

FLANGE COUPLINGS

TYPES AND OPERATING DESCRIPTION

Product finder of flange couplings

			
Product	BoWex® FLE-PA/-PAC	MONOLASTIC®	BoWex-ELASTIC®
Type	Torsionally stiff flange coupling	Flexible flange coupling	Highly flexible flange coupling
Geometries			
Design	extremely short	short	short
Max. radial displacement	0.5 mm	1 mm	9.5
Shaft diameter min./max. [mm]	20 / 125	20/60	21 / 275
Types (extract)			
Intermediate shaft types » bridging larger shaft distances	–	–	HE-ZS
Shaft-to-shaft connection	–	–	HEW1 and HEW2, HEW-ZS
Flange-to-shaft connection	Standard	Standard	HE1, HE2, HE3 and HE4, HE-ZS
For cardan shafts » Connecting couplings for I. C.-engines	–	–	HEG1 and HEG2
Combination with pump mounting flange	●	●	●
Certifications/type examinations			
ATEX 			●
Bureau Veritas 	●		●
DNV/GL 			●
GOST R/ GOST TR 	●	●	●

● ≈ Standard

Please note: Pump mounting flanges



For connecting hydraulic pumps to the diesel engine KTR supplies mounting flanges according to SAE connection dimensions sizes SAE 6 to SAE 1. These flanges are made of steel and EN-GJL-250 (GG25) for hydraulic pumps with flange connections according to SAE-A, -B, -C, -D and -E as types with 2 and 4 holes.

Pump connection housings made of EN-GJL-250 (GG 25) to be mounted directly to the back plate of the engine.

BoWex® FLE-PA/-PAC

MONOLASTIC®

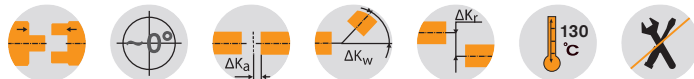
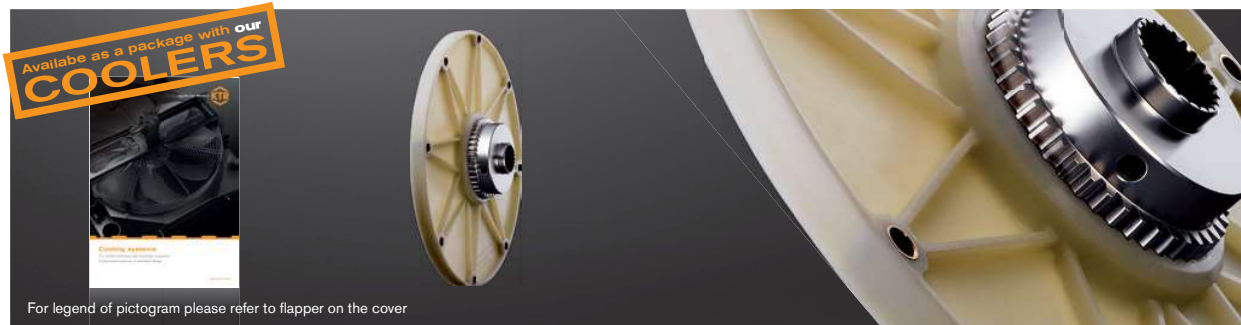
Flange couplings

BoWex-ELASTIC®

BoWex® FLE-PA

Torsionally stiff flange couplings

Axial plug-in, maintenance-free, torsionally stiff



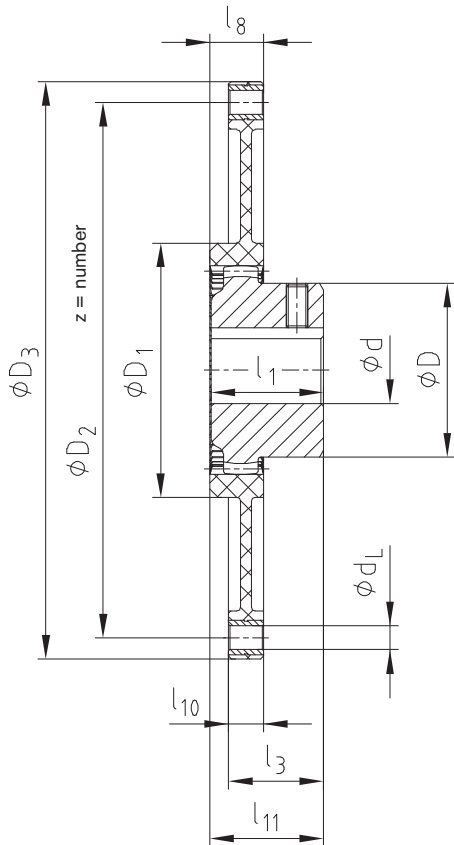
BoWex® FLE-PA – Dimensions/nominal dimension acc. to SAE																			
Size	Pilot bore	Finish bore d		Dimensions [mm]								Special length l ₁ max.	Nominal size acc. to SAE (D ₃)						Max. axial displacement [mm]
		Min.	Max.	D	D ₁	l ₁	l ₃	l ₇	l ₈	l ₁₀	l ₁₁		6 ½"	7 ½"	8"	10"	11 ½"	14"	
48	-	20	48	68	100	50	41	50	20	13	48	up to 60	●	●	●	●			± 2
T 48	13	15	48	68	100	50	38	45	20	13	46	-	●	●	●	●			± 1
T 55	17	20	55	85	115	50	37	48	24	13	48	-	●	●	●	●			± 2
65 / T 65	21	30	65	96	132	55	45	54	27	21	51	up to 70			●	●	●		± 2
T 70	26	30	70	100	153	60	48	56	30	21	57	-				●			± 2
80 / T 80	31	35	90	124	170	90	78	87	30	21	87	-				●	●		± 2
100 / T 100	38	40	100	152	265	110	78	108	35	21	110	-				●	●	●	± 2
125 / T 125	45	50	125	192	250	140	113	140	50	28	97	-					●	●	± 2

Special flange dimensions see page 212 et seqq. and on request

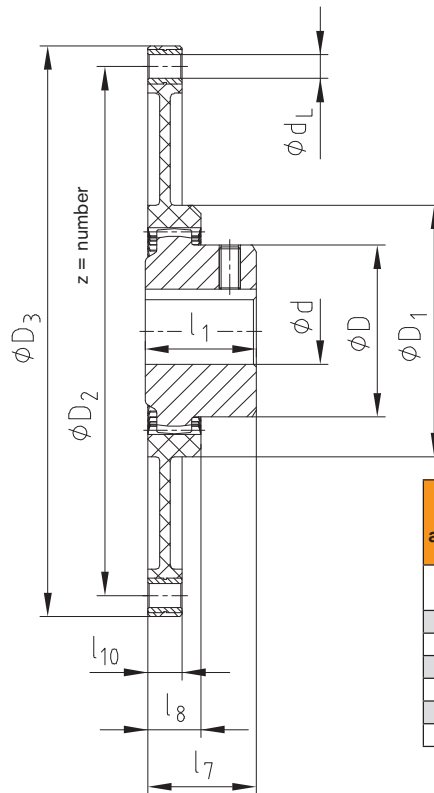
Technical data of BoWex® FLE-PA – Torques/weights/mass moments of inertia/torsion spring stiffness															
Size	Torque T _K [Nm]			Weight/mass moment of inertia J	Hub with max. bore	FLE-PA flanges according to SAE						Dynamic torsion spring stiffness with +60 °C/ψ = 0.4 [Nm/rad]			
	T _{KN}	T _K max.	T _{KW}			6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	0.30 T _{KN}	0.50 T _{KN}	0.75 T _{KN}	1.00 T _{KN}
48	240	600	120	[kg]	0.79	0.32	0.43	0.51	0.64	-	-	35 x 10 ³	75 x 10 ³	105 x 10 ³	125 x 10 ³
				[kgm ²]	0.0007	0.0021	0.0035	0.0049	0.0085						
T 48	300	750	150	[kg]	0.79	0.32	0.43	0.51	0.64	-	-	40 x 10 ³	86 x 10 ³	120 x 10 ³	143 x 10 ³
				[kgm ²]	0.0007	0.0021	0.0035	0.0049	0.0085						
T 55	450	1125	225	[kg]	1.20	0.34	0.62	0.45	0.646	-	-	90 x 10 ³	140 x 10 ³	170 x 10 ³	195 x 10 ³
				[kgm ²]	0.0016	0.0022	0.0053	0.0044	0.0086						
65	650	1600	325	[kg]	1.50	-	-	0.63	0.64	0.89	-	110 x 10 ³	160 x 10 ³	200 x 10 ³	230 x 10 ³
				[kgm ²]	0.0027	-	-	0.0064	0.0065	0.012	-				
T 65	800	2000	400	[kg]	1.60	-	-	0.63	0.64	0.89	-	130 x 10 ³	190 x 10 ³	240 x 10 ³	280 x 10 ³
				[kgm ²]	0.0035	-	-	0.0064	0.0065	0.012	-				
T 70	1000	2500	500	[kg]	2.60	-	-	-	0.941	-	-	165 x 10 ³	315 x 10 ³	345 x 10 ³	368 x 10 ³
				[kgm ²]	0.0059	-	-	-	0.0132	-	-				
80	1200	3000	600	[kg]	5.20	-	-	-	1.05	1.12	-	200 x 10 ³	410 x 10 ³	580 x 10 ³	700 x 10 ³
				[kgm ²]	0.0151	-	-	-	0.015	0.022	-				
T 80	1500	3750	750	[kg]	5.20	-	-	-	1.05	1.12	-	240 x 10 ³	450 x 10 ³	638 x 10 ³	770 x 10 ³
				[kgm ²]	0.0151	-	-	-	0.015	0.022	-				
100	2050	5150	1025	[kg]	9.37	-	-	-	-	1.16	8.45	500 x 10 ³	700 x 10 ³	856 x 10 ³	950 x 10 ³
				[kgm ²]	0.0401	-	-	-	-	0.021	0.234				
T 100	2500	6250	1250	[kg]	9.37	-	-	-	-	1.16	8.45	600 x 10 ³	830 x 10 ³	960 x 10 ³	1070 x 10 ³
				[kgm ²]	0.0401	-	-	-	-	0.021	0.234				
125	4250	10700	2125	[kg]	19.73	-	-	-	-	2.09	9.85	1280 x 10 ³	1885 x 10 ³	2280 x 10 ³	2665 x 10 ³
				[kgm ²]	0.1359	-	-	-	-	0.043	0.306				
T 125	5300	13250	2650	[kg]	19.73	-	-	-	-	2.09	9.85	1600 x 10 ³	2250 x 10 ³	2700 x 10 ³	3200 x 10 ³
				[kgm ²]	0.1359	-	-	-	-	0.043	0.306				

Mounting procedure, screw type with property class, tightening torques as per KTR assembly instructions (see www.ktr.com).

Short mounting version



Long mounting version



Flange dimensions
according to SAE J620 [mm]

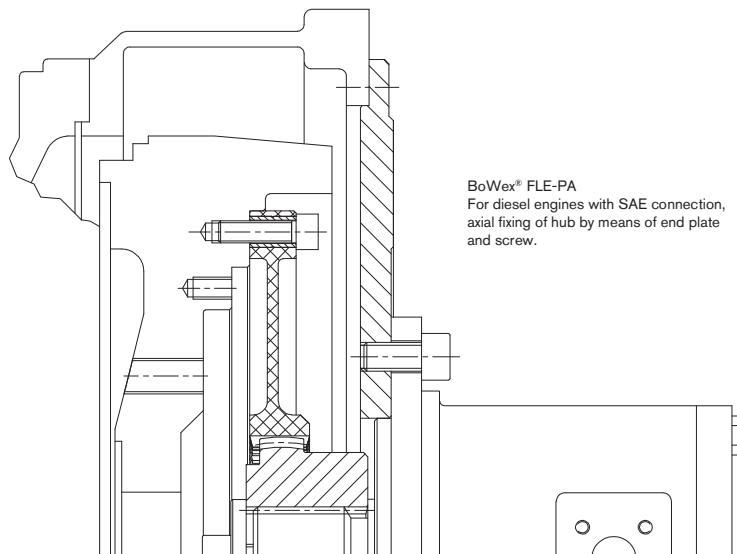
Size	D_3	D_2	z	d_L
6 1/2"	215.9	200.02	6	9
7 1/2"	241.3	222.25	8	9
8"	263.52	244.47	6	11
10"	314.32	295.27	8	11
11 1/2"	352.42	333.37	8	11
14"	466.72	438.15	8	13

BoWex® FLE-PA/-PAC

MONOLASTIC®

Flange
couplings

Example of installation

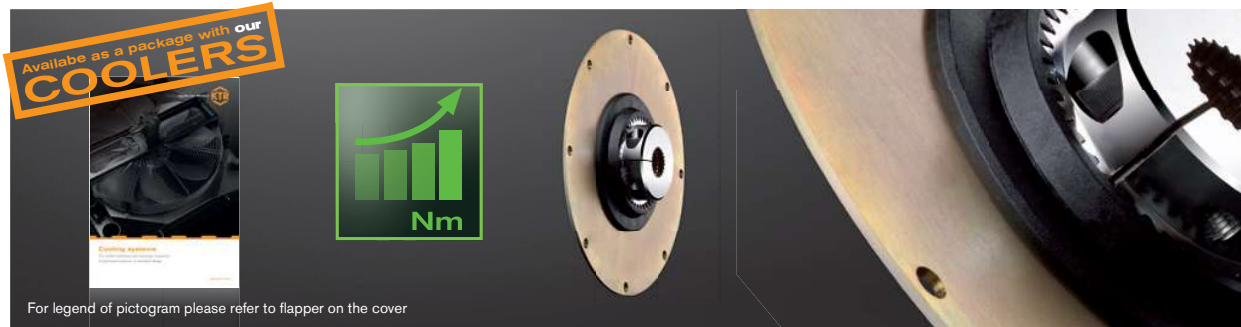


BoWex-ELASTIC®

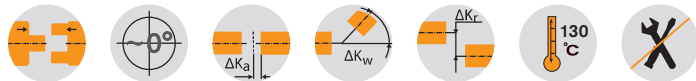
BoWex® FLE-PAC

Torsionally stiff flange couplings

Axial plug-in, extremely short design, carbon-fibre reinforced material



For legend of pictogram please refer to flapper on the cover



BoWex® FLE-PAC – Dimensions/nominal dimension to SAE

Size	Pilot bore	Finish bore d		Dimensions [mm]							Special length l ₁ max.	Nominal size acc. to SAE (D ₃)						Max. axial displacement [mm]
		Min.	Max.	D	D ₁	l ₁	l ₃	l ₇	l ₈	l ₁₀		6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	
48 / T 48	13	15	48	68	110	50	35	46	25	3	up to 60	●	●	●	●			± 3
T 55	17	20	55	85	148	50	32	42	28	3	-	●	●	●	●			± 3
65 / T 65	21	30	65	96	165	55	36	46	32	4	up to 70	●	●	●	●	●		± 3
80 / T 80	31	35	90	124	220	90	72	76	35	4	-				●	●	●	± 3
100 / T 100	38	40	100	152	280	110	85	102	47	5	-					●	●	± 3
125 / T 125	45	50	125	192	250	140	113	140	50	28	-					●	●	± 3

Special flange dimensions deviating from SAE standard are also available.

