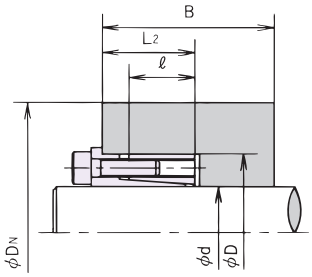
KE Inch Series

Installing to hubs with a guide portion

when B≧2ℓ
(See Installation Example A)

D_N is the minimum hub diameter required to tolerate P' or the pressure exerted from within the hub.

<EXAMPLE> Hub Material Yield Point = 35500 psi
PL2KE = 4.596" min. hub diameter



Installation Example A
When installing to hubs with a guide portion, the hub configuration coefficient is as follows: K_3=0.8

Min. Hub Dia. (D_N in inches)

Model Number		Hub Contact Pressure P' (psi)	Yield Point and Material examples									
			147 Mpa 21300 psi	176 Mpa 25500 psi	206 Mpa 29900 psi	225 Mpa 32600 psi	245 Mpa 35500 psi	274 Mpa 39700 psi	294 Mpa 42600 psi	343 Mpa 49700 psi	392 Mpa 56900 psi	441 Mpa 64000 psi
					1010 304SS 316SS	1015 1118	1020	1030	1035 1040 1144	4140 1045	1055	
PL3/8	KE	11313	1.475	1.358	1.282	1.246	1.216	1.182	1.163	1.127	1.101	1.081
PL1/2	KE	13344	1.842	1.659	1.544	1.492	1.449	1.399	1.372	1.321	1.285	1.257
PL5/8	KE	14939	2.238	1.973	1.814	1.744	1.685	1.620	1.584	1.517	1.470	1.435
PL3/4	KE	13489	2.292	2.060	1.916	1.851	1.796	1.734	1.700	1.636	1.591	1.556
PL7/8	KE	14794	2.921	2.581	2.376	2.285	2.209	2.124	2.078	1.991	1.930	1.884
PL1	KE	18275	3.908	3.238	2.882	2.733	2.613	2.482	2.412	2.284	2.195	2.130
PL1-1/8	KE	16390	3.840	3.308	3.002	2.870	2.762	2.642	2.576	2.456	2.371	2.308
PL1-3/16	KE	17550	4.270	3.596	3.226	3.070	2.942	2.803	2.728	2.590	2.493	2.422
PL1-1/4	KE	16970	4.245	3.618	3.265	3.114	2.991	2.855	2.781	2.646	2.551	2.481
PL1-3/8	KE	15954	4.241	3.681	3.354	3.212	3.095	2.965	2.894	2.763	2.670	2.601
PL1-7/16	KE	14794	4.323	3.820	3.516	3.381	3.269	3.144	3.075	2.947	2.856	2.789
PL1-1/2	KE	18130	5.445	4.526	4.035	3.830	3.663	3.482	3.385	3.207	3.083	2.991
PL1-5/8	KE	17115	5.356	4.551	4.102	3.910	3.753	3.581	3.487	3.316	3.196	3.107
