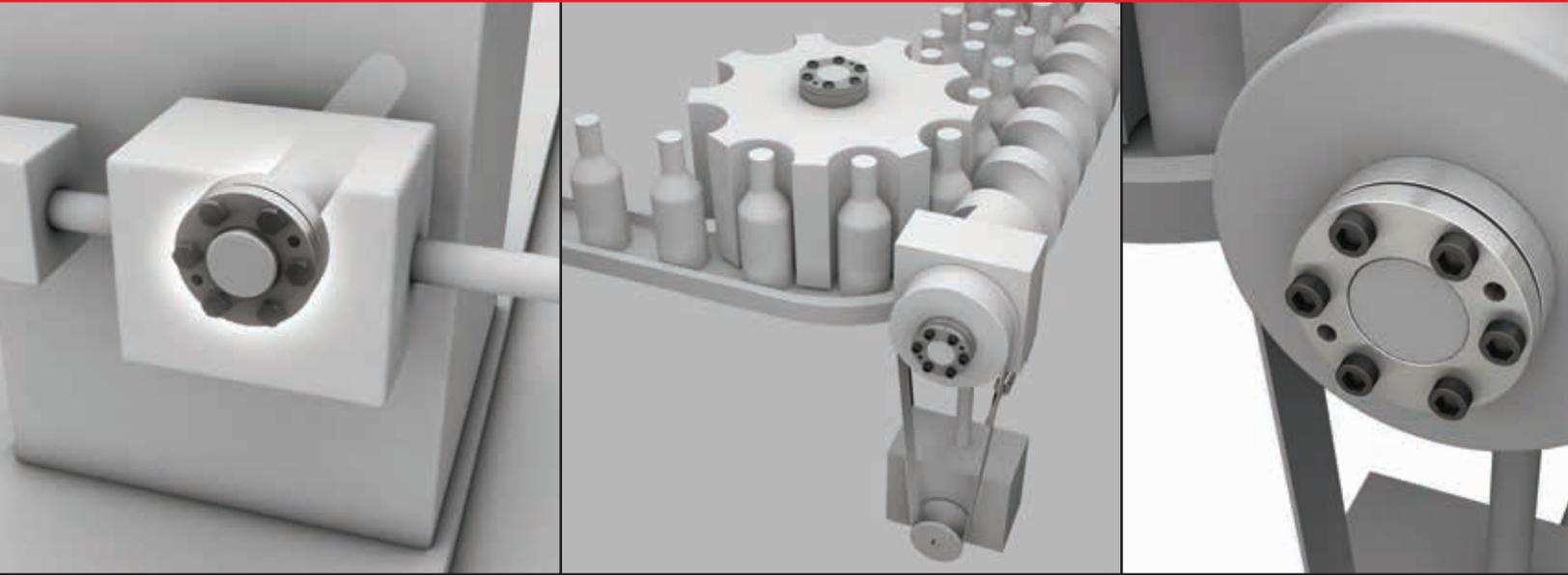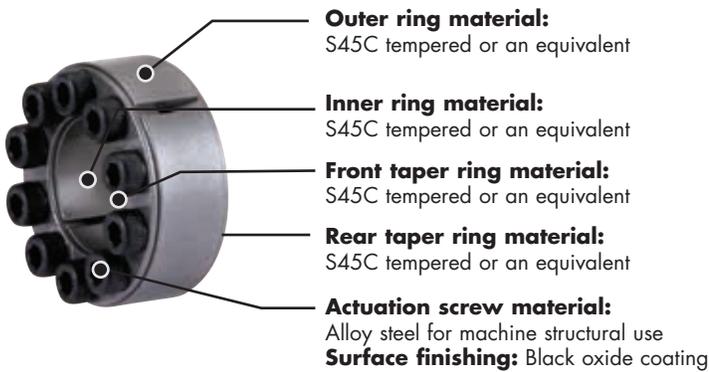**Keyless Shaft Bushings**
Posi-Lok®

DISCOVER THE MANY WAYS KEYLESS SHAFT BUSHINGS FROM ZERO-MAX SAVE VALUABLE TIME AND RESOURCES IN PRODUCTION PROCESSES.
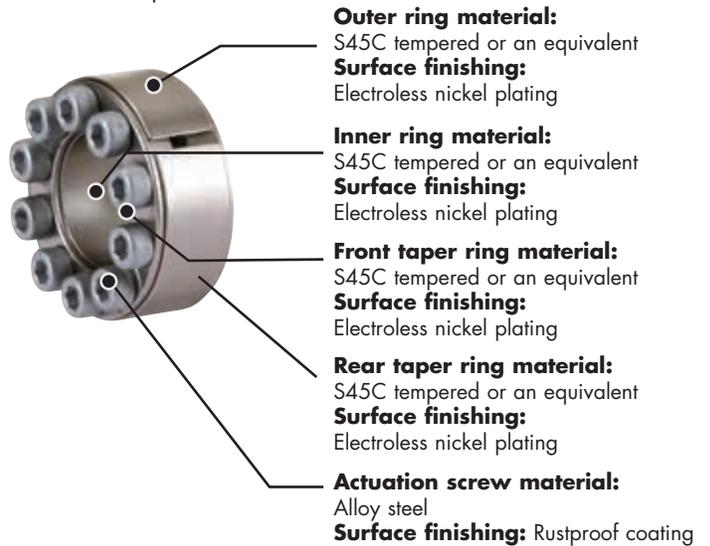
Variations and Materials

PSL-G pages 4-5
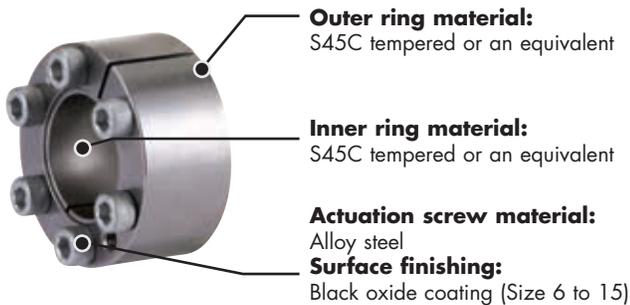
Standard type of the PLS-G model.

Outer ring material:
S45C tempered or an equivalent

Inner ring material:
S45C tempered or an equivalent

Front taper ring material:
S45C tempered or an equivalent

Rear taper ring material:
S45C tempered or an equivalent

Actuation screw material:
Alloy steel for machine structural use
Surface finishing: Black oxide coating

PSL-G-C pages 6-7

The main body is electroless nickel plated
for corrosion protection.

Outer ring material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Inner ring material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Front taper ring material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Rear taper ring material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Actuation screw material:
Alloy steel
Surface finishing: Rustproof coating

PSL-D pages 8-9

Standard type of the PSL-D model.

Outer ring material:
S45C tempered or an equivalent

Inner ring material:
S45C tempered or an equivalent

Actuation screw material:
Alloy steel
Surface finishing:
Black oxide coating (Size 6 to 15)

PSL-D-C pages 10-11

The main body is electroless nickel plated
for corrosion protection.

Outer ring material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Inner ring material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Actuation screw material:
Alloy steel for machine structural use
Surface finishing: Rustproof coating
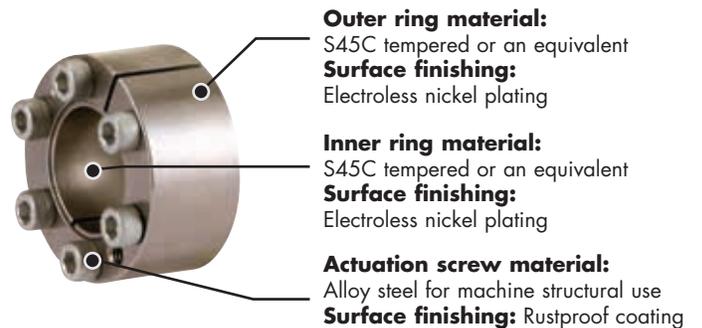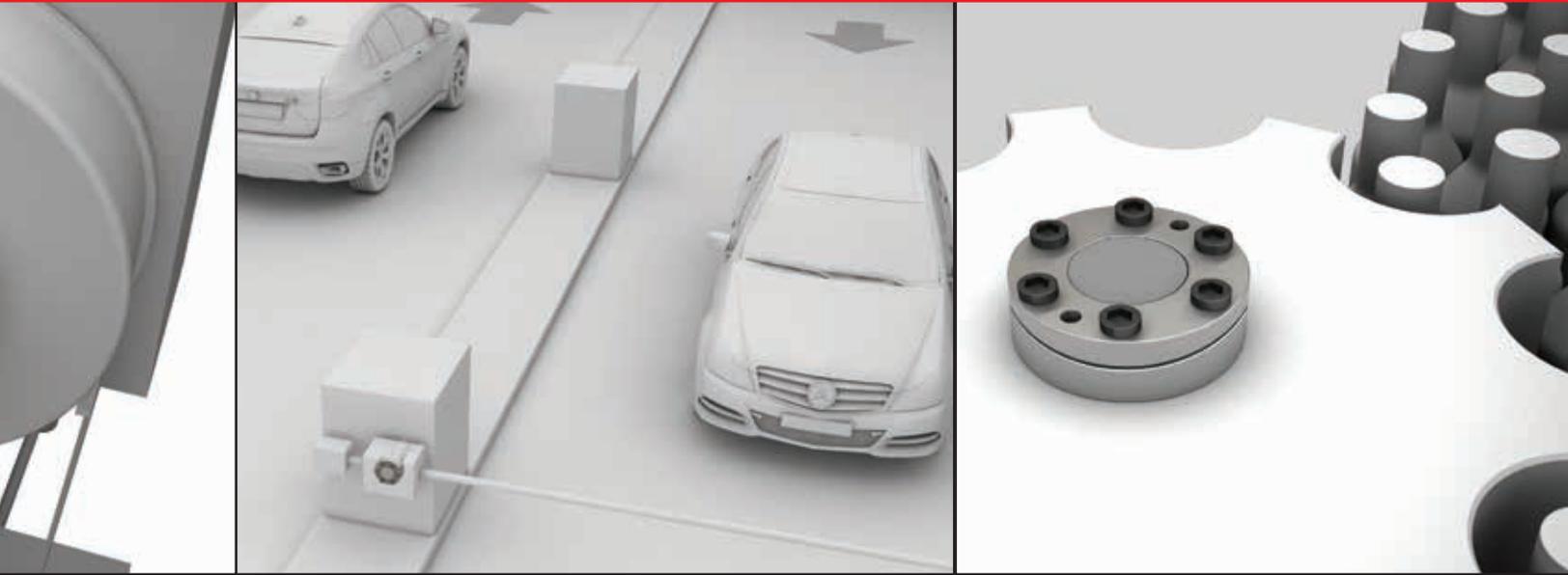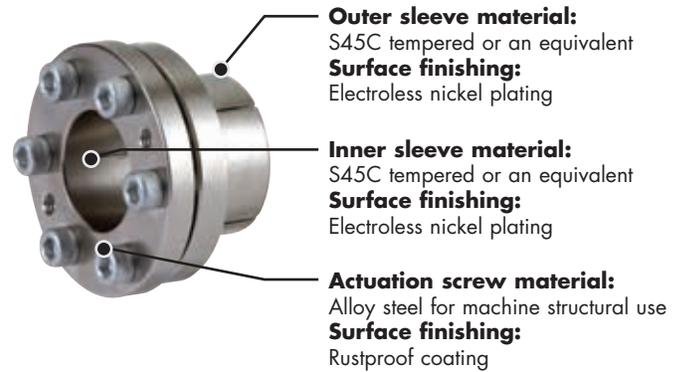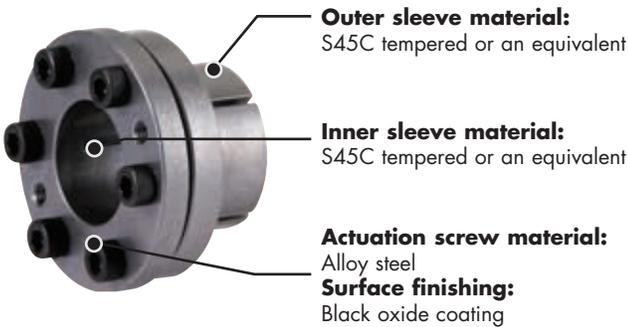
PSL-K pages 12-13

Standard type of the PSL-K model.

