S50XBWMA19H...	1	33000	6.7 x 10 ⁻⁷	450	0.15	2°	±0.2	14
S50XBWMA25H...	2	25000	2.3 x 10 ⁻⁶	850	0.2	2°	±0.4	24
S50XBWMA27H...	2.2	23000	3.1 x 10 ⁻⁶	1000	0.2	2°	±0.4	30

^ΔBased on max. bore dimension.

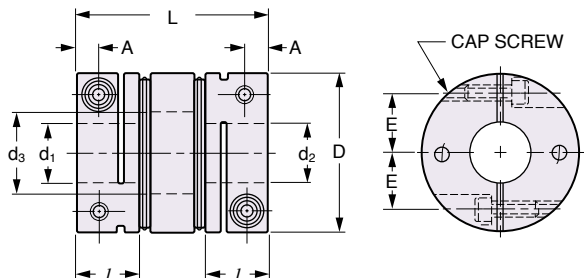
SDP/SI

Stock Drive Products/Sterling Instrument

Double Disk Flexible Couplings

Phone: 516-326-3300 Fax: 516-326-8827

- ZERO BACKLASH ■ SPLIT TYPE HUB ■ HIGH TORSIONAL STIFFNESS
 ■ HIGH RESPONSE ■ HIGH TORQUE



The projections shown are per ISO convention.



Continued from the previous page

MATERIAL: Collars & Disks – Stainless Steel
 Hubs & Spacer – Aluminum Alloy
 Bolts & Screws – Steel, Black Oxide

MISALIGNMENT COMPENSATION
 Max. Angular Offset – 2°

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	d ₃	L	l	A	E	Cap Screw	Max.** Bore
S50XBWMA34H12H12	34	12	12	16.5	37.4	12	4	13	M3	16
S50XBWMA34H12H16		12	16							
S50XBWMA34H16H16		16	16							
S50XBWMA39H12H12	39	12	12	20.5	46.6	15	5	14.5	M4	20
S50XBWMA39H16H16		16	16							
S50XBWMA44H16H16		16	16							
S50XBWMA44H16H20	44	16	20	23	46.6	15	5	17	M4	22
S50XBWMA44H20H20		20	20							
S50XBWMA56H20H20		20	20							
S50XBWMA56H20H25	56	20	25	28.5	60.4	20	6	21.25	M5	28
S50XBWMA56H25H25		25	25							

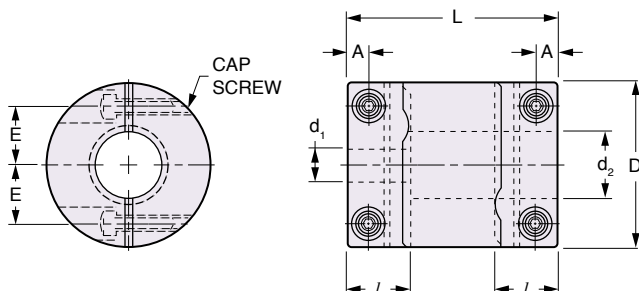
*Shaft Tolerance (h7): 12 & 16 mm -0.018
 20 & 25 mm -0.021

**Other bore diameter combinations and bore
 sizes not exceeding the maximum listed above
 are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Max. Lateral Offset	Max. Axial Motion	Weight ^Δ grams
S50XBWMA34H...	4.2	18000	9 x 10 ⁻⁶	1600	0.25	±0.6	63
S50XBWMA39H...	8	16000	2.1 x 10 ⁻⁵	3200	0.3	±0.6	120
S50XBWMA44H...	10	14000	3.5 x 10 ⁻⁵	3900	0.3	±0.6	151
S50XBWMA56H...	25	11000	1.2 x 10 ⁻⁴	9000	0.3	±0.8	322

^ΔBased on max. bore dimension.

■ **ABSORBS VIBRATION**■ **EXCELLENT ELECTRICAL INSULATION**■ **ZERO BACKLASH**■ **HIGH RESPONSE**■ **HIGH TORQUE**

Continued on the next page

The projections shown are per ISO convention.

MISALIGNMENT COMPENSATION**Max. Angular Offset** – 1.5°**Max. Lateral Offset** – 0.15**Max. Axial Motion** – ±0.2**MATERIAL:** Hubs – Aluminum

Center – Molded Rubber

Cap Screws – Steel, Black Oxide

OPERATING TEMPERATURE: -20°C to +80°C**APPLICATIONS:**

Outstanding performance when used with servomotors or stepping motors for the following reasons:

- Eliminates Resonance
- Absorbs Vibration
- High Speed & Precise Positioning
- Increases Gain

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	L	l	A	E	Cap Screw	Max. Bore
S50XGSMA15H0305	15	3	5	18	6.5	2.15	5	M1.6	6
S50XGSMA15H0404		4	4						
S50XGSMA15H0406		4	6						
S50XGSMA19H0606	19	6	6	20	7.7	2.65	6.5	M2	8
S50XGSMA19H06E6		6	6.35						
S50XGSMA19H0608		6	8						
S50XGSMA19H08E6		6.35	8						
S50XGSMA25H08E6	25	6.35	8	27	9.5	3.25	9	M2.5	12
S50XGSMA25H0808		8	8						
S50XGSMA25H0810		8	10						
S50XGSMA25H0811		8	11						

*Shaft Tolerance (h7): 3 to 6 mm -0.012

6.35 & 10 mm -0.015

11 mm -0.018

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Weight ^Δ grams
S50XGSMA15H...	0.5	42000	2 × 10 ⁻⁷	25	7
S50XGSMA19H...	0.8	33000	6.2 × 10 ⁻⁷	63	12
S50XGSMA25H...	2.3	25000	2.3 × 10 ⁻⁶	125	25

^ΔBased on max. bore dimension.

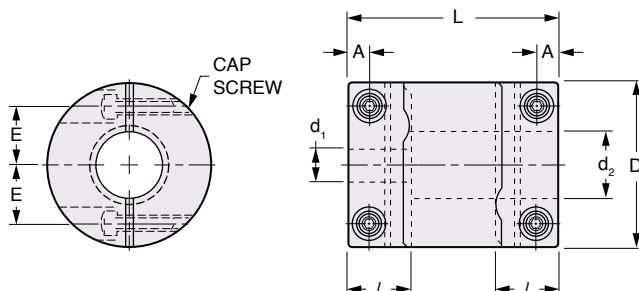
■ ABSORBS VIBRATION

■ EXCELLENT ELECTRICAL INSULATION

■ ZERO BACKLASH

■ HIGH RESPONSE

■ HIGH TORQUE



Continued from the previous page

The projections shown are per ISO convention.

MISALIGNMENT COMPENSATION

Max. Angular Offset – 1.5°

Max. Lateral Offset – 0.2

Max. Axial Motion – ±0.3

MATERIAL: Hubs – Aluminum

Center – Molded Rubber

Cap Screws – Steel, Black Oxide

OPERATING TEMPERATURE: -20°C to +80°C**APPLICATIONS:**

Outstanding performance when used with servomotors or stepping motors for the following reasons:

- Eliminates Resonance
- Absorbs Vibration
- High Speed & Precise Positioning
- Increases Gain

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	L	l	A	E	Cap Screw	Max. Bore
S50XGMA30H0812	30	8	12	30	11	4	11	M3	15
S50XGMA30H1010		10	10						
S50XGMA30H1212		12	12						
S50XGMA34H1012	34	10	12	35	12	4	12.25	M3	16
S50XGMA34H1111		11	11						
S50XGMA39H1212	39	12	12	40	15.5	4.5	14.5	M4	20
S50XGMA39H1216		12	16						

*Shaft Tolerance (h7): 8 & 10 mm -0.015
11 to 16 mm -0.018

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Weight ^Δ grams
S50XGMA30H...	3.3	21000	5.5 x 10 ⁻⁶	160	39
S50XGMA34H...	5.5	18000	1 x 10 ⁻⁵	350	62
S50XGMA39H...	7	16000	2.1 x 10 ⁻⁵	440	85

^ΔBased on max. bore dimension.

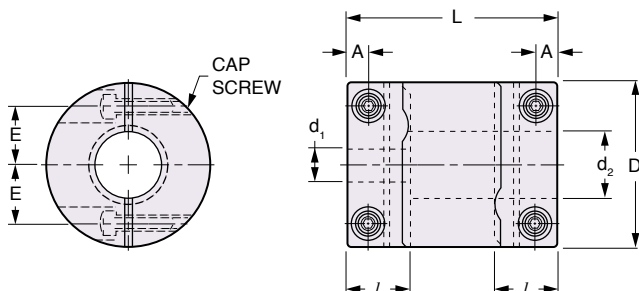
■ ABSORBS VIBRATION

■ EXCELLENT ELECTRICAL INSULATION

■ ZERO BACKLASH

■ HIGH RESPONSE

■ HIGH TORQUE



Continued on the next page

The projections shown are per ISO convention.

MISALIGNMENT COMPENSATION

Max. Angular Offset – 1.5°

Max. Lateral Offset – 0.15

Max. Axial Motion – ±0.2

MATERIAL: Hubs – Aluminum

Center – Molded Rubber

Cap Screws – Steel, Black Oxide

OPERATING TEMPERATURE: -20°C to +80°C**APPLICATIONS:**

Outstanding performance when used with servomotors or stepping motors for the following reasons:

- Eliminates Resonance
- Absorbs Vibration
- High Speed & Precise Positioning
- Increases Gain

Catalog Number	D	d ₁ * Bore	d ₂ * Bore	L	l	A	E	Cap Screw	Max. Bore
S50XGTMA15H0305	15	3	5	23	6.5	2.15	5	M1.6	6
S50XGTMA15H0404		4	4						
S50XGTMA15H0406		4	6						
S50XGTMA19H0606	19	6	6	26	7.7	2.65	6.5	M2	8
S50XGTMA19H06E6		6	6.35						
S50XGTMA19H0608		6	8						
S50XGTMA19H08E6		6.35	8						
S50XGTMA25H08E6	25	6.35	8	32	9.5	3.25	9	M2.5	12
S50XGTMA25H0808		8	8						
S50XGTMA25H0810		8	10						
S50XGTMA25H0811		8	11						

*Shaft Tolerance (h7): 3 to 6 mm -0.012
 6.35 & 10 mm -0.015
 11 mm -0.018

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N·m	Max. rpm	Moment of Inertia ^Δ kg·m ²	Static Torsional Stiffness N·m/rad	Weight ^Δ grams
S50XGTMA15H...	1.1	42000	2.7×10^{-7}	43	8
S50XGTMA19H...	2.1	33000	8.4×10^{-7}	88	14
S50XGTMA25H...	4	25000	3×10^{-6}	170	28

^ΔBased on max. bore dimension.

SDP/SI**Antivibration Flexible Couplings – High Torque**

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

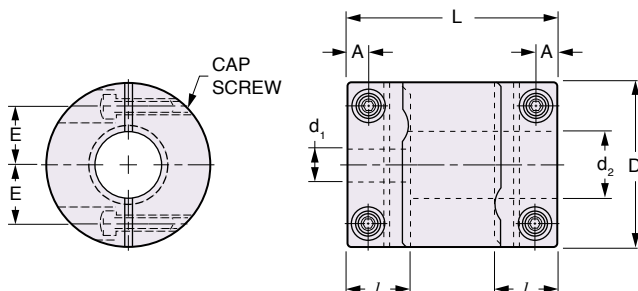
■ ABSORBS VIBRATION

■ EXCELLENT ELECTRICAL INSULATION

■ ZERO BACKLASH

■ HIGH RESPONSE

■ HIGH TORQUE



Continued from the previous page

The projections shown are per ISO convention.

MISALIGNMENT COMPENSATIONMax. Angular Offset – 1.5°

Max. Lateral Offset – 0.2

Max. Axial Motion – ± 0.3 **MATERIAL:** Hubs – Aluminum

Center – Molded Rubber

Cap Screws – Steel, Black Oxide

OPERATING TEMPERATURE: -20°C to $+80^\circ\text{C}$ **APPLICATIONS:**

Outstanding performance when used with servomotors or stepping motors for the following reasons:

- Eliminates Resonance
- Absorbs Vibration
- High Speed & Precise Positioning
- Increases Gain

Catalog Number	D	d_1^* Bore	d_2^* Bore	L	l	A	E	Cap Screw	Max. Bore
S50XGTMA30H0812	30	8	12	36	11	4	11	M3	15
S50XGTMA30H1010		10	10						
S50XGTMA30H1212		12	12						
S50XGTMA34H1012	34	10	12	38	12	4	12.25	M3	16
S50XGTMA34H1111		11	11						
S50XGTMA39H1212	39	12	12	48	15.5	4.5	14.5	M4	20
S50XGTMA39H1216		12	16						
S50XGTMA44H1616	44	16	16	48	15	4.75	16	M4	22
S50XGTMA44H1619		16	19						
S50XGTMA56H1924	56	19	24	60	19.5	5.5	20	M5	28
S50XGTMA56H2020		20	20						

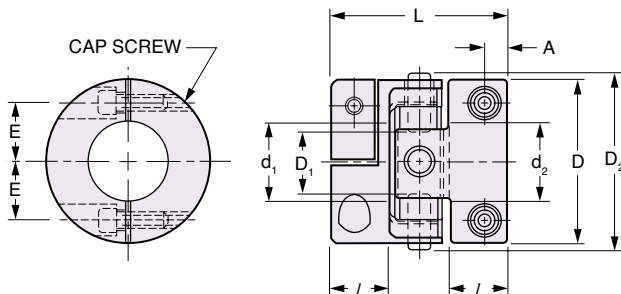
*Shaft Tolerance (h7):
 8 & 10 mm -0.015
 11 to 18 mm -0.018
 19 to 24 mm -0.021

SPECIFICATIONS

Coupling Series (Ref. only)	Rated Torque N·m	Max. rpm	Moment of Inertia ^Δ kg·m ²	Static Torsional Stiffness N·m/rad	Weight ^Δ grams
S50XGTMA30H...	6.3	21000	6.9×10^{-6}	220	45
S50XGTMA34H...	8	18000	1.3×10^{-5}	390	65
S50XGTMA39H...	13.5	16000	2.7×10^{-5}	520	98
S50XGTMA44H...	18	14000	4.2×10^{-5}	640	136
S50XGTMA56H...	35	11000	1.4×10^{-4}	1500	276

^ΔBased on max. bore dimension.

- **HIGH TORSIONAL STIFFNESS** ■ **SPLIT TYPE HUB** ■ **HIGH TORQUE**
 ■ **SMALL ECCENTRIC REACTION FORCE** ■ **ABSORBS VIBRATION** ■ **ZERO BACKLASH**



Continued on the next page

The projections shown are per ISO convention.

MATERIAL: Hubs – Aluminum Alloy
 Pins – Steel
 Bushings – Polyimide
 Spacers – Stainless Steel
 Screws – Steel, Black Oxide

MISALIGNMENT COMPENSATION
 Max. Angular Offset – 1°
 Max. Lateral Offset – 0.2

Catalog Number	D	d1* Bore	d2* Bore	D1	D2	L	l	A	E	Cap Screw
S50XUTM15H03H03	15	3	3	4	16	18	6	2.5	5.2	M2
S50XUTM15H04H04		4	4							
S50XUTM15H06H06		6	6							
S50XUTM20H04H04	20	4	4	7	22	20	7	2.7	6.5	M2
S50XUTM20H04H06		4	6							
S50XUTM20H06H06		6	6							
S50XUTM20H06H08		6	8							
S50XUTM20H08H08		8	8							
S50XUTM25H06H06	25	6	6	10	27	27	9	3.5	9	M2.5
S50XUTM25H08H08		8	8							
S50XUTM25H08H10		8	10							
S50XUTM25H10H10		10	10							
S50XUTM25H10H12		10	12							
S50XUTM25H12H12		12	12							

*Shaft Tolerance (h7): 3 to 6 mm -0.012
 8 & 10 mm -0.015
 12 mm -0.018

NOTE: Coupling series S50MCTM... has been replaced by new series S50XUTM...
 When selecting replacement couplings, be sure to verify dimensions and specifications.

SPECIFICATIONS

Coupling Series (Ref. Only)	Max.** Bore	Rated Torque N • m	Max. rpm	Moment of Inertia ^Δ kg • m ²	Static Torsional Stiffness N • m/rad	Weight ^Δ grams
S50XUTM15...	6	0.3	42000	2.3×10^{-7}	200	8
S50XUTM20...	8	0.6	31000	8.1×10^{-7}	400	16
S50XUTM25...	12	1.2	25000	2.7×10^{-6}	900	33

^ΔBased on max. bore dimension.

**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SDP/SI

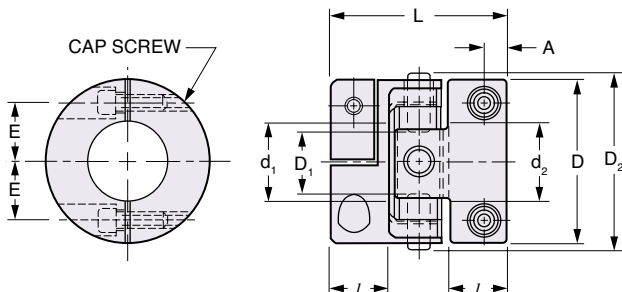
Stock Drive Products/Sterling Instrument

Cross Joint Type Flexible Couplings

Phone: 516-326-3300

Fax: 516-326-8827

- HIGH TORSIONAL STIFFNESS ■ SPLIT TYPE HUB ■ HIGH TORQUE
 ■ SMALL ECCENTRIC REACTION FORCE ■ ABSORBS VIBRATION ■ ZERO BACKLASH



Continued from the previous page

The projections shown are per ISO convention.

MATERIAL: Hubs – Aluminum Alloy
 Pins – Steel
 Bushings – Polyimide
 Spacers – Stainless Steel
 Screws – Steel, Black Oxide

MISALIGNMENT COMPENSATIONMax. Angular Offset – 1°

Max. Lateral Offset – 0.2

Catalog Number	D	d_1^* Bore	d_2^* Bore	D_1	D_2	L	l	A	E	Cap Screw
S50XUTM30H10H10	30	10	10	10	32	30	9.5	4	10.5	M3
S50XUTM30H12H12		12	12							
S50XUTM30H12H14		12	14							
S50XUTM30H14H14		14	14							
S50XUTM35H12H12	35	12	12	13	37	35	11.5	5	12.5	M4
S50XUTM35H14H14		14	14							
S50XUTM35H14H16		14	16							
S50XUTM35H16H16		16	16							
S50XUTM40H16H16	40	16	16	15	42	40	12.5	5.5	15	M4
S50XUTM40H16H18		16	18							
S50XUTM40H18H18		18	18							
S50XUTM40H18H20		18	20							
S50XUTM40H20H20		20	20							

*Shaft Tolerance (h7): 10 mm -0.015
 12 to 18 mm -0.018
 20 mm -0.021

NOTE: Coupling series S50MCTM... has been replaced by new series S50XUTM...
 When selecting replacement couplings, be sure to verify dimensions and specifications.

SPECIFICATIONS

Coupling Series (Ref. Only)	Max.** Bore	Rated Torque N·m	Max. rpm	Moment of Inertia ^Δ kg·m ²	Static Torsional Stiffness N·m/rad	Weight ^Δ grams
S50XUTM30...	14	2.4	21000	6.2×10^{-6}	1300	53
S50XUTM35...	16	4	18000	1.3×10^{-5}	2200	81
S50XUTM40...	20	6	15000	2.6×10^{-5}	2300	120

^ΔBased on max. bore dimension.

**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

Single Disk Flexible Couplings

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

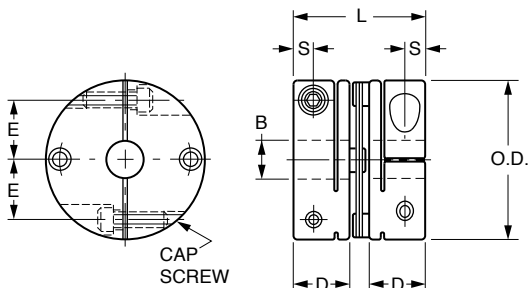
Fax: 516-326-8827

■ ZERO BACKLASH

■ SPLIT TYPE HUB

■ HIGH TORSIONAL STIFFNESS

■ MAINTENANCE-FREE



MISALIGNMENT COMPENSATION

Max. Angular Offset – $.7^\circ$

Max. Lateral Offset – 0

Max. Axial Motion – $\pm .008$

MATERIAL: Pins & Disks – Stainless Steel

Hubs & Spacer – Aluminum Alloy

Catalog Number	O.D.	B* Bore	S	L	D	E	Cap Screw	Max.** Bore
S50MDS-074H18H18	.748	.1875	.098	.787	.315	.256	#2-56	.315
S50MDS-074H25H25		.2500						
S50MDS-098H25H25	.984	.2500	.138	.945	.394	.354	#4-40	.472
S50MDS-098H37H37		.3750						
S50MDS-126H37H37	1.260	.3750	.157	1.142	.472	.433	#6-32	.591
S50MDS-126H50H50		.5000						
S50MDS-157H50H50	1.575	.5000	.197	1.299	.551	.591	#10-24	.787
S50MDS-157H62H62		.6250						
S50MDS-196H62H62	1.969	.6250	.236	1.654	.709	.709	#10-24	.984
S50MDS-196H75H75		.7500						
S50MDS-248H75H75	2.480	.7500	.276	1.811	.787	.945	#1/4-20	1.181
S50MDS-248H99H99		1.0000						

*Shaft Tolerance: .1875 $^{+.0000}_{-.0005}$
.2500 & .3750 $^{+.0000}_{-.0006}$
.5000 & .6250 $^{+.0000}_{-.0007}$
.7500 & 1.0000 $^{+.0000}_{-.0008}$

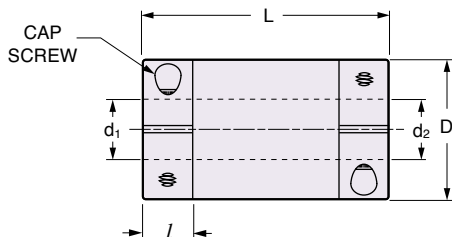
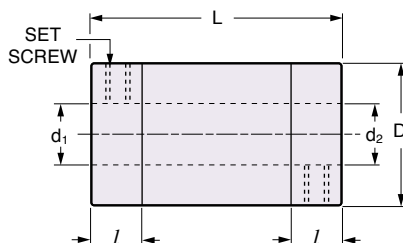
**Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

SPECIFICATIONS

Coupling Series (Ref. only)	Torque lb. in.	Max. rpm	Moment of Inertia oz. in. ²	Static Torsional Stiffness lb. in./deg	Weight oz.
S50MDS-074H...	6.20	10000	.034	43.26	.32
S50MDS-098H...	8.85	8000	.115	97.33	.67
S50MDS-126H...	22.13	6000	.394	247.20	1.45
S50MDS-157H...	30.98	5000	.711	401.70	2.40
S50MDS-196H...	79.66	4000	3.334	478.95	4.94
S50MDS-248H...	110.64	3000	9.295	648.90	8.82

■ ZERO BACKLASH

■ ELECTRICAL ISOLATION

Fig. 1
CLAMP TYPEFig. 2
SET SCREW TYPE

Max. Speed: 5000 rpm

Coupling Size	Max. Δ Torque N·m	Torsional Stiffness N·m/rad	Approx. Weight grams
19.1	3	35	22
25.4	5.7	65	45
31.8	8	80	120

MATERIAL: Hub – Aluminum

Insert – Silicone 40 ShA

Operating Temperature: -50°C to +150°C

Catalog Number		D	d ₁ ** H7	d ₂ ** H7	L	l	Fig. 1	Fig. 2	* Max. Bore	Misalignment Compensation	
Clamp Type	Set Screw Type						Cap Screw	Set Screw		Max. Angular Offset	Max. Lateral Offset
S54HSAM190606	S54PSAM190606	19.1	6	6	26.5	6.5	M2.5	M4	10	0.6°	0.12
S54HSAM190808	S54PSAM190808		8	8							
S54HSAM191010	S54PSAM191010		10	10							
S54HSAM250606	S54PSAM250606	25.4	6	6	38.1	11	M3	M5	12.7	1°	0.15
S54HSAM250808	S54PSAM250808		8	8							
S54HSAM251010	S54PSAM251010		10	10							
S54HSAM251212	S54PSAM251212		12	12							
S54HSAM310606	S54PSAM310606	31.8	6	6	57	16	M4	M6	19	1.6°	0.3
S54HSAM310808	S54PSAM310808		8	8							
S54HSAM311010	S54PSAM311010		10	10							
S54HSAM311212	S54PSAM311212		12	12							
S54HSAM311616	S54PSAM311616		16	16							

**Tolerance: 6 mm +0.012
8 & 10 mm +0.015
12 to 18 mm +0.018

Δ Select the size so that
(Applicable Torque) x (Service Factor)
is less than the allowable maximum torque

*Other bore diameter combinations and bore sizes not exceeding the maximum listed above are available on special order.

Service Factor

Shock & Reversing	2
Nonreversing	1.5
Steady Load	1

The process of selecting small Metric and Inch drive components for new prototypes or for production applications just became easier with the publications by Stock Drive Products and Sterling Instrument "Handbook Of Metric Drive Components, Catalog 785" and the "Handbook Of Inch Drive Components, Catalog 790". A highlight of the Catalog 785 is a comprehensive 234-page Technical Reference Section which covers design theory, calculations and useful tables for designing spur, internal, helical, screw, bevel and worm gears. Additional subjects covered in detail include: one- and two-step gear trains, planetary gear systems, gear backlash, gear accuracy, gear forces, plus an extensive section on the strength and durability of gears. The catalog itself includes over 31,942 off-the-shelf standardized metric, commercial and precision quality components, and the 790 includes over 48,000 off-the-shelf standardized commercial and precision quality inch size components.

There are over 4,800 metric gears offered along with 16,700 metric belt drives plus chains and sprockets in 5 different materials in the 785 Catalog. All components in the catalog adhere to the following parameters: Module 5 gears or finer, 25 mm shafts or smaller and 15 Watt devices or less.

Every component in these master catalogs are identified using a meaningful alpha-numeric coding system which is explained in each catalog. Included with the catalogs are handy printed sheets of peel-off section divider tab labels which can also be customized by the user.

Request your copies today to complete your master collection to include all three catalogs: 785, 790 and this 795 supplement. All catalogs are Free within the United States at our Web site:
<http://www.sdp-si.com/catalogs.htm>



THE INCH & METRIC MASTER CATALOGS

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■ SUPERIOR PERFORMANCE

- Stable performance over a wide range of temperatures: -40°C to +200°C (-40°F to +392°F). **See Figure 1.**
- Minimal compression set compared to rubber. **See Figure 2.**
- Lower resonance point and lower vibration transmissibility than rubber from about 15 Hz and above. **See Figure 3, page 196**
- Excellent chemical and UV resistance
- Superior durability

Double-Studded Silicone Gel Vibration Dampers



Inch A10Z64-TH.. D795 P197
Metric A10Z61MTH.. D785 P8-2

Flanged Silicone Gel Vibration Dampers



Inch A10Z64-SF.. D795 P196
Metric A10Z61MSF.. D785 P8-3

Double-Studded Silicone Gel Vibration Dampers



Inch A10Z64-MN.. D795 P197
Metric A10Z61MMN.. D785 P8-2

Spring and Silicone Gel Vibration Dampers



Metric A10Z61MBG.. D785 P8-6

Vibration Damping Silicone Gel Bushings



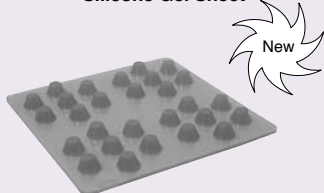
Metric A10Z61M.. D785 P8-7

Silicone Gel Tape



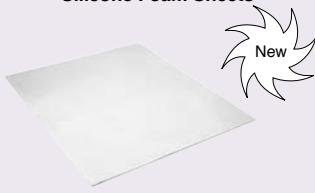
Inch A10Z62-GT.. D795 P200
Metric A10Z61MGT.. D795 P201

Silicone Gel Sheet



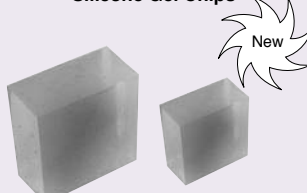
Inch A10Z62-SN.. D795 P198
Metric A10Z62MSN.. D795 P199

Silicone Foam Sheets



Inch A10Z62-NP.. D795 P202
Metric A10Z62MNP.. D795 P203

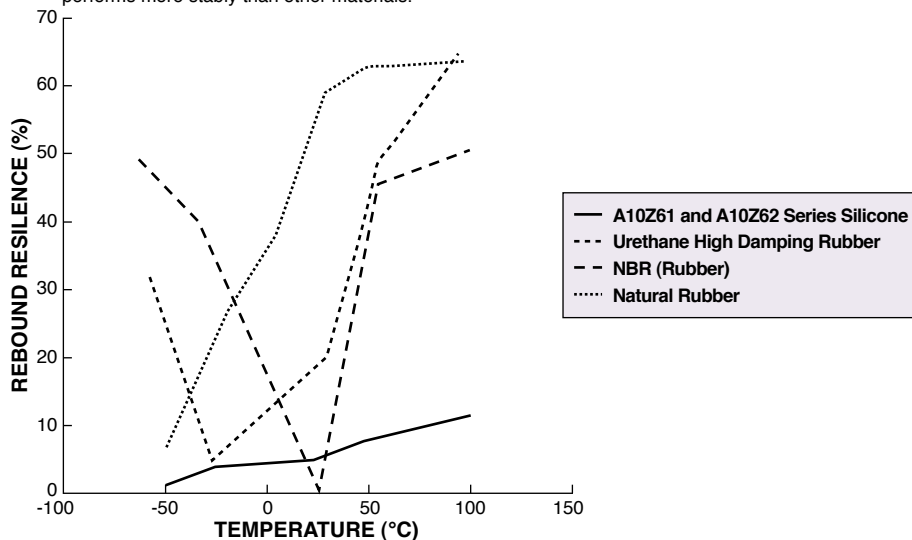
Silicone Gel Chips



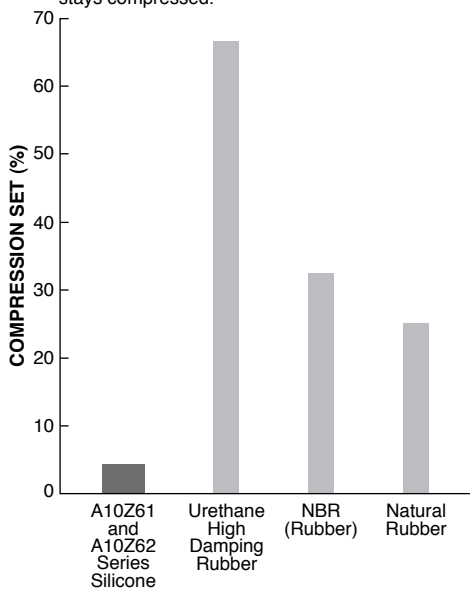
Inch A10Z62-GC.. D795 P200
Metric A10Z62MGC.. D795 P201

Advantages of Silicone vs. Rubber**Figure 1: REBOUND RESILIENCE**

No matter what the temperature could be, Silicone Gel performs more stably than other materials.

**Figure 2: COMPRESSION SET**

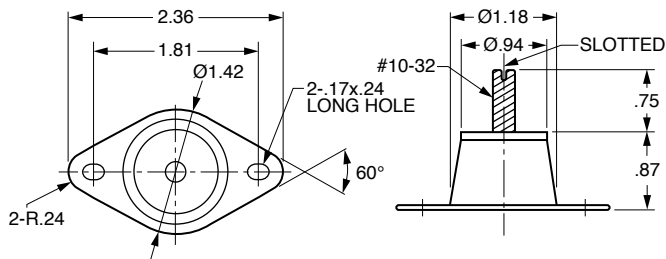
Outstanding restoration is available even when Silicone Gel stays compressed.



1. Compress above materials by 25% and leave compressed for 22 hours in 70°C (158° F).
2. Release compression and leave in normal temperature for 30 minutes.

Flanged Silicone Gel Vibration Dampers

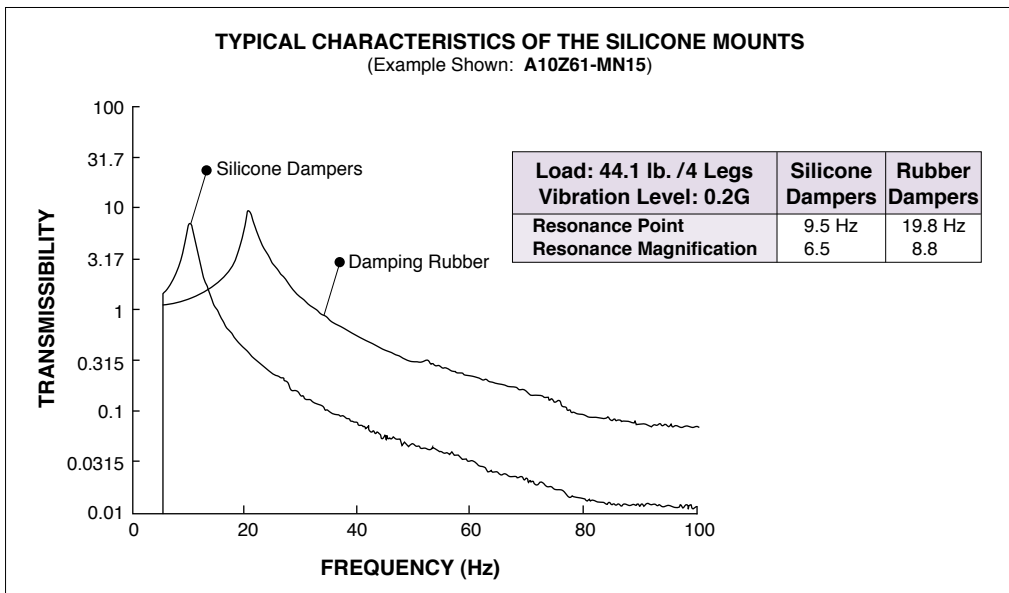
- DAMPS LOW FREQUENCY VIBRATION ■ FOR SMALL TO INTERMEDIATE LOAD APPLICATIONS
 ■ CAN BE USED WHEN SPACE IS LIMITED ■ TO BE USED IN COMPRESSION ONLY



MATERIAL: Stud – Stainless Steel
 Body – Silicone Gel
 Flange Plate – Stainless Steel
TEMPERATURE RANGE: -40°F to +392°F

Catalog Number	Optimum Load lb. /leg
A10Z64-SF02	2.8 to 7.2
A10Z64-SF05	7.2 to 16.5
A10Z64-SF10	16.5 to 27.6

FIGURE 3: Transmissibility

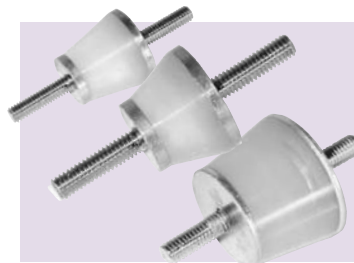
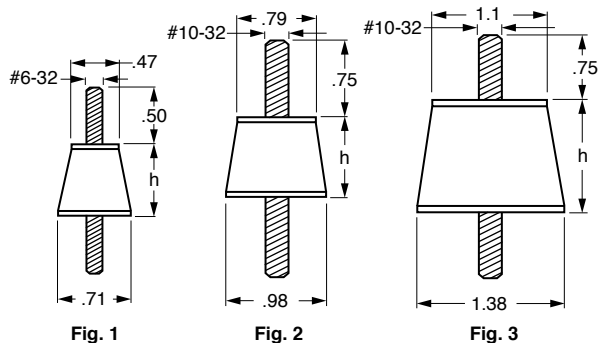


Inch Inch Inch Inch Inch Inch Inch

SDP/SI Double-Studded Silicone Gel Vibration Dampers

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

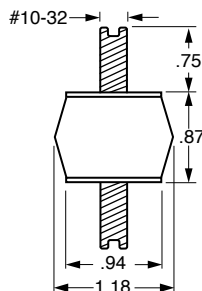
- DAMPS LOW FREQUENCY VIBRATION ■ FOR SMALL TO INTERMEDIATE LOAD APPLICATIONS
 ■ TO BE USED IN COMPRESSION ONLY



MATERIAL: Studs – Stainless Steel
 Body – Silicone Gel

TEMPERATURE RANGE: -40°F to +392°F

Catalog Number	Fig. Number	Optimum Load lb. / leg	Resonance Point Hz	Resonance Magnification dB	Recommended Frequency Hz	h
A10Z64-THB A10Z64-THA	1	.9 to 1.3 1.1 to 1.8	13 to 11 16 to 15	13 to 12 12	18 ~ 23 ~	.71 .51
A10Z64-THC A10Z64-THTW	2 3	.8 to 2 27.6 to 55.1	14 to 12 10 to 8	13 to 12 20 to 19	20 ~ from 14	.71 .98



MATERIAL: Studs – Stainless Steel
 Body – Silicone Gel

TEMPERATURE RANGE: -40°F to +392°F

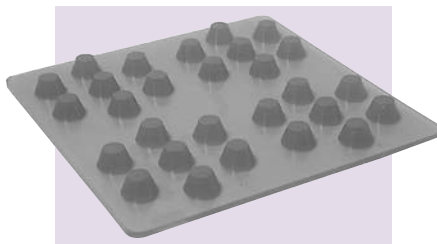
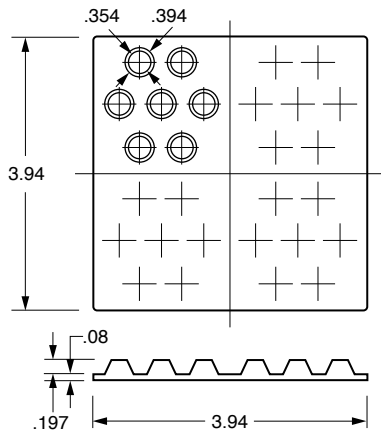
Catalog Number*	Optimum Load lb. / leg	Resonance Point Hz	Resonance Magnification dB	Recommended Frequency Hz
A10Z64-MN03	4.4 to 7.7	12 to 10	12	17 ~
** A10Z64-MN05	7.7 to 12.1	11 to 10	14 to 13	16 ~
A10Z64-MN07	12.1 to 18.1	11 to 10	16 to 15	16 ~
A10Z64-MN10	18.7 to 27.6	11 to 10	20 to 18	16 ~

NOTE: See application page for proper usage.

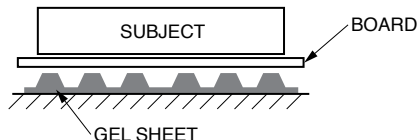
**See the next page for Transmissibility Chart.

*This type is slotted on the stud for fixing a bolt.

- LOW RESONANCE MAGNIFICATION
- OZONE, UV AND CHEMICAL RESISTANT
- ABSORBS SHOCKS
- REDUCES NOISE

**MATERIAL:** Silicone Gel

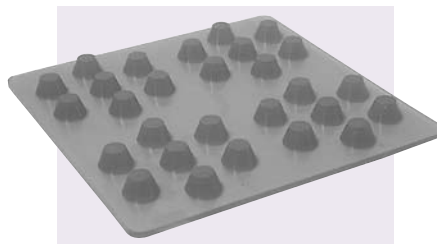
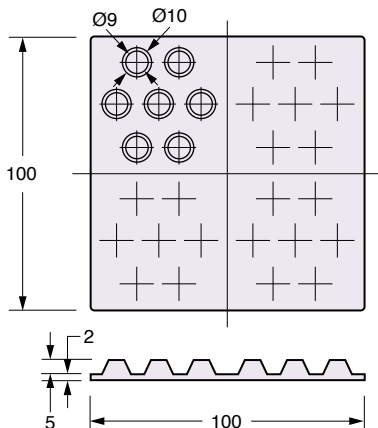
Catalog Number	Optimum Load (lb./sheet)	Resonance Point (Hz)	Resonance Magnification (dB)	Recommended Frequency (Hz)	Deflection (in.)	Color
A10Z62-SN02	1.1 to 4.4	27 to 21	6	from 38	.06 to .12	Yellow
A10Z62-SN05	4.4 to 11.0	29 to 23	8	from 40	.06 to .10	Green
A10Z62-SN15	11.0 to 33.1	26 to 18	13	from 37	.04 to .09	Orange
A10Z62-SN50	33.1 to 110.2	22 to 15	20 to 18	from 30	.03 to .08	Blue

INSTALLATION

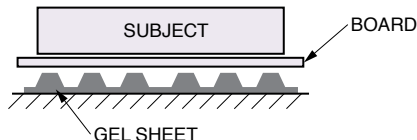
- Divide for light load. Add for heavy load.
- Make sure of total subject load and then select optimum gel sheet.

- (Example)
- For .66 lb. load, add a board for extra weight or divide **A10Z62-SN02** to reduce projections.
 - For 22.1 lb. load, divide **A10Z62-SN15** into pieces.
 - For 176.4 lb. load, use two of **A10Z62-SN50** and divide if needed.

- LOW RESONANCE MAGNIFICATION
- OZONE, UV AND CHEMICAL RESISTANT
- ABSORBS SHOCKS
- REDUCES NOISE

**MATERIAL:** Silicone Gel

Catalog Number	Optimum Load kgf/sheet	Resonance Point Hz	Resonance Magnification dB	Recommended Frequency Hz	Deflection mm	Color
A10Z62MSN02	0.5 to 2	27 to 21	6	from 38	1.4 to 3	Yellow
A10Z62MSN05	2 to 5	29 to 23	8	from 40	1.5 to 2.5	Green
A10Z62MSN15	5 to 15	26 to 18	13	from 37	1.1 to 2.2	Orange
A10Z62MSN50	15 to 50	22 to 15	20 to 18	from 30	0.7 to 2	Blue

INSTALLATION

- Divide for light load. Add for heavy load.
- Make sure of total subject load and then select optimum gel sheet.

- (Example)
- For 0.3 kgf load, add a board for extra weight or divide **A10Z62MSN02** to reduce projections.
 - For 10 kgf load, divide **A10Z62MSN15** into pieces.
 - For 80 kgf load, use two of **A10Z62MSN50** and divide if needed.

- LOW COMPRESSION SET ■ HIGH CHEMICAL RESISTANCE
- HIGH WEATHER RESISTANCE ■ EFFECTIVE IN NARROW SPACE

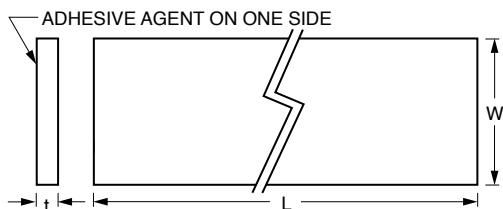


Fig. 1

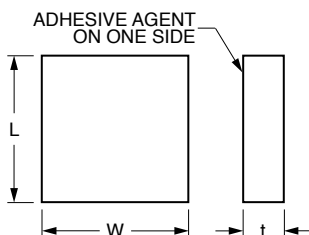
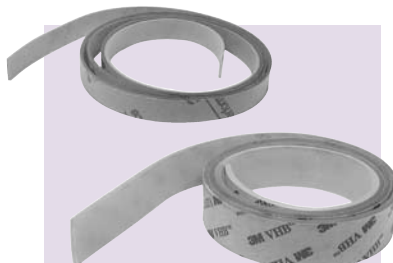
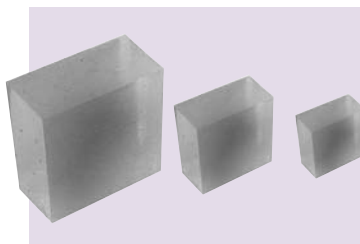


Fig. 2



MATERIAL: Silicone Gel

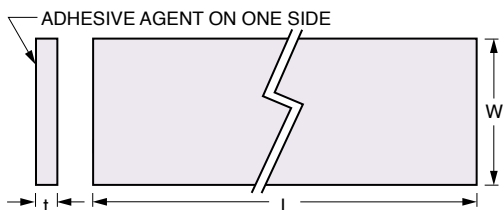
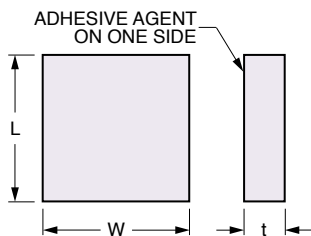
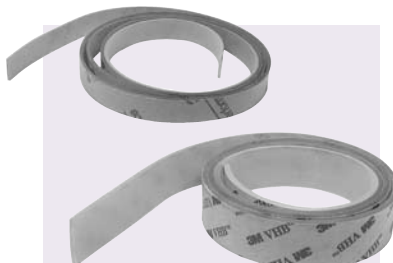
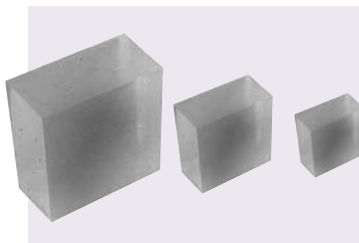
TEMPERATURE RANGE: -40°F to 212°F

Catalog Number	W	L	t
• Fig. 1 TAPE			
A10Z62-GT1	.394	39.4	.039
A10Z62-GT2	.787		
A10Z62-GT3	.394		.079
A10Z62-GT4	.787		
A10Z62-GT5	.394		.118
A10Z62-GT6	.787		
• Fig. 2 CHIPS*			
A10Z62-GC1	.394	.394	.118
A10Z62-GC2			.197
A10Z62-GC3	.591	.591	.118
A10Z62-GC4			.197
A10Z62-GC5			.394
A10Z62-GC6	.787	.787	.118
A10Z62-GC7			.197
A10Z62-GC8			.394

*Priced per sheet (25 chips per sheet)

Silicone Gel Tape & Chips

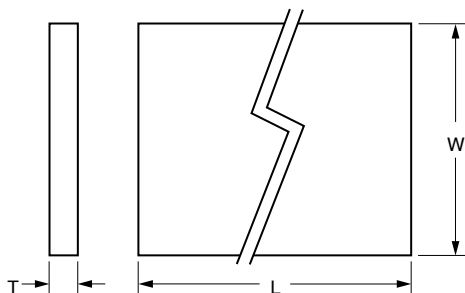
- LOW COMPRESSION SET ■ HIGH CHEMICAL RESISTANCE
- HIGH WEATHER RESISTANCE ■ EFFECTIVE IN NARROW SPACE

**Fig. 1****Fig. 2****MATERIAL:** Silicone Gel**TEMPERATURE RANGE:** -40°C to 100°C

Catalog Number	W	L	t
• Fig. 1 TAPE			
A10Z62MGT1	10	1000	1
A10Z62MGT2	20		
A10Z62MGT3	10		2
A10Z62MGT4	20		
A10Z62MGT5	10		3
A10Z62MGT6	20		
• Fig. 2 CHIPS*			
A10Z62MGC1	10	10	3
A10Z62MGC2			5
A10Z62MGC3	15	15	3
A10Z62MGC4			5
A10Z62MGC5			10
A10Z62MGC6	20	20	3
A10Z62MGC7			5
A10Z62MGC8			10

*Priced per sheet (25 chips per sheet)

- OUTSTANDING DURABILITY ■ LOW COMPRESSION SET ■ DURABLE IN ANY WEATHER
 ■ FOR OUTSIDE USE ■ SHOCK ABSORBER ■ LOW FLAMMABILITY

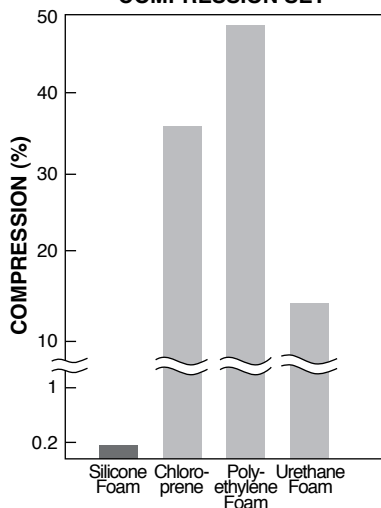


MATERIAL: Silicone Foam

TEMPERATURE RANGE: -40°F to 392°F

Catalog Number	W Width	T Thickness	L Length	Color
A10Z62-NPGRN0500 A10Z62-NPGRN2000	17.72	.118	19.69 78.7	Green
A10Z62-NPWTE0500 A10Z62-NPWTE1000	11.81	.236	19.69 39.4	White

COMPRESSION SET



1. Compress the materials by 50% and leave compressed for 22 hours in 158°F.
2. Release compression and leave subject in normal temperature for 30 minutes.

