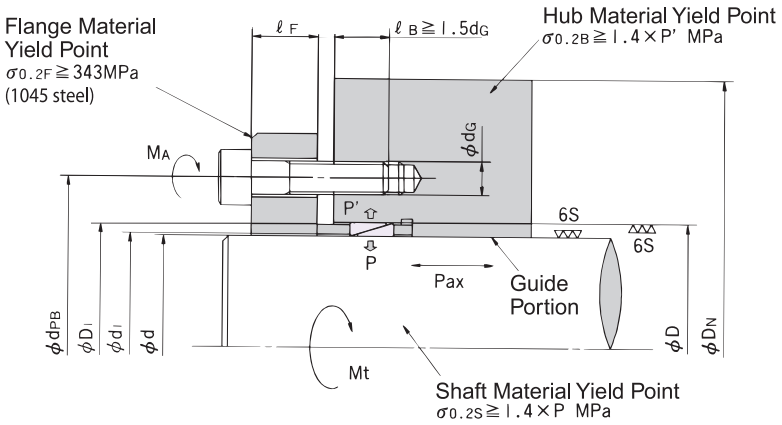
EL Series

Shaft Diameter (d) and Hub Tap Diameter (D) Tolerances

Shaft Diameter (d)	Shaft Diameter Tolerance (d)	Hub Bore Tolerance (D)
ϕ10~ϕ38	h6	H7
ϕ40~ϕ150	h8	H8

- Refer to Pressure System Designs for d1 and D1 measurements.
- Determine the length of a guide portion based on the required centering accuracy. (d/2 or above is most commonly used.)



Notes) 1. Tightening torque or Ma values shown in the table below are based on 10.9 strength bolts. Use 10.9 or 12.9 strength bolts accordingly.
2. Use the following formula to calculate transmissible thrust, Pax.
3. For pressure flange designs, refer to Technical Notes section.