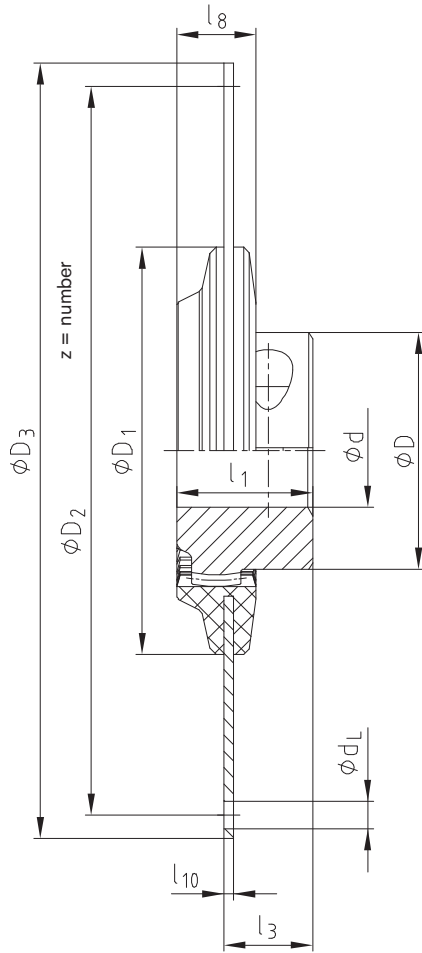
Technical data of BoWex® FLE-PAC – Torques/weights/mass moments of inertia/torsion spring stiffness

Size	Torque T _K [Nm]			Weight/mass moment of inertia J	Hub with max. bore	FLE-PAC flanges according to SAE						Dynamic torsion spring stiffness with +60 °C/ψ = 0.45 [Nm/rad]			
	T _{KN}	T _K max.	T _{KW}			6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	0.30 T _{KN}	0.50 T _{KN}	0.75 T _{KN}	1.00 T _{KN}
48	300	600	150	[kg]	0.79	0.77	0.98	1.19	1.73			64 x 10 ³	95 x 10 ³	114 x 10 ³	132 x 10 ³
				[kgm ²]	0.0007	0.0049	0.0077	0.0109	0.0221						
T 48	370	740	185	[kg]	0.79	0.77	0.98	1.19	1.73			91 x 10 ³	129 x 10 ³	155 x 10 ³	182 x 10 ³
				[kgm ²]	0.0007	0.0049	0.0077	0.0109	0.0221						
T 55	550	1100	275	[kg]	1.20	0.74	0.95	1.16	1.7			181 x 10 ³	258 x 10 ³	312 x 10 ³	358 x 10 ³
				[kgm ²]	0.0016	0.0049	0.0077	0.0109	0.0222						
65	800	1600	400	[kg]	1.50	0.93	1.2	1.48	2.20	2.83		214 x 10 ³	329 x 10 ³	397 x 10 ³	451 x 10 ³
				[kgm ²]	0.0027	0.0065	0.0101	0.0145	0.0294	0.0467					
T 65	1000	2000	500	[kg]	1.60	0.93	1.2	1.48	2.20	2.83		256 x 10 ³	381 x 10 ³	461 x 10 ³	516 x 10 ³
				[kgm ²]	0.0035	0.0065	0.0101	0.0145	0.0294	0.0467					
80	1500	3000	750	[kg]	5.20				2.27	2.90	5.20	486 x 10 ³	713 x 10 ³	923 x 10 ³	1156 x 10 ³
				[kgm ²]	0.0151				0.0312	0.0485	0.1462				
T 80	1850	3700	925	[kg]	5.20				2.27	2.90	5.20	556 x 10 ³	815 x 10 ³	1065 x 10 ³	1329 x 10 ³
				[kgm ²]	0.0151				0.0312	0.0485	0.1462				
100	2550	5100	1275	[kg]	9.37					3.35	6.22	679 x 10 ³	929 x 10 ³	1218 x 10 ³	1457 x 10 ³
				[kgm ²]	0.0401					0.0606	0.1828				
T 100	3100	6200	1550	[kg]	9.37					3.35	6.22	767 x 10 ³	1030 x 10 ³	1343 x 10 ³	1594 x 10 ³
				[kgm ²]	0.0401					0.0606	0.1828				
125	5350	10700	2675	[kg]	19.73					2.09	9.85	1538 x 10 ³	2098 x 10 ³	2528 x 10 ³	2980 x 10 ³
				[kgm ²]	0.1359					0.043	0.306				
T 125	6600	13200	3300	[kg]	19.73					2.09	9.85	1887 x 10 ³	2495 x 10 ³	3035 x 10 ³	3629 x 10 ³
				[kgm ²]	0.1359					0.043	0.306				

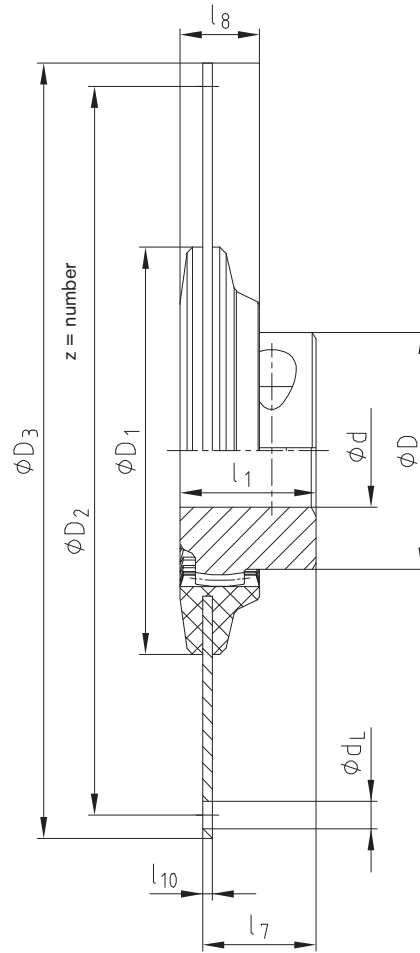
■ = Years of experience with applications at customer sites and additional test series in the KTR test field in Rheine enabled us to determine potentials allowing for an increase of the rated torques with some sizes of this series.

Mounting procedure, screw type with property class, tightening torques as per KTR assembly instructions (see www.ktr.com).

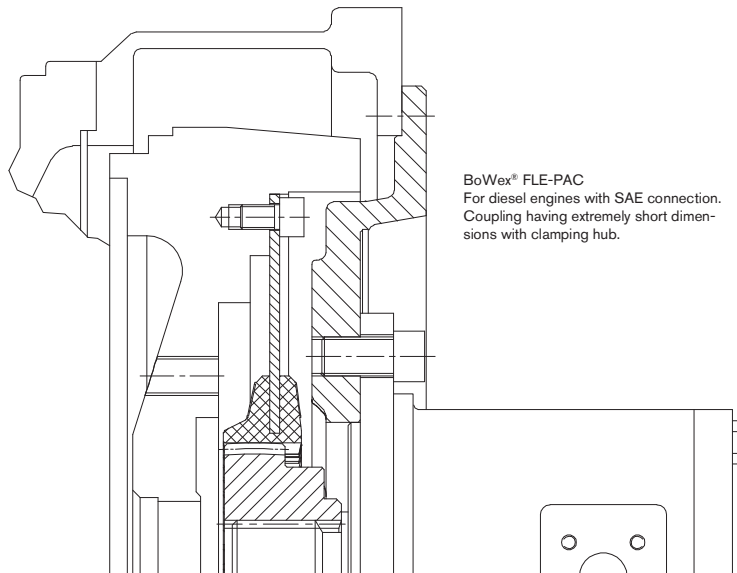
Short mounting version



Long mounting version



Flange dimensions according to SAE J620 [mm]				
Size	D ₃	D ₂	z	d _L
6 1/2"	215.9	200.02	6	9
7 1/2"	241.3	222.25	8	9
8"	263.52	244.47	6	11
10"	314.32	295.27	8	11
11 1/2"	352.42	333.37	8	11
14"	466.72	438.15	8	14



BoWex® FLE-PAC
For diesel engines with SAE connection.
Coupling having extremely short dimen-
sions with clamping hub.

BoWex® FLE-PA / FLE-PAC

Torsionally stiff flange couplings

Selection according to SAE standard



Determination of coupling

Determination of coupling size

Table 1

Connection dimension of coupling

Table 2

Hub type/mounting length

Table 3

SAE pump mounting flange

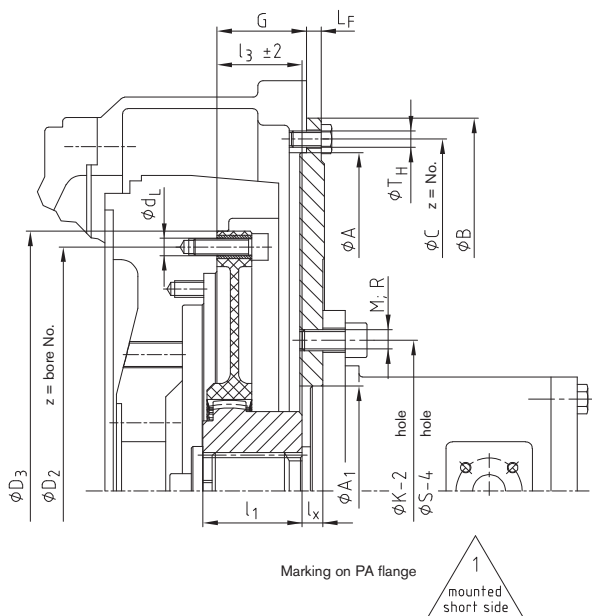
Flange size according to SAE 617

Table 4

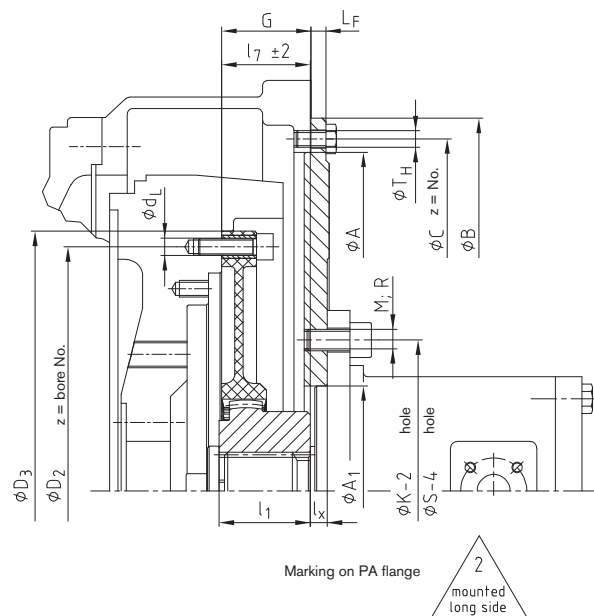
Connection flange of hydraulic pump

Table 5

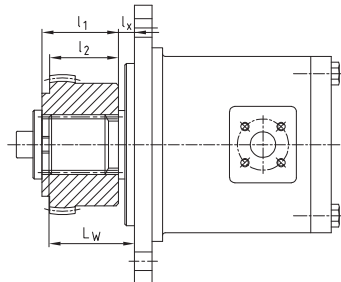
Short mounting version of coupling (l_3)



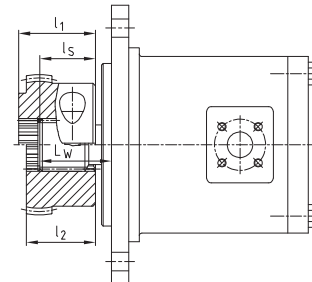
Long mounting version of coupling (l_7)



Spline hub



Clamping hub



Determination of mounting length l_3 or l_7

SAE shaft	$l_3 / l_7 = G + L_F - L_W + l_S$
DIN shaft	$l_3 / l_7 = G + L_F - l_X$

If axial fixing of the hub by means of an end plate and a screw is not possible for a pump shaft with involute spline, we recommend to use a clamping hub.

Mounting instructions:

The flange can be fastened to the engine flywheel by means of socket head cap screws according to DIN EN ISO 4762 quality 8.8 or by hexagon head screws quality 8.8. We recommend screws are loctited in position.