PSL-K-B pages 14-15

Hex head screws are used for clamping so the device can be mounted in tight spaces having limited access axially.

Outer sleeve material:
S45C tempered or an equivalent

Inner sleeve material:
S45C tempered or an equivalent

Actuation screw material:
Alloy steel
Surface finishing:
Black oxide coating

PSL-K-C pages 16-17

The main body is electroless nickel plated for corrosion protection.

Outer sleeve material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Inner sleeve material:
S45C tempered or an equivalent
Surface finishing:
Electroless nickel plating

Actuation screw material:
Alloy steel for machine structural use
Surface finishing:
Rustproof coating

PSL-K-F pages 18-19

The main body and actuation screws are made of stainless material for corrosion protection.

Outer sleeve material:
SUS304 or an equivalent

Inner sleeve material:
SUS304 or an equivalent

Actuation screw material:
SUH660 or an equivalent
Surface finishing:
Special coating is applied to the screw threads to reduce friction.

Design / Operation

A mechanical locking double-tapered wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces.

Features

• Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.

• Flangeless design allows bushing to be recessed within hub for space savings.

• Ease of mounting – socket head capscrews tighten quickly and easily.

• Excellent concentricity – only minimal radial and axial runout.

• The 2 tapered rings increase the contact pressure at hub, which allows the PSL-G series to offer the highest torque capacity in the Posi-Lok family

Specifications

Model	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance				Shaft Tolerance			
	T	FA	Shaft Contact	Hub Contact			Upper Limit		Lower Limit	Grade	Upper Limit		Lower Limit	Grade
	lb ft	lbf	Pressure PSI	Pressure PSI	lb ft² x10⁻⁴	Lb	mm		mm		mm		mm	
PSL-G-19	213	6,857	36,259	14,649	17	0.49	47.039	-	47.000	H8	19.000	-	18.948	h9
PSL-G-20	225	6,857	34,519	14,649	17	0.46	47.039	-	47.000	H8	20.000	-	19.948	h9
PSL-G-22	247	6,857	31,328	14,649	16	0.44	47.039	-	47.000	H8	22.000	-	21.948	h9
PSL-G-24	303	7,711	32,343	15,519	21	0.51	50.039	-	50.000	H8	24.000	-	23.948	h9
PSL-G-25	316	7,711	31,038	15,519	21	0.49	50.039	-	50.000	H8	25.000	-	24.948	h9
PSL-G-28	393	8,565	30,748	15,664	30	0.57	55.046	-	55.000	H8	28.000	-	27.948	h9
PSL-G-30	421	8,565	28,717	15,664	30	0.55	55.046	-	55.000	H8	30.000	-	29.948	h9
PSL-G-32	539	10,274	32,343	17,259	43	0.66	60.046	-	60.000	H8	32.000	-	31.938	h9
PSL-G-35	590	10,274	29,588	17,259	41	0.62	60.046	-	60.000	H8	35.000	-	34.938	h9
PSL-G-38	752	12,027	31,908	18,710	58	0.75	65.046	-	65.000	H8	38.000	-	37.938	h9
PSL-G-40	789	12,027	30,313	18,710	56	0.71	65.046	-	65.000	H8	40.000	-	39.938	h9
PSL-G-42	1,239	18,030	36,695	20,595	125	1.23	75.046	-	75.000	H8	42.000	-	41.938	h9
PSL-G-45	1,328	18,030	34,229	20,595	121	1.17	75.046	-	75.000	H8	45.000	-	44.938	h9
PSL-G-48	1,416	18,030	32,198	19,290	154	1.30	80.046	-	80.000	H8	48.000	-	47.938	h9
PSL-G-50	1,482	18,030	30,893	19,290	151	1.23	80.046	-	80.000	H8	50.000	-	49.938	h9
PSL-G-55	1,896	21,042	32,779	21,176	190	1.37	85.054	-	85.000	H8	55.000	-	54.926	h9
PSL-G-60	2,073	21,042	30,023	20,015	230	1.43	90.054	-	90.000	H8	60.000	-	59.926	h9
PSL-G-65	2,279	21,357	28,137	19,290	304	1.70	95.054	-	95.000	H8	65.000	-	64.926	h9
PSL-G-70	3,540	30,799	31,618	20,015	672	2.95	110.054	-	110.000	H8	70.000	-	69.926	h9
PSL-G-75	3,806	31,024	29,443	19,145	781	3.09	115.054	-	115.000	H8	75.000	-	74.926	h9
PSL-G-80	4,064	31,024	27,557	18,420	900	3.22	120.054	-	120.000	H8	80.000	-	79.926	h9
PSL-G-85	4,794	34,396	28,863	19,580	1,051	3.44	125.063	-	125.000	H8	85.000	-	84.913	h9
PSL-G-90	5,074	34,396	27,267	18,855	1,196	3.57	130.063	-	130.000	H8	90.000	-	89.913	h9
PSL-G-95	5,856	37,543	28,282	19,870	1,343	3.68	135.063	-	135.000	H8	95.000	-	94.913	h9
PSL-G-100	7,449	45,411	29,733	20,595	2,169	5.20	145.063	-	145.000	H8	100.000	-	99.913	h9
PSL-G-110	8,187	45,411	27,122	19,290	2,703	5.58	155.063	-	155.000	H8	110.000	-	109.913	h9
PSL-G-120	9,957	50,582	27,557	20,015	3,386	6.04	165.063	-	165.000	H8	120.000	-	119.913	h9

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

Actuation Screw M1

Detachment screw hole M2

L1

L

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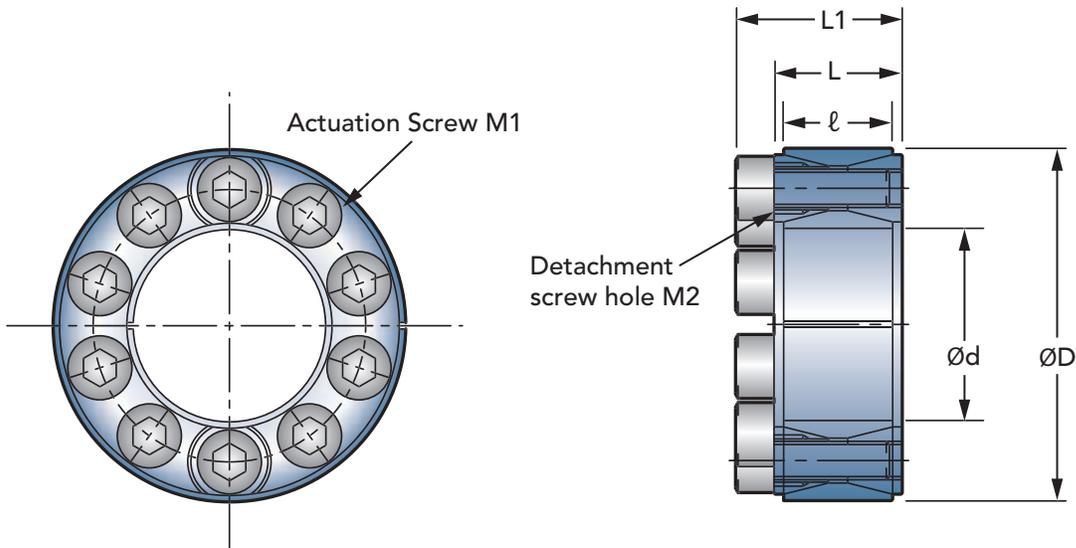
Dimensions

Model	Dimensions					Screws		Detachment Screw Hole		Tightening Torque
	d	D	L*	ℓ	L1*	No.	Dim	No.	Dim	Tt
	mm	mm	mm	mm	mm		M1		M2	In-lb
PSL-G-19	19	47	20	17	26	8	M6 x 18	2	M8	150
PSL-G-20	20	47	20	17	26	8	M6 x 18	2	M8	150
PSL-G-22	22	47	20	17	26	8	M6 x 18	2	M8	150
PSL-G-24	24	50	20	17	26	8	M6 x 18	2	M8	150
PSL-G-25	25	50	20	17	26	8	M6 x 18	2	M8	150
PSL-G-28	28	55	20	17	26	10	M6 x 18	2	M8	150
PSL-G-30	30	55	20	17	26	10	M6 x 18	2	M8	150
PSL-G-32	32	60	20	17	26	12	M6 x 18	2	M8	150
PSL-G-35	35	60	20	17	26	12	M6 x 18	2	M8	150
PSL-G-38	38	65	20	17	26	14	M6 x 18	2	M8	150
PSL-G-40	40	65	20	17	26	14	M6 x 18	2	M8	150
PSL-G-42	42	75	24	20	32	12	M8 x 22	2	M10	363
PSL-G-45	45	75	24	20	32	12	M8 x 22	2	M10	363
PSL-G-48	48	80	24	20	32	12	M8 x 22	2	M10	363
PSL-G-50	50	80	24	20	32	12	M8 x 22	2	M10	363
PSL-G-55	55	85	24	20	32	14	M8 x 22	2	M10	363
PSL-G-60	60	90	24	20	32	14	M8 x 22	2	M10	363
PSL-G-65	65	95	24	20	32	16	M8 x 22	3	M10	363
PSL-G-70	70	110	28	24	38	14	M10 x 25	3	M12	726
PSL-G-75	75	115	28	24	38	14	M10 x 25	3	M12	726
PSL-G-80	80	120	28	24	38	14	M10 x 25	3	M12	726
PSL-G-85	85	125	28	24	38	16	M10 x 25	3	M12	726
PSL-G-90	90	130	28	24	38	16	M10 x 25	3	M12	726
PSL-G-95	95	135	28	24	38	18	M10 x 25	3	M12	726
PSL-G-100	100	145	33	26	45	14	M12 x 30	3	M14	1,257
PSL-G-110	110	155	33	26	45	14	M12 x 30	3	M14	1,257
PSL-G-120	120	165	33	26	45	16	M12 x 30	3	M14	1,257

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking double-tapered wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces. Materials provide corrosion protection.

Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flangeless design allows bushing to be recessed within hub for space savings.
- Ease of mounting – socket head capscrews tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- The 2 tapered rings increase the contact pressure at hub, which allows the PSL-G series to offer the highest torque capacity in the Posi-Lok family.
- Electroless Nickel Plated Finish provides corrosion protection.

Specifications

| Model | Transmittable | | | | Polar moment of inertia | Weight | Hub Bore Tolerance | | | Shaft Tolerance | | |
| | T | FA | Shaft Contact | Hub Contact | | | Upper Limit | Lower Limit | Grade | Upper Limit | Lower Limit | Grade |
	lb ft	lbf	Pressure PSI	Pressure PSI	lb ft² x10⁻⁴	Lb	mm	mm		mm	mm	
PSL-G-19-C	213	6,857	36,259	14,649	17	0.49	47.039 -	47.000	H8	19.000 -	18.948	h9
PSL-G-20-C	225	6,857	34,519	14,649	17	0.46	47.039 -	47.000	H8	20.000 -	19.948	h9
PSL-G-22-C	247	6,857	31,328	14,649	16	0.44	47.039 -	47.000	H8	22.000 -	21.948	h9
PSL-G-24-C	303	7,711	32,343	15,519	21	0.51	50.039 -	50.000	H8	24.000 -	23.948	h9
PSL-G-25-C	316	7,711	31,038	15,519	21	0.49	50.039 -	50.000	H8	25.000 -	24.948	h9
PSL-G-28-C	393	8,565	30,748	15,664	30	0.57	55.046 -	55.000	H8	28.000 -	27.948	h9
PSL-G-30-C	421	8,565	28,717	15,664	30	0.55	55.046 -	55.000	H8	30.000 -	29.948	h9
PSL-G-32-C	539	10,274	32,343	17,259	43	0.66	60.046 -	60.000	H8	32.000 -	31.938	h9
PSL-G-35-C	590	10,274	29,588	17,259	41	0.62	60.046 -	60.000	H8	35.000 -	34.938	h9
PSL-G-38-C	752	12,027	31,908	18,710	58	0.75	65.046 -	65.000	H8	38.000 -	37.938	h9
PSL-G-40-C	789	12,027	30,313	18,710	56	0.71	65.046 -	65.000	H8	40.000 -	39.938	h9
PSL-G-42-C	1,239	18,030	36,695	20,595	125	1.23	75.046 -	75.000	H8	42.000 -	41.938	h9
PSL-G-45-C	1,328	18,030	34,229	20,595	121	1.17	75.046 -	75.000	H8	45.000 -	44.938	h9
PSL-G-48-C	1,416	18,030	32,198	19,290	154	1.30	80.046 -	80.000	H8	48.000 -	47.938	h9
PSL-G-50-C	1,482	18,030	30,893	19,290	151	1.23	80.046 -	80.000	H8	50.000 -	49.938	h9
PSL-G-55-C	1,896	21,042	32,779	21,176	190	1.37	85.054 -	85.000	H8	55.000 -	54.926	h9
PSL-G-60-C	2,073	21,042	30,023	20,015	230	1.43	90.054 -	90.000	H8	60.000 -	59.926	h9

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

Posi-Lok® PSL-G-C (Nickel Plated)

Actuation Screw M1

Detachment screw hole M2
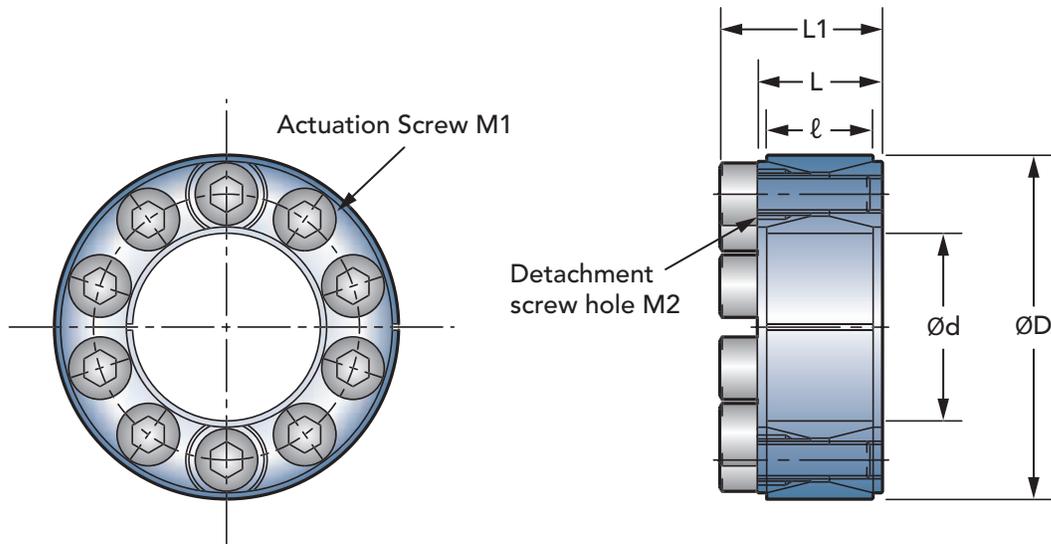
Dimensions

Model	Dimensions					Screws		Detachment Screw Hole		Tightening Torque
	d	D	L*	ℓ	L1*	No.	Dim	No.	Dim	Tt
	mm	mm	mm	mm	mm		M1		M2	In-lb
PSL-G-19-C	19	47	20	17	26	8	M6 x 18	2	M8	150
PSL-G-20-C	20	47	20	17	26	8	M6 x 18	2	M8	150
PSL-G-22-C	22	47	20	17	26	8	M6 x 18	2	M8	150
PSL-G-24-C	24	50	20	17	26	8	M6 x 18	2	M8	150
PSL-G-25-C	25	50	20	17	26	8	M6 x 18	2	M8	150
PSL-G-28-C	28	55	20	17	26	10	M6 x 18	2	M8	150
PSL-G-30-C	30	55	20	17	26	10	M6 x 18	2	M8	150
PSL-G-32-C	32	60	20	17	26	12	M6 x 18	2	M8	150
PSL-G-35-C	35	60	20	17	26	12	M6 x 18	2	M8	150
PSL-G-38-C	38	65	20	17	26	14	M6 x 18	2	M8	150
PSL-G-40-C	40	65	20	17	26	14	M6 x 18	2	M8	150
PSL-G-42-C	42	75	24	20	32	12	M8 x 22	2	M10	363
PSL-G-45-C	45	75	24	20	32	12	M8 x 22	2	M10	363
PSL-G-48-C	48	80	24	20	32	12	M8 x 22	2	M10	363
PSL-G-50-C	50	80	24	20	32	12	M8 x 22	2	M10	363
PSL-G-55-C	55	85	24	20	32	14	M8 x 22	2	M10	363
PSL-G-60-C	60	90	24	20	32	14	M8 x 22	2	M10	363

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces.
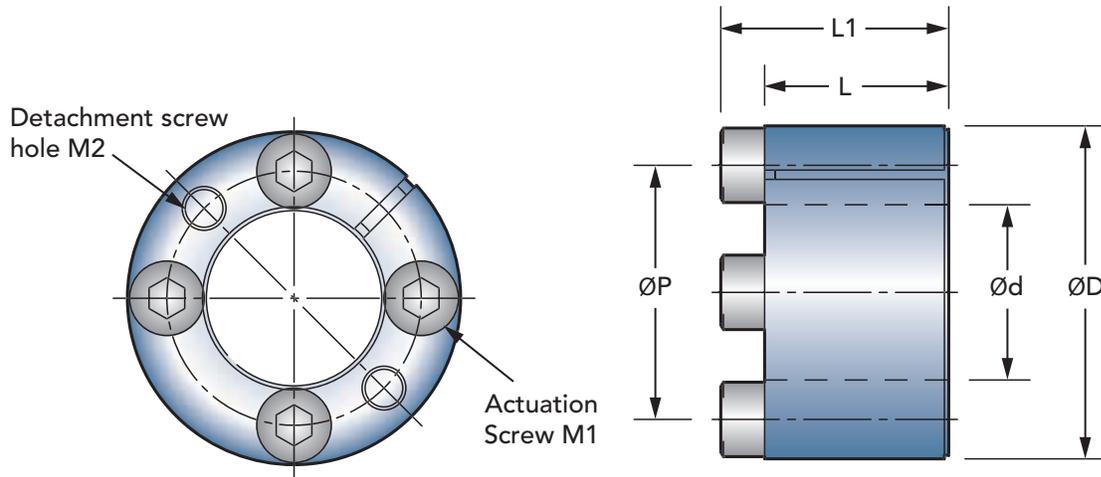
Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flangeless design allows bushing to be recessed within hub for space savings.
- Ease of mounting – socket head capscrews tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- Contact pressure at hub is relatively low, allowing smaller OD hub to be used, saving on the moment of inertia, cost, and weight.

