

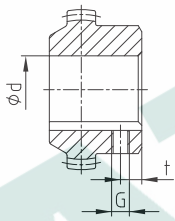
# BoWex® Curved-tooth gear coupling®

## Technical data

Power, torque and speed							
Type and size		Power P [kW] / n [rpm]		Torque [Nm]			Max. speed [rpm]
		Rated	Max.	T <sub>KN</sub>	T <sub>K max.</sub>	T <sub>KW</sub>	
Type plug-in coupling/ junior M	junior 14 / M-14	0.0005	0.010	5	10	2.5	6000
	junior 19 / M-19	0.0008	0.0017	8	16	4	
	junior 24 / M-24	0.0013	0.0025	12	24	6	
Type M   AS Spec.-I SG SSR	14	0.0010	0.003	10	30	5	14000
	19	0.0017	0.005	16	48	8	11800
	24	0.0021	0.006	20	60	10	10600
	28	0.0047	0.014	45	135	23	8500
	32	0.0063	0.019	60	180	30	7500
	38	0.0084	0.025	80	240	40	6700
	42	0.010	0.031	100	300	50	6000
	45 / 48	0.015	0.044	140	420	70	5600
	65	0.040	0.119	380	1140	190	4000
	80	0.073	0.22	700	2100	350	3150
	100	0.13	0.38	1200	3600	600	3000
	125	0.26	0.78	2500	7500	1250	2120
Type M...C GT	14	0.0015	0.0047	15	45	7.5	14000
	19	0.0025	0.0075	24	72	12	11800
	24	0.003	0.009	30	90	15	10600
	28	0.007	0.022	70	210	35	8500
	32	0.009	0.028	90	270	45	7500
	38	0.013	0.038	120	360	60	6700
	48	0.021	0.063	200	600	100	5600
	65	0.058	0.18	560	1680	280	4000
	80	0.105	0.311	1000	3000	500	3150

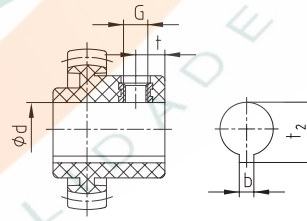
## Setscrews

Thread dimensions for setscrews, BoWex® coupling hubs with cylindrical bore.



Position of the thread for setscrew BoWex® M-14 to M-24 opposite the keyway

BoWex® M-28 to I-125 on the keyway



Position of thread with BoWex® junior plug-in coupling and junior M coupling

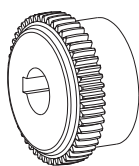
BoWex® coupling hubs							
Size Dimensions	14 19 24	28 32 38	42 45 48	65	80	100	125
Thread G	M5	M8	M10	M10	M12	M16	
Distance t	6	10	15 <sup>1)</sup> 20	20	30	40	
Tightening torque T <sub>A</sub> [Nm]	2	10	17	17	40	80	

BoWex® junior coupling hubs			
Size Dimensions	14	19	24
Thread G	M5	M5	M5
Hub 1b - Distance t	6	6	6
Plug-in sleeve 2b - Distance t	8	10	10
Tightening torque T <sub>A</sub> [Nm]	1.4	1.4	1.4

<sup>1)</sup> Length of hub 55 mm t = 15 mm, 70 mm t = 20 mm

# BoWex® Curved-tooth gear coupling®

## Types of hubs



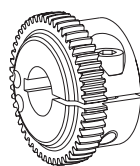
### Type 1.0 hub with feather keyway and setscrew

Positive-locking power transmission, permissible torque depending on the permissible surface pressure. Not suitable for backlash-free power transmission with heavily reversing operation.

### Type 1.1 hub without feather keyway, with setscrew

Non-positive torque transmission for crimp connections and adhesive bonds. (No ATEX approval)

### Type 1.3 hub with spline bore (see page 107)



### Type 2.0 clamping hub single slot without feather keyway

Frictionally engaged, backlash-free shaft-hub-connection. Transmittable torques depending on bore diameter.

### Type 2.1 clamping hub single slot with feather keyway

Positive-locking power transmission with additional friction fit. The friction fit avoids resp. reduces reverse backlash. Surface pressure of the keyway connection is reduced.

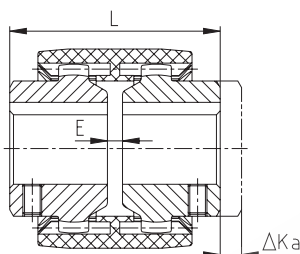
### Type 2.3 clamping hub with spline bore (see page 107)

Other hub types on request.

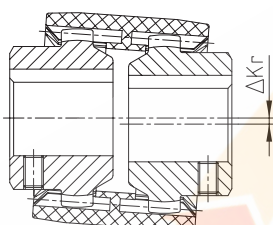
## Displacements

BoWex® couplings are double-cardanic compensating for axial, radial and angular shaft displacements in addition to transmitting the power so that damage on the driving or driven machine is prevented.

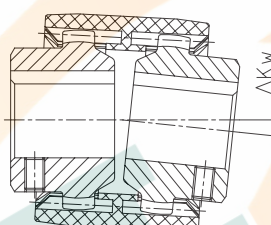
### Axial displacement



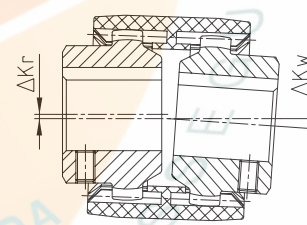
### Radial displacement



### Angular displacement



### Radial and angular displacement



### Displacements – type junior couplings

BoWex® size	Type junior plug-in coupling			Type junior M		
	14	19	24	14	19	24
Max. axial displacement $\Delta K_a$ [mm]	± 1	± 1	± 1	± 1	± 1	± 1
Max. radial displacement with $n=1500$ rpm $\Delta K_r$ [mm]	± 0.1	± 0.1	± 0.1	± 0.3	± 0.3	± 0.4
Max. radial displacement with $n=3000$ rpm $\Delta K_r$ [mm]	± 0.1	± 0.1	± 0.1	± 0.3	± 0.3	± 0.4
Max. angular displacement with $n=1500$ rpm $\Delta K_w$ [degree]	± 1.0	± 1.0	± 0.9	± 1.0	± 1.0	± 0.9
Max. angular displacement with $n=3000$ rpm $\Delta K_w$ [degree]	± 0.7	± 0.7	± 0.6	± 0.7	± 0.7	± 0.6

### Displacements – type M, M..C, I, AS, Spec.-I, SG and SSR

BoWex® size	14	19	24	28	32	38	42	48	65	80	100	125
Max. axial displacement $\Delta K_a$ [mm]	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1
Max. radial displacement with $n=1500$ rpm $\Delta K_r$ [mm]	± 0.30	± 0.30	± 0.35	± 0.35	± 0.35	± 0.40	± 0.40	± 0.40	± 0.45	± 0.45	± 0.45	± 0.45
Max. radial displacement with $n=3000$ rpm $\Delta K_r$ [mm]	± 0.20	± 0.20	± 0.23	± 0.23	± 0.23	± 0.25	± 0.25	± 0.25	± 0.28	± 0.28	± 0.28	± 0.28
Max. angular displacement with $n=1500$ rpm $\Delta K_w$ [degree]	± 1.0	± 1.0	± 0.9	± 0.9	± 0.9	± 0.9	± 0.9	± 0.9	± 0.7	± 0.6	± 0.6	± 0.4
Max. angular displacement with $n=3000$ rpm $\Delta K_w$ [degree]	± 0.7	± 0.7	± 0.6	± 0.6	± 0.6	± 0.6	± 0.6	± 0.6	± 0.5	± 0.4	± 0.4	± 0.3

### Displacements – type GT

### Displacements – type HEW Compact

BoWex® size	Displacements – type GT				Displacements – type HEW Compact														
	28	38	48	65	42-130			65-180			80-225		100-305			125-365			
Elastomer hardness [Shore A]					T50	T65	T70	T50	T65	T70	T50	T65	T70	T50	T65	T70	T40	T52	T65
Max. axial displacement $\Delta K_a$ [mm]	± 1	± 1	± 1	± 1	± 2			± 2			± 2		± 2			± 2			
Max. radial displacement with $n=1500$ rpm $\Delta K_r$ [mm]	± 1	± 1	± 1.4	± 1.4	± 1.1	± 1	± 0.5	± 1.6	± 1.5	± 0.7	± 1.8	± 1.7	± 2.2	± 2.2	± 2	± 1	± 2.5	± 2.3	± 1.1
Max. radial displacement with $n=3000$ rpm $\Delta K_r$ [mm]	± 0.6	± 0.6	± 1	± 1	± 0.55	± 0.5	± 0.25	± 0.8	± 0.75	± 0.35	± 0.9	± 0.85	± 0.9	± 1.1	± 1	± 0.5	± 1.25	± 1.15	± 0.55
Max. angular displacement with $n=1500$ rpm $\Delta K_w$ [degree]	± 1	± 1	± 0.9	± 0.9	± 1	± 0.75	± 0.5	± 1	± 0.75	± 0.5	± 1	± 0.75	± 0.4	± 1	± 0.75	± 0.5	± 1	± 0.75	± 0.5
Max. angular displacement with $n=3000$ rpm $\Delta K_w$ [degree]	± 0.7	± 0.7	± 0.6	± 0.6	± 0.5	± 0.4	± 0.25	± 0.5	± 0.4	± 0.25	± 0.5	± 0.4	± 0.5	± 0.5	± 0.25	± 0.25	± 0.5	± 0.4	± 0.25

The permissible displacement figures of the BoWex® couplings specified are general standard values taking into account the load of the coupling up to the rated torque  $T_{KN}$  of the coupling. With different operating conditions please order our data sheet for displacements of BoWex® KTR-N 20140. The displacement figures may only be used one by one, if they appear simultaneously, they must be limited in proportion. Care should be taken to maintain the distance dimension E accurately in order to allow for axial clearance of the coupling while in operation. Detailed mounting instructions are shown on our homepage [www.ktr.com](http://www.ktr.com).