Screw tightening torque of FLE-PA flange on the flywheel

M8	25 Nm
M10	49 Nm
M12	86 Nm

Screw tightening torque of spline clamping hubs DIN EN ISO 4762

42/48	M10	49 Nm
T55/65/T70	M12	86 Nm
80/100/125	M16	210 Nm

BoWex® FLE-PA / FLE-PAC

Torsionally stiff flange couplings

Mounting dimensions according to SAE standard

1. Selection of coupling for diesel engine									
Diesel engine power		Coupling size	Flywheel to SAE			Pump mounting flange		Driving shaft of pump	
kW	PS		G			LF			
up to 40	up to 55	48 FLE-PA	6 1/2"	30.15	1.19"	9.5	0.375"		
			7 1/2"	30.15	1.19"				
			8	62	2.44"				
			10	54	2.12"				
up to 75	up to 100	T55 FLE-PA	6 1/2"	30.15	1.19"	9.5	0.375"		
			7 1/2"	30.15	1.19"				
			8	62	2.44"				
			10	54	2.12"				
up to 90	up to 120	65 FLE-PA	6 1/2"	30.15	1.19"	9.5	0.375"		
			7 1/2"	30.15	1.19"				
			8	62	2.44"				
			10	54	2.12"				
up to 150	up to 200	T70 FLE-PA	11 1/2"	39.6	1.56"	12.7	0.5"		
			10	54	2.12"				
			11 1/2"	39.6	1.56"				
			14	25.4	1"				
up to 180	up to 240	80 FLE-PA	11 1/2"	39.6	1.56"	12.7	0.5"		
			10	54	2.12"				
			11 1/2"	39.6	1.56"				
			14	25.4	1"				
up to 285	380	100 FLE-PA	11 1/2"	39.6	1.56"	12.7	0.5"		
			10	54	2.12"				
			11 1/2"	39.6	1.56"				
			14	25.4	1"				
up to 540	720	125 FLE-PA	11 1/2"	39.6	1.56"	12.7	0.5"		
			10	54	2.12"				
			11 1/2"	39.6	1.56"				
			14	25.4	1"				

2. Dimensions of coupling flange according to SAE J620 [mm]				
Nominal size	D ₃	D ₂	z = number	d _L
6 1/2"	215.90	200.02	6	9
7 1/2"	241.30	222.25	8	9
8"	263.52	244.47	6	11
10"	314.32	295.27	8	11
11 1/2"	352.42	333.37	8	11
14"	466.72	438.15	8	14

3. Selection of coupling hubs - Determination of mounting length l ₃ or l ₇														
BoWex® coupling size	Pump shaft to SAE J 498 and DIN 5480	Spline hub	Spline clamping hub	Dimensions of coupling hub [mm]			Mounting length of coupling l ₃ or l ₇							
							Flange size 6 1/2" and 7 1/2"		Flange size 8"		Flange size 10"		Flange size 11 1/2"	
							K	L	K	L	K	L	K	L
				l ₁	l ₂	l ₃	l ₃	l ₇	l ₃	l ₇	l ₃	l ₇	l ₃	l ₇
42	SAE-16/32 DP PI-S 3/4" z = 11	x	x	42	-	33	33	42						
42	SAE-16/32 DP PB-S 7/8" z = 13	x	x	42	-	-	33	42						
42	SAE-16/32 DP PB-BS 1" z = 15	x	x	42	-	27	33	42						
48	SAE-16/32 DP PA-S 1 3/8" z = 21	x	x	50	-	45	41	50	50	41	50			
65	SAE-12/24 DP PC-S 1 1/4" z = 14	x	x	55	-	44			54	45	54	41		
65	SAE-16/32 DP PD-S 1 1/2" z = 23	x	x	-	49	45					53	41		
80	SAE-16/32 DP PE-S 1 3/4" z = 27	x	x	55	-	-						33	44	
42	25 x 1.25 x 18	x	x	42	-	-	33	42						
42	DIN 5480	x	x	42	-	-	33	42						
42	30 x 2 x 14	x	x	42	-	-	33	42						
48	DIN 5480	x	x	50	-	-	41	50						
48		x	x	50	-	-	41	50	50		50			
48	35 x 2 x 16	x	x	46	-	-	37	46						
65	DIN 5480	x	x	55	-	-					54	39		
65		x	x	60	-	-			50	59	50	59	39	
65	40 x 2 x 18	x	x	55	-	-					54	39		
65	DIN 5480	x	x	55	-	-			54	45	54	39		
65	45 x 2 x 21	x	x	-	64	-			60	69	60	69	39	
65	DIN 5480	x	x	55	-	-			54	45	54	39		
80	50 x 2 x 24	x	x	55	-	-						37	42	
	DIN 5480													

Shown above is a small overview of splines available, other SAE or DIN splines are also available.

4. Housing dimensions according to SAE 617 [mm]						
SAE size	A	B	C	Z	TH	
SAE-1	511.18	552	530.2	12	M10	3/8"
SAE-2	447.68	489	466.7	12	M10	3/8"
SAE-3	409.58	451	428.6	12	M10	3/8"
SAE-4	361.95	403	381.0	12	M10	3/8"
SAE-5	314.33	356	333.4	8	M10	3/8"
SAE-6	266.7	308	285.7	8	M10	3/8"

5. Mounting flange for hydraulic pump acc. to SAE [mm]									
SAE size	SAE flange with 2 holes					SAE flange with 4 holes			
	A ₁	K-2	M	Z		A ₁	S-4	R	Z
A	82.55	106.4	M10 3/8"	2		82.55	104.6	M10 3/8"	4
B	101.6	146.0	M12 1/2"	2		101.6	127.0	M12 1/2"	4
C	127.0	181.0	M16 5/8"	2		127.0	162.0	M12 1/2"	4
D	152.4	228.6	M16 5/8"	2		152.4	228.6	M16 5/8"	4
E	-	-	-	-		165.1	317.5	M20 3/4"	4

BoWex® FLE-PA/-PAC

MONOLASTIC®

Flange couplings

BoWex-ELASTIC®

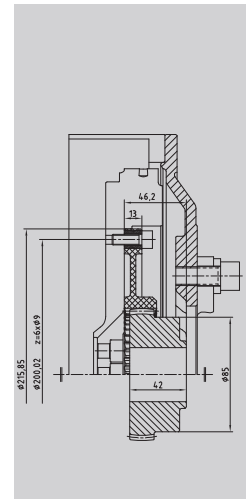
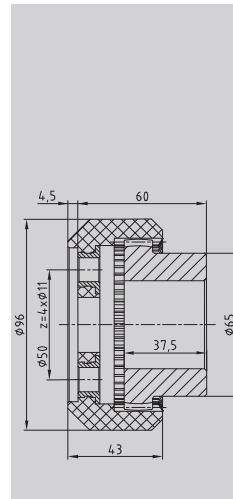
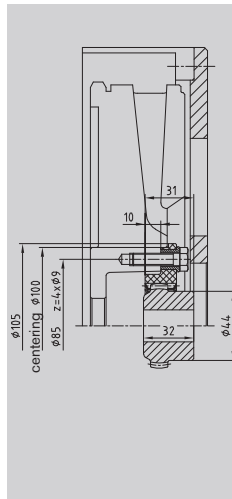
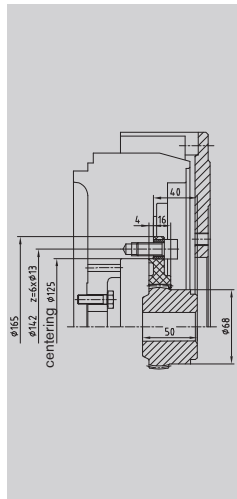
Ordering example: Coupling FLE-PA/FLE-PAC			SAE pump mounting flange	
BoWex® 48 FLE-PA	7 1/2"	P663301	SAE-4	B-2L
Coupling size	SAE connection of coupling	Code of coupling hub	Pump mounting flange for engine housing	Pump flange acc. to SAE 2 holes/4 holes standard metric fastening thread
Table 1	Table 2	Table 3	Table 4	Table 5

BoWex® FLE-PA

Torsionally stiff flange couplings

Special flange programme, deviations from the SAE standard

Fitting to
diesel engines:
Hatz



Coupling size
Engine type

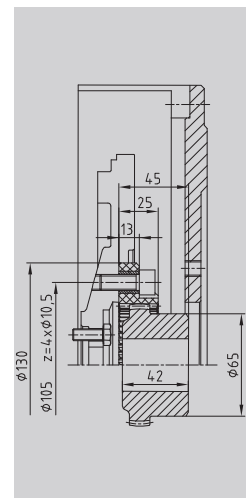
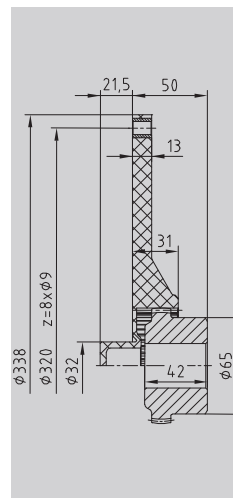
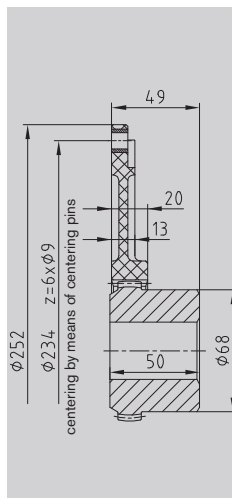
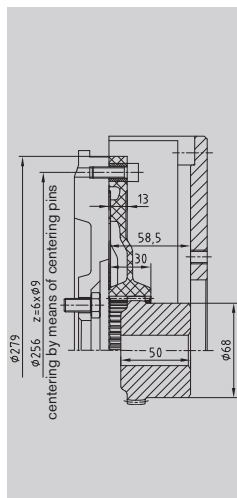
BoWex® 48 FLE-PA, Ø165
Hatz
2L/3L/4L41C 2M/3M/4M41
4M42, 4L42C

BoWex® 28 FLE-PA, Ø105
Hatz
1D81 / 1D90

BoWex® 48 FLE-PA, Ø96
Hatz
Z788 / Z789 / Z790

BoWex® T55 FLE-PA
Hatz
2-4 H50

Fitting to
diesel engines:
VW
Mitsubishi



Coupling size
Engine type

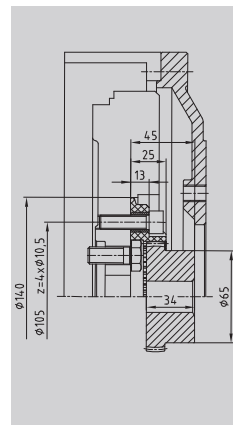
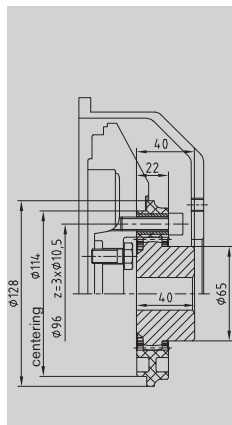
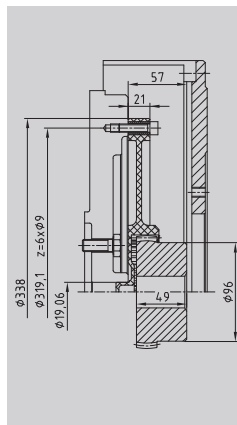
BoWex® 48 FLE-PA, Ø279
VW
028.B / M344

BoWex® 48 FLE-PA, Ø252
VW
062.2 / 068.5 / 6 / A / D

BoWex® 48 FLE-PA
Mitsubishi
Ø338-32

BoWex® 48 FLE-PA, Ø130
Mitsubishi
Series L / Series K

Fitting to
diesel engines:
Perkins
Lombardini



Coupling size
Engine type

BoWex® 65 FLE-PA, Ø338
Perkins 1104C-44T
Flywheel No. D0014

BoWex® 48 FLE-PA, Ø128
Lombardini
FOCS series

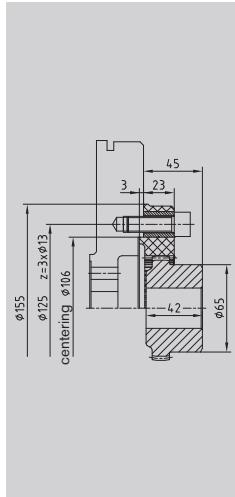
BoWex® 48 FLE-PA, Ø140
Lombardini
LDW

BoWex® FLE-PA

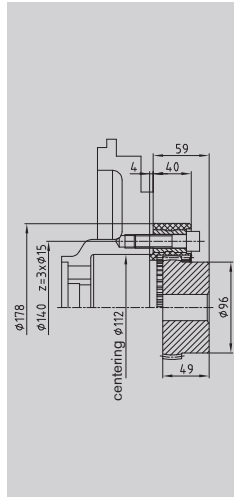
Torsionally stiff flange couplings

Special flange programme, deviations from the SAE standard

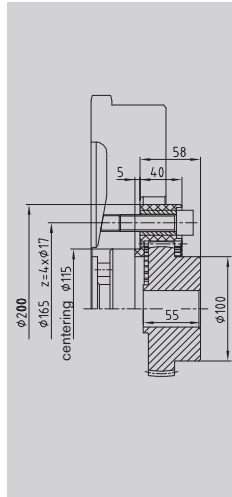
Fitting to
diesel engines:
Perkins
Isuzu
Cummins



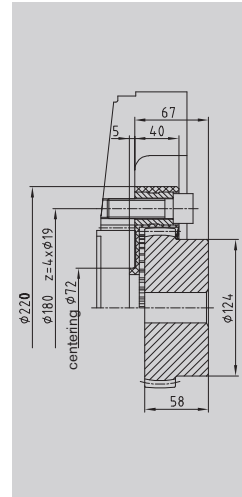
BoWex® 48 FLE-PA,
Ø155
3 holes, Ø125



BoWex® 65 FLE-PA,
Ø178
3 holes, Ø140



BoWex® 70 FLE-PA,
Ø200
4 holes, Ø165

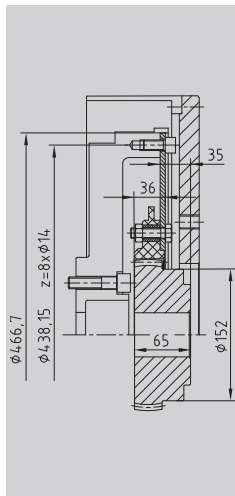


BoWex® 80 FLE-PA,
Ø220
4 holes, Ø180

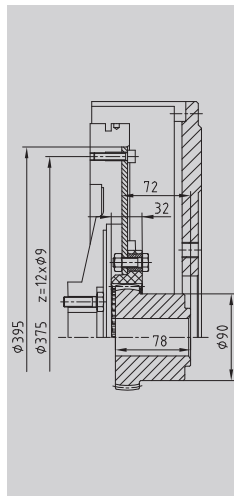
Coupling size
Engine type

BoWex® FLE-PA/-PAC

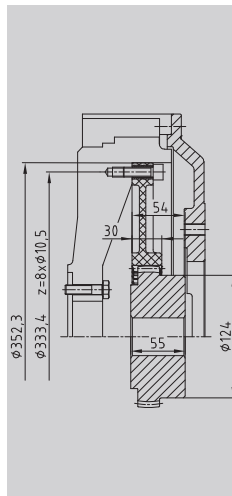
Fitting to
diesel engines:
Caterpillar
Daimler
Cummins
John Deere



