

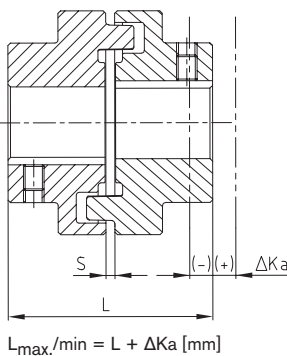
Technical data

POLY-NORM® Technical data													
Size	Torque [Nm]			Max. speed [1/min] with V=35 m/s	Twist angle with		Torsion spring stiffness C_{dyn} [Nm/rad]				Max. permissible displacement [mm] ¹⁾		
	Rated torque T_{KN}	Maximum torque T_{Kmax}	Vibratory torque T_{KW}		TKN	T_{Kmax}	1.0 T_{KN}	0.75 T_{KN}	0.5 T_{KN}	0.25 T_{KN}	axial ΔK_a	radial ΔK_r	angular ΔK_w
28	40	80	16	9650			$0,52 \times 10^4$	$0,332 \times 10^4$	$0,187 \times 10^4$	$0,09 \times 10^4$	$\pm 1,0$	0,20	1,2
32	60	120	24	8550	4,5	6,0	$0,782 \times 10^4$	$0,499 \times 10^4$	$0,282 \times 10^4$	$0,135 \times 10^4$	$\pm 1,0$	0,25	1,4
38	90	180	36	7650			$1,35 \times 10^4$	$0,864 \times 10^4$	$0,489 \times 10^4$	$0,234 \times 10^4$	$\pm 1,0$	0,25	1,5
42	150	300	60	6950			$2,63 \times 10^4$	$1,68 \times 10^4$	$0,947 \times 10^4$	$0,453 \times 10^4$	$\pm 1,0$	0,25	1,7
48	220	440	88	6300			$2,99 \times 10^4$	$1,91 \times 10^4$	$1,08 \times 10^4$	$0,516 \times 10^4$	$\pm 1,5$	0,30	1,8
55	300	600	120	5650			$3,85 \times 10^4$	$2,46 \times 10^4$	$1,39 \times 10^4$	$0,664 \times 10^4$	$\pm 1,5$	0,30	2,0
60	410	820	164	5150	4,0	5,5	$6,76 \times 10^4$	$4,31 \times 10^4$	$2,32 \times 10^4$	$1,17 \times 10^4$	$\pm 1,5$	0,30	2,2
65	550	1100	220	4750			$8,18 \times 10^4$	$5,22 \times 10^4$	$2,7 \times 10^4$	$1,41 \times 10^4$	$\pm 1,5$	0,35	2,4
75	850	1700	340	4200			$12,29 \times 10^4$	$7,84 \times 10^4$	$4,06 \times 10^4$	$2,12 \times 10^4$	$\pm 1,5$	0,40	2,7
85	1350	2700	540	3650			$24,31 \times 10^4$	$15,51 \times 10^4$	$7,49 \times 10^4$	$4,19 \times 10^4$	$\pm 1,5$	0,40	3,0
90	2000	4000	800	3300			$36,16 \times 10^4$	$23,07 \times 10^4$	$11,14 \times 10^4$	$6,24 \times 10^4$	$\pm 1,5$	0,45	3,4
100	2900	5800	1160	2950			$54,82 \times 10^4$	$34,98 \times 10^4$	$16,89 \times 10^4$	$9,46 \times 10^4$	$\pm 3,0$	0,50	3,9
110	3900	7800	1560	2650			$79,23 \times 10^4$	$50,55 \times 10^4$	$24,4 \times 10^4$	$13,67 \times 10^4$	$\pm 3,0$	0,60	4,3
125	5500	11000	2200	2350	2,5	3,5	$102,3 \times 10^4$	$65,28 \times 10^4$	$31,52 \times 10^4$	$17,65 \times 10^4$	$\pm 3,0$	0,60	4,8
140	7200	14400	2880	2100			164×10^4	$104,7 \times 10^4$	$50,85 \times 10^4$	$28,3 \times 10^4$	$\pm 3,0$	0,60	5,5
160	10000	20000	4000	1900			$209,1 \times 10^4$	$133,4 \times 10^4$	$64,82 \times 10^4$	$36,07 \times 10^4$	$\pm 3,0$	0,65	6,1
180	13400	26800	5360	1650			$267,1 \times 10^4$	$170,4 \times 10^4$	$82,79 \times 10^4$	$46,07 \times 10^4$	$\pm 3,0$	0,65	6,0
200	19000	38000	7600	1450			$159,5 \times 10^4$	$126,2 \times 10^4$	$96,24 \times 10^4$	$60,2 \times 10^4$	$\pm 4,0$	0,65	7,8
220	30000	60000	12000	1300			$218,8 \times 10^4$	174×10^4	$128,7 \times 10^4$	$77,84 \times 10^4$	$\pm 4,0$	0,70	8,7
240	43000	86000	17200	1200			$567,9 \times 10^4$	$438,3 \times 10^4$	$301,6 \times 10^4$	$161,9 \times 10^4$	$\pm 4,0$	0,70	9,6
260	55000	110000	22000	1000			$663,8 \times 10^4$	$539,4 \times 10^4$	$382,2 \times 10^4$	$195,5 \times 10^4$	$\pm 4,0$	0,85	11,3
280	67000	134000	26800	950			$773,1 \times 10^4$	$628,1 \times 10^4$	$467,9 \times 10^4$	$266,2 \times 10^4$	$\pm 4,0$	0,95	12,2

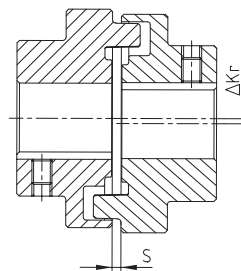
¹⁾ Displacement with $n = 1500$ rpm

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.

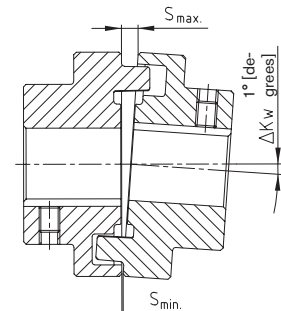
Axial displacement ΔK_a



Radial displacement ΔK_r



Angular displacement ΔK_w



Assembly instructions

With assembly the coupling halves must be mounted such that the 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. Winkeliger und radialer Versatz können zugleich auftreten. The combined sum of displacements must not exceed the values listed in the table. See KTR mounting 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



