

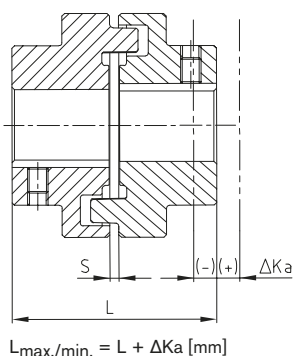
Technical data

POLY-NORM® Technical data													
Size	Torque [Nm]			Max. speed [rpm] with v = 35 m/s	Torsion angle with		Torsion spring stiffness C dyn. [Nm/rad]				Max. perm. displacement [mm] ¹⁾		
	Rated torque T _{KN}	Maximum torque T _K max	Vibratory torque T _{KW}		T _{KN}	T _K max	1.0 T _{KN}	0.75 T _{KN}	0.5 T _{KN}	0.25 T _{KN}	Axial ΔKa	Radial ΔKr	Angular ΔKw
28	40	80	16	9650	4.5	6.0	0.52x10 ⁴	0.332x10 ⁴	0.187x10 ⁴	0.09x10 ⁴	± 1.0	0.20	1.2
32	60	120	24	8550			0.782x10 ⁴	0.499x10 ⁴	0.282x10 ⁴	0.135x10 ⁴	± 1.0	0.25	1.4
38	90	180	36	7650			1.35x10 ⁴	0.864x10 ⁴	0.489x10 ⁴	0.234x10 ⁴	± 1.0	0.25	1.5
42	150	300	60	6950			2.63x10 ⁴	1.68x10 ⁴	0.947x10 ⁴	0.453x10 ⁴	± 1.0	0.25	1.7
48	220	440	88	6300			2.99x10 ⁴	1.91x10 ⁴	1.08x10 ⁴	0.516x10 ⁴	± 1.5	0.30	1.8
55	300	600	120	5650	4.0	5.5	3.85x10 ⁴	2.46x10 ⁴	1.39x10 ⁴	0.664x10 ⁴	± 1.5	0.30	2.0
60	410	820	164	5150			6.76x10 ⁴	4.31x10 ⁴	2.32x10 ⁴	1.17x10 ⁴	± 1.5	0.30	2.2
65	550	1100	220	4750			8.18x10 ⁴	5.22x10 ⁴	2.7x10 ⁴	1.41x10 ⁴	± 1.5	0.35	2.4
75	850	1700	340	4200			12.29x10 ⁴	7.84x10 ⁴	4.06x10 ⁴	2.12x10 ⁴	± 1.5	0.40	2.7
85	1350	2700	540	3650			24.31x10 ⁴	15.51x10 ⁴	7.49x10 ⁴	4.19x10 ⁴	± 1.5	0.40	3.0
90	2000	4000	800	3300	2.5	3.5	36.16x10 ⁴	23.07x10 ⁴	11.14x10 ⁴	6.24x10 ⁴	± 1.5	0.45	3.4
100	2900	5800	1160	2950			54.82x10 ⁴	34.98x10 ⁴	16.89x10 ⁴	9.46x10 ⁴	± 3.0	0.50	3.9
110	3900	7800	1560	2650			79.23x10 ⁴	50.55x10 ⁴	24.4x10 ⁴	13.67x10 ⁴	± 3.0	0.60	4.3
125	5500	11000	2200	2350			102.3x10 ⁴	65.28x10 ⁴	31.52x10 ⁴	17.65x10 ⁴	± 3.0	0.60	4.8
140	7200	14400	2880	2100			164x10 ⁴	104.7x10 ⁴	50.85x10 ⁴	28.3x10 ⁴	± 3.0	0.60	5.5
160	10000	20000	4000	1900	1.5	2.1	209.1x10 ⁴	133.4x10 ⁴	64.82x10 ⁴	36.07x10 ⁴	± 3.0	0.65	6.1
180	13400	26800	5360	1650			267.1x10 ⁴	170.4x10 ⁴	82.79x10 ⁴	46.07x10 ⁴	± 3.0	0.65	6.0
200	19000	38000	7600	1450			359.5x10 ⁴	226.2x10 ⁴	111.4x10 ⁴	60.2x10 ⁴	± 4.0	0.65	7.8
220	30000	60000	12000	1300			571.8x10 ⁴	362.4x10 ⁴	181.2x10 ⁴	90.6x10 ⁴	± 4.0	0.70	8.7
240	43000	86000	17200	1200			807.9x10 ⁴	505.0x10 ⁴	252.5x10 ⁴	126.3x10 ⁴	± 4.0	0.70	9.6
260	55000	110000	22000	1000	1.0		663.8x10 ⁴	539.4x10 ⁴	382.2x10 ⁴	195.5x10 ⁴	± 4.0	0.85	11.3
280	67000	134000	26800	950			773.1x10 ⁴	628.1x10 ⁴	404.1x10 ⁴	202.1x10 ⁴	± 4.0	0.95	12.2

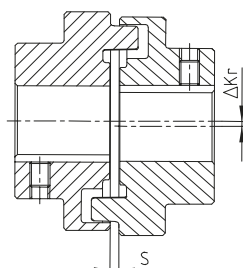
¹⁾ Displacement with n = 1500 rpm

Radial and angular displacements may occur simultaneously. The combined sum of displacements must not exceed the values listed in the table. If requested, coupling is dynamically balanced (semi-key balancing G 6.3 with 1500 rpm). For circumferential speeds exceeding v = 20 m/s, dyn. balancing is recommended.

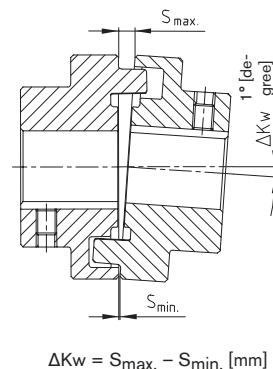
Axial displacement ΔKa



Radial displacement ΔKr



Angular displacement ΔKw



Advice for assembly

With assembly the coupling halves must be mounted such that coupling and shaft are flush. Alignment has to be done such that the radial and angular displacement is as small as possible. The service life of coupling and bearings is extended by accurate alignment. Steps must be taken to ensure that the alignment will not change during all operating conditions. Shaft displacement which cannot be avoided must not exceed the figures specified in the table. Angular and radial displacement may occur simultaneously. The combined sum of displacements must not exceed the values listed in the table. See KTR assembly instructions, KTR standard 49510 at our homepage www.ktr.com.

General information about the elastomer

Material/hardness	Perbunan [NBR]/78 Shore A
Permanent temperature range [°C]	-30 to +80
Max. temperature (short time) [°C]	-50 to +120
Operating range	General engineering Pump industry ATEX applications Chemical industry Standard applications of average elasticity
Resistant to	Gasoline, diesel Acids, bases Tropics (Salt) water (hot/cold) Oils, greases Propane, butane Natural gas, city gas

Elastomer ring Viton [FKM] 60 Shore A for the high-temperature range on request.