# BoWex® Curved-tooth gear coupling®

For cylindrical bores, taper/inch bores see selection of standard IEC motors

Stock programme of cylindrical finish bores [mm] H7 feather keyway acc. to DIN 6885 sheet 1 [JS9] and setscrew																														
BoWex® Size	un/pilot bored	Ø8	Ø10	Ø11	Ø12	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55	Ø60	Ø65	Ø70	Ø75
14	●■	●	●	●	●	●	●																							
19	●■		●	●	●	●	●	●	●	●	●■	●																		
24	●■		●	●	●	●■	●	●	●	●	●■	●■	●	●■	●															
28	●■				●	●	●	●	●	●	●	●	●	●	●	●■														
32	●■							●		●	●	●	●	●	●	●	●	●	●											
38	●■							●		●	●	●	●	●	●	●	●	●	●	●■										
42	●■									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
48	●■										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●■	●■				
65	●■											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
80	●																						●	●	●	●	●	●	●	

● Standard length      ■ Standard lengthened

Taper and inch bores																			
Code d +0.05 b JS9 t +0.2	Taper 1:5					Taper 1:8					Inch bores								
	A-10 9.85 2	B-17 16.85 3	C-20 19.85 4	D-25 24.85 5	E-30 29.85 6	N/1 9.7 2.4	N1d 14 3	N/2 17.28 3.2	N/2a 17.28 4	N/3 22 3.99	Ta 12.7 3.17 14.3	DNC 13.45 3.17 14.9	Ed 15.87 4.75 18.1	A 19.05 4.78 21.3	G 22.22 4.75 24.7	F 22.22 6.38 25.2	Bs 25.38 6.37 28.3	Hs 25.4 6.35 28.7	K 31.75 7.93 35.4
14	●						●												
19		●					●						●						
24	●	●					●		●	●		●			●	●			
28	●	●					●	●	●	●		●			●				
32		●																●	
38		●							●	●					●				
42		●		●					●	●		●			●		●	●	
48																			
65																			●

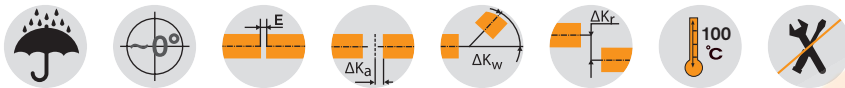
Other dimensions on request.  
● Standard length

BoWex® couplings for standard IEC motors, protection class IP 54/IP 55										
A. C. motor Size	Engine power with 50 Hz n = 3000 [rpm]			Engine power with 50 Hz n = 1500 [rpm]			Engine power with 50 Hz n = 1000 [rpm]			Cylindrical shaft ends d x l [mm] 3000 ≤ 1500
	kW	T [Nm]	BoWex® coupling	kW	T [Nm]	BoWex® coupling	kW	T [Nm]	BoWex® coupling	
56	0.09	0.32	14	0.06	0.43	14	0.037	0.43	14	9 x 20
	0.12	0.41		0.09	0.64		0.045	0.52		
63	0.18	0.62	14	0.12	0.88	14	0.06	0.72	14	11 x 23
	0.25	0.86		0.18	1.3		0.09	1.1		
71	0.37	1.3	14	0.25	1.8	14	0.18	2.0	14	14 x 30
	0.55	1.9		0.37	2.5		0.25	2.7		
80	0.75	2.5	19	0.55	3.7	19	0.37	3.9	19	19 x 40
	1.1	3.7		0.75	5.1		0.55	5.8		
90 S	1.5	5.0	24	1.1	7.5	24	0.75	8.0	24	24 x 50
90 L	2.2	7.4		1.5	10		1.1	12		
100 L	3	9.8	28	2.2	15	28	1.5	15	28	28 x 60
				3	20		3	20		
112 M	4	13	28	4	27	28	2.2	22	28	28 x 60
				4	27		4	27		
132 S	5.5	18	38	5.5	36	38	3	30	38	38 x 80
	7.5	25		5.5	36		4	40		
132 M	7.5	25	38	7.5	49	38	5.5	55	38	38 x 80
							5.5	55		
160 M	11	36	42	11	72	42	7.5	75	42	42 x 110
	15	49		15	98		11	108		
160 L	18.5	60	48	18.5	121	48	11	108	48	48 x 110
180 M	22	71		22	144		15	148		
180 L			48	22	144	48	15	148	48	48 x 110
200 L	30	97		30	196		18.5	181		
225 S	37	120	65	37	240	65	22	215	65	55 x 110
				37	240		22	215		
225 M	45	145	65	45	292	65	30	293	65	55 x 110
250 M	55	177		55	356		37	361		60 x 140
280 S	75	241	80	75	484	80	45	438	80	75 x 140
280 M	90	289		90	581		55	535		
315 S	110	353	80	110	707	80	75	727	80	75 x 140
315 M	132	423		132	849		90	873		
315 L	160	513	80	160	1030	100	110	1070	100	65 x 140
	200	641		200	1290		132	1280		
315	250	801	100	250	1610	100	160	1550	100	80 x 170
	315	1010		315	2020		110	1070		
355	355	1140	125	355	2280	125	200	1930	125	85 x 170
	400	1280		400	2560		250	2420		
			125	400	2560	125	315	3040	-	75 x 140

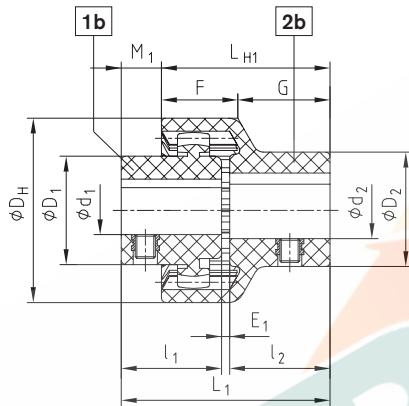
Torque T<sup>Δ</sup> = rated torque according to Siemens catalogue.

# BoWex® junior and junior M Curved-tooth gear coupling®

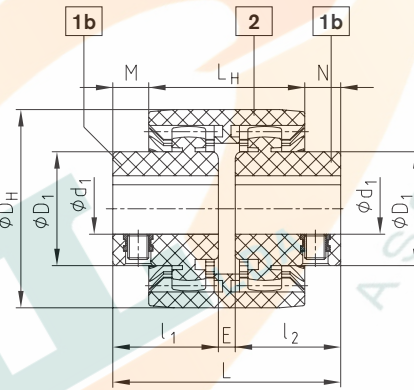
Plug-in coupling made of nylon (two-part and three-part)



## Components



Type junior plug-in coupling (two-part)



Type junior M coupling (three-part)

## BoWex® junior plug-in coupling (two-part) and BoWex® junior M (three-part)

Size	Torque [Nm]		Finish bore				Dimensions [mm]											Max. speed [rpm]	
			Hub Component 1b <sup>1)</sup>		Plug-in sleeve Component 2b <sup>1)</sup>		DH	l1, l2	E1	L1	LH1	M1	F	G	E	L	LH		M, N
	TKN	TK max.	d1 <sup>1)</sup>	D1	d2 <sup>1)</sup>	D2													
14 M-14	5	10	Ø6, Ø7	22	Ø6, Ø7, Ø8	22	40	23	2	48	40	8	18.5	21.5	4	50	37	6.5	6000
			Ø10, Ø11	25	Ø10, Ø11	25													
			Ø12, Ø14	26	Ø12, Ø14	26													
19 M-19	8	16	Ø10, Ø11, Ø12, Ø14	27	Ø12, Ø14,	27	47	25	2	52	42	10	19.0	23.0	4	54	37	8.5	6000
			Ø15, Ø16	30	Ø15, Ø16	29													
			Ø19	32	Ø19	35													
24 M-24	12	24	Ø10, Ø11, Ø12	26	Ø14, Ø16	32	53	26	2	54	45	9	21.5	23.5	4	56	41	7.5	6000
			Ø14, Ø15, Ø16	32															
			Ø18, Ø19, Ø20	36	Ø19, Ø20	36													
			Ø24	38	Ø24	40													

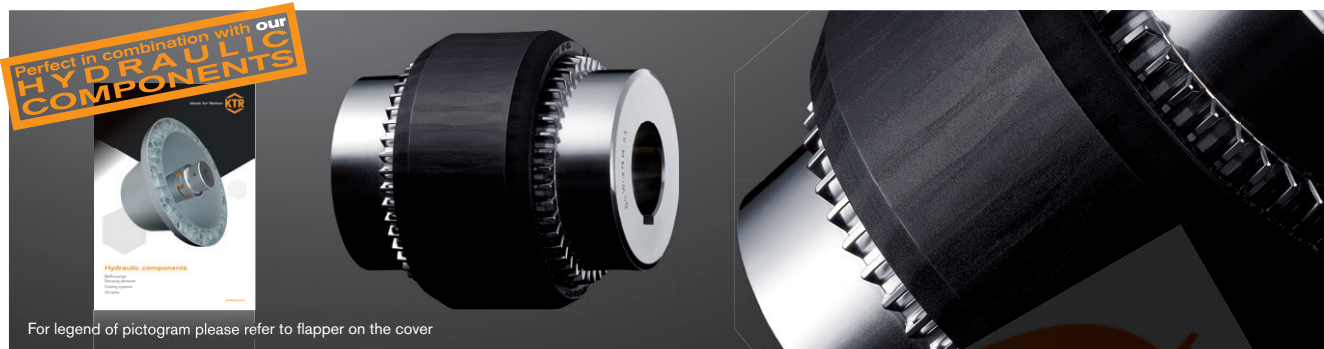
<sup>1)</sup> Finish bore with tolerance +0.05/-0.1; feather keyway ±0.08

Ordering example:	BoWex® junior 19	d1 Ø19	d2 Ø14
	Coupling size of two-part type or BoWex® junior M-19 three-part type	Finish bore	Finish bore