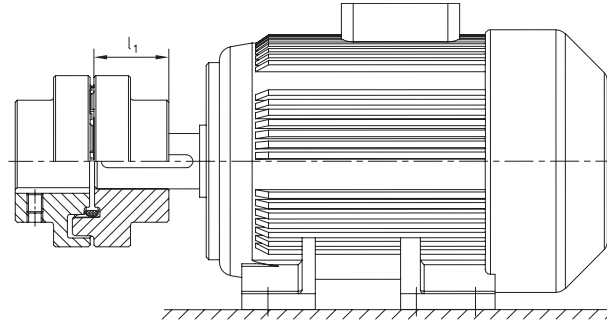
Elastomer ring NBR 78 Shore-A

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

POLY-NORM®

Flexible couplings

Selection of standard IEC motors



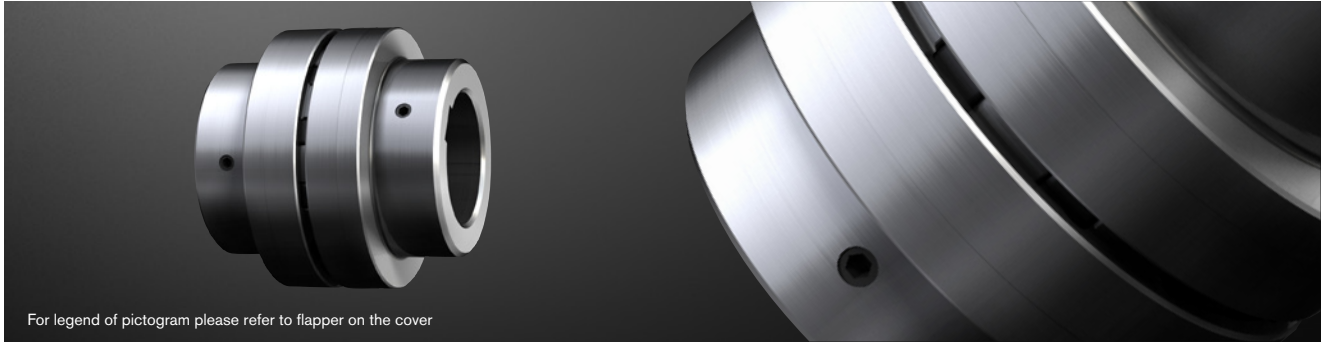
POLY-NORM®-Couplings for standard IEC motors, protection IP 54/IP 55 (elastomer ring 78 Shore-A)														
A. C. motor 50 Hz		Motor output n= 3000 rpm 2 poles		POLY-NORM coupling size	Motor output n= 1500 rpm 4 poles		POLY-NORM coupling size	Motor output n= 1000 rpm 6 poles		POLY-NORM coupling size	Motor output n= 750 rpm 8 poles		POLY-NORM coupling size	
Size	Shaft end dnl [mm]		Output P [kW]		Torque T [Nm]	Output P [kW]		Torque T [Nm]	Output P [kW]		Torque T [Nm]	Output 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	
132S			5,5	18		5,5	36		3	30		2,2	30	
	38 x 80		7,5	25	38			38	4	40	38	3	40	38
132M						7,5	49		5,5	55				
160M	42 x 110		11	36		11	72		7,5	75	42	4	54	42
			15	49	42							5,5	74	
160L			18,5	60		15	98		11	109		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		30	196		18,5	181	55	15	198	55
			37	120	55			55	22	215				55
225S	55 x 110					37	240				60	18,5	244	60
225M		60 x 140	45	145		45	292	60	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	241		75	484		45	438		37	483	
280M		75 x 140	90	289	65	90	581	75	55	535	75	45	587	75
315S			110	353		110	707		75	727		55	712	85
315M			132	423		132	849		90	873	85	75	971	
	65 x 140		160	513	75	160	1030		110	1070		90	1170	90
315L			200	641		200	1290	90	132	1280	90	110	1420	
					85				160	1550		132	1710	100
315		85 x 170	250	802		250	1600		200	1930	100	160	2070	100
			315	1010		315	2020	100	250	2410	110	200	2580	110
			355	1140	90	355	2280		315	3040	125	250	3220	125
355	75 x 140	95 x 170	400	1280		400	2570	110	400	3850		315	4060	
			500	1600		500	3210							
			560	1790	100	560	3580	125	450	4330	140	355	4570	140
400	80 x 170	110 x 210	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		560	7190	180
			1000	3200		1000	6400		800	7690	180	630	8090	180

The coupling selection is based on an ambient temperature up to 30 °C. For the selection there is a minimum safety factor of 2 of the max. coupling torque (TKmax.). 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..

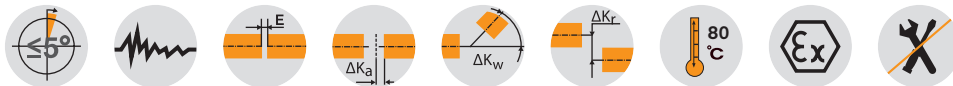
POLY-NORM® AR

Flexible couplings

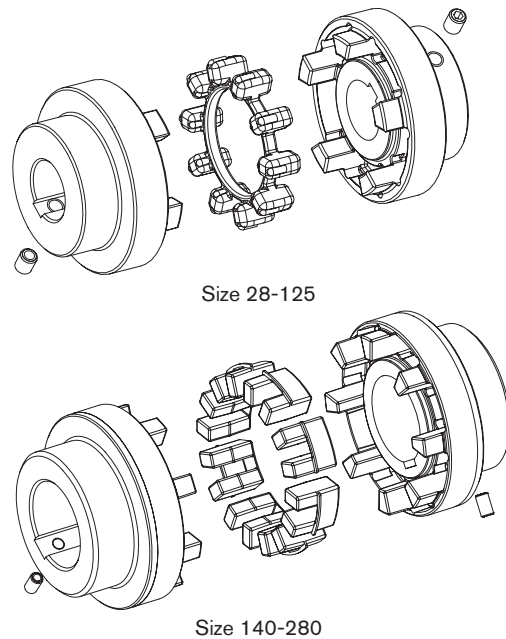
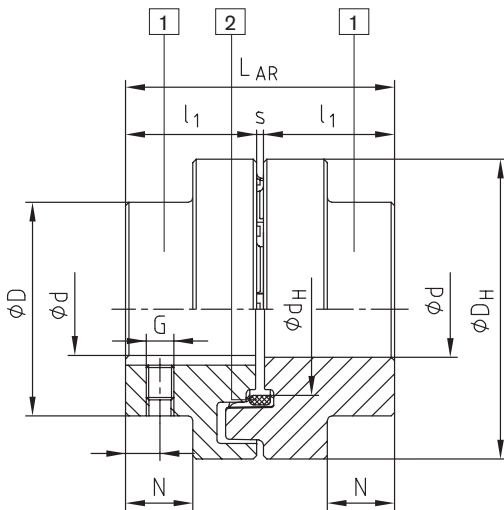
Two-part



For legend of pictogram please refer to flapper on the cover



Components



Components of type AR 1 = standard hub (GJL) 2 = elastomer ring (up to size 180: NBR 78 Sh-A; from size 200: T-PUR® 84 Sh-A)

POLY-NORM® Type AR														
Size	Elastomer ring (part 2) ¹⁾		Max. finish bore ϕd ²⁾	Dimensions [mm]									Mass moment of inertia [kgm ²] ³⁾	AR ³⁾ weight [kg]
	T _{KN}	T _{Kmax.}		General						Thread for setscrews				
				LAR	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