$$Pax = \frac{2000 \times Mt}{d}$$

Mt : Transmissible Torque N·m
d : Shaft Diameter mm

EL Series POWER-LOCK® Specifications

Model Number	Locking Bolts			Transmissible Torque				Contact Pressure psi		Contact Pressure psi	
				Number of EL POWER-LOCKs							
				1	2	3	4	Shaft	Hub Bore	PCD	Thickness
	Qty.	Size	Tightening Torque ft.lbs.	ft.lbs.	ft.lbs.	ft.lbs.	ft.lbs.	P	P'	Dia.	lf
PL010X013 E	3	M4	3.0	8	13	15	17	23351	17840	0.984	0.315
PL011X014 E	3	M4	3.0	9	15	18	19	22191	17405	1.024	0.315
PL012X015 E	3	M4	3.0	11	17	20	22	21321	17115	1.063	0.315
PL013X016 E	3	M4	3.0	12	19	22	24	20016	16390	1.102	0.315
PL014X018 E	4	M4	3.0	15	24	28	30	15229	11748	1.181	0.315
PL015X019 E	6	M4	3.0	27	42	50	54	23351	18275	1.220	0.315
PL016X020 E	6	M4	3.0	29	46	54	59	22481	17840	1.260	0.315
PL017X021 E	6	M4	3.0	32	49	59	64	21611	17550	1.299	0.315
PL018X022 E	6	M4	3.0	34	53	63	68	20451	16825	1.339	0.315
PL019X024 E	6	M4	3.0	30	48	56	61	16825	13199	1.417	0.315
PL020X025 E	6	M4	3.0	33	51	61	67	16245	12909	1.457	0.315
PL022X026 E	6	M4	3.0	41	64	77	83	16970	14359	1.496	0.315
PL024X028 E	6	M4	3.0	47	73	88	94	16099	13779	1.575	0.315
PL025X030 E	6	M4	3.0	46	70	84	91	14359	11893	1.654	0.315
PL028X032 E	6	M4	3.0	57	89	105	114	14359	12473	1.732	0.315
PL030X035 E	8	M4	3.0	85	131	157	169	18420	15809	1.850	0.315
PL032X036 E	8	M4	3.0	91	142	169	183	17695	15664	1.969	0.315
PL035X040 E	6	M5	6.0	123	191	228	246	17405	15229	2.165	0.394
PL036X042 E	6	M5	6.0	122	190	226	244	16390	14069	2.244	0.394
PL038X044 E	6	M5	6.0	129	201	240	260	15664	13489	2.323	0.394
PL040X045 E	6	M6	10	198	307	366	395	19435	17405	2.402	0.472
PL042X048 E	6	M6	10	203	314	376	405	18130	15954	2.520	0.472
PL045X052 E	8	M6	10	269	419	499	535	16099	13924	2.638	0.472
PL048X055 E	8	M6	10	294	455	542	586	15519	13489	2.835	0.472
PL050X057 E	8	M6	10	309	477	571	622	15084	13199	2.874	0.472
PL055X062 E	10	M6	10	485	715	848	922	18420	16390	3.071	0.472
PL056X064 E	6	M8	25	491	767	907	988	15809	13779	3.228	0.630
PL060X068 E	6	M8	25	542	833	996	1,077	14939	13199	3.386	0.630
PL063X071 E	8	M8	25	811	1,261	1,497	1,623	20451	18130	3.504	0.630
PL065X073 E	8	M8	25	841	1,291	1,549	1,667	19725	17695	3.583	0.630
PL070X079 E	10	M8	25	1,136	1,755	2,095	2,264	19725	17550	3.819	0.630
PL071X080 E	10	M8	25	1,151	1,778	2,124	2,301	19435	17405	3.898	0.630
PL075X084 E	10	M8	25	1,188	1,844	2,198	2,375	17985	16099	4.016	0.630
PL080X091 E	8	M10	50	1,586	2,456	2,928	3,142	17260	15084	4.370	0.630
PL085X096 E	8	M10	50	1,704	2,648	3,142	3,400	16535	14649	4.567	0.787
PL090X101 E	10	M10	50	2,353	3,651	4,374	4,698	20161	17985	4.764	0.787
PL095X106 E	10	M10	50	2,500	3,865	4,625	4,986	19290	17405	4.961	0.787
PL100X114 E	12	M10	50	3,076	4,735	5,709	6,144	17115	14939	5.276	0.945
PL110X124 E	10	M12	87	4,189	6,505	7,744	8,408	19290	17260	5.748	0.945
PL120X134 E	10	M12	87	4,588	7,154	8,556	9,146	17840	16099	6.142	0.945
PL130X148 E	10	M14	137	6,719	8,261	12,465	13,424	16390	14359	6.693	1.102
PL140X158 E	10	M14	137	7,302	11,285	13,497	14,604	15374	13634	7.087	1.102
PL150X168 E	12	M14	137	9,662	15,046	17,923	19,398	17840	15954	7.480	1.102

U.S. TSUBAKI POWER-LOCK®

LOCKING ELEMENT STYLE

EL Series

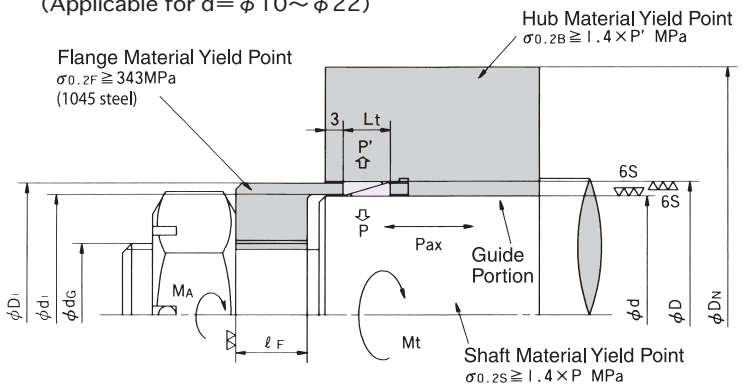
Shaft Diameter (d) and Hub Tap Diameter (D) Tolerances

Shaft Diameter (d)	Shaft Diameter Tolerance (d)	Hub Bore Tolerance (D)
ϕ10～ϕ38	h6	H7
ϕ40～ϕ150	h8	H8

- Refer to Pressure System Designs for d1 and D1 measurements.
- Determine the length of a guide portion based on the required centering accuracy. (d/2 or above is most commonly used.)

