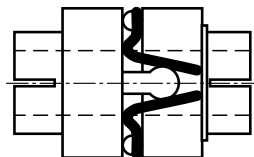
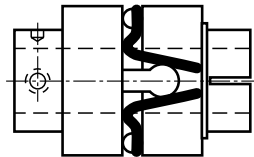
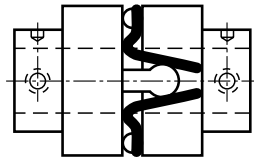


ENGINEERING DATA

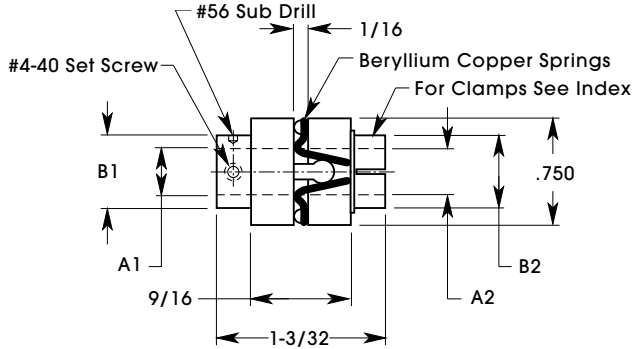
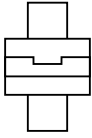
A newly developed zero backlash coupling providing many features has been introduced by SECS engineering department. This unique coupling was patented by SECS and is now available on an immediate delivery basis. The coupling will operate under a misalignment condition of approximately 5° without adversely affecting shafts and bearings. It has been designed for use under constant as well as variable velocity without being damaged by the force imposed from the driving shaft. Another object of our design is to provide a zero backlash coupling which is reliable and has a predictable performance under widely varying conditions. Dependably transmitting torque under circumstances where the shaft has either angular misalignment or combined parallel misalignment, axial shaft motion, torsional or other vibrations, the coupling will act to dampen these conditions.

The coupling requires no lubrication and is adaptable to high speeds. It is not adversely affected by high or low temperatures and has equal performance characteristics when driving in either direction.



PRECISION ANTI-BACKLASH COUPLING

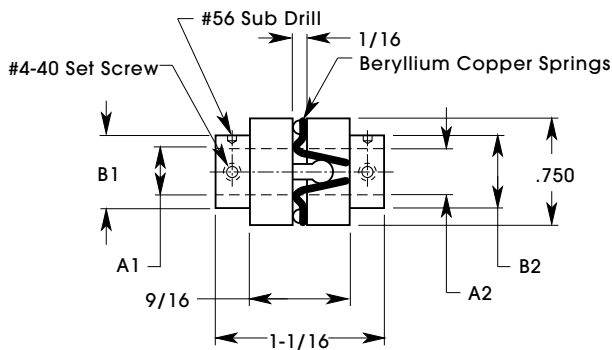
Combination Type
 Shaft .1200 thru 1/4
 303 Stainless Steel-Clear Passivated



U.S. Patent No. 3,286,489

A1	B1	A2 +.0005	B2	CATALOG NUMBER
.1200		.1200		CCA1
.1248		.1248		CCA2
.1873		.1873		CCA3
.2498		.2498		CCA4
.1200		.1248		CCA5
.1200		.1873		CCA6
.1200		.2498		CCA7
.1248		.1873		CCA8
.1248		.2498		CCA9
.1873		.2498		CCA10
.1248		.1200		CCA11
.1873		.1200		CCA12
.2498		.1200		CCA13
.1873		.1248		CCA14
.2498		.1248		CCA15
.2498		.1873		CCA16

Pin Type
 Shaft .1200 thru 1/4
 303 Stainless Steel-Clear Passivated

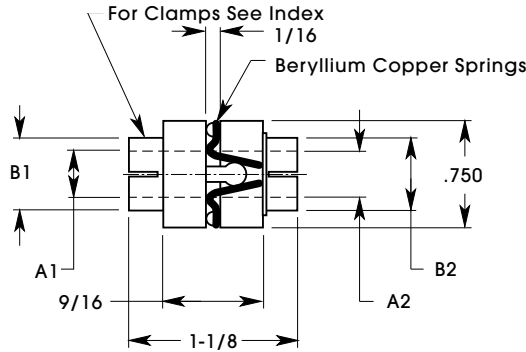
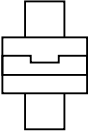


U.S. Patent No. 3,286,489

A1	B1	A2 +.0005	B2	CATALOG NUMBER
.1200	5/16	.1200	5/16	PCA1
.1248	5/16	.1248	5/16	PCA2
.1873	7/16	.1873	7/16	PCA3
.2498	7/16	.2498	7/16	PCA4
.1200	5/16	.1248	5/16	PCA5
.1200	5/16	.1873	7/16	PCA6
.1200	5/16	.2498	7/16	PCA7
.1248	5/16	.1873	7/16	PCA8
.1248	5/16	.2498	7/16	PCA9
.1873	7/16	.2498	7/16	PCA10

PRECISION ANTI-BACKLASH COUPLING

Clamp Type
 Shaft .1200 thru 1/4
 303 Stainless Steel-Clear Passivate

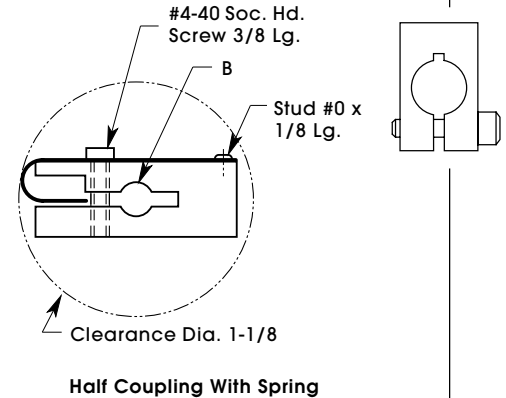
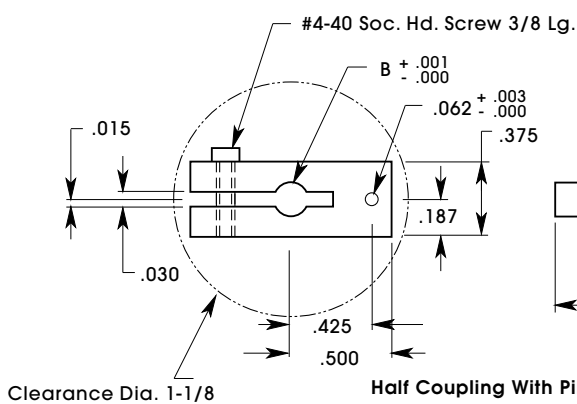


A1	B1	A2 +.0005	B2	CATALOG NUMBER
.1200	.188	.1200	.188	CAC1
.1248	.188	.1248	.188	CAC2
.1873	.250	.1873	.250	CAC3
.2498	.313	.2498	.313	CAC4
.1200	.188	.1248	.188	CAC5
.1200	.188	.1873	.250	CAC6
.1200	.188	.2498	.313	CAC7
.1248	.188	.1873	.250	CAC8
.1248	.188	.2498	.313	CAC9
.1873	.250	.2498	.313	CAC10

U.S. Patent No. 3,286,489

COUPLING COMBINATION ASSEMBLY

Combination Type
 Shaft .093 thru 1/4
 Aluminum 2024T-Chromic Acid Anodize

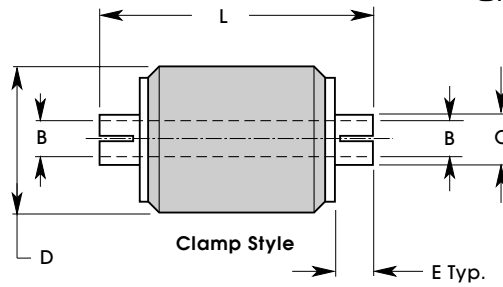
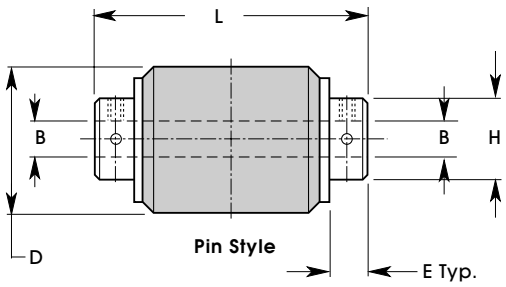


B	CATALOG NUMBER
.125	SCH30
.187	SCH31
.250	SCH32
.313	SCH33

B	CATALOG NUMBER
.093	SCH34
.120	SCH35
.125	SCH36
.156	SCH37
.187	SCH38
.241	SCH39
.250	SCH40

FLEX COUPLINGS

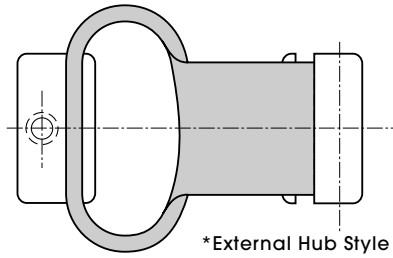
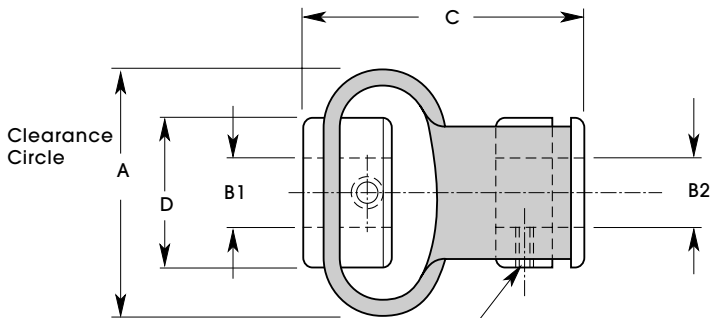
Shafts 1/8" thru 5/8"



Material:
Hubs - Stainless Steel
Flexible Material -Neoprene



B	H	C +.000 -.003	D	E	L	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER/STYLE	
							PARALLEL	ANGULAR	PIN	CLAMP
.1200 .2498	.31 .50	.187 .312	.81	.25	1.25	150	.005	1°	SE41OC-9	SE51OC-9
.1248 .1248	.31 .31	.187 .187							SE41OC-1	SE51OC-1
.1248 .1873	.31 .38	.187 .250							SE41OC-4	SE51OC-4
.1248 .2498	.31 .50	.187 .312							SE41OC-2	SE51OC-2
.1873 .2498	.38 .50	.250 .312							SE41OC-6	SE51OC-6
.2498 .2498	.50 .50	.312 .312							SE41OC-3	SE51OC-3
.3123 .3123	.50 .50	.375 .375							SE41OC-11	SE51OC-11
.3748 .3748	.63 .63	.437 .437							SE41OC-12	SE51OC-12



*External Hub Style

Material:
Hubs - Stainless Steel
Flexible Material -Neoprene

Set Screw Supplied

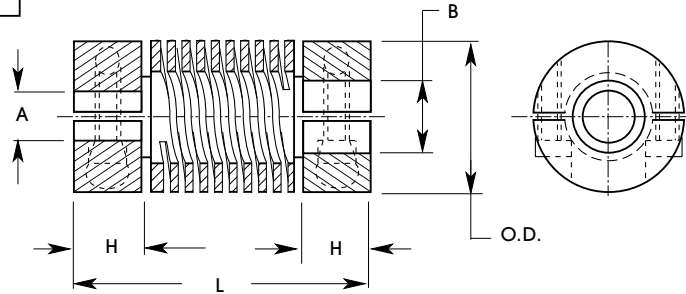
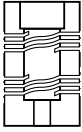
B1	B2 +.002 -.000	A	C	D	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
						PARALLEL	ANGULAR	
.187 .250 .312 .375	.187 .250 .312 .375	1.12	1.12	.69	48	.094	10°	SE3CC-10*
								SE3CC-11*
								SE3CC-12*
								SE3CC-13*
.250 .312 .375 .500	.250 .312 .375 .500	1.88	1.75	1.00	192	.125	15°	SE3CC-1
								SE3CC-2
								SE3CC-3
								SE3CC-5
.375 .500 .562 .625	.375 .500 .562 .625	2.12	2.12	1.25	448	.187	15°	SE3CC-4
								SE3CC-6
								SE3CC-16
								SE3CC-8
.500 .625	.500 .625	2.12	2.38	1.25	640	.125	15°	SE3CC-7
								SE3CC-9

COUPLINGS *BEAMED*

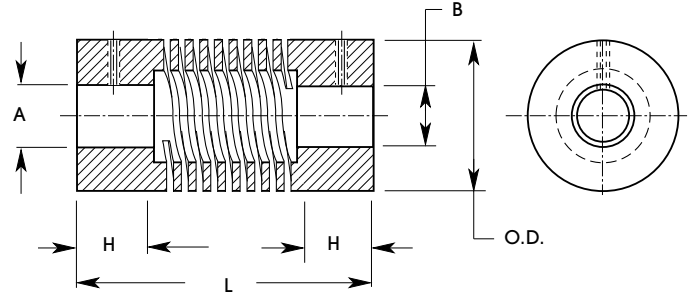
2024 Aluminum • 303 Stainless Steel

Shafts 3/32" thru 5/8"

Set Screw Style • Integral Clamp Style



Integral Clamp Style



Set Screw Style

A = 2024 Aluminum

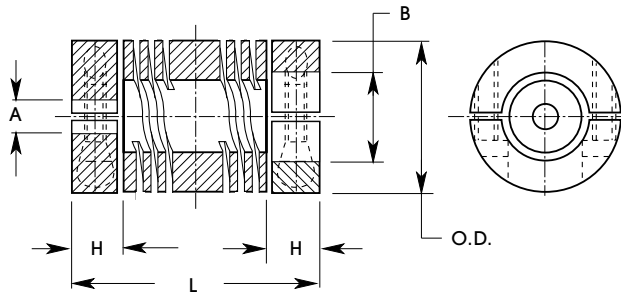
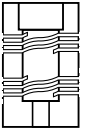
S = 303 Stainless Steel

A	B +.002 -.000	O.D.	L MAX	H	MAX WORKING TORQUE (IN LBS)		MAX MISALIGNMENT		CATALOG NUMBER/STYLE	
					STEEL	ALUMINUM	PARALLEL	ANGULAR	SET SCREW	CLAMP
.094	.094	.38	.56	.11	4	3.5	.004	5°	SE17OC*-1	----
.094	.094	.50	.75	.21	9	8	.005		SE37OC*-1	SE27OC*-1
.094	.125								SE37OC*-2	SE27OC*-2
.125	.125	.63	.80	.24	16	13	.005		SE37OC*-3	SE27OC*-3
.125	.157								SE57OC*-1	SE47OC*-1
.125	.188								SE57OC*-2	SE47OC*-2
.157	.157								SE57OC*-3	SE47OC*-3
.157	.188								SE57OC*-4	SE47OC*-4
.188	.188								SE57OC*-5	SE47OC*-5
.125	.125	.75	.90	.28	24	22	.005		SE57OC*-6	SE47OC*-6
.125	.157							SE77OC*-1	SE67OC*-1	
.125	.188							SE77OC*-2	SE67OC*-2	
.125	.250							SE77OC*-3	SE67OC*-3	
.157	.157							SE77OC*-4	SE67OC*-4	
.157	.188							SE77OC*-5	SE67OC*-5	
.157	.250							SE77OC*-6	SE67OC*-6	
.188	.188							SE77OC*-7	SE67OC*-7	
.188	.250							SE77OC*-8	SE67OC*-8	
.250	.250							SE77OC*-9	SE67OC*-9	
.250	.250	SE77OC*-10	SE67OC*-10							
.250	.250	1.00	1.25	.33	54	36	.005	SE97OC*-1	SE87OC*-1	
.250	.313							SE97OC*-2	SE87OC*-2	
.250	.375							SE97OC*-3	SE87OC*-3	
.313	.313							SE97OC*-4	SE87OC*-4	
.313	.375							SE97OC*-5	SE87OC*-5	
.375	.375							SE97OC*-6	SE87OC*-6	
.250	.250	1.25	1.75	.44	93	62	.005	SE18OC*-1	SE08OC*-1	
.250	.375							SE18OC*-2	SE08OC*-2	
.250	.500							SE18OC*-3	SE08OC*-3	
.250	.625							SE18OC*-4	SE08OC*-4	
.375	.375							SE18OC*-5	SE08OC*-5	
.375	.500							SE18OC*-6	SE08OC*-6	
.375	.625							SE18OC*-7	SE08OC*-7	
.500	.500							SE18OC*-8	SE08OC*-8	
.500	.625							SE18OC*-9	SE08OC*-9	
.625	.625							SE18OC*-10	SE08OC*-10	