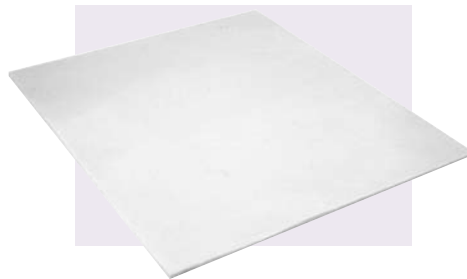
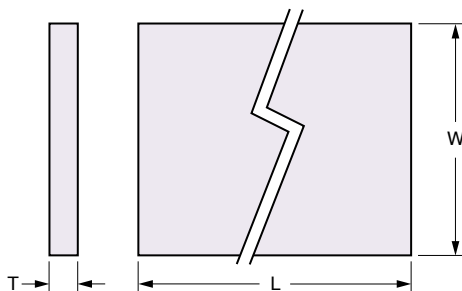
CHARACTERISTICS:

Specific Gravity		0.26
Tensile Strength (lb/ft ²)		6683
Elongation (%)		73
Young's Modulus (lb/ft ²)		5629
Specific Heat [Btu/(lb.°F)]		.275
Thermal Conductivity [Btu/(h • ft • °F)]		.035
Specific Volume Resistance Ratio (Ω • in)		.15x10 ¹⁵
Dielectric Breakdown Strength (kV/in)		.15
Chemical Resistance	Toluene	X
	Acetone	X
	Methanol	O
	Distilled H ² O	O
	Fuel	X
	Lubricant	X
	NaCl (10%)	O
	HCl (10%)	O
	NaOH (5%)	O

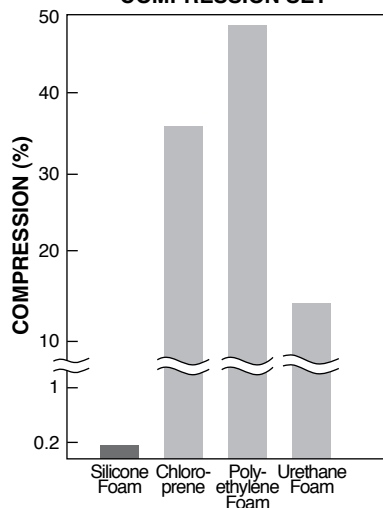
X = Has a reaction
 O = No reaction

Silicone Foam Sheets

- OUTSTANDING DURABILITY ■ LOW COMPRESSION SET ■ DURABLE IN ANY WEATHER
- FOR OUTSIDE USE ■ SHOCK ABSORBER ■ LOW FLAMMABILITY

**MATERIAL:** Silicone Foam**TEMPERATURE RANGE:** -40°C to 200°C

Catalog Number	W Width	T Thickness	L Length	Color
A10Z62MNPGRN0500 A10Z62MNPGRN2000	450	3	500 2000	Green
A10Z62MNPWTE0500 A10Z62MNPWTE1000	300	6	500 1000	White

COMPRESSION SET**CHARACTERISTICS:**

Specific Gravity	0.26	
Tensile Strength (Mega Pascal)	0.32	
Elongation (%)	73	
Young's Modulus (Kilo Pascal)	269.5	
Specific Heat (Joule/g • °K)	1.15	
Thermal Conductivity (Watt/m • °K)	0.06	
Specific Volume Resistance Ratio (Ω • cm)	3.8x10 ¹⁴	
Dielectric Breakdown Strength (kV/mm)	3.8	
Chemical Resistance	Toluene	X
	Acetone	X
	Methanol	O
	Distilled H ² O	O
	Fuel	X
	Lubricant	X
	NaCl (10%)	O
	HCl (10%)	O
	NaOH (5%)	O

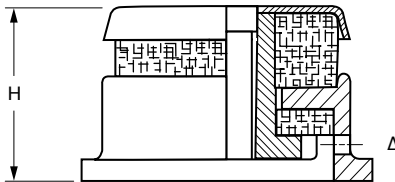
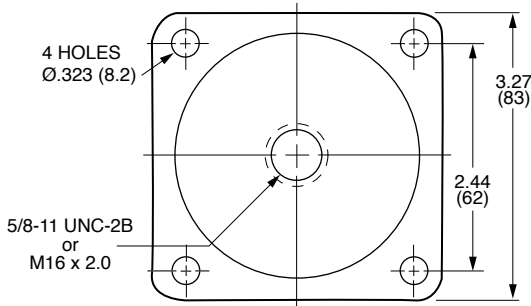
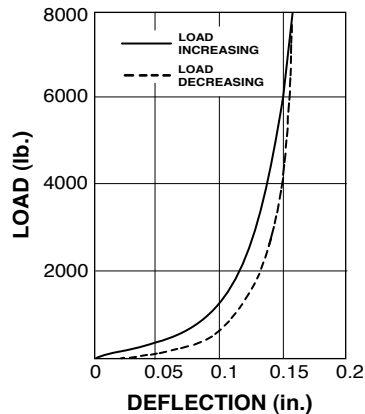
X = Has a reaction
O = No reaction

1. Compress the materials by 50% and leave compressed for 22 hours in 70°C.
2. Release compression and leave subject in normal temperature for 30 minutes.

■ CORROSIVE ENVIRONMENT

■ STAINLESS STEEL MESH

■ FOR LOADS OF 77 TO 1598 POUNDS (35 to 725 kgf)

**NOTE:** Dimensions in () are mm.**APPLICATIONS**

Primarily developed for heavy-duty applications where severe shock forces are encountered, this mounting is especially recommended for vehicle and marine installation where there is high starting torque or a reversal of loads. It is capable of withstanding compression loads as high as ten times the static loads and is used for isolating marine fans, mobile engines, generators, instrument consoles and general machine tools, such as lathes, milling machines, slotters, broachers, etc.

MATERIAL: Housing – Machined Casting.
Center and Cup Washer are
Zinc Plated and Gold
Passivated Mild Steel

Isolator – Stainless Steel Mesh

TEMPERATURE: -94°F to +347°F (-70°C to +175°C)

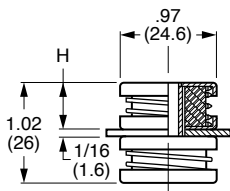
Catalog Number		Static Load		Natural Frequency Hz	H - Height	
5/8-11 UNC-2B	M16 x 2.0	lb.	kgf		Free	Loaded
A10Z27-3021A	A10Z27M3021C	77 – 396	35 – 180	14 – 22	1-31/32 (50)	1-13/16 (46)
A10Z27-3022A	A10Z27M3022C	308 – 793	140 – 360			
A10Z27-3023A	A10Z27M3023C	606 – 1598	275 – 725			

Δ An access hole is provided to be able to pin the center section for assembling the mounting bolt or to remove rusted bolt.

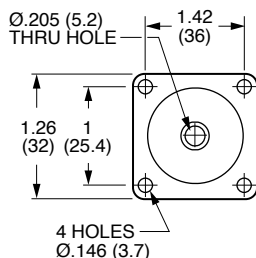
■ CORROSIVE ENVIRONMENT

■ STAINLESS STEEL PADS

■ FOR LOADS OF .24 TO 4.4 LBS. (0.11 TO 2 kgf)



NOTE: MAX. BOLT LENGTH INTO CAP IS .275 (7)



NOTE: Dimensions in () are mm.

DYNAMIC CHARACTERISTICS

Natural frequency = 15 to 25 Hz vertical
= 12 to 20 Hz radial

Allowable max. movement on mount = ± 0.12 (0.3)

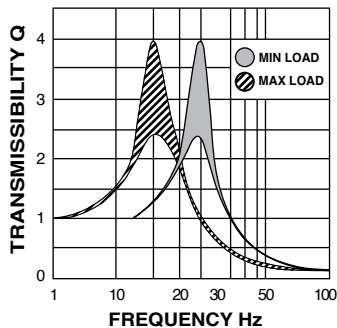
Transmissibility between 3 and 4:1

MATERIAL: Mounting Base – Aluminum Alloy, Anodized
Retaining Caps – Aluminum Alloy, Anodized
Springs – Stainless Steel
Center Tube – Stainless Steel
Isolators – Knitted Stainless Steel Pads

TEMPERATURE RANGE: (-70°C to +175°C)
-94°F to +347°F



TYPICAL TRANSMISSIBILITY CURVE
as a function of applied load

**LOADING LIMITATIONS**

Mechanical resistance is equal to
10 G of continuous acceleration.

APPLICATIONS

- LIGHT ELECTRONICS & MECHANICAL EQUIPMENT
- HIGH FREQUENCY ENVIRONMENTS

Catalog Number	Static Load		H - Height			
			Min. (Comp.)		Max. (Tension)	
	lb.	kgf	in.	mm	in.	mm
A10Z36-7001S02	.24 – .55	0.11 – 0.25	.354	9	.59	15
A10Z36-7001S04	.44 – .88	0.20 – 0.40				
A10Z36-7001S07	.77 – 1.65	0.35 – 0.75				
A10Z36-7001S22	2.20 – 3.41	1.00 – 1.55				
A10Z36-7001S26	2.64 – 4.40	1.20 – 2.00				

Spring Mounts – Elliptic Leaf Type

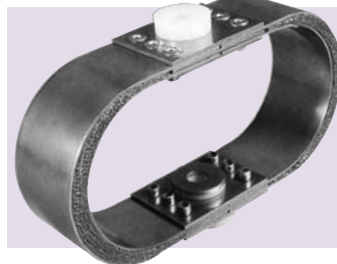
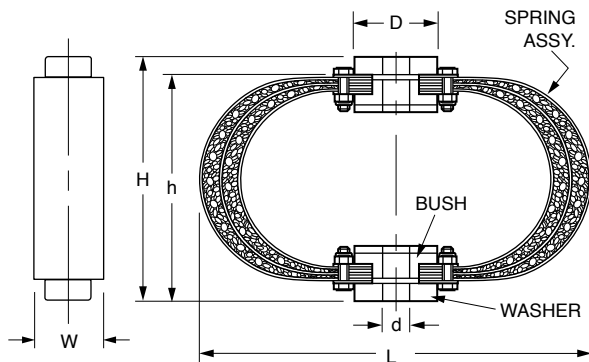
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ NATO APPROVED NAVAL "XM" MOUNTS

■ FOR EXTREME ENVIRONMENTAL CONDITIONS


 Available only if final use is for
governmental installation

MATERIAL: Leaves – 304 Stainless Steel

Washers – Nylon and Stainless Steel

Damping Compound – Stainless Steel Mesh

TEMPERATURE RANGE: -238°F to +752°F
(-150°C to +400°C)

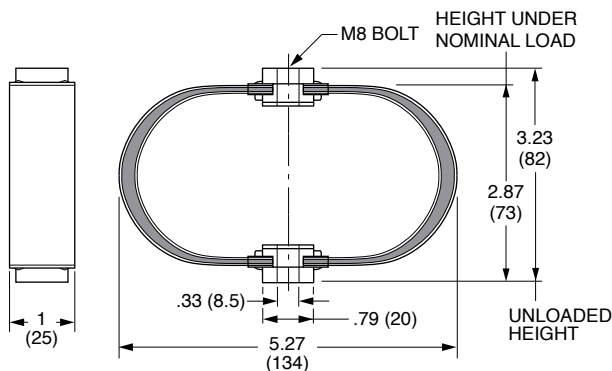
Catalog Number	Nominal Load lb. (kgf)	Load Range lb. (kgf)	L Length in. (mm)	W Width in. (mm)	H Height Unloaded with Washers in. (mm)
A10Y15-5717M0025	22 (10)	20- 40 (9- 18)	8 (203)	2 (51)	4.5 (114)
A10Y15-5718M0050	44 (20)	40- 77 (18- 35)			
A10Y15-5719M0100	99 (45)	77- 121 (35- 55)	8.5 (216)	2 (51)	5.25 (133)
A10Y15-5720M0150	154 (70)	121- 198 (55- 90)			
A10Y15-5721M0250	242 (110)	198- 298 (90-135)	11.7 (297)	4 (102)	7.5 (190)
A10Y15-8429M0400	397 (180)	298- 551 (135-250)			
A10Y15-8428M0700	705 (320)	551- 838 (250-380)			
A10Y15-8427M1000	992 (450)	838-1212 (380-550)			

Catalog Number	h Height Loaded with Washers in. (mm)	D Diameter Washers in. (mm)	d Bolt Hole in. (mm)	Bolt Size UNF in. (nearest metric)	Weight lb. (kg)
A10Y15-5717M0025	4.21 (107)	1.25 (31.75)	.354 (9)	5/16 (8)	1.5 (0.68)
A10Y15-5718M0050	4.17 (106)				1.75 (0.8)
A10Y15-5719M0100	4.88 (124)	1.25 (31.75)	.512 (13)	1/2 (12)	2.25 (1.02)
A10Y15-5720M0150					2.5 (1.13)
A10Y15-5721M0250	4.8 (122)	1.25 (31.75)	.512 (13)	1/2 (12)	2.75 (1.25)
A10Y15-8429M0400	7.28 (185)	2.5 (63.5)	.827 (21)	3/4 (20)	13 (5.9)
A10Y15-8428M0700	7.32 (186)	2.5 (63.5)	.827 (21)	3/4 (20)	14.5 (6.58)
A10Y15-8427M1000	7.24 (184)				16 (7.26)

Spring Mount – Elliptic Leaf Type

■ NATO APPROVED NAVAL "X" MOUNTS

■ LIGHTWEIGHT



Available only if final use is for governmental installation

NOTE: Dimensions in () are mm.

FEATURES:

The 6 kg Mount is designed to isolate lightweight equipment (i.e. computers, printers, electronics panels, etc.) from shock and vibration and has similar properties to the present range of 'X' mounts with some reduction in the available deflection under shock conditions.

VIBRATION MODES:

VERTICAL:



HORIZONTAL 1:



HORIZONTAL 2:


MATERIAL: Leaves – 304 Stainless Steel

Washers – Nylon and Stainless Steel

Damping Compound – Polymer

TEMPERATURE RANGE: +50°F to +86°F
(+10°C to +30°C)

Catalog Number	Nominal Load lb. (kgf)	Load Range lb. (kgf)	Bolt Size UNF in. (nearest metric)	Weight Excluding Bolt lb. (kg)
A10Y15-39210013	13.2 (6)	8.8-13.2 (4-6)	5/16 (8)	.29 (0.13)

Catalog Number	Static Stiffness			Natural Frequencies - Hz		
	Vertical lb./in. (kg/cm)	Horizontal 1 lb./in. (kg/cm)	Horizontal 2 lb./in. (kg/cm)	Vertical	Horizontal 1	Horizontal 2
A10Y15-39210013	33 (5.91)	43 (7.68)	18 (3.25)	7.2–8.9	8.3–10.1	5.4–6.6

Formulas in Vibration Analysis**Natural Frequency**

$$f_n = \frac{1}{2\pi} \sqrt{\frac{k}{m}} = \frac{1}{2\pi} \sqrt{\frac{kg}{W}} = \frac{1}{2\pi} \sqrt{\frac{g}{x_{st}}}$$

where f_n = natural frequency in cycles-per-second (Hz)

k = spring constant (lbs/in., N/m)

m = mass of load (lb. mass, kg mass)

g = gravitational constant, 386 in./sec² or 9.8 m/sec²

W = weight of load, $m \cdot g$ (lb. or N)

x_{st} = static deflection of the spring (in. or m)

$$f_n \approx \frac{3.13}{\sqrt{x_{st}}} \text{ cycles/sec} = \frac{188}{\sqrt{x_{st}}} \text{ cycles/min. if } x_{st} \text{ is in. inch}$$

$$\approx \frac{5}{\sqrt{x_{st}}} \text{ cycles/sec} = \frac{300}{\sqrt{x_{st}}} \text{ cycles/min. if } x_{st} \text{ is in. cm}$$

Damped Natural Frequency

$$f_{dn} = f_n \sqrt{1 - \left(\frac{c}{c_{cr}}\right)^2} = f_n \sqrt{\frac{1 - \delta^2}{4\pi^2}}$$

where $\delta = 2\pi (c/c_{cr}) = \log (A_n/A_{n-1})$ logarithmic decrement

c = damping constant (lb.-sec/in. or N-sec/m)

c_{cr} = critical damping constant = $2\sqrt{km}$

A_n = n^{th} amplitude of vibration

Natural Frequency of Torsional Vibrations

$$f_t = \frac{1}{2\pi} \sqrt{\frac{k_t}{I}}$$

where k_t = torsional stiffness (lb.-in./rad or N-m/rad)

I = polar mass moment of inertia (lb.-in.-sec² or kg-m²)

LINEAR GUIDE SYSTEM - LOW PROFILE

Technical Information (metric)	210
Size 17 (metric)	211
Size 27 (metric)	212
Size 40 (metric)	213
Size 80 (metric)	214

MINI-RAIL® LINEAR GUIDES

Technical Information (inch & metric)	215
Sizes 7 thru 20 (inch)	216
Sizes 7 thru 20 (metric)	217

DUAL//VEE™

Studded Guide Wheels (inch)	218
Double-Edged Size 0 Steel Tracks (inch)	219

DUAL//VEE™ UTILITRAK™ LINEAR GUIDE SYSTEM

Economy Guide Rails (sizes 1 & 2) (inch)	220
Economy Carriage Assemblies (sizes 1 & 2) (inch)	221
Standard Guide Rails (sizes 1,2 & 3) (inch)	222
Standard Carriage Assemblies (sizes 1,2 & 3) (inch)	223

LINEAR GUIDE SYSTEM - HEAVY-DUTY

Technical Information (metric)	224
Size 40 (metric)	225
Size 80 (metric)	226

Linear Guide System – Low Profile**■ TECHNICAL INFORMATION****Linear Guide System – Low Profile**

Carriage glides smoothly on anodized aluminum rails without the need for lubricants. Their low profile design is ideal when space constraints are tight. The rails are offered in 4 widths.

Unique features include:

- Low friction without lubrication
- Resistance to dirt and dust
- Small mounting height and width
- Lightweight
- Replaceable polymer sliding elements
- Low-cost alternative to miniature ball bearing systems.

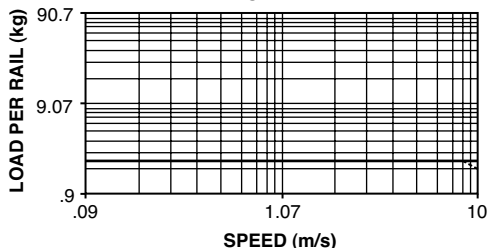
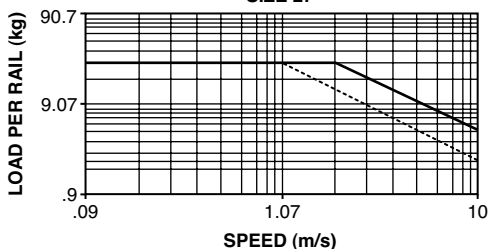
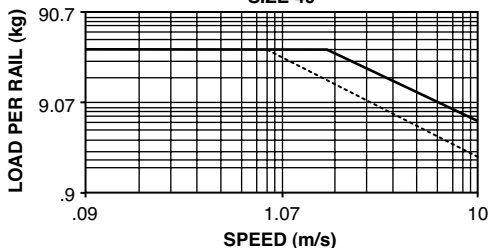
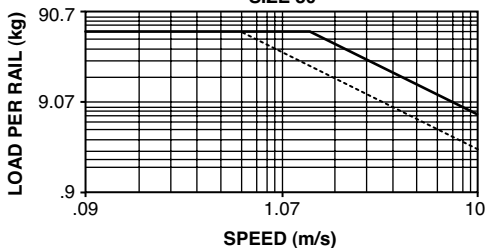
MAXIMUM LOAD PER CARRIAGE

Size 17	5 kg
Size 27	50 kg
Size 40	70 kg
Size 80	100 kg

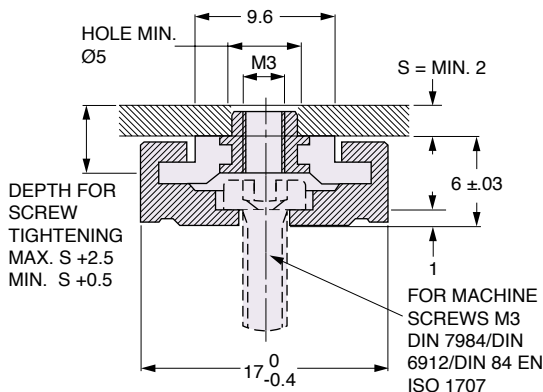
APPLICATION HINT: The mounting surface for rails and bearings should have a very flat surface (e.g. milled surface) in order to enhance performance.

MAXIMUM PERMISSIBLE DYNAMIC LOADS

NOTE: Dotted lines are Z direction.

SIZE 17**SIZE 27****SIZE 40****SIZE 80**

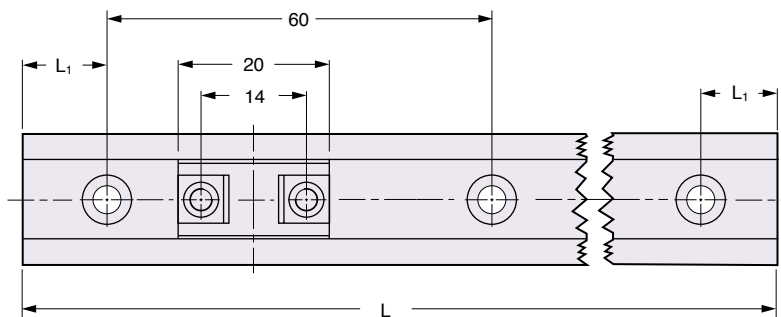
- LOW-LOAD APPLICATIONS ■ REPLACEABLE GLIDE PADS ■ SELF-LUBRICATING
 ■ CORROSION-RESISTANT ■ LOW FRICTION

**SPECIFICATIONS:**

Max. Load – 50 N

Max. Speed – 15 m/s

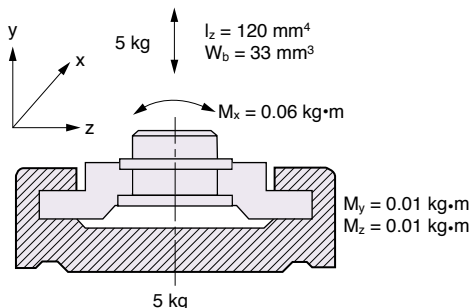
Operating Temperature – -40°C to +90°C

**MATERIAL:** Anodized Aluminum

RAILS			
Catalog Number	L Length mm	L ₁	Weight g
S99GNRM170490	490	35	73.5
S99GNRM170980	980	40	147
S99GNRM171470	1470	45	220.5
S99GNRM171960	1960	20	294

MATERIAL: Plastic with Brass threaded inserts and J® Polymer Pads

CARRIAGE ASSEMBLY	
Catalog Number	Weight g
S99GNCM17202	1.7



$I_y = 1700 \text{ mm}^4$
 $W_b = 200 \text{ mm}^3$

LOAD DATA

I = Moment of Inertia
 W_b = Section Modulus
 M = Max. Torque

- **LOW- TO MEDIUM-LOAD APPLICATIONS** ■ **LOW FRICTION** ■ **REPLACEABLE GLIDE PADS**
 ■ **MOUNTING THROUGH HOLES OR THREADED ADJUSTING STUDS FOR MOUNTING**

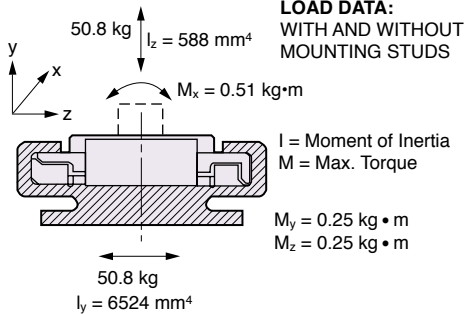


Fig. 1
 WITHOUT
 MOUNTING
 STUDS

FOR MACHINE SCREWS M4
 DIN 7984 / DIN 6912
 DIN 84 / EN ISO 1707

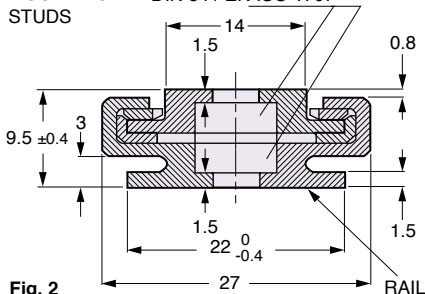
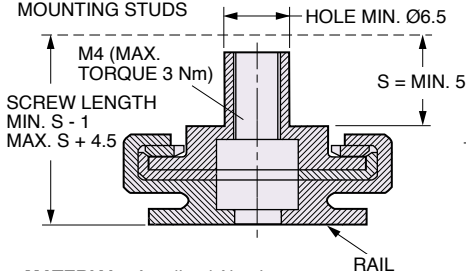


Fig. 2
 WITH
 MOUNTING STUDS



MATERIAL: Anodized Aluminum

RAILS			
Catalog Number	L Length mm	L ₁	Weight g
S99GNRM271000	1000	20	290
S99GNRM272000	2000	40	580
S99GNRM273000	3000	30	870

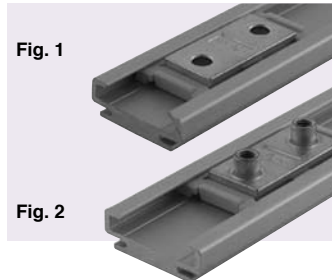


Fig. 1

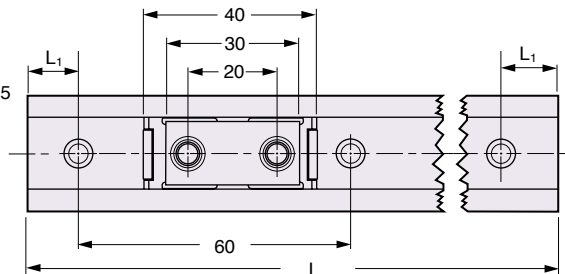
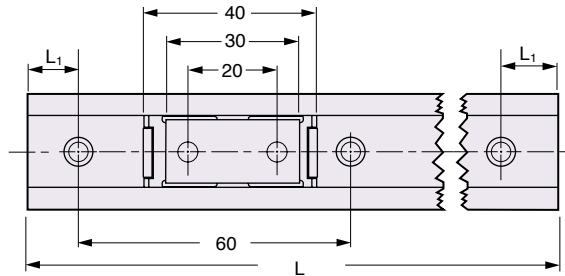
Fig. 2

SPECIFICATIONS:

Max. Load – 500 N

Max. Speed – 15 m/s

Operating Temperature – -40°C to +90°C



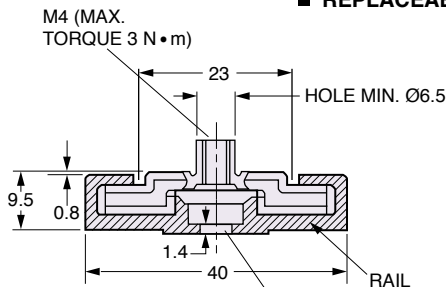
MATERIAL: Zinc, Chromated
 and J® Polymer Pads

CARRIAGE ASSEMBLY		
Catalog Number	Fig.	Weight g
S99GNCM27A401	1	10.8
S99GNCM27B402	2	12.5

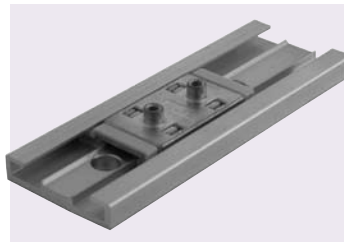
■ MEDIUM- TO HIGH-LOAD APPLICATIONS

■ LOW FRICTION

■ REPLACEABLE GLIDE PADS



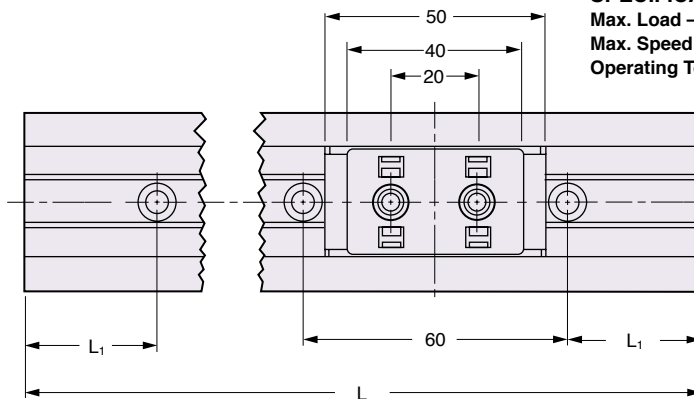
FOR MACHINE SCREWS M4
DIN 7984/DIN 6912/DIN 84
EN ISO 1707/EN ISO 7045

**SPECIFICATIONS:**

Max. Load – 700 N

Max. Speed – 15 m/s

Operating Temperature – -40°C to +90°C

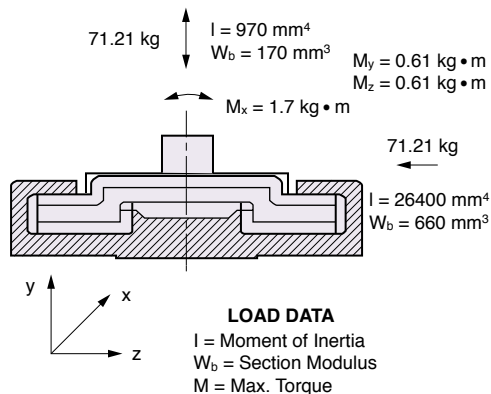


MATERIAL: Anodized Aluminum

RAILS			
Catalog Number	L Length mm	L ₁	Weight g
S99GNRM401000	1000	20	450
S99GNRM402000	2000	40	900
S99GNRM403000	3000	30	1350

MATERIAL: Zinc, Chromated
and J® Polymer Pads

CARRIAGE ASSEMBLY	
Catalog Number	Weight g
S99GNCM40502	30

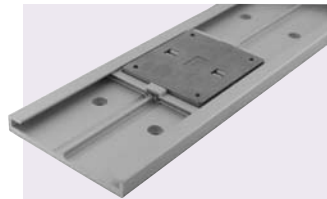
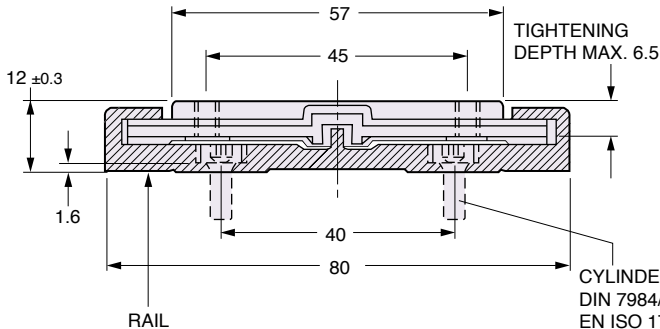
**LOAD DATA**

I = Moment of Inertia
W_b = Section Modulus
M = Max. Torque

■ HIGH-LOAD APPLICATIONS

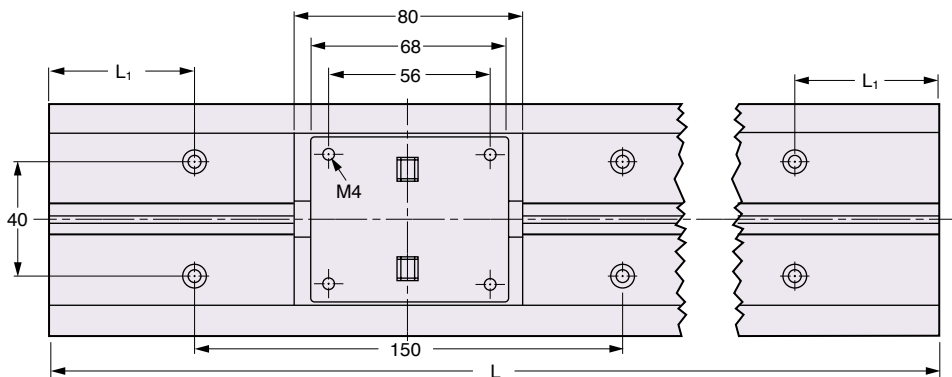
■ LOW FRICTION

■ REPLACEABLE GLIDE PADS

**SPECIFICATIONS:**

Max. Load – 50 N

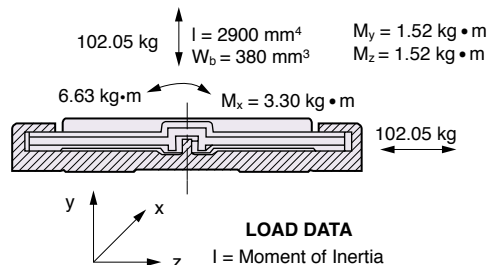
Max. Speed – 15 m/s

Operating Temperature – -40°C to $+90^{\circ}\text{C}$ **MATERIAL:** Anodized Aluminum

RAILS			
Catalog Number	L Length mm	L ₁	Weight g
S99GNRM800990	990	45	1128.6
S99GNRM801980	1980	90	2257.2
S99GNRM802970	2970	60	3385.8
S99GNRM803960	3960	30	4514.4

MATERIAL: Zinc, Chromated
and J® Polymer Pads

CARRIAGE ASSEMBLY	
Catalog Number	Weight g
S99GNCM80802	100

**LOAD DATA**

I = Moment of Inertia
 W_b = Section Modulus
 M = Max. Torque



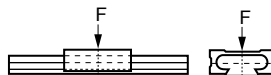
Mini-Rail® Linear Guides Technical Information

Stock Drive Products/Sterling Instrument

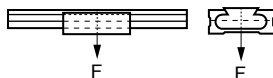
Phone: 516-326-3300

Fax: 516-326-8827

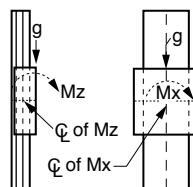
Size	Force N (lb.)	Max. Static Load N (lb.)
7	445 (100.04)	734 (165.00)
9	667 (149.94)	1557 (350.01)
12	1334 (299.88)	1957 (439.93)
15	2224 (499.96)	3114 (700.03)
20	3559 (800.06)	6005 (1349.92)



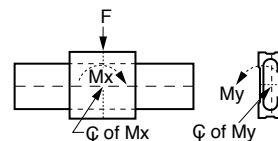
Size	Force N (lb.)
7	89 (20.01)
9	125 (28.10)
12	222 (49.91)
15	356 (80.03)
20	578 (129.93)



Size	Mx N • m (lb. in.)	My N • m (lb. in.)	Mz N • m (lb. in.)
7	2.3 (20.36)	1.8 (15.93)	1.8 (15.93)
9	5 (44.25)	3.2 (28.32)	3.2 (28.32)
12	9 (79.66)	5.6 (49.56)	5.6 (49.56)
15	15.1 (133.65)	9 (79.66)	9 (79.66)
20	24.9 (220.38)	14.7 (130.11)	14.7 (130.11)



Size	Force N (lb.)	Mx N • m (lb. in.)	My N • m (lb. in.)	Mz N • m (lb. in.)
7	133 (29.90)	2.3 (20.36)	1.8 (15.93)	1.8 (15.93)
9	222 (49.91)	5 (44.25)	3.2 (28.32)	3.2 (28.32)
12	400 (89.92)	9 (79.66)	5.6 (49.56)	5.6 (49.56)
15	667 (149.94)	15.1 (133.65)	9 (79.66)	9 (79.66)
20	1112 (249.98)	24.9 (220.38)	14.7 (130.11)	14.7 (130.11)



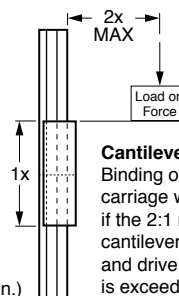
Plane bearings are rated by their limiting PV, which is a combination of load over a given surface area and the velocity.

Bearing Material	Max. "PV"	Max. "P"	Max. "V" (No Lubrication)
FrelonGOLD®	20000 (psi x ft./min) or 430 (kgf/cm² x m/min)	3000 psi or 210.9 kgf/cm²	300 ft./min. or 91.44 m/min.
FrelonJ™	10000 (psi x ft./min) or 215 (kgf/cm² x m/min)	1500 psi or 105.45 kgf/cm²	140 ft./min. or 42.66 m/min.

PV = The performance measurement of plane bearings

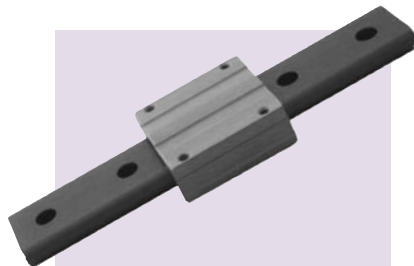
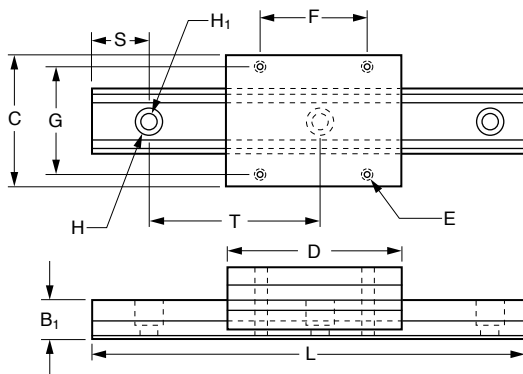
PV = P x V where P = pressure (load) in psi (kgf/cm²), V = velocity (speed) in ft./min. (m/min.)

NOTE: All three parameters must be met by an application for the bearing to perform properly.



Cantilevered Loads
Binding of the carriage will occur if the 2:1 ratio for cantilevered loads and drive forces is exceeded. This principle is not load or force dependent. It is a product of the coefficient of frictions associated with plane bearings.

- QUIET RUNNING ■ SELF-LUBRICATING ■ TOLERATES SHOCK LOADS
 ■ CORROSION-RESISTANT ■ DAMPENS VIBRATION



CATALOG NUMBER DESIGNATION:

S 6 4 A M R -

Type

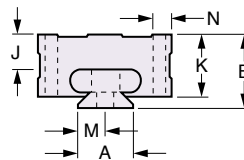
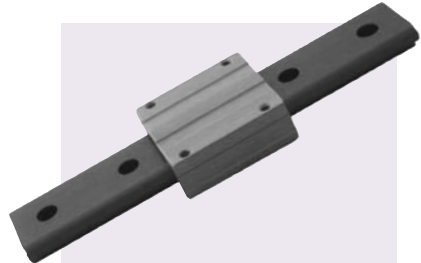
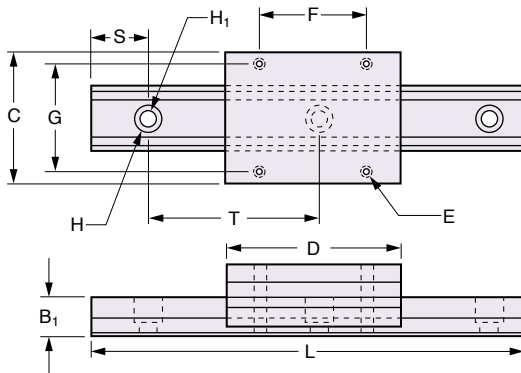
Size
CodeLength
Code**A – Precision** .0010 – .0020 running clearance. FrelonGOLD® material on Rc70 ceramic-coated aluminum**B – Compensated Precision** .0025 – .0035 running clearance. FrelonGOLD® material on Rc70 cerami-coated aluminum

Size Code	Length Code (Length in Inches)						
07	0157	0276	0335	0394	0512	—	—
	1.57	2.76	3.35	3.94	5.12	—	—
09	0217	0295	0374	0453	0610	0768	1083
	2.17	2.95	3.74	4.53	6.10	7.68	10.83
12	0472	0669	0866	1063	1260	1457	1850
	4.72	6.69	8.66	10.63	12.60	14.57	18.50
15	0591	0906	1220	1693	1850	2638	—
	5.91	9.06	12.20	16.93	18.50	26.38	—
20	0866	1102	1339	1811	2520	3465	—
	8.66	11.02	13.39	18.11	25.20	34.65	—

A	B	B ₁	C	D	E	F	G	H	H ₁	H ₂	K	J	M	N	S	T
.28	.31	.24	.67	.94	M2	.31	.47	.17	.09	.09	.24	.07	.14	.09	.20	.59
.35	.39	.29	.79	1.18	M3	.51	.59	.18	.10	.12	.31	.09	.18	.10	.30	.79
.47	.51	.31	1.06	1.34	M3	.59	.79	.24	.14	.14	.42	.18	.24	.14	.39	.98
.59	.63	.37	1.26	1.65	M3	.79	.98	.24	.14	.18	.56	.25	.30	.14	.59	1.57
.79	.98	.53	1.81	2.44	M4	1.50	1.50	.37	.24	.33	.83	.44	.39	.16	.79	2.36

NOTES 1: Longer lengths are available on special order (maximum length 141.7 inches)**2:** If more than one carriage is needed per track, contact our engineering department.

- QUIET RUNNING ■ SELF-LUBRICATING ■ TOLERATES SHOCK LOADS
 ■ CORROSION-RESISTANT ■ DAMPENS VIBRATION

**CATALOG NUMBER DESIGNATION:**

S 6 4 A M R M

Type Size Code Length Code

A – Precision .025 – .051 running clearance. FrelonGOLD® material on HRC70 ceramic-coated aluminum

B – Compensated Precision .064 – .089 running clearance. FrelonGOLD® material on HRC70 ceramic-coated aluminum

Size Code	Length Code (Length in mm)						
07	040	070	085	100	130	—	—
	40	70	85	100	130		
09	055	075	095	115	155	195	275
	55	75	95	115	155	195	275
12	120	170	220	270	320	370	470
	120	170	220	270	320	370	470
15	150	230	310	430	470	670	—
	150	230	310	430	470	670	—
20	220	280	340	460	640	880	—
	220	280	340	460	640	880	—

A	B	B ₁	C	D	E	F	G	H	H ₁	H ₂	K	J	M	N	S	T
7	8	6.2	17	24	M2	8	12	4.2	2.4	2.3	6.2	1.7	3.5	2.3	5	15
9	10	7.3	20	30	M3	13	15	4.5	2.6	3	8	2.4	4.5	2.5	7.5	20
12	13	8	27	34	M3	15	20	6	3.5	3.5	10.7	4.6	6	3.5	10	25
15	16	9.3	32	42	M3	20	25	6	3.5	4.5	14.1	6.3	7.5	3.5	15	40
20	25	13.5	46	62	M4	38	38	9.5	6	8.5	21.2	11.2	10	4	20	60

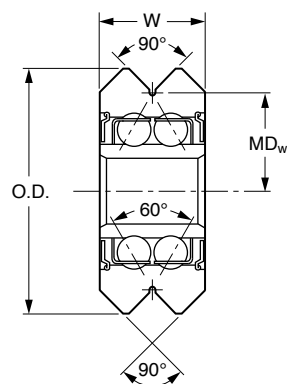
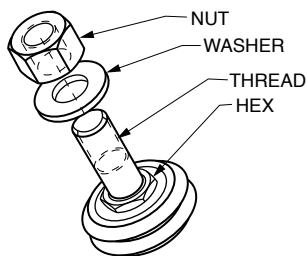
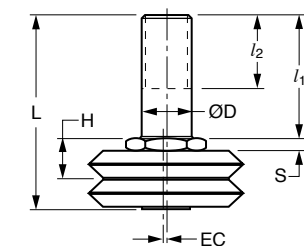
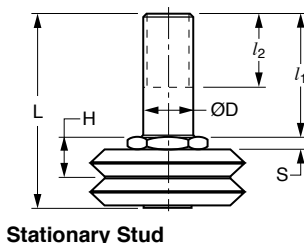
NOTES 1: Longer lengths are available on special order (maximum length 3600 mm)

2: If more than one carriage is needed per track, contact our engineering department.

■ SIZES 0, 1, 2

■ EASY INSTALLATION

■ ADJUSTABLE OR STATIONARY

**MATERIAL:** Wheels – Steel SAE 52100

Bearing – Prelubricated - Sealed (Size 0) Shielded (Size 1 & 2)

Dimensions are in inch

Catalog Number	Size	Offset EC ± .005	L Overall Length	D Journal Diameter +.0000 -.0007	l ₁ Journal Length	l ₂ Thread Length	Thread	S Shoulder Thickness ± .001	H Vee Height ± .002	Hex Size
A 7Q17-0STA A 7Q17-0ADJ	0	— .012	.74	.1567	.39	.24	M4 x .7	.080	.205	.433
A 7Q17-1STA A 7Q17-1ADJ	1	— .015	1.00	.2350	.59	.35	M6 x 1	.083	.238	.472
A 7Q17-2STA A 7Q17-2ADJ	2	— .024	1.54	.3925	.98	.59	M10 x 1.5	.104	.323	.551

Catalog Number	Nut and Washer	O.D Outside Diameter	W +.0000 -.0047	MDw	Static Radial Load Rating lbf	Dynamic Radial Load Rating lbf	Static Axial Load Rating lbf	Dynamic Axial Load Rating lbf
A 7Q17-0STA A 7Q17-0ADJ	M4	.584	.2500	.234	112	236	106	119
A 7Q17-1STA A 7Q17-1ADJ	M6	.771	.3100	.313	250	490	234	245
A 7Q17-2STA A 7Q17-2ADJ	M10	1.210	.4375	.500	625	1057	591	535

NOTE: Load ratings are according to AFBMA STD9-1990.