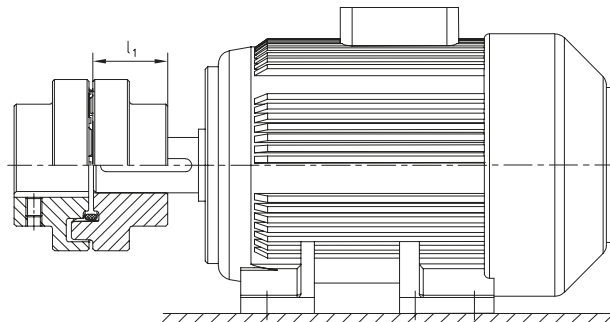


Elastomer ring NBR 78 Shore A

POLY-NORM®

Flexible couplings

Selection of standard IEC motors



POLY-NORM® couplings for standard IEC motors, protection class IP 54/IP 55 (elastomer ring 78 Shore A)														
A. C. motor 50 Hz			Motor power n= 3000 rpm 2 poles		POLY-NORM® coupling size	Motor power n= 1500 rpm 4 poles		POLY-NORM® coupling size	Motor power n= 1000 rpm 6 poles		POLY-NORM® coupling size	Motor power n= 750 rpm 8 poles		POLY-NORM® coupling size
Size	Shaft end dsl [mm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]	
56	9 x 20		0.09	0.32		0.06	0.43		0.037	0.43				
			0.12	0.41		0.09	0.64		0.045	0.52				
63	11 x 23		0.18	0.62		0.12	0.88		0.06	0.7				
			0.25	0.86		0.18	1.3		0.09	1.1				
71	14 x 30		0.37	1.3		0.25	1.8		0.18	2		0.09	1.4	
			0.55	1.9		0.37	2.5		0.25	2.8		0.12	1.8	
80	19 x 40		0.75	2.5	28/32	0.55	3.7	28/32	0.37	3.9	28/32	0.18	2.5	28/32
			1.1	3.7		0.75	5.1		0.55	5.8		0.25	3.5	
90S	24 x 50		1.5	5		1.1	7.5		0.75	8		0.37	5.3	
90L			2.2	7.4		1.5	10		1.1	12		0.55	7.9	
100L	28 x 60		3	9.8		2.2	15		1.5	15		0.75	11	
						3	20					1.1	16	
112M			4	13		4	27		2.2	22		1.5	21	
			5.5	18										
132S	38 x 80		7.5	25	38	5.5	36	38	3	30	38	2.2	30	38
							4		40	3		40		
132M						7.5	49		5.5	55				
			11	36										
160M	42 x 110		15	49	42	11	72	42	7.5	75	42	4	54	42
				18.5		60	15		98	11		109	5.5	
160L												7.5	100	
180M	48 x 110		22	71	48	18.5	121	48			48			48
180L						22	144		15	148		11	145	
200L	55 x 110		30	97	55	30	196	55	18.5	181	55	15	198	55
			37	120						22		215		
225S	55 x 110	60 x 140				37	240	60			60	18.5	244	60
225M			45	145		45	292		30	293		22	290	
250M	60 x 140	65 x 140	55	177	60	55	356	65	37	361	65	30	392	65
280S		75 x 140	75	241	65	75	484	75	45	438	75	37	483	75
280M			90	289		90	581		55	535		45	587	
315S			110	353		110	707	85	75	727	85	55	712	85
315M			132	423		132	849		90	873		75	971	
	65 x 140	80 x 170	160	513	75	160	1030		110	1070	90	90	1170	90
315L			200	641		200	1290		132	1280		110	1420	
					85				160	1550	100	132	1710	100
						250	1600		200	1930		160	2070	
315		85 x 170	250	802		315	2020	100	250	2410	110	200	2580	110
			315	1010		315	2280		315	3040		250	3220	
	75 x 140	95 x 170	355	1140	90	355	2280	110	315	3040	125	250	3220	125
				400		1280	400		2570	400		3850	315	
			500	1600		500	3210							
			560	1790	100	560	3580	125	450	4330	140	355	4570	140
			630	2020		630	4030		500	4810		400	5150	
			710	2270	110	710	4540	140	560	5390	160	450	5790	160
			800	2560		800	5120		630	6060		500	6420	
450	90 x 170	120 x 200	900	2880	125	900	5760	160	710	6830	180	560	7190	180
			1000	3200		1000	6400		800	7690		630	8090	

The coupling selection is based on an ambient temperature up to +30 °C. The selection is based on a minimum safety factor of 2 versus the max. coupling torque ($T_{K \max}$). A detailed selection is possible according to catalogue, page 11 et seqq. Drives with periodical torque curves must be selected according to DIN 740 part 2. If requested, KTR will perform the selection.

Torque T = rated torque according to Siemens catalogue M 11 · 1994/95.

POLY-NORM® AR

Flexible couplings

Flexible jaw and
pin & bush couplings

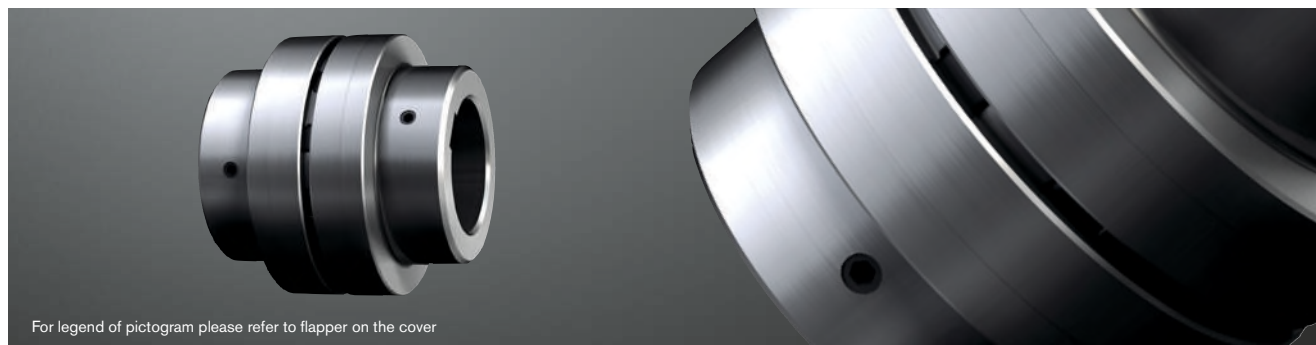
ROTEX®

POLY-NORM®

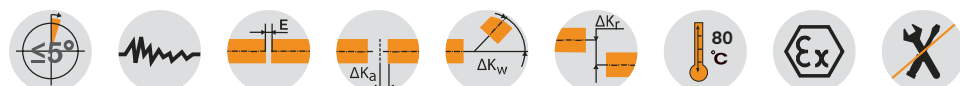
POLY

REVOLUX®

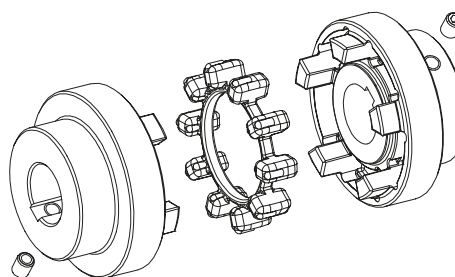
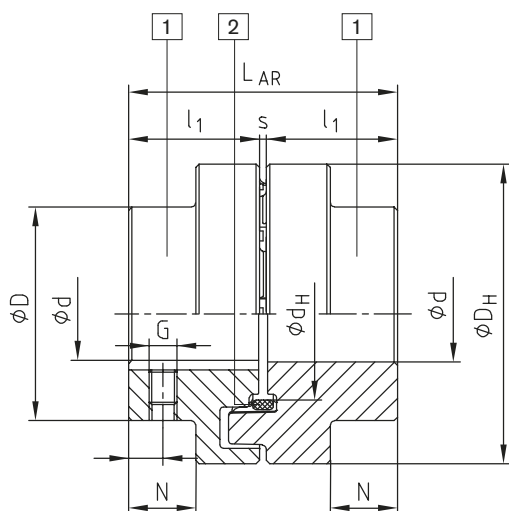
Two-part



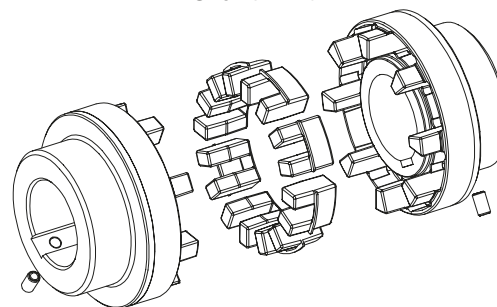
For legend of pictogram please refer to flapper on the cover



Components



Size 28 - 125



Size 140 - 280

Components of type AR:
1 = Standard hub (GJL)
2 = Elastomer ring (up to size 180: NBR 78 ShA; from size 200: T-PUR® 84 ShA)