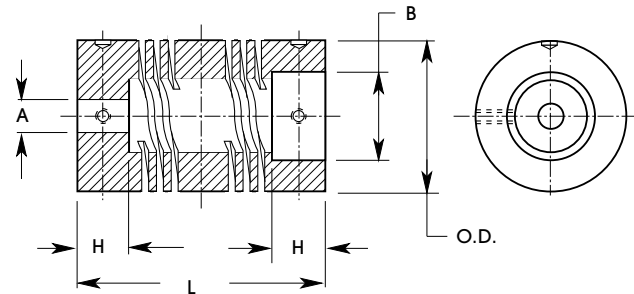
* Add an "A" or "S" to Basic Part Number for Material

MULTI-BEAMED COUPLINGS

2024 Aluminum • 303 Stainless Steel • Delrin
 Shafts 1/8" thru 1"
 Set Screw Style • Integral Clamp Style



Integral Clamp Style



Set Screw Style

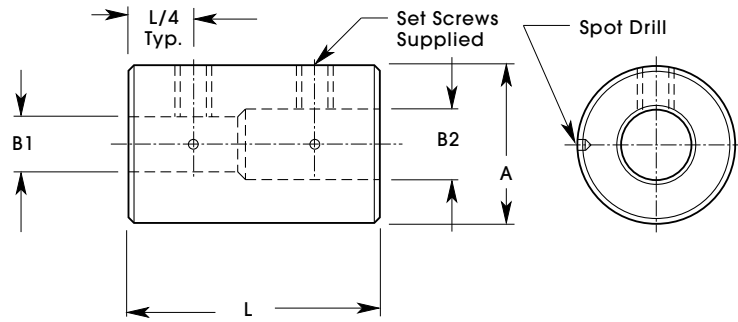
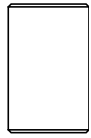
A = 2024 Aluminum
 S = 303 Stainless Steel
 D = Delrin

	A +.0005 -.0000	B +.0005 -.0000	O.D.	L			H			MAX WORKING TORQUE			MAX MISALIGNMENT		CATALOG NUMBER/STYLE		
				S	A	D	S	A	D	STEEL (IN LBS)	ALUMINUM (IN LBS)	DELTRIN (IN OZ)	PARALLEL	ANGULAR	SET SCREW	CLAMP	
A,S	.1200	.1248	.375	.770	.770	—	.23	.23	—	7	4	—	.005	5°	SE63OC*-1	SE73OC*-1	
	.1248	.1248													SE63OC*-2	SE73OC*-2	
	.1248	.1873													SE63OC*-3	SE73OC*-3	
	.1873	.1873													SE63OC*-4	SE73OC*-4	
A,S,D	.1200	.1248	.500	1.000	.900	.900	.27	.27	.27	13	9	35	.007	5°	SE83OC*-1	SE93OC*-1	
	.1248	.1248													SE83OC*-2	SE93OC*-2	
	.1873	.1873													SE83OC*-3	SE93OC*-3	
	.2498	.2498													SE83OC*-4	SE93OC*-4	
		.1873	.2498	.750	1.100	1.025	1.025	.25	.25	.25	35	23	91	.010	7°	SE04OC*-1	SE14OC*-1
		.2498	.2498													SE04OC*-2	SE14OC*-2
		.2498	.3748													SE04OC*-3	SE14OC*-3
		.3748	.3748													SE04OC*-4	SE14OC*-4
		.2498	.2498	1.000	1.500	1.500	1.500	.40	.46	.46	71	44	195	.015	7°	SE24OC*-1	SE34OC*-1
		.3123	.3123													SE24OC*-2	SE34OC*-2
		.3748	.3748													SE24OC*-3	SE34OC*-3
		.4998	.4998													SE24OC*-4	SE34OC*-4
		.2498	.3748	1.250	2.250	2.250	2.250	.62	.62	.62	111	66	283	.020	7°	SE44OC*-1	SE54OC*-1
		.3748	.3748													SE44OC*-2	SE54OC*-2
.4998		.4998	SE44OC*-3													SE54OC*-3	
.6248		.6248	SE44OC*-4													SE54OC*-4	
	.4998	.4998	1.500	2.625	2.625	2.625	.71	.71	.71	159	97	424	.020	7°	SE05OC*-1	SE15OC*-1	
	.6248	.6248													SE05OC*-2	SE15OC*-2	
	.7498	.7498													SE05OC*-3	SE15OC*-3	
	.4998	.4998	1.750	3.000	3.000	3.000	.79	.79	.79	212	133	636	.031	7°	SE25OC*-1	SE35OC*-1	
	.6248	.6248													SE25OC*-2	SE35OC*-2	
	.7498	.7498													SE25OC*-3	SE35OC*-3	
	.7498	.7498	2.250	5.125	5.125	5.125	1.26	1.26	1.26	451	239	1275	.038	7°	SE45OC*-1	SE55OC*-1	
	.8748	.8748													SE45OC*-2	SE55OC*-2	
	1.0000	1.0000													SE45OC*-3	SE55OC*-3	

* Add an "A" or "S" or "D" to Basic Part Number for Material

COUPLINGS SLEEVE

303 Stainless Steel
Shafts 5/64" thru 1"

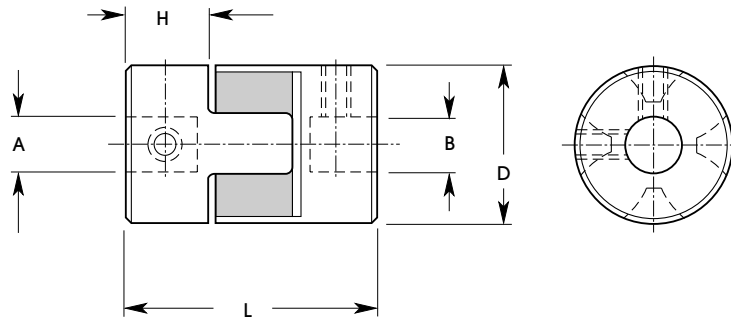


SHAFT SIZE	B1 +.0005 -.0000	B2 +.0005 -.0000	L	A	CATALOG NUMBER
5/64 TO 5/64	.0779	.0779	3/8	7/32	SH-40
3/32 TO 3/32	.0935	.0935	3/8	1/4	SH-41
1/8 TO .120	.1248	.1200	7/16	1/4	SH-24
1/8 TO 1/8	.1248	.1248	7/16	5/16	SH-21
1/8 TO 5/32	.1248	.1562	7/16	1/4	SH-25
1/8 TO 3/16	.1248	.1873	1/2	3/8	SH-26
1/8 TO 1/4	.1248	.2498	9/16	1/2	SH-27
3/16 TO 3/16	.1873	.1873	1/2	3/8	SH-22
3/16 TO .2405	.1873	.2405	1/2	3/8	SH-28
3/16 TO 1/4	.1873	.2498	9/16	1/2	SH-29
1/4 TO 1/4	.2498	.2498	9/16	1/2	SH-23
1/4 TO 5/16	.2498	.3123	9/16	9/16	SH-42

SHAFT SIZE	B1 +.0005 -.0000	B2 +.0005 -.0000	L	A	CATALOG NUMBER
1/4 TO 3/8	.2498	.3748	3/4	3/4	SH-43
5/16 TO 5/16	.3123	.3123	9/16	1/2	SH-44
5/16 TO 3/8	.3123	.3748	3/4	3/4	SH-45
3/8 TO 3/8	.3748	.3748	3/4	3/4	SH-46
3/8 TO 3/8	.3748	.3748	1	3/4	SH-47
3/8 TO 1/2	.3748	.4998	1	1	SH-48
1/2 TO 1/2	.4998	.4998	1	1	SH-49
1/2 TO 1/2	.4998	.4998	1-1/2	1	SH-50
5/8 TO 5/8	.6248	.6248	2	1-1/4	SH-51
3/4 TO 3/4	.7498	.7498	2	1-1/2	SH-52
1 TO 1	.9998	.9998	3	2	SH-53

COUPLINGS SPIDER

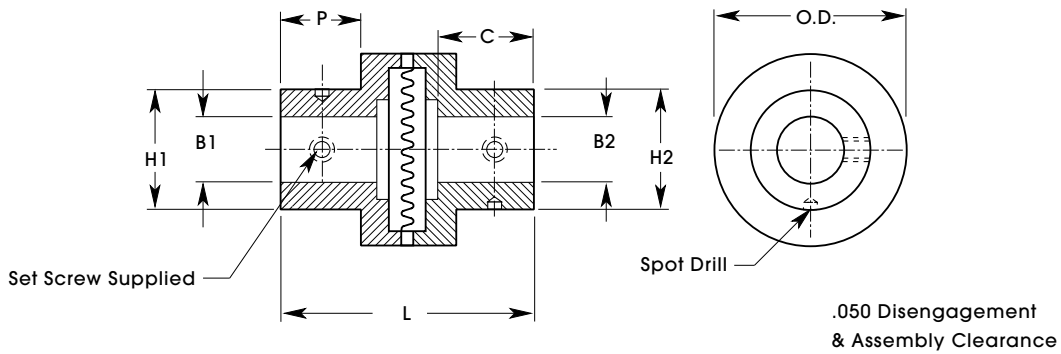
Hub - Aluminum • Flexible Material - Polyurethane
Shafts 1/8" thru 1/2"



A	B +.002	D	H	L	MAX WORKING TORQUE (I LBS)		MAX MISALIGNMENT		CATALOG NUMBER	
					80 DURO	98 DURO	PARALLEL	ANGULAR	SOFT 80 DURO SPIDER	RIGID 98 DURO SPIDER
.125 .187	.025 .187	.394	.20	.59	2.6	8.6	.031	1°	SE64OC-180	SE64OC-198
.125 .187 .250	.125 .187 .250	.551	.28	.87	12	34	.047		SE74OC-180 SE74OC-280 SE74OC-380	SE74OC-198 SE74OC-298 SE74OC-398
.250 .312 .375	.250 .312 .375	.787	.39	1.18	32	86	.063		SE84OC-180 SE84OC-280 SE84OC-380	SE84OC-198 SE84OC-298 SE84OC-398
.312 .375 .500	.312 .375 .500	1.187	.43	1.36	70	220	.078		SE94OC-180 SE94OC-280 SE94OC-380	SE94OC-198 SE94OC-298 SE94OC-398

PRECISION JAWED COUPLINGS

303 Stainless Steel
Shafts 1/8" thru 1/2"
Light Duty

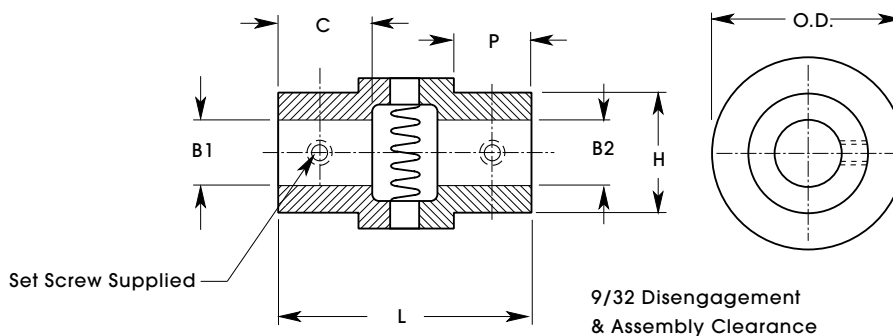


B1	B2 +.0005 -.0000	H1	H2	L	C	P	O.D.	NUMBER OF TEETH	MAX. TORQUE	CATALOG NUMBER
.1200	.1200	.31	.31	.79	.21	.22	17/32	32	.300 OZ IN	SE3MC-4
.1200	.1248	.31	.31							SE3MC-5
.1248	.1248	.31	.31							SE3MC-1
.1248	.1873	.31	.37							SE3MC-6
.1248	.2498	.37	.50							SE3MC-7
.1873	.1873	.37	.37							SE3MC-2
.1873	.2498	.50	.50							SE3MC-8
.2498	.2498	.50	.50							SE3MC-3
.1200	.1248	.31	.31	.87	.21	.25	3/4	.500 OZ IN	SE1MC-15	
.1248	.1248	.31	.31						SE1MC-2	
.1248	.1873	.31	.37						SE1MC-16	
.1248	.2498	.31	.50						SE1MC-17	
.1873	.1873	.37	.37						SE1MC-3	
.1873	.2498	.37	.50						SE1MC-18	
.2498	.2498	.50	.50						SE1MC-4	
.3123	.3148	.50	.50						SE1MC-5	
.3748	.3748	.68	.68	1.50	.43	.31			SE1MC-6	
.4998	.4998	.93	.93	1.50	.56	.43	1	64	.900 OZ IN	SE1MC-8

Other Bore Combinations Available on Request

COMMERCIAL JAWED COUPLINGS

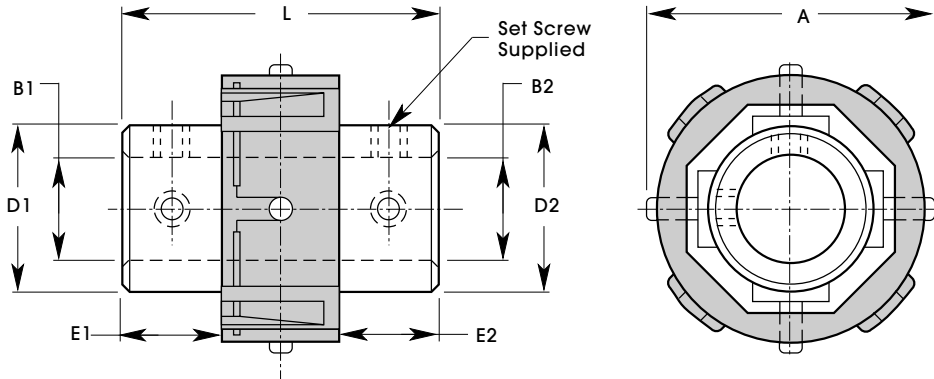
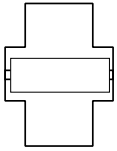
Cold Rolled Steel
Shafts 3/16" thru 1/2"
Heavy Duty



	B2 +.002 -.000	O.D.	L	C	H	P	NUMBER OF TEETH	MAX. TORQUE OZ IN	CATALOG NUMBER
3/16	1/4	1/2	1-1/8	1/2	.43	7/16	10	400	SE2MC-3
1/4	5/16	1/2	1-1/8	1/2	.43	7/16	10	400	SE2MC-4
5/16	3/8	3/4	1-1/2	5/8	.68	33/64	10	650	SE2MC-5
3/8	1/2	3/4	1-1/2	5/8	.68	33/64	10	650	SE2MC-6
1/2	3/16	1	2	7/8	.93	3/4	12	1100	SE2MC-8

COUPLINGS UNIVERSAL LATERAL

Pin Hub Style
Shafts 1/8" thru 5/8"