Double-Edged Size 0 Steel Tracks

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ STEEL

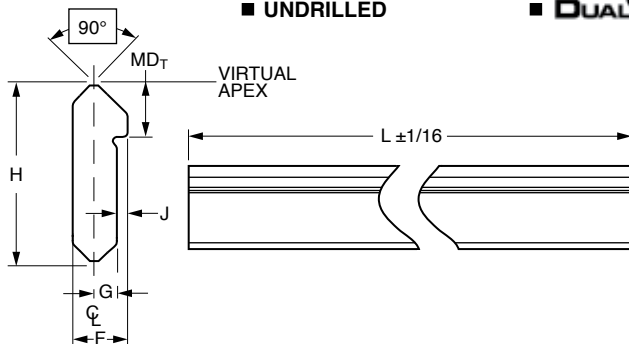
■ HARDENED

■ UNHARDENED

■ DRILLED

■ UNDRILLED

■ DUALVEE™

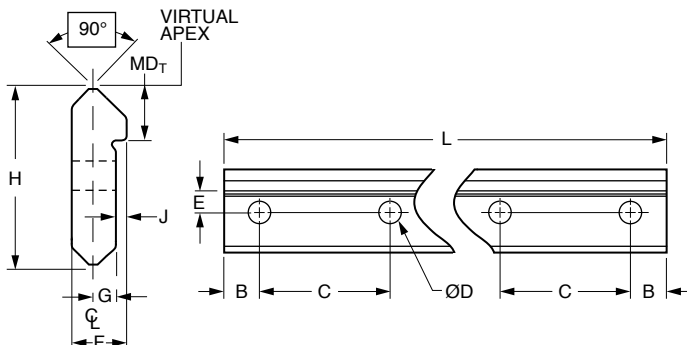


MATERIAL: Steel – Hardened – AISI 1045 Carbon Steel (Rc 58...60), Polished and Oiled
 Unhardened – AISI 1045 Carbon Steel (Rc 22...25) as Formed, Oiled

Except for length, dimensions are in inch

Catalog Number		H	F	G	MD _T	J	L Length ft.
Hardened	Unhardened						
A 7Q15-01	A 7C15-01	.516	.153	.06	.158	.033	1
A 7Q15-02	A 7C15-02						2
A 7Q15-04	A 7C15-04						4
A 7Q15-06	A 7C15-06						6

NOTE: Maximum length Available: Hardened - 20 feet Unhardened - 22 feet



Dimensions are in inch

Catalog Number*	Number of Holes	L ± .015	B ± .005	C ± .005	D ± .005	E ± .005	F	G	H	J	MD _T
A 7 15-00650	4	6.500									
A 7 15-01250	7	12.500									
A 7 15-01850	10	18.500	.250	2.000	.156	.138	.153	.06	.516	.033	.158
A 7 15-02450	13	24.500									
A 7 15-03050	16	30.500									
A 7 15-03650	19	36.500									

*To complete the Catalog Number, specify:

☐ AISI 1045 Carbon Steel, Unhardened (Rc 22...25)

☐ AISI 1045 Carbon Steel, Hardened (Rc 58...60)

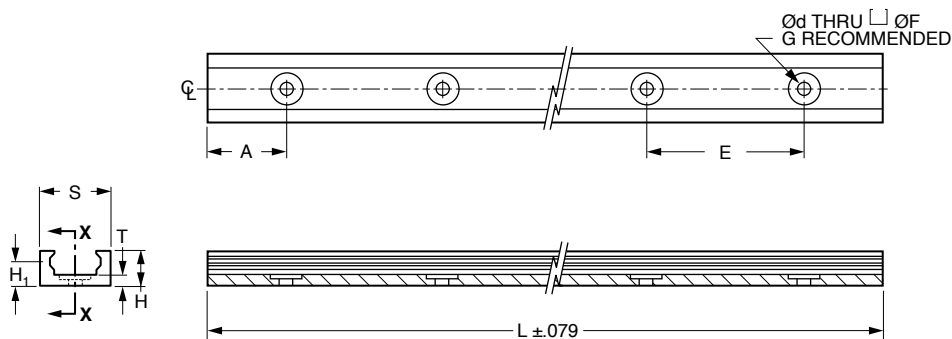
NOTE: Other track sizes available on special order.

■ EASY INSTALLATION

■ LIGHTWEIGHT

■ COMPACT ENVELOPE

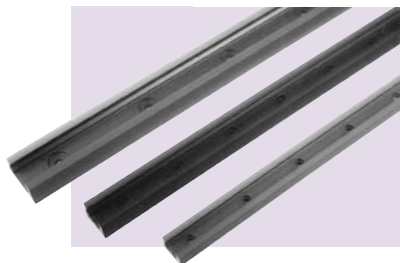
■ ECONOMICAL

**SECTION X-X****CATALOG NUMBER DESIGNATION:**

A 7 A 8 7 -

Size: 1
2

Length Code

**MATERIAL: U-Channel Track – Aluminum, Clear Anodized**

Size	S Width	H Height	H ₁ Track Vee Height	A End Hole Spacing	E Hole Spacing	d Hole	G Recommended Fastener	T Base Thickness	F C'Bore Geometry
1	1.18 (30)	.71 (18)	.5 (12.8)	1.18 (30)	2.36 (60)	.22 (5.5)	Pan Head M5	.24 (6)	.47 x .08DP (Ø12 x 2DP)
2	1.77 (45)	.87 (22)	.6 (15.2)	1.97 (50)	3.94 (100)	.35 (8.8)	Pan Head M8	.28 (7)	.79 x .12DP (Ø20 x 3DP)

Size	Length Code								
1	0472	0945	1417	2126	2835	3780	4724	5669	7087
	4.72 (120)	9.45 (240)	14.17 (360)	21.26 (540)	28.35 (720)	37.8 (960)	47.24 (1200)	56.69 (1440)	70.87 (1800)
2	0787	1181	1575	2362	3150	3937	4724	6299	—
	7.87 (200)	11.81 (300)	15.75 (400)	23.62 (600)	31.5 (800)	39.37 (1000)	47.24 (1200)	62.99 (1600)	—

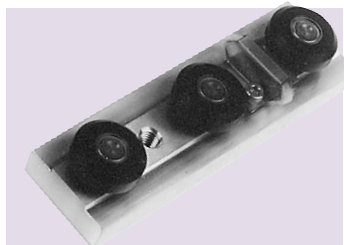
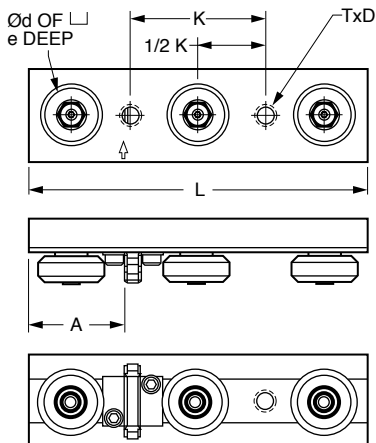
NOTE: Dimensions in () are in mm.

■ EXTREMELY LOW NOISE

■ EASY INSTALLATION

■ HIGH-SPEED OPERATION

■ ECONOMICAL DESIGN



MATERIAL: Guide Wheels – Acetal Polymer
 Plate – Aluminum, Clear Anodized
 Bearings – Stainless Steel Ball

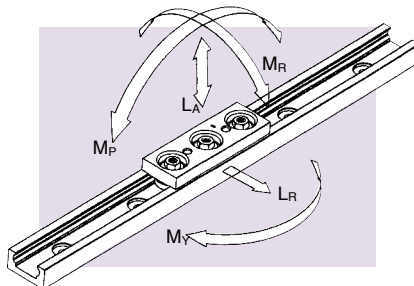
Catalog Number	Size	L Assem. Length	C Assem. Height	E Plate Height	C ₁ Wheel Height	G Assem. Width	K Hole Spacing	T Fast. Size	D Fast. Depth (max)	d C'Bore Dia.	e C'Bore Depth	A Lubricator Location
A 7P86-1	1	3.94 (100)	.77 (19.5)	.35 (9)	.60 (15.2)	1.10 (28)	1.57 (40)	M6x1	.40 (10.1)	.75 (19)	.20 (5)	1.12 (28.4)
A 7P86-2	2	4.92 (125)	1.04 (26.5)	.51 (13)	.82 (20.8)	1.65 (42)	1.77 (45)	M8x1.25	.54 (13.7)	.98 (25)	.33 (8.5)	1.47 (37.3)

Load Capacity - Based on 100 km Service Life

Size	L _A Axial Working Load Capacity lbf (N)	L _R Radial Working Load Capacity lbf (N)	M _P Pitch Moment Capacity lb. • in. (Nm)	M _Y Yaw Moment Capacity lb. • in. (Nm)	M _R Roll Moment Capacity lb. • in. (Nm)
1	39.8 (177)	20.0 (89)	88.5 (10)	26.6 (3)	17.7 (2)
2	49.9 (222)	39.8 (177)	159.3 (18)	70.8 (8)	35.4 (4)

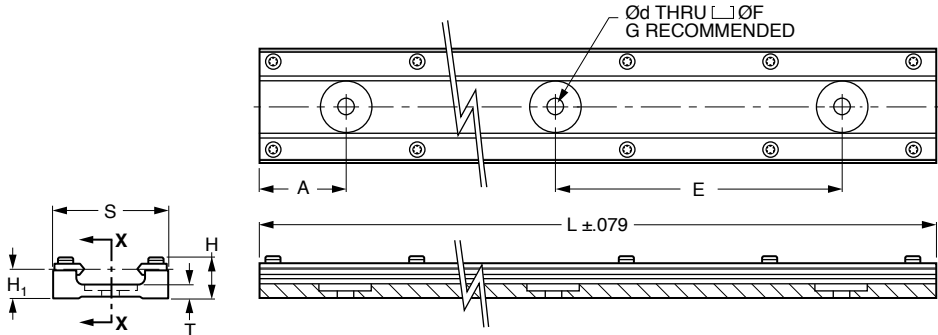
NOTES 1: Direction of arrow, on carriage plate, indicates how the load should be oriented to achieve radial loading on the two concentric guide wheels.

2: Dimensions in () are in mm.



■ DUALVEE™ COMPONENTS

■ EASY INSTALLATION



SECTION X-X

CATALOG NUMBER DESIGNATION:

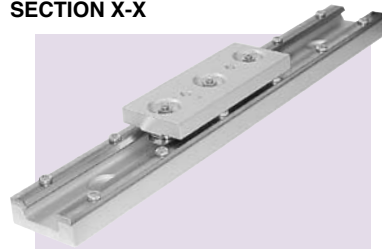
A 7 8 8 -

Material Size Length Code

C – Steel 1

X – Stainless 2

 3



MATERIAL: U-Channel Track – Aluminum, Clear Anodized
Track Raceways – 1045 Carbon Steel or 420 Stainless Steel

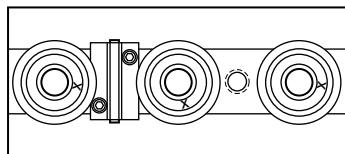
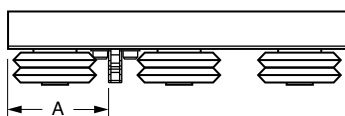
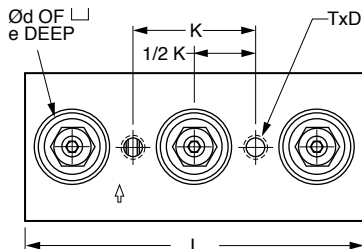
Size	S Width	H Height	H ₁ Vee Height	A End Mount Hole Spacing	E Mount Hole Spacing	d Mount Hole	G Recommended Fastener	T Base Thickness	F C'Bore Geometry	
1	1.57 (40)	.69 (17.6)	.50 (12.8)	1.77 (45)	3.94 (100)	.27 (6.9)	Pan Head M6	.23 (5.9)	.74 x .08DP (Ø18.8 x 2DP)	
2	2.36 (60)	.85 (21.5)	.60 (15.2)	1.77 (45)	5.91 (150)	.35 (8.8)	Pan Head M8	.29 (7.3)	1.00 x .12DP (Ø25.4 x 3DP)	
3	3.35 (85)	1.16 (29.5)	.81 (20.6)	3.25 (82.5)	9.84 (250)	.41 (10.5)	Pan Head M10	.35 (9)	1.13 x .20DP (Ø28.6 x 5DP)	
Size	Length Code									
1	0748	1142	1535	1929	2323	2717	3110	3504	3898	4291
	7.48 (190)	11.42 (290)	15.35 (390)	19.29 (490)	23.23 (590)	27.17 (690)	31.10 (790)	35.04 (890)	38.98 (990)	42.91 (1090)
2	0945	1535	2126	2717	3307	3898	4488	5079	5669	6260
	9.45 (240)	15.35 (390)	21.26 (540)	27.17 (690)	33.07 (840)	38.98 (990)	44.88 (1140)	50.79 (1290)	56.69 (1440)	62.6 (1590)
3	1634	2618	3602	4587	5571	6555	—	—	—	—
	16.34 (415)	26.18 (665)	36.02 (915)	45.87 (1165)	55.71 (1415)	65.55 (1665)	—	—	—	—

NOTE: Dimensions in () are in mm.

■ DUALVEE™ COMPONENTS

■ EASY INSTALLATION

■ HIGH-SPEED CAPACITY



CATALOG NUMBER DESIGNATION:

A 7 ☐ 8 9 ☐

Material
C – Steel
X – Stainless

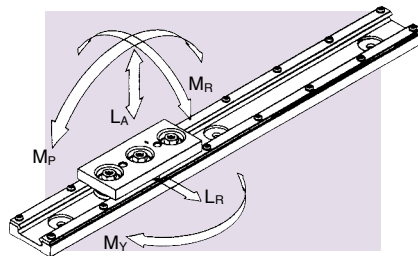
Size
1
2
3

MATERIAL: Guide Wheels – Steel SAE 52100 or 440C Stainless Steel
Plate – Aluminum, Clear Anodized

Size	L Assembly Length	C Assembly Height	E Plate Height	C ₁ Wheel Height	G Assembly Width	K Hole Spacing	T Fastener Size	D Fastener Depth max	d C'Bore Dia.	e C'Bore Depth	A Lubricator Location
1	3.94 (100)	.77 (19.5)	.35 (9)	.60 (15.2)	1.50 (38)	1.57 (40)	M6 x 1	.40 (10.1)	.63 (16)	.20 (5)	1.12 (28.4)
2	4.92 (125)	1.04 (26.5)	.51 (13)	.82 (20.8)	2.17 (55)	1.77 (45)	M8 x 1.25	.54 (13.7)	.98 (25)	.33 (8.5)	1.47 (37.3)
3	6.69 (170)	1.47 (37.3)	.67 (17)	1.16 (29.4)	3.15 (80)	2.36 (60)	M10 x 1.5	.77 (19.6)	1.50 (38)	.32 (8.1)	2.02 (51.3)

Load Capacity - Based on 100 km Service Life

Size	L _A Axial Working Load Capacity lbf (N)	L _R Radial Working Load Capacity lbf (N)	M _P Pitch Moment Capacity lb. • in. (Nm)	M _Y Yaw Moment Capacity lb. • in. (Nm)	M _R Roll Moment Capacity lb. • in. (Nm)
1	158.5 (705)	249.8 (1111)	123.9 (14)	185.9 (21)	26.6 (3)
2	393.2 (1749)	600.4 (2671)	354.0 (40)	539.9 (61)	79.7 (9)
3	1070.7 (4763)	1290.1 (5739)	1292.2 (146)	1557.7 (176)	309.8 (35)



NOTES 1: Direction of arrow, on carriage plate, indicates how the load should be oriented to achieve radial loading on the two concentric guide wheels.

2: Dimensions in () are in mm.

■ TECHNICAL INFORMATION

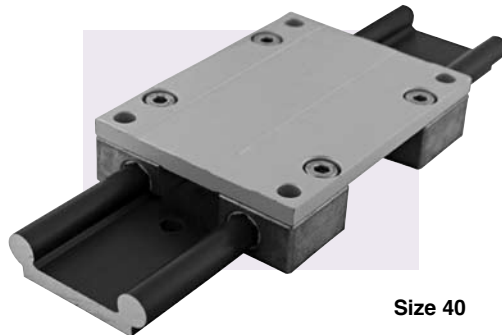
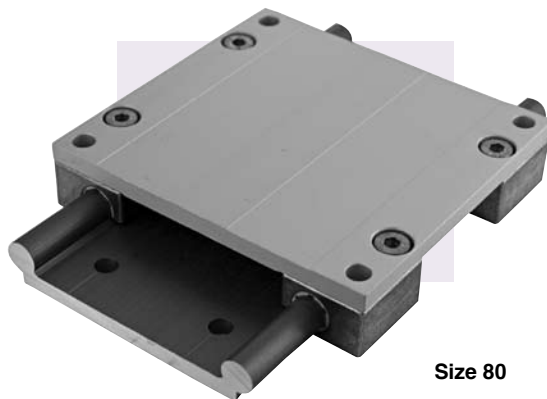
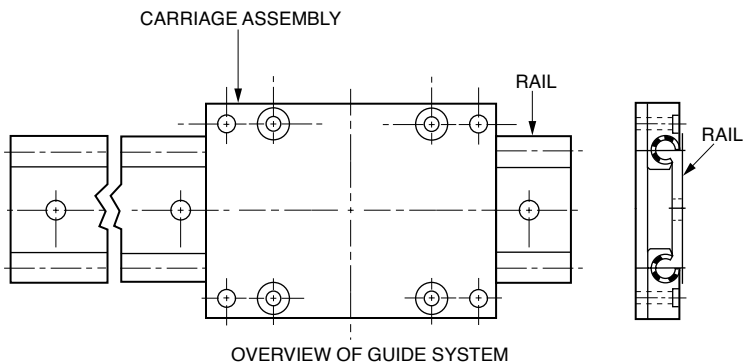
Linear Guide System – Heavy-Duty

Carriage assembly slides over the specially profiled, hard anodized aluminum rails. It is available in two sizes.

Unique features include:

- Low friction without lubrication
- Resistance to dirt and dust
- Low weight
- Quiet operation
- Low wear
- Maintenance-free

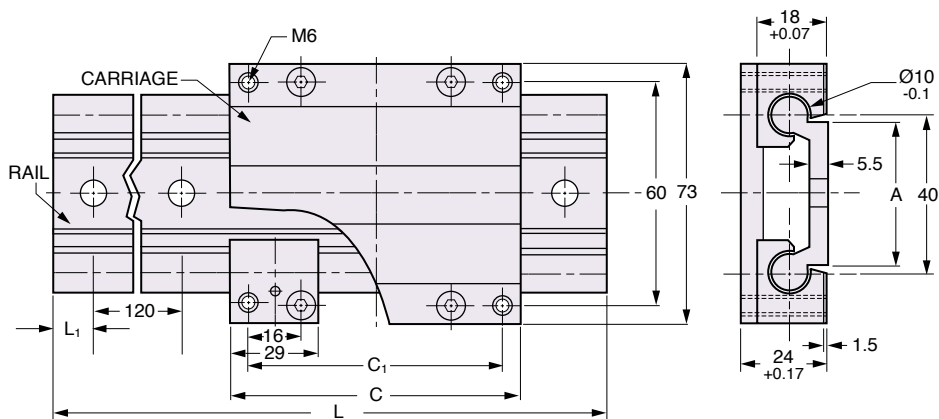
The sliding element is a specially formulated polymer material best suited for hard anodized aluminum rails. This combination results in low abrasion leading to excellent durability. The preconfigured parallel rails eliminate alignment problems and speed assembly. The carriage and rail combination is a compact, space-saving design with easy installation. The low and wide profile withstands high torque.

**Size 40****Size 80**

■ LOW FRICTION

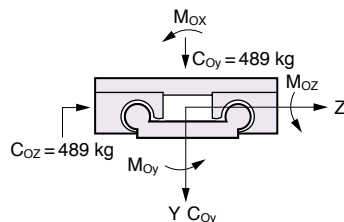
■ LIGHTWEIGHT

■ MAINTENANCE-FREE

**MATERIAL:** Hard Anodized Aluminum

RAILS				
Catalog Number	L Length mm	L ₁	A -0.3	Weight kg
S99GWRM401000	1000	20		1
S99GWRM402000	2000	40	40	2
S99GWRM404000	4000	20		4

MATERIAL: Plate – Aluminum
 Blocks – Die Cast Zinc
 Bearings – J® Polymer

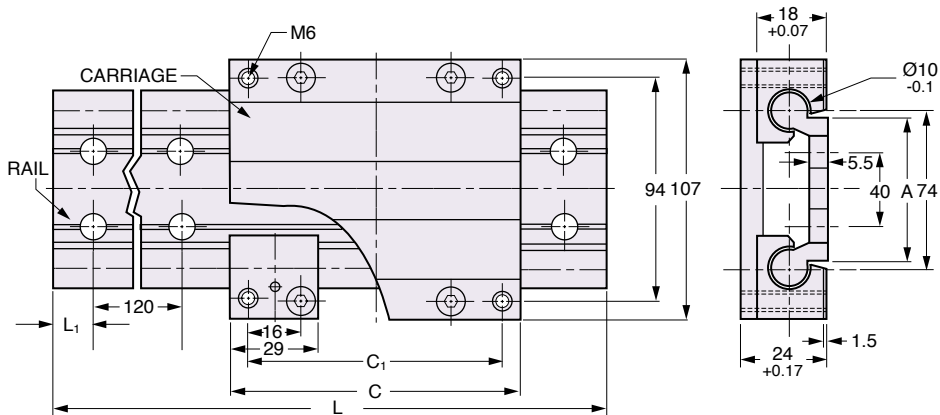
**C = STATIC LOAD CAPACITY**

CARRIAGE ASSEMBLY						
Catalog Number	C	C ₁	Moment Load Capacity kg · m			Weight kg
			M _{Ox}	M _{Oy}	M _{Oz}	
S99GWCM40100	100	87		17.323	17.323	0.29
S99GWCM40150	150	137	9.789	29.559	29.559	0.34
S99GWCM40200	200	187		41.808	41.808	0.4

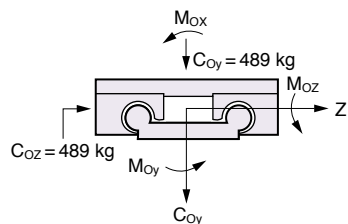
■ LOW FRICTION

■ LIGHTWEIGHT

■ MAINTENANCE-FREE

**MATERIAL:** Hard Anodized Aluminum

RAILS				
Catalog Number	L Length mm	L ₁	A -0.3	Weight kg
S99GWRM801000	1000	20	74	1.5
S99GWRM802000	2000	40		3
S99GWRM804000	4000	20		6

**C = STATIC LOAD CAPACITY**

MATERIAL: Plate – Aluminum
 Blocks – Die Cast Zinc
 Bearings – J® Polymer

CARRIAGE ASSEMBLY						
Catalog Number	C	C ₁	Moment Load Capacity kg • m			Weight kg
			M _{Ox}	M _{Oy}	M _{Oz}	
S99GWCM80100	100	87	18.139	17.337	17.337	0.34
S99GWCM80150	150	137		29.559	29.559	0.42
S99GWCM80200	200	187		41.808	41.808	0.5

INTERLOCK FASTENERS (metric)	228
SOCKET WRENCH FOR INTERLOCK FASTENERS (metric)	229
HEX NYLON-INSERT LOCKNUTS (inch)	230

INCH & METRIC COMPONENTS

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- Over 50 years of experience
- Free catalog

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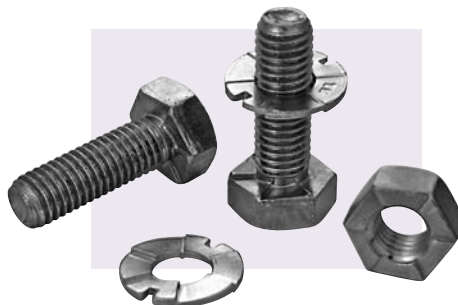


■ ANTIVIBRATION

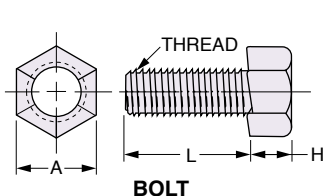
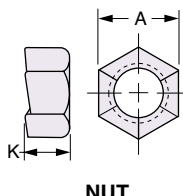
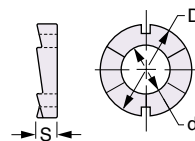
■ LOOSE-RESISTANT FASTENERS

■ ANTITHEFT

Specially designed bolts, nuts and washers have step grooves which lock as you tighten. They are almost impossible to loosen with a regular wrench.

**TYPICAL APPLICATIONS:**

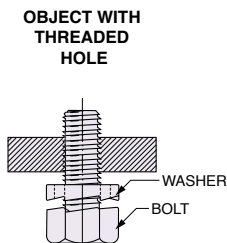
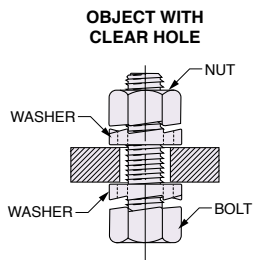
- Steel Construction
- Heavy-Duty Machinery
- Hydraulic & Gas Pipelines
- Rail & Steel Bridge

**BOLT****NUT****WASHER**

MATERIAL: Bolt, Nut & Washer – Carbon Steel

Size	Bolt Catalog Number	L	H	Pitch	A Hex	Nut Catalog Number	K Height	Washer Catalog Number	d I.D.	D O.D.	S
M8	S709CYM0840	40									
	S709CYM0845	45	5.3	1.25	13	S719CYM0813	6.5	S759CYM0817	8.4	17	1.6
	S709CYM0850	50									
M10	S709CYM1030	30									
	S709CYM1035	35									
	S709CYM1040	40	6.4	1.5	17	S719CYM1017	8	S759CYM1021	10.5	21	2
	S709CYM1045	45									
	S709CYM1050	50									
M12	S709CYM1240	40									
	S709CYM1245	45									
	S709CYM1250	50	7.5	1.75	19	S719CYM1219	10	S759CYM1224	13	24	2
	S709CYM1255	55									
	S709CYM1260	60									
M14	S709CYM1450	50									
	S709CYM1460	60	8.8	2	22	S719CYM1422	11	S759CYM1428	15	28	2
	S709CYM1465	65									
M16	S709CYM1650	50									
	S709CYM1655	55									
	S709CYM1660	60	10	2	24	S719CYM1624	13	S759CYM1630	17	30	3
	S709CYM1665	65									
	S709CYM1670	70									

NOTE: For Interlock Fastener Socket Wrench, see opposite page.

Socket Wrench For Interlock Fasteners

The highly effective Interlock Fastener System solves the problem of loosening effects of vibration and dynamic loads on joints. The patented design features a bolt, nut and washer with a unique wedge shape on opposing sides that when lined up correctly create a superior self-locking fastener.

For machinery that requires regular maintenance, the Interlock Fastener System is a perfect solution. The bolts are quickly and easily tightened and loosened by using the specially designed socket wrench.

INTERLOCK FASTENER SOCKET WRENCH

MATERIAL: Trivalent Chromium
Plated Steel

Catalog Number	Size
S799CYM08	M8
S799CYM10	M10
S799CYM12	M12
S799CYM14	M14
S799CYM16	M16



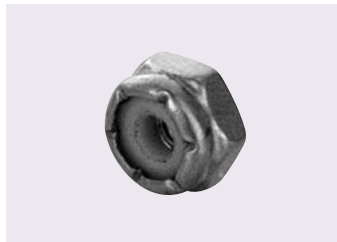
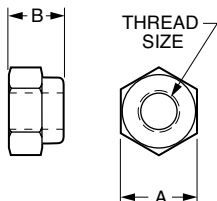
Hex Nylon – Insert Locknuts

■ VIBRATION-RESISTANT

■ NO MARRING OF THREADS

■ REUSABLE

■ INSERT EFFECTIVE UP TO 250°F



MATERIAL: Locknut – 303 Stainless Steel
Insert – Nylon

Priced Per 100 Pieces

Catalog Number	Thread Size	A	B
A 9X23-0256	#2-56	.250	.140
A 9X23-0440	#4-40		
A 9X23-0632	#6-32	.313	.172
A 9X23-0832	#8-32	.344	.234
A 9X23-1032	#10-32	.375	.234
A 9X23-2520	1/4-20	.438	.313

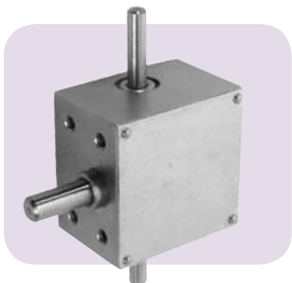
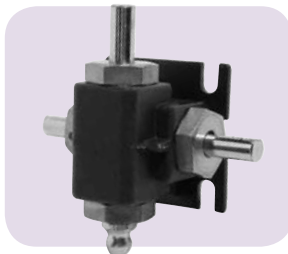
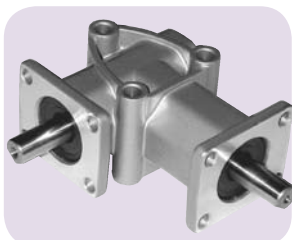
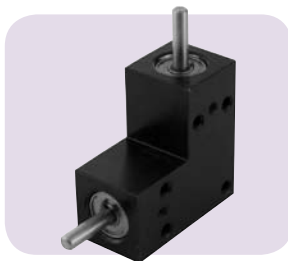
RIGHT ANGLE HELICAL GEAR DRIVES

Miniature (inch).....	232
Mini-Shaft Drive (inch).....	233
Key-Drive (inch).....	234
Foot Mount for Key-Drive (inch)	235
Hollow-Shaft Drive, 1:1 or 3:2 ratio (inch).....	236
Hollow-Shaft Drive, 2:1 ratio (inch).....	237

For Other Right Angle Drives

See Section 12 of Catalog **785** for Metric sizes and Section 12 of Catalog **790** for Inch sizes

View and download these sections at: www.sdp-si.com



Miniature Right Angle Helical Gear Drives

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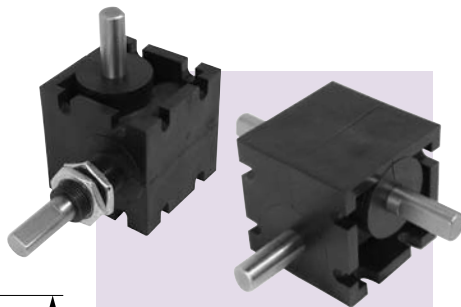
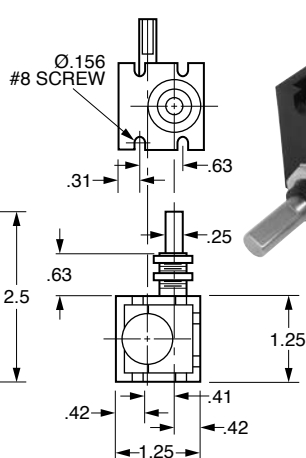
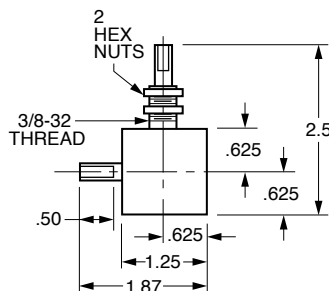
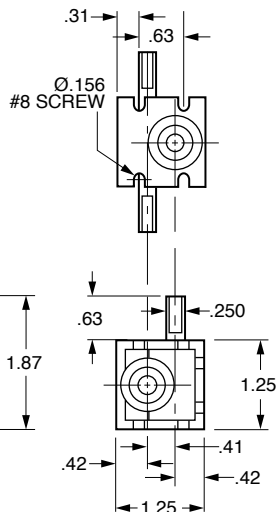
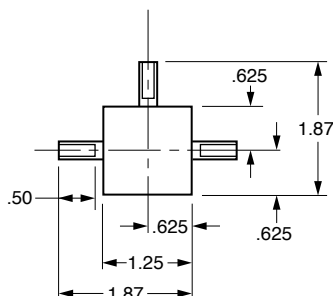
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Fax: 516-326-8827

■ BASE OR PANEL MOUNTING

■ LIGHTWEIGHT

■ NOT FOR USE AS A SPEED INCREASER

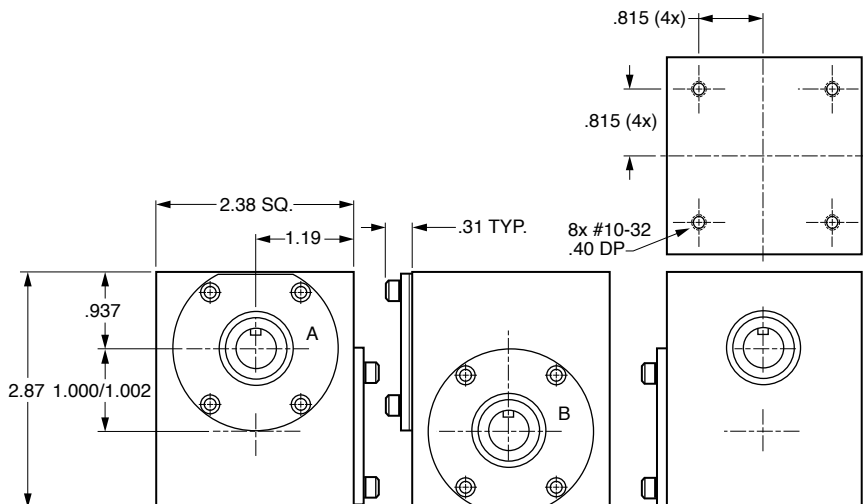
Fig. 1
SINGLE OUTPUT SHAFT**MATERIAL:****Housing** – Fiberglass Reinforced Nylon**Gears** – Hardened Steel Helical**Shafts** – Steel**Bearings** – NonmetallicFig. 2
DOUBLE OUTPUT SHAFT

Catalog Number	Fig. No.	Ratio	Max. rpm	Max. Continuous hp
A 2Z11-211	1	1:1	1800	1/8
A 2Z11-221		2:1		
A 2Z11-311	2	1:1		
A 2Z11-321		2:1		

NOTE: Special options on shaft, material and ratios available on special order.

- HEAVY-DUTY SEALED BALL BEARINGS ■ RIGHT- OR LEFT-HAND ROTATION
- RATED SPEEDS UP TO 1800 RPM ■ 1:1 RATIO ■ O-RING SEALED GEAR CASE
- KEYS INCLUDED ■ SIMPLY ADD KEYED SHAFTING

MINI-SHAFT DRIVE

**MATERIAL:**

Shafts – 1144 Steel, Hollow Bore

Gears – 1045 Heat-Treated Steel

Case – Aluminum Alloy, Hard-Anodized

Maximum Operating Temperature: 200°F

Catalog Number	Type	Hollow "A" Bore Size	Hollow "B" Bore Size
S991MY-5050LH	LH	1/2	1/2
S991MY-5050RH	RH		
S991MY-5062LH	LH	1/2	5/8
S991MY-5062RH	RH		
S991MY-6262LH	LH	5/8	5/8
S991MY-6262RH	RH		

NOTE: See page 5-7 for sizing equations.

Type	Shaft Rotation	
	"A"	"B"
RH	CCW	CW
LH	CCW	CCW

rpm	Output Torque lb. in.
33	59
50	51
100	41
150	36
200	32
300	28
400	21
500	19
600	18
1000	15
1200	14
1800	12



Right Angle Helical Gear Drives

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■ RIGHT- AND LEFT-HAND ROTATION

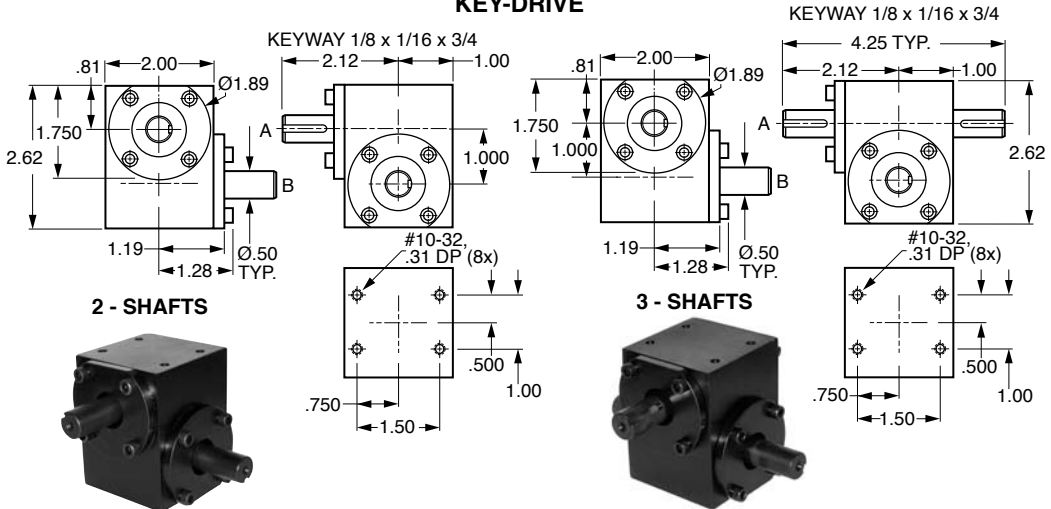
■ 1:1 RATIO

■ SEALED GEAR CASE

■ RATED SPEEDS UP TO 1800 RPM

■ KEYS INCLUDED

KEY-DRIVE



MATERIAL:

Gear & Shaft – 4140 Heat-Treated Steel

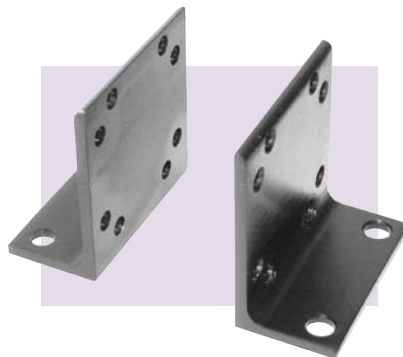
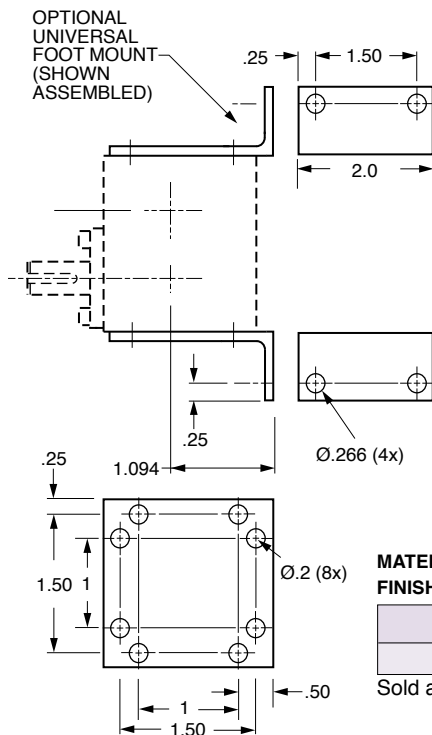
Case – Aluminum Alloy, Hard-Anodized

Maximum Operating Temperature: 200°F

Catalog Number	"A" Shaft Size	"B" Shaft Size	Type	Number of Shafts
S991SY-RH2	1/2	1/2	RH	2
S991SY-LH2			LH	
S991SY-RH3			RH	3
S991SY-LH3			LH	
S991SY-RH4	1/2	1/2	RH	4
S991SY-LH4			LH	

rpm	Output Torque lb. in.	Type	Shaft Rotation	
			"A"	"B"
33	59	RH	CCW	CW
50	51	LH	CCW	CCW
100	41			
150	36			
200	32			
300	28			
400	21			
500	19			
600	18			
1000	15			
1200	14			
1800	12			

NOTE: Optional foot mount available. See page 235 for footmounts and sizing equations.

**MATERIAL:** 6061 Aluminum Alloy**FINISH:** Black Anodize**Catalog Number****S9957Y-UFM**

Sold as a set of 2

SIZING EQUATIONS***Easy Sizing for 2:1 Ratio Drive**As a Gear Reducer:

$$\text{Input Torque, lb. in.} = \frac{\text{Output Torque}}{1.24}$$

As a Speed Increaser:

$$\text{Input Torque, lb. in.} = \frac{\text{Output Torque}}{.31}$$

*These equations are supplied as a guide. It is suggested that each application be prototyped and tested.

Easy Sizing for 1:1 and 3:2 Ratio DrivesAs a Gear Reducer:

$$\text{Input Torque, lb. in.} = \frac{\text{Output Torque}}{.60} \quad \text{1:1 Ratio}$$

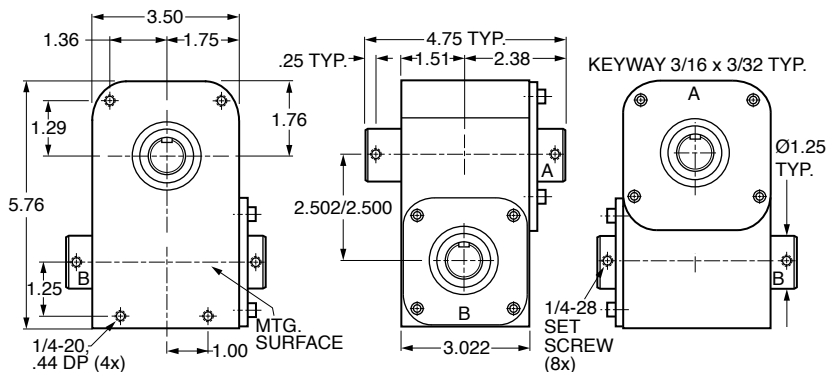
$$\text{Input Torque, lb. in.} = \frac{\text{Output Torque}}{.78} \quad \text{3:2 Ratio}$$

As a Speed Increaser:

$$\text{Input Torque, lb. in.} = \frac{\text{Output Torque}}{.35} \quad \text{3:2 Ratio}$$

Right Angle Helical Gear Drives**Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827**

- **HEAVY-DUTY SEALED BALL BEARINGS** ■ **RIGHT- OR LEFT-HAND ROTATION**
 ■ **RATED SPEEDS UP TO 1200 RPM** ■ **1:1 OR 3:2 RATIOS** ■ **SEALED GEAR CASE**
 ■ **BUILT-IN KEYWAY** ■ **KEYS INCLUDED** ■ **SIMPLY ADD KEYED SHAFTING**

HOLLOW-SHAFT DRIVE

MATERIAL: Shafts – 1144 Steel, Hollow Bore
 Gears – 4140 Heat-Treated Steel
 Case – Aluminum Alloy, Hard-Anodized

Maximum Operating Temperature: 200°F**1:1 RATIO**

Catalog Number	Type	Hollow "A" Bore Size	Hollow "B" Bore Size
S991HY-A6262LH	LH	5/8	5/8
S991HY-A6262RH	RH	5/8	5/8
S991HY-A6275LH	LH	5/8	3/4
S991HY-A6275RH	RH	5/8	3/4
S991HY-A7575LH	LH	3/4	3/4
S991HY-A7575RH	RH	3/4	3/4

1:1 RATIO

rpm	Output Torque lb. in.
33	236
50	205
100	163
200	130
300	113
400	80
500	73
1000	59
1200	56

Type	Shaft Rotation	
"A"		
"B"		
RH	CW	CW
LH	CW	CCW

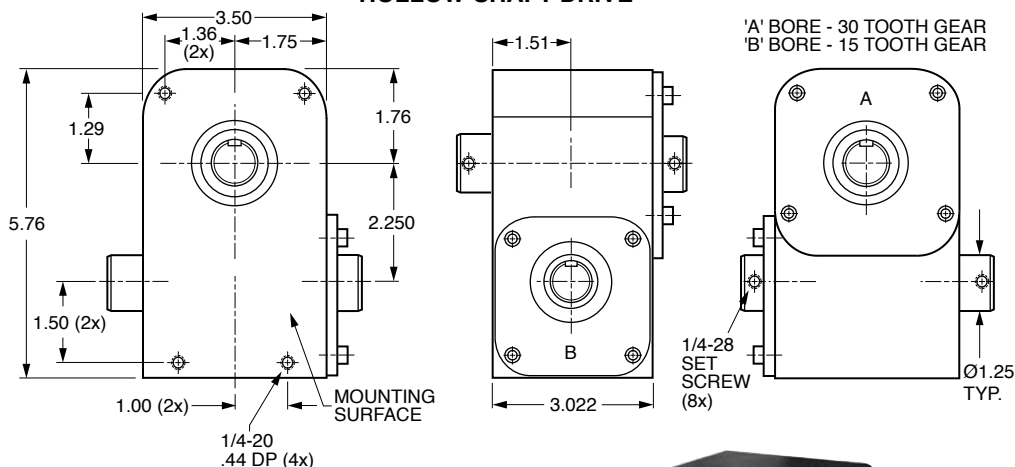
3:2 RATIO

Catalog Number	Type	Hollow "A" Bore Size	Hollow "B" Bore Size
S991HY-B6262LH	LH	5/8	5/8
S991HY-B6262RH	RH	5/8	5/8
S991HY-B6275LH	LH	5/8	3/4
S991HY-B6275RH	RH	5/8	3/4
S991HY-B7575LH	LH	3/4	3/4
S991HY-B7575RH	RH	3/4	3/4

NOTE: See page 235 for sizing equations.**3:2 RATIO**

Theoretical Output Torque, lb. in.			
Gear Reducer		Speed Increaser	
Input rpm	Output Torque	Output rpm	Output Torque
33	246	33	110
50	213	50	96
100	170	100	76
200	135	200	61
300	118	300	53
400	83	400	37
500	76	500	34
1000	61	1000	27
1200	59	1200	26

- **HEAVY-DUTY SEALED BALL BEARINGS**
- **RATED SPEEDS UP TO 1200 RPM**
- **KEYS INCLUDED**
- **RIGHT- OR LEFT-HAND ROTATION**
- **O-RING SEALED GEAR CASE**
- **2:1 RATIO**
- **SIMPLY ADD KEYED SHAFTING**

HOLLOW-SHAFT DRIVE**MATERIAL:**

Shafts – 1144 Steel, Hollow Bore

Gears – 4140 Heat-Treated Steel

Case – Aluminum Alloy, Heat-Treated

Maximum Operating Temperature: 200°F

2:1 RATIO

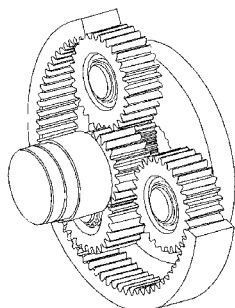
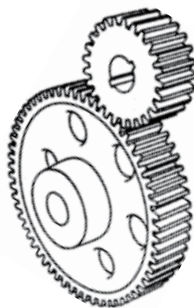
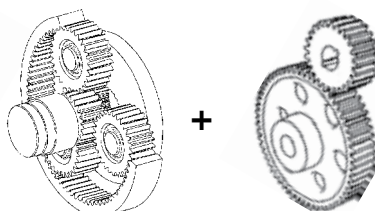
Catalog Number	Type	Hollow "A" Bore Size	Hollow "B" Bore Size
S991HY-C6262LH	LH	5/8	5/8
S991HY-C6262RH	RH	5/8	5/8
S991HY-C6275LH	LH	5/8	3/4
S991HY-C6275RH	RH	5/8	3/4
S991HY-C7562LH	LH	3/4	5/8
S991HY-C7562RH	RH	3/4	5/8
S991HY-C7575LH	LH	3/4	3/4
S991HY-C7575RH	RH	3/4	3/4

NOTE: See page 235 for sizing equations.