PL1-11/16	KE	16825	5.390	4.606	4.163	3.973	3.818	3.646	3.553	3.382	3.262	3.173
PL1-3/4	KE	16390	5.376	4.631	4.203	4.018	3.866	3.698	3.607	3.438	3.320	3.232
PL1-7/8	KE	18710	6.573	5.385	4.769	4.514	4.309	4.087	3.968	3.751	3.601	3.490
PL1-15/16	KE	19871	7.367	5.833	5.089	4.789	4.551	4.296	4.161	3.917	3.748	3.625
PL2	KE	19435	7.266	5.833	5.119	4.828	4.596	4.346	4.213	3.973	3.806	3.684
PL2-1/8	KE	20016	7.956	6.268	5.458	5.132	4.875	4.599	4.452	4.188	4.007	3.874
PL2-3/16	KE	19580	7.831	6.259	5.482	5.167	4.916	4.646	4.502	4.243	4.064	3.932
PL2-1/4	KE	19290	7.807	6.295	5.534	5.224	4.976	4.708	4.565	4.307	4.128	3.997
PL2-3/8	KE	19871	8.513	6.740	5.880	5.534	5.259	4.964	4.808	4.526	4.331	4.189
PL2-7/16	KE	19435	8.371	6.721	5.898	5.563	5.296	5.008	4.855	4.577	4.386	4.245
PL2-1/2	KE	19145	9.263	7.500	6.606	6.240	5.947	5.630	5.461	5.155	4.943	4.787
PL2-5/8	KE	18420	8.190	6.761	6.008	5.694	5.441	5.166	5.019	4.750	4.563	4.425
PL2-11/16	KE	22336	12.635	8.927	7.477	6.935	6.520	6.086	5.861	5.461	5.192	4.997
PL2-3/4	KE	21611	11.798	8.691	7.379	6.877	6.487	6.076	5.862	5.479	5.219	5.030
PL2-7/8	KE	20886	11.306	8.617	7.406	6.931	6.559	6.164	5.957	5.584	5.330	5.145
PL2-15/16	KE	20596	11.173	8.617	7.439	6.974	6.608	6.218	6.013	5.643	5.390	5.206
PL3	KE	20306	11.051	8.618	7.472	7.016	6.656	6.271	6.068	5.702	5.450	5.267
PL3-3/8	KE	21611	13.732	10.116	8.589	8.004	7.550	7.072	6.823	6.377	6.075	5.855
PL3-7/16	KE	21321	13.500	10.090	8.610	8.037	7.592	7.121	6.874	6.433	6.132	5.914
PL3-1/2	KE	24367	22.448	12.975	10.357	9.461	8.798	8.124	7.782	7.186	6.790	6.507
PL3-3/4	KE	22771	18.068	12.384	10.281	9.508	8.919	8.307	7.991	7.433	7.057	6.785
PL3-15/16	KE	22046	17.072	12.279	10.343	9.612	9.049	8.459	8.151	7.605	7.235	6.968
PL4	KE	21756	16.706	12.214	10.343	9.630	9.078	8.497	8.195	7.655	7.289	7.023