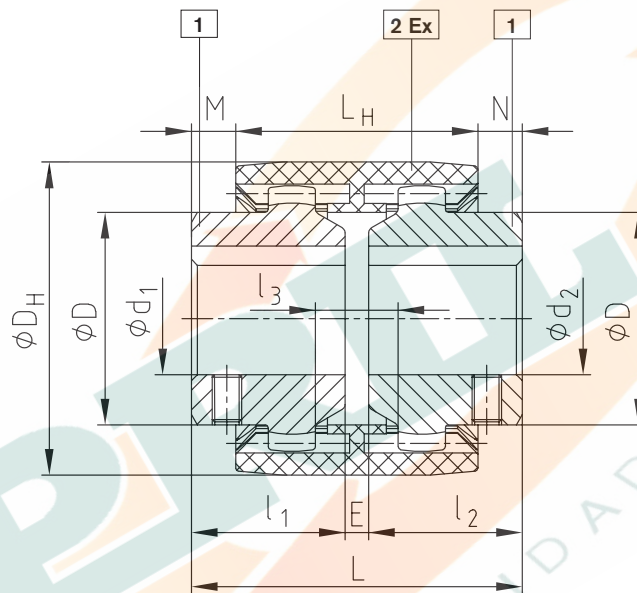
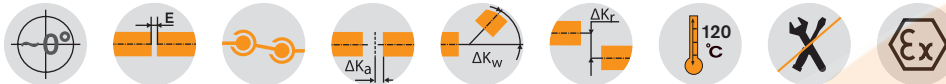


# BoWex® M...C Curved-tooth gear coupling®

Compact and maintenance-free



For legend of pictogram please refer to flapper on the cover



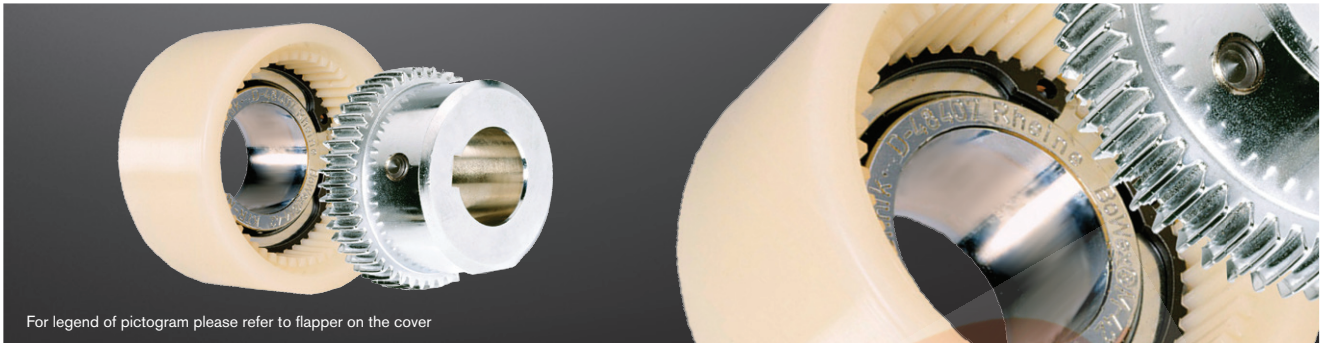
Type M...C  $\text{Ex}$

BoWex® Type M...C $\text{Ex}$																								
Size	Torque [Nm]			Finish bore d1, d2		Dimensions [mm]													Weight with max. bore [kg]			Mass moment of inertia J with max. bore [kgcm <sup>2</sup> ]		
	T <sub>KN</sub>	T <sub>K max.</sub>	T <sub>KW</sub>	Pilot bored	Max.	l <sub>1</sub> , l <sub>2</sub>	E	L	L <sub>H</sub>	M, N	l <sub>3</sub>	D	D <sub>H</sub>	Tip circle ØDz hub	Number of teeth	Hub lengthened max. l <sub>1</sub> , l <sub>2</sub>	Sleeve	Hub	Total	Sleeve	Hub	Total		
M-14C	15	45	7,5	-	15	23	4	50	37	6,5	10	25	40	33	20	40	0,03	0,07	0,1	0,08	0,09	0,26		
M-19C	24	72	12	-	20	25	4	54	37	8,5	10	32	47	39	24	40	0,03	0,1	0,23	0,15	0,16	0,47		
M-24C	30	90	15	-	24	26	4	56	41	7,5	14	36	53	45	28	50	0,04	0,14	0,32	0,21	0,36	0,93		
M-28C	70	210	35	-	28	40	4	84	46	19	13	44	65	54	34	55	0,08	0,33	0,74	0,65	1,22	3,09		
M-32C	90	270	45	-	32	40	4	84	48	18	13	50	75	63	40	55	0,09	0,43	0,95	1,14	2,17	5,48		
M-38C	120	360	60	-	38	40	4	84	48	18	13	58	83	69	44	60	0,13	0,55	1,23	1,58	3,55	8,68		
M-48C	200	600	100	-	48	50	4	104	50	27	13	68	95	78	50	60	0,23	0,79	1,81	3,9	7,22	18,34		
M-65C	560	1680	280	21	65	55	4	114	68	23	16	96	132	110	42	70	0,55	1,9	4,35	21,2	31,8	84,8		
M-80C	1000	3000	500	31	90	90	6	186	93	46,5	20	124	178	145	46	-	1,13	5,2	11,53	68,9	150,8	370,5		

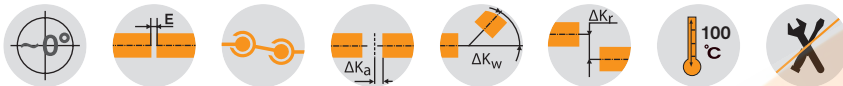
Ordering example:	BoWex® M-28C	d <sub>1</sub> Ø20	d <sub>2</sub> Ø28
	Size and type of coupling	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

# BoWex® AS and Spec.-I Curved-tooth gear coupling®

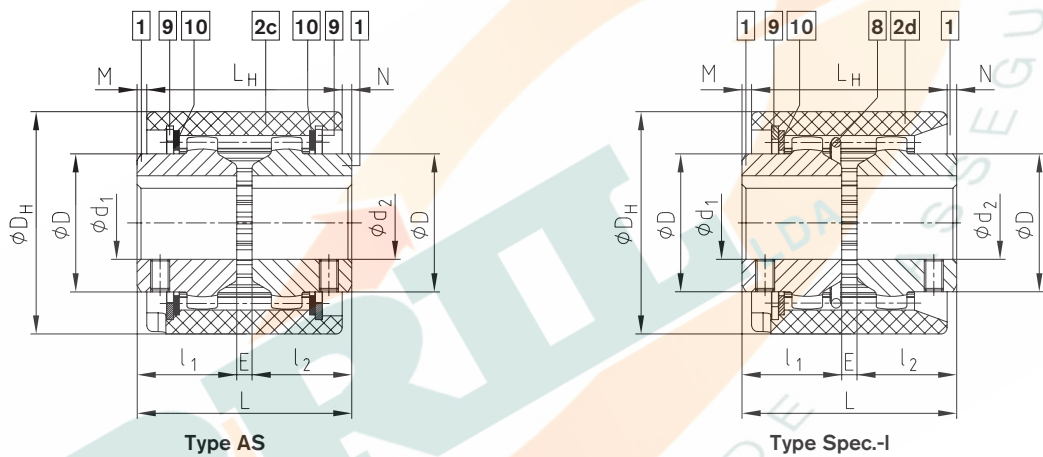
Compact and maintenance-free



For legend of pictogram please refer to flapper on the cover



## Components



BoWex® Type AS and type Spec.-I																		
Size	Pilot bore		Finish bore d <sub>1</sub> , d <sub>2</sub>	Dimensions [mm]									Weight with max. bore [kg]			Mass moment of inertia J with max. bore [kgcm <sup>2</sup> ]		
	Unbored	Pilot bored		Max.	l <sub>1</sub> , l <sub>2</sub>	E	L	L <sub>H</sub>	M, N	D	D <sub>H</sub>	Hub length max. l <sub>1</sub> , l <sub>2</sub>	Sleeve	Hub	Total	Sleeve	Hub	Total
24	x	-	For finish bores see stock programme	24	26	4	56	51	2.5	36	58	50	0.11	0.14	0.39	0.38	0.36	1.10
28	x	-		28	40	4	84	56	14	44	70	55	0.16	0.33	0.82	1.54	1.22	3.98
32	x	-		32	40	4	84	58	13	50	84	55	0.21	0.43	1.07	2.75	2.17	7.09
45	x	-		45	42	4	88	60	14	65	100	60	0.27	0.63	1.53	5.49	5.66	16.81
65	-	21		65	55	4	114	84	15	96	140	70	0.84	2.10	5.00	29.83	43.96	117.8
80	-	31		90	90	6	186	93	46.5	124	178	-	1.30	5.20	11.70	83.20	150.8	384.8
100	-	38		100	110	8	228	102	63	152	210	-	2.05	9.40	20.80	184.4	401.3	987.0
125	-	45	125	140	10	290	134	78	192	270	-	4.32	19.44	43.10	620.0	1362.3	3344.6	

For performance data see page 90.