POLY-NORM® Type AR														
Size	Elastomer ring ¹⁾ (part 2) Torque [Nm]		Max. finish bore d ²⁾	Dimensions [mm]									Mass moment of inertia ³⁾ [kgm²]	Weight ³⁾ [kg]
				General								Thread for setscrews ²⁾		
	T _{KN}	T _{Kmax.}		L _{AR}	l ₁	s	D _H	D	d _H	N	G	t		
28	40	80	30	59	28	3	69	46	36.5	12	M5	7	0.0004	0.9
32	60	120	35	68	32	4	78	53	41.5	14	M8	7	0.0008	1.4
38	90	180	40	80	38	4	87	62	50	19.5	M8	10	0.0016	2.0
42	150	300	45	88	42	4	96	69	55.5	20	M8	10	0.0026	2.7
48	220	440	50	101	48	5	106	78	64	24	M8	15	0.0042	3.7
55	300	600	60	115	55	5	118	90	73	29	M8	14	0.0070	5.5
60	410	820	65	125	60	5	129	97	81	33	M8	15	0.0112	6.9
65	550	1100	70	135	65	5	140	105	86	36	M10	20	0.0174	8.8
75	850	1700	80	155	75	5	158	123	100	42.5	M10	20	0.028	13.5
85	1350	2700	90	175	85	5	182	139	116	48.5	M10	25	0.052	19.5
90	2000	4000	95	185	90	5	200	148	128	49	M12	25	0.090	23.2
100	2900	5800	110	206	100	6	224	165	143	55	M12	25	0.160	31.9
110	3900	7800	50-120	226	110	6	250	185	158	60	M16	30	0.317	38.0
125	5500	11000	55-140	256	125	6	280	210	178	70	M16	35	0.570	55.2
140	7200	14400	65-155	286	140	6	315	235	216	76.5	M20	35	1.030	92.6
160	10000	20000	75-175	326	160	6	350	265	246	94.5	M20	45	1.746	126.9
180	13400	26800	75-200	366	180	6	400	300	290	111.5	M20	50	3.239	181.8
200	19000	38000	85-200	408	200	8	450	335	-	126	M24	50	5.728	263.7
220	30000	60000	95-220	448	220	8	500	370	-	140	M24	50	9.489	355.9
240	43000	86000	105-240	488	240	8	550	405	-	154	M24	50	14.963	466.3
260	55000	110000	115-260	530	260	10	650	440	-	158	M24	60	29.504	672.2
280	67000	134000	125-280	570	280	10	700	475	-	172	M24	60	42.451	836.6

¹⁾ Standard material Perbunan [NBR] 78 Shore A, size 140 - 280 double tooth elastomers, for selection see page 10 et seqq.

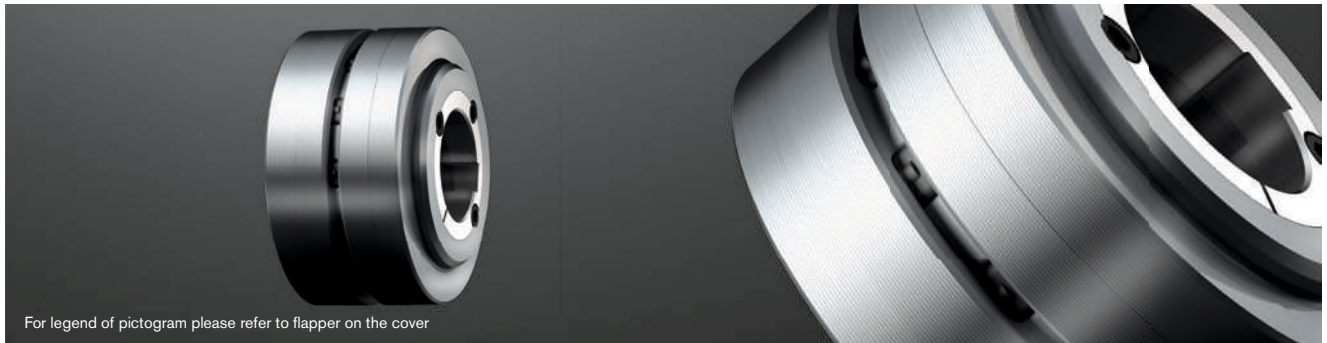
²⁾ Bores H7 with keyway to DIN 6885 sheet 1 [JS9] and thread for setscrew on the keyway

³⁾ Referring to average bore

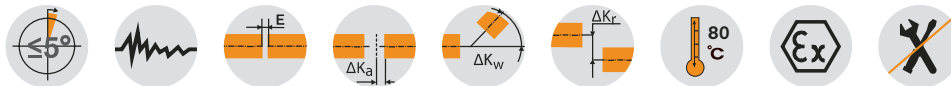
POLY-NORM® AR

Flexible couplings

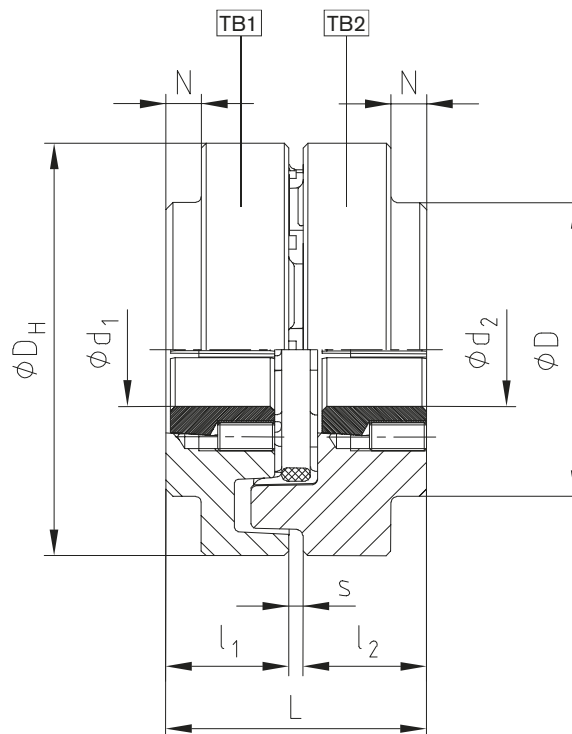
For taper clamping sleeve



For legend of pictogram please refer to flapper on the cover



Components



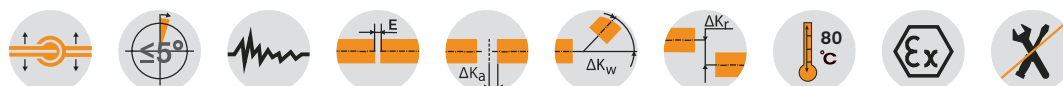
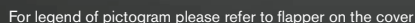
POLY-NORM® for taper clamping sleeve															
Size	Taper clamping sleeve	Dimensions [mm]		Fastening screws ¹⁾ for taper clamping sleeve				Size	Taper clamping sleeve	Dimensions [mm]		Fastening screws ¹⁾ for taper clamping sleeve			
		Max. d ₁ , d ₂	l ₁ , l ₂	Size [Inch]	Length [mm]	SW [mm]	T _A [Nm]			Max. d ₁ , d ₂	l ₁ , l ₂	Size [Inch]	Length [mm]	SW [mm]	T _A [Nm]
32	1108	25	25.5	1/4" ^a	13	3	5.7	75	2517	60	52.5	1/2" ^a	25	6	49
42	1210	32	31.0	3/8" ^a	16	5	20	85	2517	60	46.5	1/2" ^a	25	6	49
48	1610	40	30.0	3/16" ^a	16	5	20	90	3030	75	82	5/8" ^a	32	8	90
	1615	40	42.5	3/8" ^a	16	5	20		3020	75	52.0	5/8" ^a	32	8	92
60	2012	50	38.5	7/16" ^a	22	6	31	100	3535	90	98.0	1/2" ^a	38	10	115
65	2517	60	62.5	1/2" ^a	25	6	49	125	4040	100	111.5	5/8" ^a	45	12	172

¹⁾ Each 2 fastening screws with 3535/4040 3-off
Coupling type TB1 screwing on cam side - TB2 screwing on collar side
Combination possible! Please order our separate dimension sheet (M407045).

Ordering
example:

POLY-NORM® 38	AR	Ø38	Ø30
Coupling size	Type	Finish bore	Finish bore

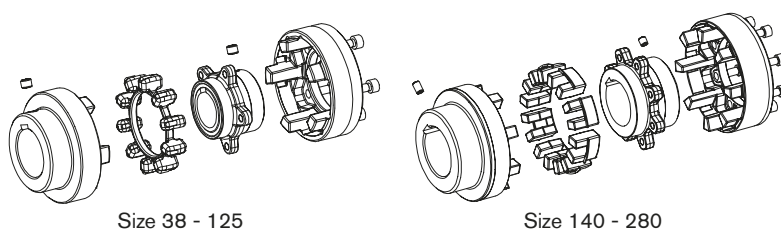
ROTEX®



Technical drawing of a shaft-hub assembly showing dimensions and tolerances. The drawing includes a cross-section of the shaft and hub, with various dimensions and tolerances indicated. The dimensions are labeled as follows:

- ϕD_H : Outer diameter of the hub
- ϕD : Nominal diameter of the shaft
- $\phi d_1 \text{ max.}$: Maximum diameter of the shaft at the keyway
- G : Key width
- ϕD_1 : Inner diameter of the hub
- $\phi d_2 \text{ max.}$: Maximum diameter of the shaft at the keyway (on the opposite side)
- ϕD_2 : Inner diameter of the hub (on the opposite side)
- t_1 : Hub thickness
- t : Key height
- N : Distance from the keyway to the end of the shaft
- s : Distance from the keyway to the end of the hub
- w : Key width
- M : Distance from the keyway to the end of the hub (on the opposite side)
- l_1 : Length of the shaft
- l_2 : Length of the hub

The drawing also includes a detail view of the key and a note: "= Displacement of hub".