Material:

Outer Ring - Delrin

Hubs - SE32OC & SE62OC Series - Brass

SE52OC & SEX52 - Aluminum

B1	B2 +.002 -.000	D1	D2	E1	E2	L	A	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
									PARALLEL	ANGULAR	
.120	.125	.35	.35	.16	.16	.56	.72	38	.050	10°	SE62OC-1
.125	.125	.35	.35	.16	.16	.56					SE62OC-2
.125	.157	.35	.35	.16	.16	.56					SE62OC-3
.125	.187	.35	.35	.16	.16	.56					SE62OC-4
.125	.250	.35	.44	.16	.26	.66					SE62OC-7
.157	.157	.35	.35	.16	.16	.56					SE62OC-5
.157	.250	.35	.44	.16	.26	.66					SE62OC-8
.187	.187	.35	.35	.16	.16	.56					SE62OC-6
.187	.250	.35	.44	.16	.26	.66					SE62OC-9
.250	.250	.44	.44	.26	.26	.75					SE62OC-10
.125	.125	.50	.50	.19	.19	.75	1.06	222**	.050	10°	SE32OC-1
.125	.187	.50	.50	.19	.19	.75					SE32OC-2
.125	.250	.50	.50	.19	.19	.75					SE32OC-3
.157	.157	.50	.50	.19	.19	.75					SE32OC-8
.187	.187	.50	.50	.19	.19	.75					SE32OC-4
.187	.250	.50	.50	.19	.19	.75					SE32OC-5
.187	.375	.50	.59	.19	.31	.88					SE32OC-10
.250	.250	.50	.50	.19	.19	.75					SE32OC-6
.250	.312	.50	.50	.19	.19	.75					SE32OC-9
.250	.375	.50	.59	.19	.31	.88					SE32OC-11
.312	.312	.50	.50	.19	.19	.75					SE32OC-7
.312	.375	.50	.59	.19	.31	.88					SE32OC-12
.375	.375	.59	.59	.31	.31	1.00					SE32OC-13
.250	.250	.69	.69	.30	.30	.99	1.33	444	.050	10°	SEX52OC-1
.250	.375	.69	.69	.30	.30	.99					SEX52OC-2
.375	.375	.69	.69	.30	.30	.99					SEX52OC-3
.375	.500	.69	.79	.30	.40	1.10					SEX52OC-4
.500	.500	.79	.79	.40	.40	1.21					SEX52OC-5
.250	.250	.87	.87	.30	.30	1.12	1.63	607	.050	10°	SE52OC-1
.250	.312	.87	.87	.30	.30	1.12					SE52OC-2
.250	.375	.87	.87	.30	.30	1.12					SE52OC-3
.250	.500	.87	.87	.30	.30	1.12					SE52OC-8
.312	.312	.87	.87	.30	.30	1.12					SE52OC-4
.312	.500	.87	.87	.30	.30	1.12					SE52OC-9
.375	.375	.87	.87	.30	.30	1.12					SE52OC-5
.375	.500	.87	.87	.30	.30	1.12					SE52OC-6
.500	.500	.87	.87	.30	.30	1.12					SE52OC-7
.625	.625	.95	.95	.49	.49	1.50					SE52OC-10

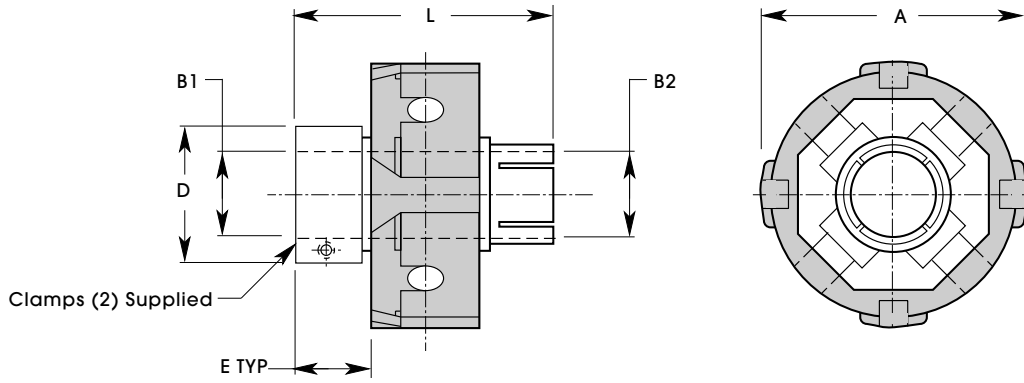
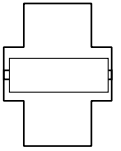
STEEL HUB

ALUMINUM HUB

** Torque Rating is 122 in-oz for SE32OC -10,-11,-12, & -13 Coupling

UNIVERSAL LATERAL COUPLINGS

Clamp Hub Style
Shafts 1/8" thru 1/2"



Material:

Outer Ring - Delrin

Hubs - SE72OC & SE82OC Series - Brass
SE92OC - Aluminum

Clamps - Aluminum

B1	B2 +.002 -.000	D	E	L	A	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
							PARALLEL	ANGULAR	
.120 .125 .125 .157 .187 .250	.125 .125 .250 .157 .187 .250	.75	.26	.75	.75	38	.050	5°	SE72OC-1
									SE72OC-2
		SE72OC-3							
		SE72OC-4							
		SE72OC-5							
		SE72OC-6							
.157 .187 .250 .250 .312 .312 .375	.157 .187 .250 .250 .375 .312 .375	1.00	.31	1.00	1.06	222**			SE82OC-1
									SE82OC-2
									SE82OC-3
									SE82OC-4
									SE82OC-5
									SE82OC-6
.250 .250 .375	.250 .375 .375	.79	.40	1.21	1.33	444			SEX92OC-1
							SEX92OC-2		
									SEX92OC-3
.250 .250 .312 .312 .375 .375 .500	.250 .500 .312 .500 .375 .375 .500	.95	.49	1.50	1.63	607			SE92OC-1
							SE92OC-2		
									SE92OC-3
									SE92OC-4
									SE92OC-5
									SE92OC-6
									SE92OC-7

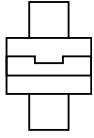
BRASS HUB
ALUMINUM HUB

** Torque Rating is 122 in-oz for SE82OC-4 & SE82OC-6 Coupling

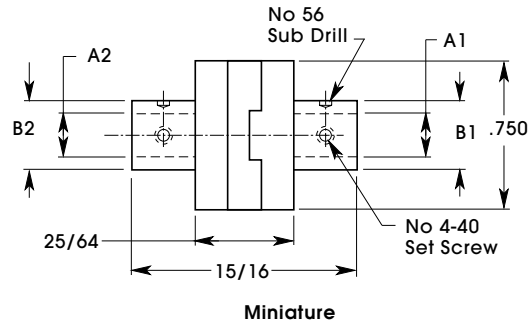
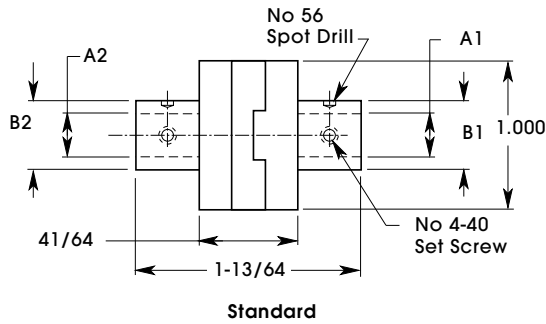
COUPLINGS OLDHAM

Pin Hub Style — Standard • Miniature
Shafts 1/8" thru 3/8"

303 Stainless Steel – Clear Passivated



Maximum Backlash 5 Minutes of Arc



A1 DIA	B1 DIA	A2 DIA +.0005 -.0000	B2 DIA	CATALOG NUMBER
.1248	5/16	.1248	5/16	OC1
.1873	7/16	.1873	7/16	OC2
.2498	7/16	.2498	7/16	OC3
.3123	7/16	.3123	7/16	OC4
.3748	9/16	.3748	9/16	OC5

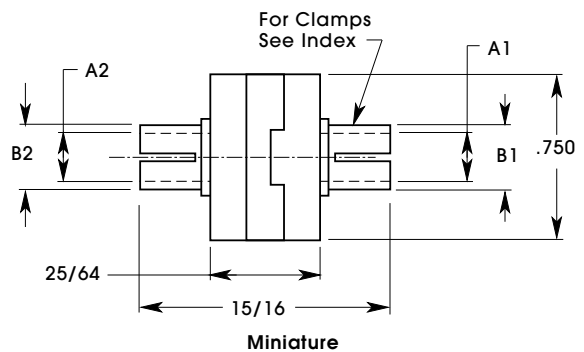
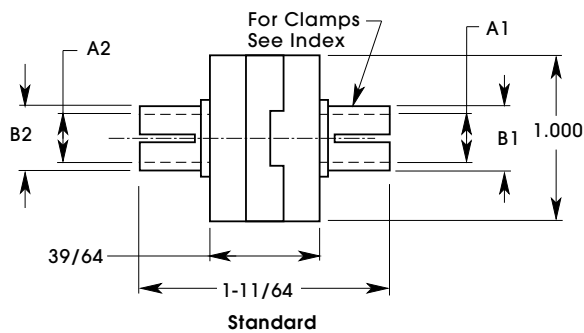
Special Bores and Lengths on Request

A1 DIA	B1 DIA	A2 DIA +.0005 -.0000	B2 DIA	CATALOG NUMBER
.1200	5/16	.1200	5/16	OC6
.1248	5/16	.1248	5/16	OC7
.1873	7/16	.1873	7/16	OC8
.2498	7/16	.2498	7/16	OC9
.1200	5/16	.1248	5/16	OC10
.1200	5/16	.1873	7/16	OC11
.1200	5/16	.2498	7/16	OC12
.1248	5/16	.1873	7/16	OC13
.1248	5/16	.2498	7/16	OC14
.1873	7/16	.2498	7/16	OC15

Clamp Hub Style — Standard • Miniature
Shafts 1/8" thru 3/8"

303 Stainless Steel – Clear Passivated

Maximum Backlash 5 Minutes of Arc



A1 DIA	B1 DIA +.000 -.003	A2 DIA +.0005 -.0000	B2 DIA +.000 -.003	CATALOG NUMBER
.1248	.188	.1248	.188	OC16
.1873	.250	.1873	.250	OC17
.2498	.313	.2498	.313	OC18
.3123	.375	.3123	.375	OC19
.3748	.438	.3748	.438	OC20

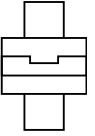
Special Bores and Lengths on Request

A1 DIA	B1 DIA +.000 -.003	A2 DIA +.0005 -.0000	B2 DIA +.000 -.003	CATALOG NUMBER
.1200	.188	.1200	.188	OC21
.1248	.188	.1248	.188	OC22
.1873	.250	.1873	.250	OC23
.2498	.313	.2498	.313	OC24
.1200	.188	.1248	.188	OC25
.1200	.188	.1873	.250	OC26
.1200	.188	.2498	.313	OC27
.1248	.188	.1873	.250	OC28
.1248	.188	.2498	.313	OC29
.1873	.250	.2498	.313	OC30

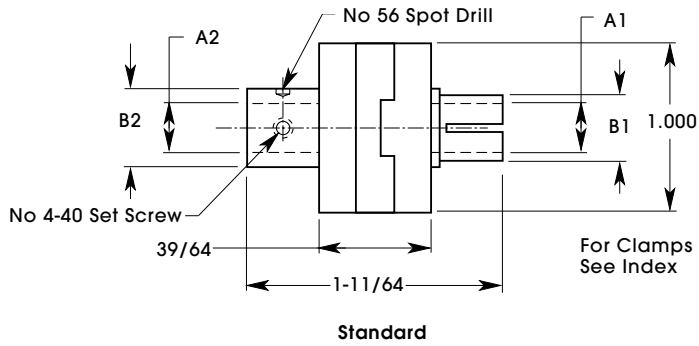
OLDHAM COUPLINGS

Combination Hub Style
Shafts 1/8" thru 3/8"

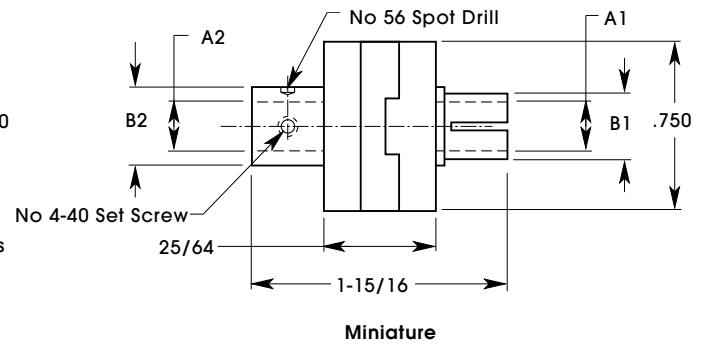
303 Stainless Steel – Clear Passivate



Maximum Backlash 5 Minutes of Arc



Standard



Miniature

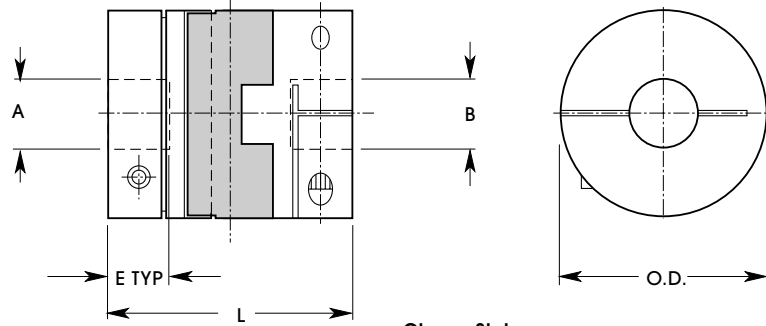
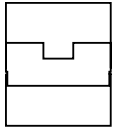
A1 DIA	B1 DIA	A2 DIA +.0005 -.0000	B2 DIA	CATALOG NUMBER
.1248	.187	.1248	5/16	OC31
.1873	.250	.1873	7/16	OC32
.2498	.312	.2498	7/16	OC33
.3123	.375	.3123	9/16	OC34
.3748	.437	.3748	9/16	OC35

Special Bores and Lengths on Request

A1 DIA	B1 DIA	A2 DIA +.0005 -.0000	B2 DIA	CATALOG NUMBER
.1200	.185	.1200	5/16	OC36
.1248	.185	.1248	5/16	OC37
.1873	.248	.1873	7/16	OC38
.2498	.311	.2498	7/16	OC39
.1200	.185	.1248	5/16	OC40
.1200	.185	.1873	7/16	OC41
.1200	.185	.2498	7/16	OC42
.1248	.185	.1873	7/16	OC43
.1248	.185	.2498	7/16	OC44
.1873	.248	.2498	7/16	OC45
.1248	.185	.1200	59/16	OC46
.1873	.248	.1200	5/16	OC47
.2498	.311	.1200	5/16	OC48
.1873	.248	.1248	5/16	OC49
.2498	.311	.1248	5/16	OC50
.2498	.311	.1873	7/16	OC51

COUPLINGS OLDHAM

Pin Hub Style • Set Screw Style
Shafts 3/32" thru 5/8"

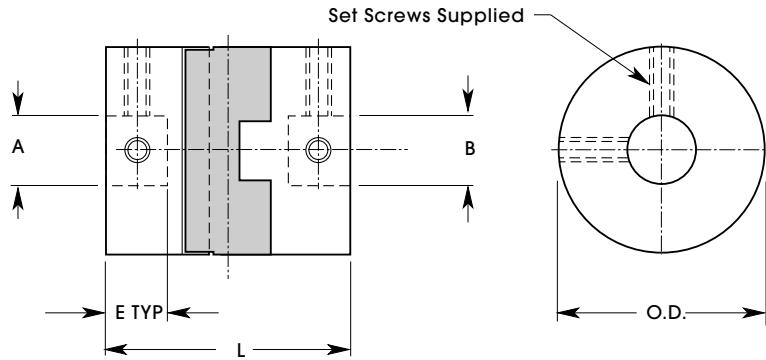


Clamp Style

Material:

Hubs - SE03OC & SE23OC Series - Brass
SE33OC & SE04OC - Aluminum

Insert - Delrin

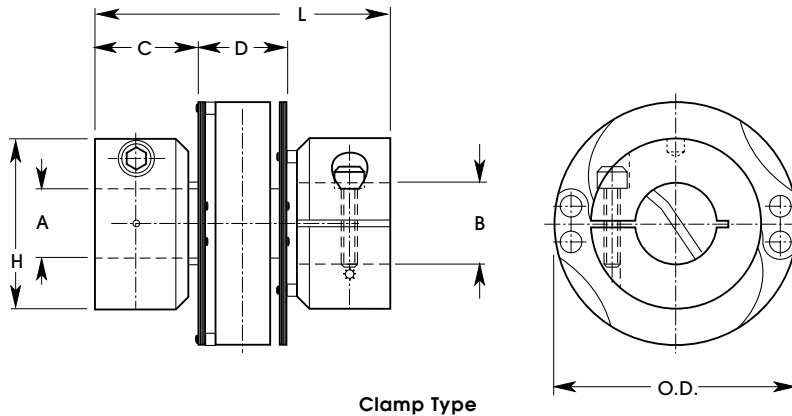


Set Screw Style

A	B +.000 -.003	E	O.D.	L	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER/STYLE	
						PARALLEL	ANGULAR	SET SCREW	CLAMP
SOLID	SOLID	---	.25	.50	16	.03	.5°	SE03OC-B	-----
.094	.125	.15						SE03OC-1	-----
.120	.125							SE03OC-2	-----
.125	.125							SE03OC-3	-----
SOLID	SOLID	---	.37	.50	64	.05	.5°	SE13OC-B	-----
.120	.125	.15						SE13OC-1	-----
.125	.125							SE13OC-2	-----
.156	.156							SE13OC-3	-----
.187	.187							SE13OC-4	-----
SOLID	SOLID	---	.50	.62	120	.06	.75°	SE23OC-B	-----
.125	.125	.17						SE23OC-1	-----
.156	.156							SE23OC-2	-----
.187	.187							SE23OC-3	-----
.250	.250							SE23OC-4	-----
SOLID	SOLID	---	.75	.87	334	.09	.75°	SE33OC-B	-----
.187	.187	.25						SE33OC-1	SE33OC-1C
.250	.250							SE33OC-2	SE33OC-2C
.312	.312							SE33OC-3	-----
SOLID	SOLID	---	1.00	1.11	640	.12	1°	SE43OC-B	-----
.250	.250	.34						SE43OC-1	SE43OC-1C
.312	.312							SE43OC-2	SE43OC-2C
.375	.375							SE43OC-3	SE43OC-3C
.437	.437							SE43OC-4	-----
SOLID	SOLID	---	1.31	1.91	2200	.16	1.25°	SE06OC-B	-----
.312	.312	.51						SE06OC-1	SE06OC-1C
.375	.375							SE06OC-2	SE06OC-2C
.500	.500							SE06OC-3	SE06OC-3C
SOLID	SOLID	---	1.62	2.00	3200	.20	1.25°	SE53OC-B	-----
.375	.375	.66						SE53OC-1	SE53OC-1C
.437	.437							SE53OC-2	SE53OC-2C
.500	.500							SE53OC-3	SE53OC-3C
.625	.625							SE53OC-4	SE53OC-4C

WAFER SPRING COUPLINGS

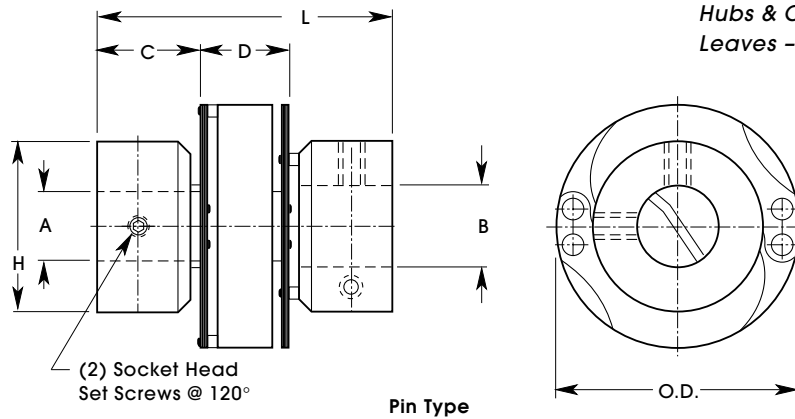
Clamp Style • Pin Style
Shafts 1/8" thru 1/2"



Clamp Type

Material:

*Hubs & Center Block - Aluminum
Leaves - Beryllium Copper*



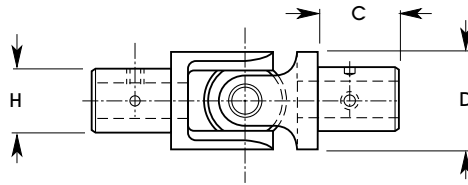
Pin Type

A +.0010 -.0000	B +.0010 -.0000	L	H	C	D	O.D.	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER/STYLE	
								PARALLEL	ANGULAR	CLAMP HUB	PIN HUB
.1200	.1250	.88	.56	.30	.28	.75	165	.018	8°	SE02OC-1	SE02OC-1P
.1200	.1562									SE02OC-2	SE02OC-2P
.1200	.1875									SE02OC-3	SE02OC-3P
.1200	.2500									SE02OC-4	SE02OC-4P
.1250	.1250									SE02OC-5	SE02OC-5P
.1250	.1562									SE02OC-6	SE02OC-6P
.1250	.1875									SE02OC-7	SE02OC-7P
.1250	.2500									SE02OC-8	SE02OC-8P
.1562	.1562									SE02OC-9	SE02OC-9P
.1562	.1875									SE02OC-10	SE02OC-10P
.1562	.2500									SE02OC-11	SE02OC-11P
.1875	.1875									SE02OC-12	SE02OC-12P
.1875	.2500									SE02OC-13	SE02OC-13P
.2500	.2500									SE02OC-14	SE02OC-14P
.1875	.1875	1.25	.75	.44	.38	1.00	225	.020	8°	SE02OC-22	SE02OC-22P
.1875	.2500									SE02OC-23	SE02OC-23P
.2500	.2500									SE02OC-24	SE02OC-24P
.2500	.3125									SE02OC-25	SE02OC-25P
.3125	.3125									SE02OC-26	SE02OC-26P
.2500	.3125	1.81	1.00	.66	.50	1.50	440	.030	8°	SE02OC-15	SE02OC-15P
.2500	.3750									SE02OC-16	SE02OC-16P
.3125	.3125									SE02OC-17	SE02OC-17P
.3125	.3750									SE02OC-18	SE02OC-18P
.3750	.3750									SE02OC-19	SE02OC-19P
.3750	.5000									SE02OC-20	SE02OC-20P
.5000	.5000	SE02OC-21	SE02OC-21P								

UNIVERSAL JOINTS

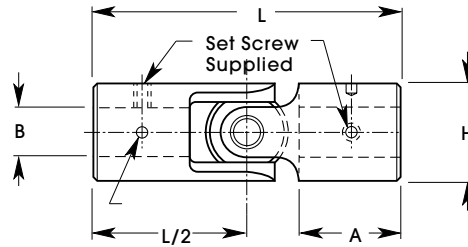
Pin Style • Clamp Style
Shafts 1/8" thru 3/8"

Stainless Steel



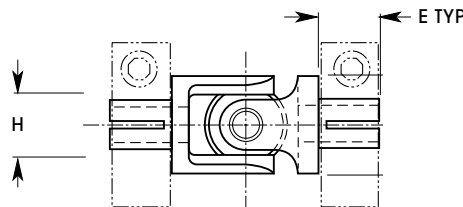
Pin Style

B +.0005 -.0000	H	L	A BORE LENGTH	D	C	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
							PARALLEL	ANGULAR	
.1248 .1873	.31 .38	1.50	.44	.50	.31	480	0	30° @ 500 RPM 10° @ 1000 RPM	SEJU-1 SEJU-2



Pin Style

B +.0005 -.0000	H	L	A BORE LENGTH	D	C	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
							PARALLEL	ANGULAR	
.2498	.50	1.50	.44	---	---	480	0	30° @ 500 RPM 10° @ 1000 RPM	SEJU-3
.3123 .3748	.50 .75	1.50 2.63	.44 .92	---	---	1280			SEJU-4 SEJU-5

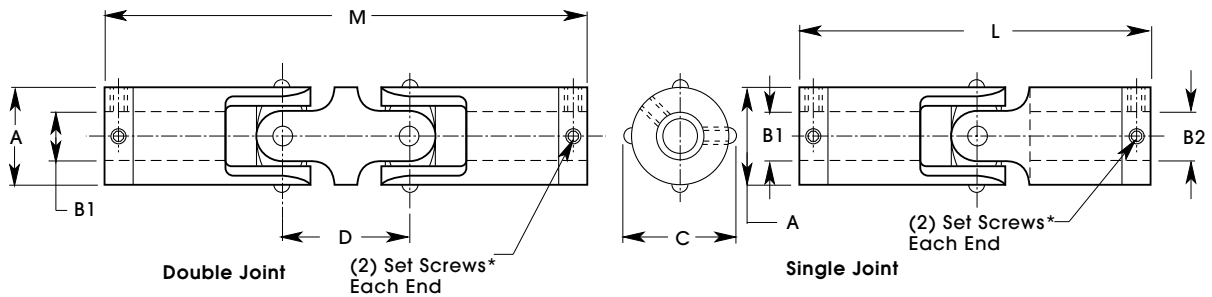


B +.0005 -.0000	H	L	A BORE LENGTH	E	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
						PARALLEL	ANGULAR	
.1248 .1873 .2498	.19 .25 .31	1.38	.37	.25	480	0	30° @ 500 RPM 10° @ 1000 RPM	SEJU-10 SEJU-11 SEJU-12

UNIVERSAL JOINTS

Delrin® • Telescopic Shafts 1/8" thru 3/8"

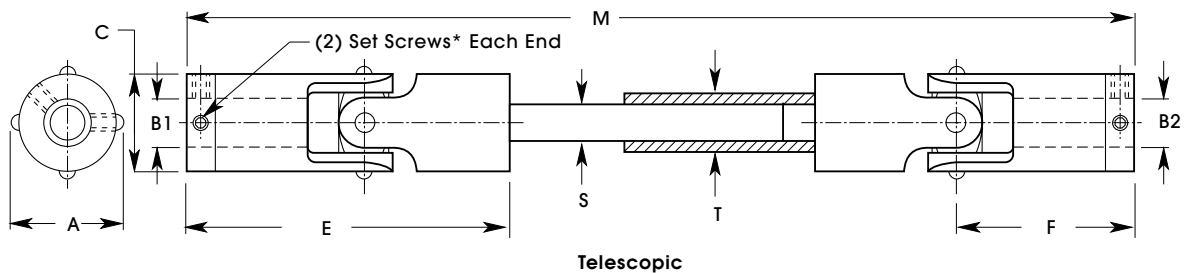
Material:
Hubs & Spiders - Brass
Body - Delrin®



B1 +.001 -.000	B2 +.001 -.000	L	A	C	D	M	MAX WORKING TORQUE (I LBS)		MAX PARALLEL MISALIGNMENT		MAX ANGULAR MISALIGNMENT		CATALOG NUMBER	
							SINGLE JOINT	DOUBLE JOINT	SINGLE JOINT	DOUBLE JOINT	SINGLE JOINT	DOUBLE JOINT	SINGLE JOINT	DOUBLE JOINT
.125*	.125*	1.06	.25	.28	.31	1.39	16	11	0	.22	45°	90°	SESJU-9	SEDJU-9
.125*	.125*	1.48	.38	.44	.52	2.00	55	23		.36			SESJU-1	SEDJU-1
.125*	.187		.187	.187	.187		.187	151		55			.43	SESJU-2
.187	.187	1.81	.50	.56	.63	2.44	239	183	.61	SESJU-3	SEDJU-3			
.187	.250		.250	.250	.250					.250	151	55	.43	SESJU-4
.250	.250	2.66	.63	.69	.88	3.53	239	183	.61	SESJU-5	SEDJU-5			
.250	.312									SESJU-6	SEDJU-6			
.250	.375									SESJU-10	SEDJU-10			
.312	.312									SESJU-11	SEDJU-11			
.312	.375									SESJU-12	SEDJU-12			
.375	.375	SESJU-13	SEDJU-13											
.375	.375	SESJU-14	SEDJU-14											
.375	.375	SESJU-15	SEDJU-15											

* 1/8" Bore Coupling Ends are Supplied with (1) Set Screw Each End

Material:
Hubs, Spiders & Telescope - Brass
Body - Delrin®



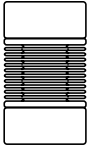
B1 +.002 -.000	B2 +.002 -.000	A	C	L		E	F	S SQ.	T SQ.	MAX WORKING TORQUE (IN OZ)	MAX MISALIGNMENT		CATALOG NUMBER
				MAX	MIN						PARALLEL	ANGULAR	
.125*	.125*	.38	.44	5.3	4.1	1.30	.73	.12	.18	55	1.92	90°	SETJU-1*
.125*	.187			SETJU-2*									
.187	.187			SETJU-3									
.187	.250	.50	.56	7.3	5.4	1.61	.91	.18	.25	151	2.74	90°	SETJU-4
.187	.250			SETJU-5									
.250	.250	.63	.69	10.2	7.7	2.38	1.33	.25	.31	239	3.77	90°	SETJU-6
.250	.312												SETJU-10
.250	.375												SETJU-11
.312	.312												SETJU-12
.312	.375												SETJU-13
.375	.375	SETJU-14											
.375	.375	SETJU-15											

* 1/8" Bore Coupling Ends are Supplied with (1) Set Screw Each End

SUPER FLEX COUPLINGS

Engineering Information

Pin Style • Clamp Style



DESIGN CONSIDERATIONS: Bellows coupling characteristics are approximate. Slight bends or misalignments will cause a coupling to vary as much as 25% in "buckling torque" and side thrust. Therefore, conservative ratings should be used. The term "buckling torque" describes the sudden reversible deformation occurring in the bellows when certain torque, say 150% of maximum rating, is reached. At or near this value the twist suddenly increases to 2° or more. Bellow maximum rated torque the twist is 0.3° or less.

Twist angle is about the same for all sizes of couplings at rated maximum torque 0.15° to 0.3°-a remarkable circumstance.

COUPLING CHARACTERISTICS vary according to the following relationships:

A = angle of twist of the coupling.

T = max. rated torque of the coupling.

: = proportionality sign.

t = wall thickness of the bellows.

L = length of the bellows convolutions.

D = outside diameter of the bellows.

P = side thrust force produced by shaft displacement.