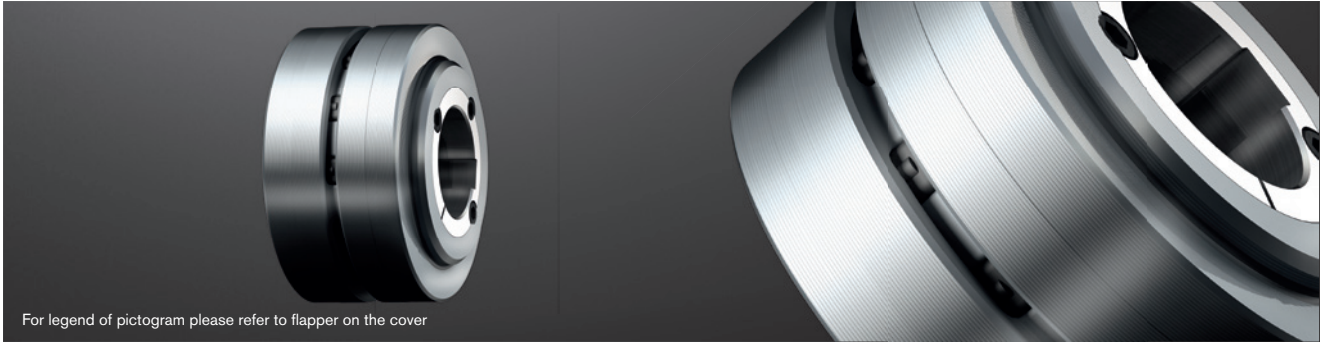
¹⁾ Standard material Perbunan (NBR) 78 Shore-A, size 140-280 double tooth elastomers. For selection see page 10 et seqq.

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

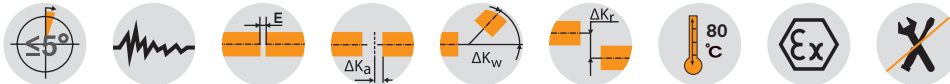
³⁾ Referring to average bore

POLY-NORM® AR Flexible couplings

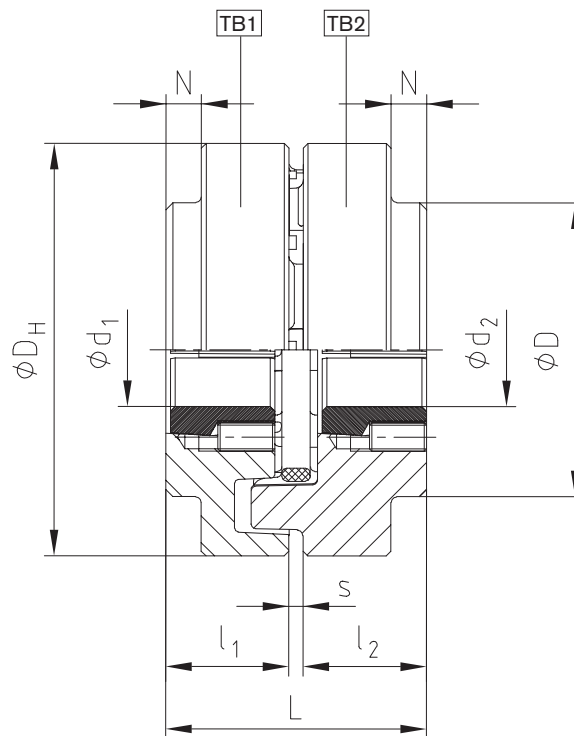
For taper clamping bush



For legend of pictogram please refer to flapper on the cover



Components



POLY-NORM® for taper clamping bush															
Size	Taper clamping bush	Dimensions [mm]		Fixing screws ¹⁾ for taper clamping bush				Size	Taper clamping bush	Dimensions [mm]		Fixing screws ¹⁾ for taper clamping bush			
		max. d ₁ ;d ₂	l ₁ ;l ₂	Size [inch]	Length [mm]	SW [mm]	TA [Nm]			max. d ₁ ;d ₂	l ₁ ;l ₂	Size [inch]	Length [mm]	SW [mm]	TA [Nm]
32	1108	25	25,5	1/4"	13	3	5,7	75	2517	60	52,5	1/2"	25	6	49
42	1210	32	31,0	3/8"	16	5	20	85	2517	60	46,5	1/2"	25	6	49
48	1610	40	30,0	3/16"	16	5	20	90	3030	75	82	5/8"	32	8	90
	1615	40	42,5	3/8"	16	5	20		3020	75	52,0	5/8"	32	8	92
60	2012	50	38,5	7/16"	22	6	31	100	3535	90	98,0	1/2"	38	10	115
65	2517	60	62,5	1/2"	25	6	49	125	4040	100	111,5	5/8"	45	12	172

¹⁾ Each 2 fastening screws except for 3535/4040 3 fixing screws.
Coupling type TB1 screwing on cam side - TB2 screwing on collar side
Combination possible! Please order our separate data sheet M407045.

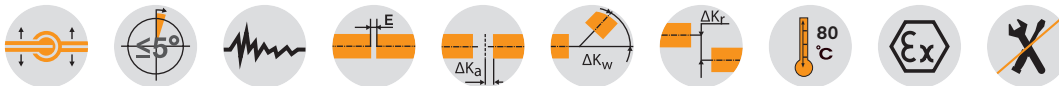
Ordering example:	POLY-NORM® 38	AR	Ø38	Ø30
	Coupling size	Type	Finish bore	Finish bore

POLY-NORM® ADR Flexible couplings

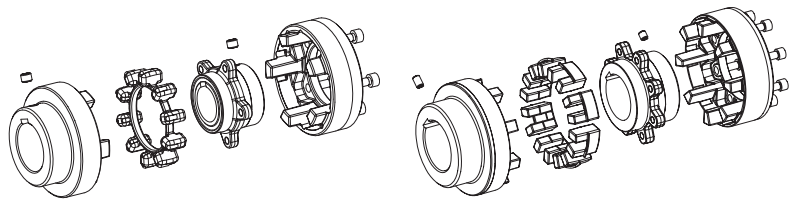
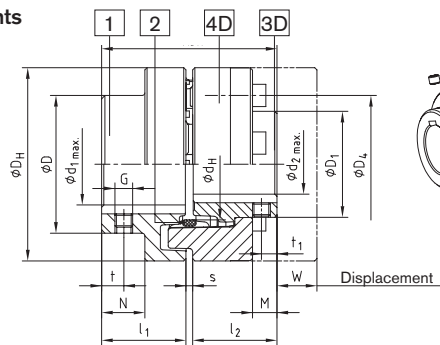
Three-part



For legend of pictogram please refer to flapper on the cover



Components



Size 38-125

Size 140-280

Components:

Type ADR (Three-part)

1 = Standard hub* (GJL)

2 = Elastomer ring (up to size 180 NBR 78 Sh-A; from size 200: T-PUR® 84 Sh-A)

3D = Flange hub (up to size 180: GJS; from size 200: steel) 4D = cam ring (GJL)

