

KE Series Elastomeric Couplings



The KE coupling is a general-purpose flexible coupling, fully interchangeable with the standard couplings frequently used throughout the industry. The coupling consists of two machined cast iron hubs connected by an elastomeric gear ring. Available in 8 basic sizes, with torque capacity to 3300 Nm, the KE coupling provides positive power transmission between shafts, combined with the ability to accommodate moderate levels of misalignment. KE couplings are designed to transmit torques equal to the capabilities of sizes of commercial shafting which can be accommodated. Available either with parallel bore or with taper bush, these couplings are quick and easy to assemble with the machined outer flanges enabling simple alignment with just a straight edge. The elastomeric gear ring is moulded in Pebax R Polyether which is oil resistant, has a partial resistance to chemicals, and a low moisture absorption rate. The gear ring cushions transient peak torques, effectively reducing transmission of operational vibrations and shock loads. Standard couplings can be operated in environmental temperatures ranging from -40°C to $+85^{\circ}\text{C}$.



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KE Coupling Selection Procedure

Refer to page 2 for standard procedure for coupling selection. The number of starts to which an KE coupling is subjected will affect its life, and it is thus necessary to modify the design power P_d for drives subject to more than 4 starts per day by factor f . In table, to get selection power P_s . Thus

$$P_s = P_d f$$

No. starts/day	5-30	31-60	60+
f.	1.2	1.3	1.5

kW Power Ratings - Standard KE Couplings

Shaft Speed rpm	Coupling Size							
	7	9	11	13	15	18	23	28
100*	0.35	0.88	1.75	3.44	6.59	10.43	22.00	34.65
200	0.69	1.75	3.52	6.88	13.18	20.86	44.02	69.30
400	1.39	3.51	7.04	13.77	26.37	41.72	88.04	138.60
600	2.08	5.25	10.55	20.65	39.55	62.58	132.06	207.90
800	2.78	7.00	14.07	27.53	52.73	84.44	176.08	277.20
1000	3.47	8.75	17.59	34.42	65.92	104.30	220.10	346.50
1200	4.16	10.50	21.11	41.30	79.10	125.20	264.12	415.80
1400	4.86	12.25	24.62	48.18	92.28	146.02	308.13	485.10
1600	5.55	14.00	28.14	55.07	105.47	166.88	352.15	554.10
1800	6.25	15.76	31.66	61.95	118.65	187.74	396.17	623.70
2000	6.94	17.51	35.18	68.83	131.83	208.60	440.19	693.00
2200	7.64	19.26	38.69	75.72	145.01	229.46	484.21	762.30
2400	8.33	21.00	42.21	82.60	158.20	250.32	528.23	-
2600	9.02	22.76	45.73	89.48	171.38	271.18	572.25	-
2800	9.72	24.51	49.25	96.37	184.57	292.04		
3000	10.41	26.26	52.76	103.25	197.75	312.90		
3500	12.15	30.64	61.56	120.46	230.71			
4000	13.88	35.01	70.35	137.67				
4500	15.62	39.39	79.14					
5000	17.35	43.76	87.94					
5500	19.09	48.14				Dynamic balancing required for shaft speeds over 3600 rpm		
6000	20.82	52.52						
6500	22.56							
7000	24.30							
7500	26.03							

*For shaft speeds below 100 rpm use nominal torque T_n .
Maximum shaft speeds of coupling controlled by safe max. peripheral speed for cast iron.

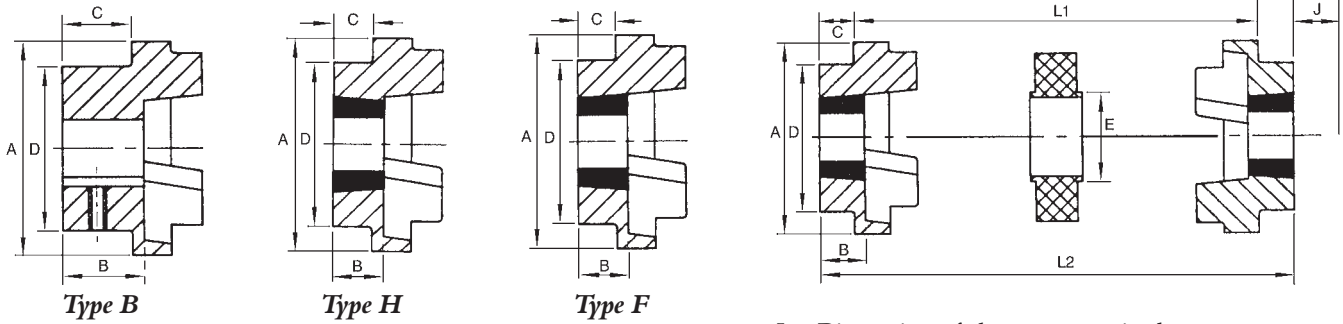
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KE Series Couplings