Specifications

Model	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance				Shaft Tolerance			
	T	FA	Shaft Contact	Hub Contact			Upper Limit	Lower Limit		Grade	Upper Limit	Lower Limit		Grade
	lb ft	lbf	Pressure PSI	Pressure PSI	lb ft² x10⁻⁶	Lb	mm	mm			mm	mm		
PSL-D-6	4	472	21,756	8,702	11	0.03	16.043	-	16.000	H9	6.000	-	5.970	h9
PSL-D-7	6	472	20,305	8,702	12	0.03	17.043	-	17.000	H9	7.000	-	6.964	h9
PSL-D-8	7	585	15,954	7,252	18	0.03	18.043	-	18.000	H9	8.000	-	7.964	h9
PSL-D-9	11	719	18,855	8,702	26	0.04	20.052	-	20.000	H9	9.000	-	8.964	h9
PSL-D-10	12	719	15,954	8,702	28	0.04	20.052	-	20.000	H9	10.000	-	9.964	h9
PSL-D-11	13	719	14,504	7,252	43	0.05	22.052	-	22.000	H9	11.000	-	10.957	h9
PSL-D-12	14	719	14,504	7,252	40	0.05	22.052	-	22.000	H9	12.000	-	11.957	h9
PSL-D-14	25	1,079	14,504	7,252	102	0.09	26.052	-	26.000	H9	14.000	-	13.957	h9
PSL-D-15	27	1,079	13,053	7,252	135	0.10	28.052	-	28.000	H9	15.000	-	14.957	h9
PSL-D-16	49	1,888	18,855	8,702	237	0.15	32.062	-	32.000	H9	16.000	-	15.957	h9
PSL-D-17	52	1,888	17,405	8,702	427	0.21	35.062	-	35.000	H9	17.000	-	16.957	h9
PSL-D-18	55	1,888	15,954	8,702	403	0.20	35.062	-	35.000	H9	18.000	-	17.957	h9
PSL-D-19	59	1,888	15,954	8,702	380	0.19	35.062	-	35.000	H9	19.000	-	18.948	h9
PSL-D-20	103	3,057	21,756	11,603	570	0.26	38.062	-	38.000	H9	20.000	-	19.948	h9
PSL-D-22	111	3,057	20,305	11,603	688	0.29	40.062	-	40.000	H9	22.000	-	21.948	h9
PSL-D-24	170	4,339	21,756	11,603	1,661	0.49	47.062	-	47.000	H9	24.000	-	23.948	h9
PSL-D-25	177	4,339	20,305	11,603	1,637	0.46	47.062	-	47.000	H9	25.000	-	24.948	h9
PSL-D-28	295	6,497	27,557	15,954	2,041	0.53	50.062	-	50.000	H9	28.000	-	27.948	h9
PSL-D-30	317	6,497	26,107	14,504	3,037	0.60	55.074	-	55.000	H9	30.000	-	29.948	h9
PSL-D-32	339	6,497	24,656	14,504	2,919	0.57	55.074	-	55.000	H9	32.000	-	31.938	h9
PSL-D-35	494	8,678	23,206	13,053	5,102	0.82	60.074	-	60.000	H9	35.000	-	34.938	h9
PSL-D-38	538	8,678	21,756	13,053	7,072	0.93	65.074	-	65.000	H9	38.000	-	37.938	h9
PSL-D-40	568	8,678	20,305	13,053	6,787	0.90	65.074	-	65.000	H9	40.000	-	39.938	h9
PSL-D-42	819	11,847	21,756	11,603	16,184	1.54	75.074	-	75.000	H9	42.000	-	41.938	h9
PSL-D-45	885	11,847	20,305	11,603	14,452	1.39	75.074	-	75.000	H9	45.000	-	44.938	h9
PSL-D-48	1,246	15,804	27,557	15,954	18,249	1.61	80.074	-	80.000	H9	48.000	-	47.938	h9
PSL-D-50	1,298	15,804	26,107	15,954	17,608	1.57	80.074	-	80.000	H9	50.000	-	49.938	h9

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

Dimensions

Model	Dimensions					Screws		Tightening Torque	Detachment Screw Hole	
	d	D	P	L*	L1*	No.	Dim	Tt	No.	Dim
	mm	mm	mm	mm	mm		M1	In-lb		M2
PSL-D-6	6	16	11	11	13.5	3	M2.5 x 10	9	2	M2.5
PSL-D-7	7	17	12	11	13.5	3	M2.5 x 10	9	2	M2.5
PSL-D-8	8	18	13	11	13.5	3	M2.5 x 10	9	2	M2.5
PSL-D-9	9	20	15	13	15.5	4	M2.5 x 12	9	2	M2.5
PSL-D-10	10	20	15	13	15.5	4	M2.5 x 12	9	2	M2.5
PSL-D-11	11	22	17	13	15.5	4	M2.5 x 12	9	2	M2.5
PSL-D-12	12	22	17	13	15.5	4	M2.5 x 12	9	2	M2.5
PSL-D-14	14	26	20	17	20	4	M3 x 16	18	2	M3
PSL-D-15	15	28	21.5	17	20	4	M3 x 16	18	2	M3
PSL-D-16	16	32	24	17	21	4	M4 x 16	35	2	M4
PSL-D-17	17	35	27	21	25	4	M4 x 20	35	2	M4
PSL-D-18	18	35	27	21	25	4	M4 x 20	35	2	M4
PSL-D-19	19	35	27	21	25	4	M4 x 20	35	2	M4
PSL-D-20	20	38	29	21	26	4	M5 x 20	71	2	M5
PSL-D-22	22	40	31	21	26	4	M5 x 20	71	2	M5
PSL-D-24	24	47	36	26	32	4	M6 x 25	124	2	M6
PSL-D-25	25	47	36	26	32	4	M6 x 25	124	2	M6
PSL-D-28	28	50	39	26	32	6	M6 x 25	124	2	M6
PSL-D-30	30	55	43.5	26	32	6	M6 x 25	124	2	M6
PSL-D-32	32	55	43.5	26	32	6	M6 x 25	124	2	M6
PSL-D-35	35	60	47.5	31	37	8	M6 x 30	124	2	M6
PSL-D-38	38	65	52.5	31	37	8	M6 x 30	124	2	M6
PSL-D-40	40	65	52.5	31	37	8	M6 x 30	124	2	M6
PSL-D-42	42	75	60	36	44	6	M8 x 35	301	2	M8
PSL-D-45	45	75	60	36	44	6	M8 x 35	301	2	M8
PSL-D-48	48	80	65	36	44	8	M8 x 35	301	2	M8
PSL-D-50	50	80	65	36	44	8	M8 x 35	301	2	M8

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces. Materials provide corrosion protection.

Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flangeless design allows bushing to be recessed within hub for space savings.
- Ease of mounting – socket head capscrews tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- Contact pressure at hub is relatively low, allowing smaller OD hub to be used, saving on the moment of inertia, cost, and weight.
- Electroless Nickel Plated Finish provides corrosion protection.

Specifications

	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance			Shaft Tolerance		
	T	FA	Shaft Contact	Hub Contact			Upper Limit	Lower Limit	Grade	Upper Limit	Lower Limit	Grade
Model	lb ft	lbf	Pressure PSI	Pressure PSI	lb ft² x10⁻⁶	Lb	mm	mm		mm	mm	
PSL-D-16-C	49	1,888	18,855	8,702	237	0.15	32.062 -	32.000	H9	16.000 -	15.957	h9
PSL-D-17-C	52	1,888	17,405	8,702	427	0.21	35.062 -	35.000	H9	17.000 -	16.957	h9
PSL-D-18-C	55	1,888	15,954	8,702	403	0.20	35.062 -	35.000	H9	18.000 -	17.957	h9
PSL-D-19-C	59	1,888	15,954	8,702	380	0.19	35.062 -	35.000	H9	19.000 -	18.948	h9
PSL-D-20-C	103	3,057	21,756	11,603	570	0.26	38.062 -	38.000	H9	20.000 -	19.948	h9
PSL-D-22-C	111	3,057	20,305	11,603	688	0.29	40.062 -	40.000	H9	22.000 -	21.948	h9
PSL-D-24-C	170	4,339	21,756	11,603	1,661	0.49	47.062 -	47.000	H9	24.000 -	23.948	h9
PSL-D-25-C	177	4,339	20,305	11,603	1,637	0.46	47.062 -	47.000	H9	25.000 -	24.948	h9
PSL-D-28-C	295	6,497	27,557	15,954	2,041	0.53	50.062 -	50.000	H9	28.000 -	27.948	h9
PSL-D-30-C	317	6,497	26,107	14,504	3,037	0.60	55.074 -	55.000	H9	30.000 -	29.948	h9
PSL-D-32-C	339	6,497	24,656	14,504	2,919	0.57	55.074 -	55.000	H9	32.000 -	31.938	h9
PSL-D-35-C	494	8,678	23,206	13,053	5,102	0.82	60.074 -	60.000	H9	35.000 -	34.938	h9
PSL-D-38-C	538	8,678	21,756	13,053	7,072	0.93	65.074 -	65.000	H9	38.000 -	37.938	h9
PSL-D-40-C	568	8,678	20,305	13,053	6,787	0.90	65.074 -	65.000	H9	40.000 -	39.938	h9
PSL-D-42-C	819	11,847	21,756	11,603	16,184	1.54	75.074 -	75.000	H9	42.000 -	41.938	h9
PSL-D-45-C	885	11,847	20,305	11,603	14,452	1.39	75.074 -	75.000	H9	45.000 -	44.938	h9
PSL-D-48-C	1,246	15,804	27,557	15,954	18,249	1.61	80.074 -	80.000	H9	48.000 -	47.938	h9
PSL-D-50-C	1,298	15,804	26,107	15,954	17,608	1.57	80.074 -	80.000	H9	50.000 -	49.938	h9

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

Detachment screw
hole M2

Actuation
Screw M1

L1
L
ØP
Ød
ØD
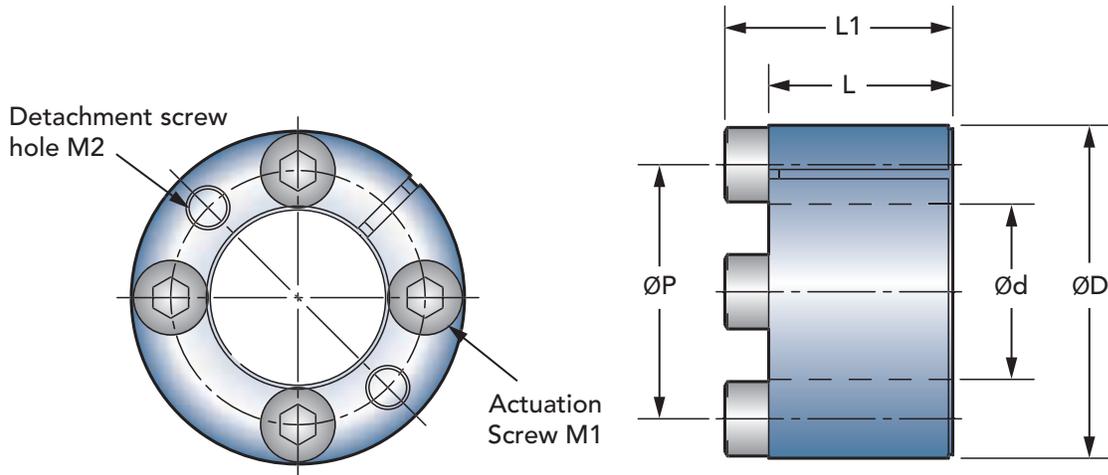
Dimensions

Model	Dimensions					Screws		Tightening Torque	Detachment Screw Hole	
	d	D	P	L*	L1*	No.	Dim	Tt	No.	Dim
	mm	mm	mm	mm	mm		M1	In-lb		M2
PSL-D-16-C	16	32	24	17	21	4	M4 x 16	35	2	M4
PSL-D-17-C	17	35	27	21	25	4	M4 x 20	35	2	M4
PSL-D-18-C	18	35	27	21	25	4	M4 x 20	35	2	M4
PSL-D-19-C	19	35	27	21	25	4	M4 x 20	35	2	M4
PSL-D-20-C	20	38	29	21	26	4	M5 x 20	71	2	M5
PSL-D-22-C	22	40	31	21	26	4	M5 x 20	71	2	M5
PSL-D-24-C	24	47	36	26	32	4	M6 x 25	124	2	M6
PSL-D-25-C	25	47	36	26	32	4	M6 x 25	124	2	M6
PSL-D-28-C	28	50	39	26	32	6	M6 x 25	124	2	M6
PSL-D-30-C	30	55	43.5	26	32	6	M6 x 25	124	2	M6
PSL-D-32-C	32	55	43.5	26	32	6	M6 x 25	124	2	M6
PSL-D-35-C	35	60	47.5	31	37	8	M6 x 30	124	2	M6
PSL-D-38-C	38	65	52.5	31	37	8	M6 x 30	124	2	M6
PSL-D-40-C	40	65	52.5	31	37	8	M6 x 30	124	2	M6
PSL-D-42-C	42	75	60	36	44	6	M8 x 35	301	2	M8
PSL-D-45-C	45	75	60	36	44	6	M8 x 35	301	2	M8
PSL-D-48-C	48	80	65	36	44	8	M8 x 35	301	2	M8
PSL-D-50-C	50	80	65	36	44	8	M8 x 35	301	2	M8