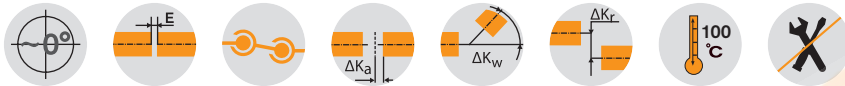
Ordering example:	BoWex® 32 AS	d <sub>1</sub> Ø32	d <sub>2</sub> Ø32
	Size and type of coupling AS or Spec.-I	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

# BoWex® SG, SSR and Spec.-I/CD Curved-tooth gear coupling®

## Type with dust protection

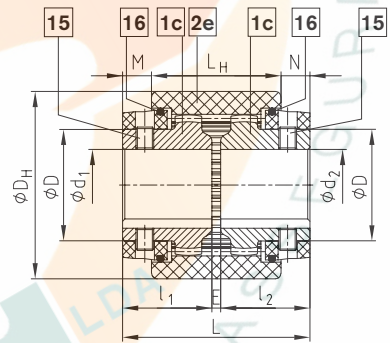


For legend of pictogram please refer to flapper on the cover

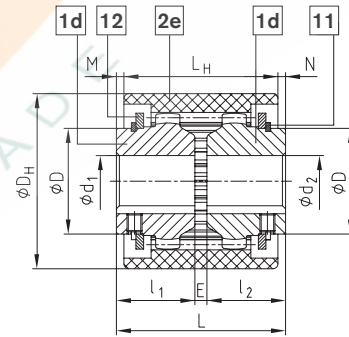


BoWex® Type SG with dust protection circlips												
Size	Pilot bore		Finish bore		Dimensions [mm]							
	Unbored	Pilot bored	Min.	Max.	$l_1, l_2$	E	L	$L_H$	M, N	D	$D_H$	Hub length. max. $l_1, l_2$
24 SG	x	-	10	24	36	4	76	51	12.5	36	58	50
28 SG	x	-	10	28	40	4	84	56	14	44	70	55
32 SG	x	-	12	32	40	4	84	58	13	50	84	55
45 SG	x	-	20	45	42	4	88	60	14	65	100	60
65 SG	-	21	30	65	70	4	144	84	30	96	140	-
80 SG	-	31	35	90	90	6	186	93	46.5	122	175	-
100 SG	-	38	40	100	110	8	228	102	63	150	210	-
125 SG	-	45	50	125	140	10	290	134	78	190	270	-

Setscrews with finish bored hubs only.

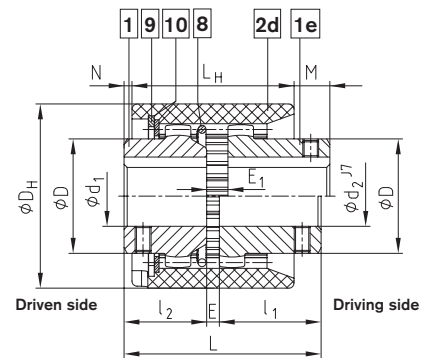


BoWex® Type SSR with Seeger circlips												
Size	Pilot bore		Finish bore		Dimensions [mm]							
	Unbored	Pilot bored	Min.	Max.	$l_1, l_2$	E	L	$L_H$	M, N	D	$D_H$	Hub length. max. $l_1, l_2$
24 SSR	x	-	10	22	26	4	56	51	2.5	35	58	50
28 SSR	x	-	10	26	40	4	84	56	14	42	70	55
32 SSR	x	-	12	30	40	4	84	58	13	48	84	55
45 SSR	x	-	20	42	42	4	88	60	14	63	100	60
65 SSR	-	21	30	65	55	4	114	84	15	95	140	70
80 SSR	-	31	35	90	90	6	186	93	46.5	120	175	-
100 SSR	-	38	40	100	110	8	228	102	63	150	210	-
125 SSR	-	45	50	125	140	10	290	134	78	190	270	-



BoWex® Type Spec.-I/CD															
Size	Pilot bore		Finish bore		Dimensions [mm]										
	Un-bored	Pilot bored	Min.	Max.	L	$L_1$	$L_H$	E	$E_1$	$l_2$	$l_1$	$D_H$	D	M	N
24 CD	x	-	10	24	70	73.5	51	4	9.0	26	40	58	36	20	2.5
28 CD	x	-	10	28	94.5	98	56	4	8.5	40	50.5	70	44	28	14
32 CD	x	-	12	32	94.5	-	58	4	8.5	40	50.5	84	50	27	13
45 CD	x	-	20	45	101.5	-	60	4	8.5	42	55.5	100	65	32	14
65 CD	-	21	30	65	123	-	84	4	10	55	64	140	96	28.5	15
80 CD	-	31	35	90	179	-	93	6	13	90	83	178	124	44	46.5

Please order dimension sheet for type Spec.-I/CDB with safety pins.  
For performance data see page 90.



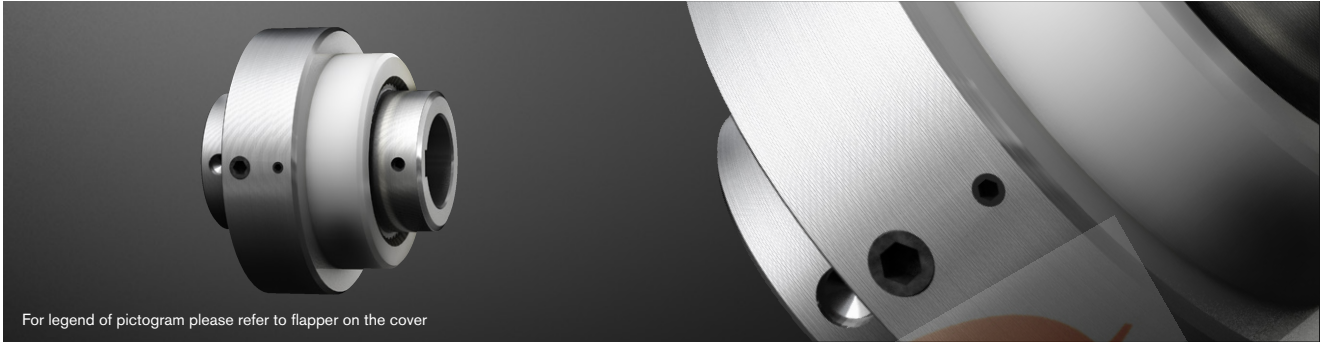
Ordering example:

BoWex® 45 SG	$d_1 \text{ } \varnothing 22$	$d_2 \text{ } \varnothing 40$
Size and type of coupling SG, SSR or Spec.-I/CD	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

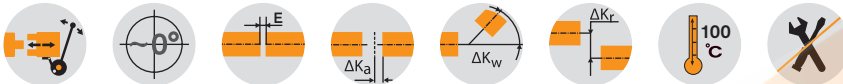


# BoWex® SD/SD-D Curved-tooth gear coupling®

## Shiftable coupling (at standstill)



For legend of pictogram please refer to flapper on the cover



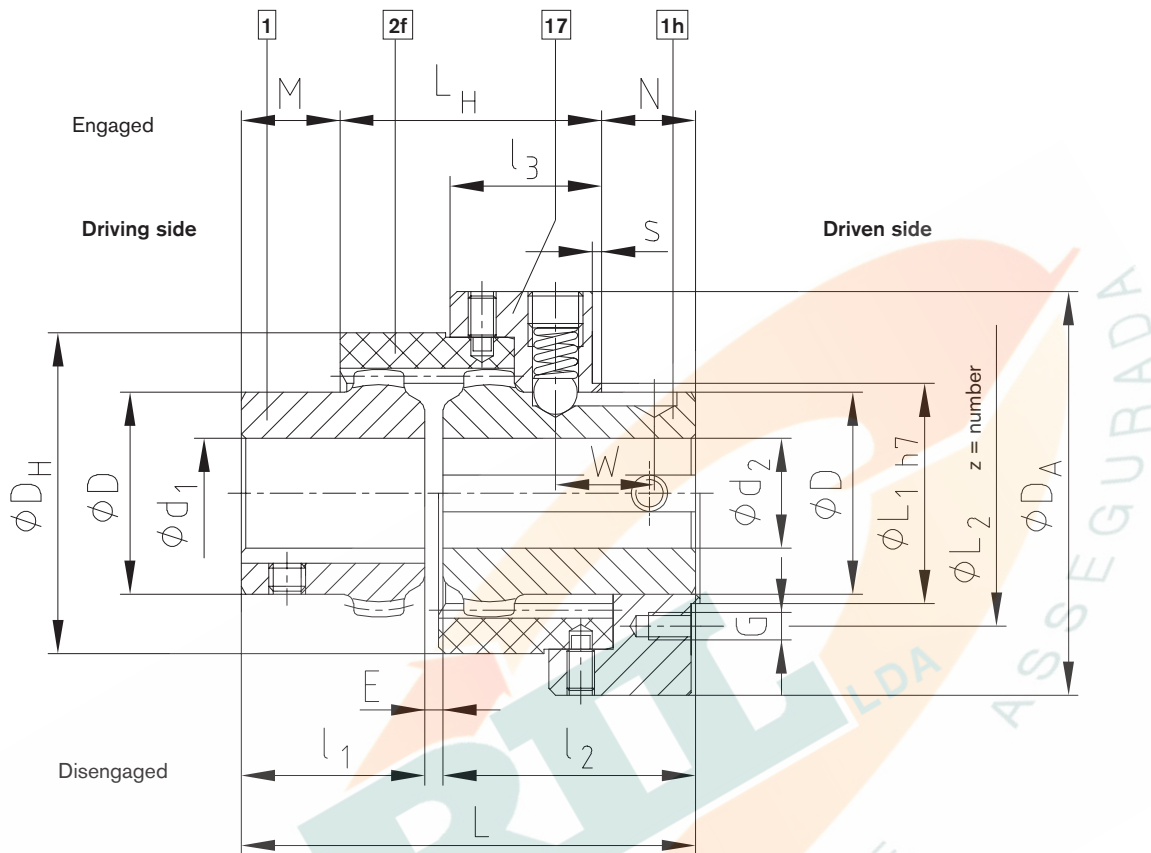
BoWex® Type SD																							
Size	Pilot bore		Finish bore d <sub>1</sub> , d <sub>2</sub>			Dimensions [mm]													Weight with max. bore [kg]		Mass moment of inertia J with max. bore [kgcm <sup>2</sup> ]		Shifting force [N]
	Un-bored	Pilot bored	d <sub>1</sub>	d <sub>1</sub> max.	d <sub>2</sub> max.	E	l <sub>1</sub>	l <sub>2</sub>	L	L <sub>H</sub>	l <sub>3</sub>	M	W	N	D	D <sub>H</sub>	D <sub>A</sub>	Shifting hub with sleeve	Driving hub	Shifting hub with sleeve	Driving hub		
24 SD	x	-	24	24	4	26	50	80	52	31	10	19	18	36	58	78	1.08	0.14	8.23	0.36	140		
28 SD	x	-	28	28	4	40	55	99	57	33	21.5	21.5	20.5	44	70	88	1.50	0.33	15.62	1.22	180		
32 SD	x	-	32	32	4	40	55	99	58	33	20.5	21.5	20.5	50	84	100	1.85	0.43	22.87	2.17	180		
45 SD	x	-	45	45	4	42	60	106	63	37	21.5	22.5	21.5	65	100	125	2.56	0.68	46.07	5.66	250		
						48		114			29.5						0.79						
65 SD	-	26	65	65	4	55	70	129	77	37	28	25	24	95	140	156	5.07	2.30	158.99	43.96	350		
80 SD	-	31	90	90	6	90	90	186	96	47	56	35	34	124	175	195	10.60	5.20	523.7	150.8	350		
100 SD	-	38	100	100	8	110	110	228	113	55	72	43	43	152	210	235	18.87	9.37	1350	401.3	400		
125 SD	-	45	125	125	10	140	140	290	149	70	89	52	52	192	270	298	40.40	9.44	4919	1362.3	450		