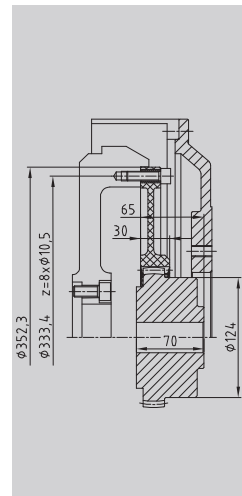
BoWex® T100 FLE-PA, 14"
Caterpillar
C 10 / C 12



BoWex® T65 FLE-PA, Ø395
Daimler
OM904



BoWex® 80 FLE-PA, 11 1/2"
Cummins
QSK/QSB

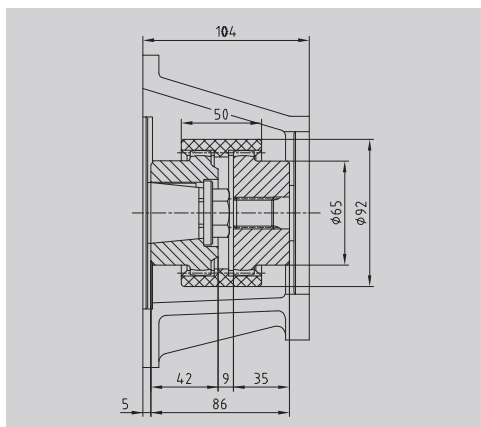


BoWex® 80 FLE-PA 11 1/2"
John Deere

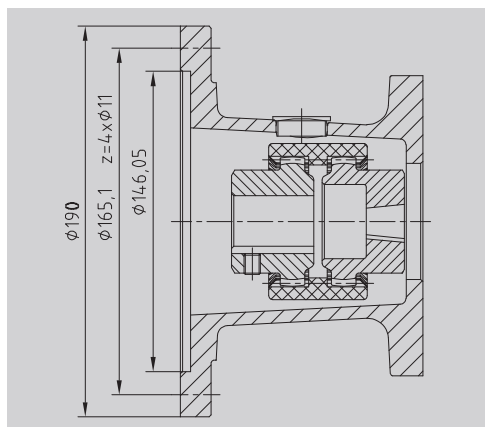
Coupling size
Engine type

MONOLASTIC®
Flange couplings

Fitting to
shaft motors:
Hatz
Honda
Briggs & Stratton
Yanmar
Kohler
Robin



BoWex® M42
Hatz 2G30



BoWex® shaft coupling type M28 and M32
Housing connection according to SAE J609A

Coupling size
Engine type

BoWex-ELASTIC®

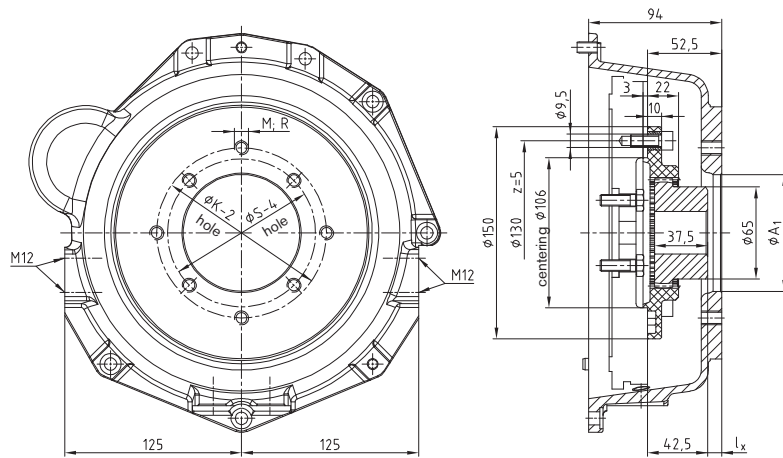
BoWex® FLE-PA

Torsionally stiff flange couplings

Flange couplings and pump connection housings for KUBOTA engines

KUBOTA
Super MINI series

Z-400
Z-442-B
Z-482-B
D-600
D-662-B
D-902-B
V-800



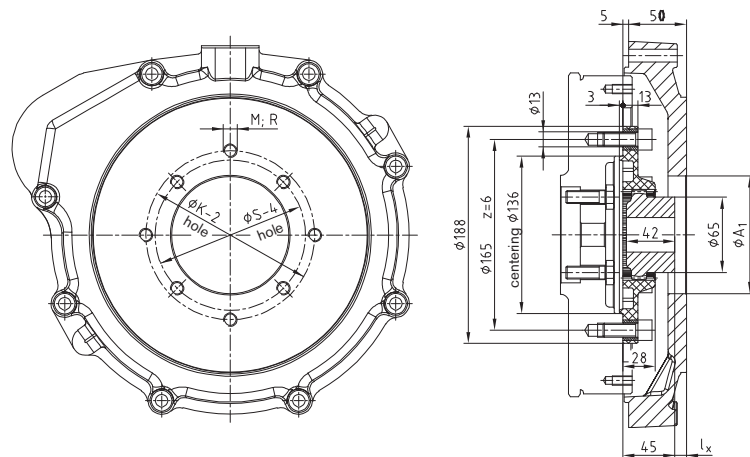
BoWex® 48 FLE-PA Ø 150 / pump connection housings

KUBOTA
Super 3 series

D 1403/1703
Flywheel
No. 190027991

V 1903/2203
Flywheel
No. 190002369

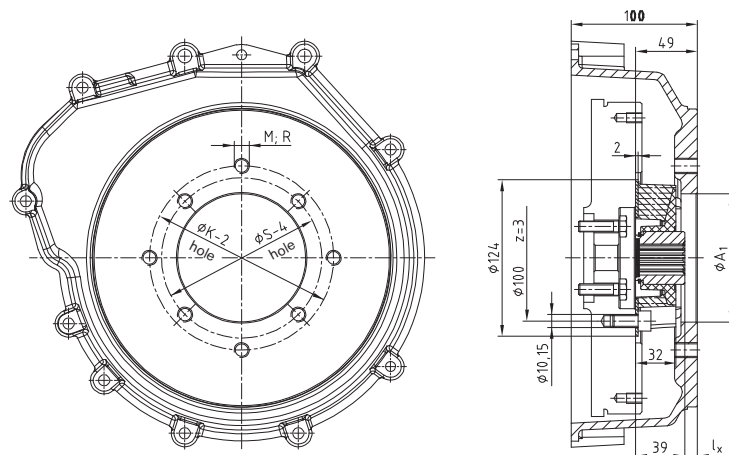
V 2003-T



BoWex® 48 FLE-PA Ø 188 / pump connection housings

KUBOTA
Super 5 series

D 905
D 1005
D 1105
D 1105-T
V 1205
V 1305
V 1505

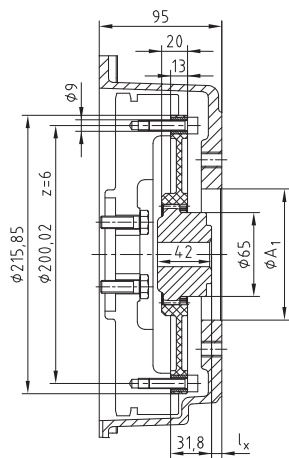


MONOLASTIC® 28 Ø 124 / pump connection housings

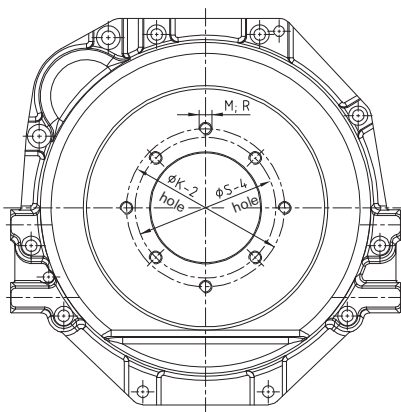
BoWex® FLE-PA

Torsionally stiff flange couplings

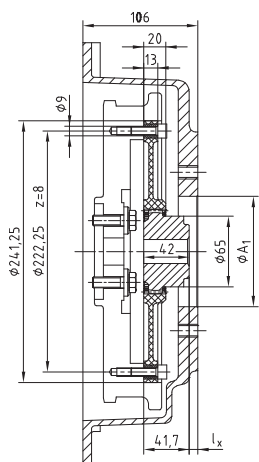
Flange couplings and pump connection housings for Perkins engines



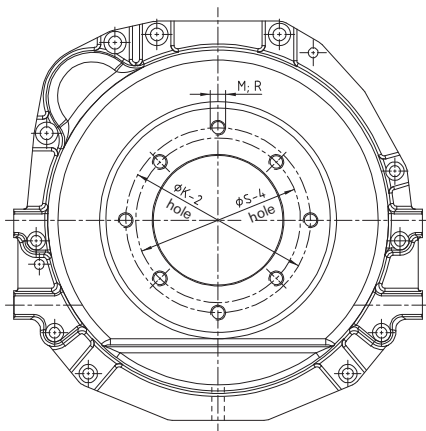
Perkins 403D - 10/11



Perkins 403D - 13/15

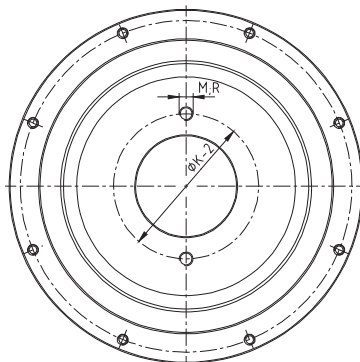


Perkins 404D - 20

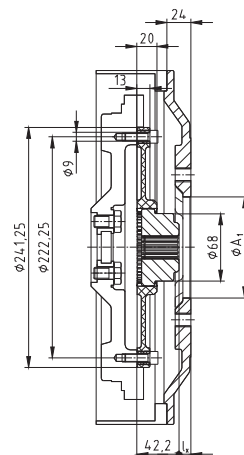


Perkins 404D - 22

Other
selections
on request for
Yanmar
Mitsubishi
etc.



Mitsubishi SL series



Yanmar TNV series

BoWex® FLE-PA/-PAC

MONOLASTIC®

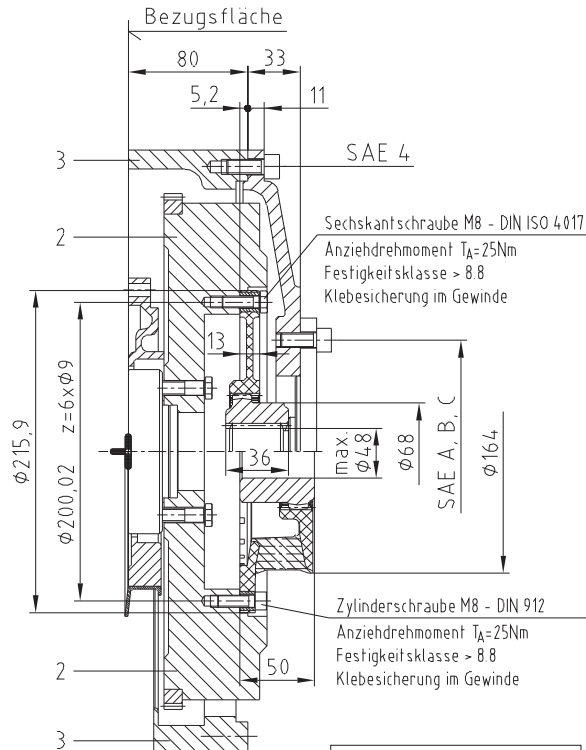
Flange
couplings

BoWex-ELASTIC®

Selection of DEUTZ engines FL/M 1011 and FL/M 2011, TCD/TD/D 2.9 L4, TDC/T 3.6 L

Anbaukombination A

Antrieb: Hydraulikpumpen
BoWex® 48 FLE-PA 6 1/2"
SAE-4.0/33 Pumpenanbaufansch

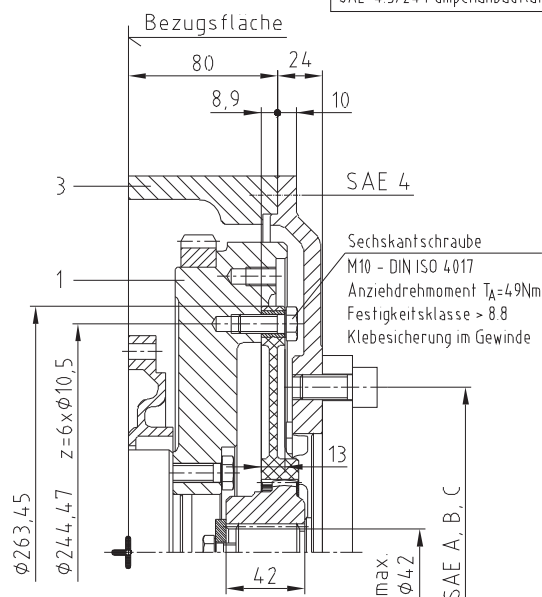


Anbaukombination B

Antrieb: Kompressoren,
Wasserpumpen usw.
BoWex-Elastic® HE 6 1/2"

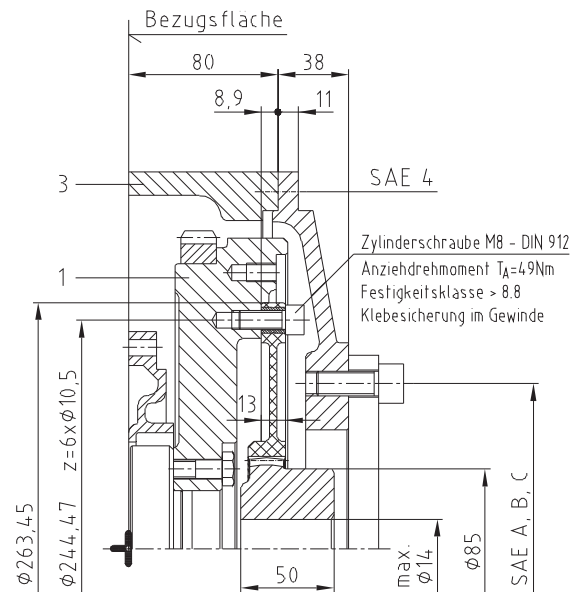
Anbaukombination C

Antrieb: Hydraulikpumpen
BoWex® 48 FLE-PA 8"
SAE-4.3/24 Pumpenanbaufansch



Anbaukombination D

Antrieb: Hydraulikpumpen
BoWex® T55 FLE-PA 8"
SAE-4.0/38 Pumpenanbaufansch



ACHTUNG Entsprechend der Motorleistung ist die Kupplungsanordnung durch den Anwender zu prüfen. Nach erfolgreichem Kupplungsanbau Kurbelwellenlängsspiel prüfen. Sollmaß für Lagerluft 0,1 ... 0,3 mm. DEUTZ übernimmt keine Haftung für außerhalb des DEUTZ Lieferumfanges liegende Aufgaben und/oder Teile.