▪ Fastened with a single nut.
(Applicable for d= ϕ10～ϕ22)

Note) Ensure that the nut does not loosen by conducting an anti-rotation test after installation.



Notes) 1. Tightening torque or Ma values shown in the table below are based on 10.9 strength bolts. Use 10.9 or 12.9 strength bolts accordingly.
2. Use the following formula to calculate transmissible thrust, Pax.

$$Pax = \frac{2000 \times Mt}{d}$$

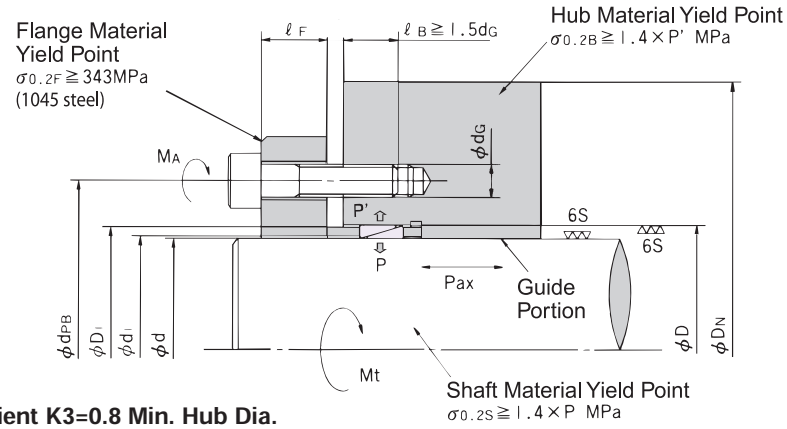
Mt : Transmissible Torque N·m
d : Shaft Diameter mm