X = displacement between shaft center lines at midpoint of coupling.

$$T : Dr^2 / L^{0.8}$$

$$A = 0.3^\circ T / T_{max}$$

$$P : XD^2t^2 / L^3$$

BELLOWS O.D.	BELLOWS LENGTH L	BELLOWS WALL M	TORQUE T	TWIST A	OFF SET X	SIDE THRUST P	MAX ANGLE Y	CATALOG NUMBER	
								PIN TYPE	CLAMP TYPE
.125	.240	.0010	1.5	.3°	.032	.50	60	BCP15	----
.125	.120	.0007	.85	.3°	.005	.75	40	BCP16	----
.250	.740	.0015	2.2	.3°	.075	1.3	44	BCP17	----
.250	.370	.0015	5	.3°	.018	2.7	21	BCP18	----
.250	.245	.0015	7.5	.3°	.007	3.5	13	BCP19	BCC1
.250	.185	.0015	10	.3°	.004	4.8	9	BCP20	BCC2
.375	.750	.0018	7.5	.3°	.065	13.	37	BCP21	BCC3
.375	.550	.0018	10.5	.3°	.036	18	28	BCP22	BCC4
.375	.370	.0018	12.5	.3°	.017	23	20	BCP23	BCC5
.375	.305	.0018	15	.3°	.010	28	14	BCP24	BCC6
.500	.740	.0025	27	.25°	.048	29	27	BCP25	BCC7
.500	.490	.0025	35	.25°	.021	36	17	BCP26	BCC8
.500	.370	.0025	40	.25°	.011	52	12	BCP27	BCC9
.750	.980	.0030	47	.25°	.043	58	19	BCP28	BCC10
.750	.730	.0030	60	.25°	.042	75	14	BCP29	BCC11
.750	.540	.0030	72	.25°	.012	90	7	BCP30	BCC12
1.000	1.250	.0035	90	.25°	.055	85	20	BCP31	BCC13
1.000	.730	.0035	130	.25°	.016	115	10	BCP32	BCC14

M Bellows wall thickness, inches.

T Maximum rated torque, instantaneous, inch ounces.

R Elastic twist permitted at maximum torque, degrees.

X Displacement between shaft center line at midpoint of coupling, inches, maximum recommended.

P Side thrust of the coupling against shaft bearings for shaft displacement shown, ounces. This zero for aligned shafts, and proportional to displacement between shaft center lines, at the rate shown.

Maximum angle shafts may deviate from parallel when axes intersect at the bellows midpoint, in degrees.

Torques: 0.1 inch ounce to 250 inch ounces

Side thrust: from 1 gram

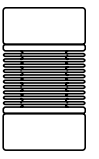
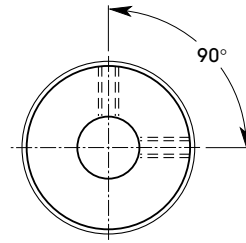
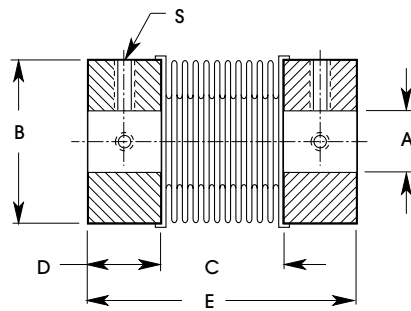
Shaft sizes: 0.020" to 0.375".

Bellows sizes: 0.100" OD to 1.00" OD, walls from .0007" up.

Materials: Bellows are hard nickel, hubs, stainless steel.

SUPER-FLEX BELLOWS COUPLINGS

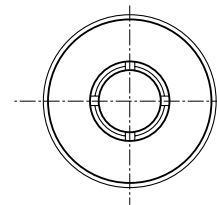
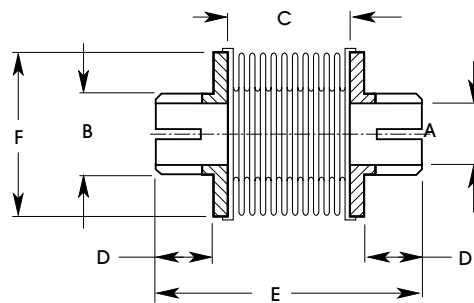
Pin Type
Shafts .0404" thru 5/16"



Material:
Bellows - Nickel, Spring Temper
Hub - 303 Stainless Steel

A +.0005 -.0000	B	C	D	E	S SCREW	CATALOG NUMBER
.0404	.125	.240	.087	.41	00-96	BCP15
.0404	.125	.120	.087	.29	00-96	BCP16
.0903	.250	.740	.141	1.02	2-56	BCP17
.0903	.250	.370	.141	.65	2-56	BCP18
.1200	.250	.245	.141	.53	2-56	BCP19
.1200	.250	.185	.141	.47	2-56	BCP20
.1875	.375	.740	.141	1.02	2-56	BCP21
.1875	.375	.550	.141	.83	2-56	BCP22
.1875	.375	.370	.141	.65	2-56	BCP23
.1875	.375	.305	.141	.59	2-56	BCP24
.2500	.500	.740	.167	1.07	4-40	BCP25
.2500	.500	.490	.167	.82	4-40	BCP26
.2500	.500	.370	.167	.70	4-40	BCP27
.2500	.500	.980	.167	1.31	4-40	BCP28
.2500	.500	.730	.167	1.06	4-40	BCP29
.2500	.500	.540	.167	.87	4-40	BCP30
.3125	.625	1.230	.195	1.62	6-32	BCP31
.3125	.625	.730	.195	1.12	6-32	BCP32

Clamp Type
Shafts .1200" thru 5/16"

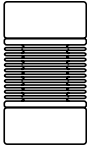


Material:
Bellows - Nickel, Spring Temper
Hub - 303 Stainless Steel

A	B	C	D	E	F	CATALOG NUMBER
.1200	.187	.245	7/32	3/4	.250	BCC1
.1200	.187	.185	7/32	11/16	.250	BCC2
.1875	.250	.740	8/32	1-3/8	.375	BCC3
.1875	.250	.550	9/32	1-3/16	.375	BCC4
.1875	.250	.370	9/32	1	.375	BCC5
.1875	.250	.305	9/32	15/16	.375	BCC6
.2500	.312	.740	9/32	1-3/8	.500	BCC7
.2500	.312	.490	9/32	1-1/8	.500	BCC8
.2500	.312	.370	9/32	1	.500	BCC9
.2500	.312	.980	9/32	1-5/8	.750	BCC10
.2500	.312	.730	9/32	1-3/8	.750	BCC11
.2500	.312	.540	9/32	1-3/16	.750	BCC12
.3125	.375	1.230	9/32	1-55/64	1.000	BCC13
.3125	.375	.730	9/32	1-3/8	1.000	BCC14

BELLOWS COUPLINGS *MINIATURE PRECISION*

Engineering Information
Pin Style • Clamp Style • Combination Style



SECS, Inc. offers on the following pages one of the largest stock lines of miniature precision couplings in the servo development field. It is our intention to give the engineer all the necessary design information that is needed. In the event your specifications are not satisfied from the stock lines, SECS can custom design a coupling to meet your requirements.

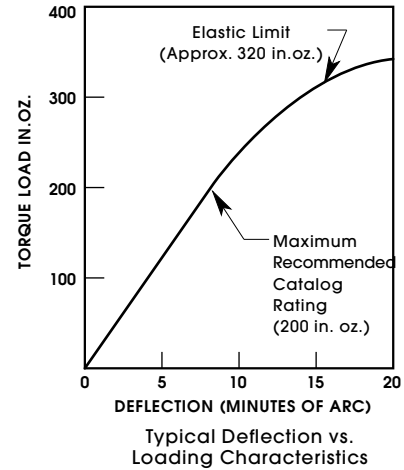
FEATURES:

- ZERO BACKLASH**
- ELIMINATES RADIAL ANGULAR AND AXIAL MISALIGNMENT**
- CONSTANT VELOCITY**
- HIGH TORQUE CAPABILITY**
- COMPLETELY REVERSIBLE**
- LIGHT WEIGHT**
- LOW INERTIA**
- HIGH SPEED EFFICIENCY**
- NO LUBRICATION PROBLEMS**
- NONMAGNETIC**
- FULL RANGE OF STANDARD BORES WITH SPLIT AND SOLID HUBS**
- SPECIAL BORES AND CUSTOM HUB DESIGNS AT MINIMUM COST**

SPECIFICATIONS:

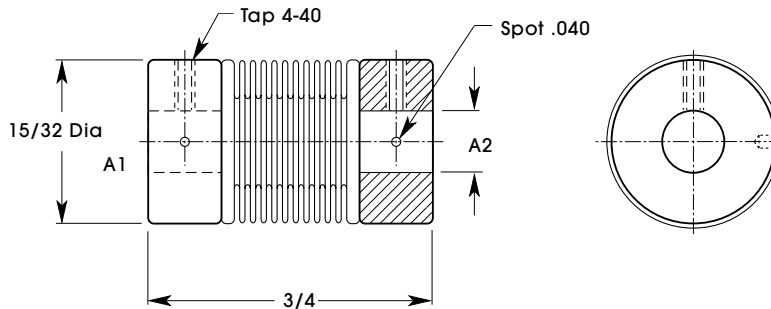
- MAXIMUM TORQUE TRANSMISSION** 200 OZ-IN
- MAXIMUM RECOMMENDED SPEED** 5000 RPM
- MAXIMUM ANGULAR MISALIGNMENT** 5°
- MAXIMUM AXIAL MISALIGNMENT**..... 1/32
- MAXIMUM TEMPERATURE RANGE**..... 300°F
- WEIGHT** 32 oz.

MATERIAL: Phosphor Bronze throughout
CONSTRUCTION: Induction soldered
FINISH: Nickel plate QQ-N-290
(Bores unplated)



Pin Type
Shafts .090" thru 1/4"

Phosphor Bronze throughout — Induction Soldered — Nickel Plate (QQ-N-290) Bores Unplated



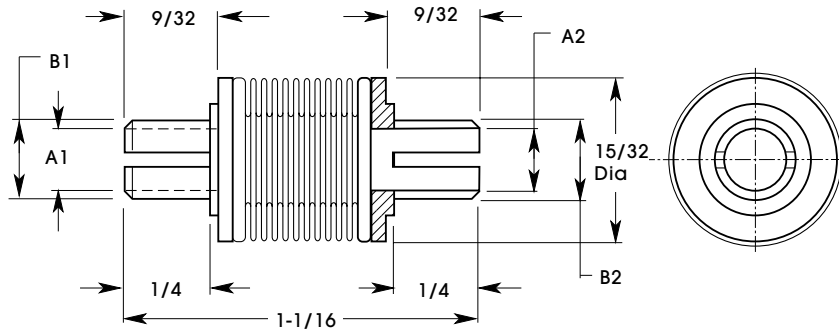
SHAFT DIAMETER	A1	A2	CATALOG NUMBER
1/8 x 1/8	.1252 .1255	.1252 .1255	BCP55
3/16 x 3/16	.1877 .1880	.1877 .1880	BCP56
1/4 x 1/4	.2502 .2505	.2502 .2505	BCP57
1/8 x 3/16	.1252 .1255	.1877 .1880	BCP58
1/8 x 1/4	.1252 .1255	.2502 .2505	BCP59
3/16 x 1/4	.1877 .1880	.2502 .2505	BCP60
.090 x .090	.0902 .0905	.0902 .0905	BCP61
3/32 x 3/32	.0939 .0942	.0939 .0942	BCP62
.120 x .120	.1202 .1205	.1202 .1205	BCP63
.090 x 3/32	.0902 .0905	.0939 .0942	BCP64
.090 x .120	.0902 .0905	.1202 .1205	BCP65

SHAFT DIAMETER	A1	A2	CATALOG NUMBER
.090 x 1/8	.0902 .0605	.1252 .1266	BCP66
.090 x 3/16	.0902 .0905	.1877 .1880	BCP67
.090 x 1/4	.0902 .0905	.2502 .2505	BCP68
3/32 x .120	.0939 .0942	.1202 .1205	BCP69
3/32 x 1/8	.0939 .0942	.1252 .1255	BCP70
3/32 x 3/16	.0939 .0942	.1877 .1880	BCP71
3/32 x 1/4	.0932 .0942	.2502 .2505	BCP72
.120 x 1/8	.1202 .1205	.1252 .1255	BCP73
.120 x 3/16	.1202 .1205	.1877 .1880	BCP74
.120 x 1/4	.1202 .1205	.2502 .2505	BCP75

PRECISION BELLOWS COUPLINGS

Clamp Type
Shafts .090" thru 1/4"

Phosphor Bronze throughout — Induction Soldered — Nickel Plate (QG-N-290) Bores Unplated

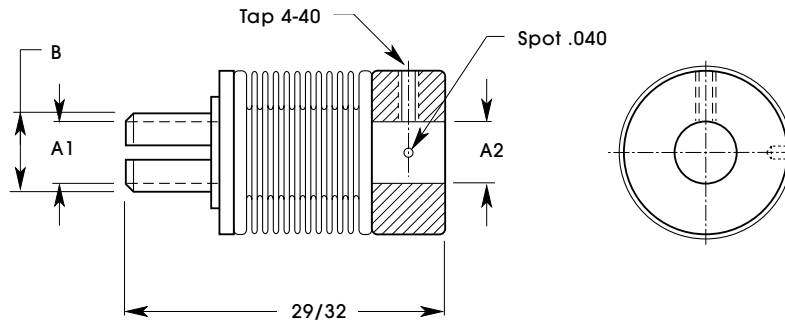


SHAFT DIAMETER	A1	A2	B1	B2	CATALOG NUMBER
1/8 x 1/8	.1252 .1255	.1252 .1255	.187 .188	.187 .188	BCC33
3/16 x 3/16	.1877 .1880	.1877 .1880	.250 .251	.250 .251	BCC34
1/4 x 1/4	.2502 .2505	.2502 .2505	.312 .313	.312 .313	BCC35
1/8 x 3/16	.1252 .1255	.1877 .1880	.187 .188	.250 .251	BCC36
1/8 x 1/4	.1252 .1255	.2502 .2505	.187 .188	.312 .313	BCC37
3/16 x 1/4	.1877 .1880	.2502 .2505	.250 .251	.312 .313	BCC38
.090 x .090	.0902 .0905	.0902 .0905	.187 .188	.187 .188	BCC39
3/32 x 3/32	.0939 .0942	.0939 .0942	.187 .188	.187 .188	BCC40
.120 x .120	.1202 .1205	.1202 .1205	.187 .188	.187 .188	BCC41
.090 x 3/32	.0902 .0905	.0939 .0942	.187 .188	.187 .188	BCC42
.090 x .120	.0902 .0905	.1202 .1205	.187 .188	.187 .188	BCC43

SHAFT DIAMETER	A1	A2	B1	B2	CATALOG NUMBER
.090 x 1/8	.0902 .0605	.1252 .1266	.87 .188	.187 .188	BCC44
.090 x 3/16	.0902 .0905	.1877 .1880	.187 .188	.250 .251	BCC45
.090 x 1/4	.0902 .0905	.2502 .2505	.187 .188	.312 .313	BCC46
3/32 x .120	.0939 .0942	.1202 .1205	.155 .187	.187 .188	BCC47
3/32 x 1/8	.0939 .0942	.1252 .1255	.187 .188	.187 .188	BCC48
3/32 x 3/16	.0939 .0942	.1877 .1880	.187 .188	.250 .251	BCC49
3/32 x 1/4	.0932 .0942	.2502 .2505	.187 .188	.312 .313	BCC50
.120 x 1/8	.1202 .1205	.1252 .1255	.187 .188	.187 .188	BCC51
.120 x 3/16	.1202 .1205	.1877 .1880	.187 .188	.250 .251	BCC52
.120 x 1/4	.1202 .1205	.2502 .2505	.187 .188	.312 .313	BCC53

Combination Type
Shafts .090" thru 1/4"

Phosphor Bronze throughout — Induction Soldered — Nickel Plate (QG-N-290) Bores Unplated