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces.
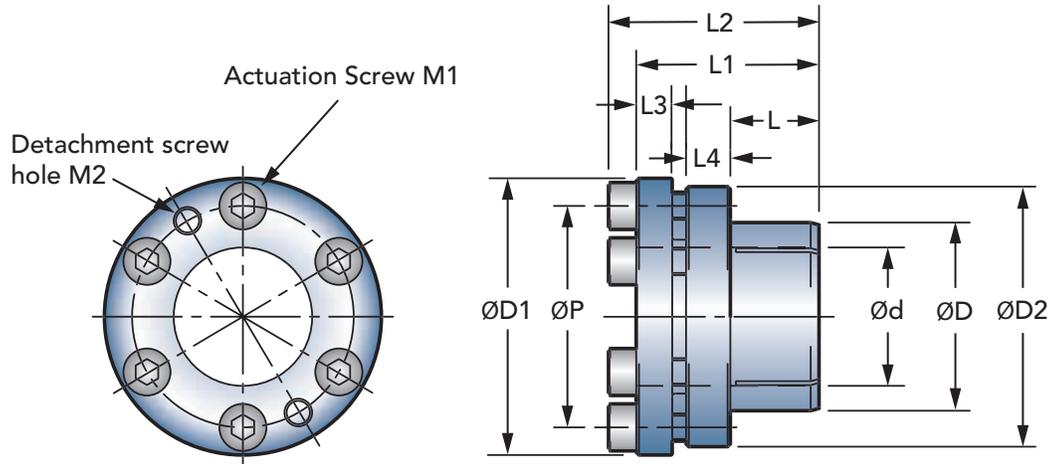
Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flanged design better exposes the actuation screws to simplify installation and disassembly.
- Ease of mounting – socket head capscrews tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- Small ID / OD dimensions allow a smaller component to be mounted, saving on the moment of inertia, cost, and weight.

Specifications

Model	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance				Shaft Tolerance			
	T	FA	Shaft Contact Pressure PSI	Hub Contact Pressure PSI			Upper Limit		Lower Limit	Grade	Upper Limit		Lower Limit	Grade
	lb ft	lbf			lb ft² x10⁻⁶	Lb	mm		mm		mm		mm	
PSL-K-6	4	438	23,206	11,603	59	0.08	12.018	-	12.000	H7	6.000	-	5.982	h8
PSL-K-1/4	5	438	21,756	11,603	59	0.08	12.018	-	12.000	H7	6.350	-	6.328	h8
PSL-K-7	5	438	18,855	11,603	59	0.08	12.018	-	12.000	H7	7.000	-	6.978	h8
PSL-K-8	17	1,326	42,061	23,206	119	0.12	15.018	-	15.000	H7	8.000	-	7.978	h8
PSL-K-9	19	1,326	37,710	23,206	119	0.12	15.018	-	15.000	H7	9.000	-	8.978	h8
PSL-K-3/8	21	1,326	36,259	18,855	185	0.15	18.018	-	18.000	H7	9.525	-	9.503	h8
PSL-K-10	21	1,326	33,359	18,855	183	0.15	18.018	-	18.000	H7	10.000	-	9.978	h8
PSL-K-11	24	1,326	30,458	18,855	180	0.14	18.018	-	18.000	H7	11.000	-	10.973	h8
PSL-K-12	35	1,754	37,710	23,206	237	0.17	20.021	-	20.000	H7	12.000	-	11.973	h8
PSL-K-1/2	37	1,754	36,259	20,305	237	0.16	20.021	-	20.000	H7	12.700	-	12.673	h8
PSL-K-14	41	1,754	31,908	20,305	308	0.18	22.021	-	22.000	H7	14.000	-	13.973	h8
PSL-K-15	70	2,855	42,061	27,557	570	0.28	23.021	-	23.000	H7	15.000	-	14.973	h8
PSL-K-16	74	2,855	39,160	26,107	641	0.29	24.021	-	24.000	H7	16.000	-	15.973	h8
PSL-K-17	81	2,855	37,710	24,656	783	0.32	26.021	-	26.000	H7	17.000	-	16.973	h8
PSL-K-18	81	2,855	34,809	24,656	759	0.31	26.021	-	26.000	H7	18.000	-	17.973	h8
PSL-K-19	89	2,855	33,359	23,206	949	0.34	28.021	-	28.000	H7	19.000	-	18.967	h8
PSL-K-20	96	2,855	31,908	23,206	925	0.33	28.021	-	28.000	H7	20.000	-	19.967	h8
PSL-K-22	155	4,271	36,259	24,656	1,542	0.46	32.025	-	32.000	H7	22.000	-	21.967	h8
PSL-K-24	170	4,271	33,359	23,206	1,804	0.49	34.025	-	34.000	H7	24.000	-	23.967	h8
PSL-K-25	177	4,271	31,908	23,206	1,780	0.46	34.025	-	34.000	H7	25.000	-	24.967	h8
PSL-K-28	280	6,070	31,908	23,206	4,817	0.86	39.025	-	39.000	H7	28.000	-	27.967	h8
PSL-K-30	295	6,070	30,458	21,756	5,458	0.88	41.025	-	41.000	H7	30.000	-	29.967	h8
PSL-K-32	317	6,070	27,557	20,305	6,170	0.94	43.025	-	43.000	H7	32.000	-	31.961	h8
PSL-K-35	465	8,093	30,458	21,756	8,685	1.16	47.025	-	47.000	H7	35.000	-	34.961	h8
PSL-K-38	502	8,026	30,458	23,206	10,109	1.28	50.025	-	50.000	H7	38.000	-	37.961	h8
PSL-K-40	531	8,093	23,206	17,405	12,126	1.32	53.030	-	53.000	H7	40.000	-	39.961	h8
PSL-K-42	553	8,026	24,656	18,855	13,313	1.45	55.030	-	55.000	H7	42.000	-	42.961	h8

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

Actuation Screw M1

Detachment screw hole M2

L2
L1
L3
L
L4

ØD1 ØP

Ød ØD ØD2

Dimensions

Model	Dimensions										Screws			
	d	D	D1	D2	P	L	L1*	L2*	L3	L4	No.	Dim		Tt
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		M1	M2	In-lb
PSL-K-6	6	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-1/4	6.35	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-7	7	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-8	8	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-9	9	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-3/8	9.525	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-10	10	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-11	11	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-12	12	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-1/2	12.7	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-14	14	22	35	33	27	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-15	15	23	39	36	29	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-16	16	24	40	37	30	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-17	17	26	42	39	32	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-18	18	26	42	39	32	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-19	19	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-20	20	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-22	22	32	48	45	38	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-24	24	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-25	25	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-28	28	39	62	59	47	20	39	45	7.5	9	6	M6 x 16	2-M6	124
PSL-K-30	30	41	64	61	49	20	39	45	7.5	9	6	M6 x 16	2-M6	124
PSL-K-32	32	43	66	63	51	20	39	45	7.5	9	6	M6 x 16	2-M6	124
PSL-K-35	35	47	70	67	55	22	43	49	8	10	8	M6 x 18	2-M6	124
PSL-K-38	38	50	73	70	58	22	43	49	8	10	8	M6 x 18	2-M6	124
PSL-K-40	40	53	76	73	61	22	43	49	8	10	8	M6 x 18	2-M6	124
PSL-K-42	42	55	78	75	63	22	43	49	8	10	8	M6 x 18	2-M6	124

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces. Special hex-head actuation screws for easy radial access.
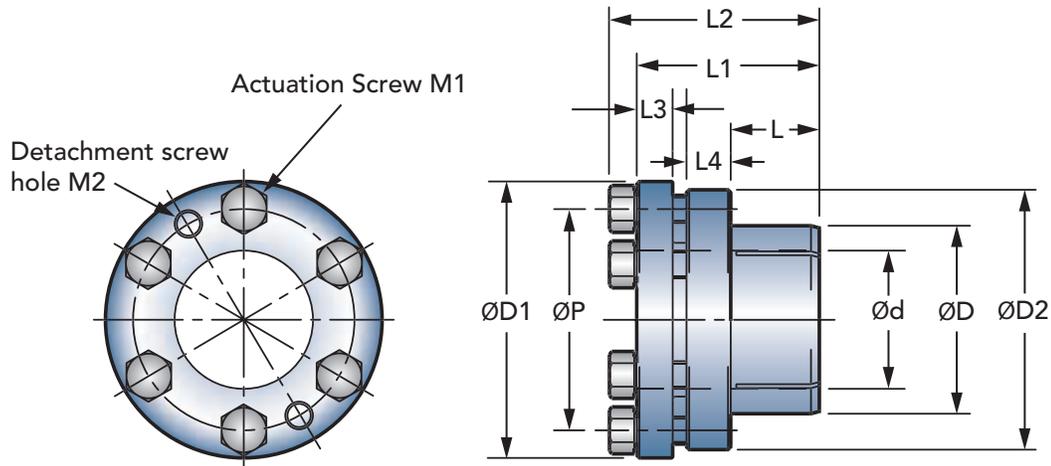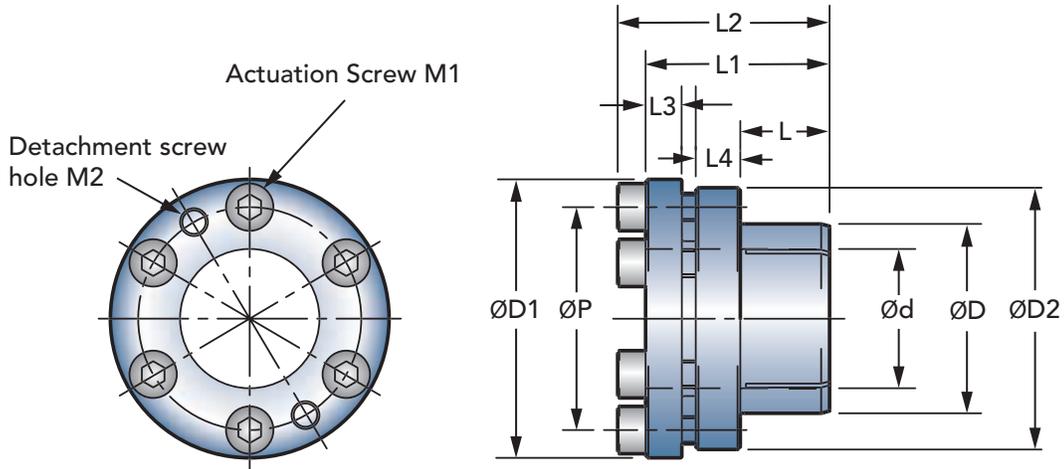
Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flanged design better exposes the actuation screws to simplify installation and disassembly.
- Ease of mounting – hex-head screws tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- Small ID / OD dimensions allow a smaller component to be mounted, saving on the moment of inertia, cost, and weight.
- Hex-head screws allow radial access for installation, allowing it to be mounted in tight space constraints.