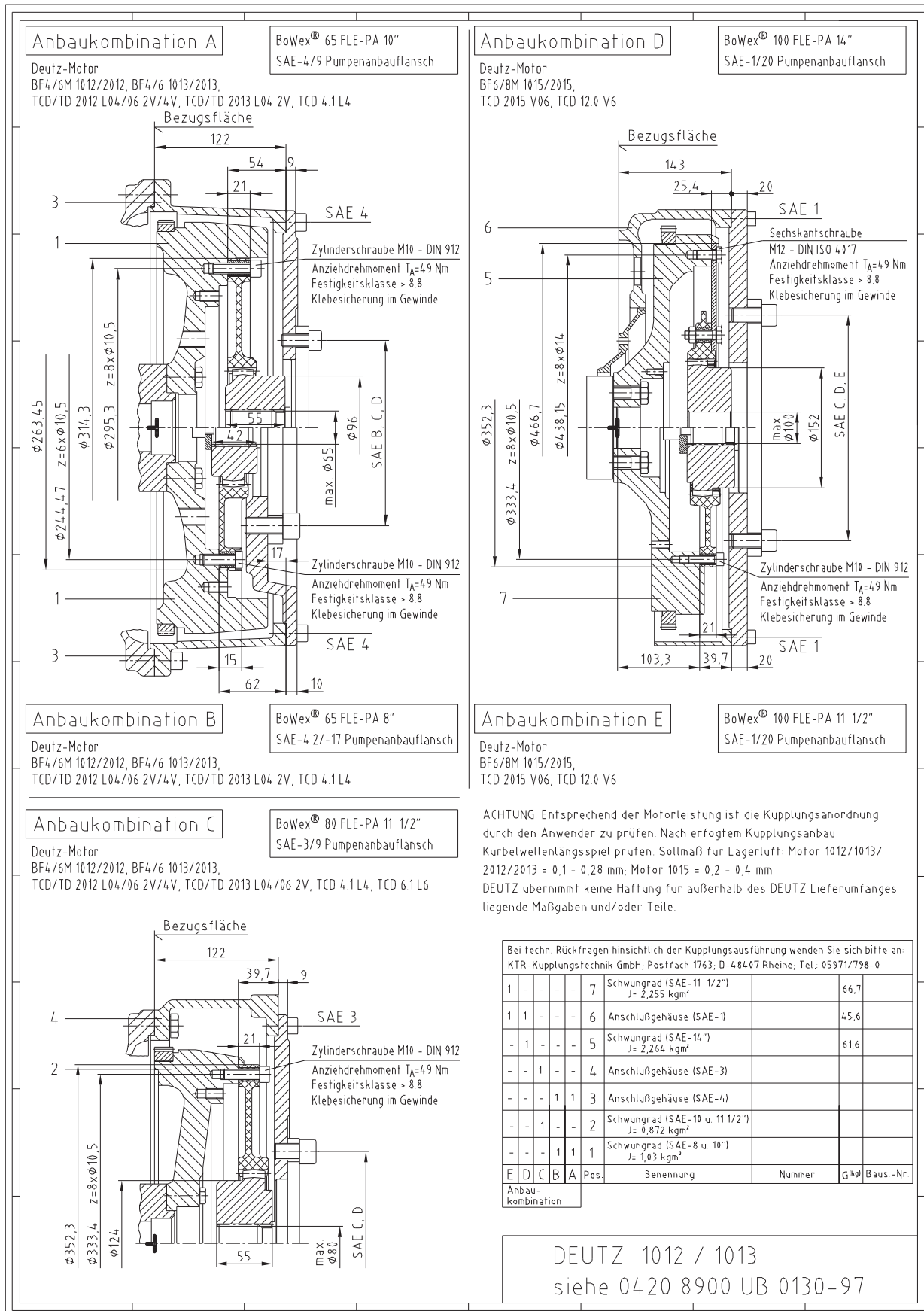
Bei techn. Rückfragen hinsichtlich der Kupplungsausführung wenden Sie sich bitte an:
KTR-Kupplungstechnik GmbH
Postfach 1763 D-48407 Rheine
Telefon +49 - 05971 / 798-0

1	1	1	1	3	Zwischengehäuse (SAE-4)	0427 0980 KZ 0138-52 0417 1040 UA 0138-52	15	0553
-	-	1	1	2	Schwungrad (SAE 6 1/2") J= 0,499 kgm ²	0428 0586 KZ 0138-05 0417 1301 UA 0138-05	30,3	3174
1	1	-	-	1	Schwungrad (SAE 8 u.10") J= 0,405 kgm ²	0427 2426 KZ 0138-05 0417 1301 UA 0138-05	25,3	2461
D	C	B	A	Pos	Benennung	Nummer	G ^{kg}	Baus.-Nr.

[illegible][illegible]

BoWex® FLE-PA Torsionally stiff flange couplings

Selection of DEUTZ engines BFM 1012/1013/2012/2013/1015



BoWex® FLE-PA/-PAC

MONOLASTIC®

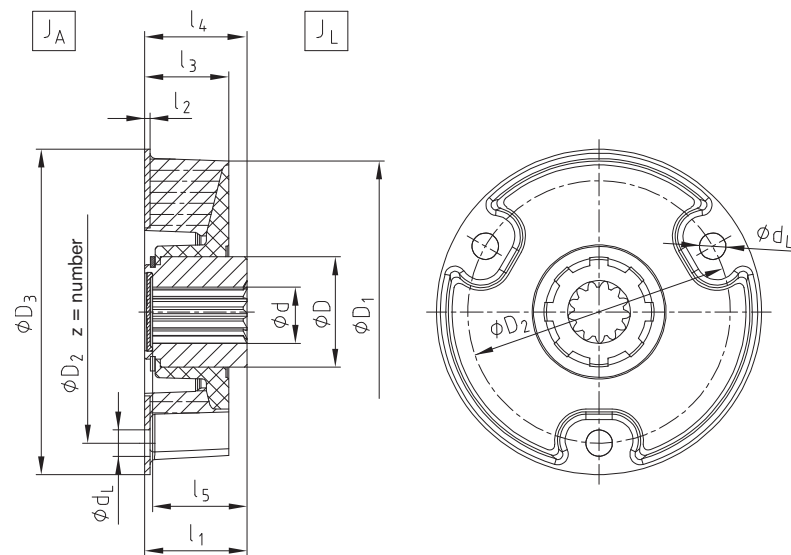
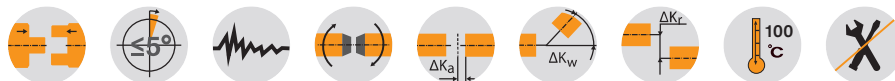
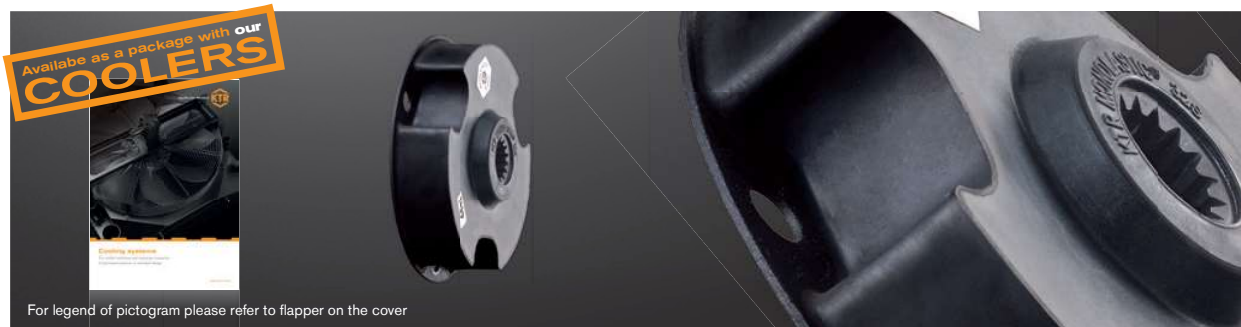
Flange couplings

BoWex-ELASTIC®

MONOLASTIC®

One-piece, flexible flange couplings

Type with 3 holes (EP 0853203/U.S. Patent 6,117,017)



MONOLASTIC®																
Size	Elastomer hardness [Shore A]	Torque [Nm]			Dimensions [mm]											
		T _{KN}	T _{K max.}	T _{KW}	d	D	D ₁	D ₂	z	d _L	D ₃	l ₁	l ₂	l ₃	l ₄	l ₅
22	T65	40	100	20	20	34	93	80	3	8.10	100	33	1.5	32	34	30
28	T65	70	175	35	25	42	115	100	3	10.10	124	40	2	32	40	38
	T70	100	250	50												
32	T65	160	400	80	32	50	140	125	3	12.10	150	42	2	42	43	38
	T70	225	562	112												
50-140	T70	260	650	130	32	50	167	140	3	14.10	175	46	3	35	46	43
50-165	T70	300	750	150	32	50	175	165	3	16.15	200	46	3	35	46	43
50-170	T70	300	750	150	32	50	175	170	3	16.15	200	46	3	35	46	43
60-165	T70	400	1000	200	48	68	191	165	3	16.15	205	50	3	40	55	46

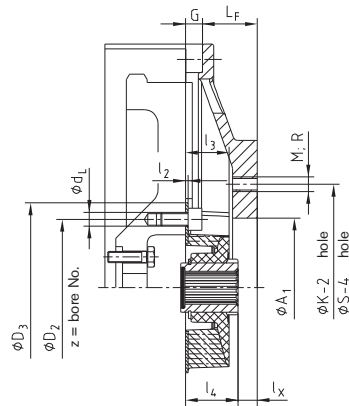
Technical data									
Size	Elastomer hardness [Shore A]	C _{dyn.} with 60 °C [Nm/rad]	Perm. damping power with 60 °C P _{KW} [W]	Max. displacement with 2200 rpm ΔK _r [mm]	Perm. angular displacement with 2200 rpm ΔK _w [°]	Radial spring stiffness C _r [N/mm]	Mass moment of inertia [kgm²]		Perm. operating speed n _{max.} [rpm]
							J _A	J _L	
22	T65	600	10	0.6	1	200	0.00017	0.00010	6000
28	T65	900	15	0.6		300	0.00054	0.00033	6000
	T70	1300	25	0.5		400	0.00120	0.00081	6000
32	T65	1800	35	0.6		400	0.00120	0.00081	6000
	T70	2400	40	0.5		500	0.00210	0.00130	6000
50-140	T70	4200	40	0.5		1365	0.00210	0.00130	6000
50-165		5600	40	0.5		1550	0.00250	0.00130	6000
50-170		5600	40	0.5		1550	0.00250	0.00130	6000
60-165		7800	40	0.5		1500	0.00599	0.00358	6000

T = Temperature-stable rubber compound. The technical data specified apply for an ambient temperature of T = 60 °C.
* Expiring as a standard

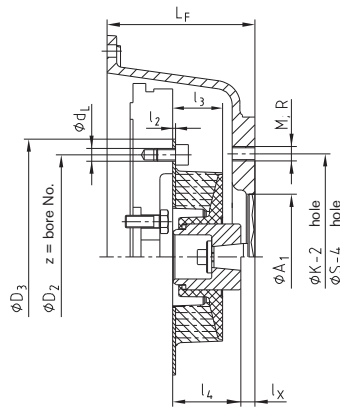
MONOLASTIC®

One-piece, flexible flange couplings

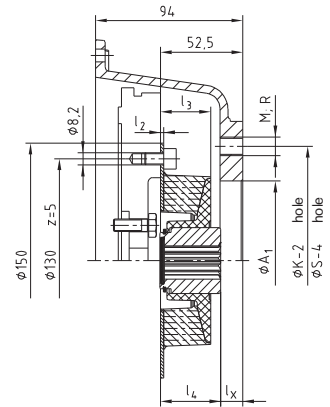
Examples of installation for type with 3 holes (EP 0853203/U.S. Patent 6,117,017)