3. For pressure flange designs, refer to Technical Notes section.

EL Series POWER-LOCK® Specifications

Model Number	Locking Bolts			Transmissible Torque				Contact Pressure psi		Contact Pressure psi	
				Number of EL POWER-LOCKs							
				1	2	3	4	Shaft	Hub Bore	PCD	Thickness
	Qty.	Size	Tightening Torque ft.lbs.	ft.lbs.	ft.lbs.	ft.lbs.	ft.lbs.	P	P'	Dia.	lf
PL010X013 E	1	M8	18	9	13	16	17	23,787	18,130	na	0.157
PL011X014 E	1	M8	18	10	15	18	19	22,626	17,550	na	0.157
PL012X015 E	1	M8	18	11	17	20	22	21,611	17,405	na	0.157
PL013X016 E	1	M8	18	12	19	23	24	20,306	16,535	na	0.157
PL014X018 E	1	M10	35	20	31	38	41	20,161	15,664	na	0.197
PL015X019 E	1	M10	35	19	30	35	38	16,535	13,054	na	0.197
PL016X020 E	1	M10	35	21	33	38	42	16,099	12,764	na	0.197
PL017X021 E	1	M10	35	23	35	43	46	15,664	12,619	na	0.197
PL018X022 E	1	M10	35	24	38	46	49	14,794	12,038	na	0.197
PL019X024 E	1	M12	62	39	61	72	78	21,321	16,970	na	0.276
PL020X025 E	1	M12	62	42	61	78	84	20,741	16,680	na	0.276
PL022X026 E	1	M12	62	51	80	94	103	20,886	17,695	na	0.276
PL024X028 E	3	M5	7	46	72	86	92	15,664	13,344	0.433	0.394
PL025X030 E	3	M5	7	44	69	82	89	14,069	11,748	0.472	0.394
PL028X032 E	3	M6	10	68	106	127	136	17,260	15,084	0.551	0.472
PL030X035 E	3	M6	10	71	109	131	141	15,519	13,199	0.630	0.472
PL032X036 E	3	M6	10	77	119	142	153	14,794	13,054	0.630	0.472
PL035X040 E	4	M6	10	114	176	210	228	16,099	14,069	0.748	0.472
PL036X042 E	4	M6	10	113	175	208	226	15,084	12,909	0.787	0.472
PL038X044 E	4	M6	10	120	186	221	239	14,504	12,473	0.866	0.472
PL040X045 E	6	M6	10	198	308	365	394	19,435	17,405	0.945	0.472
PL042X048 E	6	M6	10	203	314	376	405	18,130	15,954	1.024	0.472
PL045X052 E	8	M6	10	269	416	495	535	16,099	13,924	1.142	0.472
PL048X055 E	8	M6	10	293	455	542	586	15,519	13,489	1.260	0.472
PL050X057 E	8	M6	10	311	415	571	622	15,084	13,199	1.339	0.472
PL055X062 E	8	M6	10	350	542	651	701	14,069	12,473	1.535	0.472
PL056X064 E	6	M8	25	495	767	907	996	15,809	13,779	1.496	0.630
PL060X068 E	6	M8	25	538	833	996	1077	14,939	13,199	1.654	0.630
PL063X071 E	8	M8	25	811	1261	1497	1623	20,451	18,130	1.772	0.630
PL065X073 E	8	M8	25	841	1291	1549	1667	19,725	17,695	1.850	0.630
PL070X079 E	6	M10	50	1070	1660	1991	2146	18,565	16,535	1.969	0.787
PL071X080 E	6	M10	50	1092	1682	2014	2176	18,420	16,390	2.008	0.787
PL075X084 E	6	M10	50	1129	1741	2080	2250	17,260	15,374	2.165	0.787
PL080X091 E	8	M10	50	1586	2456	2928	3179	17,260	15,084	2.362	0.787
PL085X096 E	8	M10	50	1571	2648	3142	3400	16,535	14,649	2.559	0.787
PL090X101 E	10	M10	50	2353	3651	4374	4698	20,161	17,985	2.756	0.787
PL095X106 E	10	M10	50	2500	3865	4625	4986	19,290	17,405	2.953	0.787
PL100X114 E	12	M10	50	3076	4735	5709	6144	17,115	14,939	3.150	0.787
PL110X124 E	10	M12	87	4189	6505	7744	8408	19,290	17,260	3.465	0.945
PL120X134 E	10	M12	87	4588	7154	8556	9146	17,840	16,099	3.858	0.945
PL130X148 E	10	M14	137	6719	10400	12465	13424	16,390	14,359	4.252	1.102
PL140X158 E	10	M14	137	7302	11285	13497	14604	15,374	13,634	4.646	1.102
PL150X168 E	12	M14	137	9662	15046	17923	19398	17,840	15,954	5.039	1.102

EL Series

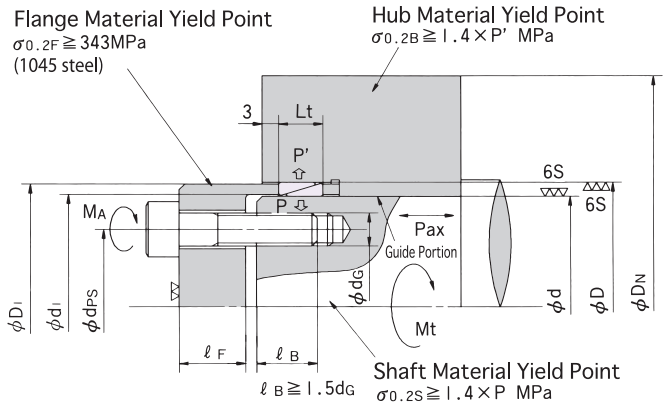


Hub Configuration Coefficient K3=0.8 Min. Hub Dia.