Components of type ADR (three-part):
 1 = Standard hub* (GJL)
 78 ShA; from size 200: T-PUR® 84 ShA
 m size 200: steel) 4D = Cam ring (GJL)
 * To be used preferably on driving side

POLY-NORM® Type ADR																		
Size	Elastomer ring ¹⁾ (part 2) Torque [Nm]		Dimensions [mm]															
			Max. finish bore ²⁾		General										Thread for setscrews			
	T _{KN}	T _{K max}	d ₁	d ₂	L _{ADR}	l ₁ , l ₂	s	D _H	D	D ₁	d _H	N	M	W	G	t	t ₁	T _A [Nm]
38	90	180	40	34	80	38	4	87	62	48	50	19.5	11.0	12	M8	10	7	10
42	150	300	45	38	88	42	4	96	69	54	55.5	20	12.0	16	M8	10	7	10
48	220	440	50	44	101	48	5	106	78	62	64	24	13.7	16	M8	15	7	10
55	300	600	60	50	115	55	5	118	90	72	73	29	18.7	15	M8	14	14	10
60	410	820	65	56	125	60	5	129	97	80	81	33	22.2	14	M8	15	15	10
65	550	1100	70	60	135	65	5	140	105	86	86	36	26.7	11	M10	20	20	17
75	850	1700	80	68	155	75	5	158	123	98	100	42.5	27.8	16	M10	20	20	17
85	1350	2700	90	78	175	85	5	182	139	112	116	48.5	33.7	18	M10	25	25	17
90	2000	4000	95	85	185	90	5	200	148	122	128	49	31.5	26	M12	25	25	40
100	2900	5800	110	95	206	100	6	224	165	136	143	55	37.5	28	M12	25	25	40
110	3900	7800	50-120	105	226	110	6	250	185	150	158	60	39.5	30	M16	30	30	80
125	5500	11000	55-140	115	256	125	6	280	210	168	178	70	48.0	35	M16	35	35	80
140	7200	14400	65-155	55-135	286	140	6	315	235	195	216	76.5	47.0	59	M20	35	35	140
160	10000	20000	75-175	65-155	326	160	6	350	265	225	246	94.5	65.0	43	M20	45	45	140
180	13400	26800	75-200	65-175	366	180	6	400	300	255	290	111.5	79.0	33	M20	50	50	140
200	19000	38000	85-200	200	408	200	8	450	335	290	-	126	95	7	M24	50	50	240
220	30000	60000	95-220	220	448	220	8	500	370	320	-	140	103	8	M24	50	50	240
240	43000	86000	105-240	240	488	240	8	550	405	350	-	154	119	1	M24	50	50	240
260	55000	110000	115-260	260	530	260	10	650	440	380	-	158	109	34	M24	60	60	240
280	67000	134000	125-280	280	570	280	10	700	475	410	-	172	109	29	M24	60	60	240

Selection of cap screws DIN EN ISO 4762 - 12.9											
Size	M x l [mm]	z = number	Pitch z x angle	D ₄ [mm]	T _A [Nm] ³⁾	Size	M x l [mm]	z = number	Pitch z x angle	D ₄ [mm]	T _A [Nm] ³⁾
38	M6x16	5	5x72	62	10	110	M16x40	8	8x45	183	210
42	M8x16	5	5x72	69	25	125	M20x40	8	8x45	202	410
48	M8x20	6	6x60	78	25	140	M20x50	8	8x45	237	410
55	M8x20	6	6x60	88	25	160	M20x55	9	9x40	267	410
60	M8x20	6	6x60	98	25	180	M20x60	10	10x36	304	410
65	M10x20	6	6x60	104	49	200	M20x60	10	10x36	342	580
75	M10x25	6	6x60	120	49	220	M24x70	10	10x36	378	1000
85	M12x25	6	6x60	138	86	240	M27x70	10	10x36	416	1500
90	M16x30	6	6x60	149	210	260	M30x90	10	10x36	480	2000
100	M16x30	6	6x60	163	210	280	M30x90	10	10x36	520	2000

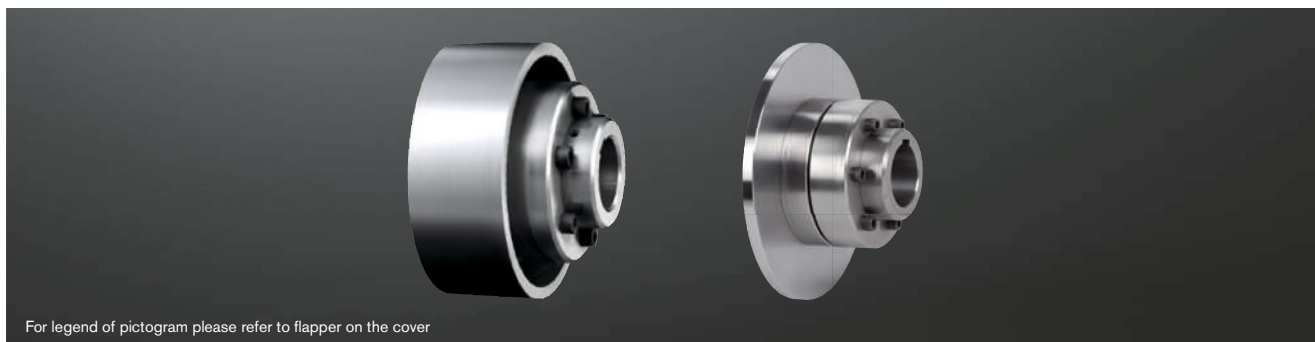
²⁾ Bores H7 with keyway to DIN 6885 sheet 1 [JS9] and thread for setscrew ³⁾ Screw tightening torques acc. to 8.8

POLY-NORM® 65	ADR	d ₁ = Ø55	d ₂ = Ø60
Coupling size	Type	Finish bore	Finish bore

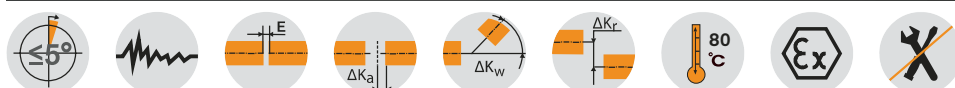
POLY-NORM® BTA and SBA

Flexible couplings

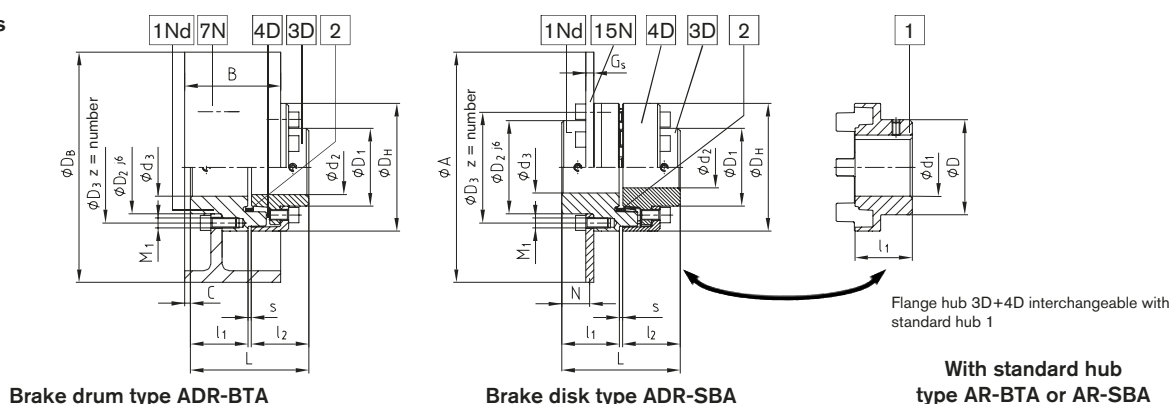
With brake drum/brake disk for brake stop