Connection dimensions of BoWex® SD shifting ring (comp. 17) for mounting of: slip ring SD1 (s. catalogue on p. 89), shifting disk etc.					
Size	Dimensions [mm]				
	L <sub>1</sub>	L <sub>2</sub>	z x G	s	
24 SD	48	58	4 x M6	2	
28 SD	48	58	4 x M6	2	
32 SD	64	75	4 x M6	2	
45 SD	75	90	4 x M8	2	
65 SD	100	114	4 x M8	2	
80 SD	130	145	4 x M8	3	
100 SD	180	196	6 x M10	4	
125 SD	220	236	6 x M10	4	

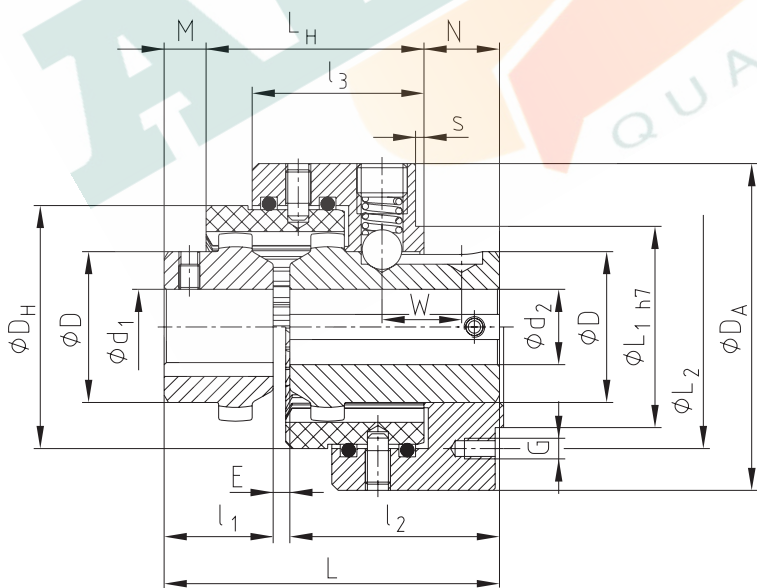
Performance data/torques see type M (on page 90), max. circumferential speed  $v = 20$  m/s, referring to  $\varnothing D_A$   
Other sizes on request

Ordering example:	BoWex® 32 SD	d <sub>1</sub> Ø32	d <sub>2</sub> Ø32
	Size and type of coupling	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

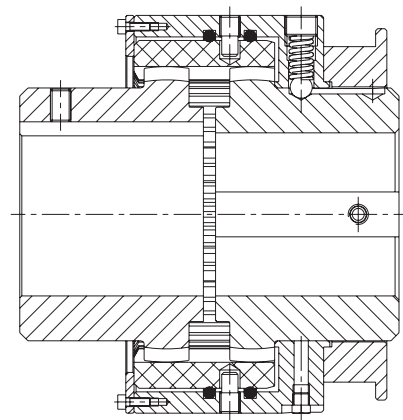
Components



BoWex® SD



BoWex® SD-D



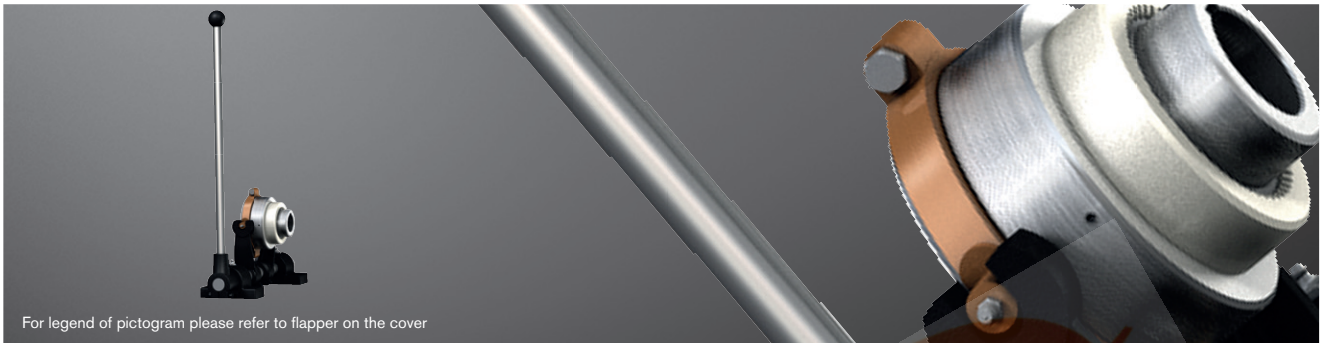
BoWex® SD-D3

BoWex®

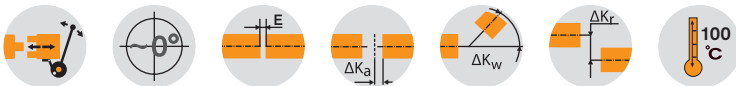
GEARex®

# BoWex® SD1 Curved-tooth gear coupling®

## Shiftable coupling with shiftable linkage (at standstill)



For legend of pictogram please refer to flapper on the cover



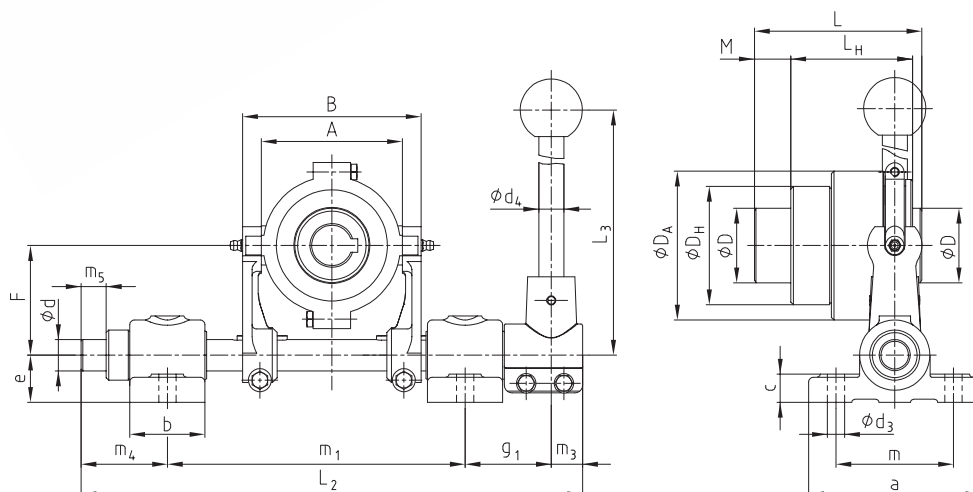
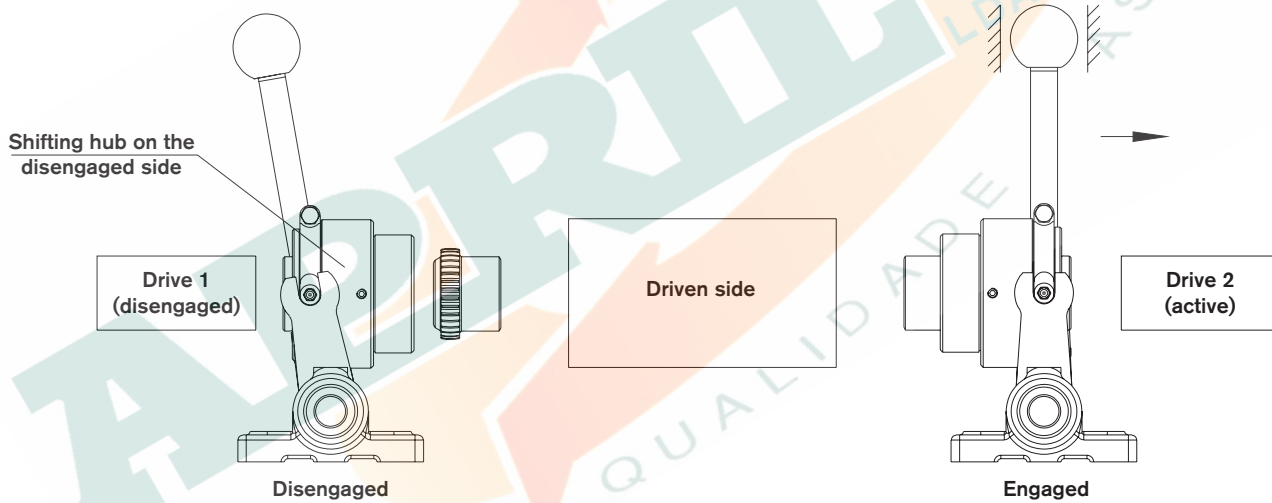
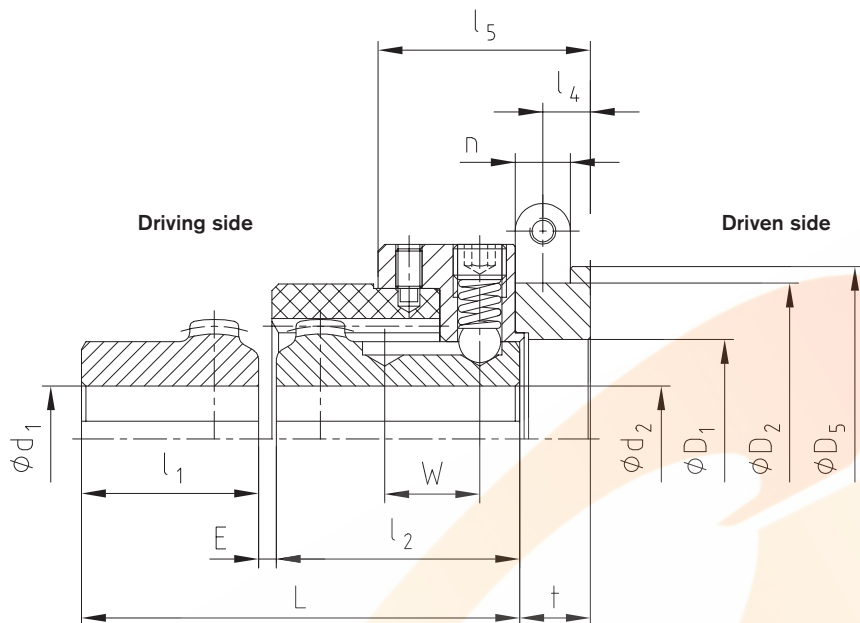
BoWex® Type SD1 and slip ring																					
Size	Finish bore			Dimensions [mm]																	Shifting force [N]
	d <sub>1</sub>	d <sub>1</sub> max.	d <sub>2</sub> max.	E	l <sub>1</sub>	l <sub>2</sub>	L	L <sub>G</sub>	l <sub>4</sub>	l <sub>5</sub>	M	W	t	D	D <sub>H</sub>	D <sub>A</sub>	D <sub>1</sub>	D <sub>2</sub> ±0.1 (keyway)	D <sub>5</sub>	n ±0.1 (keyway)	
24 SD1		24	24	4	26	50	80	67	11	46	10	19	16	36	58	78	45	70.5	78	12.5	140
28 SD1		28	28	4	40	55	99	72	11	48	21.5	21.5	16	44	70	88	45	70.5	78	12.5	180
32 SD1		32	32	4	40	55	99	78	13.5	53	20.5	21.5	21	50	84	100	60	89.5	100	17.5	180
45 SD1		45	45	4	42	60	106	84	14	58	21.5	22.5	22	65	100	125	70	112.5	125	18	250
		48	50		114		29.5														
65 SD1		65	65	4	55	70	129	103	16	61	26	25	25	96	140	156	96	130.5	145	20.5	350
80 SD1		90	90	6	90	90	186	124	18.5	75	56	35	29	124	175	195	125	164.5	182	25.5	350
100 SD1		100	100	8	110	110	228	152	28	94	72	43	39	152	210	235	174	210.5	230	30.5	400
125 SD1		125	125	10	140	140	290	193	30.5	114	89	52	44	192	270	298	214	250.5	275	35.5	450