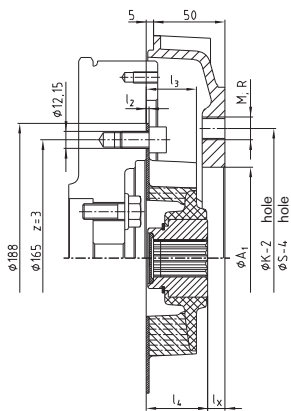
MONOLASTIC® 28
with spline shaft



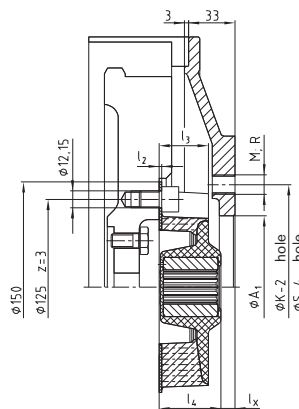
MONOLASTIC® 28
with taper shaft



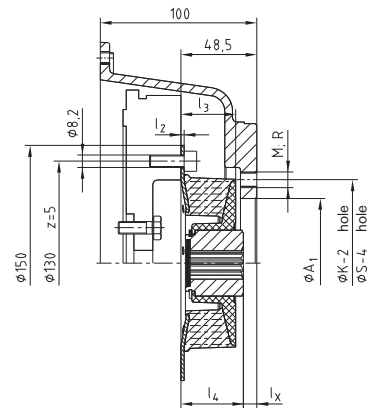
MONOLASTIC® 28
KUBOTA - Mini



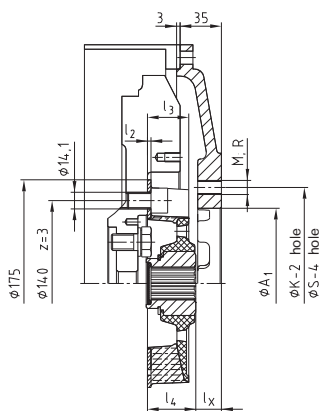
MONOLASTIC® 32 - 188
KUBOTA Super Three Series



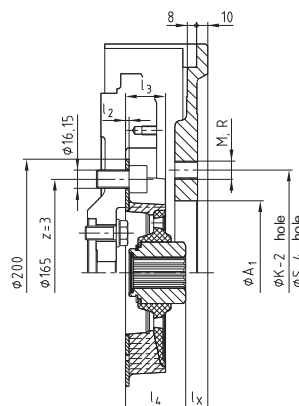
MONOLASTIC® 32 S



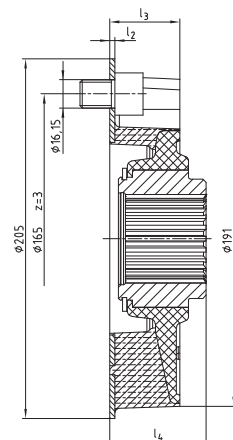
MONOLASTIC® 28
KUBOTA Super Mini



MONOLASTIC® 50 - 140



MONOLASTIC® 50 - 165

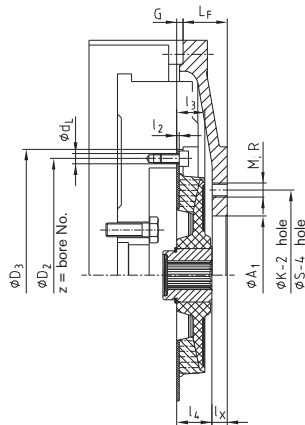


MONOLASTIC® 60 - 165

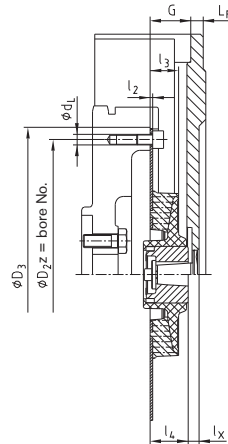
MONOLASTIC®

One-piece, flexible flange couplings

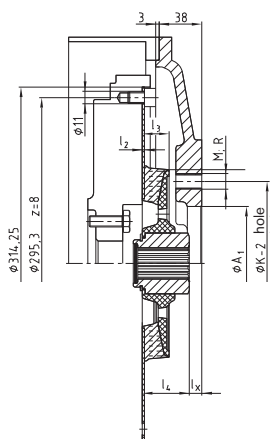
Examples of installation for SAE type (EP 0853203/U.S. Patent 6,117,017)



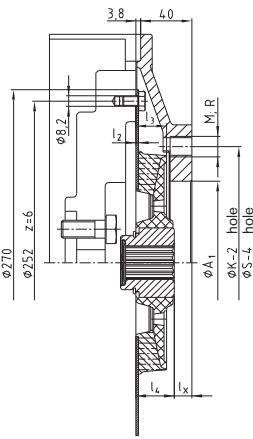
MONOLASTIC® 30
with spline shaft



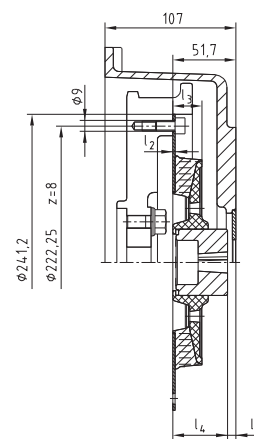
MONOLASTIC® 30
with taper shaft



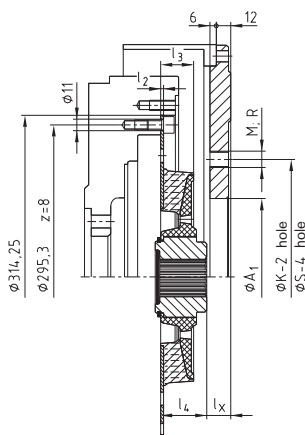
MONOLASTIC® 50 - 10"



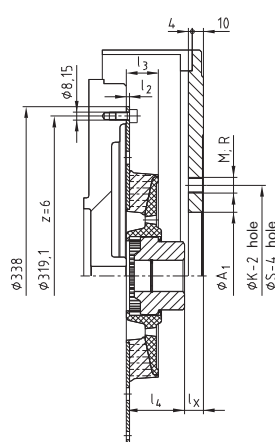
MONOLASTIC® 50 - 270
KUBOTA engine
D1803, V2403, V2403T



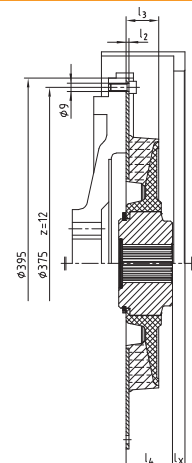
MONOLASTIC® 50
Perkins engine
403-13/403-15



MONOLASTIC® 65 - 10"



MONOLASTIC® 65 / T48



MONOLASTIC® 75 - 395

BoWex® FLE-PA/-PAC

MONOLASTIC®

Flange
couplings

BoWex-ELASTIC®

BoWex-ELASTIC® HE1 - HE4

Highly flexible flange couplings

Axial plug-in, available in different kinds of hardness



For legend of pictogram please refer to flapper on the cover



BoWex-ELASTIC® Type HE1 - HE4																										
Size	Bore d [mm]		Flange connection acc. to SAE - J620						Dimensions [mm]												Type HE1 / HE2			Type HE3 / HE4		
	Pilot bored	Max.	6 ½"	7 ½"	8"	10"	11 ½"	14"	⅓ HE1/ HE2	⅓ HE3/ HE4	D5	l2	D4	D	l1	LHE1	LHE2	LHE3	LHE4	Weight with max. bore [kg]	Mass moment of inertia with max. bore [kgm²]		Weight with max. bore [kg]	Mass moment of inertia with max. bore [kgm²]		
																					JA	JL		JA	JL	
42 HE	-	42	●	●	●				4	2	180	33	145	65	42	70	50	55	40	1.8	0.0074	0.0016	1.8	0.0071	0.0021	
48 HE	-	48	●	●	●				4	2	198	37	163	68	50	78	50	68	42	2.8	0.0172	0.0016	-	-	-	
			2.3	0.0119	0.0021	1.9	0.0070	0.0022																		
			2.6	0.0170	0.0021	2.1	0.0103	0.0022																		
65 HE	21	65			●		●		5	-	244	55	205	96	55	85	62	-	-	4.9	0.0424	0.0069	-	-	-	
			3.4	0.0342	0.0021	2.5	0.0201	0.0022																		
			5.7	0.0647	0.0069	-	-	-																		
G 65 HE	21	65		●		●		-	3	-	45	205	96	55	-	-	73	50	-	-	-	-	3.9	0.0147	0.0075	
			4.1	0.0281	0.0075	-	-																-			
			4.6	0.0423	0.0075	-	-																-			
GG 65 HE	21	65		●		●		-	3	-	48	220	96	55	-	-	73	50	-	-	-	-	3.8	0.0163	0.0093	
			4.4	0.0294	0.0093	-	-																-			
			4.9	0.0439	0.0093	-	-																-			
80 HE	31	90			●		●		-	4	316	56	265	124	90	126	74	112	60	8.1	0.0239	0.0307	9.1	0.0414	0.0305	
			10.2	0.0765	0.0307	-	-	-																		
			9.7	0.0426	0.0471	11.1	0.0713	0.0472																		
G 80 HE	31	90			●		●		-	4	356	66	300	124	90	136	80	122	70	9.7	0.0426	0.0471	11.1	0.0713	0.0472	
			14.7	0.2851	0.0471	-	-	-																		
			-	-	-	-	-	-																		
GG 80 HE	31	90				●		-	4	-	71	302	124	90	-	-	130	80	-	-	-	11.9	0.0768	0.0498		
100 HE	38	100				●		-	4	-	80	350	152	110	142	90	150	82	-	-	-	18.3	0.2028	0.1104		
G 100 HE	38	100				●		-	4	-	76	350	152	65	-	-	102	85	-	-	-	16	0.2172	0.1013		

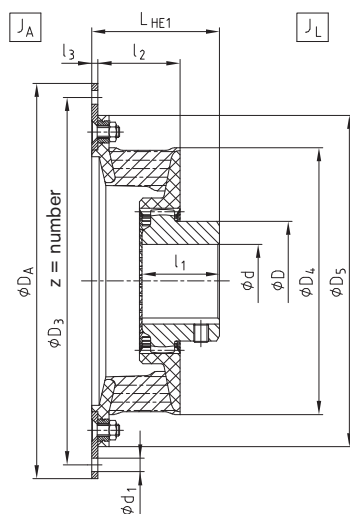
Other flange connections on request

Technical data												
Size	Elastomer hardness [Shore A]	Torque [Nm]			Perm. damping power P _{KW} [W]			Perm. operating speed n _{max} [rpm]	Dynamic torsion spring stiffness C _{dyn} [Nm/rad]	Relative damping ψ	Resonance factor V _R ≈ 2 • π / ψ	Radial spring stiffness C _r [N/mm]
		T _{KN}	T _K max.	with 10 Hz T _{KW}	60 °C	80 °C	90 °C					
42 HE	T40	130	390	39	26	13	6.5	6200	550	0.6	10.5	142
	T50	150	450	45					850	0.8	7.9	219
	T65	180	540	54					2700	1.2	5.2	697
48 HE	T40	200	600	60	36	18	9	5600	850	0.6	10.5	176
	T50	230	690	69					1300	0.8	7.9	269
	T65	280	840	84					3500	1.2	5.2	724
65 HE	T40	350	1050	105	60	30	15	4500	1600	0.6	10.5	209
	T50	400	1200	120					2200	0.8	7.9	288
	T65	500	1500	150					6000	1.2	5.2	784
G65 HE	T40	430	1290	129	68	34	17	4300	2350	0.6	10.5	294
	T50	500	1500	150					3000	0.8	7.9	375
	T65	620	1860	186					8500	1.2	5.2	1063
GG 65 HE	T40	600	1800	180	76	38	19	4000	3650	0.6	10.5	420
	T50	700	2100	210					4800	0.8	7.9	550
	T65	850	2550	255					13500	1.2	5.2	1550
80 HE	T40	750	2250	225	120	60	30	3600	4500	0.6	10.5	351
	T50	950	2850	285					6500	0.8	7.9	507
	T65	1200	3600	360					18000	1.2	5.2	1404
G 80 HE	T40	1250	3750	375	180	90	45	3000	7500	0.6	10.5	476
	T50	1600	4800	480					12000	0.8	7.9	762
	T65	2000	6000	600					32000	1.2	5.2	2031
GG 80 HE	T40	1550	4650	465	196	98	49	3000	9200	0.6	10.5	660
	T50	2000	6000	600					14200	0.8	7.9	1020
	T65	2500	7500	750					39600	1.2	5.2	2800
100 HE	T40	2000	6000	600	212	106	53	2700	12000	0.6	10.5	460
	T50	2500	7500	750					19000	0.8	7.9	730
	T65	3200	9600	960					48000	1.2	5.2	1840
G 100 HE	T40	2350	7050	705	235	118	59	2700	14200	0.6	10.5	584
	T50	2975	8925	893					22600	0.8	7.9	935
	T65	3800	11400	1140					57000	1.2	5.2	2350

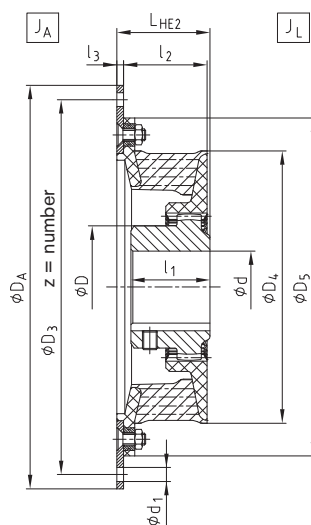
T = Temperature-stable rubber compound. The technical data specified apply for an ambient temperature of T = 60 °C.