* To be preferably used on driving side

POLY-NORM® Type ADR

Size	Torque of elastomer ring [Nm] ¹⁾		Dimensions [mm]															
			Max. finish bore ²⁾		General										Thread for setscrew			
	TKN	TKmax	d1	d2	LADR	l ₁ ; l ₂	s	D _H	D	D ₁	d _H	N	M	W	G	t	t ₁	TA [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

Classification of cylinder screws DIN EN ISO 4762-12.9

Size	M x l [mm]	Number z	Pitch z x angle	D ₄ [mm]	TA [Nm] ³⁾	Size	M x l [mm]	Number z	Pitch z x angle	D ₄ [mm]	TA [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

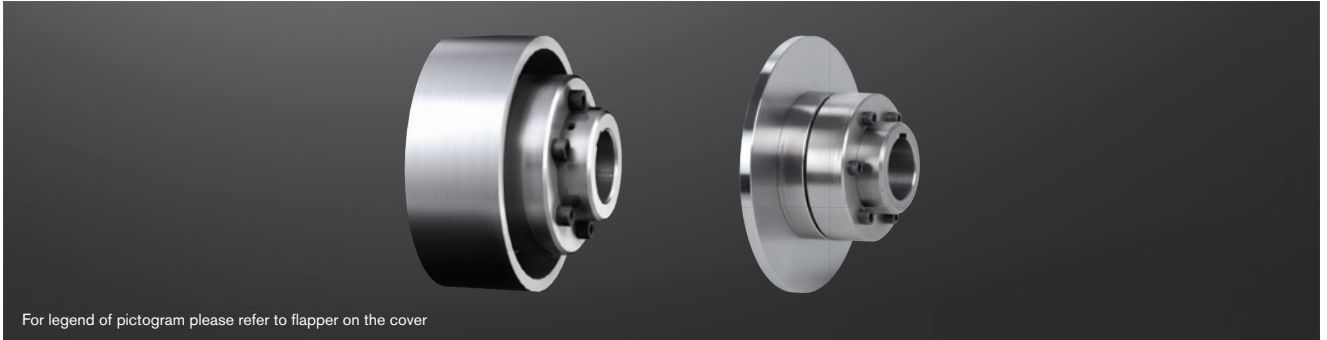
¹⁾ Standard material Perbunan (NBR) 78 Shore-A, size 140-280 double tooth elements. For selection see page 10 et seqq.

²⁾ Bore H7 with feather keyway DIN 6885 sheet 1 [JS9] with thread for setscrews ³⁾ Screw tightening torques acc. to 8.8

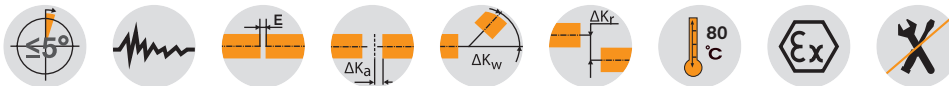
Ordering example:	POLY-NORM® 65	ADR	d ₁ =Ø55	d ₂ =Ø60
	Coupling size	Type	Finish bore	Finish bore

POLY-NORM® BTA and SBA Flexible couplings

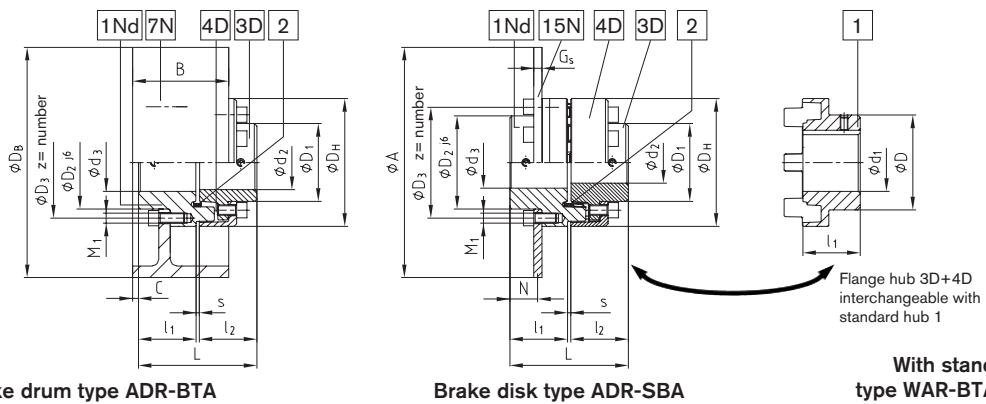
With brake drum/brake disk for brake stop



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	Torque of elastomer ring [Nm] ¹⁾		Dimensions [mm]											
	TKN	TK _{max.}	D; D ₁	Maximum finish bore			D _H	D ₂	D ₃	z	M ₁	l ₁ ; l ₂	s	L
38	90	180	For dimension ØD, ØD ₁ please refer to our company catalogue on page 64 and 65	40	34	38	87	61	75	5 x 72°	M6	38	4	80
42	150	300		45	38	42	96	68	82	5 x 72°	M8	42	4	90
48	220	440		50	44	48	106	77	92	6 x 60°	M8	48	5	101
55	300	600		60	50	55	118	88	104	6 x 60°	M8	55	5	115
60	410	820		65	56	60	129	96	114	6 x 60°	M8	60	5	125
65	550	1100		70	60	65	140	104	122	6 x 60°	M10	65	5	135
75	850	1700		80	68	75	158	121	140	6 x 60°	M10	75	5	155
85	1350	2700		90	78	85	182	137	160	6 x 60°	M12	85	5	175
90	2000	4000		95	85	90	200	146	174	6 x 60°	M16	90	5	185
100	2900	5800		110	95	100	224	164	195	6 x 60°	M16	100	6	206
110	3900	7800		50-120	105	50-110	250	184	218	8 x 45°	M16	110	6	226
125	5500	11000		55-140	115	55-125	280	208	245	8 x 45°	M20	125	6	256
140	7200	14400		65-155	55-135	65-140	315	233	276	8 x 45°	M20	140	6	286
160	10000	20000		75-175	65-155	75-160	350	263	308	9 x 40°	M20	160	6	326
180	13400	26800		75-200	65-175	75-180	400	298	349	10 x 36°	M20	180	6	366

POLY-NORM® Type BTA																	POLY-NORM® Type SBA																				
POLY-NORM® size	38	42	48	55	60	65	75	85	90	100	110	125	140	160	180	Speed rpm with v=60 m/s ³⁾	POLY-NORM® size	38	42	48	55	60	65	75	85	90	100	110	125	140	160	180	Speed rpm with v=60 m/s ³⁾				
ØD _B xB brake drum ²⁾	Dimensions [mm] C																ØAxD brake disk ²⁾	Dimensions [mm] N																			
160x60	4															7150	200x12,5	13,75														5725					
200x75	9	8	4													5725	250x12,5	13,75	14,75	18,75													4575				
250x95	17	16	20	7	3	0										4575	315x16		13	17	22	26	29	35,5								3625					
315x118		25	21	16	12	9	2,5	-3,5								3625	400x16			17	22	26	29	35,5	41,5	42	48					2850					
400x150			34	28	25	22	15,5	9,5	9	3						2850	500x16				22	26	29	35,5	41,5	42	48	54	64			2275					
500x190										18	12	-2				2275	630x20										46	52	62	69	86		1800				
630x236												20	13	-4		1800	710x20										46	52	62	69	86	104	1600				
710x265													24	7	-11	1600	800x25														43,5	49,5	59,5	66,5	83,5	101,5	1425
																		900x25														49,5	59,5	66,5	83,5	101,5	1250