BoWex® Type SD1 - Shiftable linkage																					
Size	Shiftable linkage size	Slip ring size	Dimensions [mm]															Dimensions with m <sub>1</sub> max.			
			a	b	c	d	d <sub>3</sub>	d <sub>4</sub>	e	F	g <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	m	m <sub>1</sub> min.	m <sub>1</sub> max.	A	B	m <sub>3</sub>	m <sub>4</sub>	m <sub>5</sub>
24 SD1	1	1.1																			
28 SD1	1	1.1	110	50	18	20	11	16	30	70	55	320	400	75	180	190	90	114		55	16
32 SD1	2	2.2				25				97.5	60	430	450		240	270	111	151	20	80	34
45 SD1	3	3.3	140			30		20	40	120		490	600	100	280	310	140	180		90	44
65 SD1	3	4.4		60	25						70						170	210			
80 SD1	4	5.5				35	13.5			50	147.5				321	365	200	244		100	54
100 SD1	5	6.6	160			40		30	50 <sup>1)</sup>	190	80	630	1085	120	365	410	250	300	30	110	62
125 SD1	5	7.7													-		300	350			

<sup>1)</sup> = With a continuous base plate dimension „e“ has to be increased by at least 10 mm. The brackets of the driving and driven side have to be adjusted accordingly. Also available as type SD-D. Other sizes on request.

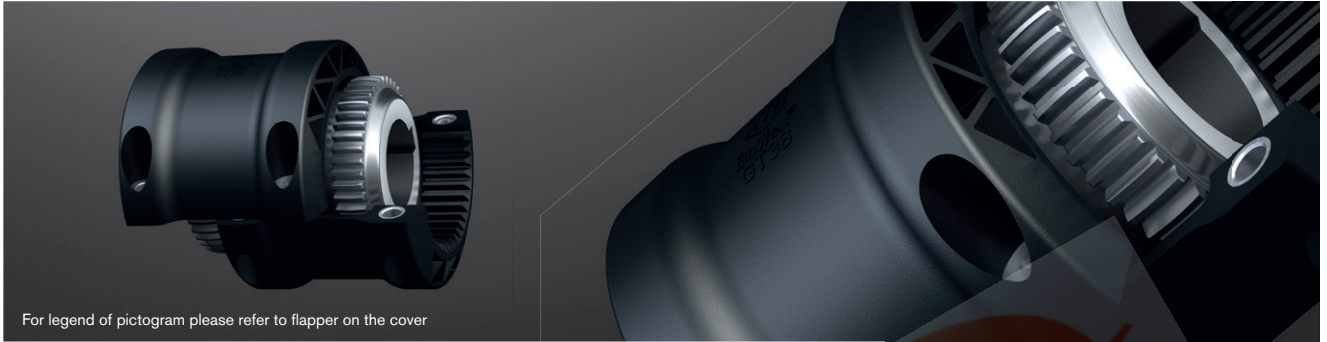
Performance data/torques see type M (on page 88), max. circumferential speed  $v = 20$  m/s, referring to  $\varnothing D_A$

Ordering example:	BoWex® 65 SD1	d <sub>1</sub> Ø32	d <sub>2</sub> Ø32	4.4	3
	Size and type of coupling	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)		Slip ring Size	Shiftable linkage Size

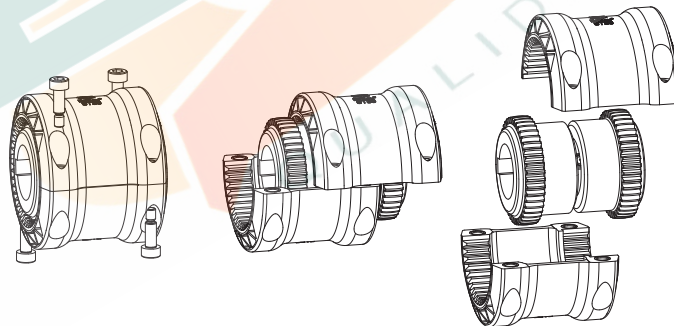
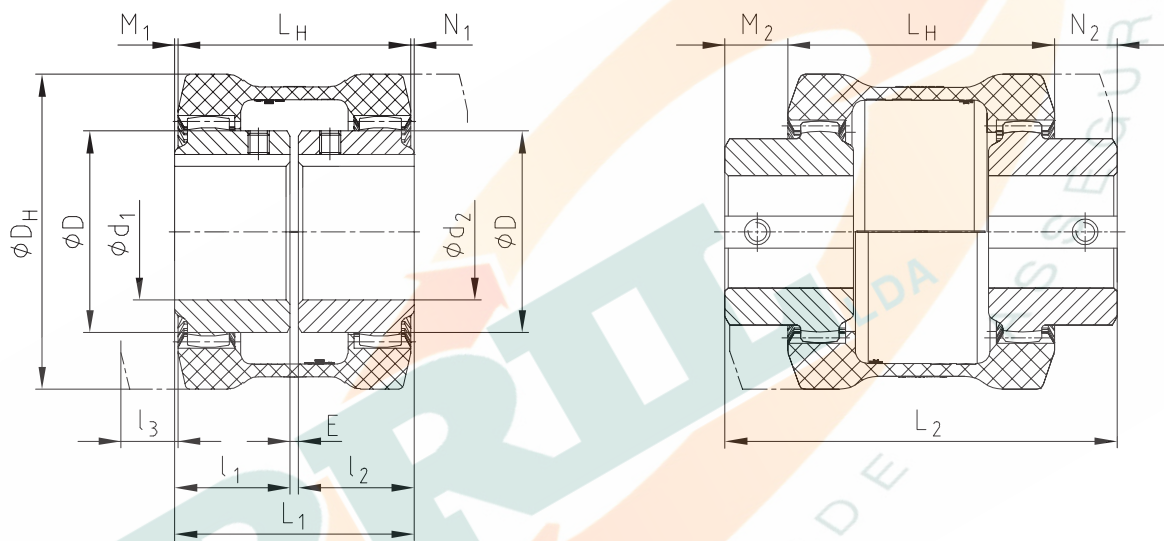
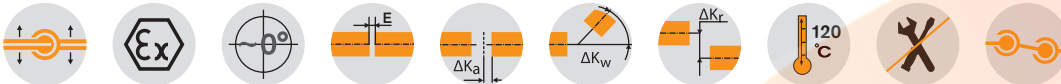