Type	Shaft Rotation	
	"A"	"B"
RH	CW	CW
LH	CW	CCW

**Theoretical Output Torque, lb. in.**

Gear Reducer		Speed Increaser	
Input rpm	Output Torque	Output rpm	Output Torque
33	293	33	73
50	254	50	64
100	203	100	51
200	161	200	40
300	140	300	35
400	100	400	25
500	91	500	23
1000	73	1000	18
1200	70	1200	17

**TRUE PLANETARY****SPUR GEAR****HYBRID**

How to choose the type of gearhead depends primarily on the application. Some of the factors to be considered to make proper trade-offs between cost and performance are shown below. The hybrid design of planetary and spur gears are not offered by us but are available on the market, and are included for comparison purposes.

DESIGN FACTORS	GEARHEAD TYPE			
	Planetary	Low Cost Planetary	Spur	Hybrid
Torque Capacity	High	Medium	Low	Medium limited by spur gear pair strength
Load Sharing	Yes	Yes	No	Planetary Section Only
Power to Weight Ratio	High	Medium	Low	Medium
Power to Size Ratio	High	Medium	Low	Medium
Torsional Stiffness	High	Medium	Low	Medium
Backlash	Low 6-10 minutes	Medium 7-14 minutes	High 30 min. max.	Medium
Available Number of Gear Ratios	Low	Low	High	Medium
Cost	High	Medium	Low	Medium

GEARHEADS (metric) Size 12	240
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NEMA GEARHEADS, SELECTION CHART	241
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NEMA IN-LINE GEARHEADS

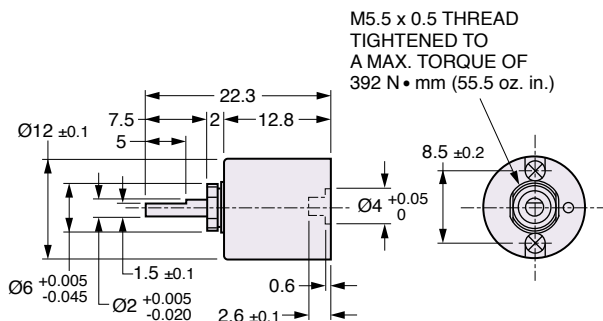
CG Series (Compact Planetary) Sizes 17, 23, 34	242
CG Radial & Axial Loading Specifications	245
PG Series (Precision Planetary) Sizes 17, 23, 34 & 42	246
EG Series (Economy Planetary) Sizes 17, 23, 34 & 42	250
SG Series (Spur Gear) Sizes 23, 34 & 42	254

NEMA RIGHT ANGLE GEARHEADS (SINGLE OUTPUT)

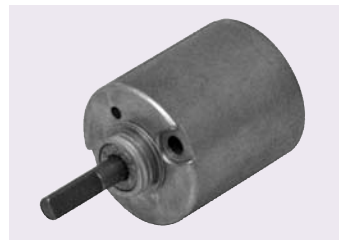
PG Series (Precision Planetary) Sizes 17, 23, 34 & 42	258
EG Series (Economy Planetary) Sizes 17, 23, 34 & 42	266
SG Series (Spur Gear) Sizes 23, 34 & 42	274

NEMA RIGHT ANGLE GEARHEADS (DUAL OUTPUT)

PG Series (Precision Planetary) Sizes 17, 23, 34 & 42	278
EG Series (Economy Planetary) Sizes 17, 23, 34 & 42	286
SG Series (Spur Gear) Sizes 23, 34 & 42	294

12 mm DIAMETER

The projections shown are per ISO convention.



These gearheads can be used as replacements for **D33S12M13...** and **D33S12M18...** Series gearmotors.

FEATURES:

- Small size, lightweight and compact design
- The input and output shafts have the same center line
- Decreased noise and smooth rotation due to the use of high-precision gears

SPECIFICATIONS:

Radial Play of Shaft: ≤ 0.07 mm

Thrust Play of Shaft: ≤ 0.25 mm

Operating Temperature: -10°C to $+60^{\circ}\text{C}$

GEARHEADS

MATERIAL: Housing – Zinc Die Cast

Catalog Number	Ratio to 1	Shaft Rotation	Efficiency %	Maximum Torque N•mm (oz. in.)
A 2G12MRB0007	7.49	CW	81	4.9 (.69)
A 2G12MRB0016	15.56	CCW	73	11.8 (1.67)
A 2G12MRB0031	31.12	CW	66	24.5 (3.47)
A 2G12MRB0052	52.25			
A 2G12MRB0072	71.99	CW	66	
A 2G12MRB0100	100.22	CCW	59	
A 2G12MRB0144	143.99			
A 2G12MRB0209	208.79	CCW	59	

NOTE: CW - same as that of a motor; CCW - opposite of that of a motor

MATING MOTOR PINION FOR GEARHEADS

MATERIAL: Brass

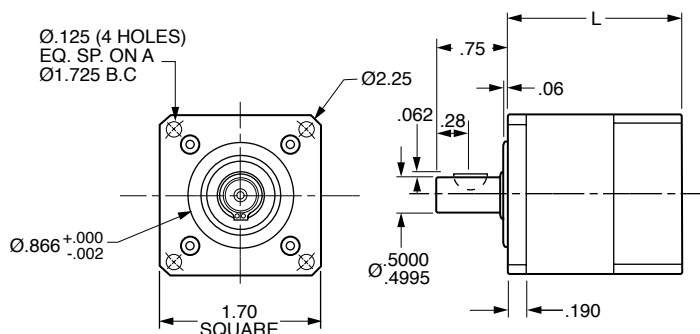
Catalog Number	Number of Teeth	Module	P.D.	O.D.	Bore +0.012 +0.004	Face Width
A 1B 8MYSH1012	12	0.15	1.905	2.205	1	2.5

Catagory	NEMA Size	In-Line	Right Angle Single Output	Right Angle Dual Output
CG Series (Compact Precision Planetary)	17	P. 242	N/A	N/A
	23	P. 243	N/A	N/A
	34	P. 244	N/A	N/A
	42	N/A	N/A	N/A
	Performance Chart	P. 245		
PG Series (Precision Planetary)	17	P. 246	P. 258	P. 278
	23	P. 247	P. 260	P. 280
	34	P. 248	P. 262	P. 282
	42	P. 249	P. 264	P. 284
EG Series (Economy Planetary)	17	P. 250	P. 266	P. 286
	23	P. 251	P. 268	P. 288
	34	P. 252	P. 270	P. 290
	42	P. 253	P. 272	P. 292
SG Series (Spur Gear)	17	N/A	N/A	N/A
	23	P. 254	P. 274	P. 294
	34	P. 255	P. 275	P. 295
	42	P. 256	P. 276	P. 296

N/A = Not Available

■ COMPACT SERIES

■ SINGLE & DOUBLE STAGE



FEATURES:

- True planetary system
- NEMA Mounting standards
- Low start-up torque
- Sealed high strength steel ball bearings
- Woodruff key #404 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial — See Graph on Page: 245

Axial — See Graph on Page: 245

** Min. Efficiency: Single Stage — 90%

Double Stage — 85%

Max. Backlash: Single Stage — 12 arc min.

Double Stage — 16 arc min.

Operating Temperature: -40°F to +250°F

Weight: Single Stage — .8 lb.

Double Stage — 1.1 lb.

MATERIAL:

Housing — Steel, Black Zinc Plated

Mounting Flanges — Aluminum

Output Shaft — Stainless Steel

Gears — Steel, Case-hardened

Bearings — Ball Bearings

Catalog Number	Gear Ratio	L Max. in.	Nominal* Rated Torque lb. in.	Acceleration Torque lb. in.	Stall ^Δ Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Moment of Inertia oz. in. sec. ²
S9117A-CG004	4:1	2.41 Single Stage	109	137	221	1250	2.331 x 10 ⁻⁴
S9117A-CG005	5:1		103	130	210	1000	1.895 x 10 ⁻⁴
S9117A-CG007	7:1		90	113	183	714	1.566 x 10 ⁻⁴
S9117A-CG010	10:1		81	102	153	500	1.395 x 10 ⁻⁴
S9117A-CG015	15:1	2.96 Double Stage	110	138	224	333	3.606 x 10 ⁻⁴
S9117A-CG020	20:1		120	151	244	250	1.896 x 10 ⁻⁴
S9117A-CG025	25:1		113	142	230	200	1.878 x 10 ⁻⁴
S9117A-CG028	28:1		121	153	248	178	1.566 x 10 ⁻⁴
S9117A-CG040	40:1		124	156	252	125	1.396 x 10 ⁻⁴
S9117A-CG050	50:1		117	147	237	100	1.391 x 10 ⁻⁴
S9117A-CG070	70:1		101	127	205	71	1.388 x 10 ⁻⁴
S9117A-CG100	100:1		81	102	153	50	1.386 x 10 ⁻⁴

NOTE: Metric motor mounting available on special order.

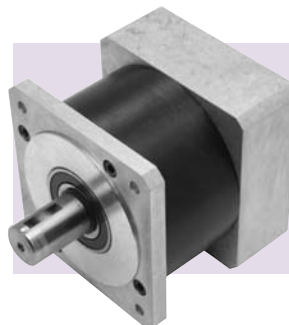
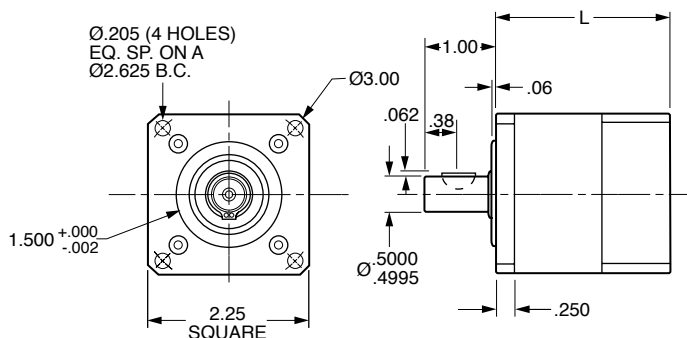
*All torque ratings are based on 3,000 rpm nominal input speed, and a Minimum Life of 10,000 hours.

**Efficiency rated at 3,000 rpm input speed, at nominal rated torque.

ΔStall torque rating is limited to 1,000 occurrences.

■ COMPACT SERIES

■ SINGLE & DOUBLE STAGE

**SPECIFICATIONS:**

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – See Graph on Page: 245

Axial – See Graph on Page: 245

** Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Max. Backlash: Single Stage – 12 arc min.

Double Stage – 16 arc min.

Operating Temperature: -40°F to +250°F

Weight: Single Stage – 1.7 lb.

Double Stage – 2.2 lb.

FEATURES:

- True planetary system
- NEMA Mounting standards
- Low start-up torque
- Sealed high strength steel ball bearings
- Woodruff key #404 and motor mounting hardware kit supplied

MATERIAL:

Housing – Steel, Black Zinc Plated

Mounting Flanges – Aluminum

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max. in.	Nominal* Rated Torque lb. in.	Acceleration Torque lb. in.	Stall ^Δ Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Moment of Inertia oz. in. sec. ²
S9123A-CG004	4:1	2.46 Single Stage	201	253	409	1250	1.322 x 10 ⁻³
S9123A-CG005	5:1		195	248	400	1000	1.202 x 10 ⁻³
S9123A-CG007	7:1		160	201	325	714	1.110 x 10 ⁻³
S9123A-CG010	10:1		140	177	285	500	1.061 x 10 ⁻³
S9123A-CG015	15:1	3.14 Double Stage	210	265	428	333	1.755 x 10 ⁻³
S9123A-CG020	20:1		221	279	451	250	1.208 x 10 ⁻³
S9123A-CG025	25:1		216	272	440	200	1.203 x 10 ⁻³
S9123A-CG028	28:1		225	284	459	178	1.113 x 10 ⁻³
S9123A-CG040	40:1		229	289	467	125	1.062 x 10 ⁻³
S9123A-CG050	50:1		223	281	454	100	1.061 x 10 ⁻³
S9123A-CG070	70:1		179	226	366	71	1.060 x 10 ⁻³
S9123A-CG100	100:1		140	177	285	50	1.060 x 10 ⁻³

NOTE: Metric motor mounting available on special order.

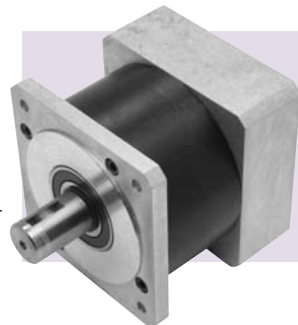
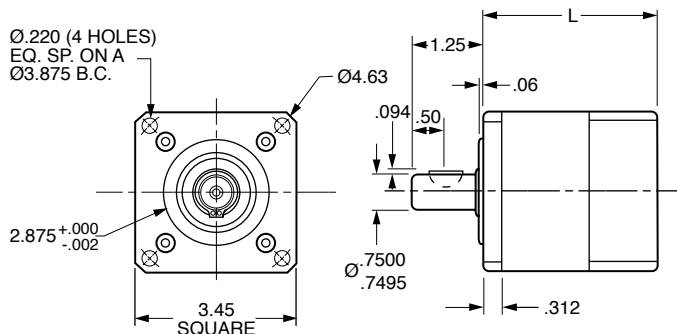
*All torque ratings are based on 3000 rpm nominal input speed, and a Minimum Life of 10,000 hours.

** Efficiency rated at 3,000 rpm input speed, at nominal rated torque.

^ΔStall torque rating is limited to 1,000 occurrences.

■ COMPACT SERIES

■ SINGLE & DOUBLE STAGE



FEATURES:

- True planetary system
- NEMA Mounting standards
- Low start-up torque
- Sealed high strength steel ball bearings
- Woodruff key #606 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – See Graph on Page: 245

Axial – See Graph on Page: 245

** Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Max. Backlash: Single Stage – 12 arc min.

Double Stage – 16 arc min.

Operating Temperature: -40°F to +250°F

Weight: Single Stage – 5.0 lb.

Double Stage – 6.0 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Mounting Flanges – Aluminum

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max. in.	Nominal* Rated Torque lb. in.	Acceleration Torque lb. in.	Stall ^Δ Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Moment of Inertia oz. in. sec. ²
S9134A-CG004	4:1	3.33 Single Stage	744	937	1515	1250	4.594 x 10 ⁻³
S9134A-CG005	5:1		702	884	1429	1000	3.544 x 10 ⁻³
S9134A-CG007	7:1		621	782	1264	714	2.748 x 10 ⁻³
S9134A-CG010	10:1		530	668	1080	500	2.332 x 10 ⁻³
S9134A-CG015	15:1	4.26 Double Stage	756	952	1539	333	7.719 x 10 ⁻³
S9134A-CG020	20:1		830	1046	1690	250	3.611 x 10 ⁻³
S9134A-CG025	25:1		778	980	1585	200	3.569 x 10 ⁻³
S9134A-CG028	28:1		845	1065	1721	178	2.782 x 10 ⁻³
S9134A-CG040	40:1		861	1085	1754	125	2.349 x 10 ⁻³
S9134A-CG050	50:1		806	1016	1642	100	2.338 x 10 ⁻³
S9134A-CG070	70:1		706	889	1437	71	2.330 x 10 ⁻³
S9134A-CG100	100:1		598	753	1217	50	2.326 x 10 ⁻³

NOTE: Metric motor mounting available on special order.

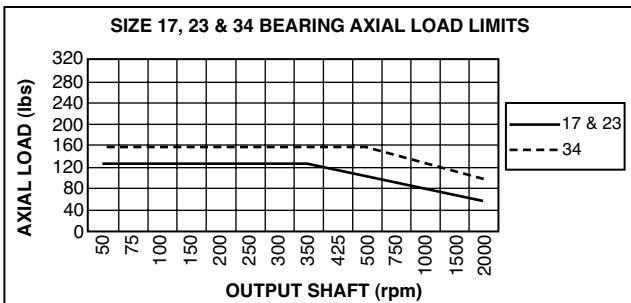
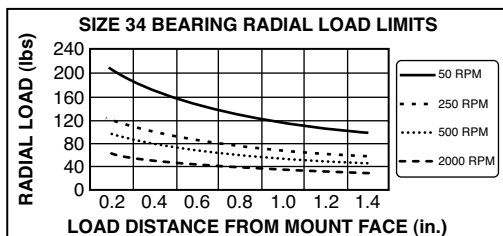
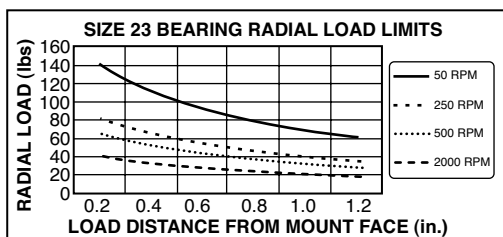
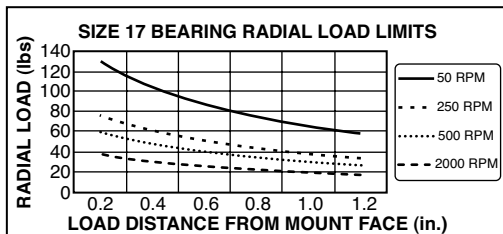
*All torque ratings are based on 3,000 rpm nominal input speed, and a Minimum Life of 10,000 hours.

** Efficiency rated at 3,000 rpm input speed, at nominal rated torque.

^Δ Stall torque rating is limited to 1,000 occurrences.

■ **RADIAL & AXIAL SHAFT LOADING SPECIFICATIONS**

Allowable radial load as a function of speed and load distance from mount face based on life of 10,000 hours



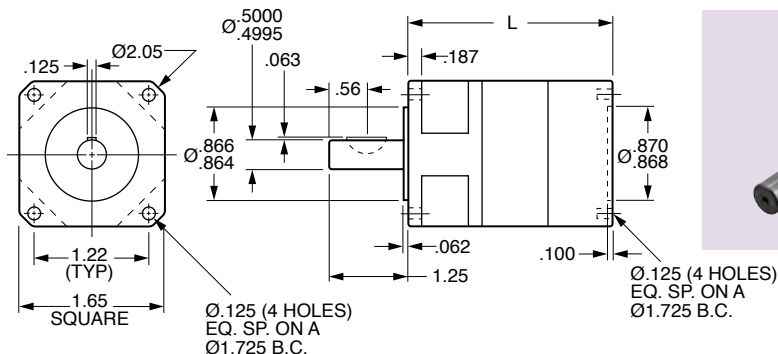
Allowable axial load as a function of output shaft rpm

PG Planetary Gearheads – NEMA Size 17

PRECISION SERIES

SINGLE & DOUBLE STAGE

LOW BACKLASH DESIGN



SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 125 lb.

Axial – 75 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ Max. Backlash: Single Stage – 6 arc min.

Double Stage – 10 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 1.0 lb.

Double Stage – 1.6 lb.

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #404 and motor mounting hardware kit supplied

MATERIAL:

Housing – Stainless Steel

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max.	Maximum Rated Continuous Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9117A-PG003	3:1	Single Stage	167	261	2166	1.669 x 10 ⁻⁴	2.163 x 10 ⁻⁴
S9117A-PG004	4:1		158	248	1625	1.053 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117A-PG005H	5.5:1		143	223	1182	5.870 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117A-PG007	7:1		119	158	928	3.692 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117A-PG010	10:1		56	84	650	1.833 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-PG016	16:1	Double Stage	169	264	406	1.045 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117A-PG022	22:1		171	267	295	5.830 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117A-PG028	28:1		172	269	232	3.667 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117A-PG040	40:1		174	272	162	1.821 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-PG049	49:1		127	199	132	3.479 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117A-PG055	55:1		156	243	118	1.755 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-PG070	70:1		128	201	92	1.729 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-PG100	100:1		52	77	65	1.708 x 10 ⁻⁵	1.132 x 10 ⁻⁴

NOTES: 1. Triple stage gearheads are available on special order for gear ratios of 160, 280, 400, 550 and 700 to 1.

2. Other mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 3 arc min. or Double Stage – 5 arc min., are available on special order.

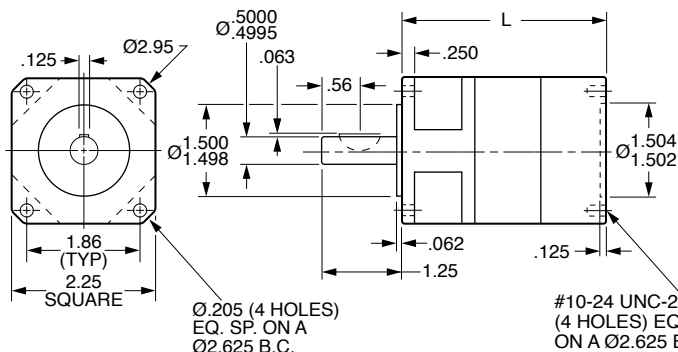
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

PG Planetary Gearheads – NEMA Size 23

PRECISION SERIES

SINGLE & DOUBLE STAGE

LOW BACKLASH DESIGN



#10-24 UNC-2B X .375 DP.
(4 HOLES) EQ. SP.
ON A Ø2.625 B.C.

SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 600 lb.

Axial – 600 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ Max. Backlash: Single Stage – 6 arc min.

Double Stage – 10 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 1.8 lb.

Double Stage – 2.8 lb.

FEATURES:

- True planetary system
- Standard NEMA sizes
- High torsional stiffness
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #404 and motor mounting hardware kit supplied

MATERIAL:

Housing – Stainless Steel

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max.	Maximum Rated Continuous Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9123A-PG003	3:1		380	594	2166	4.866×10^{-4}	1.194×10^{-3}
S9123A-PG004	4:1	2.66	360	562	1625	3.113×10^{-4}	9.502×10^{-4}
S9123A-PG005H	5.5:1	Single	317	496	1182	1.746×10^{-4}	8.969×10^{-4}
S9123A-PG007	7:1	Stage	263	411	928	1.100×10^{-4}	8.880×10^{-4}
S9123A-PG010	10:1		119	179	650	5.471×10^{-5}	8.846×10^{-4}
S9123A-PG016	16:1		376	587	406	3.287×10^{-4}	9.502×10^{-4}
S9123A-PG022	22:1		380	594	295	1.838×10^{-4}	8.969×10^{-4}
S9123A-PG028	28:1		384	600	232	1.157×10^{-4}	8.880×10^{-4}
S9123A-PG040	40:1		388	607	162	5.749×10^{-5}	8.846×10^{-4}
S9123A-PG049	49:1	Double	286	447	132	1.098×10^{-4}	8.880×10^{-4}
S9123A-PG055	55:1	Stage	347	542	118	5.543×10^{-5}	8.846×10^{-4}
S9123A-PG070	70:1		288	450	92	5.460×10^{-5}	8.846×10^{-4}
S9123A-PG100	100:1		110	164	65	5.393×10^{-5}	8.846×10^{-4}

NOTES: 1. Triple stage gearheads are available on special order for gear ratios of 160, 280, 400, 550 and 700 to 1.

2. Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage - 3 arc min. or Double Stage - 5 arc min., are available on special order.

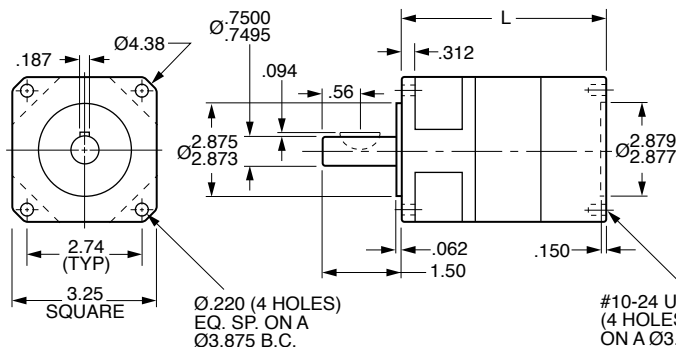
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

PG Planetary Gearheads – NEMA Size 34

PRECISION SERIES

SINGLE & DOUBLE STAGE

LOW BACKLASH DESIGN



SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 900 lb.

Axial – 900 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ Max. Backlash: Single Stage – 6 arc min.

Double Stage – 10 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 7 lb.

Double Stage – 8 lb.

FEATURES:

- True planetary system
- Standard NEMA sizes
- High torsional stiffness
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #606 and motor mounting hardware kit supplied

MATERIAL:

Housing – Stainless Steel

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max.	Maximum Rated Continuous Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9134A-PG003	3:1	4.19	1285	2008	2166	4.672 x 10 ⁻³	4.901 x 10 ⁻³
S9134A-PG004	4:1		1219	1905	1625	2.833 x 10 ⁻³	2.522 x 10 ⁻³
S9134A-PG005H	5.5:1		1113	1740	1182	1.585 x 10 ⁻³	2.040 x 10 ⁻³
S9134A-PG007	7:1		935	1461	928	9.983 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134A-PG010	10:1	5.31	552	828	650	4.961 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134A-PG016	16:1		1315	2055	406	2.824 x 10 ⁻³	2.522 x 10 ⁻³
S9134A-PG022	22:1		1333	2083	295	1.580 x 10 ⁻³	2.040 x 10 ⁻³
S9134A-PG028	28:1		1346	2103	232	9.952 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134A-PG040	40:1		1364	2132	162	4.946 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134A-PG049	49:1		1015	1587	132	9.417 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134A-PG055	55:1		1232	1925	118	4.759 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134A-PG070	70:1		1027	1605	92	4.684 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134A-PG100	100:1		507	761	65	4.623 x 10 ⁻⁴	1.923 x 10 ⁻³

NOTES: 1. Triple stage gearheads are available on special order for gear ratios of 160, 280, 400, 550 and 700 to 1.

2. Non-NEMA size mounting interfaces are available on special order.

3. To mate with D50R10-06.. motor requires nonstandard pinion (1/2 inch bore).

Add "SP" to the part number when ordering.

Δ Lower backlash units: Single Stage – 3 arc min. or Double Stage – 5 arc min., are available on special order.

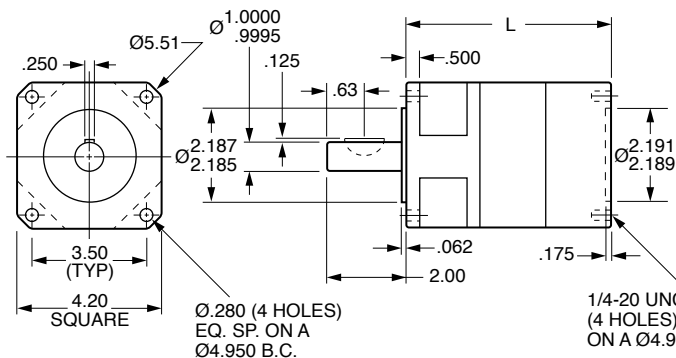
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

PG Planetary Gearheads – NEMA Size 42

■ PRECISION SERIES

■ SINGLE & DOUBLE STAGE

■ LOW BACKLASH DESIGN



1/4-20 UNC-2B x .50 DP.
(4 HOLES) EQ. SP.
ON A Ø4.950 B.C.

SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 1400 lb.

Axial – 1400 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ Max. Backlash: Single Stage – 6 arc min.

Double Stage – 10 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 11.5 lb.

Double Stage – 18 lb.

FEATURES:

- True planetary system
- High torsional stiffness
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #808 and motor mounting hardware kit supplied

MATERIAL:

Housing – Stainless Steel

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max.	Maximum Rated Continuous Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9142A-PG003	3:1	Single Stage	2301	3597	2166	1.641 x 10 ⁻²	1.680 x 10 ⁻²
S9142A-PG004	4:1		2195	3430	1625	1.049 x 10 ⁻²	1.032 x 10 ⁻²
S9142A-PG005H	5.5:1		2021	3159	1182	5.878 x 10 ⁻³	8.997 x 10 ⁻³
S9142A-PG007	7:1		1711	2673	928	3.704 x 10 ⁻³	8.766 x 10 ⁻³
S9142A-PG010	10:1	6.36 Double Stage	1122	1684	650	1.841 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-PG016	16:1		2379	3717	406	1.101 x 10 ⁻²	1.032 x 10 ⁻²
S9142A-PG022	22:1		2414	3772	295	6.156 x 10 ⁻³	8.997 x 10 ⁻³
S9142A-PG028	28:1		2438	3811	232	3.875 x 10 ⁻³	8.766 x 10 ⁻³
S9142A-PG040	40:1		2473	3865	162	1.925 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-PG049	49:1		1867	2918	132	3.706 x 10 ⁻³	8.766 x 10 ⁻³
S9142A-PG055	55:1		2250	3516	118	1.866 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-PG070	70:1		1890	2953	92	1.843 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-PG100	100:1		1031	1547	65	1.823 x 10 ⁻³	8.680 x 10 ⁻³

NOTES: 1. Triple Stage gearheads are available on special order for gear ratios of 160, 280, 400, 550 and 700 to 1.

2. Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 3 arc min. or Double Stage – 5 arc min., are available on special order.

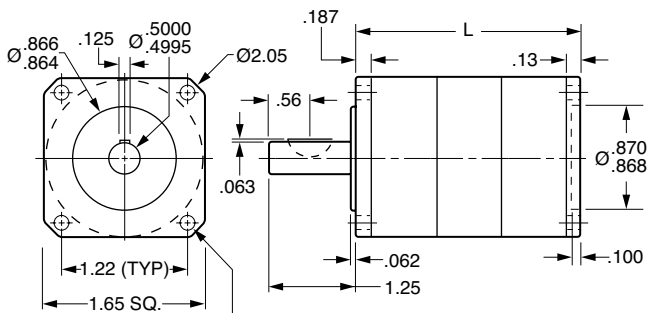
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

EG Planetary Gearheads – NEMA Size 17

■ ECONOMY SERIES

■ LOW BACKLASH

■ SINGLE & DOUBLE STAGE



Ø.125 (4 HOLES)
E.Q. SP. ON A
Ø1.725 B.C.
(BOTH FLANGES)



FEATURES:

- True planetary system
- Standard NEMA size
- Includes a precision balanced clamp-on pinion
- Woodruff key #404 and motor mounting hardware kit supplied

MATERIAL:

Housing – Steel, Gold Zinc Plated
Mounting Flanges – Aluminum, Black Anodized
Output Shaft – Stainless Steel
Gears – Steel, Case-hardened
Bearings – Ball Bearings

SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 125 lb.

Axial – 75 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ **Max. Backlash:** Single Stage – 10 arc min.

Double Stage – 14 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 1 lb.

Double Stage – 1.6 lb.

Catalog Number	Gear Ratio	L Max.	Max. Rated Continuous Torque* @ 3000 rpm lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9117A-EG003	3:1	2.66 Single Stage	125	174	1666	1.669 x 10 ⁻⁴	2.163 x 10 ⁻⁴
S9117A-EG004	4:1		119	165	1250	1.053 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117A-EG005H	5.5:1		107	149	909	5.870 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117A-EG007	7:1		89	124	714	3.692 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117A-EG010	10:1	3.32 Double Stage	56	84	500	1.833 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-EG016	16:1		127	176	312	1.045 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117A-EG022	22:1		128	178	227	5.830 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117A-EG028	28:1		129	179	178	3.667 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117A-EG040	40:1		131	181	125	1.821 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-EG049	49:1		95	132	102	3.479 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117A-EG055	55:1		117	162	91	1.755 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-EG070	70:1		96	134	71	1.729 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117A-EG100	100:1		52	77	50	1.708 x 10 ⁻⁵	1.132 x 10 ⁻⁴

NOTE: Non-NEMA size mounting interfaces are available on special order.

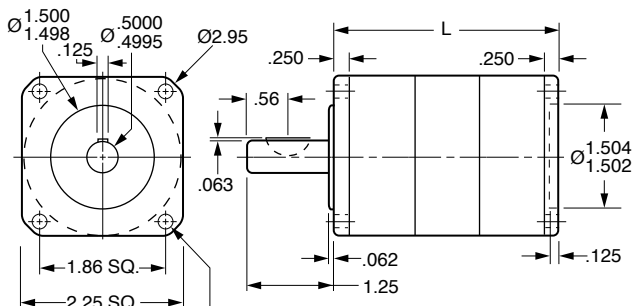
Δ Lower backlash units: Single Stage – 7 arc min., Double Stage – 9 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

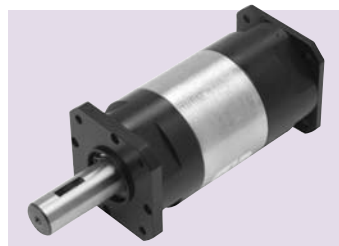
■ ECONOMY SERIES

■ **LOW BACKLASH**

■ SINGLE & DOUBLE STAGE



Ø.205 (4 HOLES)
E.Q. SP. ON A
Ø2.625 B.C.
(BOTH FLANGES)



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 600 lb.

Axial – 600 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ Max. Backlash: Single Stage – 10 arc min.

Double Stage – 14 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 2 lb.

Double Stage – 3 lb.

FEATURES:

- True planetary system
- Standard NEMA sizes
- Includes a precision balanced clamp-on pinion
- Woodruff key #404 and motor mounting hardware kit supplied

MATERIAL:

Housing – Steel, Gold Zinc Plated

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max.	Max. Rated Continuous Torque* @ 3000 rpm lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9123A-EG003	3:1	3.06 Single Stage	285	396	1666	4.866 x 10 ⁻⁴	1.194 x 10 ⁻³
S9123A-EG004	4:1		264	366	1250	3.113 x 10 ⁻⁴	9.502 x 10 ⁻⁴
S9123A-EG005H	5.5:1		238	330	909	1.746 x 10 ⁻⁴	8.969 x 10 ⁻⁴
S9123A-EG007	7:1		197	274	714	1.100 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123A-EG010	10:1		119	179	500	5.471 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123A-EG016	16:1	3.97 Double Stage	282	391	312	3.287 x 10 ⁻⁴	9.502 x 10 ⁻⁴
S9123A-EG022	22:1		285	396	227	1.838 x 10 ⁻⁴	8.969 x 10 ⁻⁴
S9123A-EG028	28:1		288	400	178	1.157 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123A-EG040	40:1		291	405	125	5.749 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123A-EG049	49:1		213	295	102	1.098 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123A-EG055	55:1		260	362	91	5.543 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123A-EG070	70:1		215	298	71	5.460 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123A-EG100	100:1		110	164	50	5.393 x 10 ⁻⁵	8.846 x 10 ⁻⁴

NOTE: Non-NEMA size mounting interfaces are available on special order.

ΔLower backlash units: Single Stage – 7 arc min., Double Stage – 9 arc min., are available on special order.

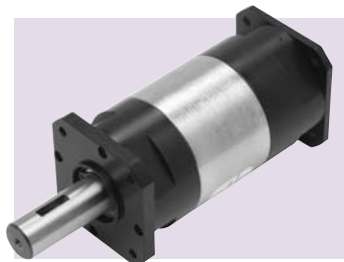
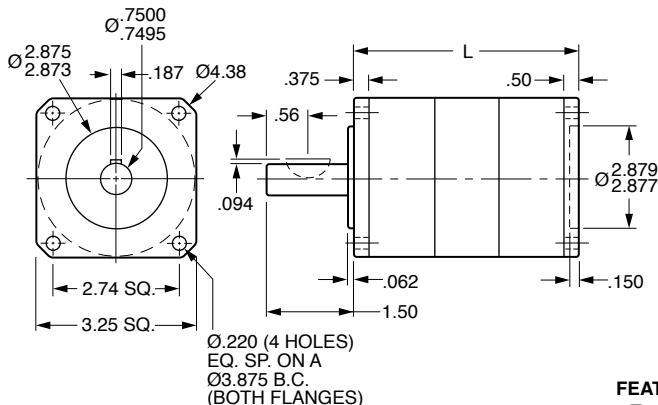
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

EG Planetary Gearheads – NEMA Size 34

■ ECONOMY SERIES

■ LOW BACKLASH DESIGN

■ SINGLE & DOUBLE STAGE



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 900 lb.

Axial – 900 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ Max. Backlash: Single Stage – 10 arc min.

Double Stage – 14 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 7 lb.

Double Stage – 8 lb.

FEATURES:

- True planetary system
- Standard NEMA sizes
- Includes a precision balanced clamp-on pinion
- Woodruff key #606 and motor mounting hardware kit supplied

MATERIAL:

Housing – Steel, Gold Zinc Plated

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Ball Bearings

Catalog Number	Gear Ratio	L Max.	Max. Rated Continuous Torque* @ 3000 rpm lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9134A-EG003	3:1	4.56 Single Stage	964	1339	1666	4.672×10^{-3}	4.901×10^{-3}
S9134A-EG004	4:1		914	1270	1250	2.833×10^{-3}	2.522×10^{-3}
S9134A-EG005H	5.5:1		835	1160	909	1.585×10^{-3}	2.040×10^{-3}
S9134A-EG007	7:1		701	934	714	9.983×10^{-4}	1.955×10^{-3}
S9134A-EG010	10:1		507	704	500	4.961×10^{-4}	1.923×10^{-3}
S9134A-EG016	16:1	5.82 Double Stage	986	1370	312	2.824×10^{-3}	2.522×10^{-3}
S9134A-EG022	22:1		1000	1389	227	1.580×10^{-3}	2.040×10^{-3}
S9134A-EG028	28:1		1009	1402	178	9.952×10^{-4}	1.955×10^{-3}
S9134A-EG040	40:1		1023	1421	125	4.946×10^{-4}	1.923×10^{-3}
S9134A-EG049	49:1		762	1058	102	9.417×10^{-4}	1.955×10^{-3}
S9134A-EG055	55:1		924	1283	91	4.759×10^{-4}	1.923×10^{-3}
S9134A-EG070	70:1		770	1070	71	4.684×10^{-4}	1.923×10^{-3}
S9134A-EG100	100:1		507	761	50	4.623×10^{-4}	1.923×10^{-3}

NOTES: 1. Non-NEMA size mounting interfaces are available on special order.

2. To mate with D50R10-06.. motor requires nonstandard pinion (1/2 inch bore).

Add "SP" to the part number when ordering.

Δ Lower backlash units: Single Stage – 7 arc min., Double Stage – 9 arc min., are available on special order.

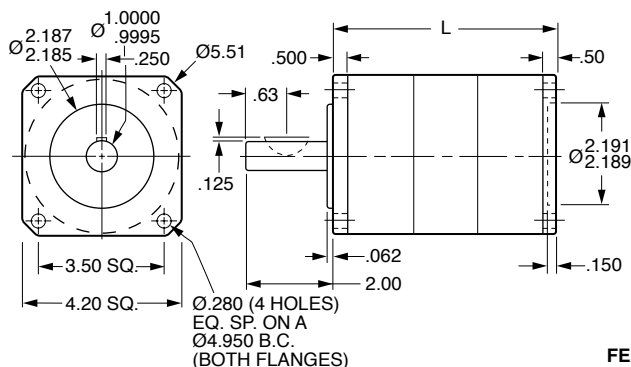
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

EG Planetary Gearheads – NEMA Size 42

■ ECONOMY SERIES

■ LOW BACKLASH DESIGN

■ SINGLE & DOUBLE STAGE



FEATURES:

- True planetary system
- Standard NEMA sizes
- Includes a precision balanced clamp-on pinion
- Woodruff key #808 and motor mounting hardware kit supplied

MATERIAL:

Housing – Steel, Gold Zinc Plated
Mounting Flanges – Aluminum, Black Anodized
Output Shaft – Stainless Steel
Gears – Steel, Case-hardened
Bearings – Ball Bearings

SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 1400 lb.

Axial – 1400 lb.

Min. Efficiency: Single Stage – 90%

Double Stage – 85%

Δ **Max. Backlash:** Single Stage – 10 arc min.

Double Stage – 14 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 12 lb.

Double Stage – 18 lb.

Catalog Number	Gear Ratio	L Max.	Max. Rated Continuous Torque* @ 3000 rpm lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm Input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9142A-EG003	3:1	5.20 Single Stage	1726	2398	1666	1.641 x 10 ⁻²	1.680 x 10 ⁻²
S9142A-EG004	4:1		1646	2287	1250	1.049 x 10 ⁻²	1.032 x 10 ⁻²
S9142A-EG005H	5.5:1		1516	2106	909	5.878 x 10 ⁻³	8.997 x 10 ⁻³
S9142A-EG007	7:1		1283	1782	714	3.704 x 10 ⁻³	8.766 x 10 ⁻³
S9142A-EG010	10:1		936	1300	500	1.841 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-EG016	16:1	6.80 Double Stage	1784	2478	312	1.101 x 10 ⁻²	1.032 x 10 ⁻²
S9142A-EG022	22:1		1810	2515	227	6.156 x 10 ⁻³	8.997 x 10 ⁻³
S9142A-EG028	28:1		1829	2540	178	3.875 x 10 ⁻³	8.766 x 10 ⁻³
S9142A-EG040	40:1		1855	2577	125	1.925 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-EG049	49:1		1400	1945	102	3.706 x 10 ⁻³	8.766 x 10 ⁻³
S9142A-EG055	55:1		1688	2344	91	1.866 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-EG070	70:1		1417	1969	71	1.843 x 10 ⁻³	8.680 x 10 ⁻³
S9142A-EG100	100:1		1024	1423	50	1.823 x 10 ⁻³	8.680 x 10 ⁻³

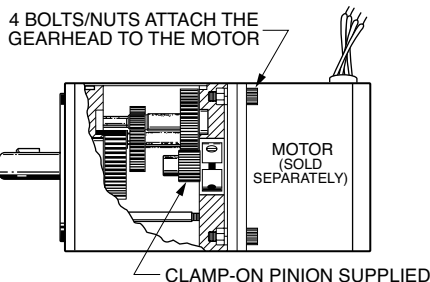
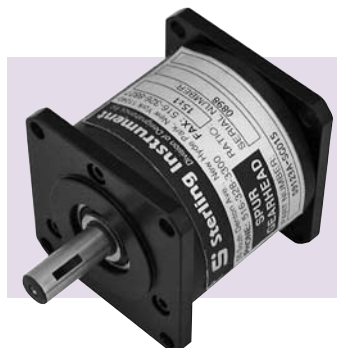
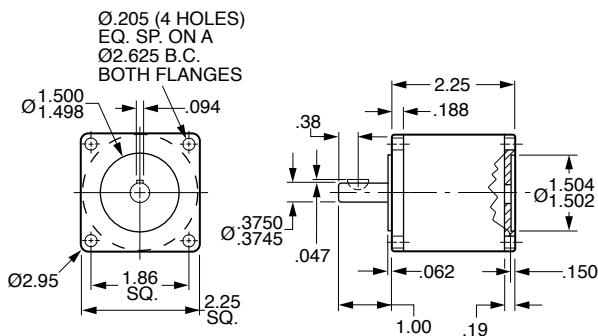
NOTE: Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 7 arc min., Double Stage – 9 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ LOW COST ALTERNATIVE TO PLANETARY GEARHEAD

■ LONG LIFE



FEATURES:

- Standard NEMA Sizes
- Includes a precision balanced clamp-on pinion
- Woodruff key #303 and motor mounting hardware kit supplied
- Sealed ball bearing on output shaft
- O-ring at each joint

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 75 lb.

Axial – 75 lb.

Min. Efficiency: 90%

Δ **Max. Backlash:** 20 arc min.

Max. Inertia Reflected to Input: 7.15×10^{-4} oz. in. sec.²

Pinion Gear Inertia: 7.59×10^{-4} oz. in. sec.²

Max. Torque Rating: Continuous – 20 lb. in.

Momentary – 30 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 1.5 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

Catalog Number	Gear Ratio	Max. Rated Output rpm (4000 rpm input)	Rotation* Direction
S9123A-SG003	3:1	1333	S
S9123A-SG005	5:1	800	S
S9123A-SG010	10:1	400	S
S9123A-SG015	15:1	267	R
S9123A-SG020	20:1	200	R
S9123A-SG030	30:1	133	R
S9123A-SG050	50:1	80	R
S9123A-SG100	100:1	40	S

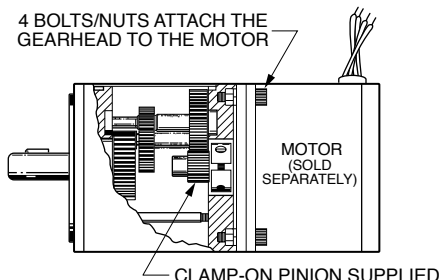
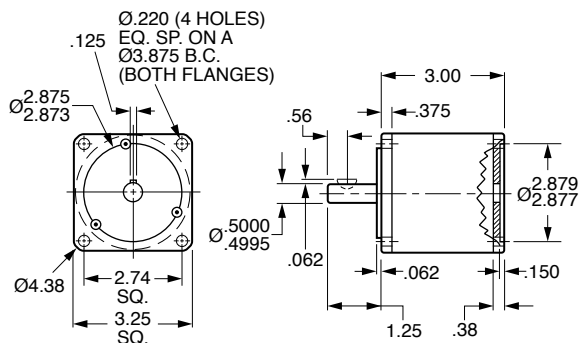
NOTE: Other gear ratios and non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units, with 10 arc min., are available on special order.

*“S” indicates output rotates in the same direction as input; “R” denotes opposite direction.

■ LOW COST ALTERNATIVE TO PLANETARY GEARHEAD

■ LONG LIFE



FEATURES:

- Standard NEMA sizes
- Includes a precision balanced clamp-on pinion
- Woodruff key #404 and motor mounting hardware kit supplied
- Sealed ball bearing on output shaft
- O-ring at each joint

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 100 lb.