Specifications

Model	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance				Shaft Tolerance			
	T	FA	Shaft Contact	Hub Contact			Upper Limit	Lower Limit		Grade	Upper Limit	Lower Limit		Grade
			Pressure PSI	Pressure PSI										
	lb ft	lbf			lb ft² x10⁻⁶	Lb	mm	mm			mm	mm		
PSL-K-6-B	4	438	23,206	11,603	59	0.08	12.018	-	12.000	H7	6.000	-	5.982	h8
PSL-K-1/4-B	5	438	21,756	11,603	59	0.08	12.018	-	12.000	H7	6.350	-	6.328	h8
PSL-K-7-B	5	438	18,855	11,603	59	0.08	12.018	-	12.000	H7	7.000	-	6.978	h8
PSL-K-8-B	17	1,326	42,061	23,206	119	0.12	15.018	-	15.000	H7	8.000	-	7.978	h8
PSL-K-9-B	19	1,326	37,710	23,206	119	0.12	15.018	-	15.000	H7	9.000	-	8.978	h8
PSL-K-3/8-B	21	1,326	36,259	18,855	185	0.15	18.018	-	18.000	H7	9.525	-	9.503	h8
PSL-K-10-B	21	1,326	33,359	18,855	183	0.15	18.018	-	18.000	H7	10.000	-	9.978	h8
PSL-K-11-B	24	1,326	30,458	18,855	180	0.14	18.018	-	18.000	H7	11.000	-	10.973	h8
PSL-K-12-B	35	1,753	37,710	23,206	237	0.17	20.021	-	20.000	H7	12.000	-	11.973	h8
PSL-K-1/2-B	37	1,753	36,259	20,305	237	0.16	20.021	-	20.000	H7	12.700	-	12.673	h8
PSL-K-14-B	41	1,753	31,908	20,305	308	0.18	22.021	-	22.000	H7	14.000	-	13.973	h8
PSL-K-15-B	70	2,855	42,061	27,557	570	0.28	23.021	-	23.000	H7	15.000	-	14.973	h8
PSL-K-16-B	74	2,855	39,160	26,107	641	0.29	24.021	-	24.000	H7	16.000	-	15.973	h8
PSL-K-17-B	81	2,855	37,710	24,656	783	0.32	26.021	-	26.000	H7	17.000	-	16.973	h8
PSL-K-18-B	81	2,855	34,809	24,656	759	0.31	26.021	-	26.000	H7	18.000	-	17.973	h8
PSL-K-19-B	89	2,855	33,359	23,206	949	0.34	28.021	-	28.000	H7	19.000	-	18.967	h8
PSL-K-20-B	96	2,855	31,908	23,206	925	0.33	28.021	-	28.000	H7	20.000	-	19.967	h8
PSL-K-22-B	155	4,271	36,259	24,656	1,542	0.46	32.025	-	32.000	H7	22.000	-	21.967	h8
PSL-K-24-B	170	4,271	33,359	23,206	1,804	0.49	34.025	-	34.000	H7	24.000	-	23.967	h8
PSL-K-25-B	177	4,271	31,908	23,206	1,780	0.46	34.025	-	34.000	H7	25.000	-	24.967	h8
PSL-K-28-B	280	6,070	31,908	23,206	4,817	0.86	39.025	-	39.000	H7	28.000	-	27.967	h8
PSL-K-30-B	295	6,070	30,458	21,756	5,458	0.88	41.025	-	41.000	H7	30.000	-	29.967	h8
PSL-K-32-B	317	6,070	27,557	20,305	6,170	0.94	43.025	-	43.000	H7	32.000	-	31.961	h8
PSL-K-35-B	465	8,093	30,458	21,756	8,685	1.16	47.025	-	47.000	H7	35.000	-	34.961	h8
PSL-K-38-B	502	8,026	30,458	23,206	10,109	1.28	50.025	-	50.000	H7	38.000	-	37.961	h8
PSL-K-40-B	531	8,093	23,206	17,405	12,126	1.32	53.030	-	53.000	H7	40.000	-	39.961	h8
PSL-K-42-B	553	8,026	24,656	18,855	13,313	1.45	55.030	-	55.000	H7	42.000	-	41.961	h8

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

Actuation Screw M1

Detachment screw hole M2

L2
L1
L3
L
L4

ØD1 ØP Ød ØD ØD2

Dimensions

Model	Dimensions										Screws			
	d	D	D1	D2	P	L	L1*	L2*	L3	L4	No.	Dim		Tt
												M1	M2	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm				In-lb
PSL-K-6-B	6	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-1/4-B	6.35	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-7-B	7	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-8-B	8	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-9-B	9	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-3/8-B	9.525	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-10-B	10	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-11-B	11	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-12-B	12	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-1/2-B	12.7	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-14-B	14	22	35	33	27	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-15-B	15	23	39	36	29	14	29	33.5	6	7	4	M5 x 12	2-M5	71
PSL-K-16-B	16	24	40	37	30	14	29	33.5	6	7	4	M5 x 12	2-M5	71
PSL-K-17-B	17	26	42	39	32	14	29	33.5	6	7	4	M5 x 12	2-M5	71
PSL-K-18-B	18	26	42	39	32	14	29	33.5	6	7	4	M5 x 12	2-M5	71
PSL-K-19-B	19	28	44	41	34	14	29	33.5	6	7	4	M5 x 12	2-M5	71
PSL-K-20-B	20	28	44	41	34	14	29	33.5	6	7	4	M5 x 12	2-M5	71
PSL-K-22-B	22	32	48	45	38	16	33	37.5	6.5	8	6	M5 x 14	2-M5	71
PSL-K-24-B	24	34	50	47	40	16	33	37.5	6.5	8	6	M5 x 14	2-M5	71
PSL-K-25-B	25	34	50	47	40	16	33	37.5	6.5	8	6	M5 x 14	2-M5	71
PSL-K-28-B	28	39	62	59	47	20	39	44	7.5	9	6	M6 x 16	2-M6	124
PSL-K-30-B	30	41	64	61	49	20	39	44	7.5	9	6	M6 x 16	2-M6	124
PSL-K-32-B	32	43	66	63	51	20	39	44	7.5	9	6	M6 x 16	2-M6	124
PSL-K-35-B	35	47	70	67	55	22	43	48	8	10	8	M6 x 18	2-M6	124
PSL-K-38-B	38	50	73	70	58	22	43	48	8	10	8	M6 x 18	2-M6	124
PSL-K-40-B	40	53	76	73	61	22	43	48	8	10	8	M6 x 18	2-M6	124
PSL-K-42-B	42	55	78	75	63	22	43	48	8	10	8	M6 x 18	2-M6	124

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces. Materials provide corrosion protection.

Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flanged design better exposes the actuation screws to simplify installation and disassembly.
- Ease of mounting – socket head capscrews tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- Small ID / OD dimensions allow a smaller component to be mounted, saving on the moment of inertia, cost, and weight.
- Electroless Nickel Plated Finish provides corrosion protection.

Specifications

Model	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance				Shaft Tolerance			
	T	FA	Shaft Contact	Hub Contact			Upper Limit		Lower Limit	Grade	Upper Limit		Lower Limit	Grade
	lb ft	lbf	Pressure PSI	Pressure PSI	lb ft² x10⁻⁶	Lb	mm		mm		mm		mm	
PSL-K-6-C	4	438	23,206	11,603	59	0.08	12.018	-	12.000	H7	6.00	-	5.982	h8
PSL-K-1/4-C	5	438	21,756	11,603	59	0.08	12.018	-	12.000	H7	6.350	-	6.328	h8
PSL-K-7-C	5	438	18,855	11,603	59	0.08	12.018	-	12.000	H7	7.000	-	6.978	h8
PSL-K-8-C	17	1,326	42,061	23,206	119	0.12	15.018	-	15.000	H7	8.000	-	7.978	h8
PSL-K-9-C	19	1,326	37,710	23,206	119	0.12	15.018	-	15.000	H7	9.000	-	8.978	h8
PSL-K-3/8-C	21	1,326	36,259	18,855	185	0.15	18.018	-	18.000	H7	9.525	-	9.503	h8
PSL-K-10-C	21	1,326	33,359	18,855	183	0.15	18.018	-	18.000	H7	10.000	-	9.978	h8
PSL-K-11-C	24	1,326	30,458	18,855	180	0.14	18.018	-	18.000	H7	11.000	-	10.973	h8
PSL-K-12-C	35	1,753	37,710	23,206	237	0.17	20.021	-	20.000	H7	12.000	-	11.973	h8
PSL-K-1/2-C	37	1,753	36,259	20,305	237	0.16	20.021	-	20.000	H7	12.700	-	12.673	h8
PSL-K-14-C	41	1,753	31,908	20,305	308	0.18	22.021	-	22.000	H7	14.000	-	13.973	h8
PSL-K-15-C	70	2,855	42,061	27,557	570	0.28	23.021	-	23.000	H7	15.000	-	14.973	h8
PSL-K-5/8-C	70	2,855	39,158	26,105	641	0.29	24.021	-	24.000	H7	15.875	-	15.848	h8
PSL-K-16-C	74	2,855	39,160	26,107	641	0.29	24.021	-	24.000	H7	16.000	-	15.973	h8
PSL-K-17-C	81	2,855	37,710	24,656	783	0.32	26.021	-	26.000	H7	17.000	-	16.973	h8
PSL-K-18-C	81	2,855	34,809	24,656	759	0.31	26.021	-	26.000	H7	18.000	-	17.973	h8
PSL-K-19-C	89	2,855	33,359	23,206	949	0.34	28.021	-	28.000	H7	19.000	-	18.967	h8
PSL-K-3/4-C	91	2,855	33,357	23,205	949	0.34	28.021	-	28.000	H7	19.050	-	19.017	h8
PSL-K-20-C	96	2,855	31,908	23,206	925	0.33	28.021	-	28.000	H7	20.000	-	19.967	h8
PSL-K-22-C	155	4,271	36,259	24,656	1,542	0.46	32.025	-	32.000	H7	22.000	-	21.967	h8
PSL-K-7/8-C	155	4,271	36,258	24,655	1,542	0.46	32.025	-	32.000	H7	22.225	-	22.192	h8
PSL-K-24-C	170	4,271	33,359	23,206	1,804	0.49	34.025	-	34.000	H7	24.000	-	23.967	h8
PSL-K-25-C	177	4,271	31,908	23,206	1,780	0.46	34.025	-	34.000	H7	25.000	-	24.967	h8
PSL-K-1-C	177	4,271	31,907	23,205	1,780	0.46	34.025	-	34.000	H7	25.400	-	25.367	h8
PSL-K-28-C	280	6,070	31,908	23,206	4,817	0.86	39.025	-	39.000	H7	28.000	-	27.967	h8
PSL-K-30-C	295	6,070	30,458	21,756	5,458	0.88	41.025	-	41.000	H7	30.000	-	29.967	h8
PSL-K-32-C	317	6,070	27,557	20,305	6,170	0.94	43.025	-	43.000	H7	32.000	-	31.961	h8
PSL-K-35-C	465	8,093	30,458	21,756	8,685	1.16	47.025	-	47.000	H7	35.000	-	34.961	h8
PSL-K-38-C	502	8,026	30,458	23,206	10,109	1.28	50.025	-	50.000	H7	38.000	-	37.961	h8
PSL-K-40-C	531	8,093	23,206	17,405	12,126	1.32	53.030	-	53.000	H7	40.000	-	39.961	h8
PSL-K-42-C	553	8,026	24,656	18,855	13,313	1.45	55.030	-	55.000	H7	42.000	-	41.961	h8