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

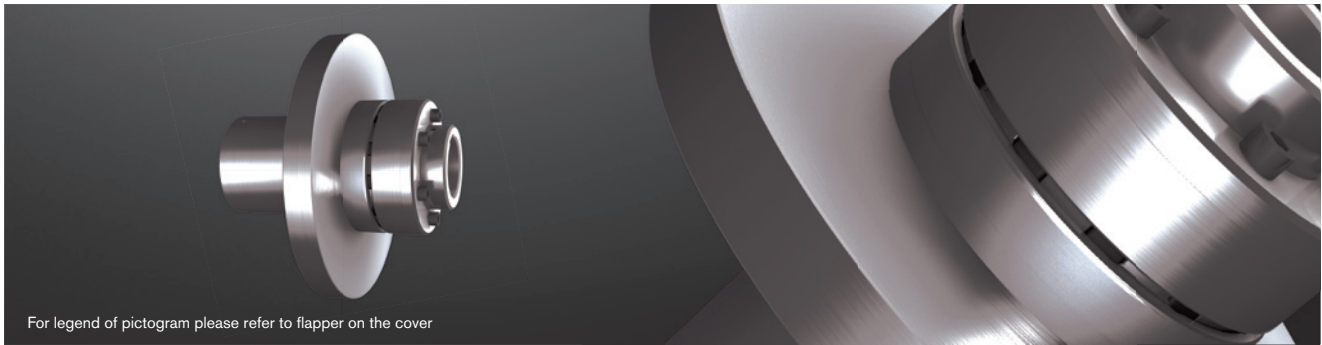
²⁾ Steel ³⁾ Dynamic balancing required

Other sizes on request

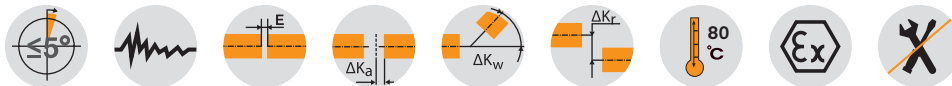
Ordering example:	POLY-NORM® 38	ADR-BTA	Ø200 x 75	d ₂ =Ø32 NnD	d ₃ =Ø25 NnD
	Coupling size	Type	Ø brake drum	Component with finish bore	Component with finish bore

POLY-NORM® ADR-SB Flexible couplings

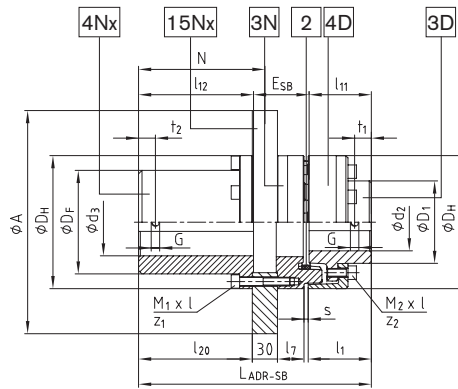
With brake disk for brake stop



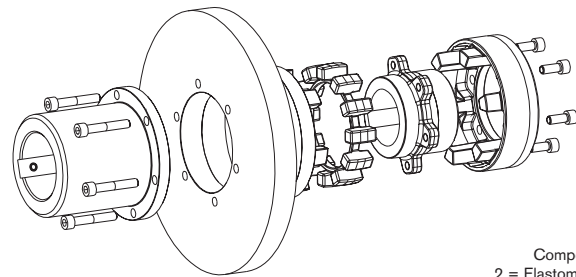
For legend of pictogram please refer to flapper on the cover



Components



Type ADR-SB with brake disk



- Components
 2 = Elastomer ring
 3D = Flange hub
 4D = Cam ring
 3N = Driving flange
 15Nx = Brake disk
 4.Nx = Coupling flange

POLY-NORM® Type ADR-SB

Size	Torque of elastomer ring [Nm] ¹⁾		Max. finish bore [mm]		Dimensions [mm]													Thread for setscrew	
	TKN	TKmax	d2	d3	DH	N	l2	s	l11	l12	DF	l7	l20	LADR-SB	D1	E	G	t1/t2	TA [Nm]
55	300	600	50	60	118	150	55	5	54,7	136,5	88	24,0	135	249,0	72	57,8	M8	15	10
60	410	820	56	65	129	150	50	5	59,2	136,5	97	25,0	135	255,0	80	59,3	M8	20	10
65	550	1100	60	70	140	150	65	5	63,7	136,5	105	26,5	135	261,5	86	61,3	M10	20	17
75	850	1700	68	80	158	150	75	5	74,0	136,5	123	31,5	135	276,5	98	66,0	M10	20	17
85	1350	2700	78	90	182	150	85	5	84,7	136,5	139	35,0	135	290,0	112	68,8	M10	25	17
90	2000	4000	85	100	200	150	90	5	89,5	136,5	148	39,5	135	299,5	122	73,5	M12	25	40
100	2900	5800	95	110	224	190	100	6	95,5	177,0	165	43,0	175	354,0	136	81,5	M12	25	40
110	3900	7800	105	120	250	190	110	6	105,5	177,0	185	48,0	175	369,0	150	86,5	M16	30	80
125	5500	11000	115	140	280	195	125	6	120,5	182,0	210	53,0	180	394,0	168	91,5	M16	35	80
140	7200	14400	135	160	315	195	140	6	130,0	182,0	235	60,5	180	416,5	195	104,5	M20	35	140
160	10000	20000	155	180	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 cylinder screws

Size	ØA brake disk [mm]/ 30 mm thick ²⁾³⁾	Cylinder screws DIN EN ISO 4762 for brake disk			Cylinder screws DIN EN ISO 4762 for flange hub/cam ring		
		M1 x l	Number z1	Tightening torque TA [Nm]	M2 x l	Number z2	Tightening torque TA [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 see page 10 et seqq.