Axial – 125 lb.

Min. Efficiency: 90%

Max. Backlash: 20 arc min.

Max. Inertia Reflected to Input: 5.35×10^{-4} oz. in. sec.²

Pinion Gear Inertia: 1.52×10^{-3} oz. in. sec.²

Max. Torque Rating: Continuous – 60 lb. in.

Momentary – 90 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 3.5 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Mounting Flanges – Aluminum Black Anodized

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

Catalog Number	Gear Ratio	Max. Rated Output rpm (4000 rpm input)	Rotation* Direction
S9134A-SG003	3:1	1333	S
S9134A-SG005	5:1	800	S
S9134A-SG010	10:1	400	S
S9134A-SG015	15:1	267	S
S9134A-SG020	20:1	200	R
S9134A-SG030	30:1	133	R
S9134A-SG050	50:1	80	S
S9134A-SG100	100:1	40	S

NOTES: 1. Other gear ratios and non-NEMA size mounting interfaces are available on special order.

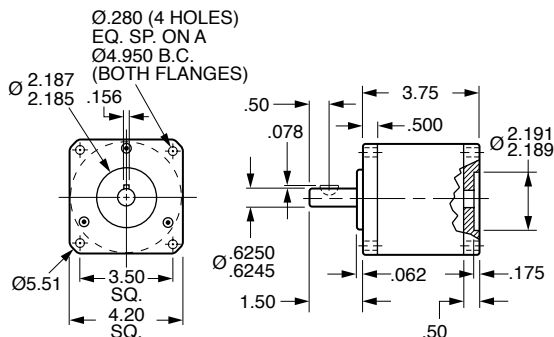
2. To mate with D50R10-06.. motor requires nonstandard pinion (1/2 inch bore) and mounting adapter. Add "SP" to the part number when ordering.

Δ Lower backlash units, with 10 arc min., are available on special order.

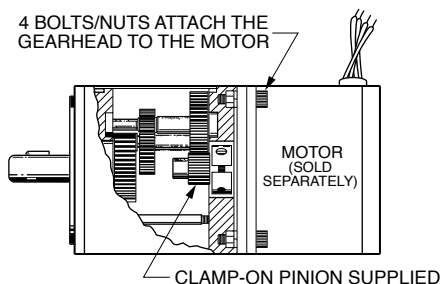
*"S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

■ LOW COST ALTERNATIVE TO PLANETARY GEARHEAD

■ LONG LIFE



4 BOLTS/NUTS ATTACH THE GEARHEAD TO THE MOTOR



FEATURES:

- Standard NEMA sizes
- Includes a precision balanced clamp-on pinion
- Woodruff key #505 and motor mounting hardware kit supplied
- Sealed ball bearing on output shaft
- O-ring at each joint

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 150 lb.

Axial – 150 lb.

Min. Efficiency: 90%

Δ **Max. Backlash:** 20 arc min.

Max. Inertia Reflected to Input: 4.33×10^{-3} oz. in. sec.²

Pinion Gear Inertia: 7.59×10^{-3} oz. in. sec.²

Max. Torque Rating: Continuous – 200 lb. in.

Momentary – 300 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 6.5 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

Catalog Number	Gear Ratio	Max. Rated Output rpm (4000 rpm input)	Rotation* Direction
S9142A-SG003	3:1	1333	S
S9142A-SG005	5:1	800	S
S9142A-SG010	10:1	400	S
S9142A-SG015	15:1	267	R
S9142A-SG020	20:1	200	R
S9142A-SG030	30:1	133	S
S9142A-SG050	50:1	80	R
S9142A-SG100	100:1	40	S

NOTE: Other gear ratios and non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units, with 10 arc min., are available on special order.

*"S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

STERLING INSTRUMENT offers a wide choice of Standard Gearheads and Speed Reducers in three standard Bu-Ord Sizes. However, in many applications a special unit is required. Below is a listing of some of the Special Applications Gearheads and Speed Reducers that **Sterling Instrument** can produce and for which designs exist:

- **Zero-Backlash Gearheads and Speed Reducers** for applications which require absolutely no lost motion throughout the Gear Train. Consult **Sterling Instrument** Engineering for the Gearhead & Speed Reducer sizes, ratios, and output loads where Zero Backlash is applicable.

- **Splined Shaft Gearheads and Speed Reducers** for applications which require direct meshing with other component parts of the Gear Train. Consult **Sterling Instrument** Engineering for the applicable Diametral Pitches and numbers of teeth.

- **Low-Backlash Gearheads and Speed Reducers** for applications which do not require Zero Backlash, but do require lower Backlash than standard units. Consult **Sterling Instrument** Engineering for the applicable Backlash Specifications and output loads.

- **Tandem Gearheads and Speed Reducers** for applications which require reduction ratios higher than shown in the tables of this catalog.

- **Exact Ratio Gearheads and Speed Reducers** for applications which require reduction ratios which are even integers.

- **Integral Slip Clutch Gearheads and Speed Reducers** for applications which require a built-in Torque Limiting Device.

- **Heavy-Duty Gearheads and Speed Reducers** for applications which require two to three times the available output Torque of standard Gearheads and Speed Reducers.

Sterling Instrument also builds Speed Increaseers in Bu-Ord configurations.



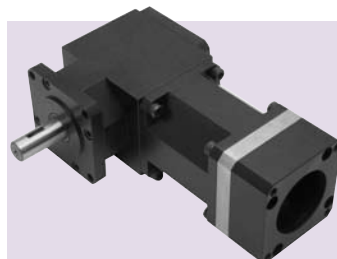
Heavy-Duty Gearheads
Bu-Ord Size 8
S9108A-...



Speed Reducers
Bu-Ord Size 15
S9115A-T6-...

■ PRECISION SERIES**■ SINGLE, DOUBLE & TRIPLE STAGE****■ LOW BACKLASH DESIGN****FEATURES:**

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #303 and motor mounting hardware kit supplied

**SPECIFICATIONS:****Max. Input Speed:** 6500 rpm**Shaft Loading:** Radial – 125 lb.

Axial – 75 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

ΔMax. Backlash: Single Stage – 11 arc min.

Double Stage – 15 arc min.

Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F**Weight:** Single Stage – 2.8 lb.

Double Stage – 3.4 lb.

Triple Stage – 4 lb.

MATERIAL:**Housing** – Stainless Steel**Right Angle Housing and****Mounting Flanges** – Aluminum, Black Anodized**Output Shaft** – Stainless Steel**Gears** – Steel, Case-hardened**Bearings** – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9117D-SRPG003	3:1	4.97 Single Stage	3.30 Single Stage	167	261	2167	4.153 x 10 ⁻⁴	2.163 x 10 ⁻⁴
S9117D-SRPG004	4:1			158	248	1625	2.478 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117D-SRPG005H	5.5:1			143	223	1182	1.341 x 10 ⁻⁴	1.174 x 10 ⁻⁴
S9117D-SRPG007	7:1			119	158	928	8.344 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117D-SRPG010	10:1	5.51 Double Stage	3.84 Double Stage	56	84	650	4.113 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SRPG016	16:1			169	264	406	1.088 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117D-SRPG022	22:1			171	267	295	6.056 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117D-SRPG028	28:1			172	269	232	3.806 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117D-SRPG040	40:1			174	272	162	1.889 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SRPG049	49:1			127	199	133	3.525 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117D-SRPG055	55:1			156	243	118	1.791 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SRPG070	70:1			128	201	93	1.751 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SRPG100	100:1			52	77	65	1.719 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117D-SRPG160	160:1	6.11 Triple Stage	4.46 Triple Stage	181	283	41	1.821 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117D-SRPG280	280:1			183	286	23	1.735 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117D-SRPG400	400:1			185	286	16	1.769 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117D-SRPG700	700:1			136	212	9	1.766 x 10 ⁻⁵	1.132 x 10 ⁻⁴

NOTE: Other mounting interfaces are available on special order.

ΔLower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.



Right Angle PG Planetary Gearheads – Size 23

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

- PRECISION SERIES ■ SINGLE, DOUBLE & TRIPLE STAGE
■ LOW BACKLASH DESIGN

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 600 lb.

Axial – 600 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

Δ Max. Backlash: Single Stage – 11 arc min.

Double Stage – 15 arc min.

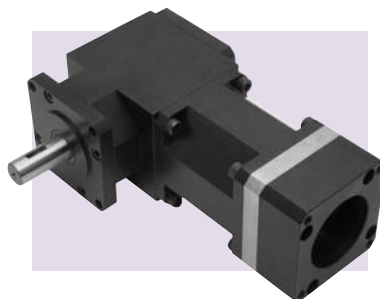
Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 4 lb.

Double Stage – 5 lb.

Triple Stage – 6 lb.



MATERIAL:

Housing – Stainless Steel

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9123D-SRPG003	3:1	6.49 Single Stage	4.23 Single Stage	380	594	2167	1.539 x 10 ⁻³	1.194 x 10 ⁻³
S9123D-SRPG004	4:1			360	562	1625	9.035 x 10 ⁻⁴	9.502 x 10 ⁻⁴
S9123D-SRPG005H	5.5:1			317	496	1182	4.878 x 10 ⁻⁴	8.969 x 10 ⁻⁴
S9123D-SRPG007	7:1			263	411	928	3.034 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123D-SRPG010	10:1			119	179	650	1.495 x 10 ⁻⁴	8.846 x 10 ⁻⁴
S9123D-SRPG016	16:1	7.32 Double Stage	5.05 Double Stage	376	587	406	3.461 x 10 ⁻⁴	9.502 x 10 ⁻⁴
S9123D-SRPG022	22:1			380	594	295	1.930 x 10 ⁻⁴	8.969 x 10 ⁻⁴
S9123D-SRPG028	28:1			384	600	232	1.214 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123D-SRPG040	40:1			388	607	162	6.027 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123D-SRPG049	49:1			286	447	133	1.117 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123D-SRPG055	55:1	8.10 Triple Stage	5.85 Triple Stage	347	542	118	5.690 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123D-SRPG070	70:1			288	450	93	5.551 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123D-SRPG100	100:1			110	164	65	5.438 x 10 ⁻⁵	8.846 x 10 ⁻⁴
*S9123D-SRPG160	160:1			404	631	41	5.760 x 10 ⁻⁵	8.846 x 10 ⁻⁴
*S9123D-SRPG280	280:1	8.10 Triple Stage	5.85 Triple Stage	409	640	23	5.461 x 10 ⁻⁵	8.846 x 10 ⁻⁴
*S9123D-SRPG400	400:1			406	608	16	5.591 x 10 ⁻⁵	8.846 x 10 ⁻⁴
*S9123D-SRPG700	700:1			303	473	9	5.581 x 10 ⁻⁵	8.846 x 10 ⁻⁴

NOTE: Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

* Triple stage units are available as special order only.

** Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

Right Angle PG Planetary Gearheads – Size 23

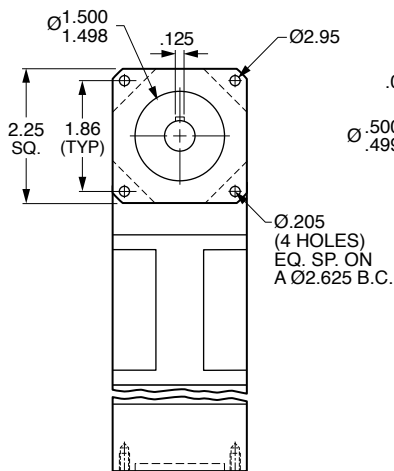
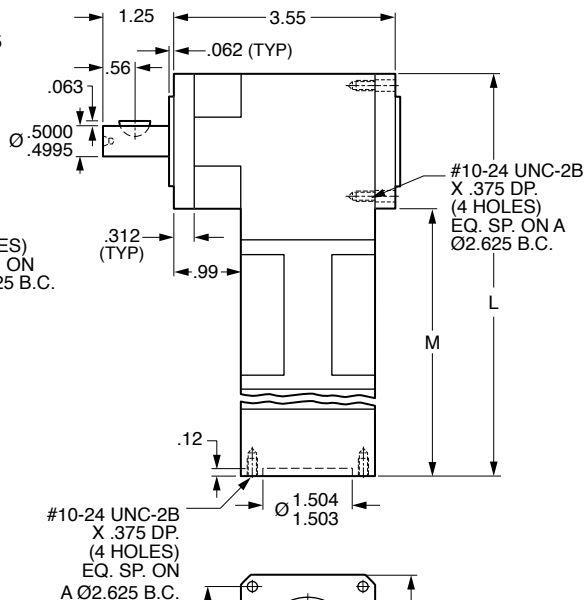
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

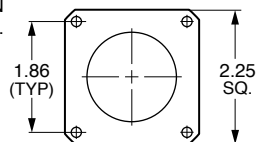
Fax: 516-326-8827

■ RIGHT ANGLE

■ SINGLE, DOUBLE & TRIPLE STAGE

**GEARHEAD OUTPUT VIEW**

#10-24 UNC-2B
X .375 DP.
(4 HOLES)
EQ. SP. ON
A Ø2.625 B.C.

**PARTIAL MOTOR INPUT VIEW**

■ PRECISION SERIES ■ SINGLE, DOUBLE & TRIPLE STAGE
■ LOW BACKLASH DESIGN

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #606 and motor mounting hardware kit supplied

SPECIFICATIONS:**Max. Input Speed:** 6500 rpm**Shaft Loading:** Radial – 900 lb.

Axial – 900 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

ΔMax. Backlash: Single Stage – 11 arc min.

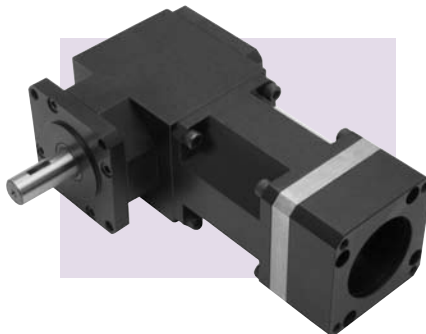
Double Stage – 15 arc min.

Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F**Weight:** Single Stage – 12.5 lb.

Double Stage – 13.5 lb.

Triple Stage – 14.5 lb.

**MATERIAL:****Housing** – Stainless Steel**Right Angle Housing and****Mounting Flanges** – Aluminum, Black Anodized**Output Shaft** – Stainless Steel**Gears** – Steel, Case-hardened**Bearings** – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9134D-SRPG003	3:1	9.16 Single Stage	5.91 Single Stage	1285	2008	2167	1.176×10^{-2}	4.901×10^{-3}
S9134D-SRPG004	4:1			1219	1905	1675	6.818×10^{-3}	2.522×10^{-3}
S9134D-SRPG005H	5.5:1			1113	1740	1182	3.693×10^{-3}	2.040×10^{-3}
S9134D-SRPG007	7:1			935	1461	928	2.300×10^{-3}	1.955×10^{-3}
S9134D-SRPG010	10:1	10.29 Double Stage	7.04 Double Stage	552	828	650	1.134×10^{-3}	1.923×10^{-3}
S9134D-SRPG016	16:1			1315	2055	406	2.944×10^{-3}	2.522×10^{-3}
S9134D-SRPG022	22:1			1333	2083	295	1.644×10^{-3}	2.040×10^{-3}
S9134D-SRPG028	28:1			1346	2103	232	1.035×10^{-3}	1.955×10^{-3}
S9134D-SRPG040	40:1			1364	2132	162	5.139×10^{-4}	1.923×10^{-3}
S9134D-SRPG049	49:1			1015	1587	133	9.545×10^{-4}	1.955×10^{-3}
S9134D-SRPG055	55:1			1232	1925	118	4.861×10^{-4}	1.923×10^{-3}
S9134D-SRPG070	70:1			1027	1605	93	4.747×10^{-4}	1.923×10^{-3}
S9134D-SRPG100	100:1	11.51 Triple Stage	8.26 Triple Stage	507	761	65	4.654×10^{-4}	1.923×10^{-3}
*S9134D-SRPG160	160:1			1424	2226	41	4.930×10^{-4}	1.923×10^{-3}
*S9134D-SRPG280	280:1			1445	2258	23	4.676×10^{-4}	1.923×10^{-3}
*S9134D-SRPG400	400:1			1458	2278	16	4.781×10^{-4}	1.923×10^{-3}
*S9134D-SRPG700	700:1			1090	1703	9	4.772×10^{-4}	1.923×10^{-3}

NOTES: 1. Non-NEMA size mounting interfaces are available on special order.
 2. To mate with **D50R10-06.** motor requires nonstandard pinion (1/2 inch bore).
 Add "SP" to the part number when ordering.

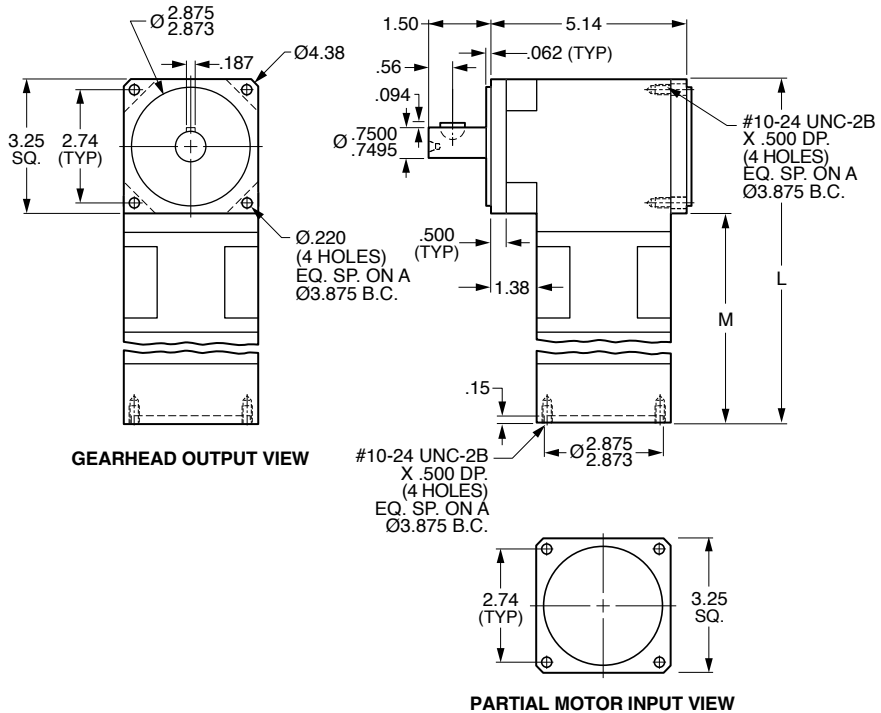
ΔLower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ RIGHT ANGLE

■ SINGLE, DOUBLE & TRIPLE STAGE



■ **PRECISION SERIES**■ **SINGLE, DOUBLE & TRIPLE STAGE**■ **LOW BACKLASH DESIGN****FEATURES:**

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #808 and motor mounting hardware kit supplied

SPECIFICATIONS:**Max. Input Speed:** 6500 rpm**Shaft Loading:** Radial – 1400 lb.

Axial – 1400 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

ΔMax. Backlash: Single Stage – 11 arc min.

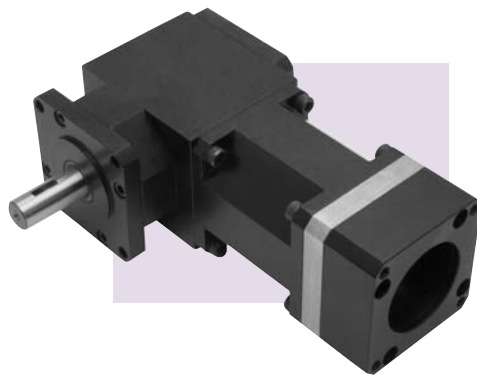
Double Stage – 15 arc min.

Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F**Weight:** Single Stage – 28.5 lb.

Double Stage – 35 lb.

Triple Stage – 36 lb.

**MATERIAL:****Housing** – Stainless Steel**Right Angle Housing and****Mounting Flanges** – Aluminum, Black Anodized**Output Shaft** – Stainless Steel**Gears** – Steel, Case-hardened**Bearings** – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9142D-SRPG003	3:1	11.39 Single Stage	7.18 Single Stage	2301	3597	2167	2.667×10^{-2}	1.680×10^{-2}
S9142D-SRPG004	4:1			2195	3430	1675	1.626×10^{-2}	1.032×10^{-2}
S9142D-SRPG005H	5.5:1			2021	3159	1182	8.931×10^{-3}	8.997×10^{-3}
S9142D-SRPG007	7:1			1711	2673	928	5.588×10^{-3}	8.766×10^{-3}
S9142D-SRPG010	10:1	13.02 Double Stage	8.81 Double Stage	1122	1684	650	2.765×10^{-3}	8.680×10^{-3}
S9142D-SRPG016	16:1			2379	3717	406	1.118×10^{-2}	1.032×10^{-2}
S9142D-SRPG022	22:1			2414	3772	295	6.242×10^{-3}	8.997×10^{-3}
S9142D-SRPG028	28:1			2438	3811	232	3.928×10^{-3}	8.766×10^{-3}
S9142D-SRPG040	40:1			2473	3865	162	1.951×10^{-3}	8.680×10^{-3}
S9142D-SRPG049	49:1			1867	2918	133	3.724×10^{-3}	8.766×10^{-3}
S9142D-SRPG055	55:1			2250	3516	118	1.880×10^{-3}	8.680×10^{-3}
S9142D-SRPG070	70:1			1890	2953	93	1.851×10^{-3}	8.680×10^{-3}
S9142D-SRPG100	100:1	14.57 Triple Stage	10.37 Triple Stage	1031	1547	65	1.827×10^{-3}	8.680×10^{-3}
*S9142D-SRPG160	160:1			2587	4044	41	1.934×10^{-3}	8.680×10^{-3}
*S9142D-SRPG280	280:1			2627	4105	23	1.845×10^{-3}	8.680×10^{-3}
*S9142D-SRPG400	400:1			2651	4142	16	1.884×10^{-3}	8.680×10^{-3}
*S9142D-SRPG700	700:1			2009	3140	9	1.881×10^{-3}	8.680×10^{-3}

NOTE: Non-NEMA size mounting interfaces are available on special order.

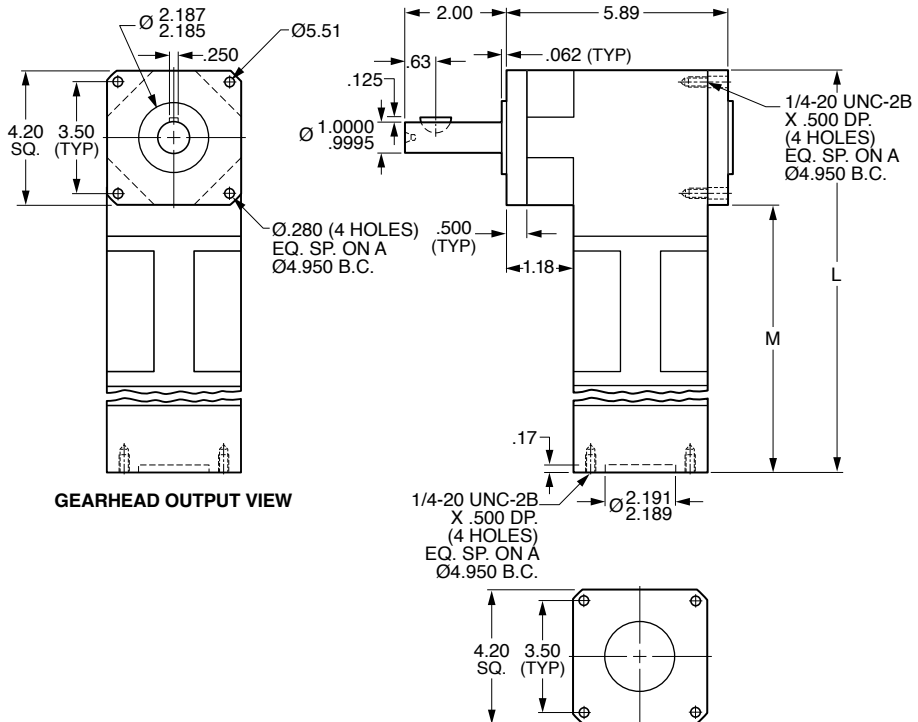
ΔLower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ **RIGHT ANGLE**

■ SINGLE, DOUBLE & TRIPLE STAGE



GEARHEAD OUTPUT VIEW

PARTIAL MOTOR INPUT VIEW

Right Angle EG Planetary Gearheads – Size 17

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

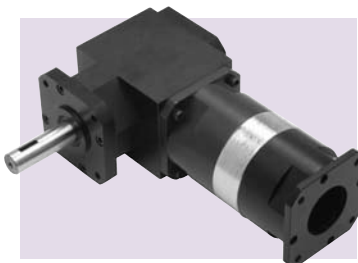
Fax: 516-326-8827

■ ECONOMY SERIES

■ SINGLE & DOUBLE STAGE

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 400 lb.

Axial – 400 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

ΔMax. Backlash: Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 2.8 lb.

Double Stage – 3.4 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

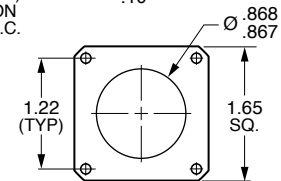
Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9117D-SREG003	3:1	4.97 Single Stage	3.30 Single Stage	125	174	1666	1.669 x 10 ⁻⁴	2.163 x 10 ⁻⁴
S9117D-SREG004	4:1			119	165	1250	1.053 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117D-SREG005H	5.5:1			107	149	909	5.870 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117D-SREG007	7:1			89	124	714	3.692 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117D-SREG010	10:1	5.62 Double Stage	3.97 Double Stage	56	84	500	1.833 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SREG016	16:1			127	176	312	1.045 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117D-SREG022	22:1			128	178	227	5.830 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117D-SREG028	28:1			129	179	178	3.667 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117D-SREG040	40:1			131	181	125	1.821 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SREG049	49:1			95	132	102	3.479 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117D-SREG055	55:1			117	162	91	1.755 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SREG070	70:1			96	134	71	1.729 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117D-SREG100	100:1			52	77	50	1.708 x 10 ⁻⁵	1.132 x 10 ⁻⁴

NOTE: Non-NEMA size mounting interfaces are available on special order.

ΔLower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ SINGLE & DOUBLE STAGE



PARTIAL MOTOR INPUT VIEW

Right Angle EG Planetary Gearheads – Size 23

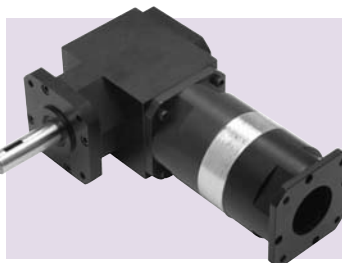
Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ ECONOMY SERIES

■ SINGLE & DOUBLE STAGE

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 600 lb.

Axial – 600 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Δ **Max. Backlash:** Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 4.2 lb.

Double Stage – 5.2 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

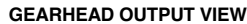
Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9123D-SREG003	3:1	6.78 Single Stage	4.51 Single Stage	285	396	1666	4.866×10^{-4}	1.194×10^{-3}
S9123D-SREG004	4:1			264	366	1250	3.113×10^{-4}	9.502×10^{-4}
S9123D-SREG005H	5.5:1			238	330	909	1.746×10^{-4}	8.969×10^{-4}
S9123D-SREG007	7:1			197	274	714	1.100×10^{-4}	8.880×10^{-4}
S9123D-SREG010	10:1	7.68 Double Stage	5.41 Double Stage	119	179	500	5.471×10^{-5}	8.846×10^{-4}
S9123D-SREG016	16:1			282	391	312	3.287×10^{-4}	9.502×10^{-4}
S9123D-SREG022	22:1			285	396	227	1.838×10^{-4}	8.969×10^{-4}
S9123D-SREG028	28:1			288	400	178	1.157×10^{-4}	8.880×10^{-4}
S9123D-SREG040	40:1			291	405	125	5.749×10^{-5}	8.846×10^{-4}
S9123D-SREG049	49:1			213	295	102	1.098×10^{-4}	8.880×10^{-4}
S9123D-SREG055	55:1			260	362	91	5.543×10^{-5}	8.846×10^{-4}
S9123D-SREG070	70:1			215	298	71	5.460×10^{-5}	8.846×10^{-4}
S9123D-SREG100	100:1			110	164	50	5.393×10^{-5}	8.846×10^{-4}

NOTE: Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ SINGLE & DOUBLE STAGE



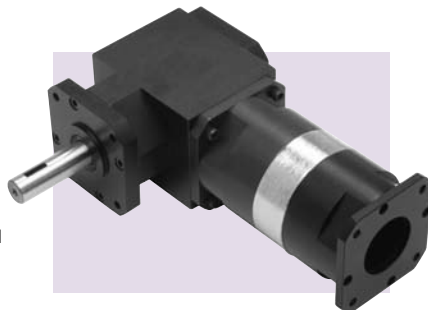
PARTIAL MOTOR INPUT VIEW

■ ECONOMY SERIES

■ SINGLE & DOUBLE STAGE

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #606 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 900 lb.

Axial – 900 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

 Δ Max. Backlash: Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 12.4 lb.

Double Stage – 13.4 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9134D-SREG003	3:1	9.53 Single Stage	6.27 Single Stage	964	1339	1666	4.672×10^{-3}	4.901×10^{-3}
S9134D-SREG004	4:1			914	1270	1250	2.833×10^{-3}	2.522×10^{-3}
S9134D-SREG005H	5.5:1			835	1160	909	1.585×10^{-3}	2.040×10^{-3}
S9134D-SREG007	7:1			701	934	714	9.983×10^{-4}	1.955×10^{-3}
S9134D-SREG010	10:1	10.80 Double Stage	7.54 Double Stage	507	704	500	4.961×10^{-4}	1.923×10^{-3}
S9134D-SREG016	16:1			986	1370	312	2.824×10^{-3}	2.522×10^{-3}
S9134D-SREG022	22:1			1000	1389	227	1.580×10^{-3}	2.040×10^{-3}
S9134D-SREG028	28:1			1009	1402	178	9.952×10^{-4}	1.955×10^{-3}
S9134D-SREG040	40:1			1023	1421	125	4.946×10^{-4}	1.923×10^{-3}
S9134D-SREG049	49:1			762	1058	102	9.417×10^{-4}	1.955×10^{-3}
S9134D-SREG055	55:1			924	1283	91	4.759×10^{-4}	1.923×10^{-3}
S9134D-SREG070	70:1			770	1070	71	4.684×10^{-4}	1.923×10^{-3}
S9134D-SREG100	100:1			507	761	50	4.623×10^{-4}	1.923×10^{-3}

NOTES: 1. Non-NEMA size mounting interfaces are available on special order.

2. To mate with D50R10-06.. motor requires nonstandard pinion (1/2 inch bore).

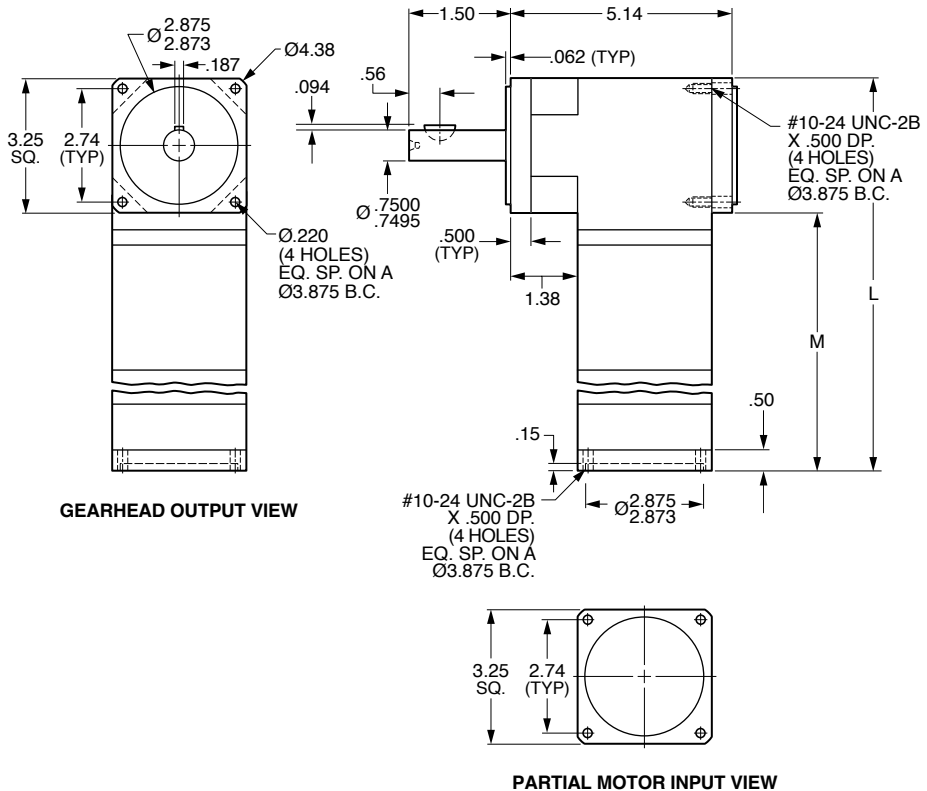
Add "SP" to the part number when ordering.

 Δ Lower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ RIGHT ANGLE

■ SINGLE & DOUBLE STAGE



Right Angle EG Planetary Gearheads – Size 42

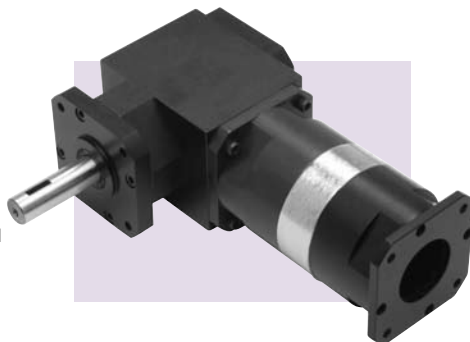
Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ ECONOMY SERIES

■ SINGLE & DOUBLE STAGE

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff key #808 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 1400 lb.
Axial – 1400 lb.

Min. Efficiency: Single Stage – 85%
Double Stage – 80%

ΔMax. Backlash: Single Stage – 14 arc min.
Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 29 lb.
Double Stage – 35 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9142D-SREG003	3:1	11.85 Single Stage	7.64 Single Stage	1726	2398	1666	1.641×10^{-2}	1.680×10^{-2}
S9142D-SREG004	4:1			1646	2287	1250	1.049×10^{-2}	1.032×10^{-2}
S9142D-SREG005H	5.5:1			1516	2106	909	5.878×10^{-3}	8.997×10^{-3}
S9142D-SREG007	7:1			1283	1782	714	3.704×10^{-3}	8.766×10^{-3}
S9142D-SREG010	10:1	13.45 Double Stage	9.24 Double Stage	936	1300	500	1.841×10^{-3}	8.680×10^{-3}
S9142D-SREG016	16:1			1784	2478	312	1.101×10^{-2}	1.032×10^{-2}
S9142D-SREG022	22:1			1810	2515	227	6.156×10^{-3}	8.997×10^{-3}
S9142D-SREG028	28:1			1829	2540	178	3.875×10^{-3}	8.766×10^{-3}
S9142D-SREG040	40:1			1855	2577	125	1.925×10^{-3}	8.680×10^{-3}
S9142D-SREG049	49:1			1400	1945	102	3.706×10^{-3}	8.766×10^{-3}
S9142D-SREG055	55:1			1688	2344	91	1.866×10^{-3}	8.680×10^{-3}
S9142D-SREG070	70:1			1417	1969	71	1.843×10^{-3}	8.680×10^{-3}
S9142D-SREG100	100:1			1024	1423	50	1.823×10^{-3}	8.680×10^{-3}

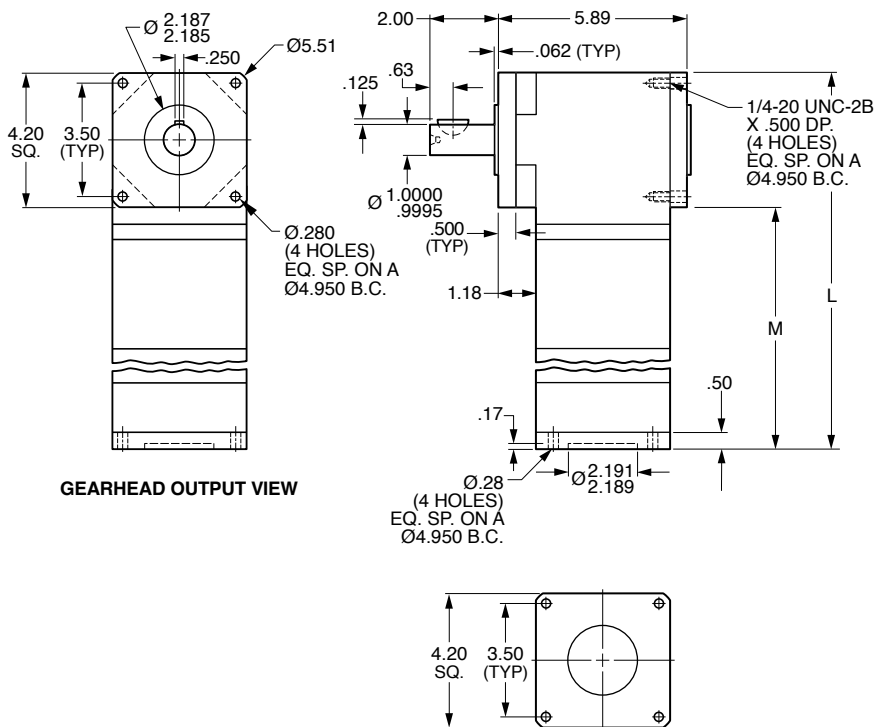
NOTE: Non-NEMA size mounting interfaces are available on special order.

ΔLower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ RIGHT ANGLE

■ SINGLE & DOUBLE STAGE



Right Angle Spur Gearheads – NEMA Size 23

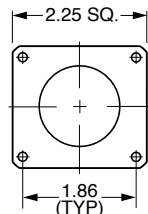
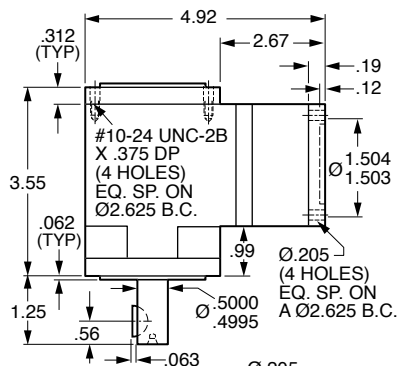
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ LOW-COST ALTERNATIVE TO PLANETARY SYSTEM

■ LONG-LIFE DESIGN

PARTIAL MOTOR
INPUT VIEWGEARHEAD
OUTPUT VIEW

FEATURES:

- Standard NEMA size
- Sealed to extend service life
- Case-hardened spiral bevel gears
- Includes a precision balanced clamp-on pinion
- Woodruff key #404 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 300 lb.

Axial – 300 lb.

Min. Efficiency: 90%

Δ Max. Backlash: 25 arc min.

Max. Inertia Reflected to Input: 2.58×10^{-6} oz. in. sec.²Pinion Gear Inertia: 7.59×10^{-4} oz. in. sec.²

Max. Torque Rating: Continuous – 20 lb. in.

Momentary – 30 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 4 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

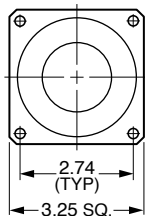
Catalog Number	Gear Ratio	Maximum Rated Output rpm (4000 rpm input)	Rotation* Direction
S9123D-SRSG003	3:1	1333	S
S9123D-SRSG005	5:1	800	S
S9123D-SRSG010	10:1	400	S
S9123D-SRSG015	15:1	267	R
S9123D-SRSG020	20:1	200	R
S9123D-SRSG030	30:1	133	R
S9123D-SRSG050	50:1	80	R
S9123D-SRSG100	100:1	40	S

NOTE: Other gear ratios and non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units, with 15 arc min., are available on special order.

* "S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

■ LONG-LIFE DESIGN



- Sealed to extend service life
- Case-hardened spiral bevel gears
- Includes a precision balanced clamp-on pinion
- Woodruff key #606 and motor mounting hardware kit supplied

Weight: 9 lb.

Bearings – Ball Bearings

*"S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

Right Angle Spur Gearheads – NEMA Size 42

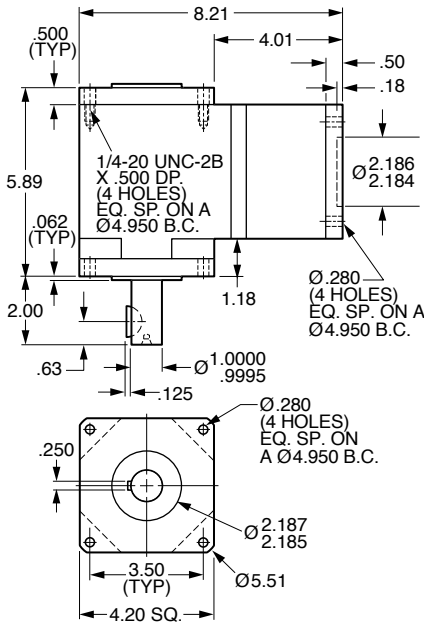
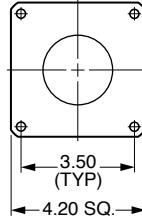
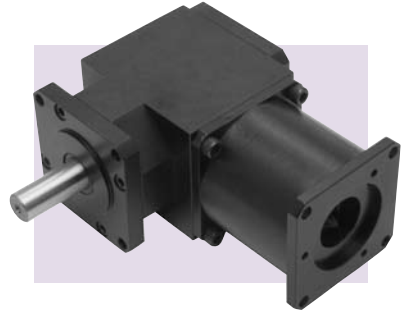
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ LOW-COST ALTERNATIVE TO PLANETARY SYSTEM

■ LONG-LIFE DESIGN

GEARHEAD
OUTPUT VIEWPARTIAL MOTOR
INPUT VIEW

FEATURES:

- Standard NEMA size
- Sealed to extend service life
- Case-hardened spiral bevel gears
- Includes a precision balanced clamp-on pinion
- Woodruff key #808 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 700 lb.

Axial – 700 lb.

Min. Efficiency: 90%

Δ Max. Backlash: 25 arc min.

Max. Inertia Reflected to Input: 6.69×10^{-4} oz. in. sec.²Pinion Gear Inertia: 7.59×10^{-3} oz. in. sec.²

Max. Torque Rating: Continuous – 200 lb. in.

Momentary – 300 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 24 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

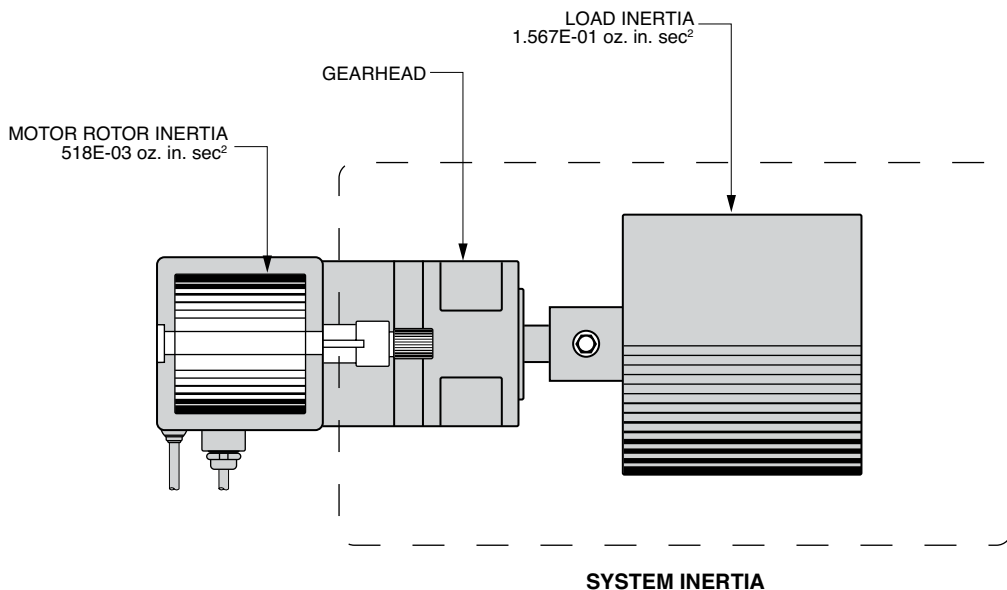
Catalog Number	Gear Ratio	Maximum Rated Output rpm (4000 rpm input)	Rotation* Direction
S9142D-SRSG003	3:1	1333	S
S9142D-SRSG005	5:1	800	S
S9142D-SRSG010	10:1	400	S
S9142D-SRSG015	15:1	267	R
S9142D-SRSG020	20:1	200	R
S9142D-SRSG030	30:1	133	S
S9142D-SRSG050	50:1	80	R
S9142D-SRSG100	100:1	40	S

NOTE: Other gear ratios and non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units, with 15 arc min., are available on special order.

* "S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

Inertia Matching Example



Formula:

$$\text{System Inertia} = \text{Gearhead Inertia} + \text{Pinion Inertia} + \frac{\text{Load Inertia}}{(\text{Gear Ratio})^2}$$

Given:

Size 23 5.5:1 Gearhead Inertia = 1.746E-04 oz. in. sec²

Size 23 5.5:1 Pinion Inertia = 9.062E-04 oz. in. sec²

Load Inertia = 1.567E-01 oz. in. sec²

Motor Inertia = 5.18E-03 oz. in. sec²

Solution:

$$\text{System Inertia} = 1.746E-04 \text{ oz. in. sec}^2 + 9.062E-04 \text{ oz. in. sec}^2 + \frac{1.567E-01 \text{ oz. in. sec}^2}{(5.5)^2}$$

$$\text{System Inertia} = 6.26E-03 \text{ oz. in. sec}^2$$

$$\text{Ratio of the System Inertia to (:) The Motor Rotor Inertia} = (6.26E-03 \text{ oz. in. sec}^2) : (5.18E-03 \text{ oz. in. sec}^2)$$

-OR-

1.2 to 1 (Inertia Match)

Ideal Inertia Match of
1:1 Yields a Very Fast
System Response

Other Application Parameters to Consider:

- Torque Requirements
- Speed Requirements
- Response Requirements
- Stiffness Requirements
- Resolution Requirements

SDP/SI

Inch Inch Inch Inch Inch Inch Inch

Dual-Output PG Planetary Gearheads – NEMA Size 17

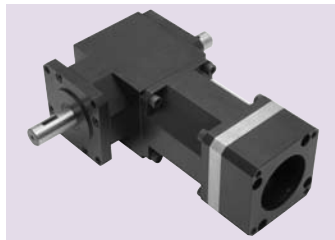
Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ **PRECISION SERIES**
■ **RIGHT ANGLE**

■ **SINGLE, DOUBLE & TRIPLE STAGE**
■ **LOW BACKLASH DESIGN**

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #303 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 125 lb.