For legend of pictogram please refer to flapper on the cover



Components



POLY-NORM® Type AR-BTA, AR-SBA, ADR-BTA and ADR-SBA													
Size	Elastomer ring ¹⁾ (part 2)		Dimensions [mm]										
	T _{KN}	T _{K max}	Max. finish bore										
			D, D ₁	d ₁	d ₂	d ₃	D _H	D ₂	D ₃	z	M ₁	l ₁ , l ₂	L
38	90	180	For dimensions D, D ₁ please refer to our company catalogue on page 61 and 63	40	34	38	87	61	75	5 x 72°	M6	38	80
42	150	300		45	38	42	96	68	82	5 x 72°	M8	42	90
48	220	440		50	44	48	106	77	92	6 x 60°	M8	48	101
55	300	600		60	50	55	118	88	104	6 x 60°	M8	55	115
60	410	820		65	56	60	129	96	114	6 x 60°	M8	60	125
65	550	1100		70	60	65	140	104	122	6 x 60°	M10	65	135
75	850	1700		80	68	75	158	121	140	6 x 60°	M10	75	155
85	1350	2700		90	78	85	182	137	160	6 x 60°	M12	85	175
90	2000	4000		95	85	90	200	146	174	6 x 60°	M16	90	185
100	2900	5800		110	95	100	224	164	195	6 x 60°	M16	100	206
110	3900	7800		50-120	105	50-110	250	184	218	8 x 45°	M16	110	226
125	5500	11000		55-140	115	55-125	280	208	245	8 x 45°	M20	125	256
140	7200	14400		65-155	55-135	65-140	315	233	276	8 x 45°	M20	140	286
160	10000	20000		75-175	65-155	75-160	350	263	308	9 x 40°	M20	160	326
180	13400	26800		75-200	65-175	75-180	400	298	349	10 x 36°	M20	180	366

POLY-NORM® Type BTA																	
POLY-NORM® size	38	42	48	55	60	65	75	85	90	100	110	125	140	160	180	Max. speed [rpm] with v = 60 m/s ³⁾	
ØD _B x B	Dimensions C [mm]																
160x60	4															7150	200x12.5
200x75	9	8	4													5725	250x12.5
250x95	17	16	20	7	3	0										4575	315x16
315x118		25	21	16	12	9	2.5	-3.5								3625	400x16
400x150			34	28	25	22	15.5	9.5	9	3						2850	500x16
500x190										18	12	-2				2275	630x20
630x236											20	13	-4			1800	710x20
710x265												24	7	-11		1600	800x25
																	900x25

POLY-NORM® Type SBA																	
POLY-NORM® size	38	42	48	55	60	65	75	85	90	100	110	125	140	160	180	Max. speed [rpm] with v = 60 m/s ³⁾	
ØA x G	Dimensions N [mm]																
200x12.5	13.75															5725	200x12.5
250x12.5	13.75	14.75	18.75													4575	250x12.5
315x16		13	17	22	26	29	35.5									3625	315x16
400x16			17	22	26	29	35.5	41.5	42	48						2850	400x16
500x16				22	26	29	35.5	41.5	42	48	54	64				2275	500x16
630x20											46	52	62	69	86	1800	630x20
710x20											46	52	62	69	86	1600	710x20
800x25											43.5	49.5	59.5	66.5	83.5	1425	800x25
900x25											49.5	59.5	66.5	83.5	101.5	1250	900x25

¹⁾ Standard material Perbunan [NBR], for selection please see page 10 et seqq.

²⁾ Steel ³⁾ Dynamic balancing required

Other sizes on request

Ordering example:	POLY-NORM® 38	ADR-BTA	Ø200 x 75	d ₂ = Ø32 NnD	d ₃ = Ø25 NnD
	Coupling size	Type	Brake drum Ø	Component with finish bore	Component with finish bore

POLY-NORM® ADR-SB

Flexible couplings

Flexible jaw and
pin & bush couplings

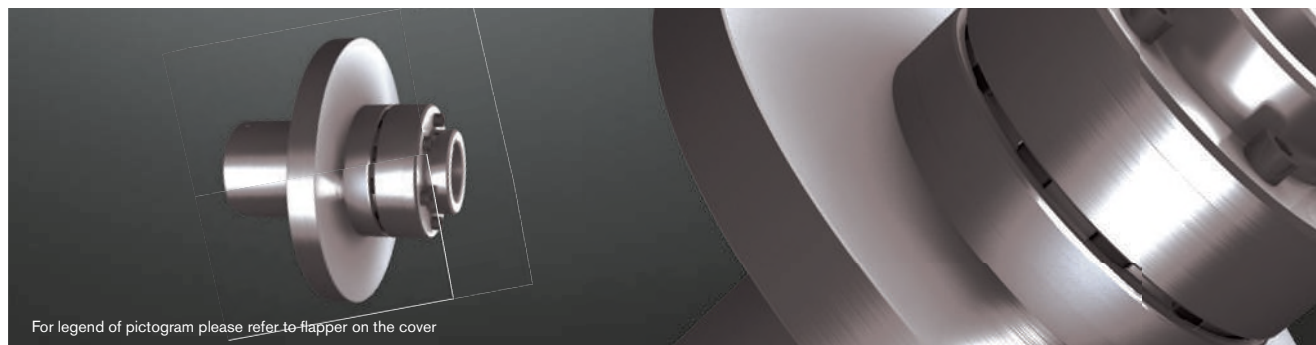
ROTEX®

POLY-NORM®

POLY

REVOLUX®

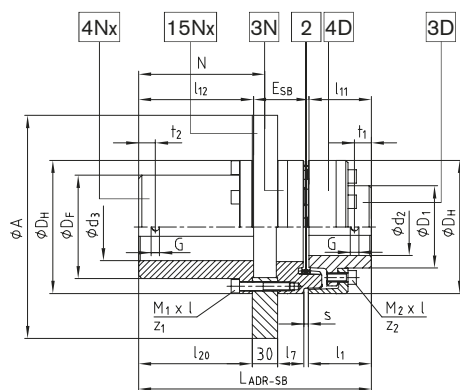
With brake disk for stop brake



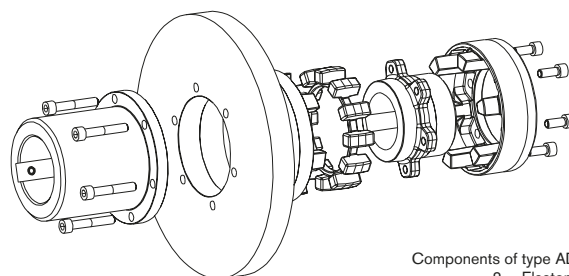
For legend of pictogram please refer to flapper on the cover



Components



Type ADR-SB with brake disk



Components of type ADR-SB:
2 = Elastomer ring
3D = Flange hub
4D = Cam ring
3N = Driving flange
15Nx = Brake disk
4Nx = Coupling flange

POLY-NORM® Type ADR-SB																				
Size	Elastomer ring ¹⁾ (part 2) Torque [Nm]		Max. finish bore		Dimensions [mm]													Thread for setscrews		
	T _{KN}	T _{K max}	d ₂	d ₃	D _H	N	l ₂	s	l ₁₁	l ₁₂	D _F	l ₇	l ₂₀	L _{ADR-SB}	D ₁	E	G	t ₁ , t ₂	T _A [Nm]	
55	300	600	50	65	118	150	55	5	54.7	136.5	88	24.0	135	249.0	72	57.8	M8	15	10	
60	410	820	56	70	129	150	50	5	59.2	136.5	97	25.0	135	255.0	80	59.3	M8	20	10	
65	550	1100	60	75	140	150	65	5	63.7	136.5	105	26.5	135	261.5	86	61.3	M10	20	17	
75	850	1700	68	90	158	150	75	5	74.0	136.5	123	31.5	135	276.5	98	66.0	M10	20	17	
85	1350	2700	78	100	182	150	85	5	84.7	136.5	139	35.0	135	290.0	112	68.8	M10	25	17	
90	2000	4000	85	110	200	150	90	5	89.5	136.5	148	39.5	135	299.5	122	73.5	M12	25	40	
100	2900	5800	95	120	224	190	100	6	95.5	177.0	165	43.0	175	354.0	136	81.5	M12	25	40	
110	3900	7800	105	135	250	190	110	6	105.5	177.0	185	48.0	175	369.0	150	86.5	M16	30	80	
125	5500	11000	115	155	280	195	125	6	120.5	182.0	210	53.0	180	394.0	168	91.5	M16	35	80	
140	7200	14400	135	170	315	195	140	6	130.0	182.0	235	60.5	180	416.5	195	104.5	M20	35	140	
160	10000	20000	155	195	350	195	160	6	150.0	182.0	265	62.5	180	438.5	225	106.5	M20	45	140	