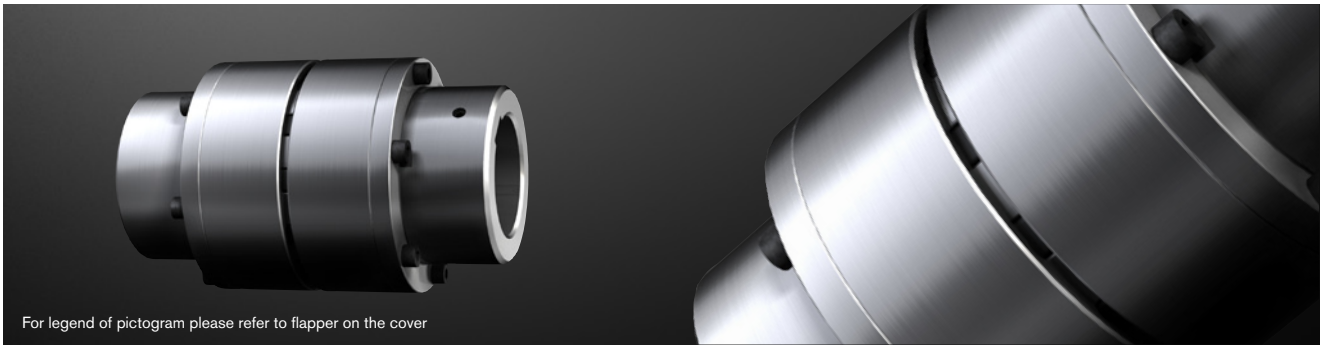
²⁾ Steel

³⁾ For circumferential speeds exceeding 20 m/s (referring to outside diameter ØDH) dynamic balancing is necessary.
 Maximum circumferential speed = 60 m/s (referring to the diameter of brake disk ØA) Other sizes on request.

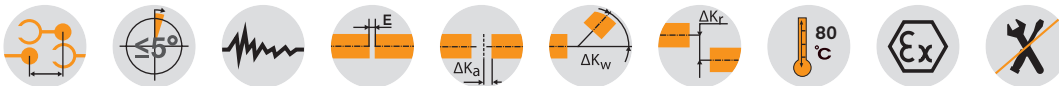
Ordering example:	POLY-NORM® 75	ADR-SB	Ø500 x 30	3D d2 - Ø60 NnD	4Nx d3 - Ø70 NnD
	Coupling size	Type	Brake disk ØA/width	Component with finish bore	Component with finish bore

POLY-NORM® AZR Flexible couplings

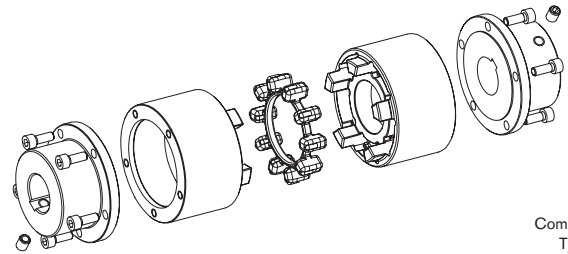
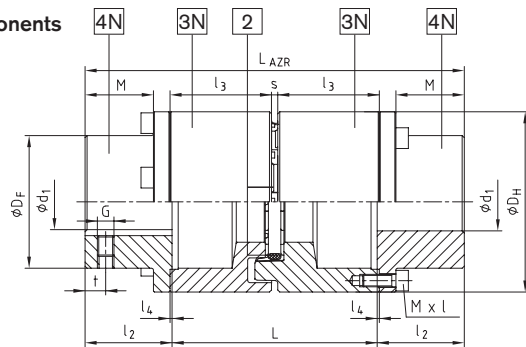
Standard drop-out center design coupling



For legend of pictogram please refer to flapper on the cover



Components



Components:

Type AZR

2 = Elastomer ring (NBR 78 Sh-A)

3N = Driving flange (GJL)

4.N = Coupling flange (Steel)

POLY-NORM® Type AZR																			
Size	Drop-out center length* L [mm]	Elastomer ring (Teil 2) ¹⁾ Torque [Nm]		Max. finish bore ²⁾ Ød ₁	Dimensions [mm]											Thread for set-screw		Mass moment of inertia ³⁾ [kgm ²]	AZR weight ³⁾ [kg]
		TKN	TKmax		General											G	t		
					LAZR	l ₂	l ₃	s	l ₄	D _H	D _F	M	Mxl	T _A [Nm]					
28	100	40	80	30	170	35	49,5	3	1	69	46	26	M6x18	14	M5	7	0,0020	2,4	
	140				210		69,5										0,0030	2,9	
32	100	60	120	35	170	35	49	4	1	78	53	26	M6x18	14	M8	7	0,0042	3,2	
	140				210		69										0,0062	3,9	
38	100	90	180	40	184	42	49	4	1	87	62	33	M6x20	14	M8	10	0,0048	4,3	
	140				224		69										0,0068	5,1	
42	100	150	300	45	190	45	49	4	1	96	69	35	M6x20	14	M8	10	0,0094	5,1	
	140				230		69										0,0128	6,0	
48	100	220	440	50	204	52	49	5	1,5	106	78	41,5	M6x20	14	M8	15	0,0170	6,6	
	140				244		69										0,0216	7,5	
55	100	300	600	60	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	
60	180	410	820	65	290	60	89	5	1,5	129	97	47,5	M8x25	35	M8	15	0,0232	12,2	
	100				220		49										0,0326	11,2	
65	140	550	1100	70	260	65	69	5	1,5	140	105	51,5	M8x25	35	M10	20	0,0414	13,0	
	180				300		89										0,0504	14,6	
75	100	850	1700	80	230	75	49	5	1,5	158	123	60,5	M10x30	69	M10	20	0,0564	14,0	
	140				270		69										0,0730	15,8	
85	180	1350	2700	90	310	85	89	5	1,5	182	139	69,5	M10x30	69	M10	25	0,0894	17,5	
	250				330		89										0,0824	23,2	
90	140	2000	4000	100	330	90	89	5	1,5	158	123	60,5	M10x30	69	M10	20	0,1008	25,6	
	180				400		124										0,1332	29,8	
100	140	2500	5000	110	310	90	69	5	1,5	200	148	73,5	M12x35	120	M12	25	0,1570	32,1	
	180				350		89										0,1658	35,2	
100	250	2900	5800	110	420	100	124	6	2	224	165	83	M12x35	120	M12	25	0,1812	40,7	
	140				320		69										0,2466	38,2	
100	180	2000	4000	100	360	90	89	5	1,5	200	148	73,5	M12x35	120	M12	25	0,2880	42,2	
	250				430		124										0,3566	49,3	
100	140	2500	5000	110	340	90	69	5	1,5	200	148	73,5	M12x35	120	M12	25	0,3988	50,0	
	180				380		89										0,4450	54,8	
100	250	2900	5800	110	450	100	124	6	2	224	165	83	M12x35	120	M12	25	0,5465	63,2	

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

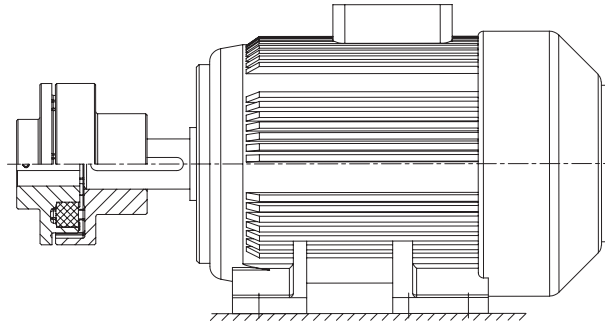
²⁾ Bores H7 with keyway to DIN 6885 sheet 1 [JS9] and thread for setscrews on the feather keyway