Axial – 75 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

Δ **Max. Backlash:** Single Stage – 11 arc min.

Double Stage – 15 arc min.

Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 2.8 lb.

Double Stage – 3.4 lb.

Triple Stage – 4.0 lb.

MATERIAL:

Housing – Stainless Steel

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Maximum Momentary Torque lb. in.	Max. Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9117E-SDPG003	3:1	4.97 Single Stage	3.30 Single Stage	167	261	2166	4.153 x 10 ⁻⁴	2.163 x 10 ⁻⁴
S9117E-SDPG004	4:1			158	248	1625	2.478 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117E-SDPG005H	5.5:1			143	223	1182	1.341 x 10 ⁻⁴	1.174 x 10 ⁻⁴
S9117E-SDPG007	7:1			119	158	928	8.344 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117E-SDPG010	10:1	5.51 Double Stage	3.84 Double Stage	56	84	650	4.113 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117E-SDPG016	16:1			169	264	406	1.088 x 10 ⁻⁴	1.352 x 10 ⁻⁴
S9117E-SDPG022	22:1			171	267	295	6.056 x 10 ⁻⁵	1.174 x 10 ⁻⁴
S9117E-SDPG028	28:1			172	269	232	3.806 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117E-SDPG040	40:1			174	272	162	1.889 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117E-SDPG049	49:1			127	199	132	3.525 x 10 ⁻⁵	1.143 x 10 ⁻⁴
S9117E-SDPG055	55:1	6.11 Triple Stage	4.46 Triple Stage	156	243	118	1.791 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117E-SDPG070	70:1			128	201	92	1.751 x 10 ⁻⁵	1.132 x 10 ⁻⁴
S9117E-SDPG100	100:1			52	77	65	1.719 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117E-SDPG160	160:1			181	283	41	1.821 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117E-SDPG280	280:1			183	286	23	1.735 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117E-SDPG400	400:1	700:1		185	286	16	1.769 x 10 ⁻⁵	1.132 x 10 ⁻⁴
*S9117E-SDPG700	700:1			136	212	9	1.766 x 10 ⁻⁵	1.132 x 10 ⁻⁴

NOTE: Non-NEMA size mounting interfaces are available on special order.

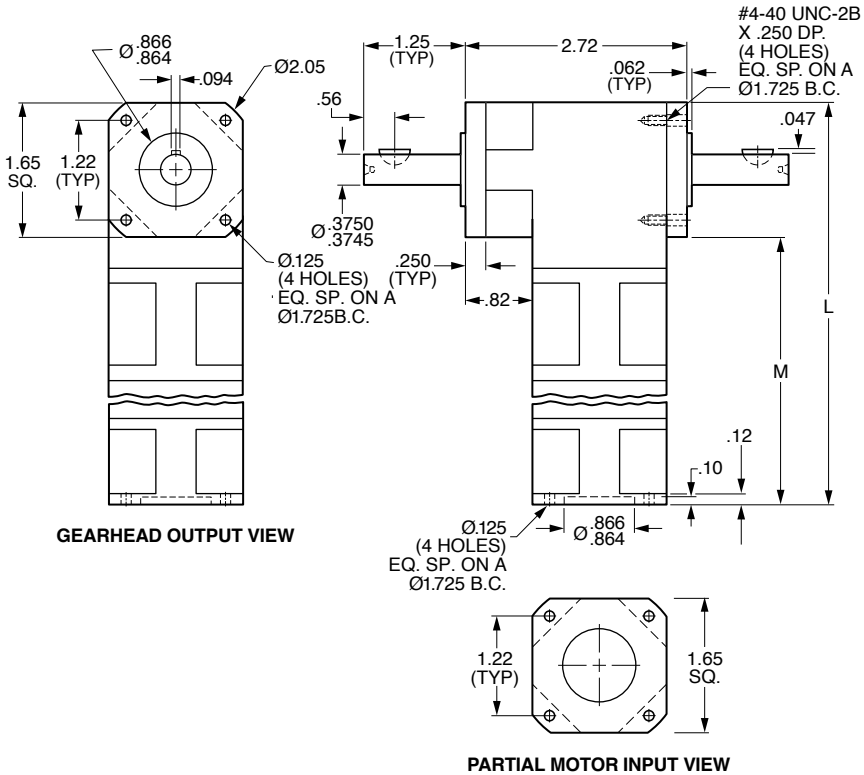
Δ Lower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ **RIGHT ANGLE**

■ SINGLE, DOUBLE & TRIPLE STAGE



Dual-Output PG Planetary Gearheads – Size 23

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

- PRECISION SERIES
■ RIGHT ANGLE

- SINGLE, DOUBLE & TRIPLE STAGE
■ LOW BACKLASH DESIGN

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 600 lb.

Axial – 600 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

Δ Max. Backlash: Single Stage – 11 arc min.

Double Stage – 15 arc min.

Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 4 lb.

Double Stage – 5 lb.

Triple Stage – 6 lb.



MATERIAL:

Housing – Stainless Steel

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Max. Momentary Torque lb. in.	Max. Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9123E-SDPG003	3:1	6.49 Single Stage	4.23 Single Stage	380	594	2167	1.539×10^{-3}	1.194×10^{-3}
S9123E-SDPG004	4:1			360	562	1625	9.035×10^{-4}	9.502×10^{-4}
S9123E-SDPG005H	5.5:1			317	496	1182	4.878×10^{-4}	8.969×10^{-4}
S9123E-SDPG007	7:1			263	411	928	3.034×10^{-4}	8.880×10^{-4}
S9123E-SDPG010	10:1	7.32 Double Stage	5.05 Double Stage	119	179	650	1.495×10^{-4}	8.846×10^{-4}
S9123E-SDPG016	16:1			376	587	406	3.461×10^{-4}	9.502×10^{-4}
S9123E-SDPG022	22:1			380	594	295	1.930×10^{-4}	8.969×10^{-4}
S9123E-SDPG028	28:1			384	600	232	1.214×10^{-4}	8.880×10^{-4}
S9123E-SDPG040	40:1			388	607	162	6.027×10^{-5}	8.846×10^{-4}
S9123E-SDPG049	49:1			286	447	132	1.117×10^{-4}	8.880×10^{-4}
S9123E-SDPG055	55:1			347	542	118	5.690×10^{-5}	8.846×10^{-4}
S9123E-SDPG070	70:1			288	450	92	5.551×10^{-5}	8.846×10^{-4}
S9123E-SDPG100	100:1			110	164	65	5.438×10^{-5}	8.846×10^{-4}
*S9123E-SDPG160	160:1	8.10 Triple Stage	5.85 Triple Stage	404	631	41	5.760×10^{-5}	8.846×10^{-4}
*S9123E-SDPG280	280:1			409	640	23	5.461×10^{-5}	8.846×10^{-4}
*S9123E-SDPG400	400:1			406	608	16	5.591×10^{-5}	8.846×10^{-4}
*S9123E-SDPG700	700:1			303	473	9	5.581×10^{-5}	8.846×10^{-4}

NOTE: Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.



Dual-Output PG Planetary Gearheads – Size 23

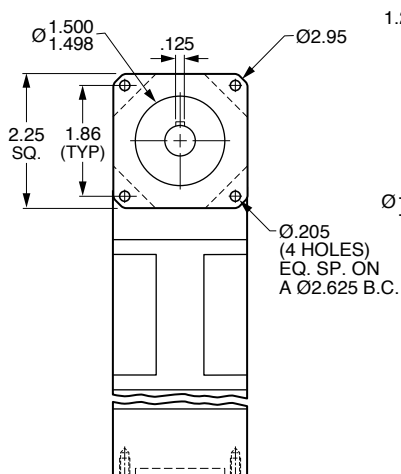
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Phone: 516-326-3300

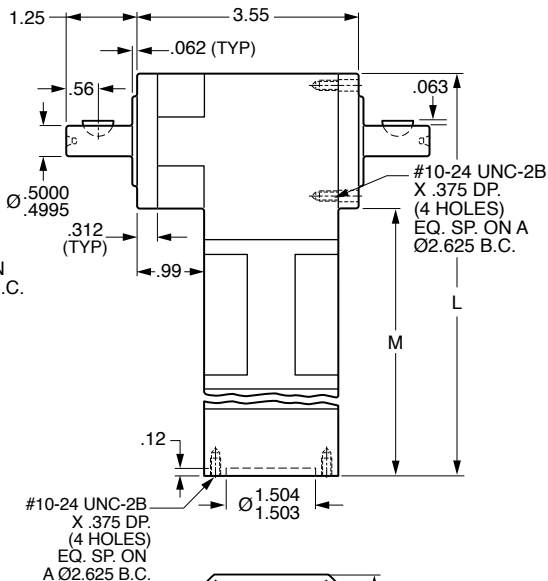
Fax: 516-326-8827

■ RIGHT ANGLE

■ SINGLE, DOUBLE & TRIPLE STAGE



GEARHEAD OUTPUT VIEW



PARTIAL MOTOR INPUT VIEW

Dual-Output PG Planetary Gearheads – Size 34

Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ PRECISION SERIES
■ RIGHT ANGLE

■ SINGLE, DOUBLE & TRIPLE STAGE
■ LOW BACKLASH DESIGN

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #606 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 900 lb.

Axial – 900 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

Δ Max. Backlash: Single Stage – 11 arc min.

Double Stage – 15 arc min.

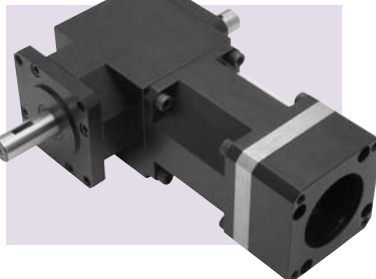
Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 12.5 lb.

Double Stage – 13.5 lb.

Triple Stage – 14.5 lb.



MATERIAL:

Housing – Stainless Steel

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Max. Momentary Torque lb. in.	Max. Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9134E-SDPG003	3:1	9.16 Single Stage	5.91 Single Stage	1285	2008	2167	1.176 x 10 ⁻²	4.901 x 10 ⁻³
S9134E-SDPG004	4:1			1219	1905	1625	6.818 x 10 ⁻³	2.522 x 10 ⁻³
S9134E-SDPG005H	5.5:1			1113	1740	1182	3.693 x 10 ⁻³	2.040 x 10 ⁻³
S9134E-SDPG007	7:1			935	1461	928	2.300 x 10 ⁻³	1.955 x 10 ⁻³
S9134E-SDPG010	10:1	10.29 Double Stage	7.04 Double Stage	552	828	650	1.134 x 10 ⁻³	1.923 x 10 ⁻³
S9134E-SDPG016	16:1			1315	2055	406	2.944 x 10 ⁻³	2.522 x 10 ⁻³
S9134E-SDPG022	22:1			1333	2083	295	1.644 x 10 ⁻³	2.040 x 10 ⁻³
S9134E-SDPG028	28:1			1346	2103	232	1.035 x 10 ⁻³	1.955 x 10 ⁻³
S9134E-SDPG040	40:1			1364	2132	162	5.139 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDPG049	49:1			1015	1587	132	9.545 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134E-SDPG055	55:1	11.51 Triple Stage	8.26 Triple Stage	1232	1925	118	4.861 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDPG070	70:1			1027	1605	92	4.747 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDPG100	100:1			507	761	65	4.654 x 10 ⁻⁴	1.923 x 10 ⁻³
*S9134E-SDPG160	160:1			1424	2226	41	4.930 x 10 ⁻⁴	1.923 x 10 ⁻³
*S9134E-SDPG280	280:1	11.51 Triple Stage	8.26 Triple Stage	1445	2258	23	4.676 x 10 ⁻⁴	1.923 x 10 ⁻³
*S9134E-SDPG400	400:1			1458	2278	16	4.781 x 10 ⁻⁴	1.923 x 10 ⁻³
*S9134E-SDPG700	700:1			1090	1703	9	4.772 x 10 ⁻⁴	1.923 x 10 ⁻³

NOTES: 1. Non-NEMA size mounting interfaces are available on special order.

2. To mate with D50R10-06..motors requires nonstandard pinions (1/2 inch bore).

Add "SP" to the part number when ordering.

Δ Lower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ SINGLE, DOUBLE & TRIPLE STAGE



Dual-Output PG Planetary Gearheads – Size 42

Stock Drive Products/Sterling Instrument

Phone: 516-328-3300

Fax: 516-326-8827

- PRECISION SERIES
- RIGHT ANGLE

- SINGLE, DOUBLE & TRIPLE STAGE
- LOW BACKLASH DESIGN

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #808 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 6500 rpm

Shaft Loading: Radial – 1400 lb.

Axial – 1400 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Triple Stage – 75%

Δ Max. Backlash: Single Stage – 11 arc min.

Double Stage – 15 arc min.

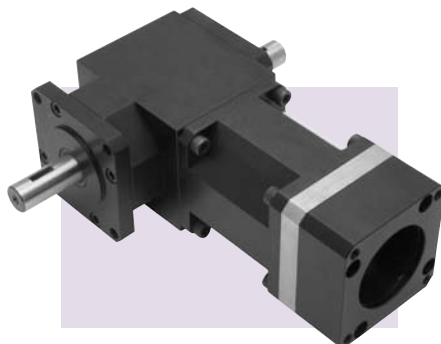
Triple Stage – 19 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 28.5 lb.

Double Stage – 35 lb.

Triple Stage – 36 lb.



MATERIAL:

Housing – Stainless Steel

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque** lb. in.	Max. Momentary Torque lb. in.	Max. Rated Output rpm (6500 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9142E-SDPG003	3:1	11.39 Single Stage	7.18 Single Stage	2301	3597	2167	2.667×10^{-2}	1.680×10^{-2}
S9142E-SDPG004	4:1			2195	3430	1625	1.626×10^{-2}	1.032×10^{-2}
S9142E-SDPG005H	5.5:1			2021	3159	1182	8.931×10^{-3}	8.997×10^{-3}
S9142E-SDPG007	7:1			1711	2673	928	5.588×10^{-3}	8.766×10^{-3}
S9142E-SDPG010	10:1	13.02 Double Stage	8.81 Double Stage	1122	1684	650	2.765×10^{-3}	8.680×10^{-3}
S9142E-SDPG016	16:1			2379	3717	406	1.118×10^{-2}	1.032×10^{-2}
S9142E-SDPG022	22:1			2414	3772	295	6.242×10^{-3}	8.997×10^{-3}
S9142E-SDPG028	28:1			2438	3811	232	3.928×10^{-3}	8.766×10^{-3}
S9142E-SDPG040	40:1			2473	3865	162	1.951×10^{-3}	8.680×10^{-3}
S9142E-SDPG049	49:1			1867	2918	132	3.724×10^{-3}	8.766×10^{-3}
S9142E-SDPG055	55:1	14.57 Triple Stage	10.37 Triple Stage	2250	3516	118	1.880×10^{-3}	8.680×10^{-3}
S9142E-SDPG070	70:1			1890	2953	92	1.851×10^{-3}	8.680×10^{-3}
S9142E-SDPG100	100:1			1031	1547	65	1.827×10^{-3}	8.680×10^{-3}
*S9142E-SDPG160	160:1			2587	4044	41	1.934×10^{-3}	8.680×10^{-3}
*S9142E-SDPG280	280:1	14.57 Triple Stage	10.37 Triple Stage	2627	4105	23	1.845×10^{-3}	8.680×10^{-3}
*S9142E-SDPG400	400:1			2651	4142	16	1.884×10^{-3}	8.680×10^{-3}
*S9142E-SDPG700	700:1			2009	3140	9	1.881×10^{-3}	8.680×10^{-3}

NOTE: Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 8 arc min., Double Stage – 10 arc min., Triple Stage – 12 arc min., are available on special order.

*Triple stage units are available as special order only.

**Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.



Dual-Output PG Planetary Gearheads – Size 42

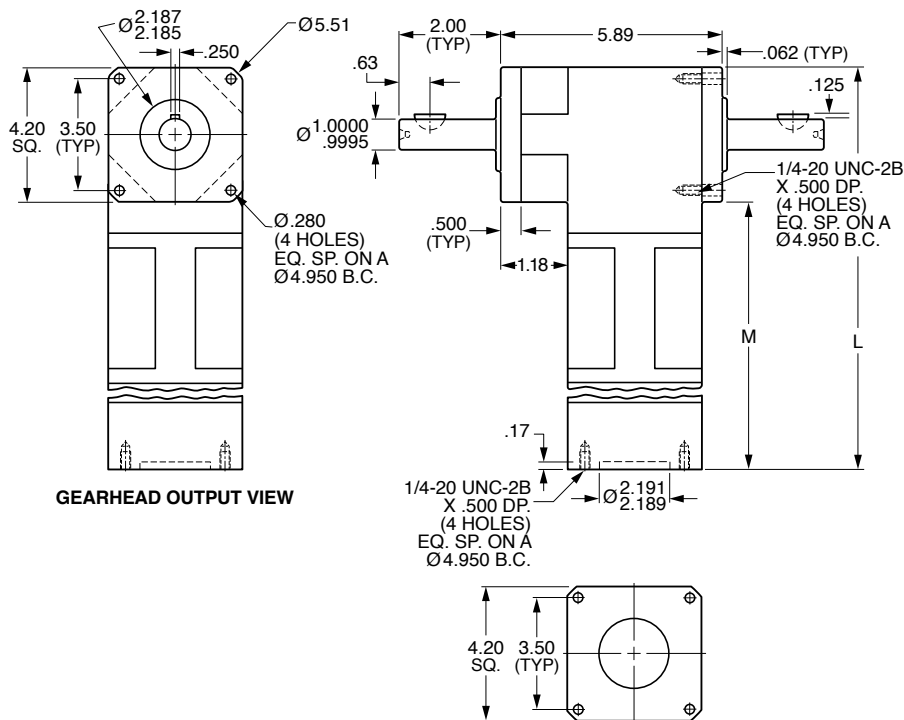
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ RIGHT ANGLE

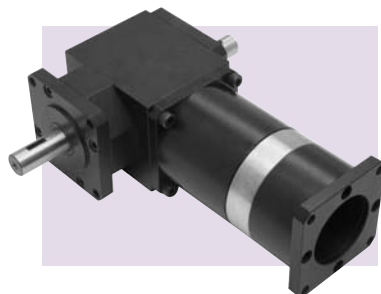
■ SINGLE, DOUBLE & TRIPLE STAGE



■ RIGHT ANGLE ■ SINGLE & DOUBLE STAGE ■ ECONOMY SERIES

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied

**SPECIFICATIONS:**

Max. Input Speed: 5000 rpm

Shaft Loading Radial – 400 lb.

Axial – 400 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Δ**Max. Backlash:** Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 2.8 lb.

Double Stage – 3.4 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9117E-SDEG003	3:1	4.97 Single Stage	3.30 Single Stage	125	174	1666	1.669×10^{-4}	2.163×10^{-4}
S9117E-SDEG004	4:1			119	165	1250	1.053×10^{-4}	1.352×10^{-4}
S9117E-SDEG005H	5.5:1			107	149	909	5.870×10^{-5}	1.174×10^{-4}
S9117E-SDEG007	7:1			89	124	714	3.692×10^{-5}	1.143×10^{-4}
S9117E-SDEG010	10:1	5.62 Double Stage	3.97 Double Stage	56	84	500	1.833×10^{-5}	1.132×10^{-4}
S9117E-SDEG016	16:1			127	176	312	1.045×10^{-4}	1.352×10^{-4}
S9117E-SDEG022	22:1			128	178	227	5.830×10^{-5}	1.174×10^{-4}
S9117E-SDEG028	28:1			129	179	178	3.667×10^{-5}	1.143×10^{-4}
S9117E-SDEG040	40:1			131	181	125	1.821×10^{-5}	1.132×10^{-4}
S9117E-SDEG049	49:1			95	132	102	3.479×10^{-5}	1.143×10^{-4}
S9117E-SDEG055	55:1			117	162	91	1.755×10^{-5}	1.132×10^{-4}
S9117E-SDEG070	70:1			96	134	71	1.729×10^{-5}	1.132×10^{-4}
S9117E-SDEG100	100:1			52	77	50	1.708×10^{-5}	1.132×10^{-4}

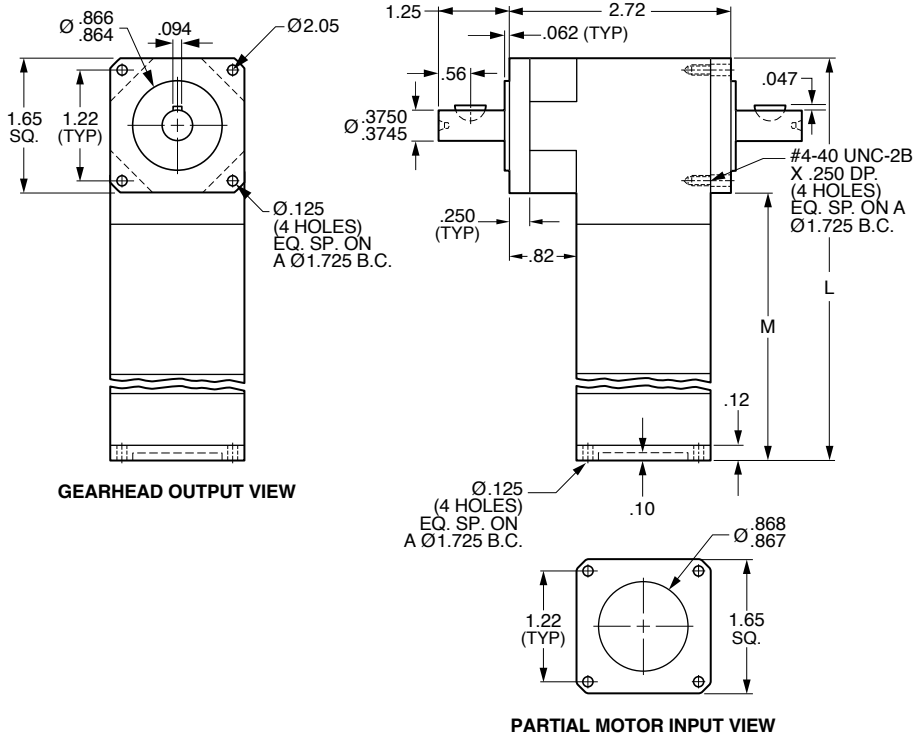
NOTE: Non-NEMA size mounting interfaces are available on special order.

ΔLower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ **RIGHT ANGLE**

■ SINGLE & DOUBLE STAGE



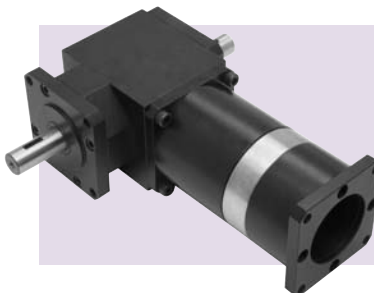
Dual-Output EG Planetary Gearheads – Size 23

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

■ RIGHT ANGLE ■ SINGLE & DOUBLE STAGE ■ ECONOMY SERIES

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 600 lb.

Axial – 600 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Δ Max. Backlash: Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 4.2 lb.

Double Stage – 5.2 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9123E-SDEG003	3:1	6.78 Single Stage	4.51 Single Stage	285	396	1666	4.866 x 10 ⁻⁴	1.194 x 10 ⁻³
S9123E-SDEG004	4:1			264	366	1250	3.113 x 10 ⁻⁴	9.502 x 10 ⁻⁴
S9123E-SDEG005H	5.5:1			238	330	909	1.746 x 10 ⁻⁴	8.969 x 10 ⁻⁴
S9123E-SDEG007	7:1			197	274	714	1.100 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123E-SDEG010	10:1	7.68 Double Stage	5.41 Double Stage	119	179	500	5.471 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123E-SDEG016	16:1			282	391	312	3.287 x 10 ⁻⁴	9.502 x 10 ⁻⁴
S9123E-SDEG022	22:1			285	396	227	1.838 x 10 ⁻⁴	8.969 x 10 ⁻⁴
S9123E-SDEG028	28:1			288	400	178	1.157 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123E-SDEG040	40:1			291	405	125	5.749 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123E-SDEG049	49:1			213	295	102	1.098 x 10 ⁻⁴	8.880 x 10 ⁻⁴
S9123E-SDEG055	55:1			260	362	91	5.543 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123E-SDEG070	70:1			215	298	71	5.460 x 10 ⁻⁵	8.846 x 10 ⁻⁴
S9123E-SDEG100	100:1			110	164	50	5.393 x 10 ⁻⁵	8.846 x 10 ⁻⁴

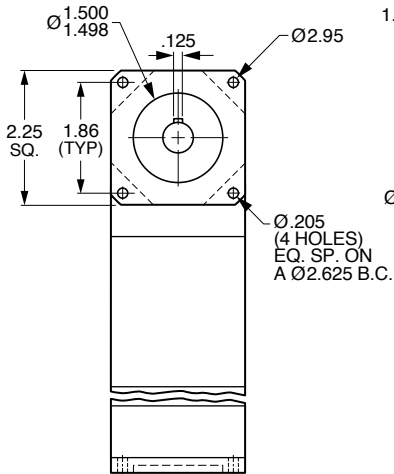
NOTE: Non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

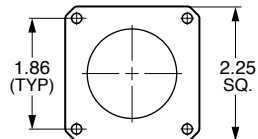
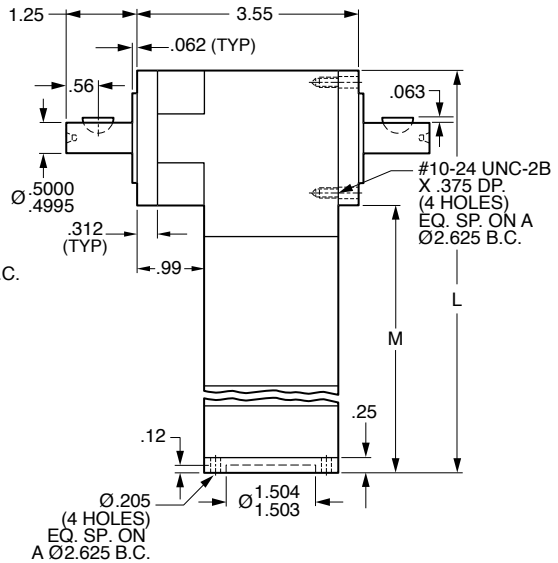
*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ **RIGHT ANGLE**

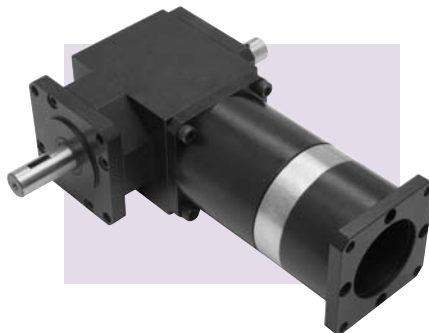
■ SINGLE & DOUBLE STAGE



GEARHEAD OUTPUT VIEW



PARTIAL MOTOR INPUT VIEW

■ **RIGHT ANGLE**■ **SINGLE & DOUBLE STAGE**■ **ECONOMY SERIES****FEATURES:**

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #606 and motor mounting hardware kit supplied

SPECIFICATIONS:**Max. Input Speed:** 5000 rpm**Shaft Loading:** Radial – 900 lb.

Axial – 900 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

Δ Max. Backlash: Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F**Weight:** Single Stage – 12.4 lb.

Double Stage – 13.4 lb.

MATERIAL:**Housing** – Steel, Gold Zinc Plated**Right Angle Housing and****Mounting Flanges** – Aluminum, Black Anodized**Output Shaft** – Stainless Steel**Gears** – Steel, Case-hardened**Bearings** – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Max. Momentary Torque lb. in.	Max. Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9134E-SDEG003	3:1	9.53 Single Stage	6.27 Single Stage	964	1339	1666	4.672 x 10 ⁻³	4.901 x 10 ⁻³
S9134E-SDEG004	4:1			914	1270	1250	2.833 x 10 ⁻³	2.522 x 10 ⁻³
S9134E-SDEG005H	5.5:1			835	1160	909	1.585 x 10 ⁻³	2.040 x 10 ⁻³
S9134E-SDEG007	7:1			701	934	714	9.983 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134E-SDEG010	10:1			507	704	500	4.961 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDEG016	16:1	10.80 Double Stage	7.54 Double Stage	986	1370	312	2.824 x 10 ⁻³	2.522 x 10 ⁻³
S9134E-SDEG022	22:1			1000	1389	227	1.580 x 10 ⁻³	2.040 x 10 ⁻³
S9134E-SDEG028	28:1			1009	1402	178	9.952 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134E-SDEG040	40:1			1023	1421	125	4.946 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDEG049	49:1			762	1058	102	9.417 x 10 ⁻⁴	1.955 x 10 ⁻³
S9134E-SDEG055	55:1			924	1283	91	4.759 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDEG070	70:1			770	1070	71	4.684 x 10 ⁻⁴	1.923 x 10 ⁻³
S9134E-SDEG100	100:1			507	761	50	4.623 x 10 ⁻⁴	1.923 x 10 ⁻³

NOTES: 1. Non-NEMA size mounting interfaces are available on special order.2. To mate with **D50R10-06..** motor requires nonstandard pinion (1/2 inch bore).Add “**SP**” to the part number when ordering.

Δ Lower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

Dual-Output EG Planetary Gearheads – Size 34

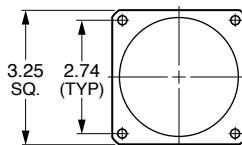
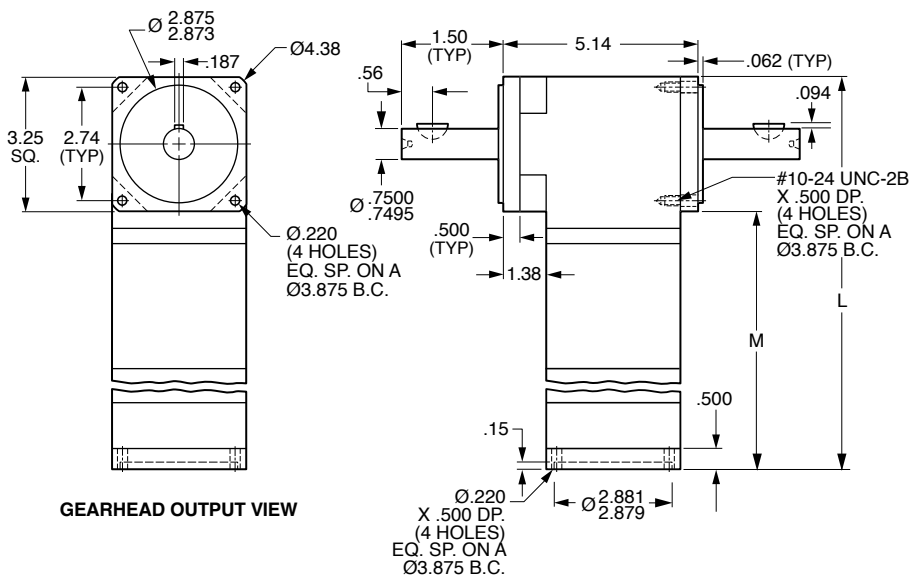
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

■ RIGHT ANGLE

■ SINGLE & DOUBLE STAGE



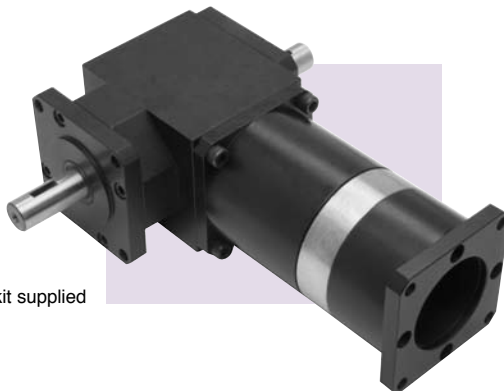
Dual-Output EG Planetary Gearheads – Size 42

Stock Drive Products/Sterling Instrument ■ Phone: 516-328-3300 ■ Fax: 516-326-8827

■ RIGHT ANGLE ■ SINGLE & DOUBLE STAGE ■ ECONOMY SERIES

FEATURES:

- True planetary system
- Standard NEMA size
- High torsional stiffness
- Case-hardened spiral bevel gears
- Sealed to extend service life
- Includes a precision balanced clamp-on pinion
- Woodruff keys #808 and motor mounting hardware kit supplied



SPECIFICATIONS:

Max. Input Speed: 5000 rpm

Shaft Loading: Radial – 1400 lb.

Axial – 1400 lb.

Min. Efficiency: Single Stage – 85%

Double Stage – 80%

ΔMax. Backlash: Single Stage – 14 arc min.

Double Stage – 18 arc min.

Operating Temperature: -40°F to +255°F

Weight: Single Stage – 29 lb.

Double Stage – 35 lb.

MATERIAL:

Housing – Steel, Gold Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Steel, Case-hardened

Bearings – Precision Tapered Roller

Catalog Number	Gear Ratio	L	M	Max. Rated Cont. Torque* lb. in.	Maximum Momentary Torque lb. in.	Maximum Rated Output rpm (5000 rpm input)	Inertia Gearhead oz. in. sec. ²	Inertia Input Pinion oz. in. sec. ²
S9142E-SDEG003	3:1	11.85 Single Stage	7.64 Single Stage	1726	2398	1666	1.641×10^{-2}	1.680×10^{-2}
S9142E-SDEG004	4:1			1646	2287	1250	1.049×10^{-2}	1.032×10^{-2}
S9142E-SDEG005H	5.5:1			1516	2106	909	5.878×10^{-3}	8.997×10^{-3}
S9142E-SDEG007	7:1			1283	1782	714	3.704×10^{-3}	8.766×10^{-3}
S9142E-SDEG010	10:1			936	1300	500	1.841×10^{-3}	8.680×10^{-3}
S9142E-SDEG016	16:1	13.45 Double Stage	9.24 Double Stage	1784	2478	312	1.101×10^{-2}	1.032×10^{-2}
S9142E-SDEG022	22:1			1810	2515	227	6.156×10^{-3}	8.997×10^{-3}
S9142E-SDEG028	28:1			1829	2540	178	3.875×10^{-3}	8.766×10^{-3}
S9142E-SDEG040	40:1			1855	2577	125	1.925×10^{-3}	8.680×10^{-3}
S9142E-SDEG049	49:1			1400	1945	102	3.706×10^{-3}	8.766×10^{-3}
S9142E-SDEG055	55:1	70:1	100:1	1688	2344	91	1.866×10^{-3}	8.680×10^{-3}
S9142E-SDEG070	70:1			1417	1969	71	1.843×10^{-3}	8.680×10^{-3}
S9142E-SDEG100	100:1			1024	1423	50	1.823×10^{-3}	8.680×10^{-3}

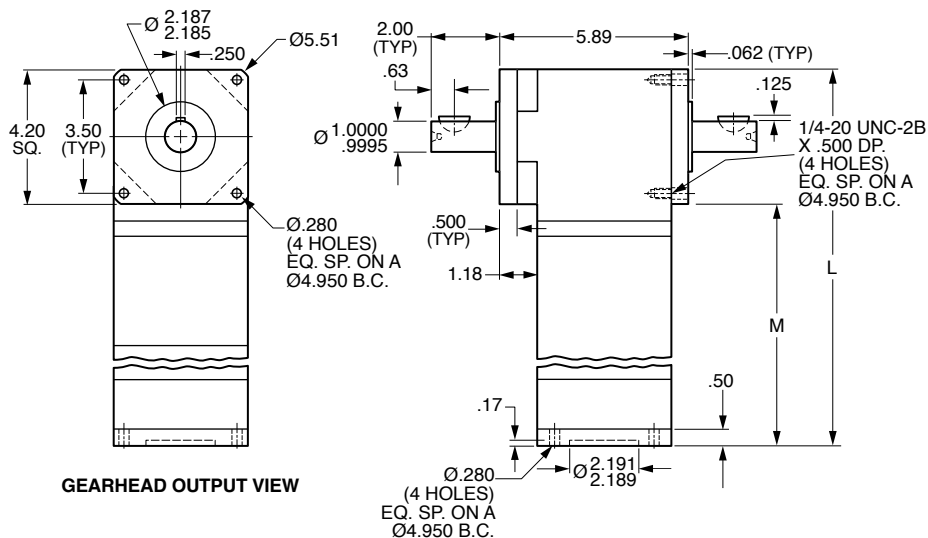
NOTE: Non-NEMA size mounting interfaces are available on special order.

ΔLower backlash units: Single Stage – 11 arc min., Double Stage – 13 arc min., are available on special order.

*Maximum Rated Continuous Torque is rated at 3000 rpm, and a Minimum Life of 10,000 hours.

■ RIGHT ANGLE

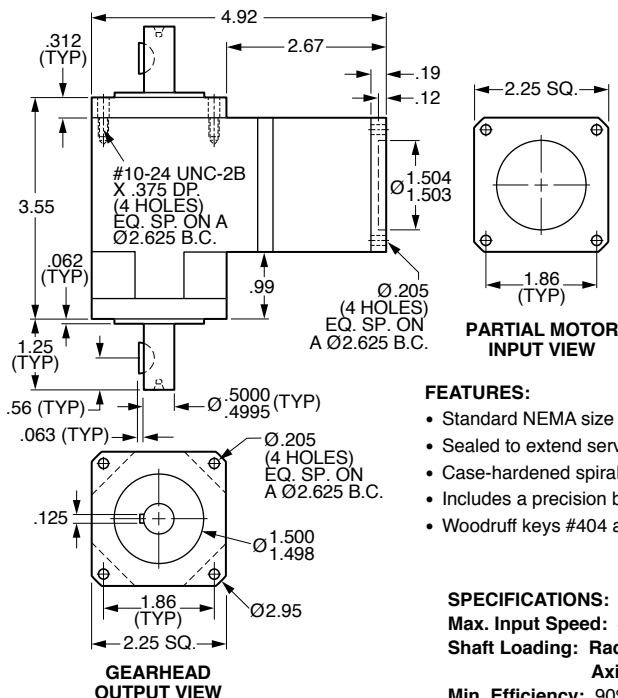
■ SINGLE & DOUBLE STAGE



■ LOW-COST ALTERNATIVE TO PLANETARY SYSTEM

■ LONG-LIFE DESIGN

■ RIGHT ANGLE

PARTIAL MOTOR
INPUT VIEW

FEATURES:

- Standard NEMA size
- Sealed to extend service life
- Case-hardened spiral bevel gears
- Includes a precision balanced clamp-on pinion
- Woodruff keys #404 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 300 lb.

Axial – 300 lb.

Min. Efficiency: 90%

Δ Max. Backlash: 25 arc min.

Max. Inertia Reflected to Input: 2.58×10^{-5} oz. in. sec.²Pinion Gear Inertia: 7.59×10^{-4} oz. in. sec.²

Max. Torque Rating: Continuous – 20 lb. in.

Momentary – 30 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 4 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

Catalog Number	Gear Ratio	Maximum Rated Output rpm (4000 rpm input)	Rotation* Direction
S9123E-SDSG003	3:1	1333	S
S9123E-SDSG005	5:1	800	S
S9123E-SDSG010	10:1	400	S
S9123E-SDSG015	15:1	267	R
S9123E-SDSG020	20:1	200	R
S9123E-SDSG030	30:1	133	R
S9123E-SDSG050	50:1	80	R
S9123E-SDSG100	100:1	40	S

NOTE: Other gear ratios and non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units, with 15 arc min., are available on special order.

* "S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

Dual-Output Spur Gearheads – NEMA Size 34

Stock Drive Products/Sterling Instrument

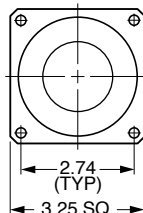
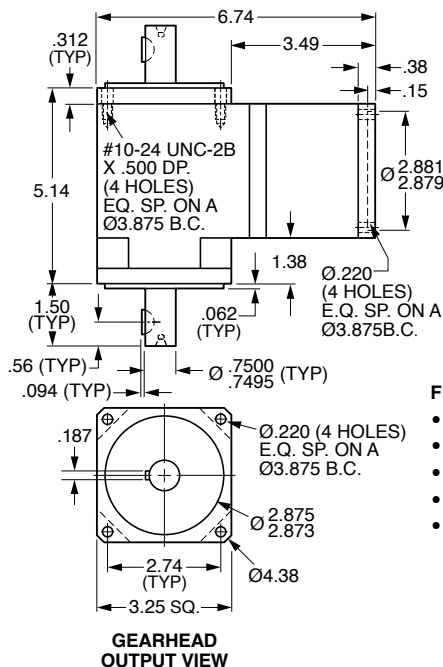
Phone: 516-326-3300

Fax: 516-326-8827

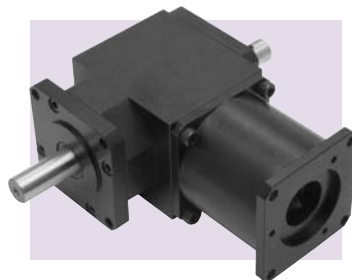
■ LOW-COST ALTERNATIVE TO PLANETARY SYSTEM

■ LONG-LIFE DESIGN

■ RIGHT ANGLE



PARTIAL MOTOR INPUT VIEW



FEATURES:

- Standard NEMA size
- Sealed to extend service life
- Case-hardened spiral bevel gears
- Includes a precision balanced clamp-on pinion
- Woodruff keys #606 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 500 lb.

Axial – 500 lb.

Min. Efficiency: 90%

Δ Max. Backlash: 25 arc min.

Max. Inertia Reflected to Input: 2.09×10^{-4} oz. in. sec.²Pinion Gear Inertia: 1.52×10^{-3} oz. in. sec.²

Max. Torque Rating: Continuous – 60 lb. in.

Momentary – 90 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 9 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Right Angle Housing

and Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

Catalog Number	Gear Ratio	Maximum Rated Output rpm (4000 rpm input)	Rotation* Direction
S9134E-SDSG003	3:1	1333	S
S9134E-SDSG005	5:1	800	S
S9134E-SDSG010	10:1	400	S
S9134E-SDSG015	15:1	267	S
S9134E-SDSG020	20:1	200	R
S9134E-SDSG030	30:1	133	R
S9134E-SDSG050	50:1	80	S
S9134E-SDSG100	100:1	40	S

NOTES: 1. Other gear ratios and non-NEMA size mounting interfaces are available on special order.

2. To mate with D50R10-06.. motor requires nonstandard pinions (1/2 inch bore).

Add "SP" to the part number when ordering.

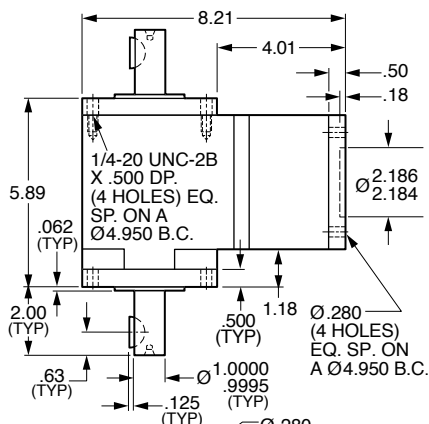
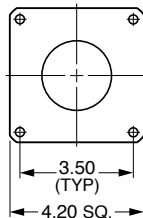
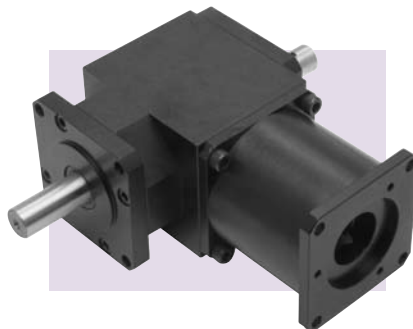
Δ Lower backlash units, with 15 arc min., are available on special order.

* "S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

■ LOW-COST ALTERNATIVE TO PLANETARY SYSTEM

■ LONG-LIFE DESIGN

■ RIGHT ANGLE

GEARHEAD
OUTPUT VIEWPARTIAL MOTOR
INPUT VIEW

FEATURES:

- Standard NEMA size
- Sealed to extend service life
- Case-hardened spiral bevel gears
- Includes a precision balanced clamp-on pinion
- Woodruff keys #808 and motor mounting hardware kit supplied

SPECIFICATIONS:

Max. Input Speed: 4000 rpm

Shaft Loading: Radial – 700 lb.

Axial – 700 lb.

Min. Efficiency: 90%

Δ Max. Backlash: 25 arc min.

Max. Inertia Reflected to Input: 6.69×10^{-4} oz. in. sec.²Pinion Gear Inertia: 7.59×10^{-3} oz. in. sec.²

Max. Torque Rating: Continuous – 200 lb. in.

Momentary – 300 lb. in.

Operating Temperature: -40°F to +255°F

Weight: 24 lb.

MATERIAL:

Housing – Steel, Black Zinc Plated

Right Angle Housing and

Mounting Flanges – Aluminum, Black Anodized

Output Shafts – Stainless Steel

Gears – Stainless Steel

Bearings – Ball Bearings

Catalog Number	Gear Ratio	Maximum Rated Output rpm (4000 rpm input)	Rotation* Direction
S9142E-SDSG003	3:1	1333	S
S9142E-SDSG005	5:1	800	S
S9142E-SDSG010	10:1	400	S
S9142E-SDSG015	15:1	267	R
S9142E-SDSG020	20:1	200	R
S9142E-SDSG030	30:1	133	S
S9142E-SDSG050	50:1	80	R
S9142E-SDSG100	100:1	40	S

NOTE: Other gear ratios and non-NEMA size mounting interfaces are available on special order.

Δ Lower backlash units, with 15 arc min., are available on special order.

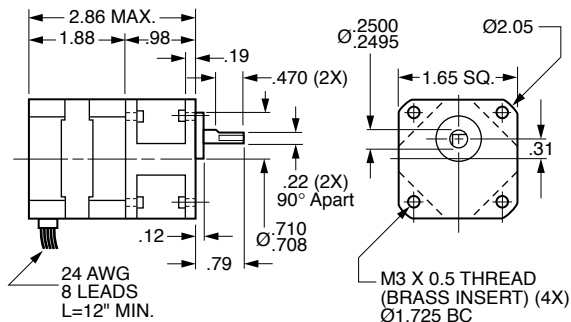
* "S" indicates output rotates in the same direction as input; "R" denotes opposite direction.