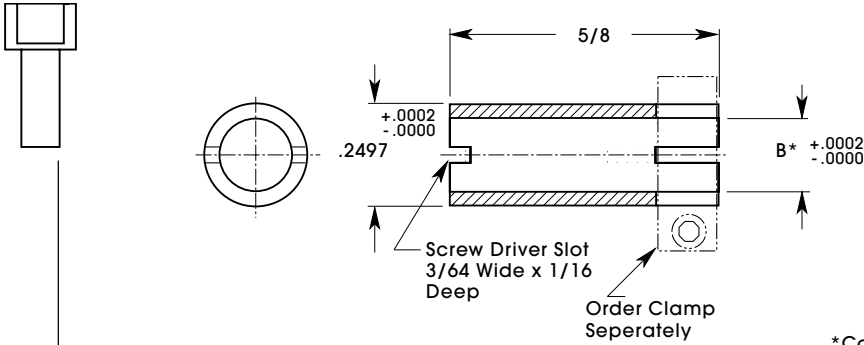


SHAFT DIAMETER	A1	B	A2	CATALOG NUMBER
1/8 x 1/8	.1252 .1255	.187 .188	.1252 .1255	CBC76
3/16 x 3/16	.1877 .1880	.250 .251	.1877 .1880	CBC77
1/4 x 1/4	.2502 .2505	.312 .313	.2502 .2505	CBC78
1/8 x 3/16	.1252 .1255	.187 .188	.1877 .1880	CBC79
1/8 x 1/4	.1252 .1255	.187 .188	.2502 .2505	CBC80
3/16 x 1/4	.1877 .1880	.250 .251	.2502 .2505	CBC81
3/16 x 1/8	.1877 .1880	.250 .251	.1252 .1255	CBC82
1/4 x 1/8	.2502 .2505	.312 .313	.1252 .1255	CBC83
1/4 x 3/16	.2502 .2505	.312 .313	.1877 .1880	CBC84
.090 x .090	.0902 .0905	.187 .188	.0902 .0905	CBC85
3/32 x 3/32	.0939 .0942	.187 .188	.0939 .0942	CBC86

SHAFT DIAMETER	A1	B	A2	CATALOG NUMBER
.120 x .120	.1202 .1205	.187 .188	.1202 .1205	CBC87
.090 x 3/32	.0902 .0905	.187 .188	.0939 .0942	CBC88
.090 x 1/8	.0902 .0605	.87 .188	.1252 .1266	CBC89
.090 x 3/16	.0902 .0905	.187 .188	.1877 .1880	CBC90
.090 x 1/4	.0902 .0905	.187 .188	.2502 .2505	CBC91
3/32 x 1/8	.0939 .0942	.187 .188	.1252 .1255	CBC92
3/32 x 3/16	.0939 .0942	.187 .188	.1877 .1880	CBC93
3/32 x 1/4	.0932 .0942	.187 .188	.2502 .2505	CBC94
.120 x 3/16	.1202 .1205	.187 .188	.1877 .1880	CBC95
.120 x 1/4	.1202 .1205	.187 .188	.2502 .2505	CBC96

SHAFT ADAPTER

303 Stainless Steel
Shafts .1200" thru 3/16"

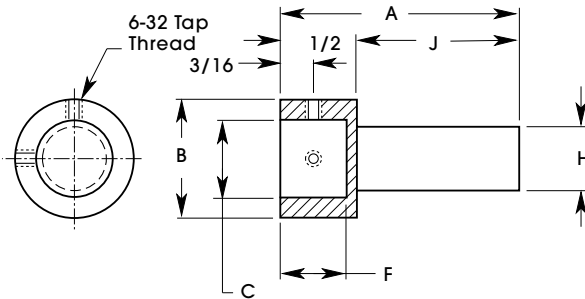


B BORE SIZE	SHAFT DIAMETER	CATALOG NUMBER
.1200	.1200	SEAS-3
.1248	1/8	SEAS-4
.1560	5/32	SEAS-1
.1772	.1772	SEAS-5
.1873	3/16	SEAS-2

*Concentric Within .0003

SHAFT EXTENDER AND REDUCER

303 Stainless Steel
Shafts 1/4" thru 3/8"

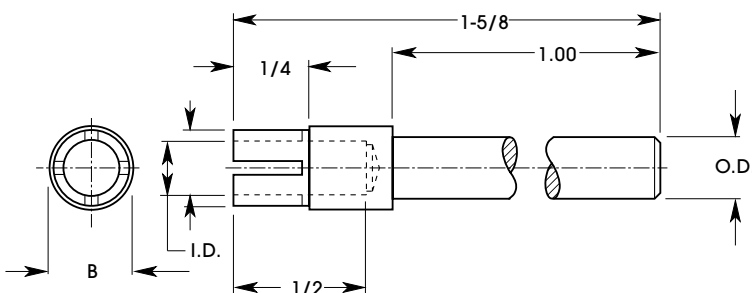


A	B	C	F	H	J	CATALOG NUMBER
1-1/8	7/16	1/4	3/8	1/4	5/8	EH21-2
1-1/8	7/16	1/4	7/16	1/4	5/8	EH21-3
1-1/8	7/16	1/4	7/16	3/8	5/8	EH21-4
1-1/8	7/16	1/4	3/8	3/8	5/8	EH21-5
1-3/4	7/16	1/4	7/16	1/4	1-1/4	EH21-6
1-3/4	7/16	1/4	3/8	1/4	1-1/4	EH21-7
1-1/8	1/2	1/4	7/16	1/4	5/8	EH21-8
1-1/8	1/2	1/4	3/8	1/4	5/8	EH21-9
1-3/4	1/2	1/4	7/16	1/4	1-1/4	EH21-10
1-3/4	1/2	1/4	3/8	1/4	1-1/4	EH21-11
1-1/8	1/2	1/4	7/16	3/8	5/8	EH21-12
1-1/8	1/2	1/4	3/8	3/8	5/8	EH21-13
1-3/4	1/2	1/4	7/16	3/8	1-1/4	EH21-14
1-3/4	1/2	1/4	3/8	3/8	1-1/4	EH21-15
1-1/8	9/16	3/8	7/16	12/4	5/8	EH21-16
1-1/8	9/16	3/8	3/8	1/4	5/8	EH21-17
1-3/4	9/16	3/8	7/16	1/4	1-1/4	EH21-18
1-3/4	9/16	3/8	3/8	1/4	1-1/4	EH21-19

Supplied with Two Set Screws @ 90°

SHAFT EXTENDER *PRECISION*

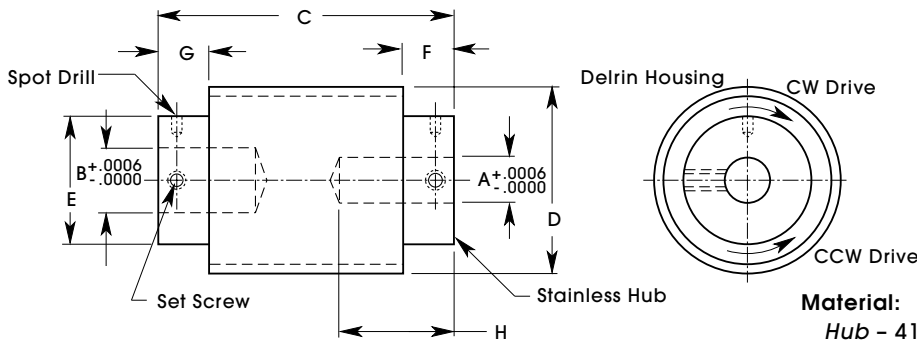
303 Stainless Steel
Shafts 1/8" thru 3/16"



SHAFT SIZE MALE FEMALE	I.D. +.0005 - .0000	O.D. +.0000 - .0003	A	B	CATALOG NUMBER
1/8 x 1/8	.1248	.1248	.188	.250	EH4-1
3/16 x 3/16	.1873	.1873	.250	.312	EH4-2
1/4 x 1/4	.2498	.2498	.312	.375	EH4-3
1/8 x 3/16	.1873	.1248	.250	.312	EH4-4
1/8 x 1/4	.2498	.1248	.312	.375	EH4-5
3/16 x 1/8	.2498	.1873	.312	.375	EH4-6
3/16 x 1/8	.1248	.1873	.188	.250	EH4-7
1/4 x 1/8	.1248	.2498	.188	.250	EH4-8
1/4 x 3/16	.1973	.2498	.250	.312	EH4-9
1/8 x .1200	.1200	.1248	.188	.250	EH4-10

OVERRUNNING COUPLING

Shafts 1/8" thru 1/2"



ClockWise Series:
R.H. Hub Locked While
L.H. Drives Clockwise

Counter-ClockWise Series:
R.H. Hub Locked While
L.H. Drives Counter-Clockwise

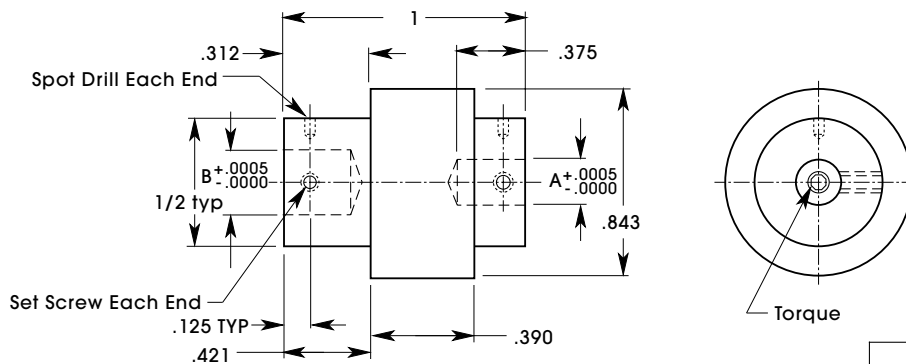
Material:

Hub - 416 Stainless Steel RC 26-32
Center - Delrin®

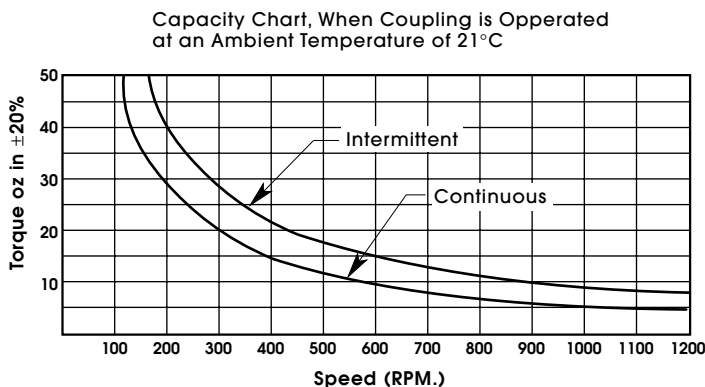
BORES		MAX DRIVE TORQUE	MAX DRAG TORQUE	C	D	E	F	G	H	SET SCREW	CATALOG NUMBER/DIRECTION	
A	B										CLOCKWISE	COUNTER CLOCKWISE
.1248	.1248	10.0 IN LBS	.10 IN LBS	1.00	.75	.56	.21	.11	.47	#4-40	SERBJ-4	SELBJ-4
.1248	.1873										SERBJ-5	SELBJ-5
.1248	.2498										SERBJ-6	SELBJ-6
.1873	.1873										SERBJ-17	SELBJ-17
.1873	.2498										SERBJ-8	SELBJ-8
.2498	.2498										SERBJ-9	SELBJ-9
.3123	.3123	80.0 IN LBS	.25 IN LBS	1.48	1.38	1.00	.33	.20	.73	#10-32	SERBJ-10	SELBJ-10
.3123	.3748										SERBJ-11	SELBJ-11
.3123	.4998										SERBJ-12	SELBJ-12
.3748	.3748										SERBJ-13	SELBJ-13
.3748	.4998										SERBJ-14	SELBJ-14
.4998	.4998										SERBJ-15	SELBJ-15

ADJUSTABLE SLIP COUPLING

Shafts 1/8" thru 1/4"
Stainless Steel



A BORE SIZE	B BORE SIZE	TORQUE RANGE	CATALOG NUMBER
.1250	.1250	0 TO 50 OZ/IN	SEKJ-1
.1250	.1875		SEKJ-2
.1250	.2500		SEKJ-3
.1875	.1875	0 TO 50 OZ/IN	SEKJ-4
.1875	.2500		SEKJ-5
.2500	.2500		SEKJ-7



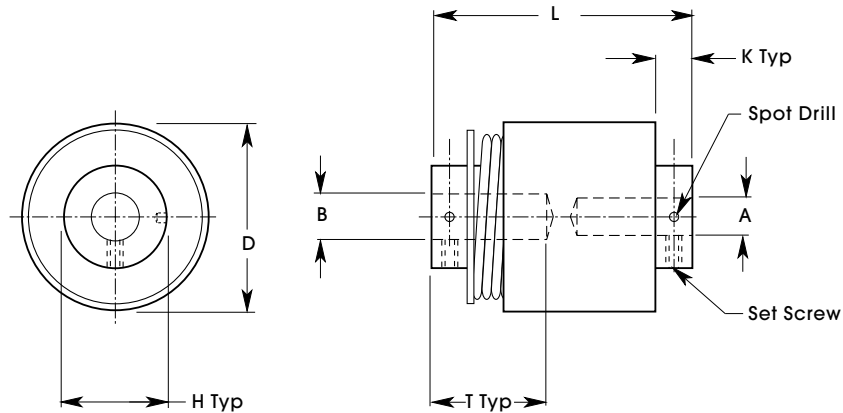
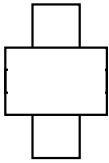
Notes:

To Determine Clutch Capacity it is Necessary to Use the Chart.

The Intermittent Curve Represents the Capacity of the Coupling When it is Slipping for a Total of 10 Minutes or Less and the Cooling Time is 10 Minutes or More.

SLIP COUPLING

Stainless Steel
Shafts 1/8" thru 3/8"



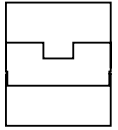
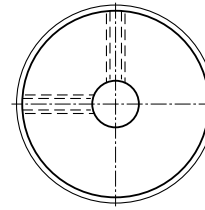
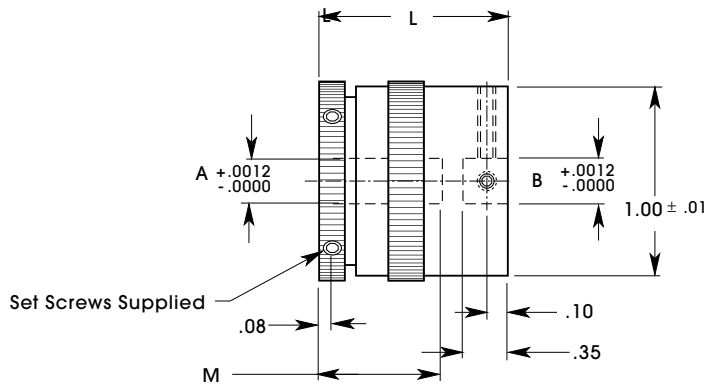
Misalignment: Shaft to Shaft .010 Max.
Angular 3° Max.