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 result in an extendable length of 195 mm (140 mm + 250 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-POLY couplings for standard IEC motors, protection IP 54/IP 55

A. C. motor 50 Hz		Motor output n= 3000 rpm 2 poles		POLY coupling size	Motor output n= 1500 rpm 4 poles		POLY coupling size	Motor output n= 1000 rpm 6 poles		POLY coupling size	Motor output n= 750 rpm 8 poles		POLY coupling size
Size	Shaft end dxl [mm]		Output P [kW]		Torque T [Nm]	Output P [kW]		Torque T [Nm]	Output P [kW]		Torque T [Nm]	Output P [kW]	
	2 poles	4, 6, 8 poles											
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	8	0,12	0,88	8	0,06	0,7	8		
			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
			0,55	1,9		0,37	2,5		0,25	2,8		0,12	1,8
80	19 x 40		0,75	2,5	8	0,55	3,7	8	0,37	3,9	8	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
90L			2,2	7,4		1,5	10		1,1	12		0,55	7,9
100L	28 x 60		3	9,8	9	2,2	15	9	1,5	15	9	0,75	11
						3	20					1,1	16
112M			4	13	10	4	27	10	2,2	22	10	1,5	21
132S			5,5	18		5,5	36		3	30		2,2	30
132M	38 x 80		7,5	25	10	7,5	49	10	4	40	10	3	40
									5,5	55			
160M	42 x 110		11	36	12	11	72	12	7,5	75	14	4	54
			15	49		15	98		11	109		5,5	74
160L			18,5	60	14	18,5	121	14	15	148	15	7,5	100
180M	48 x 110		22	71		22	144		15	148		11	145
180L					15			15			15		
200L	55 x 110		30	97		30	196		18,5	181		15	198
			37	120				22	215				
225S	55 x 110				17	37	240	17			19	18,5	244
225M	60 x 140	60 x 140	45	145		45	292		30	293		22	290
250M	60 x 140	65 x 140	55	177	17	55	356	19	37	361	20	30	392
280S		75 x 140	75	241		75	484		45	438		37	483
280M			90	289	19*	90	581	20	55	535	20	45	587
315S			110	353		110	707		75	727		55	712
315M			132	423	20*	132	849	25	90	873	25	75	971
			160	513		160	1030		110	1070		90	1170
315L	65 x 140		200	641	22*	200	1290	28	132	1280	28	110	1420
										160		1550	132
315			250	802	30	250	1600	30	200	1930	30	160	2070
			315	1010		315	2020		250	2410		200	2580
			355	1140	35	355	2280	35			35	200	2580
355	75 x 140	95 x 170	400	1280		400	2570		315	3040		250	3220
			500	1600	35	500	3210	35	400	3850	40	315	4060
			560	1790		560	3580		450	4330		355	4570
400	80 x 170	110 x 210	630	2020	40	630	4030	40	500	4810	40	400	5150
			710	2270		710	4540		560	5390		450	5790
			800	2560	40	800	5120	40	630	6060	40	500	6420
450	90 x 170	120 x 210	900	2880		900	5760						
			1000	3200		1000	6400						

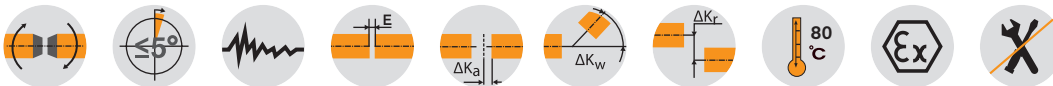
The coupling selection is based on an ambient temperature up to + 30 °C. The coupling was selected for normal operation. The respective couplings have a minimum operating factor of $f_{min} = 1,35$. Drives with periodical torque courses must be selected according to DIN 740 part 2. If requested, KTR will perform the selection.

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

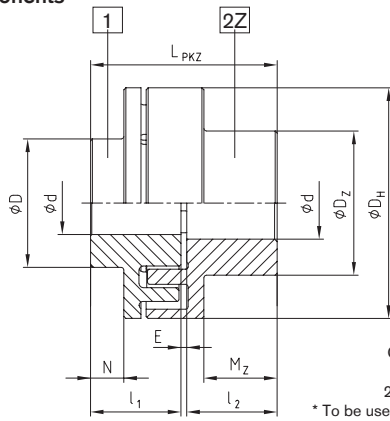
* Dynamic balancing is necessary.

POLY PKZ and PKD Flexible couplings

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

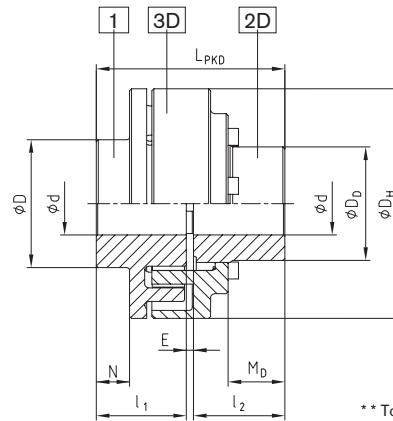


Components



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

Type PKZ (Z) – (Size 8 to 30)

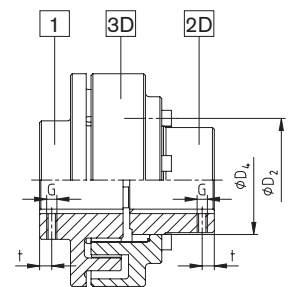


Components type PKD (D)
1 = Cam section * (GJL)
2D = Flange hub (steel)
3D = Cam ring (GJL)
** To be used preferably on driving side

Type PKD (D) – (Size 15 to 35)

POLY Type PKZ and PKD

Size	Rated torque ¹⁾ TKN [Nm]	Max. speed ²⁾ n [rpm]	Max. finish bore Ød [mm]			Dimensions [mm]													Thread for setscrew			Weight ³⁾ [kg]
			Part 1	Part 2Z	Teil 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	



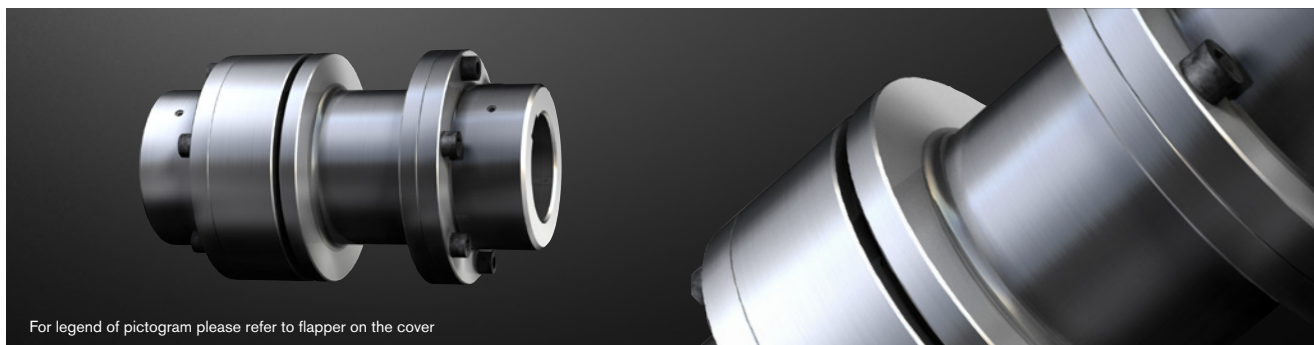
¹⁾ Maximum torque $T_{Kmax} = T_{KN} \times 2$; standard material of elastomer: Perbunan (NBR) 92 Shore-A; standard material of hub: GJL
²⁾ Speeds for $v = 30$ m/sec. For circumferential speeds exceeding $V = 30$ m/s, dyn. we recommend dynamic balancing
³⁾ Referring to average bore