Offset Stepper Gearmotors – NEMA Size 17

■ 1.8° NOMINAL MOTOR STEP ANGLE

■ 5:1, 10:1, 18:1 GEAR RATIOS

■ LIGHT-DUTY



MATERIAL:

Gearhead Housing – Ryton® (Engineering Resin), Black

Mounting Flanges – Ryton® (Engineering Resin), Black

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Composite Bushings

MOTOR SPECIFICATIONS:

Max. Input Speed: 1000 rpm

Shaft Loading: Radial – 4 lb.

Axial – 4 lb.

Shaft Play Max.: Radial – .002

Axial – .010

Gearhead Max. Cont. Torque: 160 oz. in.

Phase Resistance: 3.3 ohms ± 10% @ 25°C

Winding Inductance: 3 mH ± 20%

Rated Current: 1.25 Amp. / Phase

Minimum Efficiency: 80%

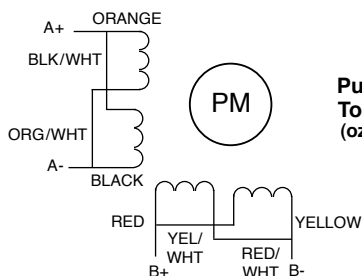
Maximum Backlash: 45 arc min.

Operating Temperature: -40°F to +255°F

Weight: 13 oz.

Catalog Number	Gear Ratio	Step Angle per step	Torque Rating oz. in.		Maximum Inertia oz. in. sec. ²
			Cont.	Holding	
S9117C-S18GM005	5:1	1.8°	see curve	222	2.67 x 10 ⁻⁵
S9117C-S18GM010	10:1		see curve	444	1.82 x 10 ⁻⁶
S9117C-S18GM018	18:1		see curve	799	2.97 x 10 ⁻⁴

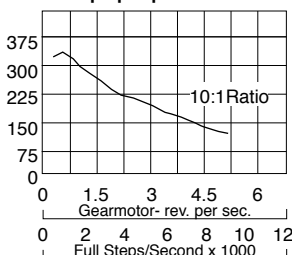
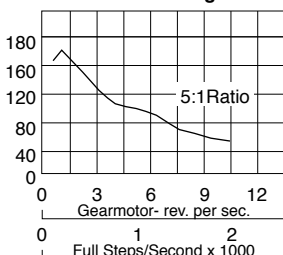
SCHEMATIC



SPEED vs. TORQUE CHARACTERISTICS

Drive Setting 35V DC – 1.25 Amps per phase

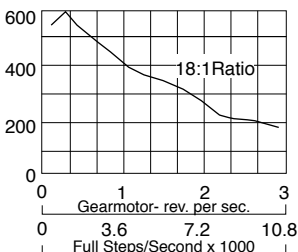
Pullout Torque (oz. in.)



Bipolar Chopper Drive Switching Sequence for CW Rotation Facing Mounting End

Step	A+	A-	B+	B-
0	+	-	+	-
1	-	+	+	-
2	-	+	-	+
3	+	-	-	+
4	+	-	+	-

Pullout Torque (oz. in.)

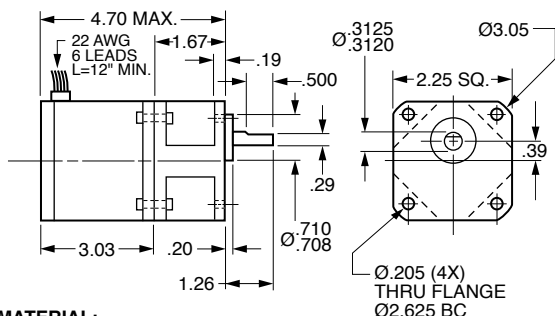


Offset Stepper Gearmotors – NEMA Size 33

■ 1.8° NOMINAL MOTOR STEP ANGLE

■ 5:1, 10:1, 18:1 GEAR RATIOS

■ LIGHT-DUTY



MATERIAL:

Gearhead Housing – Ryton® (Engineering Resin), Black

Mounting Flanges – Ryton® (Engineering Resin), Black

Output Shaft – Stainless Steel

Gears – Stainless Steel

Bearings – Composite Bushings

MOTOR SPECIFICATIONS:

Max. Input Speed: 1000 rpm

Shaft Loading: Radial – 15 lb.

Axial – 15 lb.

Shaft Play Max.: Radial – .002

Axial – .010

Gearhead Max. Cont. Torque: 320 oz. in.

Phase Resistance: .37 ohms ± 10% @ 25°C

Winding Inductance: .6 mH ± 20%

Rated Current: 4.70 Amp. / Phase

Minimum Efficiency: 80%

Maximum Backlash: 45 arc min.

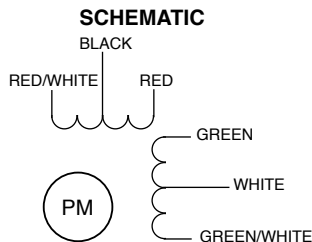
Operating Temperature: -40°F to +255°F

Weight: 45 oz.

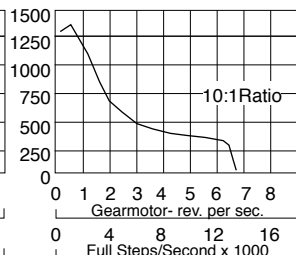
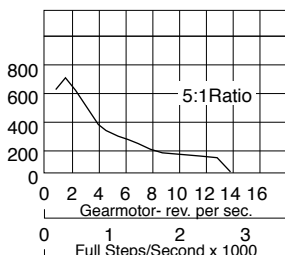
Catalog Number	Gear Ratio	Step Angle per step	Torque Rating oz. in.		Maximum Inertia oz. in. sec. ²
			Cont.	Holding	
S9123C-S18GM005	5:1	1.8°	see curve	500	1.471 x 10 ⁻⁵
S9123C-S18GM010	10:1		see curve	1000	9.57 x 10 ⁻⁶
S9123C-S18GM018	18:1		see curve	1800	1.986 x 10 ⁻⁵

SPEED vs. TORQUE CHARACTERISTICS

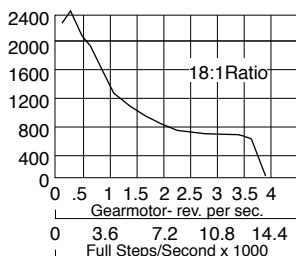
Drive Setting 35V DC – 3.3 Amps per phase



Pullout Torque (oz. in.)



Pullout Torque (oz. in.)



Bipolar Chopper Drive Switching Sequence for CW Rotation Facing Mounting End

Step	Red	Black	Green	White
0	+	-	+	-
1	-	+	+	-
2	-	+	-	+
3	+	-	-	+
4	+	-	+	-

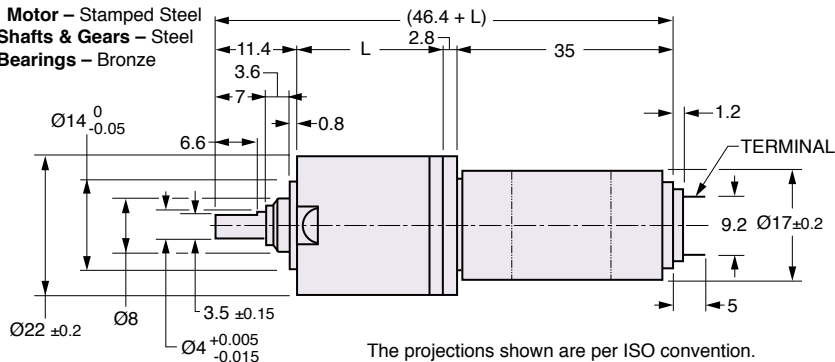
NOTE: Red/White and Green/White wires are not used. They must be electrically isolated.

■ 12 VOLTS

■ 22 mm DIAMETER

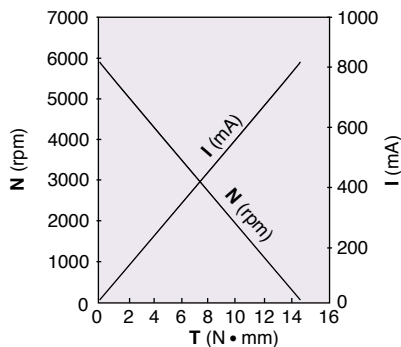
MOTOR SPECIFICATIONS:**Rated Voltage:** 12V**Rated Torque:** 2.94 N • mm**Rated Speed:** 4700 rpm**Rated Current:** ≤ 200 mA**No Load Speed:** 5900 rpm**No Load Current:** ≤ 20 mA**Rated Output:** 1.41W**Operating Temp.:** -10°C to +60°CFor replacement gearheads,
see **A 2G22MG....D** SeriesSame gearhead with different motor is
offered as **D33S57M46C....**,
D33S22MG24.... and **D33S22MG24....A**
series. See index.

Continued on the next page

MATERIAL:**Housing:****Gearhead** – Aluminum**Motor** – Stamped Steel**Shafts & Gears** – Steel**Bearings** – BronzeM2, 4 DEEP 4
HOLES @ 90° ON
A Ø18 ±0.2 BOLT
CIRCLE

The projections shown are per ISO convention.

Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S22MG120005A	4.5	15.5	9.81 (1.39)	1014	1258
D33S22MG120016A	15.58		39.2 (4.16)	288	363
D33S22MG120020A	20.25		44.1 (5.55)	220	280
D33S22MG120024A	23.88		93.2 (6.24)	189	237
D33S22MG120062A	61.5	18.7	29.4 (13.20)	73	92

MOTOR CHARACTERISTICS CHART

■ 12 VOLTS

■ 22 mm DIAMETER

MOTOR SPECIFICATIONS:

Rated Voltage: 12V

Rated Torque: 2.94 N • mm

Rated Speed: 4700 rpm

Rated Current: ≤ 200 mA

No Load Speed: 5900 rpm

No Load Current: ≤ 20 mA

Rated Output: 1.41W

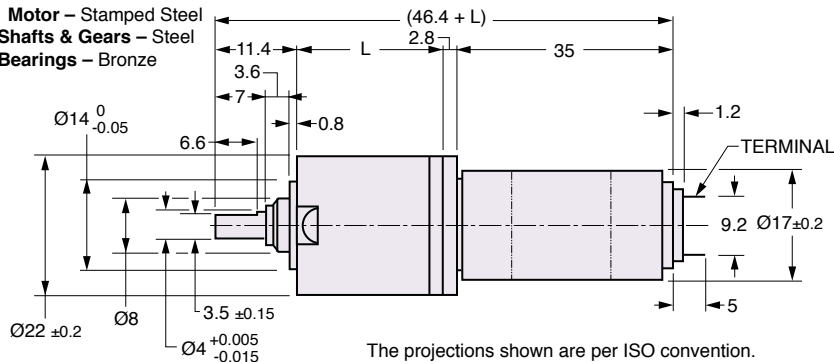
Operating Temp.: -10°C to $+60^{\circ}\text{C}$ For replacement gearheads,
see **A 2G22MG....D** SeriesSame gearhead with different motor is
offered as **D33S57M46C...**,
D33S22MG24... and **D33S22MG24...A**
series. See index.Continued from the previous page
and continued on the next page**MATERIAL:****Housing:**

Gearhead – Aluminum

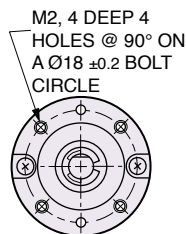
Motor – Stamped Steel

Shafts & Gears – Steel

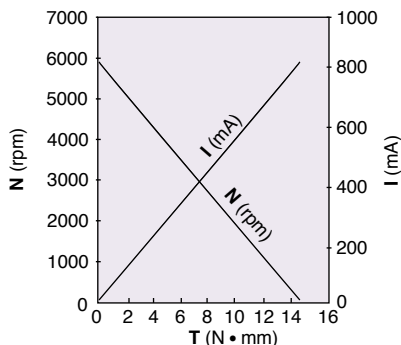
Bearings – Bronze



The projections shown are per ISO convention.

M2, 4 DEEP 4
HOLES @ 90° ON
A Ø18 ± 0.2 BOLT
CIRCLE

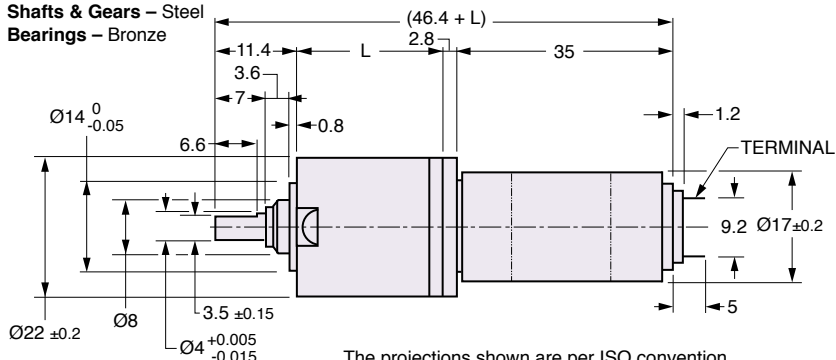
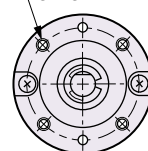
Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S22MG120107A	107.48	18.7	98.1 (13.9)	46	53
D33S22MG120243A	242.79		147 (20.8)	21	23
D33S22MG120326A	326.46	21.9	147 (20.8)	16	17
D33S22MG120410A	410.06		196 (27.8)	13	14
D33S22MG120484A	483.66		196 (27.8)	11	12

MOTOR CHARACTERISTICS CHART

D.C. Gearmotors – Size 22

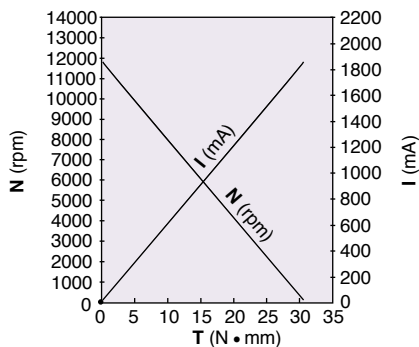
■ 24 VOLTS

■ 22 mm DIAMETER

MOTOR SPECIFICATIONS:**Rated Voltage:** 24V**Rated Torque:** 3.92 N • mm**Rated Speed:** 10300 rpm**Rated Current:** ≤ 260 mA**No Load Speed:** 11800 rpm**No Load Current:** ≤ 24 mA**Rated Output:** 4.12W**Operating Temp.:** -10°C to +60°CFor replacement gearheads,
see **A 2G22MG....D** SeriesSame gearhead with different motor is
offered as **D33S57M46C....**,
D33S22MG12... and **D33S22MG12...A**
series. See index.Continued from the previous page
and continued on the next page**MATERIAL:****Housing:****Gearhead** – Aluminum**Motor** – Stamped Steel**Shafts & Gears** – Steel**Bearings** – BronzeM2, 4 DEEP 4
HOLES@ 90° ON
A Ø18 ±0.2 BOLT
CIRCLE

The projections shown are per ISO convention.

Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S22MG240005A	4.5	15.5	9.81 (1.39)	2344	2572
D33S22MG240016A	15.58		39.2 (5.55)	649	743
D33S22MG240020A	20.25		49 (6.95)	502	572
D33S22MG240024A	23.88		49 (6.95)	435	485
D33S22MG240062A	61.5	18.7	98.1 (13.90)	169	188

MOTOR CHARACTERISTICS CHART

■ 24 VOLTS

■ 22 mm DIAMETER

MOTOR SPECIFICATIONS:**Rated Voltage:** 24V**Rated Torque:** 3.92 N • mm**Rated Speed:** 10300 rpm**Rated Current:** ≤ 260 mA**No Load Speed:** 11800 rpm**No Load Current:** ≤ 24 mA**Rated Output:** 4.12W**Operating Temp.:** -10°C to +60°CFor replacement gearheads,
see **A 2G22MG....D** SeriesSame gearhead with different motor is
offered as **D33S57M46C...**,
D33S22MG12... and **D33S22MG12...A**
series. See index.

Continued from the previous page

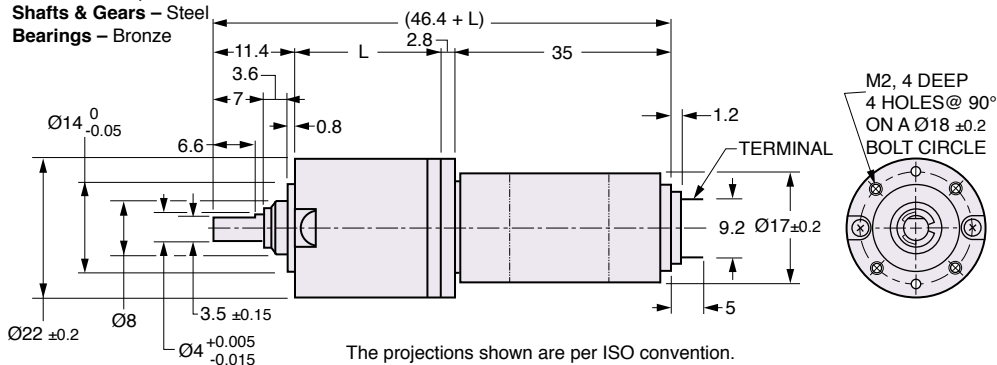
MATERIAL:**Housing:**

Gearhead – Aluminum

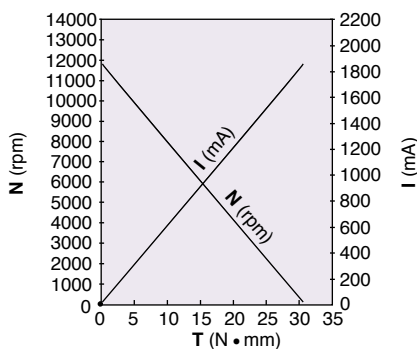
Motor – Stamped Steel

Shafts & Gears – Steel

Bearings – Bronze



Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S22MG240107A	107.48	18.7	98.1 (13.9)	102	108
D33S22MG240243A	242.79	21.9	147 (20.8)	45	48
D33S22MG240326A	326.46		147 (20.8)	34	35
D33S22MG240410A	410.06		196 (27.8)	27	28
D33S22MG240484A	483.66		196 (27.8)	23	24

MOTOR CHARACTERISTICS CHART

■ 12 mm DIAMETER

Rated Voltage: 3V

Rated Torque: 0.098 N • mm

Rated Speed: 11600 rpm

Rated Current: $\leq 110 \text{ mA}$

No Load Speed: 14000 rpm

No Load Current: $\leq 35 \text{ mA}$

Rated Output: 0.12W

Operating Temperature: -10°C to +60°C

For replacement gearheads, see **A 2G12MRB...** Series.



The projections shown are per ISO convention.

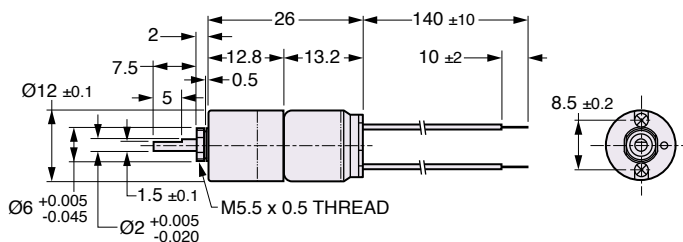
Housing:

Motor – Steel

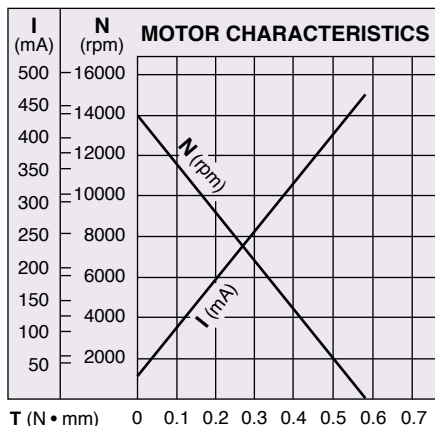
Gearhead – Zinc, Die-Cast

Shafts & Gears – Steel

Bearings – Sintered



Catalog Number	Ratio to 1	Rated Torque N • mm (oz. in.)	Shaft Rotation	Speed rpm	
				Rated	No Load
D33S12M1300007	7.49	0.59 (.08)	CW	1568	1832
D33S12M1300016	15.56	0.98 (.14)	CCW	772	882
D33S12M1300031	31.12	1.96 (.28)	CW	371	441
D33S12M1300052	52.25	2.94 (.42)		230	263
D33S12M1300072	71.99	4.41 (.62)	CW	165	196
D33S12M1300100	100.22	5.39 (.76)	CCW	116	137
D33S12M1300144	143.99	7.85 (1.11)	CCW	82	95
D33S12M1300209	208.79	9.81 (1.39)		58	66



■ 4.5 VOLTS

■ 12 mm DIAMETER

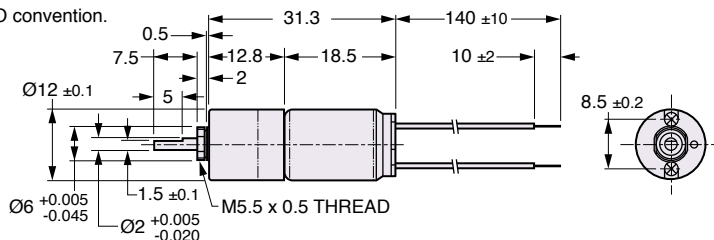
MOTOR SPECIFICATIONS:**Rated Voltage:** 4.5V**Rated Torque:** 0.294 N • mm**Rated Speed:** 7350 rpm**Rated Current:** ≤ 110 mA**No Load Speed:** 9000 rpm**No Load Current:** ≤ 20 mA**Rated Output:** 0.23W**Operating Temperature:** -10°C to +60°CFor replacement gearheads,
see **A 2G12MRB...** Series.

The projections shown are per ISO convention.

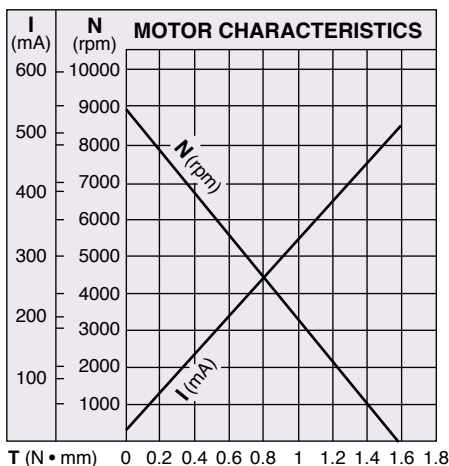
MATERIAL:**Housing:**

Motor – Steel

Gearhead – Zinc, Die-Cast

Shafts & Gears – Steel**Bearings – Sintered**

Catalog Number	Ratio to 1	Rated Torque N • mm (oz. in.)	Shaft Rotation	Speed rpm	
				Rated	No Load
D33S12M1800007	7.49	1.47 (.21)	CW	979	1190
D33S12M1800016	15.56	2.94 (.42)	CCW	466	573
D33S12M1800031	31.12	5.88 (.83)	CW	247	286
D33S12M1800052	52.25	9.81 (1.39)	CW	147	179
D33S12M1800072	71.99	9.81 (1.39)	CW	108	130
D33S12M1800100	100.22	14.7 (2.08)	CCW	75	93
D33S12M1800144	143.99			51	65
D33S12M1800209	208.79	24.5 (3.47)	CCW	37	45

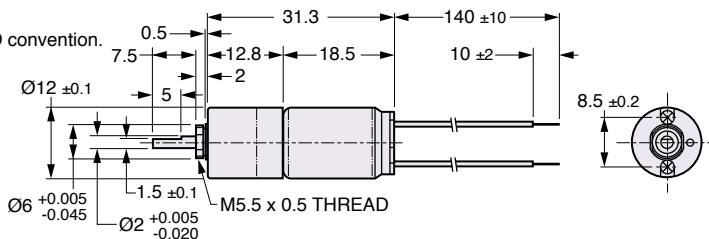


■ 12 VOLTS

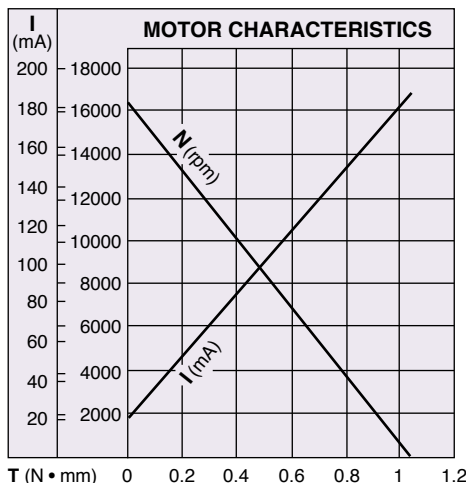
■ 12 mm DIAMETER

MOTOR SPECIFICATIONS:**Rated Voltage:** 12V**Rated Torque:** 0.245 N • mm**Rated Speed:** 12550 rpm**Rated Current:** ≤ 60 mA**No Load Speed:** 16500 rpm**No Load Current:** ≤ 20 mA**Rated Output:** 0.32W**Operating Temp.:** -10°C to +60°CFor replacement gearheads,
see A 2G12MRB... Series.

The projections shown are per ISO convention.

MATERIAL:**Housing:****Motor** – Steel**Gearhead** – Zinc, Die-Cast**Shafts & Gears** – Steel**Bearings** – Sintered

Catalog Number	Ratio to 1	Rated Torque N • mm (oz. in.)	Shaft Rotation	Speed rpm	
				Rated	No Load
D33S12M1810007	7.49	1.47 (.21)	CW	1725	2071
D33S12M1810016	15.56	2.45 (.35)	CCW	859	997
D33S12M1810031	31.12	4.9 (.69)	CW	417	498
D33S12M1810052	52.25	8.34 (1.18)		248	297
D33S12M1810072	71.99	9.81 (1.39)	CW	188	215
D33S12M1810100	100.22	9.81 (1.39)	CCW	134	155
D33S12M1810144	143.99	19.6 (2.78)	CCW	91	108
D33S12M1810209	208.79	24.5 (3.47)		65	74



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MECHANICAL SLIP CLUTCHES

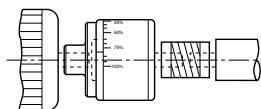
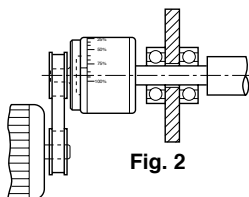
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ADVANTAGES:

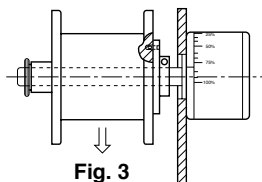
- No electricity
- No breakaway torque
- Constant torque independent of shaft (rotor) speed
- No contacting or wearing parts
- No friction elements – same smooth torque year after year
- No magnetic particles to leak or contaminate end product
- Operable in some of the most difficult environments
- Brake (with shaft) and clutch (with hollow shaft) available
- Custom designs available

APPLICATIONS:**Fig. 1 As a Coupling**

This is for load protection or torque limiting. The coupling style unit is directly connected to a motor and turns at the same speed as the motor until the torque is reached. At this point it will slip and still generate the max. torque.

**Fig. 1****Fig. 2****Fig. 2 As a Clutch**

The unit is connected to a motor by a timing belt or gear. The housing is driven and the shaft is the output end.

**Fig. 3****Fig. 3 As a Payout Brake**

Brake is stationary and the reel or material is fitted to the output shaft. The tension on the material will vary with the diameter.

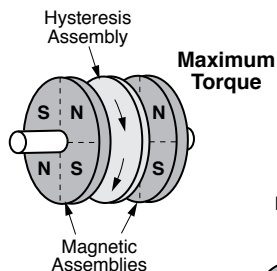
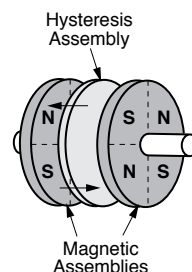
HOW THEY OPERATE:**For Maximum Torque**

All important internal clearances are ground to tolerances of less than .001 in. (0.025 mm). Magnet assemblies surround hysteresis assembly. When like poles face each other, they produce maximum magnetic saturation of the hysteresis disc, forcing lines of flux to travel circumferentially through the hysteresis disc.

For Minimum Torque

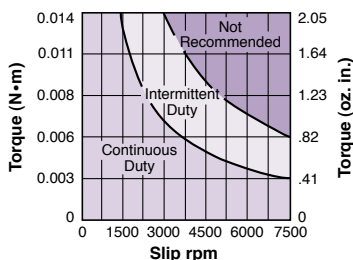
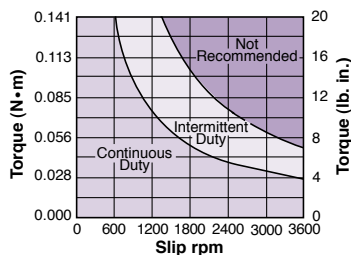
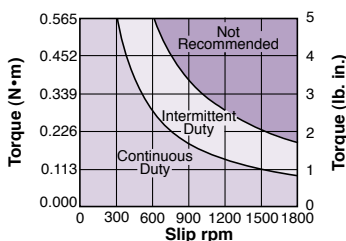
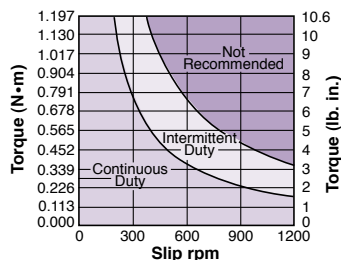
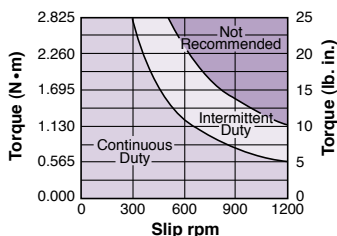
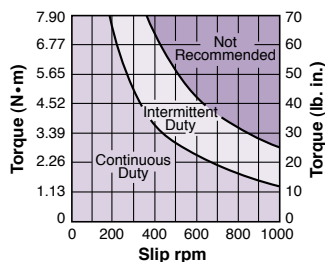
When opposite poles face each other they produce minimum saturation of the hysteresis disc. The lines of flux travel through the hysteresis disc.

Combinations of adjustment angles between the two extremes give infinite adjustability. Because there are no contacting surfaces, the setting can be maintained indefinitely.

**Maximum Torque****Minimum Torque**

Magnetic Clutches & Couplings**OPERATING CURVES****How to Use the Curves**

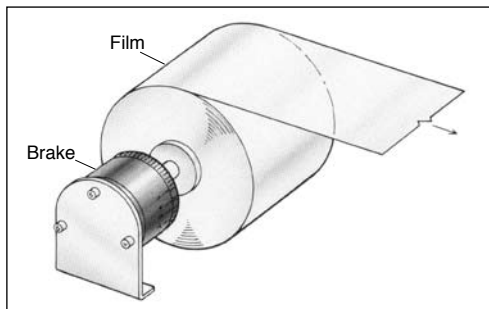
Find the slip rpm on the X-axis and the torque on the Y-axis. Notice the areas that represent safe, continuous duty; intermittent duty, such as five minutes on, five minutes off; and the area which is not recommended. Operating above that line for any period of time will cause overheating and possible damage to the unit.

S90MCCM513...**S90MCC-MTL25001
S90MCCMMTL0601****S90MCC-MTL37505
S90MCCMMTL0806****S90MCC-MTL37510
S90MCC-MTL50010
S90MCC-MTL62510
S90MCCMMTL1612****S90MCC-MTLA0025
S90MCC-MTL50025
S90MCC-MTL62525
S90MCC-MTL75025
S90MCC-MTL87525
S90MCCMMTL1628****S90MCC-806...
S90MCCMM806...**

■ APPLICATIONS – EXAMPLES

UNWIND TENSION CONTROL

Brake mounted on shaft of unwind spool or bobbin.



Film Unwind - Tension provided by hysteresis units.

Information required: (Example)

Full diameter = 6 in.

Empty core diameter = 3 in.

Average tension = 1 lb.

Velocity = 150 ft./minute

How to size:

$$\text{Avg. radius} = [\text{Full roll dia.} + \text{Empty dia.}] / 4 \\ = (6+3) / 4 = 2.25 \text{ in.}$$

$$\text{Avg. torque (lb. in.)} = \text{avg. tension (lbs)} \times \text{avg. radius (in.)} \\ = 1 \times 2.25 = 2.25 \text{ lb. in.}$$

1. Select Catalog Number **S90MCC-MTL37505** based on 2.25 lb. in.

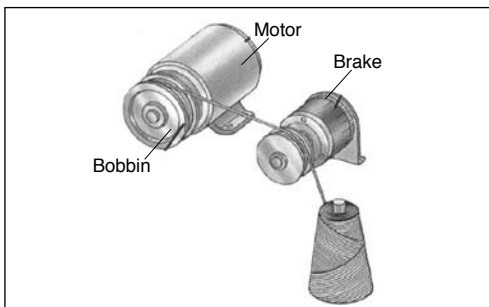
2. Check Operating Curve

The Max. rpm occurs at the min. radius

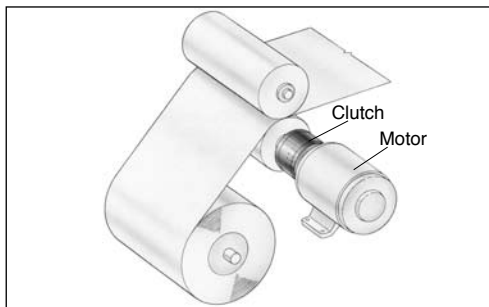
$$\text{Max. rpm} = \text{Velocity} / (\text{Empty dia.} \times \pi) \\ = (150 \text{ ft./min.}) / [(0.25 \text{ feet}) \times \pi] \\ = 191 \text{ rpm}$$

2.25 lb. in. at 191 rpm is okay.

NIP ROLL OR PULLEY TENSION CONTROL



Coil Winding - Constant tension provided by hysteresis unit.



Film Tensioning - Constant tensioning supplied by hysteresis unit.

Information required: (Example)

Pulley diameter or nip roll = 3 in.

Tension = 2.5 lbs

Velocity = 300 ft./min.

How to size:

$$\text{Torque (lb. in.)} = \text{Tension} \times \text{Radius} \\ = 2.5 \text{ lbs} \times [(3 \text{ in.}) / 2] = 3.75 \text{ lb. in.}$$

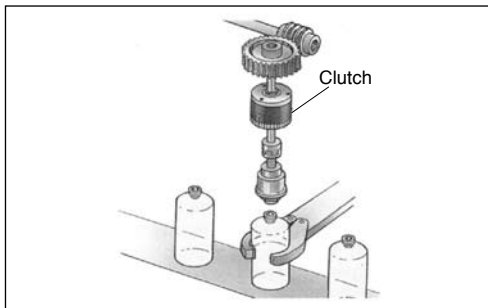
1. Select Catalog Number **S90MCC-MTL37505** based on 3.75 lb. in.

2. Check Operating Curve

$$\text{Max. rpm} = (300 \text{ ft./min.}) / (0.25 \text{ ft.} \times \pi) = 382 \text{ rpm}$$

382 rpm is too high for continuous duty on the **S90MCC-MTL37505** unit.

3. Select Catalog Number **S90MCC-MTL62510**

■ APPLICATIONS – EXAMPLES**CYCLING**

Bottle Capping - Constant torque provided by a hysteresis clutch.

Information required: (Example)

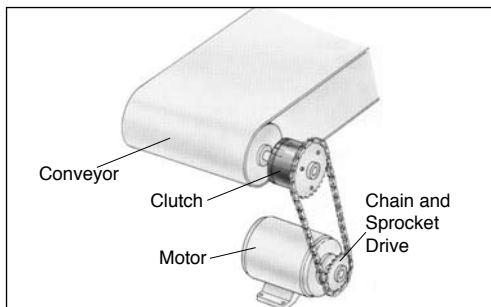
Slip rpm = 350 rpm

Torque = 8 lb. in.

Duty cycle (% slip time of total cycle time) = 25%

How to size:

1. Select Catalog Number **S90MCC-MTL62510** based on 8 lb. in.
2. Check Operating Curve
350 rpm is high, but as the duty cycle is only 25%, the Catalog Number **S90MCC-MTL62510** is okay.

OVERLOAD PROTECTION TORQUE LIMITING SOFT START (Motor Horsepower Method)

Torque Limiting - Hysteresis clutch provides overload protection.

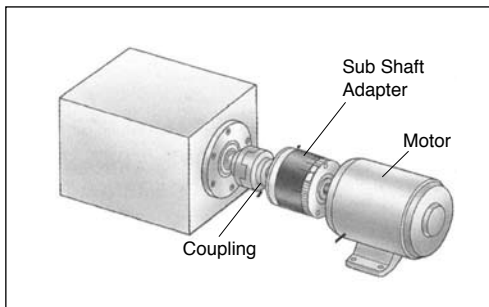
Information required: (Example)

Motor HP = 1/10 HP

Motor rpm = 900 rpm

How to size:

$$\begin{aligned}\text{Torque (lb. in.)} &= (\text{Motor HP} \times 63000) / \text{Motor rpm} \\ &= [1/10 \text{ HP} \times 63000] / 900 = 7 \text{ lb. in.}\end{aligned}$$



Material Handling - Hysteresis clutch can provide overload protection and soft start.

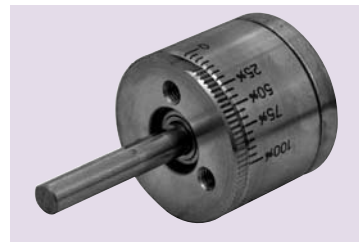
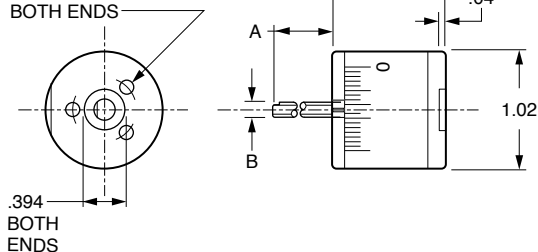
1. Select Catalog Number **S90MCC-MTL62525** based on 7 lb. in.
2. Check Operating Curve
7 lb. in. is at the upper limit of safe continuous operation, but is okay.

■ NONELECTRIC

■ NO WEARING PARTS

■ NO FRICTION

M3-0.5 TAP .18 DEEP
3X EQ. SP. ON .610 B.C.
BOTH ENDS

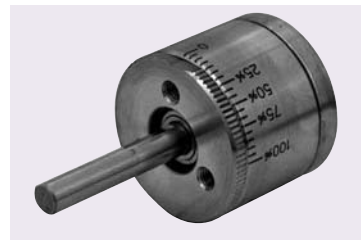
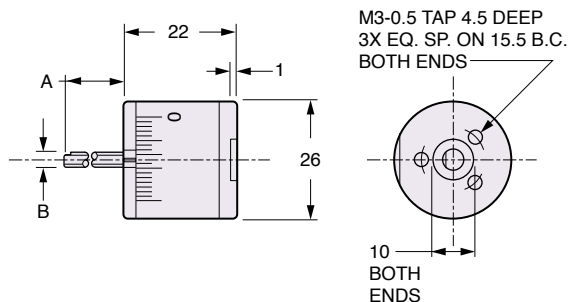


MATERIAL: Housing and Shaft – Stainless Steel

Catalog Number	B Shaft +.000 -.001	A Shaft Length	Torque Range lb. in.	Weight lb.
S90MCC-5130151 S90MCC-5130198	3/16	.51 .98	.003 – .018	.16
S90MCC-5130651 S90MCC-5130698		.51 .98	.010 – .060	
S90MCC-5131351 S90MCC-5131398		.51 .98	.010 – .130	



Magnetic Clutch & Couplings to 0.014 N·m Torque

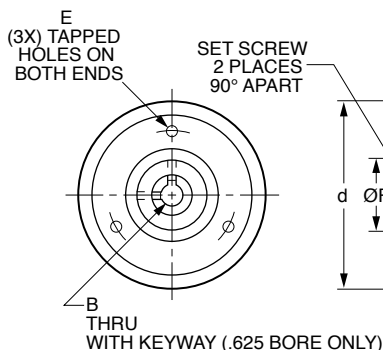
Stock Drive Products/Sterling Instrument
Phone: 516-326-3300
Fax: 516-326-8827
■ NONELECTRIC
■ NO WEARING PARTS
■ NO FRICTION


The projections shown are per ISO convention.

MATERIAL: Housing and Shaft – Stainless Steel

Catalog Number	B Shaft -0.03 mm	A Shaft Length	Torque Range N • m	Weight kg
S90MCCM5130213	5	13	0.0003...0.002	0.071
S90MCCM5130225		25		
S90MCCM5130713		13	0.001... 0.007	
S90MCCM5130725		25		
S90MCCM5131413		13	0.001... 0.014	
S90MCCM5131425		25		

■ NONELECTRIC ■ NO WEARING PARTS ■ NO FRICTION ■ HOLLOW BORE

**MATERIAL:**

Housing – Aluminum, Black Anodized Finish

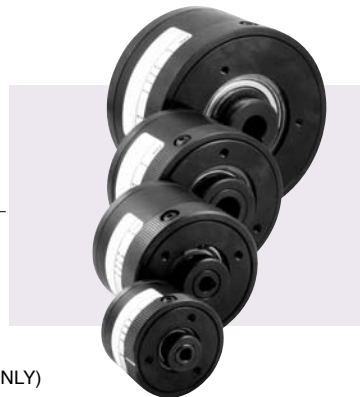
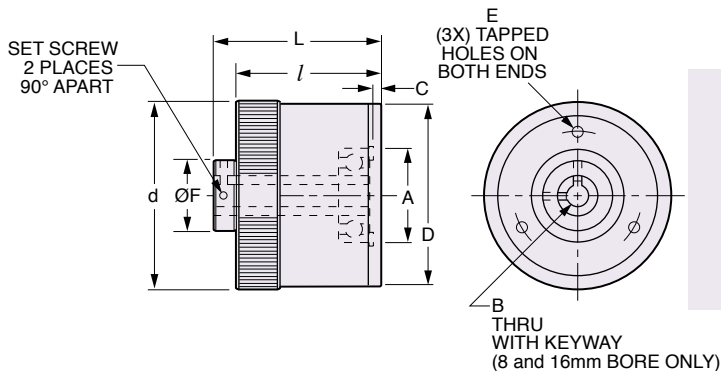
Dial – Steel, Black Oxide

Catalog Number	B Bore +.001 -.000	L Length	L ₁	D	d	A	C	Torque Range lb. in.
S90MCC-MTL25001	.250	1.65	1.42	1.87	1.95	.866	.08	.06 – 1.25
S90MCC-MTL37505		2.44	2.12	2.71	2.76	1.378		.18 – 5.00
S90MCC-MTL37510	.375	2.52	2.20	3.23	3.31	1.850		.50 – 10.60
S90MCC-MTL37525		3.11	2.67	4.57	4.68	2.441		1.00 – 25.00
S90MCC-MTL50010	.500	2.52	2.20	3.23	3.31	1.850		.50 – 10.60
S90MCC-MTL50025		3.11	2.67	4.57	4.68	2.441		1.00 – 25.00
S90MCC-MTL62510	.625	2.52	2.20	3.23	3.31	1.850		.50 – 10.60
S90MCC-MTL62525		3.11	2.67	4.57	4.68	2.441		1.00 – 25.00
S90MCC-MTL75025	.750	3.11	2.67	4.57	4.68	2.441		1.00 – 25.00
S90MCC-MTL87525	.875	3.11	2.67	4.57	4.68	2.441		1.00 – 25.00
S90MCC-MTLA0025	1.000	3.11	2.67	4.57	4.68	2.441		1.00 – 25.00

Catalog Number	F Hub Dia.	Approx. Weight lb.	Set Screw	E			Keyway
				Thread	Depth	Bolt Circle	
S90MCC-MTL25001	.75	.73	M4	M4 – .70	.31	1.260	—
S90MCC-MTL37505	1.06	2.28	M4	M4	.39	1.890	—
S90MCC-MTL37510	1.46	3.57	M5	M5	.39	2.375	
S90MCC-MTL37525	1.38	8.95	M5	M5 – .80	.47	3.000	
S90MCC-MTL50010	1.46	3.57	M5	M5	.39	2.375	1/8
S90MCC-MTL50025	1.38	8.95		M5 – .80	.47	3.000	
S90MCC-MTL62510	1.46	3.57	M5	M5	.39	2.375	3/16
S90MCC-MTL62525	1.38	8.95		M5 – .80	.47	3.000	
S90MCC-MTL75025	1.38	8.95	M5	M5 – .80	.47	3.000	3/16
S90MCC-MTL87525	1.38	8.95	M5	M5 – .80	.47	3.000	3/16
S90MCC-MTLA0025	1.38	8.95	M5	M5 – .80	.47	3.000	1/4

SDP/SI**Magnetic Clutches & Couplings to 2.83 N·m Torque****Stock Drive Products/Sterling Instrument****Phone: 516-326-3300****Fax: 516-326-8827**

■ NONELECTRIC ■ NO WEARING PARTS ■ NO FRICTION ■ HOLLOW BORE



The projections shown are per ISO convention.