SELF-CENTERING KEYLESS LOCKING POWER

KE Inch Series

Installing to hubs with a guide portion

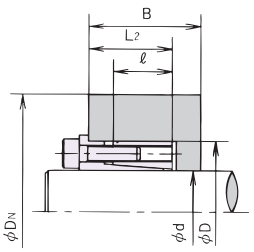
when L2<B<2ℓ
(See Installation Example B)

Installing to hubs without a guide portion

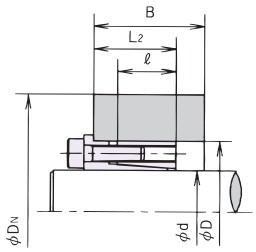
(See Installation Example C)

D_N is the minimum hub diameter required to tolerate P' or the pressure exerted from within the hub.

<EXAMPLE> Hub Material Yield Point = 35500 psi
PL2KE = 5.309" min. hub diameter



Installation Example B
When installing to hubs with a guide portion, the hub configuration coefficient is as follows:
$K_3 = 1.0$



Installation Example C
When installing to hubs without a guide portion, the hub configuration coefficient is as follows:
$K_3 = 1.0$

Min. Hub Dia. (D_N in inches)

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	
PL3/4	KE	11304	1.692	1.509	1.396	1.346	1.303	1.256	1.230	1.181	1.147	1.121
PL1/2	KE	13333	2.213	1.897	1.717	1.640	1.576	1.506	1.468	1.398	1.349	1.313
PL5/8	KE	14928	2.828	2.320	2.056	1.946	1.858	1.763	1.712	1.618	1.554	1.506
PL3/4	KE	13478	2.765	2.361	2.134	2.036	1.957	1.868	1.821	1.733	1.671	1.626
PL7/8	KE	14783	3.672	3.027	2.688	2.547	2.433	2.309	2.243	2.123	2.039	1.977
PL1	KE	18261	6.069	4.143	3.435	3.175	2.978	2.773	2.667	2.480	2.354	2.263
PL1-1/8	KE	16377	5.178	4.013	3.471	3.256	3.086	2.906	2.811	2.639	2.522	2.436
PL1-3/16	KE	17536	6.208	4.498	3.798	3.532	3.327	3.112	3.000	2.800	2.665	2.567
PL1-1/4	KE	16957	5.923	4.453	3.808	3.557	3.362	3.155	3.047	2.853	2.720	2.624
PL1-3/8	KE	15942	5.593	4.420	3.853	3.625	3.444	3.250	3.148	2.962	2.835	2.741
PL1-7/16	KE	14783	5.434	4.479	3.978	3.769	3.601	3.418	3.320	3.142	3.018	2.926
PL1-1/2	KE	18116	8.331	5.763	4.797	4.440	4.168	3.885	3.738	3.479	3.304	3.178
PL1-5/8	KE	17102	7.545	5.624	4.794	4.474	4.225	3.961	3.824	3.577	3.410	3.288
PL1-11/16	KE	16812	7.452	5.648	4.844	4.530	4.285	4.024	3.888	3.643	3.476	3.354
PL1-3/4	KE	16377	7.249	5.618	4.859	4.558	4.321	4.068	3.935	3.695	3.531	3.411
PL1-7/8	KE	18696	10.737	6.997	5.732	5.277	4.935	4.582	4.401	4.083	3.869	3.716
PL1-15/16	KE	19855	14.906	7.955	6.265	5.700	5.286	4.869	4.658	4.292	4.050	3.877
PL2	KE	19420	13.310	7.800	6.242	5.706	5.309	4.906	4.700	4.342	4.104	3.934
PL2-1/8	KE	20000	16.779	8.610	6.741	6.123	5.672	5.219	4.990	4.594	4.332	4.146
PL2-3/16	KE	19565	14.778	8.422	6.706	6.120	5.689	5.251	5.028	4.641	4.384	4.201
PL2-1/4	KE	19275	13.920	8.365	6.728	6.160	5.737	5.307	5.087	4.703	4.448	4.265
PL2-3/8	KE	19855	17.225	9.193	7.239	6.587	6.108	5.626	5.382	4.959	4.680	4.480
PL2-7/16	KE	19420	15.335	8.987	7.192	6.575	6.117	5.652	5.415	5.002	4.728	4.532
PL2-1/2	KE	19130	16.113	9.908	8.008	7.342	6.845	6.338	6.078	5.624	5.322	5.105
PL2-5/8	KE	18406	12.921	8.693	7.180	6.629	6.211	5.778	5.555	5.161	4.897	4.706
PL2-11/16	KE	22319	na	14.482	9.854	8.656	7.846	7.078	6.704	6.078	5.678	5.398
PL2-3/4	KE	21594	na	13.196	9.503	8.450	7.718	7.009	6.660	6.069	5.687	5.418
PL2-7/8	KE	20870	na	12.428	9.346	8.397	7.722	7.057	6.725	6.157	5.787	5.525
PL2-15/16	KE	20580	na	12.212	9.318	8.404	7.748	7.097	6.771	6.211	5.844	5.584
PL3	KE	20290	na	12.016	9.293	8.412	7.774	7.137	6.817	6.264	5.901	5.643
PL3-3/8	KE	21594	na	15.360	11.061	9.835	8.983	8.158	7.752	7.064	6.619	6.306
PL3-7/16	KE	21304	na	14.985	10.994	9.818	8.993	8.188	7.790	7.112	6.672	6.362
PL3-1/2	KE	24348	na	30.894	14.874	12.456	10.990	9.692	9.090	8.113	7.507	7.092
PL3-3/4	KE	22754	na	21.124	13.760	11.987	10.811	9.710	9.180	8.297	7.735	7.344
PL3-15/16	KE	22029	na	19.358	13.501	11.919	10.839	9.804	9.299	8.448	7.901	7.518
PL4	KE	21739	na	18.766	13.378	11.868	10.824	9.818	9.323	8.487	7.948	7.569