BORES		L ±.02	D ±.02	H ±.02	K ±.02	T	TORQUE BI DIRECTION	CATALOG NUMBER
A	B							
.1250 .1250 .1875	.1250 .1875 .1875	.89	.50	.37	.17	.43	5 ± .7	SEJJ-1 SEJJ-2 SEJJ-3
.1875 .1875 .2500	.1875 .2500 .2500	1.11	.75	.50	.19	.50	12 ± 1.2	SEJJ-4 SEJJ-5 SEJJ-6
.1875 .1875 .2500	.1875 .2500 .2500	1.26	1.00	.50	.19	.55	20 ± 2	SEJJ-7 SEJJ-8 SEJJ-9
.2500 .2500 .3750	.2500 .3750 .3750	1.43	1.25	.62	.25	.62	48 ± 5	SEJJ-10 SEJJ-11 SEJJ-12
.3125 .3750	.3125 .3750	1.59	1.50	.75	.25	.73	88 ± 9	SEJJ-13 SEJJ-14
.3750 .3750 .5000	.3750 .5000 .5000	1.84	1.87	.87	.28	.85	120 ± 12	SEJJ-15 SEJJ-16 SEJJ-17
.3750 .3750 .5000 .5000 .6250 .6250 .6250 .7500	.3750 .5000 .5000 .6250 .6250 .7500 .7500	2.25	2.25	1.25	.38	1.00	240 ± 24	SEJJ-18 SEJJ-19 SEJJ-20 SEJJ-21 SEJJ-22 SEJJ-23 SEJJ-24

Last Catalog Number Group is Available with 320 oz in ±32
(add 320 to Catalog Number)

SLIP COUPLING

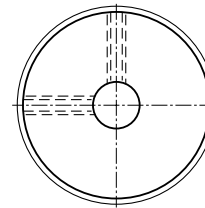
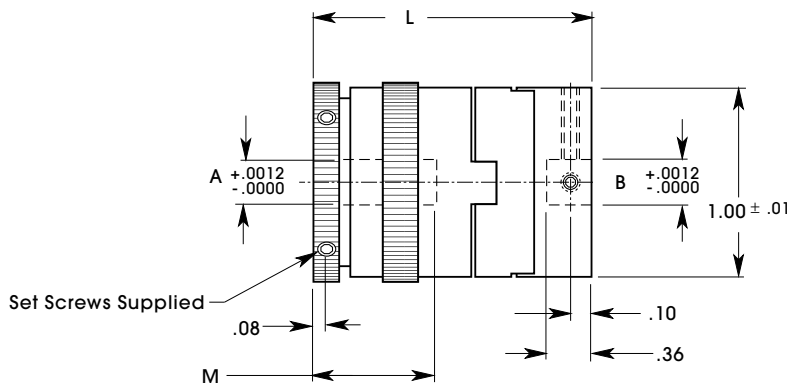
Adjustable Torque 3.5 oz in – 187.5 oz in
Shafts 1/4" thru 5/16"



- Bi-Directional
- Maximum Operating temp. 175°
- Maximum Backlash 2°

BORES		L	M	ADJUSTABLE TORQUE RANGE		WEIGHT	CATALOG NUMBER
A	B			MIN	MAX		
.2500 .3125	.2500 .3125	1.42	.98	3.4 in oz	76.0 in oz	50g	SEJJ-25 SEJJ-26
.2500 .3125	.2500 .3125	1.65	1.22	11.0 in oz	187.4 in oz	61g	SEJJ-27 SEJJ-28

Adjustable Torque 3.5 oz in – 187.5 oz in
Shafts 1/4" thru 5/16"
Oldham Style

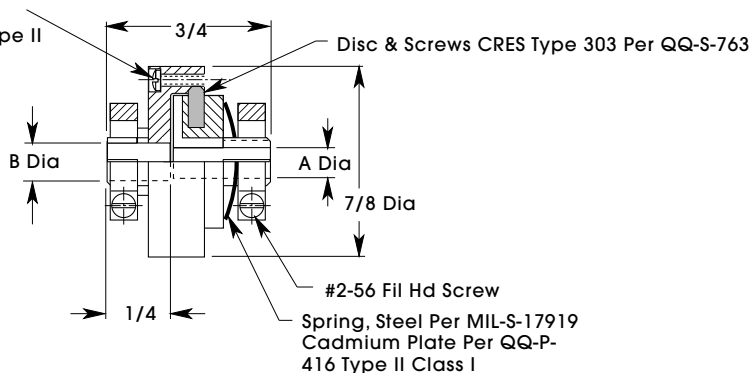


- Bi-Directional
- Maximum Operating temp. 175°
- Maximum Backlash 2°

BORES		L	M	ADJUSTABLE TORQUE RANGE		WEIGHT	CATALOG NUMBER
A	B			MIN	MAX		
.2500 .3125	.2500 .3125	1.83	.98	3.4 in oz	76.0 in oz	57g	SEJJ-29 SEJJ-30
.2500 .3125	.2500 .3125	2.07	1.22	11.0 in oz	187.4 in oz	68g	SEJJ-31 SEJJ-32

Adjustable Torque 0 oz in – 50 oz in
Shafts 1/8" thru 1/4"

Clamps Hub & Housing
Alum 2024-T4 Per QQ-A-268
Anodized Per MIL-A-8625 Type II



I.D. +.0002 -.0000	O.D. +.0002 -.0000	CATALOG NUMBER
.1248	.1248	CSA-1
.1248	.1873	CSA-2
.1248	.2498	CSA-3
.1873	.1248	CSA-4
.1873	.1873	CSA-5
.1873	.2498	CSA-6

SLIP CLUTCH PRECISION

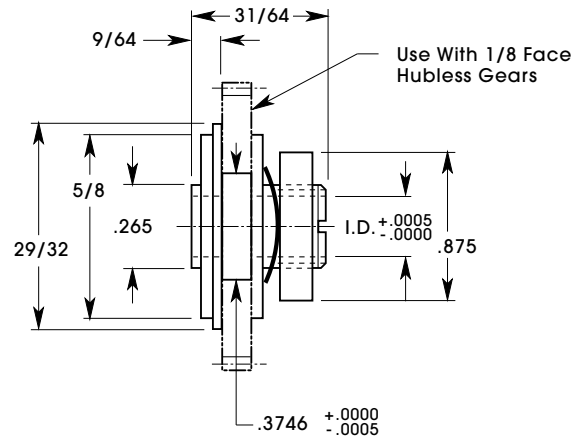
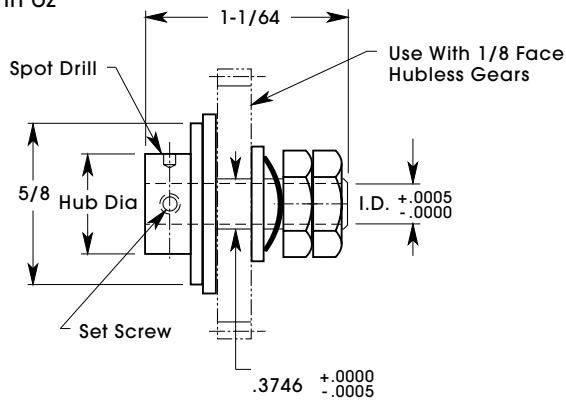
Shafts .1200" thru 1/4"

Material:

303 Stainless Steel—Clear Passivate

Brake - Oil-Less Bronze

Torque - 50 in oz



I.D.	HUB DIA	SET SCREW	SUB DRILL	CATALOG NUMBER
.1200	.312	#2-56	.029	CS5
.1248	.312	#2-56	.029	CS6
.1873	.375	#4-40	.040	CS7
.2498	.500	#6-32	.070	CS8

I.D.	CATALOG NUMBER
.1200	CS1
.1248	CS2
.1873	CS3
.2498	CS4

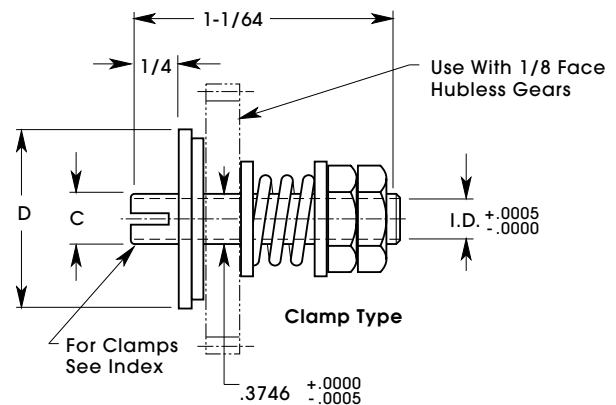
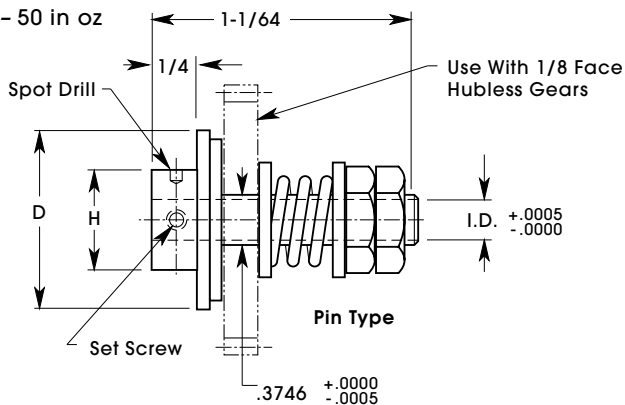
SLIP CLUTCH STANDARD

Material:

303 Stainless Steel—Clear Passivate

Brake - Cork

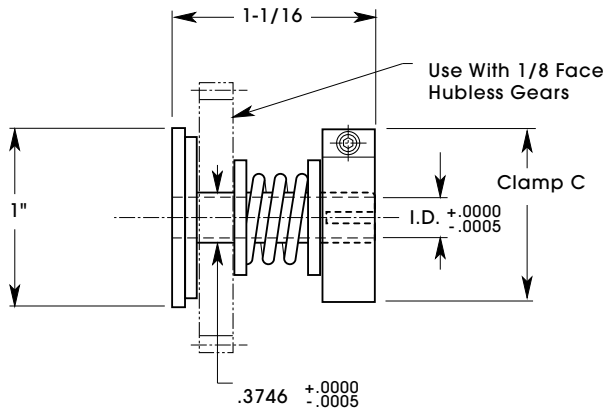
Torque - 50 in oz



I.D.	H (PIN)	C (CLAMP)	D	FRICTION FACE	ADJUSTABLE SLIP TORQUE OZ IN	CATALOG NUMBER/HUB	
						PIN	CLAMP
.1248 .1873 .2498	5/16 3/8 1/2	— — —	5/8	FRICION RING	0 TO 10	CS-101 CS-102 CS-103	— — —
.1248 .1873 .2498	5/16 3/8 1/2	— — —	5/8	FRICION RING	10 TO 50	CS-18 CS-19 CS-20	— — —
.1248 .1873 .2498	5/16 3/8 1/2	3/16 1/4 5/16	1	FRICION RING	10 TO 50	CS-12 CS-13 CS-14	CS-9 CS-10 CS-11
.1248 .1873 .2498	5/16 3/8 1/2	3/16 1/4 5/16	1	FRICION PAD	0 TO 10	CS-104 CS-105 CS-106	CS-116 CS-117 CS-118
.1248 .1873 .2498	5/16 3/8 1/2	3/16 1/4 5/16	1	FRICION PAD	10 TO 50	CS-107 CS-108 CS-109	CS-119 CS-120 CS-121

STANDARD SLIP CLUTCH

Shafts 1/8" thru 1/4"



Material:

303 Stainless Steel-Clear Passivate

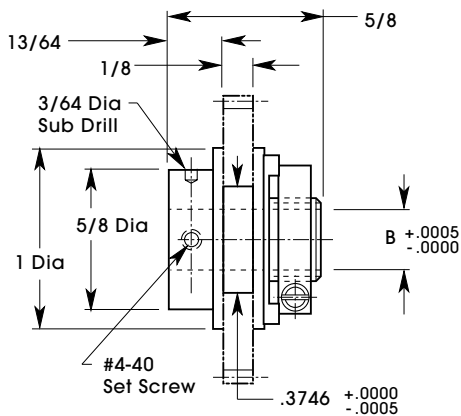
Brake - Cork

Torque - 50 in oz

I.D.	CLAMP C	CATALOG NUMBER
.1248	7/8	CS-15
.1873	1-1/32	CS-16
.2498	1-1/8	CS-17

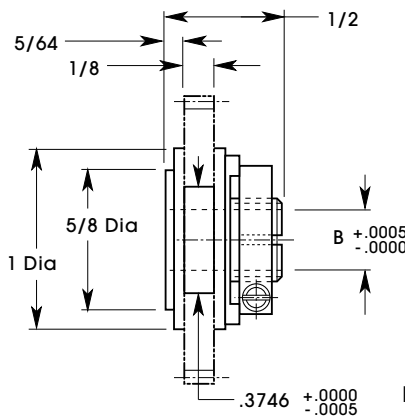


MINIATURE PRECISION SLIP CLUTCH



Torque - 0 to 50 in oz

B	CATALOG NUMBER
.1200	CS33
.1248	CS34
.1873	CS35
.2498	CS36



Torque - 0 to 60 in oz

B	CATALOG NUMBER
.1200	CS29
.1248	CS30
.1873	CS31
.2498	CS32

Material:

Hub & Clamp -

303 Stainless Steel Clear Passivate

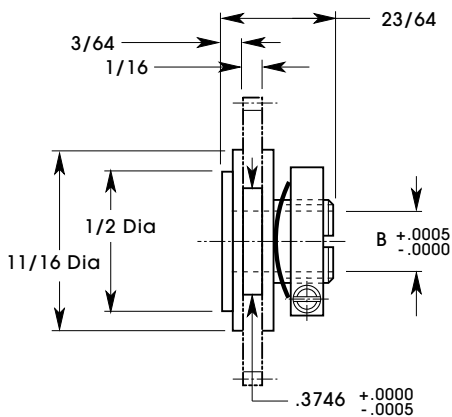
Brake Washers (2) -

Oil Impregnated Bronze

Spring Washer -

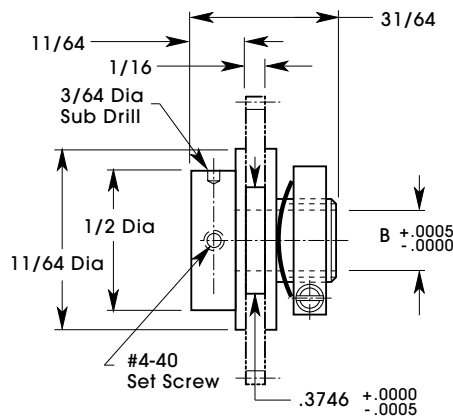
Spring Steel Cadmium Plated

Use With Hubless Gears



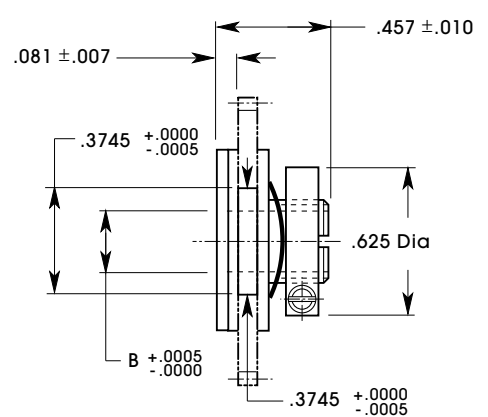
Torque - 0 to 50 in oz

B	CATALOG NUMBER
.1200	CS21
.1248	CS22
.1873	CS23
.2498	CS24



Torque - 0 to 50 in oz

B	CATALOG NUMBER
.1200	CS25
.1248	CS26
.1873	CS27
.2498	CS28



Torque - 0 to 50 in oz

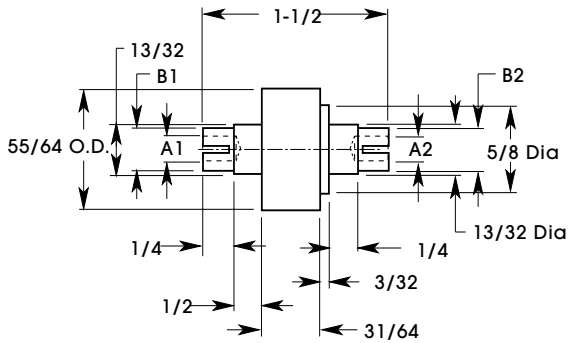
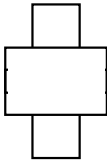
B	CATALOG NUMBER
.1248	CS220
.1873	CS230
.2498	CS240