* Expiring as a standard

Ordering example:	BoWex-ELASTIC® 42	HE1	40	8	70	U
	Coupling size	Type	Elastomer hardness	Flange Ø D _A according to SAE or special	Mounting length L _{HE}	Unbored or with finish bore

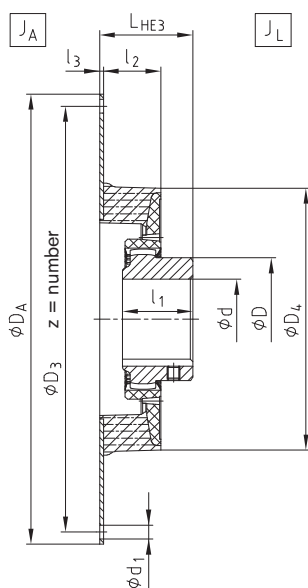


Type HE1

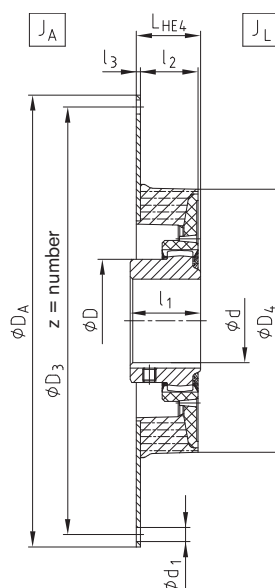


Type HE2

Flange dimensions according to SAE J620 [mm]				
Nominal size	DA	D3	z	d1
6 1/2"	215.90	200.02	6	9
7 1/2"	241.30	222.25	8	9
8"	263.52	244.47	6	11
10"	314.32	295.27	8	11
11 1/2"	352.42	333.37	8	11
14"	466.72	438.15	8	13



Type HE3



Type HE4

BoWex® FLE-PA/-PAC

MONOLASTIC®

Flange
couplings

BoWex-ELASTIC®

Displacements																
Size		42 HE			48 HE			65 HE G65 HE GG65 HE			80 HE G80 HE GG80 HE			100 HE		
Elastomer hardness [Shore A]		T40	T50	T65	T40	T50	T65	T40	T50	T65	T40	T50	T65	T40	T50	T65
Perm. radial displacement ΔK_r [mm]	n=1500 rpm	1.1	1.0	0.5	1.2	1.1	0.5	1.6	1.5	0.7	1.8	1.7	0.8	2.2	2.0	1.0
	max. ¹⁾	3.6	3.3	1.5	3.8	3.5	1.7	5.1	4.7	2.2	5.7	5.3	2.4	6.5	6.0	3.0
Perm. angular displacement ΔK_w [°]	n=1500 rpm	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5
	n=3000 rpm	0.5	0.4	0.25	0.5	0.4	0.25	0.5	0.4	0.25	0.5	0.4	0.25	0.5	0.4	0.25
Perm. angular displacement ΔK_w [°]	max. ¹⁾	1.5			1.5			1.5			1.5			1.5		
Perm. axial displacement ΔK_a [mm]		± 2			± 2			± 2			± 2			± 3		

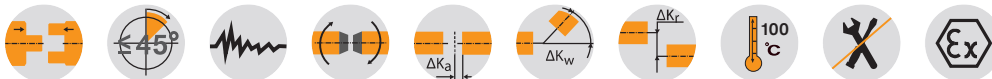
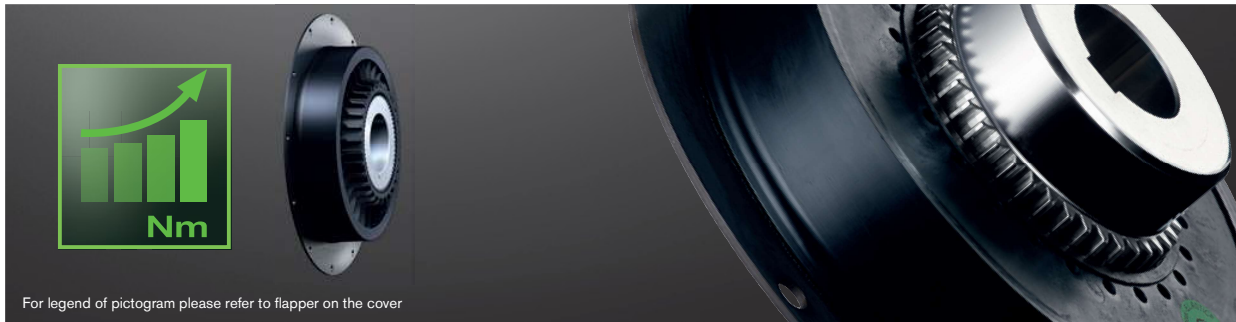
¹⁾ For short-term start-up operation

Mounting procedure, screw type with property class, tightening torques as per KTR assembly instructions (see www.ktr.com).

BoWex-ELASTIC® HE3 / HE4 / HE-D

Highly flexible flange couplings

Axial plug-in, available in different kinds of hardness

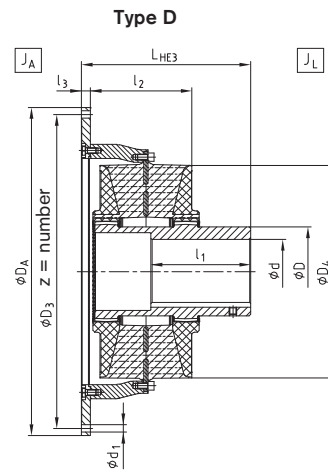
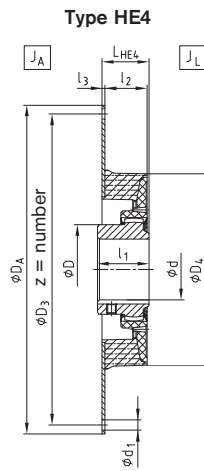
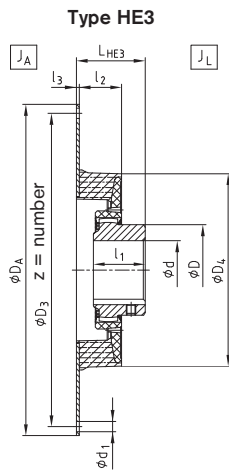


BoWex-ELASTIC® Type HE3, HE4 and HE-D																			
Size	Bore d [mm]		Flange connection acc. to SAE - J620							Dimensions [mm]						Weight with max. bore [kg]	Mass moment of inertia with max. bore [kgm²]		
	Pilot bored	Max.	14"	16"	18"	21"	24"	Ø800	Ø885	l ₃	l ₂	D ₄	D	l ₁	LHE3		LHE4	J _A	J _L
125 HE	45	125	●							6	92	416	192	140	186	103	33.1	0.3142	0.2750
				●													34.8	0.4231	0.2750
G125 HE	45	125		●						6	89	440	192	140	179	91	36.6	0.4634	0.3264
					●												39.5	0.6812	0.3264
150 HE	44	160			●					6	140	470	225	150	205	160	46.8	0.7277	0.5414
						●											51.5	1.2120	0.5414
150 HE-D	44	160			●					-	286	470	225	275	291	-	113	3.0045	1.0738
						●											155	6.4399	1.0738
G150 HE	44	160			●					6	140	504	225	150	205	160	51.9	0.8164	0.6500
						●											56.6	1.3007	0.6500
G150 HE-D	44	160			●					-	286	504	225	275	291	-	123	3.1820	1.291
						●											165	6.6173	1.291
200 HE	46	180				●				6	149	568	250	175	240	160	76.8	1.4880	1.2952
							●										81.2	2.0390	1.2952
200 HE-D	46	180				●				-	325	568	250	298	310	-	228	11.80	2.4672
							●										216	10.66	2.4672
G200 HE	46	180				●				6	149	600	250	175	240	160	81.6	1.6272	1.5409
							●										86.0	2.1782	1.5409
G200 HE-D	46	180				●				-	325	600	250	298	310	-	238	12.00	3.0387
							●										230	10.92	3.0387
240 HE	80	240						●		8	172	772	326	200	270	205	138	4.2414	4.0410
275 HE	80	275							●	10	185	810	372	240	312	215	206	7.3696	7.6845

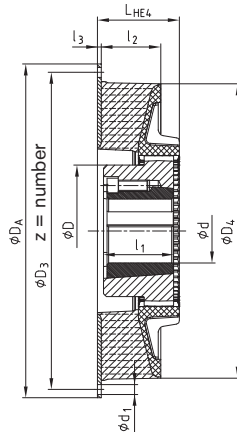
Technical data													
Size	Elastomer hardness [Shore A]	Torque [Nm]				Perm. damping power PKW [W]			Perm. operating speed n _{max.} [rpm]	Dynamic torsion spring stiffness C _{dyn.} [Nm/rad] 60 °C	Relative damp- ing ψ	Resonance factor V _R ≈ 2 • π / ψ	Radial spring stiffness C _r [N/mm]
		T _{KN} [Nm]	T _K max. 10.000 LW [Nm]	T _K max. 50.000 LW [Nm]	T _{KW} [Nm]	60 °C	80 °C	90 °C					
125 HE	T50	4300	12900	6450	1075	221	133	88	2300	30000	0.8	7.9	617
	T70	7500	22500	11250	1875					54000	1.2	5.2	2434
G125 HE	T50	6100	18300	9150	1525	240	144	96	2250	51000	0.8	7.9	560
	T70	9750	29250	14625	2438					98000	1.2	5.2	1915
150 HE	T50	8000	24000	12000	2000	262	157	105	2200	67500	0.8	7.9	714
	T70	14000	42000	21000	3500					140000	1.2	5.2	2500
150 HE-D	T50	16000	48000	24000	4000	524	314	210	2200	134000	0.8	7.9	1428
	T70	28000	84000	42000	7000					279000	1.2	5.2	5000
G150 HE	T50	10000	30000	15000	2500	278	167	111	2100	85000	0.8	7.9	1485
	T70	18000	54000	27000	4500					160000	1.2	5.2	5874
G150 HE-D	T50	20000	60000	30000	5000	556	334	222	2100	170000	0.8	7.9	2970
	T70	36000	108000	54000	9000					320000	1.2	5.2	11748
200 HE	T50	14500	43500	21750	3625	308	185	123	1900	119000	0.8	7.9	1720
	T70	25000	75000	37500	6250					241000	1.2	5.2	6769
200 HE-D	T50	29000	87000	43500	7250	616	370	246	1900	238000	0.8	7.9	3440
	T70	50000	150000	75000	12500					482000	1.2	5.2	13538
G200 HE	T50	17500	52500	26250	4375	324	194	130	1800	139000	0.8	7.9	1952
	T70	30000	90000	45000	7500					281500	1.2	5.2	7708
G200 HE-D	T50	35000	105000	52500	8750	648	388	260	1800	278000	0.8	7.9	3904
	T70	60000	180000	90000	15000					563000	1.2	5.2	15416
240 HE	T50	29000	87000	43500	7250	372	223	149	1500	259000	0.8	7.9	2326
	T70	49000	147000	73500	12250					521000	1.2	5.2	9160
275 HE	T50	42000	126000	63000	10500	410	246	164	1500	375000	0.8	7.9	2950
	T70	70000	210000	105000	17500					758000	1.2	5.2	11785

■ = Years of experience with applications at customer sites and additional test series in the KTR test field in Rheine enabled us to determine potentials allowing for an increase of the rated torques with some sizes of this series.
Other elastomer hardness on request.

Ordering example:	BoWex-ELASTIC® 80					
	Coupling size	Type	Elastomer hardness	Flange Ø DA according to SAE or special	Mounting length LHE	Unbored or with finish bore
		HE3	40	10	112	U



Type HE4 with taper clamping sleeve



Flange dimensions according to SAE J620 [mm]				
Nominal size	D _A	D ₃	z	d ₁
14"	466.72	438.15	8	13
16"	517.50	489.00	8	13
18"	571.50	542.90	6	17
21"	673.10	641.35	12	17
24"	733.42	692.15	12	21
Ø800 ¹⁾	800	770	32	17
Ø885 ¹⁾	885	855	36	17

¹⁾ Flange connection differing from SAE standard, dimensions in mm.

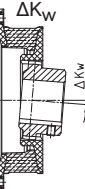
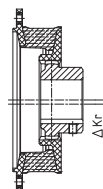
Displacements

For different operating speeds or higher operating temperatures the permissible radial displacement is calculated as follows:

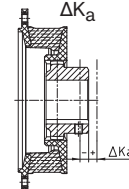
$$\Delta K_r \text{ perm.} = \Delta K_r \cdot St \cdot \sqrt{1500 / nx}$$

nx = speed / St = temperature factor

Radial displacement ΔK_r Angular displacement



Axial displacement ΔK_a



Displacements																
Size		125 HE G125 HE			150 HE G150 HE			200 HE G200 HE			240 HE			275 HE		
Elastomer hardness [Shore A]		T40	T50	T70	T40	T50	T70	T40	T50	T70	T40 Sh	T50	T70	T40	T50	T70
Perm. radial displacement ΔK_r [mm]	n=1500 rpm	2.5	2.3	1.1	2.8	2.5	1.3	3.0	2.7	1.5	3.2	2.9	1.6	3.4	3.1	1.8
	max. 2)	7.5	6.9	3.3	8.0	7.5	4.0	8.5	8.0	4.5	9.0	8.5	5.0	9.5	9.0	5.5
Perm. angular displacement ΔK_w [°]	n=1500 rpm	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5
	n=3000 rpm	0.5	0.4	0.25	–	–	–	–	–	–	–	–	–	–	–	–
Perm. angular displacement ΔK_w [°]	max. 2)	1.5			1.5			1.5			1.5			1.5		
Perm. axial displacement ΔK_a [mm]		± 3			± 4			± 4			± 4			± 4		

²⁾ For short-term start-up operation

Mounting procedure, screw type with property class, tightening torques as per KTR assembly instructions (see www.ktr.com).