Model Number	Hub Contact Pressure P' (psi)	Yield Point and Material examples									
		147 Mpa	176 Mpa	206 Mpa	225 Mpa	245 Mpa	274 Mpa	294 Mpa	343 Mpa	392 Mpa	441 Mpa
		21300 psi	25500 psi	29900 psi	32600 psi	35500 psi	39700 psi	42600 psi	49700 psi	56900 psi	64000 psi
				1010 304SS 316SS	1015 1118	1020	1030	1035 1040 1144	4140 1045	1055	
PL010X013 E	17840	1.378	1.378	1.378	1.378	1.378	1.378	1.378	1.378	1.378	1.378
PL011X014 E	17405	1.417	1.417	1.417	1.417	1.417	1.417	1.417	1.417	1.417	1.417
PL012X015 E	17115	1.457	1.457	1.457	1.457	1.457	1.457	1.457	1.457	1.457	1.457
PL013X016 E	16390	1.496	1.496	1.496	1.496	1.496	1.496	1.496	1.496	1.496	1.496
PL014X018 E	11748	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575
PL015X019 E	18275	1.614	1.614	1.614	1.614	1.614	1.614	1.614	1.614	1.614	1.614
PL016X020 E	17840	1.654	1.654	1.654	1.654	1.654	1.654	1.654	1.654	1.654	1.654
PL017X021 E	17550	1.693	1.693	1.693	1.693	1.693	1.693	1.693	1.693	1.693	1.693
PL018X022 E	16825	1.732	1.732	1.732	1.732	1.732	1.732	1.732	1.732	1.732	1.732
PL019X024 E	13199	1.811	1.811	1.811	1.811	1.811	1.811	1.811	1.811	1.811	1.811
PL020X025 E	12909	1.850	1.850	1.850	1.850	1.850	1.850	1.850	1.850	1.850	1.850
PL022X026 E	14359	2.027	1.890	1.890	1.890	1.890	1.890	1.890	1.890	1.890	1.890
PL024X028 E	13779	2.111	1.969	1.969	1.969	1.969	1.969	1.969	1.969	1.969	1.969
PL025X030 E	11893	2.066	2.047	2.047	2.047	2.047	2.047	2.047	2.047	2.047	2.047
PL028X032 E	12473	2.250	2.126	2.126	2.126	2.126	2.126	2.126	2.126	2.126	2.126
PL030X035 E	15809	2.884	2.530	2.323	2.323	2.323	2.323	2.323	2.323	2.323	2.323
PL032X036 E	15664	2.939	2.583	2.362	2.362	2.362	2.362	2.362	2.362	2.362	2.362
PL035X040 E	15229	3.212	2.844	2.638	2.638	2.638	2.638	2.638	2.638	2.638	2.638
PL036X042 E	14069	3.172	2.851	2.677	2.677	2.677	2.677	2.677	2.677	2.677	2.677
PL038X044 E	13489	3.222	2.916	2.756	2.756	2.756	2.756	2.756	2.756	2.756	2.756
PL040X045 E	17405	4.103	3.503	3.172	3.031	2.916	2.874	2.874	2.874	2.874	2.874
PL042X048 E	15954	4.008	3.509	3.219	3.093	2.992	2.992	2.992	2.992	2.992	2.992
PL045X052 E	13924	3.892	3.504	3.265	3.158	3.110	3.110	3.110	3.110	3.110	3.110
PL048X055 E	13489	4.018	3.636	3.397	3.307	3.307	3.307	3.307	3.307	3.307	3.307
PL050X057 E	13199	4.099	3.721	3.483	3.375	3.346	3.346	3.346	3.346	3.346	3.346
PL055X062 E	16390	5.235	4.542	4.145	3.973	3.832	3.675	3.590	3.543	3.543	3.543
PL056X064 E	13779	4.780	4.315	4.026	3.896	3.788	3.780	3.780	3.780	3.780	3.780
PL060X068 E	13199	4.923	4.472	4.188	4.060	3.952	3.937	3.937	3.937	3.937	3.937
PL063X071 E	18130	6.723	5.642	5.064	4.822	4.627	4.413	4.299	4.089	4.055	4.055
PL065X073 E	17695	6.710	5.684	5.125	4.888	4.697	4.486	4.373	4.166	4.134	4.134
PL070X079 E	17550	7.169	6.087	5.494	5.243	5.038	4.814	4.693	4.472	4.370	4.370
PL071X080 E	17405	7.190	6.123	5.534	5.283	5.080	4.856	4.735	4.514	4.449	4.449
PL075X084 E	16099	6.972	6.078	5.560	5.335	5.149	4.944	4.832	4.625	4.567	4.567
PL080X091 E	15084	7.199	6.381	5.892	5.676	5.496	5.296	5.186	5.000	5.000	5.000
PL085X096 E	14649	7.405	6.601	6.114	5.898	5.718	5.516	5.405	5.199	5.197	5.197
PL090X101 E	17985	9.418	7.921	7.116	6.777	6.503	6.204	6.043	5.749	5.544	5.394
PL095X106 E	17405	9.503	8.089	7.308	6.977	6.707	6.410	6.251	5.957	5.752	5.591
PL100X114 E	14939	8.851	7.851	7.250	6.983	6.762	6.515	6.380	6.128	5.949	5.906
PL110X124 E	17260	11.029	9.416	8.522	8.140	7.829	7.488	7.303	6.964	6.727	6.552
PL120X134 E	16099	11.091	9.666	8.839	8.480	8.185	7.856	7.678	7.348	7.116	6.943
PL130X148 E	14359	11.194	10.012	9.290	8.968	8.699	8.397	8.232	7.923	7.703	7.538
PL140X158 E	13634	11.494	10.371	9.672	9.357	9.093	8.795	8.632	8.325	8.105	7.941
PL150X168 E	15954	13.751	12.007	10.991	10.549	10.184	9.778	9.558	9.150	8.862	8.648