SLIP CLUTCH *DELTRIN*[®] IN-LINE

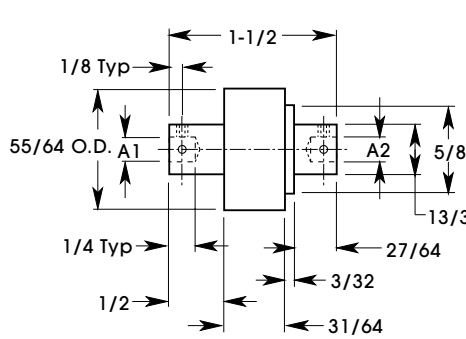
Pin Style • Clamp Style • Combination Style
Shafts 1/8" thru 1/4"

Material:

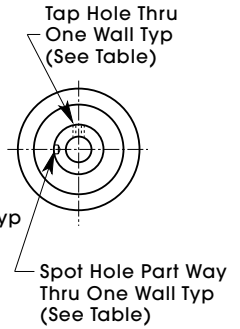
Housing - Anodized Aluminum
Hubs - Stainless Steel
Friction Faces - DuPont Delrin[®] 500
Torque - 0 to 50 in oz



Clamp Type

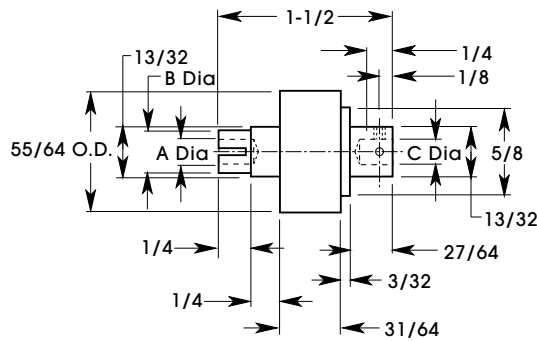


Pin Type



SHAFT DIA	TAP HOLE	SPOT HOLE
1/8	#2-56	#69
3/16	#4-40	#60
1/4	#6-32	#50

A1 DIA .0005 .0000	B1 DIA .001 .000	A2 DIA .0005 .0000	B2 DIA .001 .000	REF.	CATALOG NUMBER/HUB	
					PIN	CLAMP
.1250	.187	.1250	.187	1/8 x 1/8	CS-43	CS-37
.1875	.250	.1875	.250	3/16 x 3/16	CS-44	CS-38
.2500	.312	.2500	.312	1/4 x 1/4	CS-45	CS-39
.1250	.187	.1875	.250	1/8 x 3/16	CS-46	CS-40
.1250	.187	.2500	.312	1/8 x 1/4	CS-47	CS-41
.1875	.250	.2500	.312	3/16 x 1/4	CS-48	CS-42



Combination Type

SHAFT DIA	TAP HOLE	SPOT HOLE
1/8	#2-56	#69
3/16	#4-40	#60
1/4	#6-32	#50

A DIA .0005 .0000	B DIA .001 .000	C DIA .0005 .0000	REF.	CATALOG NUMBER
.1250	.187	.1250	1/8 x 1/8	CS-49
.1875	.250	.1875	3/16 x 3/16	CS-50
.2500	.312	.2500	1/4 x 1/4	CS-51
.1250	.187	.1875	1/8 x 3/16	CS-52
.1250	.187	.2500	1/8 x 1/4	CS-53
.1875	.250	.2500	3/16 x 1/4	CS-54

DELTRIN® ADJUSTABLE SLIP CLUTCH

Shafts 1/8" thru 3/16"

Material:

Hub & Clamp - Aluminum Per QQ-A-268, Alloy 2024 T4

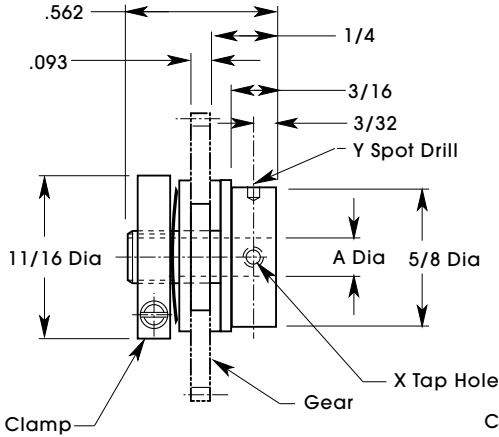
Bearings - Delrin® 150 NC-10

Pressure Spring - Spring Steel Per Mil-S-17919

Finish:

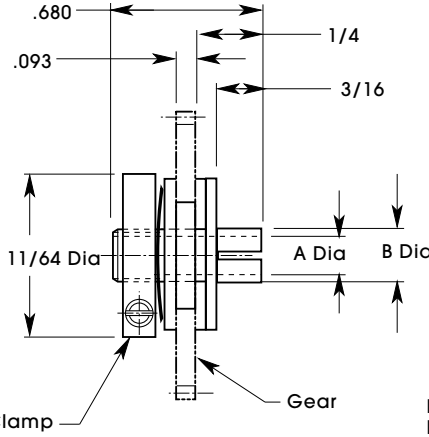
Aluminum - Anodized Per Mil-A-8625 Type II

Spring Steel - Cadmium Plate Per QQ-P-416 Type II Class I



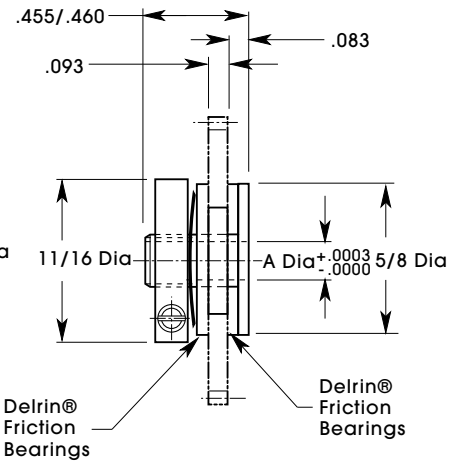
Pin Type

A +.0003 -.0000	X TAP HOLE	Y SPOT HOLE	CATALOG NUMBER
.1250	#2-56	#69	SC-59
.1875	#4-40	#60	SC-60



Clamp Type

A DIA +.0003 -.0000	B DIA +.001 -.000	CATALOG NUMBER
.1250	.187	SC-61
.1875	.250	SC-62

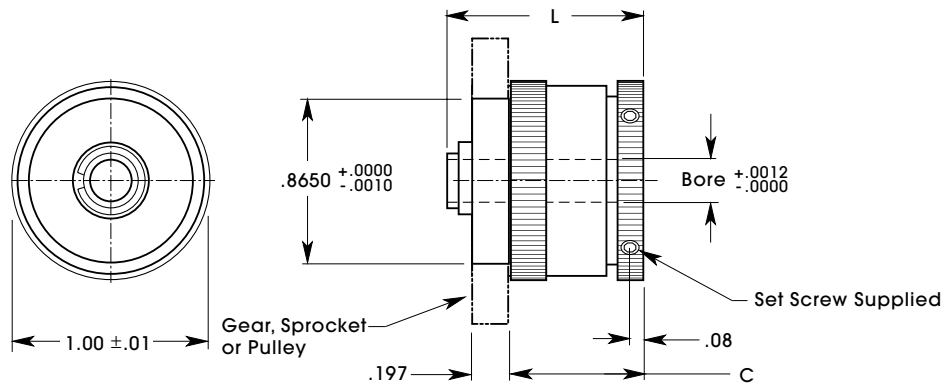


A DIA	T WIDTH	CATALOG NUMBER
.1248	.062	SC-55
.1873	.062	SC-56
.1248	.093	SC-57
.1873	.093	SC-58

KNURLED SLIP CLUTCH

Shafts 1/8" thru 5/16"

Operating Temperature 80° Maximum
2° Maximum Backlash
Two Directions



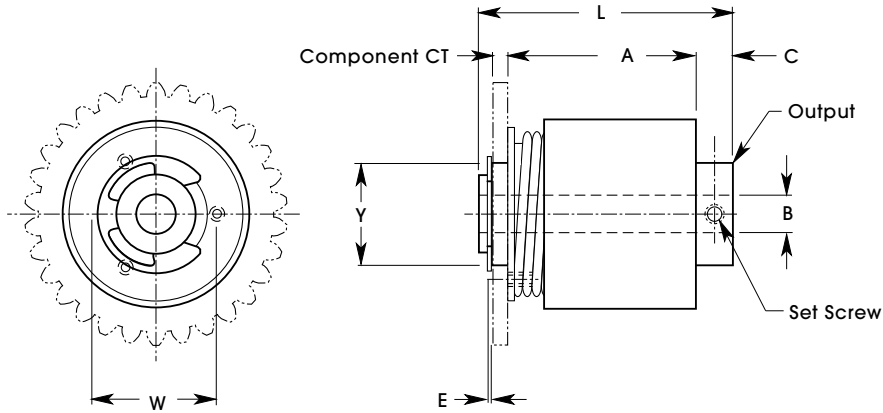
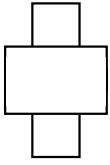
BORE	L	C	TORQUE RANGE		CATALOG NUMBER
			MIN	MAX	
.2500 .3125	1.04	.79	3.4 IN OZ	76.0 IN OZ	SEHJ-11 SEHJ-12
.2500 .3125	1.28	1.03	11.0 IN OZ	187.4 IN OZ	SEHJ-13 SEHJ-14

BRONZE BEARING CLUTCH

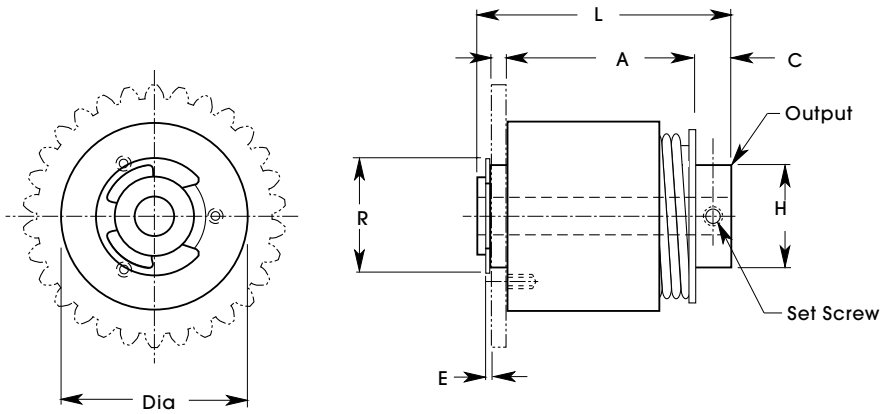
Stainless Steel — Bronze Bearings

Shafts 1/8" thru 1/2"

Continuous Slip Operating



Style 1



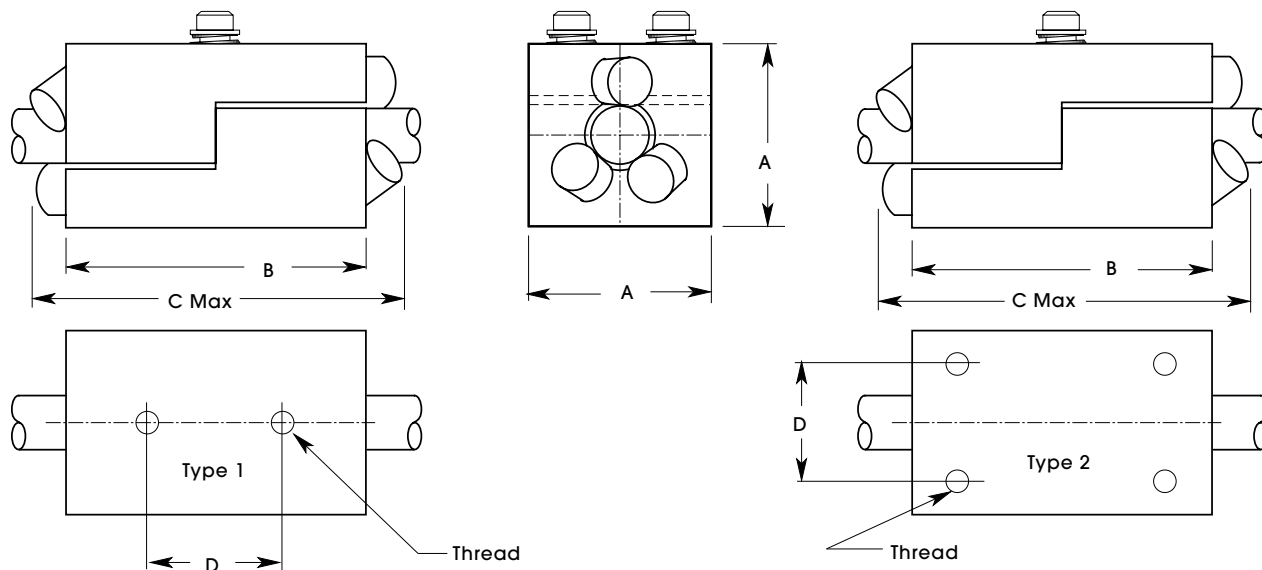
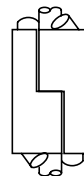
Style 2

B BORE +.0007 -.0000	TORQUE BIDIRECTIONAL	Y DIA +.0000 -.0008	L	A	C	DIA	THREAD DEPTH	W	CT	R MAX	E	H	TYPE	CATALOG NUMBER
.1248 .1873	9 oz in ±1	.3740	1.05	.72	.18	.63	#0-80 x .08	.500	.080	.45 .33	.03	.38	1	SEHJ-1 SEHJ-1A
.1873	20 oz in ±2	.4990	1.24	.85	.21	1.00	#1-72 x .10	.650	.095	.68	.04	.50	1	SEHJ-2
.2498 .3123							#1-72 x .11							SEHJ-3 SEHJ-3A
.2498 .3123	48 oz in ±5		1.39	.94	.23	1.25	#2-56 x .11	.925	.130	.63	.04	.63	2	SEHJ-4 SEHJ-4A
.2498 .3123	80 oz in ±8		1.67	1.20	.25	1.50	#4-40 x .15	.780					1	SEHJ-5 SEHJ-5A
.2498 .3123	120 oz in ±12					1							SEHJ-6 SEHJ-6A	
.2498 .3123 .3748 .4998	240 oz in ±24		.7490	1.88	1.34	.29	2.25	#4-40 x .17	1.170	.130	.74	.04	1.00	2

Style SEHJ-7 to SEHJ-10 Available in 320 oz in ±32

LINEAR CLUTCHES

3/8 Thru 1 inch Non-Threaded Shafts



- Features:**
- Adjustable Tension to Prevent Overload
 - Permanent Lubrication
 - Use With Standard Shafts 3/8 • 1/2 • 5/8 • 3/4 • 1 inch (non-threaded)

Material: Aluminum Housing
Steel Bearings and Screws

SHAFT DIAMETER	LATERAL TRAVEL PER ROTATION	THRUST RATING	A	B	C	D	THREAD	TYPE	CATALOG NUMBER
3/8	.032 .100	5 LBS	1-1/8	1-5/8	2-1/4	3/4	6-32NC-2B	1	SEACL-1 SEACL-2
	.100 .200 .500	30 LBS	1-1/2	2	2-13/16	1	10-32NF-2B	1	SEACL-3 SEACL-4 SEACL-5 SEACL-6 SEACL-7 SEACL-8 SEACL-9
1/2	.100 .200 .500 1.000								SEACL-10 SEACL-11 SEACL-12
5/8	.100 .500	60 LBS	2	2-1/2	3-3/8	1-1/4	1/4-20NC-2B	1	SEACL-13 SEACL-14
3/4	.100 .750 1.000								SEACL-15 SEACL-16 SEACL-17
1	.200 .500 1.000 2.000	100 LBS	3	2-1/2	3-1/2	2-1/2	1/4-20NC-2B	2	SEACL-18 SEACL-19 SEACL-20 SEACL-30