# BoWex® GT Curved-tooth gear coupling®

## Split CFK sleeve for high power density



For legend of pictogram please refer to flapper on the cover



BoWex® Type GT with split sleeve

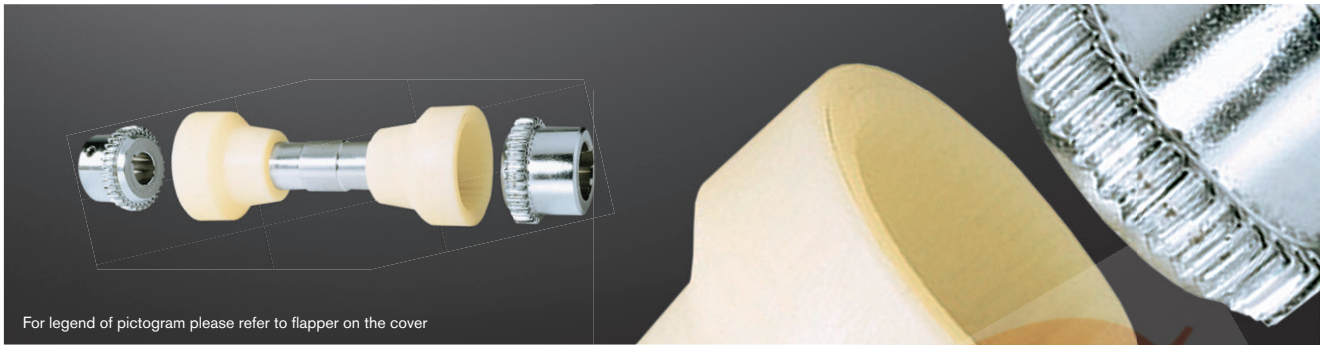
Size	Torque [Nm]			Finish bore $d_{max}$		Dimensions [mm]										Weight with max. bore [kg]			Mass moment of inertia J with max. bore [kgcm <sup>2</sup> ]			
	TKN	TK max.	TKW	$d_1$	$d_2$	D	DH	LH	$l_1$	$l_2$	$l_3$	E	L1	L2	M1, N1	M2, N2	Sleeve	Hub	Total	Sleeve	Hub	Total
28	70	210	35	28	28	44	80	80	40	40	15	4	84	124	2	22	0.158	0.22	0.702	1.77	1.22	4.21
38	120	360	60	38	38	58	98	83	40	40	18	4	84	122	0.5	19.5	0.25	0.45	1.15	4.43	3.36	11.15
48	200	600	100	48	48	68	110	104	50	50	21	4	104	160	0	28	0.33	0.67	1.68	7.39	6.11	19.61
65	560	1680	280	65	65	96	150	111	55	55	27	4	114	160	1.5	24.5	0.69	1.54	3.77	28.9	31.80	92.5

$l_3$  = Drop-out center dimension required

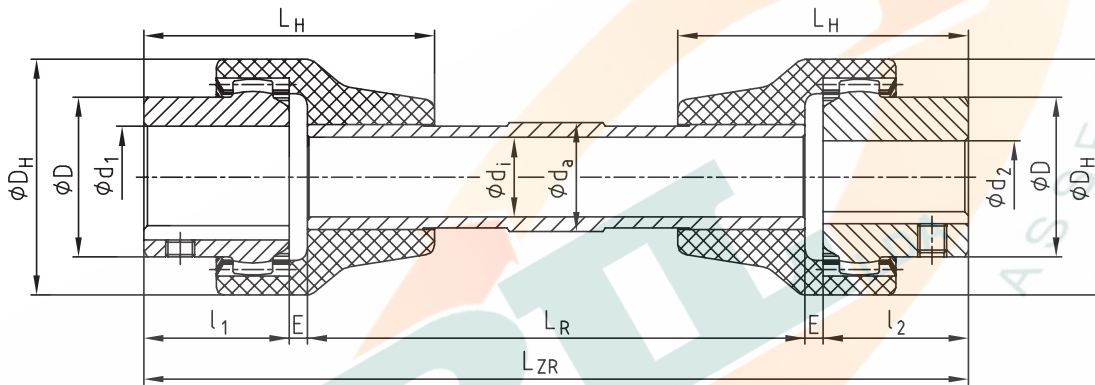
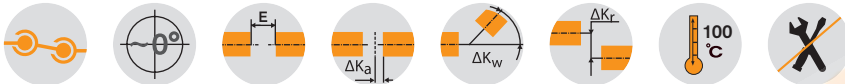
Ordering example:	BoWex® GT-28	$d_1$ Ø20	$d_2$ Ø28
		Size and type of coupling	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

# BoWex® ZR Curved-tooth gear coupling®

## Bridging larger shaft distances

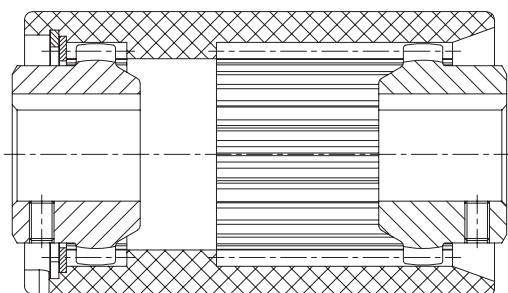


For legend of pictogram please refer to flapper on the cover



BoWex® Type ZR															
Size	Pilot bore	Finish bore	Dimensions [mm]										Torque [Nm]		
		d1 max. d2 max.	l1, l2	Hub length. max. l1, l2	LH	E	LZR tot.	LR	D	DH	d <sub>i</sub>	d <sub>a</sub>	T <sub>KN</sub>	T <sub>K max.</sub>	T <sub>KW</sub>
14	-	14	23	40	40	3	According to customer specification		25	40	21	25	10	20	5
28	-	28	40	55	60	3			44	66	30	26	45	90	23
42	-	42	42	60	85	3			65	95	40	50	100	200	50
48	-	48	50	60	85	3			68	95	40	50	140	280	70

BoWex® ZR couplings are available up to a length of 2000 mm for serial applications only (n<sub>max.</sub> = 1000 rpm)



Type Spec.-I with a long PA-sleeve

- BoWex® Spec.-I with lengthened sleeve on request
- Bridging larger shaft distances
- Axial shifting of driving and driven shaft at standstill
- Maintenance-free
- Compensating for larger displacements
- Axial plug-in
- Application range from -25 °C to +100 °C

# BoWex® M Curved-tooth gear coupling®

Made of corrosion-resistant materials



For legend of pictogram please refer to flapper on the cover



BoWex® junior plug-in coupling (two-part) and BoWex® junior M (three-part)

Size	Finish bore				Dimensions [mm]									
	Hub Component 1b		Plug-in sleeve Component 2b		D <sub>H</sub>	l <sub>1</sub> , l <sub>2</sub>	E <sub>1</sub>	E	L <sub>H1</sub>	L <sub>H</sub>	L <sub>1</sub>	L	M <sub>1</sub>	M, N
	d <sub>1</sub>	D <sub>1</sub>	d <sub>2</sub>	D <sub>2</sub>										
14 M-14	Ø6, Ø7, Ø8, Ø9	22	Ø8	22	40	23	2	4	40	37	48	50	8	6.5
	Ø10, Ø11	25	Ø10, Ø11	25										
19 M-19	Ø12, Ø14	26	Ø12, Ø14	26	48	25	2	4	42	37	52	54	10	8.5
	Ø12, Ø14	27	Ø14, Ø15	29										
	Ø16	30	Ø19	35										
24 M-24	Ø10, Ø11, Ø12	26	Ø14, Ø16	32	53	26	2	4	45	41	54	56	9	7.5
	Ø14, Ø15, Ø16	32	Ø19, Ø20	36										
	Ø18, Ø19, Ø20	36	Ø24	40										

BoWex® Type M

Size	Finish bore d <sub>1</sub> max. d <sub>2</sub> max.	Dimensions [mm]						
		D <sub>H</sub>	D	l <sub>1</sub> , l <sub>2</sub>	E	L <sub>H</sub>	L	M, N
M-24	24	53	36	26	4	41	56	7.5
M-38	38	83	58	40	4	48	84	18
M-48	48	95	68	50	4	50	104	27

Other coupling sizes on request. Setscrews with BoWex® junior coupling are made of V4A as a standard. For performance data see page 88.

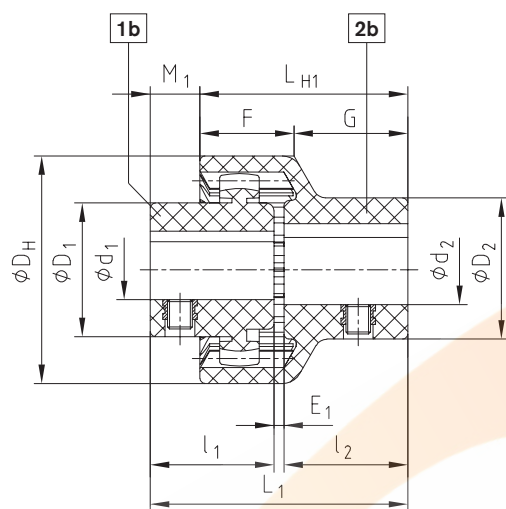
### Applications:

Food industry, print and paper industry, textile industry, sewage technology, wash-mobiles, chemical and pharmaceutical industry, offshore units, etc. For use in aggressive environment (air, water, chemicals, etc.).