LOCKING ELEMENT STYLE

EL Series



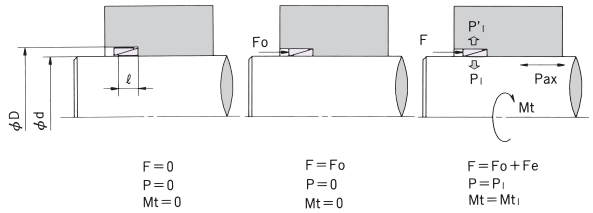
Hub Configuration Coefficient K3=0.6 Min. Hub Dia.

Model Number	Hub Contact Pressure P' (psi)	Yield Point and Material examples									
		147 Mpa	176 Mpa	206 Mpa	225 Mpa	245 Mpa	274 Mpa	294 Mpa	343 Mpa	392 Mpa	441 Mpa
		21300 psi	25500 psi	29900 psi	32600 psi	35500 psi	39700 psi	42600 psi	49700 psi	56900 psi	64000 psi
				1010 304SS 316SS	1015 1118	1020	1030	1035 1040 1144	4140 1045	1055	
PL010X013 E	17840	0.889	0.800	0.745	0.719	0.698	0.675	0.661	0.637	0.619	0.606
PL011X014 E	17405	0.942	0.851	0.794	0.768	0.746	0.721	0.708	0.682	0.664	0.650
PL012X015 E	17115	0.998	0.905	0.845	0.818	0.795	0.769	0.755	0.728	0.709	0.694
PL013X016 E	16390	1.037	0.946	0.887	0.860	0.837	0.811	0.797	0.770	0.750	0.736
PL014X018 E	11748	0.999	0.941	0.901	0.883	0.866	0.848	0.837	0.817	0.803	0.792
PL015X019 E	18275	1.321	1.184	1.099	1.061	1.029	0.993	0.973	0.936	0.909	0.889
PL016X020 E	17840	1.368	1.231	1.146	1.107	1.074	1.038	1.018	0.980	0.953	0.932
PL017X021 E	17550	1.420	1.282	1.195	1.155	1.122	1.085	1.064	1.025	0.997	0.976
PL018X022 E	16825	1.449	1.316	1.231	1.193	1.160	1.123	1.103	1.064	1.036	1.016
PL019X024 E	13199	1.396	1.302	1.240	1.210	1.185	1.156	1.140	1.109	1.087	1.070
PL020X025 E	12909	1.440	1.346	1.283	1.254	1.228	1.199	1.183	1.152	1.129	1.112
PL022X026 E	14359	1.571	1.454	1.377	1.341	1.311	1.276	1.256	1.219	1.193	1.172
PL024X028 E	13779	1.660	1.543	1.465	1.428	1.397	1.361	1.342	1.304	1.276	1.255
PL025X030 E	11893	1.673	1.574	1.507	1.475	1.448	1.416	1.398	1.365	1.340	1.321
PL028X032 E	12473	1.818	1.704	1.627	1.591	1.560	1.524	1.504	1.466	1.438	1.417
PL030X035 E	15809	2.223	2.036	1.914	1.859	1.812	1.758	1.728	1.671	1.631	1.600
PL032X036 E	15664	2.275	2.086	1.963	1.906	1.858	1.804	1.773	1.716	1.675	1.643
PL035X040 E	15229	2.490	2.290	2.160	2.010	2.049	1.990	1.958	1.896	1.852	1.818