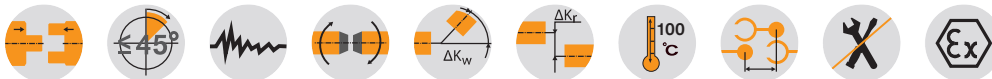
BoWex-ELASTIC® HE-ZS and HEW

Highly flexible flange couplings

With drop-out center part for pump drives, highly flexible shaft-to-shaft coupling



For legend of pictogram please refer to flapper on the cover



BoWex-ELASTIC® Type HE-ZS																														
Size	Max. finish bore d4	Flange connection acc. to SAE - J620 D _A for HE-ZS										Dimensions [mm]										Drop-out center part HE-ZS L _Z [mm]					Weight with max. bore [kg]	Mass moment of inertia [kgm ²]		
		6 ½"	7 ½"	8"	10"	11 ½"	14"	16"	18"	21"	24"	D ₁	D ₄	D ₅	D ₇	D ₈	l ₁	l ₂	l ₃	l ₆	100	120	140	180	250	J _A		J _L		
48 ³⁾	28	●																48	10			●	●				2.9 ¹⁾	0.0026	0.0033	
			●									160	164	200	78	45	40					●	●				3.6 ¹⁾	0.0106	0.0033	
				●														37	4		37	●	●				3.9 ¹⁾	0.0148	0.0033	
					●																	●	●				4.6 ¹⁾	0.0298	0.0033	
G65 ³⁾	45				●																		●				7.3 ¹⁾	0.0242	0.0129	
						●						205			110	72	60	48	3	56			●	●			8.9 ²⁾	0.0372	0.0150	
80 ³⁾	65				●																			●	●		13.7 ²⁾	0.0211	0.0497	
						●						265	266	318	145	100	80	70	11	76				●	●		15.9 ²⁾	0.0726	0.0497	
G80 ³⁾	65					●																		●	●		14.6 ²⁾	0.0402	0.0634	
							●					300	302	358	145	100	80	80	6	76				●	●		19.5 ²⁾	0.2251	0.0634	
100 ³⁾	95						●																	●	●		29.8 ²⁾	0.1951	0.1779	
								●					350		202	148	110	80	4	106				●	●		41.7 ²⁾	0.3013	0.3363	
125 ⁴⁾	100							●																	●	●		43.6 ²⁾	0.4123	0.3363
									●				416		225	165	120	99	6	116				●	●		45.6 ²⁾	0.4781	0.3700	
G125 ⁴⁾	120																							●	●		47.7 ²⁾	0.6380	0.3700	
													440		225	165	120	95	6	116				●	●		63.2	0.6918	0.6647	
150 ⁴⁾	135																								●		67.9	1.1410	0.6647	
													470		245	185	140	140	6	136				●		68.3	0.7540	0.7677		
G150 ⁴⁾	135																								●		73.0	1.2460	0.7677	
													504		245	185	140	140	6	136				●		98.7	1.5348	1.4109		
200 ⁴⁾	150																								●		101.7	1.9138	1.4109	
													568		270	205	160	149	6	156				●		103.5	1.7270	1.6401		
G200 ⁴⁾	150																								●		106.6	2.1060	1.6401	
													600		270	205	160	149	6	156				●		106.6	2.1060	1.6401		

¹⁾ with Lz 120

²⁾ with Lz 100

³⁾ For technical data see page 220

⁴⁾ For technical data see page 222

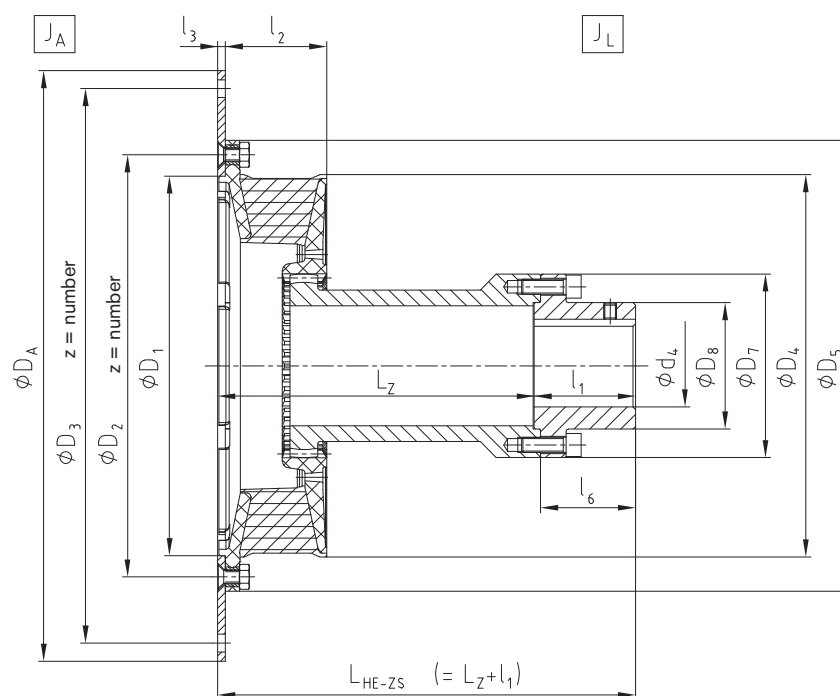
BoWex-ELASTIC® Type HEW																					
Size	Max. finish bore		Dimensions [mm]															Weight with max. bore		Mass moment of inertia [kgm²]	
	d ₂	d ₃	D	D ₂	z x M	D ₄	D ₅	D ₆	l ₁	l ₂	l ₃	l ₄	l ₅	E	E ₁	LHEW1	LHEW2	[kg]	J _A	J _L	
42	48	50	68	162	6	M6	146	180	85	50	45	15	50	42	4	32	132	104	4.3	0.0121	0.0015
48 ³⁾	48	55	68	180	8	M6	164	200	92	50	45	17	55	45	4	32	137	109	5.5	0.0204	0.0019
65 ³⁾	65	75	96	224	8	M8	205	245	125	70	55	28	75	63	5	42	187	150	13.2	0.0752	0.0071
80 ³⁾	90	80	124	295.27	8	M10	266	318	130	90	70	17	80	70	5	45	215	160	19.7	0.1449	0.0285
G80 ³⁾	90	95	124	333.4	8	M10	302	358	145	90	80	22	90	78	5	55	235	185	25.9	0.2748	0.0422
100 ³⁾	100	110	152	438.15	8	M12	350	478	158	110	80	14	111.5	113	26	57	278	207	48.5	0.8356	0.1050
125 ⁴⁾	125	125	192	438.15	8	M12	416	478	175	140	99	14	170	158	-	45	335	-	67.2	0.9498	0.2617
G125 ⁴⁾	125	125	192	489	8	M12	440	530	175	140	95	14	170	158	-	45	335	-	76.6	1.4492	0.3034
150 ⁴⁾	160	160	225	542.9	6	M16	470	585	225	150	100	18	160	145	-	70	380	-	110	2.7206	0.5303
G150 ⁴⁾	160	160	225	542.9	6	M16	504	585	225	150	108	18	160	145	-	70	380	-	113.4	2.7809	0.5861
200 ⁴⁾	180	200	250	641.35	12	M16	568	683	280	175	149	26	220	214	-	85	480	-	195	6.6418	1.1406
G200 ⁴⁾	180	200	250	641.35	12	M16	600	683	280	175	149	26	220	214	-	85	480	-	200	6.6099	1.3419

³⁾For technical data see page 220

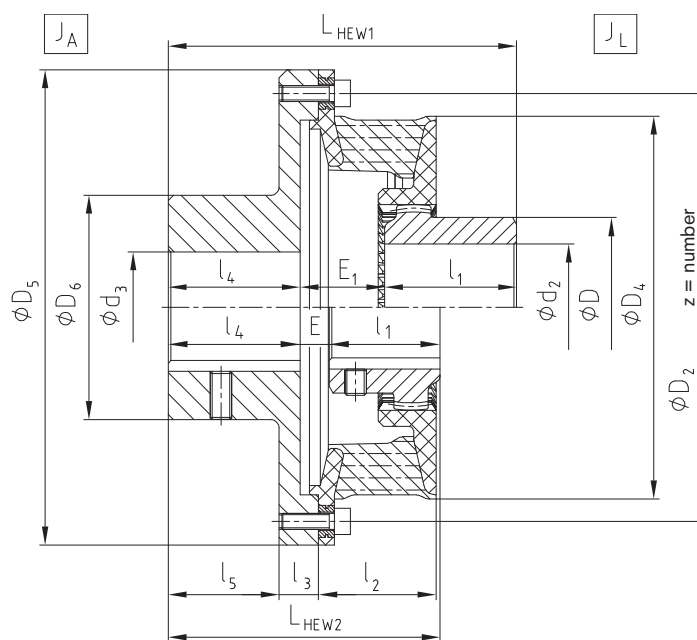
⁴⁾For technical data see page 222

Other sizes available. Please consult with us.

Type HE-ZS



Type HEW1



Type HEW2

BoWex® FLE-PA/-PAC

MONOLASTIC®

Flange couplings

BoWex-ELASTIC®

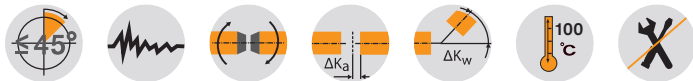
BoWex-ELASTIC® HEG

Highly flexible flange couplings

Cardan shaft connecting coupling



For legend of pictogram please refer to flapper on the cover



BoWex-ELASTIC® Type HEG1 and type HEG2																															
Size	Flywheel connection acc. to SAE-J620					Metric flange connection HEG1 dimensions [mm]								MECHANICS cardan shaft connection HEG2 dimensions [mm]										Dimensions [mm]			Weight [kg]	Mass moment of inertia			
	8"	10"	11 1/2"	14"	16"	58	65	75	90	100	120	150	180	l ₄	L	2 C	4 C	5 C	6 C	7 C	8,5 C	8 C	L ₁	D ₄	l ₂	l ₃		J _A [kgm²]	J _L [kgm²]		
48 ¹⁾	●					●	●	●						8	58.5										163	43.5	8	7 8	0.03 0.06	0.006 0.006	
G65 ¹⁾		●						●	●	●				8	66	●	●	●							71	205	48.0	10	12 14	0.07 0.10	0.02 0.02
80 ¹⁾			●					●	●	●	●			10	88.5		●	●	●	●							23	21	0.11	0.06	
				●				●	●	●	●						●	●	●	●				104	265	68.5	12	23	0.17	0.06	
G80 ¹⁾				●					●	●	●	●	●	10	96			●	●	●	●				110	302	74.0	23 12	26 33	0.18 0.48	0.09 0.09
100 ¹⁾					●					●	●	●	●	12	98						●	●			128	350	78.0	16	41	0.63	0.19
125 ²⁾						●					●	●	●	12	111							●	●		135	416	96.0	18 12	56 59	0.74 0.97	0.42 0.42

¹⁾ For technical data see page 220

²⁾ For technical data see page 222

Flywheel connection to SAE-J620				
Size	D _A	D ₁	z ₁	d ₁
8"	263.52	244.47	6	11
10"	314.32	295.27	8	11
11 1/2"	352.42	333.37	8	11
14"	466.72	438.15	8	14
16"	517.50	489.00	8	14

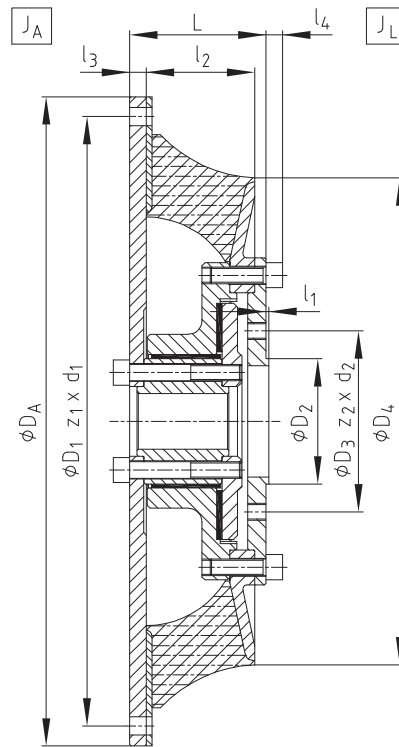
Metric flange connection HEG1 [mm]					
Size	D ₂	l ₁	D ₃	z ₂	d ₂
58	30	1.0	47.0	4	M5
65	35	1.0	52.0	4	M6
75	42	1.5	62.0	6	M6
90	47	2.0	74.5	4	M8
100	57	2.0	84.0	6	M8
120	75	2.0	101.5	8	M10
150	90	2.5	130.0	8	M12
180	110	3.0	155.5	8	M14

MECHANICS cardan shaft connection HEG2 [mm]						
Size	D ₅	l ₅	l ₆	l ₇	l ₈	z ₃
2 C	79.35	33.3	59.5	9.50	3.8	M8
4 C	107.92	36.5	87.3	9.50	3.8	M8
5 C	115.06	42.9	88.9	14.26	5.1	M10
6 C	140.46	42.9	114.3	14.26	5.1	M10
7 C	148.39	49.2	117.5	15.85	6.0	M12
8,5 C	165.08	71.4	123.8	15.85	6.0	M12
8 C	206.32	49.2	174.6	15.85	6.0	M12

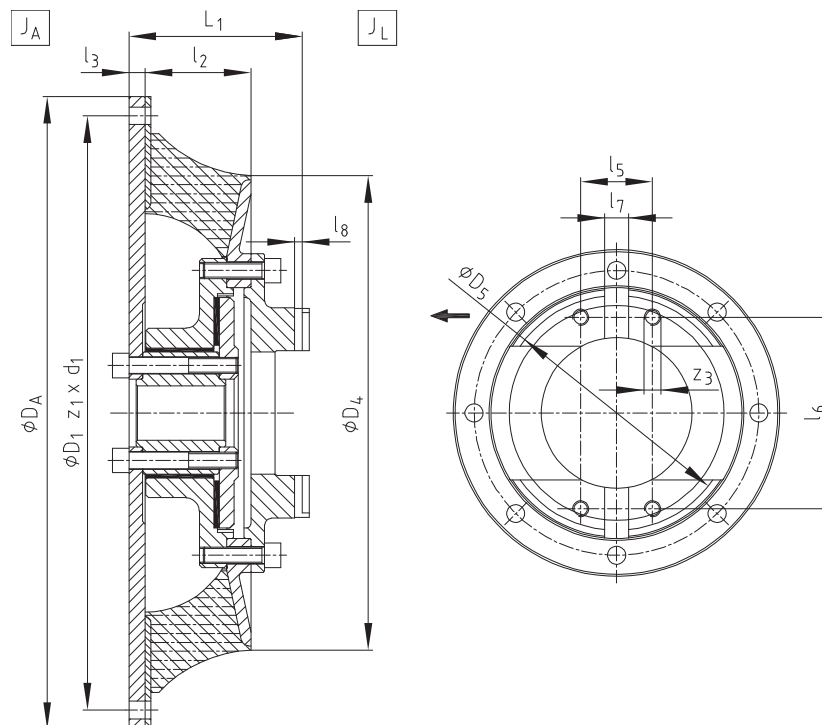
BoWex-ELASTIC® type HEG has a maintenance-free plain bearing compensating for the radial loads generated by the cardan shaft. Moreover, the coupling has a friction disk which is axially prestressed by the elastomer part. The elastomer part is made of natural rubber via vulcanizing.

The permanent friction provides the coupling with excellent damping properties reducing the high vibratory torques arising in the coupling during the starting process and running through resonance considerably.

Type HEG1



Type HEG2



BoWex® FLE-PA/-PAC

MONOLASTIC®

Flange
couplings

BoWex-ELASTIC®