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits

ZERO-MAX

Actuation Screw M1

Detachment screw hole M2

ØD1 ØP   Ød ØD ØD2

L2
L1
L3
L4
L

Dimensions

Model	Dimensions										Screws			
	d	D	D1	D2	P	L	L1*	L2*	L3	L4	No.	Dim		Tt
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		M1	M2	In-lb
PSL-K-6-C	6	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-1/4-C	6.35	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-7-C	7	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-8-C	8	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-9-C	9	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-3/8-C	9.525	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-10-C	10	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-11-C	11	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	35
PSL-K-12-C	12	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-1/2-C	12.7	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-14-C	14	22	35	33	27	12	24	28	5	5	4	M4 x 10	2-M4	35
PSL-K-15-C	15	23	39	36	29	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-5/8-C	15.875	24	40	37	30	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-16-C	16	24	40	37	30	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-17-C	17	26	42	39	32	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-18-C	18	26	42	39	32	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-19-C	19	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-3/4-C	19.05	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-20-C	20	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	71
PSL-K-22-C	22	32	48	45	38	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-7/8-C	22.225	32	48	45	38	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-24-C	24	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-25-C	25	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-1-C	25.4	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	71
PSL-K-28-C	28	39	62	59	47	20	39	45	7.5	9	6	M6 x 16	2-M6	124
PSL-K-30-C	30	41	64	61	49	20	39	45	7.5	9	6	M6 x 16	2-M6	124
PSL-K-32-C	32	43	66	63	51	20	39	45	7.5	9	6	M6 x 16	2-M6	124
PSL-K-35-C	35	47	70	67	55	22	43	49	8	10	8	M6 x 18	2-M6	124
PSL-K-38-C	38	50	73	70	58	22	43	49	8	10	8	M6 x 18	2-M6	124
PSL-K-40-C	40	53	76	73	61	22	43	49	8	10	8	M6 x 18	2-M6	124
PSL-K-42-C	42	55	78	75	63	22	43	49	8	10	8	M6 x 18	2-M6	124

* = Reference dimension
Tt = Screw tightening torque

Design / Operation

A mechanical locking wedge is formed as the actuation screws are tightened, pressing the inner sleeve against the shaft and outer sleeve against the hub. The resulting locking connection transmits torque and resists axial forces. Materials optimized for corrosion protection.

Features

- Provides a solid connection between the shaft and mounted component. Simple locking design does not require the use of keyways.
- Flanged design better exposes the actuation screws to simplify installation and disassembly.
- Ease of mounting – socket head capscrews tighten quickly and easily.
- Excellent concentricity – only minimal radial and axial runout.
- Small ID / OD dimensions allow a smaller component to be mounted, saving on the moment of inertia, cost, and weight.
- Stainless Steel material provides corrosion protection.

Specifications

Model	Transmittable				Polar moment of inertia	Weight	Hub Bore Tolerance				Shaft Tolerance			
	T	FA	Shaft Contact	Hub Contact			Upper Limit		Lower Limit	Grade	Upper Limit		Lower Limit	Grade
	lb ft	lbf	Pressure PSI	Pressure PSI	lb ft² x10⁻⁶	Lb	mm		mm		mm		mm	
PSL-K-6-F	3	351	17,405	8,702	59	0.08	12.018	-	12.000	H7	6.000	-	5.982	h8
PSL-K-1/4-F	4	351	17,525	8,762	59	0.08	12.018	-	12.000	H7	6.350	-	6.328	h8
PSL-K-7-F	4	351	14,704	8,822	59	0.08	12.018	-	12.000	H7	7.000	-	6.978	h8
PSL-K-8-F	13	1,061	34,049	17,765	119	0.12	15.018	-	15.000	H7	8.000	-	7.978	h8
PSL-K-9-F	15	1,061	29,808	17,885	119	0.12	15.018	-	15.000	H7	9.000	-	8.978	h8
PSL-K-3/8-F	16	1,061	30,008	15,004	185	0.15	18.018	-	18.000	H7	9.525	-	9.503	h8
PSL-K-10-F	17	1,061	27,187	15,104	183	0.15	18.018	-	18.000	H7	10.000	-	9.978	h8
PSL-K-11-F	18	1,061	24,326	15,204	180	0.14	18.018	-	18.000	H7	11.000	-	10.973	h8
PSL-K-12-F	27	1,403	30,608	18,365	237	0.17	20.021	-	20.000	H7	12.000	-	11.973	h8
PSL-K-1/2-F	30	1,403	30,808	16,944	237	0.16	20.021	-	20.000	H7	12.700	-	12.673	h8
PSL-K-14-F	32	1,403	26,356	17,054	308	0.18	22.021	-	22.000	H7	14.000	-	13.973	h8
PSL-K-15-F	56	2,284	35,889	23,406	570	0.28	23.021	-	23.000	H7	15.000	-	14.973	h8
PSL-K-16-F	59	2,284	32,978	21,985	641	0.29	24.021	-	24.000	H7	16.000	-	15.973	h8
PSL-K-17-F	65	2,284	31,608	20,545	783	0.32	26.021	-	26.000	H7	17.000	-	16.973	h8
PSL-K-18-F	65	2,284	30,217	20,675	759	0.31	26.021	-	26.000	H7	18.000	-	17.973	h8
PSL-K-19-F	71	2,284	28,807	19,205	949	0.34	28.021	-	28.000	H7	19.000	-	18.967	h8
PSL-K-20-F	77	2,284	27,376	19,325	925	0.33	28.021	-	28.000	H7	20.000	-	19.967	h8
PSL-K-22-F	124	3,417	32,408	21,065	1,542	0.46	32.025	-	32.000	H7	22.000	-	21.967	h8
PSL-K-24-F	136	3,417	29,347	19,565	1,804	0.49	34.025	-	34.000	H7	24.000	-	23.967	h8
PSL-K-25-F	142	3,417	27,886	19,685	1,780	0.46	34.025	-	34.000	H7	25.000	-	24.967	h8
PSL-K-28-F	224	4,856	28,056	19,805	4,817	0.86	39.025	-	39.000	H7	28.000	-	27.967	h8
PSL-K-30-F	236	4,856	26,566	19,925	5,458	0.88	41.025	-	41.000	H7	30.000	-	29.967	h8
PSL-K-32-F	254	4,856	25,056	18,374	6,170	0.94	43.025	-	43.000	H7	32.000	-	31.961	h8
PSL-K-35-F	372	6,475	26,886	20,165	8,685	1.16	47.025	-	47.000	H7	35.000	-	34.961	h8

T = Transmittable torque when axial force is zero.   FA = Transmittable axial force when torque is zero. (Rated thrust)   ISO286-2 System of Limits and Fits
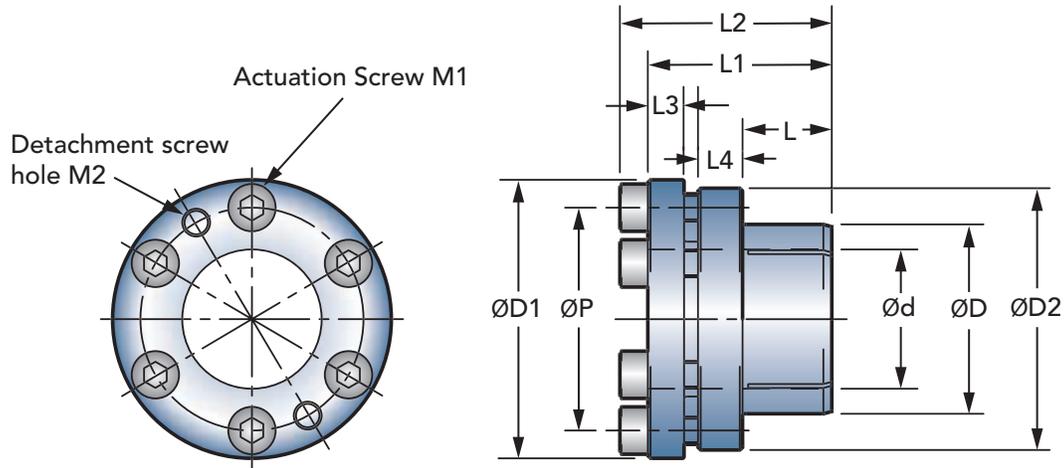
Dimensions

Model	d mm	D mm	D1 mm	D2 mm	P mm	L mm	L1* mm	L2* mm	L3 mm	L4 mm	No.	M1	M2	Tt In-lb
PSL-K-6-F	6	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-1/4-F	6.35	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-7-F	7	12	25	23	17	10	20	24	3.5	5	2	M4 x 8	2-M4	18
PSL-K-8-F	8	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	31
PSL-K-9-F	9	15	28	26	20	12	24	28	5	5	3	M4 x 10	3-M4	31
PSL-K-3/8-F	9.525	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	31
PSL-K-10-F	10	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	31
PSL-K-11-F	11	18	31	29	23	12	24	28	5	5	3	M4 x 10	3-M4	31
PSL-K-12-F	12	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	31
PSL-K-1/2-F	12.7	20	33	31	25	12	24	28	5	5	4	M4 x 10	2-M4	31
PSL-K-14-F	14	22	35	33	27	12	24	28	5	5	4	M4 x 10	2-M4	31
PSL-K-15-F	15	23	39	36	29	14	29	34	6	7	4	M5 x 12	2-M5	62
PSL-K-16-F	16	24	40	37	30	14	29	34	6	7	4	M5 x 12	2-M5	62
PSL-K-17-F	17	26	42	39	32	14	29	34	6	7	4	M5 x 12	2-M5	62
PSL-K-18-F	18	26	42	39	32	14	29	34	6	7	4	M5 x 12	2-M5	62
PSL-K-19-F	19	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	62
PSL-K-20-F	20	28	44	41	34	14	29	34	6	7	4	M5 x 12	2-M5	62
PSL-K-22-F	22	32	48	45	38	16	33	38	6.5	8	6	M5 x 14	2-M5	62
PSL-K-24-F	24	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	62
PSL-K-25-F	25	34	50	47	40	16	33	38	6.5	8	6	M5 x 14	2-M5	62
PSL-K-28-F	28	39	62	59	47	20	39	45	7.5	9	6	M6 x 16	2-M6	106
PSL-K-30-F	30	41	64	61	49	20	39	45	7.5	9	6	M6 x 16	2-M6	106
PSL-K-32-F	32	43	66	63	51	20	39	45	7.5	9	6	M6 x 16	2-M6	106
PSL-K-35-F	35	47	70	67	55	22	43	49	8	10	8	M6 x 18	2-M6	106