KE Couplings Dimensions and Technical Specification

The KE couplings are available with solid hubs for reworking, 'type B'; or taper bored hubs for standard taper bushes. The taper bored hubs can be provided with the bush fitting from the hub end, 'type H', or from the flange end, 'type F', to enable easy fitting to end of motor/gearbox shafts.



J = Dimension of clearance required to remove hub using Jack screw with shortened hex. key.

Coupling Capacities

Coupling No.	Nominal Torque		Maximum Torque		Max. Shaft Speed* rpm	Maximum Misalignment		
	Tn	Nm	Tn	Nm		Angular degrees	Radial mm	Axial mm
KE 7	33		73		7700	1.0	0.3	+0.2
9	84		185		6300	1.0	0.3	+0.5
11	168		370		5000	1.0	0.3	+0.6
13	331		725		4100	1.0	0.4	+0.8
15	630		1490		3600	1.0	0.4	+0.9
18	998		2300		3000	1.0	0.4	+1.1
23	2100		4800		2600	1.0	0.5	+1.3
28	3300		7000		2200	1.0	0.5	+1.7

*It is preferable to dynamically balance couplings operating above 4000 rpm

Taper Bush Coupling Dimensions (Hub types F & H)

Coupling No.	Bush Size	Max Bore mm	Dimensions in mm								Inertia ⁽¹⁾ kg cm ²	Weight ⁽¹⁾ kg
			A	B	C	D	E	J	L1	L2		
KE 7	1008	25	69	24	20	60	31	29	25	65	8.5	1.0
9	1108	28	85	24	20	70	32	29	31	70	11.5	1.7
11	1610	42	112	27	19	100	45	38	45	82	40	5.0
13	1610	42	130	27	18	105	50	38	53	89	78	5.5
15	2012	50	150	34	24	115	62	42	60	107	181	7.1
18	2517	65	180	47	35	125	77	48	73	142	434	16.6
23	3020	75	225	53	40	155	99	55	86	165	1207	26.0
28	3525	90	275	67	51	206	119	67	106	208	4465	50.0

(1) Including Taper Bushes mid-bore size.

Solid Hub Coupling Dimensions (Hub types B)

Coupling No.	Min Bore mm	Max. Bore ⁽²⁾ mm	Dimensions in mm							Inertia ⁽¹⁾ kg cm ²	Weight ⁽¹⁾ kg
			A	B	C	D	E	L1	L2		
KE 7	10	32	69	25	21	55	31	25	68	7.8	1.1
9	10	38	85	34	30	60	32	31	91	10.8	1.7
11	10	48	112	44	36	80	45	45	117	34.4	4.2
13	28	55	130	50	41	90	50	53	136	85	6.3
15	28	65	150	58	47	104	62	60	155	211	9.5
18	28	75	180	68	55	120	77	73	184	480	15.0
23	48	95	225	85	71	150	99	86	229	1405	28.0
28	60	130	275	106	90	206	119	106	286	5479	63.0

Ordering Instructions

KE Couplings can be supplied with any combination of hubs, or the hubs and rubber elements can be purchased separately. To indicate hub type required add type reference letter to coupling no., for rubber element add letter 'R' to coupling no. e.g.

KE 11F - is a 'F' type taper bush hub for coupling size KE 11.

KE 11R - is the rubber centre element for coupling size KE 11.

To order complete coupling indicate type of hub required for both hubs as suffix to basic coupling no. e.g.

KE 11FH - is a KE 11 Coupling with one 'F type' hub and one 'H type' hub.

KE 18BB - is a KE 18 Coupling with both hubs 'B type' parallel bore.

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