PL036X042 E	14069	2.514	2.332	2.211	2.155	2.107	2.052	2.021	1.963	1.920	1.888
PL038X044 E	13489	2.583	2.406	2.287	2.232	2.184	2.130	2.099	2.041	1.999	1.967
PL040X045 E	17405	3.027	2.736	2.552	2.468	2.398	2.319	2.275	2.192	2.133	2.089
PL042X048 E	15954	3.064	2.803	2.634	2.557	2.491	2.416	2.375	2.296	2.240	2.197
PL045X052 E	13924	3.097	2.876	2.729	2.660	2.601	2.534	2.497	2.425	2.374	2.335
PL048X055 E	13489	3.229	3.007	2.859	2.790	2.730	2.662	2.624	2.552	2.499	2.459
PL050X057 E	13199	3.315	3.093	2.944	2.875	2.815	2.746	2.708	2.635	2.582	2.541
PL055X062 E	16390	4.020	3.664	3.436	3.331	3.243	3.143	3.087	2.982	2.907	2.850
PL056X064 E	13779	3.793	3.526	3.348	3.264	3.194	3.112	3.066	2.980	2.917	2.869
PL060X068 E	13199	3.954	3.690	3.512	3.429	3.358	3.276	3.231	3.143	3.080	3.032
PL063X071 E	18130	4.908	4.407	4.094	3.953	3.835	3.702	3.628	3.491	3.393	3.319
PL065X073 E	17695	4.964	4.475	4.167	4.028	3.911	3.779	3.706	3.570	3.472	3.398
PL070X079 E	17550	5.343	4.823	4.495	4.346	4.221	4.080	4.002	3.856	3.751	3.672
PL071X080 E	17405	5.382	4.864	4.537	4.388	4.263	4.122	4.044	3.898	3.793	3.714
PL075X084 E	16099	5.390	4.925	4.625	4.487	4.371	4.238	4.165	4.026	3.926	3.851
PL080X091 E	15084	5.637	5.190	4.898	4.763	4.648	4.517	4.444	4.306	4.207	4.131
PL085X096 E	14649	5.859	5.412	5.118	4.982	4.866	4.733	4.659	4.518	4.417	4.340
PL090X101 E	17985	6.944	6.242	5.804	5.607	5.441	5.253	5.150	4.957	4.819	4.715
PL095X106 E	17405	7.131	6.444	6.011	5.814	5.649	5.462	5.358	5.164	5.025	4.921
PL100X114 E	14939	7.026	6.477	6.116	5.950	5.808	5.646	5.556	5.385	5.262	5.168
PL110X124 E	17260	8.298	7.508	7.008	6.782	6.591	6.374	6.255	6.030	5.869	5.748
PL120X134 E	16099	8.599	7.856	7.377	7.158	6.972	6.761	6.643	6.422	6.263	6.143
PL130X148 E	14359	8.944	8.279	7.840	7.636	7.462	7.263	7.152	6.941	6.788	6.672
PL140X158 E	13634	9.320	8.671	8.238	8.036	7.864	7.665	7.554	7.343	7.190	7.074
PL150X168 E	15954	10.726	9.810	9.219	8.948	8.718	8.456	8.311	8.037	7.840	7.691