Selection of brake disks and cap screws							
Size	ØA brake disk [mm]/ 30 mm thick ^{2) 3)}	Cap screws DIN EN ISO 4762 for brake disk			Cap screws DIN EN ISO 4762 for flange hub/cam ring		
		M ₁ x l	z ₁ = number	Tightening torque T _A [Nm]	M ₂ x l	z ₂ = number	Tightening torque T _A [Nm]
55	250 - 450	M8x20	6	10	M8x20	6	25
60	250 - 500	M8x20	6	10	M8x20	6	25
65	315 - 500	M8x55	6	35	M10x20	6	49
75	315 - 560	M10x60	6	69	M10x25	6	49
85	355 - 560	M10x60	6	69	M12x25	6	86
90	400 - 710	M12x65	6	120	M16x30	6	210
100	400 - 800	M12x65	6	120	M16x30	6	210
110	450 - 900	M16x75	8	295	M16x40	8	210
125	450 - 900	M16x75	8	295	M20x40	8	410
140	500 - 900	M20x80	8	410	M20x50	8	410
160	560 - 900	M20x90	9	410	M20x55	9	410

¹⁾ Standard material Perbunan [NBR], for selection please see page 10 et seqq.

²⁾ Steel

³⁾ For circumferential speeds exceeding v = 20 m/s, dynamic balancing is required (referring to outside diameter ØD_H).

Maximum circumferential speed v = 60 m/s (referring to the diameter of brake disk ØA).

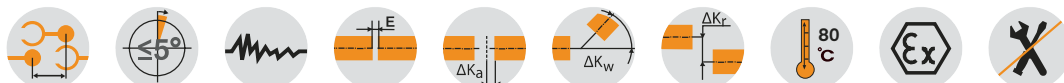
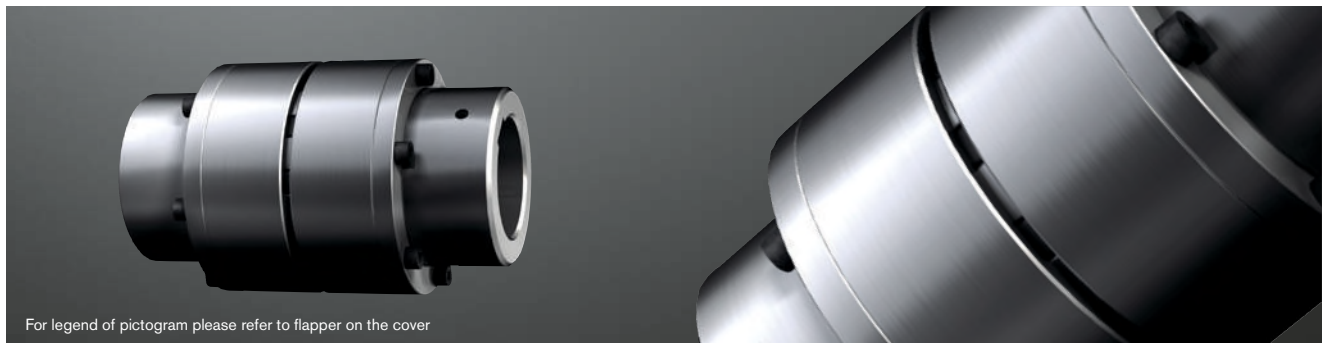
Other sizes on request

Ordering example:	POLY-NORM® 75	ADR-SB	Ø500 x 30	3D d ₂ = Ø60 NnD	4Nx d ₃ = Ø70 NnD
	Coupling size	Type	Brake disk ØA/ width	Component with finish bore	Component with finish bore

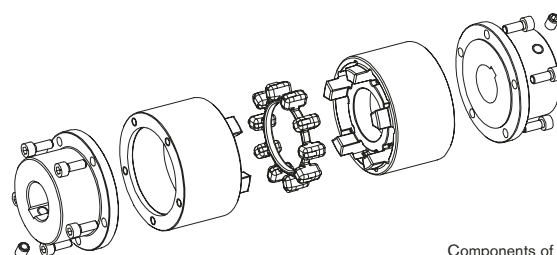
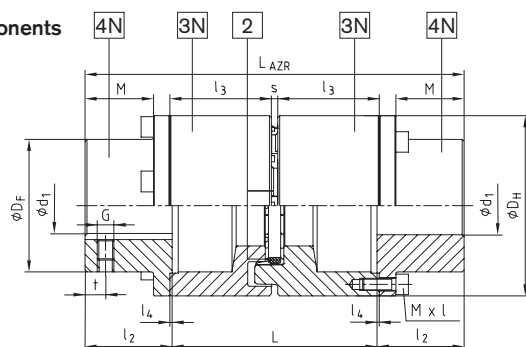
POLY-NORM® AZR

Flexible couplings

Standard drop-out center design coupling



Components



Components of type AZR:
2 = Elastomer ring (NBR 78 ShA)
3N = Driving flange (GJL)
4N= Coupling flange (steel)

POLY-NORM® Type AZR

Size	Drop-out center length* L [mm]	Elastomer ring ¹⁾ (part 2) Torque [Nm]		Dimensions [mm]													Mass moment of inertia ³⁾ [kgm²]	Weight ³⁾ [kg]
				Max. finish bore d ₁ ²⁾	General											Thread for setscrews		
		T _{KN}	T _K max		LAZR	l ₂	l ₃	s	l ₄	D _H	D _F	M	Mx _l	T _A [Nm]	G	t		
28	100	40	80	34	170	35	49.5	3	1	69	46	26	M6x18	14	M5	7	0.0020	2.4
	210				69.5		0.0030										2.9	
32	100	60	120	38	170	35	49	4	1	78	53	26	M6x18	14	M8	7	0.0042	3.2
	210				69		0.0062										3.9	
38	100	90	180	45	184	42	49	4	1	87	62	33	M6x20	14	M8	10	0.0048	4.3
	224				69		0.0068										5.1	
42	100	150	300	50	190	45	49	4	1	96	69	35	M6x20	14	M8	10	0.0094	5.1
	230				69		0.0128										6.0	
48	100	220	440	55	204	52	49	5	1.5	106	78	41.5	M6x20	14	M8	15	0.0170	6.6
	244				69		0.0216										7.5	
55	100	300	600	65	210	55	49	5	1.5	118	88	43.5	M8x25	35	M8	14	0.0188	9.4
	140				250		69										0.0240	10.8
	180				290		89										0.0232	12.2
	100				220		49										0.0326	11.2
60	140	410	820	70	260	60	69	5	1.5	129	97	47.5	M8x25	35	M8	15	0.0414	13.0
	180				300		89										0.0504	14.6
	100				230		49										0.0564	14.0
65	140	550	1100	75	270	65	69	5	1.5	140	105	51.5	M8x25	35	M10	20	0.0730	15.8
	180				310		89										0.0894	17.5
	140				290		69										0.0824	23.2
	180				330		75										89	5
75	250	850	1700	90	400	75	124	5	1.5	158	123	60.5	M10x30	69	M10	20	0.1332	29.8
	140				310		69										0.1570	32.1
	180				350		85										89	5
85	250	1350	2700	100	420	85	124	5	1.5	182	139	69.5	M10x30	69	M10	25	0.1812	40.7
	140				320		69										0.2466	38.2
	180				360		90										89	5
90	250	2000	4000	110	430	90	124	5	1.5	200	148	73.5	M12x35	120	M12	25	0.3566	49.3
	140				340		69										0.3988	50.0
	180				380		100										89	6
100	250	2900	5800	120	450	100	124	6	2	224	165	83	M12x35	120	M12	25	0.5465	63.2

¹⁾ Standard material Perbunan [NBR] 78 Shore A, for selection see page 10 et seqq.