MATERIAL:

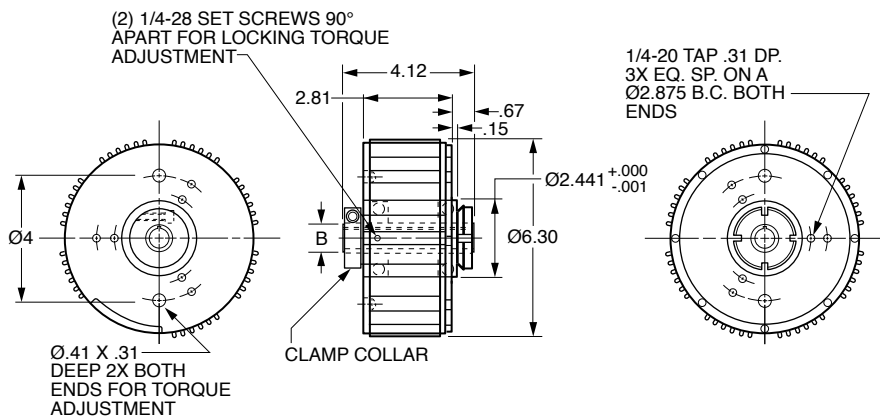
Housing – Aluminum, Black Anodized Finish

Dial – Steel, Black Oxide Finish

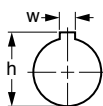
Catalog Number	B Bore +0.025	L Length	l	D	d	A	C	Torque Range N·m
S90MCCMMTL0601	6	42	36	47.5	49.5	22	2	0.007...0.14
S90MCCMMTL0806	8	62	54	69	70	35		0.02 ...0.56
S90MCCMMTL1612	16	64	56	82	84	47		0.06 ...1.2
S90MCCMMTL1628	16	79	68	116	119	62		0.11 ...2.83

Catalog Number	F Hub Dia.	Set Screw	E			Keyway	Wt. kg
			Thread	Depth	Bolt Circle		
S90MCCMMTL0601	19	M4	M4 -0.7	8	32	—	0.33
S90MCCMMTL0806	27	M4	M4	10	48	3	1.04
S90MCCMMTL1612	37	M5	M5	10	60.33	5	1.62
S90MCCMMTL1628	35	M5	M5 -0.8	12	76.2	5	4.07

■ NONELECTRIC ■ NO WEARING PARTS ■ NO FRICTION ■ HOLLOW BORE

**MATERIAL:****Housing** – Aluminum, Black Anodized Finish**Dial** – Steel, Black Oxide Finish

Catalog Number	B Bore +.001 -.000	Torque Range lb. in.	Weight lb.
S90MCC-80610	.625	3 – 70	14.2
S90MCC-80612	.750		
S90MCC-80614	.875		

**Keyway Dimensions**

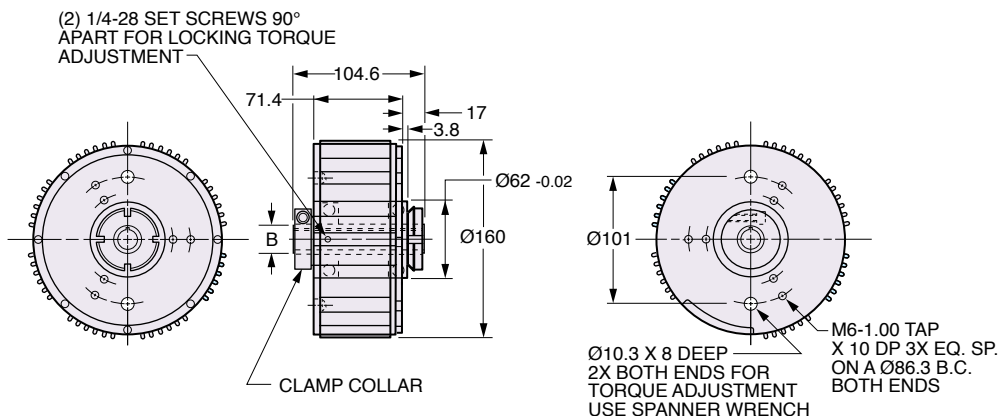
Bore	.625	.750	.875
w +.002, -.000	.187	.187	—
h +.010, -.000	.709	.837	—



Magnetic Clutches & Couplings to 7.9 N·m Torque

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■ NONELECTRIC ■ NO WEARING PARTS ■ NO FRICTION ■ HOLLOW BORE



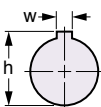
The projections shown are per ISO convention.

MATERIAL:

Housing – Aluminum, Black Anodized Finish

Dial – Steel, Black Oxide Finish

Catalog Number	B Bore +0.025	Torque Range N·m	Weight kg
S90MCCM80616	16	0.33...7.9	6.45
S90MCCM80619	19		



Keyway Dimensions		
Bore	16	19
w+0.05	5	6
h+0.25	18.3	21.8

INERTIA AND TORQUE VALUES

Calculate load inertia (WR²)

Use the inertia chart to determine the inertia of the application components. To determine WR² of a given shaft or disc, multiply the WR² from the chart by the length of shaft or thickness of disc in inches.

NOTE: For hollow shafts, subtract WR² of the I.D. from the WR² of the O.D. and multiply by length.

In order to calculate the inertias of components which are made of material other than steel, use the multipliers found in the conversion chart (below) to establish the inertias of these components.

Inertia Conversion Chart

In order to determine the inertia of a rotating member (shaft, disc, etc.) of a material other than steel, multiply the inertia of the appropriate steel diameter from the chart by:

Material	Multiplier
Bronze	1.05
Steel	1.00
Iron	.92
Powdered Metal Bronze	.79
Powdered Metal Iron	.88
Aluminum	.35
Nylon	.17

Determine clutch or brake torque value

With the inertia value calculated, determine the torque requirement for the function.

A) For Overrunning and Start-Stop (random start-stop)

$$T = \frac{WR^2 \times \text{rpm}}{3700 \times t} + \text{friction torque}^*$$

Where:

T = Torque required from wrap spring, lb.-in.

WR² = load inertia, lb.-in.²

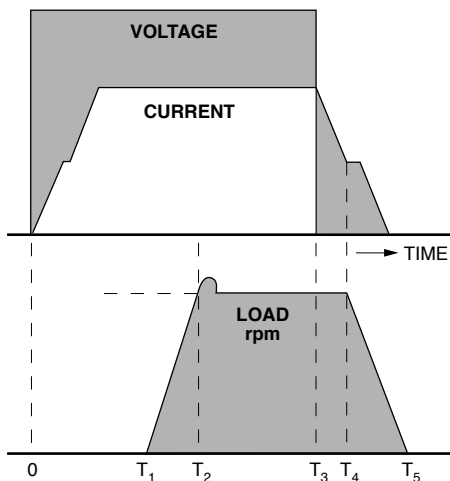
rpm = shaft speed at clutch location

t = time to engagement (.003 for clutch), sec.

*Frictional (drag) torque is the torque necessary to overcome static friction. It may be measured by a spring-scale or by dead-weights, applied to a known moment arm so gradually as to make inertia negligible. It is that torque found just sufficient to induce motion.

INERTIA OF STEEL SHAFTING (Per Inch of Length or Thickness)					
Dia. in.	WR ² lb.-in. ²	Dia. in.	WR ² lb.-in. ²	Dia. in.	WR ² lb.-in. ²
1/4	.00011	7	66.816	13	803.52
3/8	.00055	7-1/4	77.04	13-1/4	858.24
1/2	.00173	7-1/2	87.984	13-1/2	924.48
3/4	.00864	7-3/4	100.656	13-3/4	995.04
1	.0288	8	113.904	14	1068.48
1-1/4	.072	8-1/4	128.88	14-1/4	1147.68
1-1/2	.144	8-1/2	144.00	14-1/2	1229.75
1-3/4	.288	8-3/4	162.72	14-3/4	1317.60
2	.432	9	182.88	15	1404.00
2-1/4	.72	9-1/4	203.04	16	1815.84
2-1/2	1.152	9-1/2	223.20	17	2314.08
2-3/4	1.584	9-3/4	252.00	18	2910.24
3	2.304	10	277.92	19	3611.52
3-1/2	4.176	10-1/4	306.72	20	4433.76
3-3/4	5.472	10-1/2	338.40	21	5389.92
4	7.056	10-3/4	371.52	22	6492.96
4-1/4	9.072	11	407.52	23	7757.28
4-1/2	11.376	11-1/4	444.96	24	9195.84
5	17.28	11-1/2	486.72	25	10827.36
5-1/2	25.488	11-3/4	529.92	26	12666.24
6	36.00	12	576.00	27	14731.20
6-1/4	42.624	12-1/4	626.40	28	17036.64
6-1/2	49.68	12-1/2	679.68	29	19604.16
6-3/4	57.888	12-3/4	735.84	30	22452.48

PERFORMANCE PROFILE



CURRENT AND SPEED RESPONSE PROFILE

T₁ = Time to engage (TTE) (Electrical build up and collar movement and spring wrap time).

T₂ = Time to speed (TTS).

T₄ - T₃ = Armature disengagement time (ADT).

T₅ - T₃ = Time to zero (TTZ) (Load and speed dependent).

CHARACTERISTICS OF DISENGAGEMENT

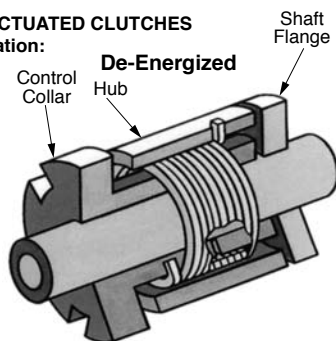
Control collar release time (ADT) is affected somewhat by speed, load, and the operational performance. The electrical circuit, however, has a major impact on the clutch disengagement performance. Voltage transients and bleed down-time should be minimized. The optimum suppression network for an application using the clutch is represented by circuit C

MAGNETICALLY ACTUATED CLUTCHES

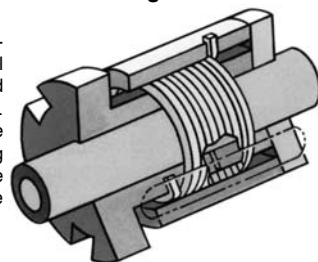
Principles of Operation:

Clutch Operation

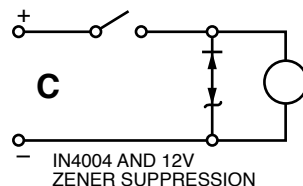
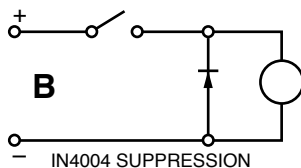
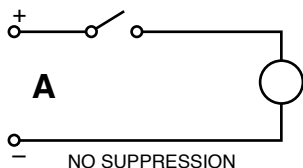
The inside diameter of the spring is larger than the outside diameter of the shaft hub. One end of the spring (control tang) is fastened to the control collar (or armature). When the coil is de-energized, the hubs rotate independently of each other. The free hub (affixed to the spring), the spring, and the collar rotate as a unit. The opposing shaft hub is not fastened to the spring and rotates as another unit. The coil housing is stationary and piloted on the shaft bearing. A ground pin placed in the retaining tab secures the coil housing from rotating.



Energized



When the coil is energized, the control collar is pulled and held against the shaft flange. The momentary relative motion between spring and hubs "wraps" the spring, coupling the two hubs positively. All torque is transmitted through the wrapped spring. Magnetic force is only necessary to maintain a tight spring grip for total torque transfer.

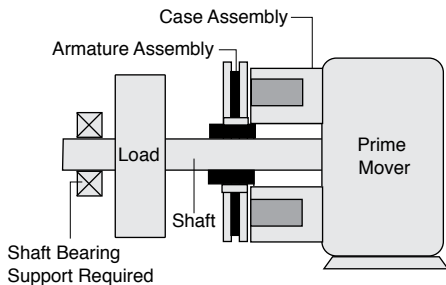
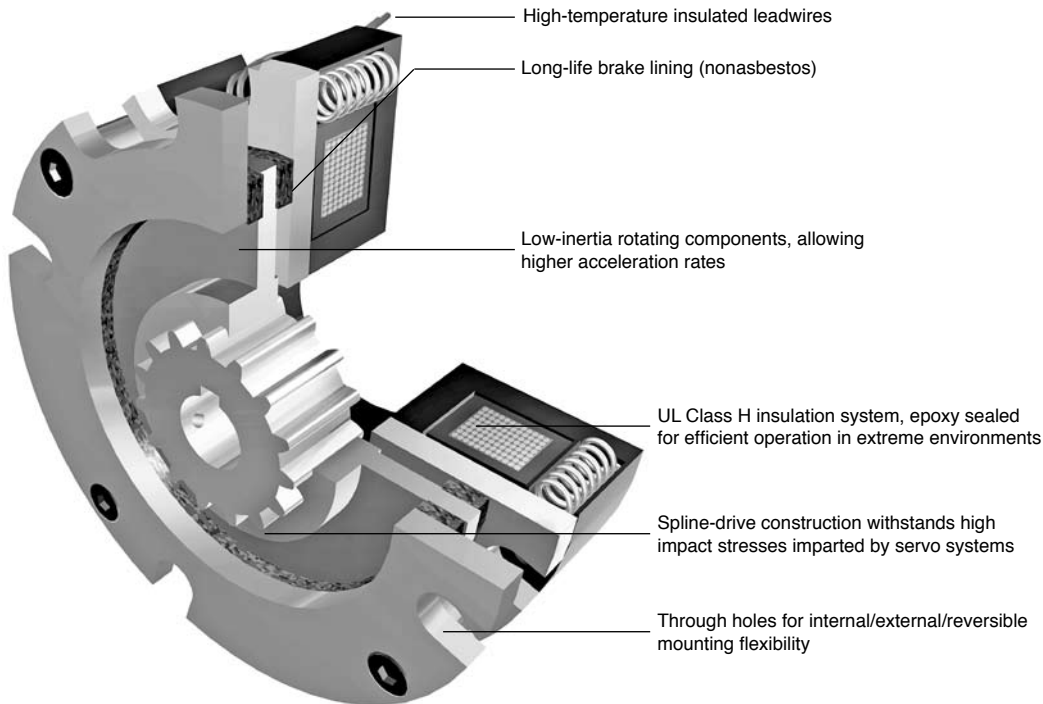


Fax: 516-326-8827

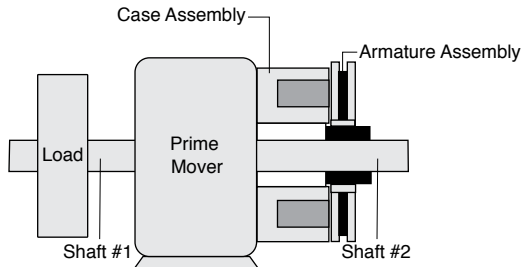
Fax: 516-326-8827

Power-Off Brake – S90SB9- series

Used to stop or hold a load in the absence of power. The case assembly is mounted or fastened to a bulkhead. The armature assembly is attached to the rotating load.

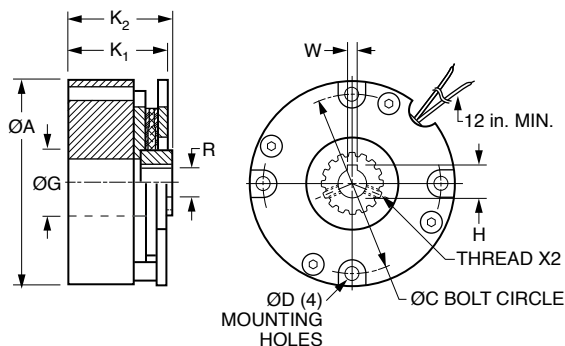


OPTION 1: SINGLE OUTPUT SHAFT



OPTION 2: DOUBLE OUTPUT SHAFT

■ SIMPLE INSTALLATION ■ ECONOMICAL COST ■ ENERGY EFFICIENT ■ SPLINED HUB



Continued on the next page

COIL VOLTAGE: 24V DC

Catalog Number	Static* Torque lb. in.	Max. Watts	R Hub Bore	G Case Inside Dia.	H Keyway Height	W Keyway Width	A O.D.	C	D
S90SB9-15A04S	5	7	.250	.53	.286	.062	1.50	1.31	.125
S90SB9-15A04L			.312		.364	.094			
S90SB9-15A05S			.375		.425	.094			
S90SB9-15A06S			.375		.425	.094			
S90SB9-15A06L	10	10	.250	.58	.286	.062	1.79	1.64	.093
S90SB9-17A04S			.375		.425	.094			
S90SB9-17A06S			.375		.425	.094			
S90SB9-17A06L			.375		.425	.094			
S90SB9-17A08S	10	10	.500	.58	.564	.125	1.79	1.64	.093
S90SB9-17A08L			.500		.564	.125			

Catalog Number	K ₁ OAL Short Hub	K ₂ OAL Long Hub	Thread	Nom. Resistance Ohms	Armature		Rotor Inertia lb. in. sec ²	Energy Dissipation lb. ft. / min.	Weight lb.
					Engmnt. msec	Dis-Engmnt. msec			
S90SB9-15A04S	1.06	—	#2-56	96	20	10	4.38 x 10 ⁻⁶	500	.3
S90SB9-15A04L	—	1.18							
S90SB9-15A05S	1.06	—							
S90SB9-15A05L	—	1.18							
S90SB9-15A06S	1.06	—	#6-32	64	20	10	1.87 x 10 ⁻⁵	700	.7
S90SB9-15A06L	—	1.18							
S90SB9-17A04S	1.19	—							
S90SB9-17A04L	—	1.32							
S90SB9-17A06S	1.19	—							
S90SB9-17A06L	—	1.32							
S90SB9-17A08S	1.19	—							
S90SB9-17A08L	—	1.32							

NOTE: Other voltages available on special order.

*Typical torque after burnishing; units shipped burnished.

SDP/SI

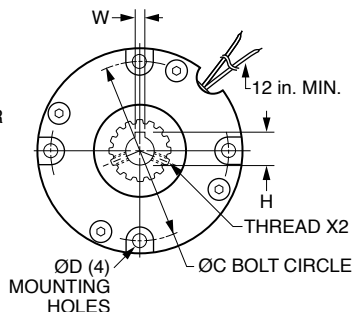
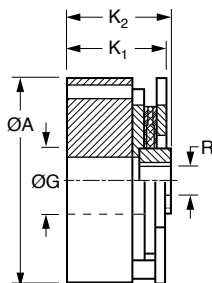
Stock Drive Products/Sterling Instrument

Phone: 516-326-3300

Fax: 516-326-8827

Power-Off Servo Brakes

■ SIMPLE INSTALLATION ■ ECONOMICAL COST ■ ENERGY EFFICIENT ■ SPLINED HUB

Continued from the previous page
and continued on the next page**COIL VOLTAGE: 24V DC**

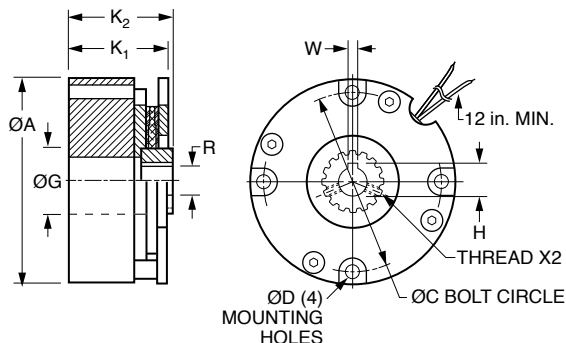
Catalog Number	Static* Torque lb. in.	Max. Watts	R Hub Bore	G Case Inside Dia.	H Keyway Height	W Keyway Width	A O.D.	C	D
S90SB9-19A04S	18	12	.250	.43	.286	.062	2.00	1.77	.146
S90SB9-19A04L			.375		.425	.094			
S90SB9-19A06S									
S90SB9-19A06L									
S90SB9-23A05S	35	13	.312	.79	.364	.094	2.36	2.05	.177
S90SB9-23A05L									
S90SB9-23A06S			.375		.425	.094			
S90SB9-23A06L									
S90SB9-23A08S			.500		.564	.125			
S90SB9-23A08L									
S90SB9-23A10S			.625		.709	.188			
S90SB9-23A10L									

Catalog Number	K ₁ OAL Short Hub	K ₂ OAL Long Hub	Thread	Nom. Resistance Ohms	Armature		Rotor Inertia lb. in. sec ²	Energy Dissipation lb. ft. /min	Weight lb.
					Engmnt. msec	Dis-Engmnt. msec			
S90SB9-19A04S	1.19	—	#6-32	54	35	10	2.36 x 10 ⁻⁵	900	.7
S90SB9-19A04L	—	1.38							
S90SB9-19A06S	1.19	—							
S90SB9-19A06L	—	1.38							
S90SB9-23A05S	1.19	—	#6-32	46.5	70	20	1.77 x 10 ⁻⁵	1200	1.1
S90SB9-23A05L	—	1.65							
S90SB9-23A06S	1.19	—							
S90SB9-23A06L	—	1.65							
S90SB9-23A08S	1.19	—							
S90SB9-23A08L	—	1.65							
S90SB9-23A10S	1.19	—							
S90SB9-23A10L	—	1.65							

NOTE: Other voltages available on special order.

*Typical torque after burnishing; units shipped burnished.

- SIMPLE INSTALLATION ■ ECONOMICAL COST ■ ENERGY EFFICIENT ■ SPLINED HUB



Continued from the previous page

COIL VOLTAGE: 24V DC

Catalog Number	Static* Torque lb. in.	Max. Watts	R Hub Bore	G Case Inside Dia.	H Keyway Height	W Keyway Width	A O.D.	C	D
S90SB9-26A06S	40	19	.375	.63	.425	.094	2.87	2.50	1.77
S90SB9-26A06L			.500		.564	.125			
S90SB9-26A08S			.500		.564	.125			
S90SB9-26A08L	80	20	.375	1.18	.425	.094	3.03	2.76	1.77
S90SB9-28A06S			.500		.564	.125			
S90SB9-28A06L			.500		.564	.125			
S90SB9-28A08S			.500		.564	.125			
S90SB9-28A08L	80	20	.625	1.18	.709	.188	3.03	2.76	1.77
S90SB9-28A10S			.625		.709	.188			
S90SB9-28A10L			.625		.709	.188			

Catalog Number	K ₁ OAL Short Hub	K ₂ OAL Long Hub	Thread	Nom. Resistance Ohms	Armature		Rotor Inertia lb. in. sec ²	Energy Dissipation lb. ft. /min	Weight lb.
					Engmnt. msec	Dis-Engmnt. msec			
S90SB9-26A06S	1.22	—	#8-32	33	80	20	1.14×10^{-4}	1400	1.2
S90SB9-26A06L	—	1.45							
S90SB9-26A08S	1.22	—							
S90SB9-26A08L	—	1.45	#8-32	36	50	40	1.06×10^{-4}	1800	1.8
S90SB9-28A06S	1.22	—							
S90SB9-28A06L	—	1.45							
S90SB9-28A08S	1.22	—							
S90SB9-28A08L	—	1.45							
S90SB9-28A10S	1.22	—							
S90SB9-28A10L	—	1.45							

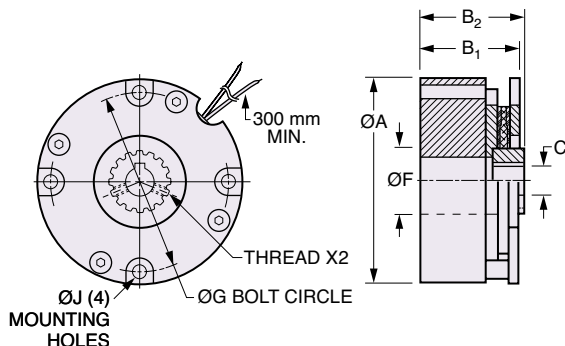
NOTE: Other voltages available on special order.

*Typical torque after burnishing; units shipped burnished.

■ SIMPLE INSTALLATION

■ ECONOMICAL COST

■ ENERGY EFFICIENT



Continued on the next page

The projections shown are per ISO convention.

COIL VOLTAGE: 24V DC

Catalog Number	Static Torque N • m	Max. Watts	C Bore	F Case Inside Dia.	A O.D.	G	J	B ₁ OAL Short Hub	B ₂ OAL Long Hub
S90SB9M15A06S	0.56	7	6	13.5	38.1	33.3	3.2	26.9	—
S90SB9M15A06L			8					—	30
S90SB9M15A08S			10					26.9	—
S90SB9M15A08L			10					—	30
S90SB9M15A10S	1.13	10	6	14.7	45.5	41.7	2.4	26.9	—
S90SB9M15A10L			8					—	30
S90SB9M17A06S			10					30.2	—
S90SB9M17A06L			12					—	33.5
S90SB9M17A10S	1.13	10	6	14.7	45.5	41.7	2.4	30.2	—
S90SB9M17A10L			8					—	33.5
S90SB9M17A12S			10					30.2	—
S90SB9M17A12L			12					—	33.5

Catalog Number	Thread	Nom. Resistance Ohms	Armature		Rotor Inertia kg • m • sec ²	Energy Dissipation N • m/min	Weight kg
			Engagement msec	Disengagement msec			
S90SB9M15A06S	M2	96	20	10	0.5 x 10 ⁻⁷	678	0.1
S90SB9M15A06L							
S90SB9M15A08S							
S90SB9M15A08L							
S90SB9M15A10S							
S90SB9M15A10L							
S90SB9M17A06S	M3	64	20	10	0.21 x 10 ⁻⁶	949	0.3
S90SB9M17A06L							
S90SB9M17A10S							
S90SB9M17A10L							
S90SB9M17A12S							
S90SB9M17A12L							

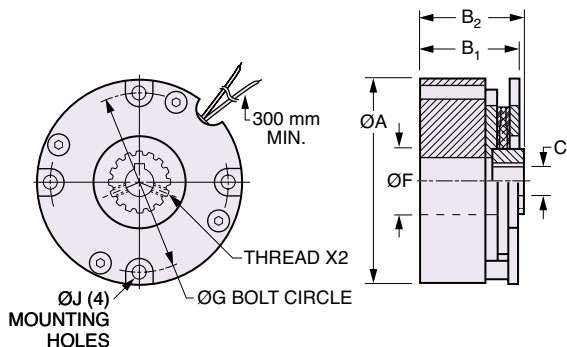
Keyway Dimensions

Bore	6	8	10	12
Width	2	3	3	4
Height	7	9.4	11.8	13.8

■ SIMPLE INSTALLATION

■ ECONOMICAL COST

■ ENERGY EFFICIENT



The projections shown are per ISO convention.

Continued from the previous page
and continued on the next page**COIL VOLTAGE: 24V DC**

Catalog Number	Static Torque N • m	Max. Watts	C Bore	F Case Inside Dia.	A O.D.	G	J	B ₁ OAL Short Hub	B ₂ OAL Long Hub
S90SB9M19A06S	2.03	12	6	10.9	50.8	45	3.7	30.2	—
S90SB9M19A06L			—					—	35
S90SB9M19A10S			10					30.2	—
S90SB9M19A10L			—					—	35
S90SB9M23A08S	3.95	13	8	20	60	52.1	4.5	35.6	—
S90SB9M23A08L			—					—	41.9
S90SB9M23A10S			10					35.6	—
S90SB9M23A10L			—					—	41.9
S90SB9M23A12S			12					35.6	—
S90SB9M23A12L			—					—	41.9
S90SB9M23A16S			16					35.6	—
S90SB9M23A16L			—					—	41.9

Catalog Number	Thread	Nom. Resistance Ohms	Armature		Rotor Inertia kg • m • sec ²	Energy Dissipation N • m/min.	Weight kg
			Engagement msec	Disengagement msec			
S90SB9M19A06S	M3	54	35	10	0.27 x 10 ⁻⁶	1220	0.3
S90SB9M19A06L							
S90SB9M19A10S							
S90SB9M19A10L							
S90SB9M23A08S	M3	46.5	70	20	0.20 x 10 ⁻⁶	1627	0.5
S90SB9M23A08L							
S90SB9M23A10S							
S90SB9M23A10L							
S90SB9M23A12S							
S90SB9M23A12L							
S90SB9M23A16S							
S90SB9M23A16L							

Keyway Dimensions

Bore	6	8	10	12	16
Width	2	3	3	4	5
Height	7	9.4	11.4	13.8	18.3

SDP/SI**Power-Off Servo Brakes**

Stock Drive Products/Sterling Instrument

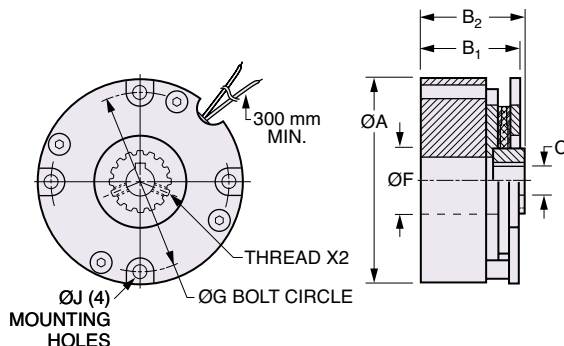
Phone: 516-326-3300

Fax: 516-326-8827

■ SIMPLE INSTALLATION

■ ECONOMICAL COST

■ ENERGY EFFICIENT



Continued from the previous page

The projections shown are per ISO convention.

COIL VOLTAGE: 24V DC

Catalog Number	Static Torque N • m	Max. Watts	C Bore	F Case Inside Dia.	A O.D.	G	J	B ₁ OAL Short Hub	B ₂ OAL Long Hub
S90SB9M26A10S	4.52	19	10	16	72.9	63.5	4.5	31	—
S90SB9M26A10L			12					—	36.8
S90SB9M26A12S			12					31	—
S90SB9M26A12L	9.04	20	10	30	77	70	4.5	—	36.8
S90SB9M28A10S			12					31	—
S90SB9M28A10L			12					—	36.8
S90SB9M28A12S			16					31	—
S90SB9M28A12L			16					—	36.8
S90SB9M28A16S								31	—
S90SB9M28A16L								—	36.8

Catalog Number	Thread	Nom. Resistance Ohms	Armature		Rotor Inertia kg • m • sec ²	Energy Dissipation N • m/min	Weight kg
			Engagement msec	Disengagement msec			
S90SB9M26A10S	M4	33	80	20	0.13 x 10 ⁻⁵	1898	0.5
S90SB9M26A10L							
S90SB9M26A12S							
S90SB9M26A12L							
S90SB9M28A10S	M4	36	50	40	0.12 x 10 ⁻⁶	2440	0.8
S90SB9M28A10L							
S90SB9M28A12S							
S90SB9M28A12L							
S90SB9M28A16S							
S90SB9M28A16L							

Keyway Dimensions

Bore	10	12	16
Width	3	4	5
Height	11.4	13.8	18.3

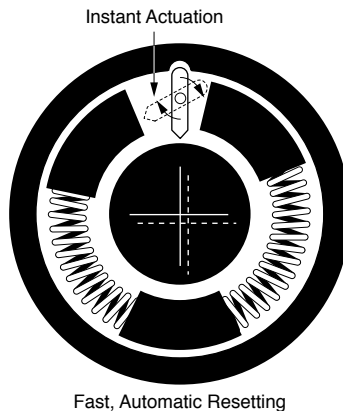
These units are positive drive slip clutches which provide accurate overload protection in many mechanical power transmission systems. When a jam-up or excess overload occurs, these units disengage motor drives.

When load exceeds the rating determined by precision tempered torque springs, the unit's drive key pivots out of a slot to disengage the slip clutch. Once the overload is removed and speed reduced, the unit resets itself automatically.

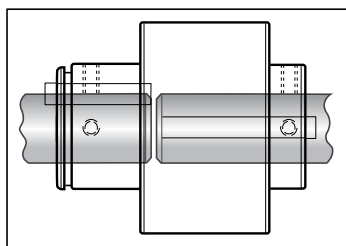
Steel springs within the unit force metal slides against each side of a hardened cast steel pawl, holding it rigid with one end seated in a detent on the outer drive housing.

During normal machine operation, power transfers into the central assembly through the rigidly held pawl and then rotates the outer drive housing and the driven shaft to which it is connected. If a jam-up or some other malfunction causes an unacceptable load to occur, excessive torque on the pawl overpowers the springs and the pawl rotates out of its detent. Thus, the central assembly is disconnected from the outer drive housing.

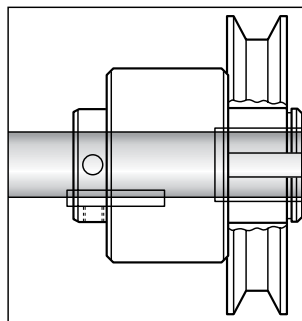
Once the overload is removed and speed reduced, the torque springs automatically expand to force the pawl back in its detent. This automatic resetting action engages your drive shaft and puts the entire drive system back into motion at its original angular position.



The Actuating Pin Assembly is a simple pin which is forced out radially from the main body when overload occurs. When using this option, it is important to note that the housing or external mounting hub end of the unit is the power source or input end. This part of the unit must continue to rotate for the extended pin to contact a customer-supplied limit switch for shutdown or warning.



Shaft-to-Shaft Mount Slip Clutch



Through Shaft Mount Slip Clutch

Through Shaft Mount Slip Clutches

Stock Drive Products/Sterling Instrument

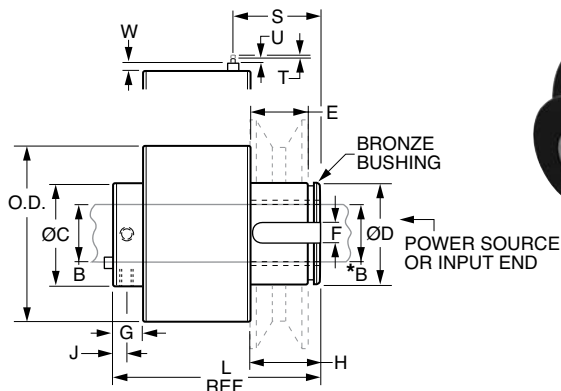
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■ WITH BUSHING

■ OPTIONAL ACTUATING PIN

OPTIONAL ACTUATING PIN



Continued on the next page

FEATURES:

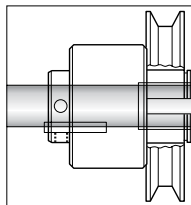
- Quick and easy installation
- Tamper resistant
- Automatic reset
- Provides overload protection in mechanical power transmission systems
- Dependable performance in dusty, humid and oily environments

MATERIAL: Housing – Heat-Treated 1215 Steel, Black Oxide

Bushing – Bronze

Catalog Number**	B Bore	C Short Hub Dia.	D Long Hub Dia.	E	F External Keyway	O.D. Ref.	L Ref.	G	H	J	Slip Torque ± 10% lb. in.	Weight lb.
S9945Y-T1X04015 □	.250					1.562	1.800	.205	.600	.135	15	1/2
S9945Y-T1X04020 □											20	
S9945Y-T1X04030 □											30	
S9945Y-T1X06015 □	.375	.875	1.000	.500	.250	1.562	1.800	.205	.600	.135	15	1/2
S9945Y-T1X06020 □											20	
S9945Y-T1X06030 □											30	
ΔS9945Y-T1X08015 □	.500					1.562	1.800	.205	.600	.135	15	1/2
ΔS9945Y-T1X08020 □											20	
ΔS9945Y-T1X08030 □											30	
S9945Y-T2Z06040 □	.375	1.250	1.375	.625	.312	2.165	2.420	.365	.750	.235	40	1-1/4
S9945Y-T2Z06050 □											50	
S9945Y-T2Z06060 □											60	

Catalog Number**	OPTIONAL ACTUATING PIN			
	S	T	U	W
S9945Y-T1X04015 □	.837	.125	.180	.250
S9945Y-T1X04020 □				
S9945Y-T1X04030 □				
S9945Y-T1X06015 □				
S9945Y-T1X06020 □				
S9945Y-T1X06030 □				
ΔS9945Y-T1X08015 □	1.033	.125	.125	.195
ΔS9945Y-T1X08020 □				
ΔS9945Y-T1X08030 □				
S9945Y-T2Z06040 □				
S9945Y-T2Z06050 □				
S9945Y-T2Z06060 □				



Through Shaft Mount Slip Clutch

NOTE: The actuating pin assembly is a simple pin which is forced out radially from the main body when overload occurs. When using this option, it is important to note that the housing (*B bore) hub end of the unit is the power source or input end. This part of the unit must continue to rotate for the extended pin to contact a customer-supplied limit switch for shutdown or warning.

HOW TO SELECT:

1. Note shaft diameter and length. The shaft must extend through the complete unit. The drive or driven component will be mounted on the long hub.
2. Determine required torque.

Δ Supplied with standard keyway .125 x .062 for square key.

**To order model without actuating pin, use catalog number as is. For actuating pin, insert "P" in box at the end of the catalog number.



Through Shaft Mount Slip Clutches — Cont.

Stock Drive Products/Sterling Instrument ■ Phone: 516-326-3300 ■ Fax: 516-326-8827

MATERIAL: Housing — Heat-Treated 1215 Steel, Black Oxide

Bushing — Bronze

Continued from the previous page

Catalog Number**	B Bore	C Short Hub Dia.	D Long Hub Dia.	E	F External Keyway	O.D. Ref.	L Ref.	G	H	J	Slip Torque ± 10% lb. in.	Weight lb.
S9945Y-T2Z08040 ☐	.500	1.250	1.375	.625	.312	2.165	2.420	.365	.750	.235	40	1-1/4
S9945Y-T2Z08050 ☐											50	
S9945Y-T2Z08060 ☐											60	
S9945Y-T2Z10040 ☐	.625	1.500	1.625	.875	.375	2.500	2.950	.455	1.000	.312	40	2-1/4
S9945Y-T2Z10050 ☐											50	
S9945Y-T2Z10060 ☐											60	
S9945Y-T2X10040 ☐	.625	1.500	1.625	.875	.375	2.500	2.950	.455	1.000	.312	40	2-1/4
S9945Y-T2X10050 ☐											50	
S9945Y-T2X10060 ☐											60	
S9945Y-T2X12040 ☐	.750	1.750	1.750	1.062	.375	3.000	3.470	.470	1.187	.312	40	3-1/4
S9945Y-T2X12050 ☐											50	
S9945Y-T2X12060 ☐											60	
S9945Y-T3Z10120 ☐	.625	1.750	1.750	1.062	.375	3.000	3.470	.470	1.187	.312	120	3-1/4
S9945Y-T3Z10250 ☐											250	
S9945Y-T3Z10350 ☐											350	
S9945Y-T3Z12120 ☐	.750	1.750	1.750	1.062	.375	3.000	3.470	.470	1.187	.312	120	3-1/4
S9945Y-T3Z12250 ☐											250	
S9945Y-T3Z12300 ☐											350	
S9945Y-T3Z16120 ☐	1.000	2.250	2.500	1.080	.625	3.625	4.550	.555	1.250	.420	120	8
S9945Y-T3Z16250 ☐											250	
S9945Y-T3Z16350 ☐											350	
S9945Y-T3X16300 ☐	1.000	2.250	2.500	1.080	.625	3.625	4.550	.555	1.250	.420	300	8

Catalog Number**	OPTIONAL ACTUATING PIN			
	S	T	U	W
S9945Y-T2Z08040 ☐	1.033	.125	.125	.195
S9945Y-T2Z08050 ☐				
S9945Y-T2Z08060 ☐				
S9945Y-T2Z10040 ☐	1.395	.125	.125	.240
S9945Y-T2Z10050 ☐				
S9945Y-T2Z10060 ☐				
S9945Y-T2X08040 ☐	1.395	.125	.125	.240
S9945Y-T2X08050 ☐				
S9945Y-T2X08060 ☐				
S9945Y-T2X10040 ☐	1.395	.125	.125	.240
S9945Y-T2X10050 ☐				
S9945Y-T2X10060 ☐				
S9945Y-T2X12040 ☐	1.395	.125	.125	.240
S9945Y-T2X12050 ☐				
S9945Y-T2X12060 ☐				

Catalog Number**	OPTIONAL ACTUATING PIN			
	S	T	U	W
S9945Y-T2X12050 ☐	1.395	.125	.125	.240
S9945Y-T2X12060 ☐				
S9945Y-T3Z10120 ☐				
S9945Y-T3Z10250 ☐	1.573	.125	.125	.175
S9945Y-T3Z10350 ☐				
S9945Y-T3Z12120 ☐				
S9945Y-T3Z12250 ☐	1.573	.125	.125	.175
S9945Y-T3Z12300 ☐				
S9945Y-T3Z16120 ☐				
S9945Y-T3Z16250 ☐	1.791	1.791	.125	.175
S9945Y-T3Z16350 ☐				
S9945Y-T3X16300 ☐				

**To order model without actuating pin, use catalog number as is. For actuating pin, insert "P" in box at the end of the catalog number.

NOTE: All units supplied with standard keyways as follows:

- .125 x .062 for .500 bores
 - .187 x .094 for .625 & .750 bores
 - .250 x .125 for 1.000 bores
- For square keys.

Other torque ratings available on special order.

Shaft-to-Shaft Mount Slip Clutches

Stock Drive Products/Sterling Instrument

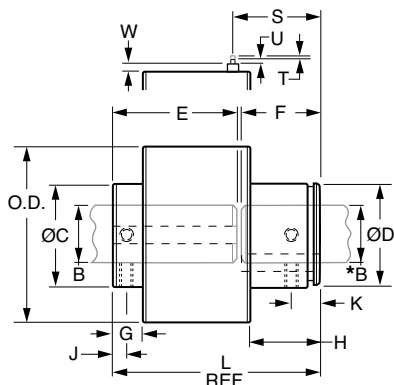
Phone: 516-326-3300

Fax: 516-326-8827

■ COUPLING TYPE

■ OPTIONAL ACTUATING PIN

OPTIONAL ACTUATING PIN

POWER SOURCE
OR INPUT END

FEATURES:

- Quick and easy installation
- Tamper resistant
- Automatic reset
- Provides overload protection in mechanical power transmission systems
- Dependable performance in dusty, humid and oily environments

Continued on the next page

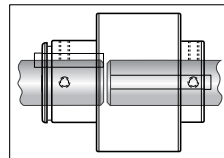
MATERIAL: Heat-Treated 1215 Steel, Black Oxide

Catalog Number**	B Bore	B ₁ Bore	C Short Hub Dia.	D Long Hub Dia.	E	F	O.D. Ref.	L Ref.	G	H	J	K	Slip Torque ± 10% lb. in.	Weight lb.
S9946Y-1X4X4015 □ S9946Y-1X4X4020 □ S9946Y-1X4X4030 □	.250	.250											15 20 30	
S9946Y-1X6X6015 □ S9946Y-1X6X6020 □ S9946Y-1X6X6030 □	.375	.375	.875	1.000	1.140	.630	1.562	1.800	.205	.600	.135	.218	15 20 30	1/2
ΔS9946Y-1X8X8015 □ ΔS9946Y-1X8X8020 □ ΔS9946Y-1X8X8030 □	.500	.500											15 20 30	
S9946Y-2Z6X6040 □ S9946Y-2Z6X6050 □ S9946Y-2Z6X6060 □	.375	.375	1.250	1.375	1.540	.820	2.165	2.420	.365	.750	.235	.312	40 50 60	1-1/4

Catalog Number**	OPTIONAL ACTUATING PIN			
	S	T	U	W
S9946Y-1X4X4015 □ S9946Y-1X4X4020 □ S9946Y-1X4X4030 □				
S9946Y-1X6X6015 □ S9946Y-1X6X6020 □ S9946Y-1X6X6030 □	.837	.125	.180	.250
ΔS9946Y-1X8X8015 □ ΔS9946Y-1X8X8020 □ ΔS9946Y-1X8X8030 □				
S9946Y-2Z6X6040 □ S9946Y-2Z6X6050 □ S9946Y-2Z6X6060 □	1.033	.125	.125	.195

HOW TO SELECT:

1. Note bore size.
2. Determine required torque. The shaft-to-shaft slip clutch is bidirectional; therefore the input of the unit is not important unless equipped with an actuating pin assembly.



Shaft-to-Shaft Mount Slip Clutch

NOTE: The actuating pin assembly is a simple pin which is forced out radially from the main body when overload occurs. When using this option, it is important to note that the housing (*B bore) end of the unit is the power source or input end. This part of the unit must continue to rotate for the extended pin to contact a customer-supplied limit switch for shutdown or warning.

Δ Supplied with standard keyway .125 x .062 for square key. Other parts supplied with set screws.

**To order model without actuating pin, use catalog number as is. For actuating pin, insert "P" in box at the end of the catalog number.

Other torque ratings available on special order.

Shaft-to-Shaft Mount Slip Clutches — Cont.

Phone: 516-326-3300 Fax: 516-326-8827

MATERIAL: Heat-Treated 1215 Steel, Black Oxide

Continued from the previous page

Catalog Number**	B Bore	B ₁ Bore	C Short Hub Dia.	D Long Hub Dia.	E	F	O.D. Ref.	L Ref.	G	H	J	K	Slip Torque ± 10% lb. in.	Weight lb.
S9946Y-2Z8X8040 ☐													40	
S9946Y-2Z8X8050 ☐	.500	.500											50	
S9946Y-2Z8X8060 ☐			1.250	1.375	1.540	.820	2.165	2.420	.365	.750	.235	.312	60	1-1/4
S9946Y-2ZAXA040 ☐													40	
S9946Y-2ZAXA050 ☐	.625	.625											50	
S9946Y-2ZAXA060 ☐													60	
S9946Y-2X8X8040 ☐													40	
S9946Y-2X8X8050 ☐	.500	.500											50	
S9946Y-2X8X8060 ☐													60	
S9946Y-2XAXA040 ☐			1.500	1.625	1.805	1.110	2.500	2.950	.455	1.000	.312	.312	40	2-1/4
S9946Y-2XAXA050 ☐	.625	.625											50	
S9946Y-2XAXA060 ☐													60	
S9946Y-2XCXC040 ☐													40	
S9946Y-2XCXC050 ☐	.750	.750											50	
S9946Y-2XCXC060 ☐													60	
S9946Y-3ZAXA120 ☐													120	
S9946Y-3ZAXA250 ☐	.625	.625											250	
S9946Y-3ZAXA350 ☐													350	
S9946Y-3ZCXC120 ☐			1.750	1.750	2.100	1.330	3.000	3.470	.470	1.187	.312	.375	120	3-1/4
S9946Y-3ZCXC250 ☐	.750	.750											250	
S9946Y-3ZCXC300 ☐													350	
S9946Y-3ZGXC120 ☐													120	
S9946Y-3ZGXC250 ☐	1.000	1.000											250	
S9946Y-3ZGXC350 ☐													350	
S9946Y-3XGXC300 ☐	1.000	1.000	2.250	2.500	3.080	1.420	3.625	4.550	.555	1.250	.420	.420	300	8

Catalog Number**	OPTIONAL ACTUATING PIN				
	S	T	U	W	Keyway
S9946Y-2Z8X8040 ☐					
S9946Y-2Z8X8050 ☐					.125 x .062
S9946Y-2Z8X8060 ☐	1.033	.125	.125	.195	
S9946Y-2ZAXA040 ☐					.187 x .094
S9946Y-2ZAXA050 ☐					
S9946Y-2ZAXA060 ☐					
S9946Y-2X8X8040 ☐					.125 x .062
S9946Y-2X8X8050 ☐					
S9946Y-2X8X8060 ☐					
S9946Y-2XAXA040 ☐	1.395	.125	.125	.240	
S9946Y-2XAXA050 ☐					.187 x .094
S9946Y-2XAXA060 ☐					
S9946Y-2XCXC040 ☐					

Catalog Number**	OPTIONAL ACTUATING PIN				
	S	T	U	W	Keyway
S9946Y-2XCXC050 ☐	1.395	.125	.125	.240	.187 x .094
S9946Y-2XCXC060 ☐					
S9946Y-3ZAXA120 ☐					
S9946Y-3ZAXA250 ☐					
S9946Y-3ZAXA350 ☐					.187 x .094
S9946Y-3ZCXC120 ☐	1.573	.125	.125	.175	
S9946Y-3ZCXC250 ☐					
S9946Y-3ZCXC300 ☐					
S9946Y-3ZGXC120 ☐					.250 x .125
S9946Y-3ZGXC250 ☐					
S9946Y-3ZGXC350 ☐					
S9946Y-3XGXC300 ☐	1.791	.125	.125	.175	.250 x .125

**To order model without actuating pin, use catalog number as is. For actuating pin, insert "P" in box at the end of the catalog number.

Other torque ratings available on special order.

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