EL Series

1. Transmissible Torque, Transmissible Thrust and Contact Pressure

Mt: Transmissible Torque
Pax: Transmissible Load
P、P': Contact Pressure
Fo: Preload Force
Fe: Actual Locking Force
F: Total Force



The EL Series Power-Locks require preload force Fo to obtain a 0 clearance shaft-hub connection.

The degree of tightness achieved by applying the actual locking force Fe in addition to the preload force Fo, is directly proportional to the Fe as indicated in the above diagram. Accordingly, we use the following formula to calculate the total force required to reach the desired degree of tightness. F=Fe+Fo2.

Transmissible torque and contact pressure are generally determined by the following formulas.

$$Mt = N \times \mu \times \frac{d}{2} \quad (\mu: \text{Friction Coefficient}) \qquad (1)$$

$$Pax = N \times \mu = 2Mt/d \qquad (2)$$

$$P = N / \pi d \ell \qquad (3)$$

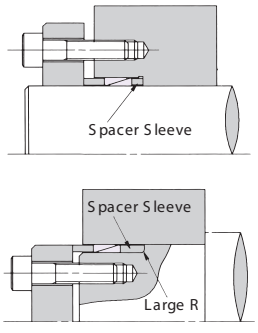
$$P' = N / \pi D \ell \qquad (4)$$

$$N = \frac{Fe}{\tan\beta + 2} \quad (\beta: \text{EL Power-Lock taper angle}) \qquad (5)$$

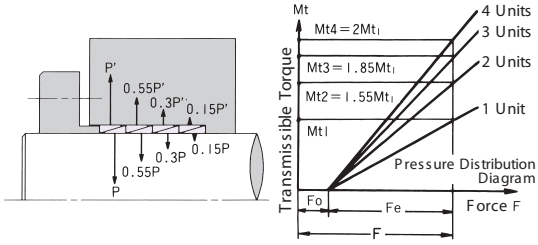
Note: Mt1, P1,P1' refer to single unit installation

Spacer Sleeves

Use a spacer sleeve (as illustrated below) if indentations or large Corner R values cannot be avoided due to specific machining requirements.



2. Contact Pressure and Transmissible Torque for Multiple Power-Lock Installation



In the case of multiple EL Power-Lock installation the pressure applied on the rings will distribute as illustrated above.

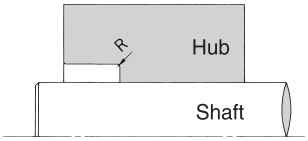
The following table indicates transmissible torque ratios for specific numbers of unit(s) installed.

No. of Unit(s) Z	Multiplying Ratio
1	1.0
2	1.55
3	1.85
4	2.0

A maximum of four EL Power-Locks may be installed.

Corner R Values

If you are not using a spacer sleeve, maintain the following Corner R values.



Model No.	Corner R	Model No.	Corner R
PL010X013E ∫ PL042X048E	Below 0.2	PL070X079E ∫ PL090X106E	Below 0.3
PL045X052E ∫ PL065X073E	Below 0.3	PL100X114E ∫ PL150X168E	Below 0.4