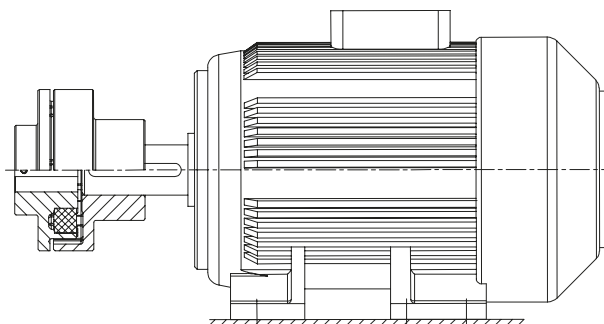
²⁾ Bores H7 with keyway to DIN 6885 sheet 1 [JS9] and thread for setscrew on the keyway

³⁾ Referring to average bore

*For other extendable lengths (L = 120/160/195/215) it is possible to combine two driving flanges 3N with various lengths. (As an example: driving flanges POLY-NORM® 85 for extendable length 140 and 250 produce an extendable length of 195 mm (140 mm + 250 mm = 390 mm; 390 mm/2 = 195 mm))

Ordering example:	POLY-NORM® 42	AZR	140	Ø38	Ø42
	Coupling size	Type	Drop-out center length L	Finish bore	Finish bore

Selection of standard IEC motors



POLY couplings for standard IEC motors, protection class IP 54/IP 55														
A. C. motor 50 Hz			Motor power n= 3000 rpm 2 poles		POLY coupling size	Motor power n= 1500 rpm 4 poles		POLY coupling size	Motor power n= 1000 rpm 6 poles		POLY coupling size	Motor power n= 750 rpm 8 poles		POLY coupling size
Size	Shaft end dsl [mm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]	
	2 poles	4, 6, 8 poles												
56	9 x 20		0.09	0.32	8	0.06	0.43	8	0.037	0.43	8			8
			0.12	0.41		0.09	0.64		0.045	0.52				
63	11 x 23		0.18	0.62		0.12	0.88		0.06	0.7				
			0.25	0.86		0.18	1.3		0.09	1.1				
71	14 x 30		0.37	1.3	8	0.25	1.8	8	0.18	2	8	0.09	1.4	8
			0.55	1.9		0.37	2.5		0.25	2.8		0.12	1.8	
80	19 x 40		0.75	2.5		0.55	3.7		0.37	3.9		0.18	2.5	
			1.1	3.7		0.75	5.1		0.55	5.8		0.25	3.5	
90S	24 x 50		1.5	5	9	1.1	7.5	9	0.75	8	9	0.37	5.3	9
90L			2.2	7.4		1.5	10		1.1	12		0.55	7.9	
100L	28 x 60		3	9.8		2.2	15		1.5	15		0.75	11	
						3	20					1.1	16	
112M			4	13	10	4	27	10	2.2	22	10	1.5	21	10
			5.5	18		5.5	36		3	30		2.2	30	
132S	38 x 80		7.5	25					4	40		3	40	
132M						7.5	49		5.5	55				
160M	42 x 110		11	36	12	11	72	12	7.5	75	14	4	54	14
			15	49								5.5	74	
160L			18.5	60		15	98		11	109		7.5	100	
180M	48 x 110		22	71		18.5	121							
180L					15	22	144	15	15	148	15	11	145	15
200L	55 x 110		30	97		30	196		18.5	181		15	198	
			37	120					22	215				
225S	55 x 110	60 x 140				37	240					18.5	244	
225M	60 x 140	65 x 140	45	145	17	45	292	19	30	293	19	22	290	19
250M			55	177		55	356		37	361		30	392	
280S			75	241		75	484		45	438		37	483	
280M			90	289		90	581		55	535		45	587	
315S	65 x 140	75 x 140	110	353	19*	110	707	20	75	727	20	55	712	22
315M			132	423		132	849		90	873		75	971	
			160	513		160	1030		110	1070		90	1170	
315L			200	641		200	1290		132	1280		110	1420	
	85 x 170				22*			28	160	1550	28	132	1710	28
315			250	802		250	1600		200	1930		160	2070	
			315	1010		315	2020		250	2410		200	2580	
			355	1140		355	2280							
355	75 x 140	95 x 170	400	1280		400	2570	30	315	3040		250	3220	35
			500	1600		500	3210		400	3850		315	4060	
			560	1790		560	3580		450	4330		355	4570	
400			80 x 170	110 x 210		630	2020		630	4030		500	4810	
			710	2270		710	4540	40	560	5390	40	450	5790	40
			800	2560	800	5120	630		6060	500		6420		
450	90 x 170	120 x 210	900	2880	900	5760								
			1000	3200	1000	6400								

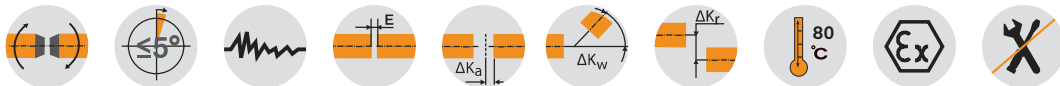
The coupling selection is based on an ambient temperature up to +30 °C. The coupling was selected for normal operation. The respective couplings have a minimum operating factor of $f_{min.} = 1.35$. Drives with periodical torque curves must be selected according to DIN 740 part 2. If requested, KTR will perform the selection.

Torque T = rated torque according to Siemens catalogue M 11 · 1994/95.

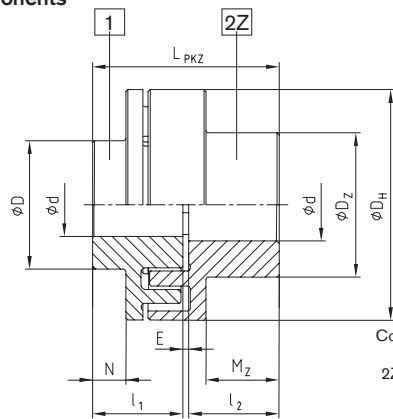
* Dynamic balancing required

POLY PKZ and PKD Flexible couplings

PKZ (two-part) and PKD (three-part)

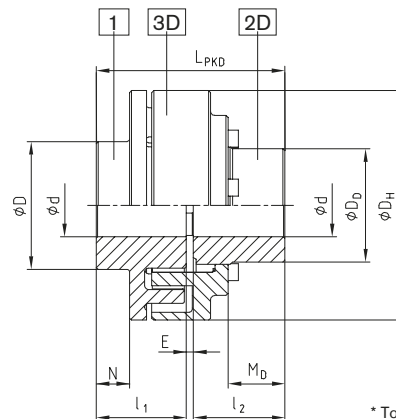


Components



Components of type PKZ (Z):
1 = Cam element (GJL)
2Z = Pocket element * (GJL)
* To be used preferably on driving side

Type PKZ (Z) – (Size 8 to 30)



Components of type PKD (D):
1 = Cam component * (GJL)
2D = Flange hub (steel)
3D = Cam ring (GJL)
* To be used preferably on driving side

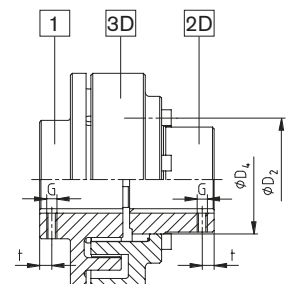
Type PKD (D) – (Size 15 to 35)

POLY Type PKZ and PKD																					
Size	Rated torque ¹⁾ T _{KN} [Nm]	Max. speed ²⁾ n [rpm]	Max. finish bore d			Dimensions [mm]												Thread for setscrews			Weight ³⁾ [kg]
			Component 1	Component 2Z	Component 2D	D _H	D	D _Z	D _D	l ₁ , l ₂	M _Z	M _D	N	E	D ₂	D ₄ (H7/h7)	LPKZ/LPKD	G	t	T _A [Nm]	
8 (Z)	42	5000	20	28	—	86	43	50	—	35	25	—	3	3	—	—	73	M5	18	2	1.7
9 (Z)	72	5000	28	38	—	97	55	65	—	41	30	—	7	3	—	—	85	M8	23	10	2.7
10 (Z)	100	5000	32	42	—	107	60	70	—	45	35	—	10	4	—	—	94	M8	27	10	3.5
12 (Z)	170	5000	38	48	—	131	70	80	—	55	43	—	12	4	—	—	114	M8	30	10	5.4
14 (Z)	210	4800	45	55	—	142	80	93	—	60	46	—	17	4	—	—	124	M8	10	10	7.6
15 (Z;D)	320	4300	50	60	50	157	90	100	74.5	65	52	33	21	4	90	75	134	M8	15	10	8.6
17 (Z;D)	400	3800	60	65	60	176	100	110	87	70	56	43.5	26	4	106	90	144	M8	15	10	12
19 (Z;D)	660	3500	75	75	70	195	125	125	106	75	64	48	27	4	126	107	154	M8	15	10	18
20 (Z;D)	820	3300	65	75	70	205	115	127	104	80	65	45	23	4	123	105	164	M8	15	10	20
22 (Z)	1100	3000	85	85	—	224	140	140	—	90	75	—	38	4	—	—	184	M10	20	17	25
25 (Z;D)	1600	2700	90	90	95	257	150	150	138	100	84	67	43	5	162	140	205	M12	20	40	35
28 (Z;D)	2500	2350	100	100	110	288	165	165	158	110	90	65	44	5	178	160	225	M12	20	40	53
30 (Z;D)	3950	2200	110	110	110	308	180	180	165	130	108	89	58	5	202	170	265	M16	20	80	66
35 (D)	6100	1850	130	—	145	373	210	—	209	160	—	102	70	5	240	210	325	M16	25	80	125