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

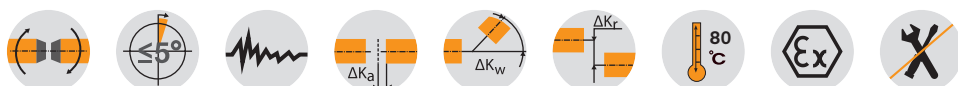
POLY PKA

Flexible couplings

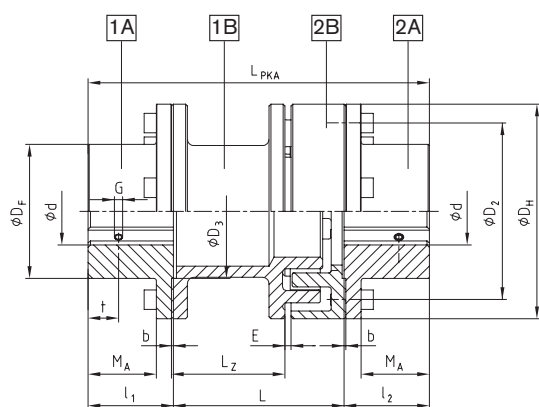
Drop-out center design coupling



For legend of pictogram please refer to flapper on the cover



Components



Components: Type PKA
 1.A/2A = Coupling flange (steel)
 1.B = Spacer (GJL)
 2B = Driving flange (GJL)
 1.A and 1B to be preferably used drive-sided

POLY Type PKA

Size	Rated torque T _{KN} [Nm]	Max. speed n [rpm]	Max. finish bore d [mm] part 1A/2A	Dimensions [mm]											Thread for setscrew			Weight [kg]
				D _H	D _F	D ₂	D ₃	l ₁ , l ₂	b	M _A	E	L	L _{PKA}	L _Z	G	t	T _A [Nm]	
8	42	5000	38	86	55	70	60	35	1,5	25,5	3	100	170	66	M5	15	2	3,04
												100	182	63				4,26
9	72	5000	45	97	70	85	70	41	1,5	30,5	3	140	222	103	M8	15	10	4,66
												100	192	61				5,42
10	100	5000	50	107	78	93	80	46	1,5	35,5	4	140	232	101	M8	20	10	5,88
												100	210	55				9,49
12	170	5000	60	131	95	113	90	55	1,5	43,0	4	140	250	95	M8	20	10	10,15
												100	220	54				11,46
14	210	4800	70	142	105	125	100	60	1,5	48,0	4	140	260	94	M8	25	10	12,23
												140	270	93				15,63
15	320	4300	70	157	110	135	110	65	1,5	49,5	4	180	310	133	M8	25	10	16,50
												100	240	53				18,79
17	400	3800	80	176	125	150	110	70	1,5	54,5	4	140	280	93	M8	25	10	19,60
												180	320	133				20,41
20	820	3300	100	205	150	175	130	80	2,0	61,0	4	140	300	81	M8	30	10	30,96
												180	340	121				32,18
25	1600	2700	125	257	195	225	150	100	2,0	81,0	5	140	340	81	M12	40	40	56,50
												180	380	121				56,50
												250	450	191				59,60

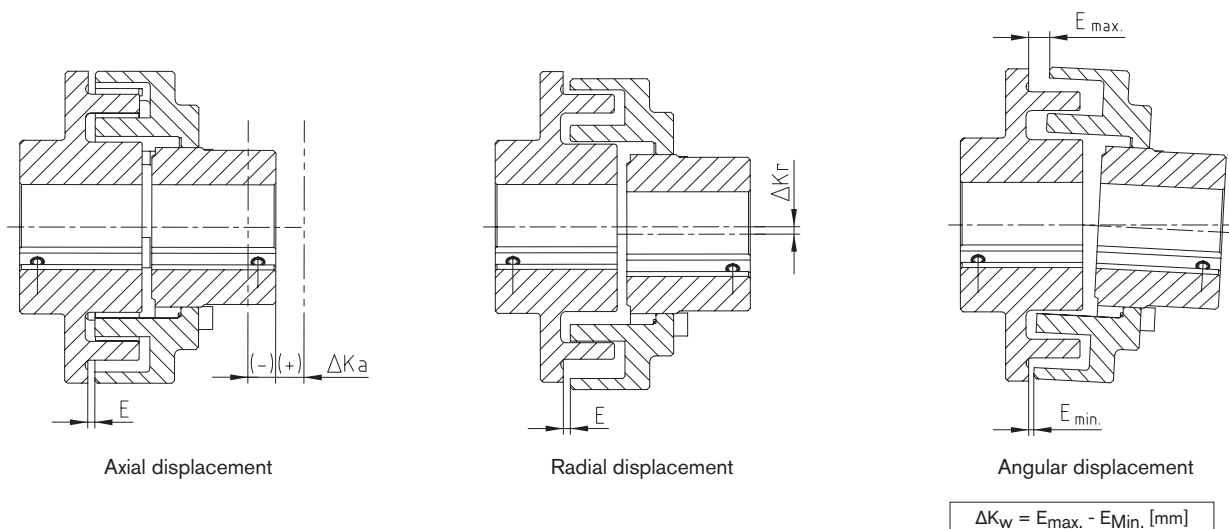
Ordering example:

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

POLY

Flexible couplings

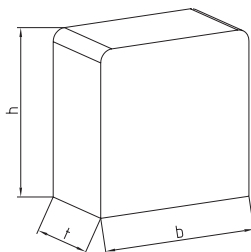
Displacements / elastomer sets / screws



Radial and angular displacements may occur simultaneously.

The combined sum $V = \Delta K_r + (E_{max} - E_{min})$ 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	$n=750 \text{ rpm}$	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
or max. angular displacement	$n=1000 \text{ rpm}$	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
ΔK_w or sum V	$n=1500 \text{ rpm}$	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
Set size		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 sets	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 cyl. screws 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
No. z		—	—	—	—	—	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 cyl. screws 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	—	—	—
No. z		4	5	5	5	5	6	6	—	6	—	8	—	—	—
Tightening torque T_A [Nm]		10	10	10	25	25	49	49	—	49	—	49	—	—	—

Standard bores H7 with feather keyway to DIN 6885 sheet 1 [JS9] and threads for setscrews. Please see our detailed mounting instructions at our website www.ktr.com.