* = Reference dimension
Tt = Screw tightening torque

Calculations may also be performed using the Online Calculator on our website: www.zero-max.com

Sizing for Torque:

- Calculate the Application's Torque (T):

$$T_a \text{ (lb-ft)} = \frac{HP \times 5252}{RPM}$$

- Determine appropriate Service Factor from the chart below (SF):

Load Conditions	Constant	Fluctuation: Small	Fluctuation: Medium	Fluctuation: Large
Service Factor	1.0	1.25	1.75	2.25

- Determine Design Torque (T_d):

$$T_d = T_a \times SF$$

- Select a Posi-Lok that has a Transmittable Torque Rating that meets or exceeds the Design Torque (T_d, lb-ft)

Sizing for Axial Force:

- Calculate the Application's Axial Force (F_a, lbs):
- Determine appropriate Service Factor for the Axial Force from the chart below:

Load Conditions	Constant	Fluctuation: Small	Fluctuation: Medium	Fluctuation: Large
Service Factor	1.0	1.25	1.75	2.25

- Determine Design Axial Force (F_d, lbs):

$$F_d = F_a \times SF$$

- Select a Posi-Lok that has a Transmittable Axial Force Rating that meets or exceeds the Design Axial Force (F_d, lbs)

Sizing for Combined Torque and Axial Force:

- Calculate the combined torque and axial load (T_c, lb-ft)

$$T_c = \sqrt{T_d{}^2 + (F_d \times d/609.6)^2}$$

T_c = combined torque and axial load (calculated in equivalent lb-ft units)

T_d = Design Torque (see above, lb-ft)

F_d = Design Axial Force (see above, lbs)

d = Diameter of shaft (mm)

- Select a Posi-Lok that has a Transmittable Torque Rating that meets or exceeds the Combined Torque and Axial Force (T_c, lb-ft)

Minimum Outside Diameter for the Hub:

- Determine the Minimum Outside Diameter for the Hub:

$$Hub_{Min\ OD} = D\sqrt{\frac{\delta_{0.2N} + CP_2}{\delta_{0.2N} - CP_2}}$$

$Hub_{Min\ OD}$ = Minimum Hub Outside Diameter (mm)

D = Bore Diameter inside hub (to match the OD of the Posi-Lok) (mm)

$\delta_{0.2N}$ = Yield Stress of Hub Material (psi)

   Note: Refer to Yield Strength Chart on the next page. Chart is intended as a general guideline only; your particular material may vary.

C = Coefficient – reference B and L dimensions in the diagrams shown on the next page.

   C = 1.0 when B = L

   C = 0.8 when L < B <2L

   C = 0.6 when B ≥ 2L

P_2 = Hub Contact Pressure (see catalog data sheet) (psi)

- Design the hub outside diameter to meet or exceed the calculated Minimum Outside Hub Diameter

Maximum Inside Diameter for a Hollow Shaft (if applicable):

- Determine the Maximum Inside Diameter for a Hollow Shaft

$$D_{Max\ ID} = D\sqrt{\frac{\delta_{0.2N} - 2CP_1}{\delta_{0.2N}}}$$

$D_{Max\ ID}$ = Maximum Hub Inside Diameter for a Hollow Shaft (mm)

D = Outside Shaft Diameter (to match the ID of the Posi-Lok) (mm)

$\delta_{0.2N}$ = Yield Stress of Shaft Material (psi)

   Note: Refer to Yield Stress Chart. Chart is intended as a general guideline; your particular material may vary.

C = Coefficient = 0.6 if using single Posi-Lok in installation
         = 0.8 if using multiple Posi-Loks in installation

P_1 = Shaft Contact Pressure (see catalog data sheet) (psi)

- Design a hollow shaft inside diameter that meets, or is less than, the calculated Maximum Inside Diameter

Surface Finish

- Recommended Surface Finish:

   Ra = 3.2 µm or less

Temperature Range

- Temperature Range for all Posi-Loks:

   -40° C to +150° C / -40° F to + 302° F

PSL-G Model
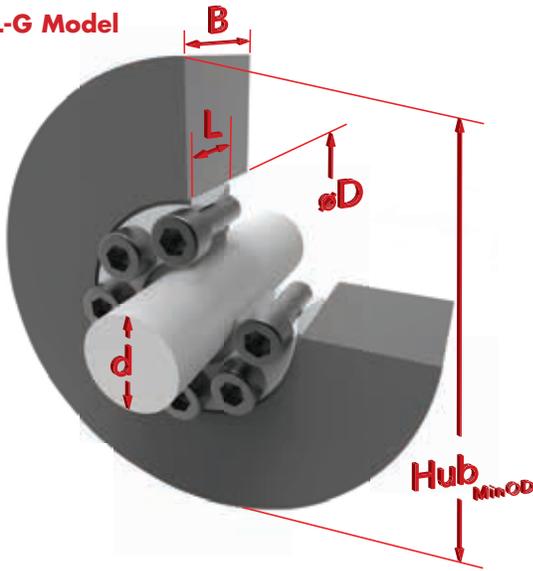
PSL-D Model
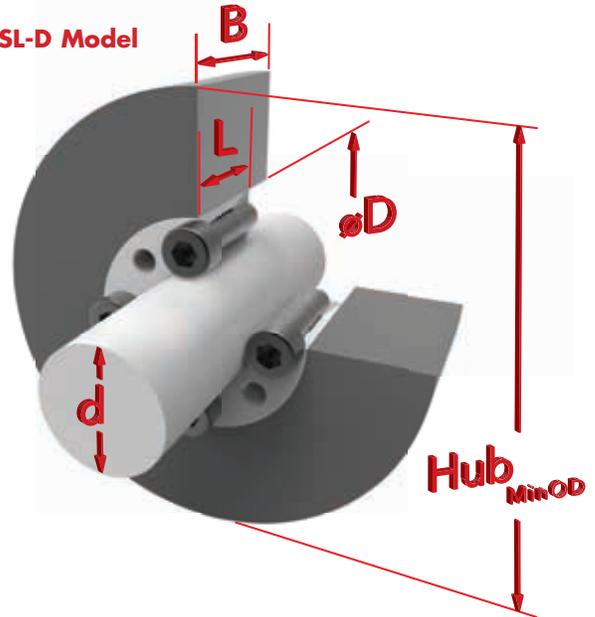
PSL-K Model
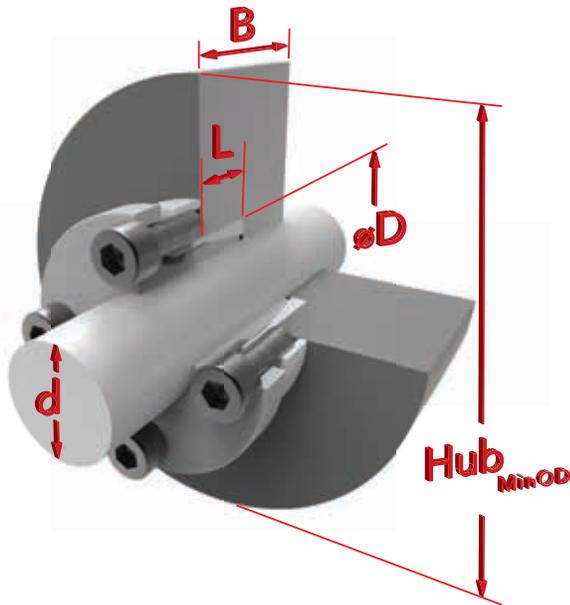
Yield Stress
(general guideline, verify your particular material)

Low Carbon Steel	
hot rolled	32,000 - 36,000 psi
cold finished	50,000 - 60,000 psi
Stressproof Steel	90,000 - 100,000 psi
300 series Stainless Steel	
hot rolled	32,000 - 35,000 psi
cold finished	40,000 - 45,000 psi

Note: If using Aluminum hub material, please contact factory

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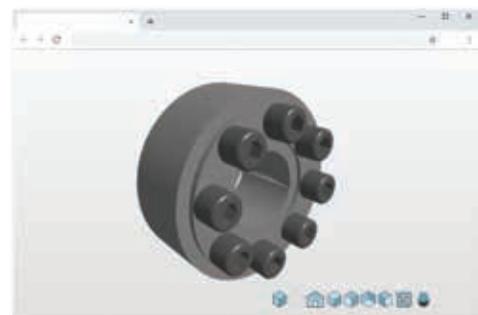
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CD® Couplings

High-performance couplings that outperform and outlast bellows and steel disc designs. The unique design of the composite disc enables the CD Couplings to withstand punishing applications and deliver high precision performance. Fully Customizable.

Keyless Shaft Locking Devices

ETP® keyless connections and Posi-Lok® keyless bushings provide quick, easy and accurate assembly of mounted shaft components. Both inch and metric bore sizes are available from stock.

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Designed for demanding servomotor applications. Zero backlash, high torsional stiffness, high speed design. Features flexible metal discs for high misalignment capacity and keyless clamp-type mounting hubs.

Crown Gear Drives

Available in 5-sizes, 3 configurations, and with 1:1 and 2:1 ratios. High quality AGMA class 10 spiral bevel gears. Stainless steel shafts and either black anodized or IP65-Rated nickel-plated aluminum housing.

Schmidt Offset Couplings

Designed to handle high amounts (up to 17") of parallel shaft offset with constant angular velocity. Standard models with torque capacities up to 459,000 in-lbs and extensive custom capabilities.

Adjustable Speed Drives

Easy to install and maintenance free. Zero-Max® Drives offer infinitely variable speeds from 0 rpm to 1/4 of input rpm. 5 models with torque ranges from 12 in-lbs to 200 in-lbs.

Overload Safety Couplings

Torque Tender® Couplings provide reliable overload protection in any mechanical power transmission system. Full selection of styles and sizes with set-point torque ranges from 3 to 3,000 in-lbs.

Roh'Lix® Linear Actuators

Simple conversion of rotary motion into precise linear motion. Available in five models and multiple configurations. Roh'Lix actuators have thrust ratings from 5 to 200 lbs. All models feature built-in overload protection.

Control-Flex Couplings

Zero backlash couplings designed for encoder and instrumentation type applications. Features high misalignment capacity, constant velocity, and an electrically isolated hub design.

OHLA® Overhung Load Adaptors

Designed to protect hydraulic motors and pumps from radial/axial loads and to provide additional seal protection. 11 models available for mounts from SAE A to SAE F. Fully customizable.

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