¹⁾ Maximum torque T_{K max} = T_{KN} x 2; elastomer: standard material Perbunan [NBR] 92 Shore A; hub: standard material GJL

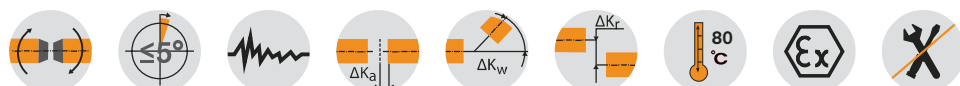
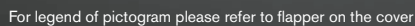
²⁾ Speeds for v = 30 m/s. For circumferential speeds exceeding v = 30 m/s, we recommend dynamic balancing

³⁾ Referring to average bore

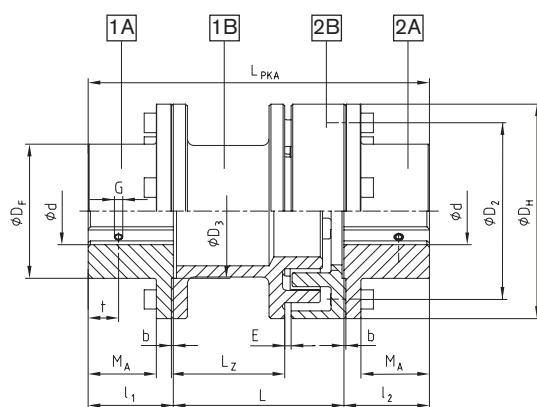


Ordering example:	POLY	PKD	28	d ₁ = Ø90	d ₂ = Ø80
	Coupling type	Type	Size	Finish bore component 1	Finish bore component 2

ROTEX®



POLY-NORM®

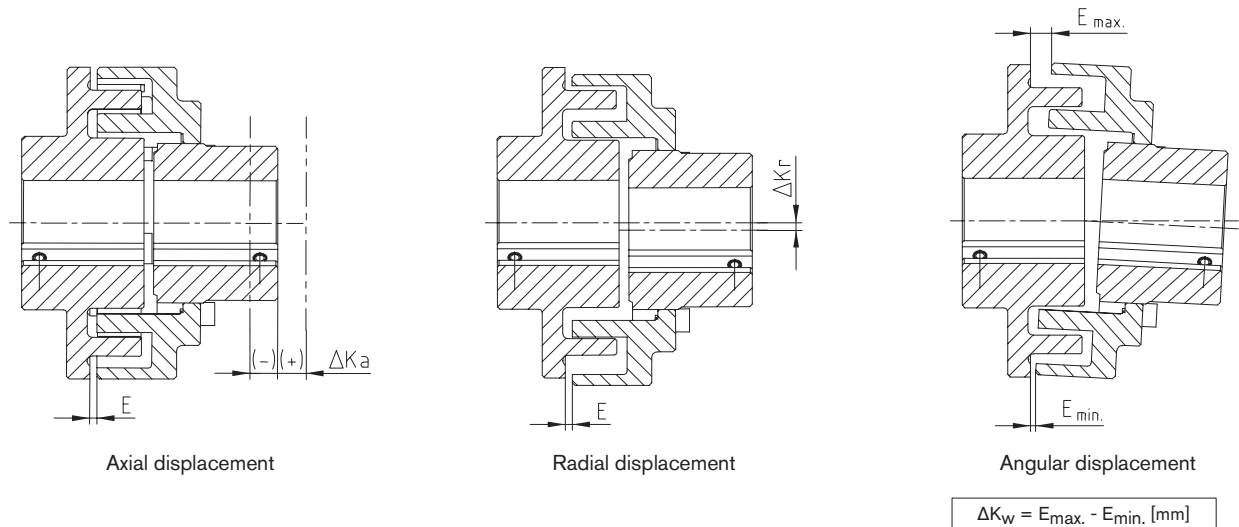


POLY

POLY Type PKA																		
Size	Rated torque T _{KN} [Nm]	Max. speed n [rpm]	Max. finish bore d component 1A/2A	Dimensions [mm]											Thread for setscrews			Weight [kg]
				D _H	D _F	D ₂	D ₃	l ₁ , l ₂	b	M _A	E	L	LPKA	L _Z	G	t	T _A [Nm]	
8	42	5000	40	86	55	70	60	35	1.5	25.5	3	100	170	66	M5	15	2	3.04
9	72	5000	50	97	70	85	70	41	1.5	30.5	3	100	182	63	M8	15	10	4.26
												140	222	103				4.66
10	100	5000	55	107	78	93	80	46	1.5	35.5	4	100	192	61	M8	20	10	5.42
												140	232	101				5.88
12	170	5000	70	131	95	113	90	55	1.5	43.0	4	100	210	55	M8	20	10	9.49
												140	250	95				10.15
14	210	4800	75	142	105	125	100	60	1.5	48.0	4	100	220	54	M8	25	10	11.46
												140	260	94				12.23
15	320	4300	80	157	110	135	110	65	1.5	49.5	4	140	270	93	M8	25	10	15.63
												180	310	133				16.50
												100	240	53				18.79
												140	280	93				M8
17	400	3800	90	176	125	150	110	70	1.5	54.5	4	180	320	133				20.41
												140	300	81				M8
20	820	3300	110	205	150	175	130	80	2.0	61.0	4	180	340	121	M8	30	10	32.18
												140	340	81				
25	1600	2700	140	257	195	225	150	100	2.0	81.0	5	180	380	121	M12	40	40	56.50
												250	450	191				59.60

Ordering example:	POLY	PKA	15	140	Ø38	Ø40
	Coupling type	Type	Size	Drop-out center length	Finish bore component 1A	Finish bore component 2A

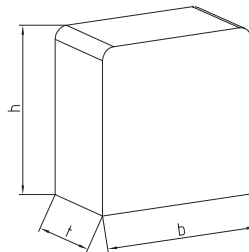
Displacements / elastomer sets / screws



Radial and angular displacements may occur simultaneously.

The combined sum $V = \Delta K_r \text{ [mm]} + (E_{\max} \text{ [mm]} - E_{\min} \text{ [mm]})$ must not exceed the values listed in the table.

Displacements [mm]															
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35
Max. axial displacement ΔK_a [mm]		±1	±1	±1	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±3
Max. radial displacement ΔK_r or max. angular displacement ΔK_w or sum V	n=750 rpm	0.8	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2
	n=1000 rpm	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.1	1.1
	n=1500 rpm	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9



Elastomer sets NBR (building block)															
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35
Size of set		1			2		3		3a	4	3b	4Ü	5	6Ü	7Ü
Number of sets		8	10	10	10	10	12	12	12	12	16	16	16	16	20
Dimensions of elastomer set b x t x h [mm]	b	18.4			24.9		27.2		27.7	34.9	29.6	34.8	40	43.3	45.7
	t	10			15.3		16.1		18.4	19.6	18.4	20.1	22.2	28.6	25.0
	h	18.9			23.9		24.6		26.8	34.6	29.6	35	40.6	41.1	60.0

Type PKD - Dimensions of cap screws acc. to DIN EN ISO 4762															
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35
Screw size	M	—	—	—	—	—	M8	M8	M8	M10	M8	M10	M10	M12	M12
	I	—	—	—	—	—	30	25	25	30	30	30	40	40	55
Number		—	—	—	—	—	6	6	6	6	8	8	8	8	10
Tightening torque T_A [Nm]		—	—	—	—	—	25	25	25	49	25	49	49	86	86
Type PKA - Dimensions of cap screws acc. to DIN EN ISO 4762															
Screw size	M	M6	M6	M6	M8	M8	M10	M10	—	M10	—	M10	—	—	—
	I	16	18	18	20	20	25	25	—	30	—	30	—	—	—
Number		4	5	5	5	5	6	6	—	6	—	8	—	—	—
Tightening torque T_A [Nm]		10	10	10	25	25	49	49	—	49	—	49	—	—	—