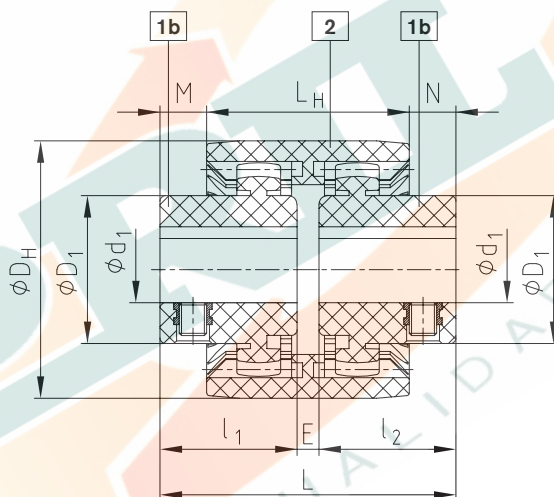
Ordering example:

BoWex® M-24 V4A	d <sub>1</sub> Ø20	d <sub>2</sub> Ø24
Size and type of coupling	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

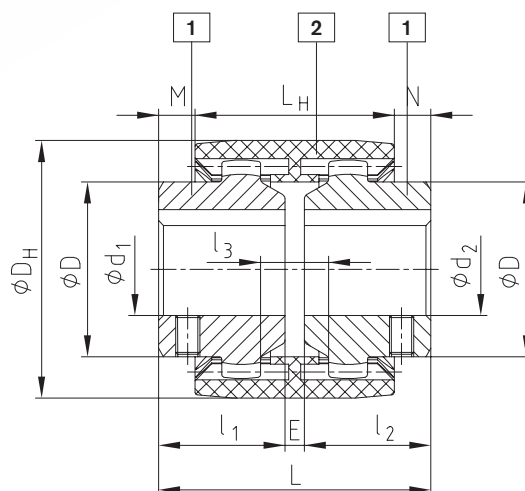
Type junior plug-in coupling (two-part)



Type junior M coupling (three-part)



Type M (V4A)

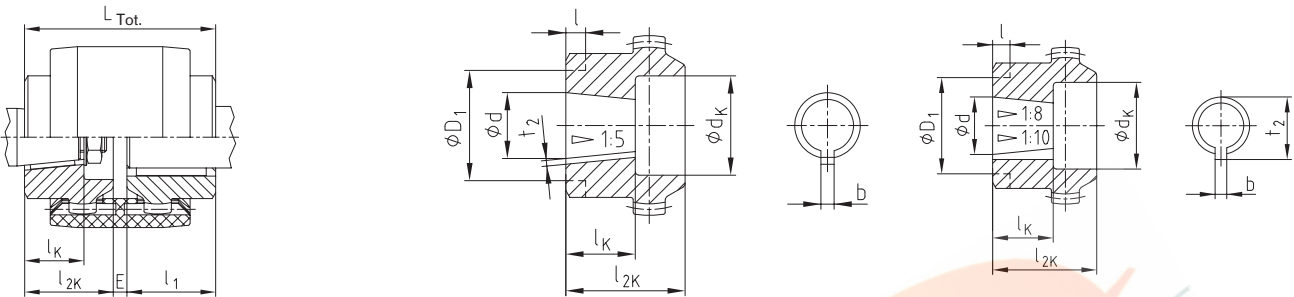




# BoWex® Curved-tooth gear coupling®

## Taper bores

BoWex® with taper bore



$$L_{Tot} = l_1 + E + l_{2K}$$

see stock programme on page 90

Taper bores 1:5																								
Dimensions [mm]					Counterbore $d_K$ and hub length $l_{2K}$ [mm] Recess on hub collar $D_1 \times l$ [mm]																			
Code	Details of bores				14		19		24		28		32		38		42		48		65			
	$d^{+0.05}$	$b^{JS9}$	$t_2^{+0.1}$	$l_K$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$		
A-10	9.85	2	1.0	11.5	18	23	18	25	25	26	25	26	25	26	25	26								
B-17	16.85	3	1.8	18.5			25	30	28	30	36	40	36	40	36	40	45	42	45	42	45	50		
C-20	19.85	4	2.2	21.5					28	36	36	40	36	40	36	40	45	42	45	42	45	50		
Cs-22	21.95	3	1.8	21.5					28	36	36	40	36	40	36	40	45	42	45	42				
D-25	24.85	5	2.9	26.5							36	40	36	40	36	40	45	42	45	42	45	50		
E-30	29.85	6	2.6	31.5									45	55	45	55			52	60	55	60		
F-35	34.85	6	2.6	36.5																				
G-40	39.85	6	2.6	41.5																	52	60	65	70

Taper bores 1:8																						
Dimensions [mm]					Counterbore $d_K$ and hub length $l_{2K}$ [mm] Recess on hub collar $D_1 \times l$ [mm]																	
Code	Details of bores				14		19		24		28		32		38		42		48		65	
	$d^{+0.05}$	$b^{JS9}$	$t_2^{+0.1}$	$l_K$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$
N/1	9.7 $\pm 0.015$	2.4 <sup>+0.05</sup>	10.85	17	18	26	18	25	25	26	25	30	25	30	25	30						
N/1c	11.6	3 <sup>JS9</sup>	12.90	16.5	18	23			25	26	25	30										
N/1e	13	2.4 <sup>+0.05</sup>	13.80	21					25	30	25	30			25	30						
N/1d	14	3 <sup>JS9</sup>	15.50	17.5	20	23	25	30	28	30	28	30	28	40								
N/2	17.287	3.2 <sup>+0.05</sup>	18.24	24					28	35	36	40	36	40	36	40	45	42	45	42	45	50
N/2a	17.287	4 <sup>JS9</sup>	18.94	24					28	35	36	40	36	40	36	40	45	42	45	42	45	50
N/2b	17.287	3 <sup>JS9</sup>	18.34	24					28	35					36	40	45	42	45	42		
N/3	22.002	4 <sup>JS9</sup>	23.40	28							36	40	36	40	36	40	45	42	45	42	45	50
N/4	25.463	4.78 <sup>+0.05</sup>	27.83	36							36	50	36	50	36	50	45	50	45	50	45	62
N/4b	25.463	5 <sup>JS9</sup>	28.23	36													58 x 10	58 x 10				
N/4a	27	4.78 <sup>+0.05</sup>	28.80	32.5							36	50			36	50					45	62
N/4g	28.45	6 <sup>JS9</sup>	29.32	38.5											36	60	45	60	45	60		
N/5	33.176	6.38 <sup>+0.05</sup>	35.39	44											45	60	45	60	45	60	45	62
N/5a	33.176	7 <sup>JS9</sup>	35.39	44													45	60	45	60	45	62

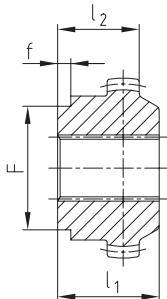
Taper bores 1:10																						
Dimensions [mm]					Counterbore $d_K$ and hub length $l_{2K}$ [mm]																	
Code	Details of bores				14		19		24		28		32		38		42		48		65	
	$d^{+0.05}$	$b^{JS9}$	$t_2^{+0.1}$	$l_K$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$	$d_K$	$l_{2K}$
CX-20	19.85	5	22.08	32							36	50			36	50	45	50	45	50		
DX-25	24.95	6	26.68	45									36	50			45	60	45	60	45	60
EX-30	29.75	8	31.88	50													45	60	45	60	45	70

# BoWex® Curved-tooth gear coupling®

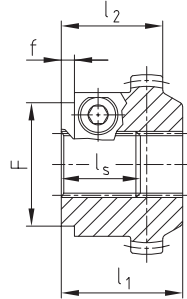
## Spline hubs and inch bores

BoWex® spline hubs – basic programme

Spline hub (N)



Clamping hub (K)



If it is not possible to fasten the hubs of pump shafts with involute spline by means of an end plate and a screw, we recommend to use our spline clamping hub.

Radial clamping ensures a backlash-free tight fit on the pump shaft.

Spline and clamping hubs acc. to DIN 5480

Size	Dimensions [mm]							Order designation specify coupling size
	Type	Spline size	l <sub>1</sub>	l <sub>2</sub>	l <sub>S</sub>	F	f	
42	N	25x1.25x18	42	-	-	-	-	P000205
	K	25x1.25x18	42	-	-	-	-	P500202
48	K	30x2x14	42	-	-	60	6	P500203
	N	30x2x14	50	-	-	60	6	P000206
	K	30x2x14	50	-	-	60	6	P500203
65	N	35x2x16	55	-	-	60	6	P000303
	K	35x2x16	60	-	-	60	6	P500301
	N	40x2x18	55	-	-	78	6	P000304
	K	40x2x18	60	-	-	78	6	P500302
	K	45x2x21	55	-	-	78	6	P500401

Spline and clamping hubs to ANSI B92.1

Size	Dimensions [mm]							Order designation specify coupling size
	Type	Spline size	l <sub>1</sub>	l <sub>2</sub>	l <sub>S</sub>	F	f	
42	K	PH-S 5/8"	42	-	-	-	-	P558101
		16/32DP, z=9						
	K	PI-S 3/4"	-	35	-	-	-	P559101
		16/32DP, z=11						
48	K	PB-S 7/8"	42	-	-	60	3	P567101
		16/32DP, z=13						
65	K	PB-BS 1"	42	-	27	50	6	P660201
		16/32DP, z=15						
48	K	PA-S 3/8"	50	-	45	52	7	P663301
		16/32DP, z=21						
65	K	PA-S 3/8"	55	-	48	52	5	P663301
		16/32DP, z=21						
	K	PC-S 1 1/4"	55	-	44	52	5	P656201
		12/24DP, z=14						

Inch bores – see stock programme on page 86

Bore and keyway acc. to ANSI/AGMA 9002-C14 Bore (clearance fit) Keyway (commercial class fit)					Bore and keyway acc. to ANSI/AGMA 9002-C14 Bore (clearance fit) Keyway (commercial class fit)						
KTR Code	Bore Ø [Inch]	Width of keyway [Inch]	Bore Ø [mm]	Width of keyway [mm]	Keyway depth/Tolerance +0.381 [mm]	KTR Code	Bore Ø [Inch]	Width of keyway [Inch]	Bore Ø [mm]	Width of keyway [mm]	Keyway depth/Tolerance +0.381 [mm]
Tb	3/8	1/8	9.525 <sup>+0.0254</sup>	3.175 <sup>+0.05</sup>	10.972	Sd	1 1/8	5/16	28.575 <sup>+0.0254</sup>	7.937 <sup>+0.051</sup>	32.105
DNB	7/16	3/32	11.112 <sup>+0.0254</sup>	2.382 <sup>+0.051</sup>	12.293	Js	1 1/4	1/4	31.75 <sup>+0.0254</sup>	6.35 <sup>+0.051</sup>	34.721
T	1/2	3/16	12.7 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	14.757	K	1 1/4	5/16	31.75 <sup>+0.0254</sup>	7.937 <sup>+0.051</sup>	35.331
Ta	1/2	1/8	12.7 <sup>+0.0254</sup>	3.175 <sup>+0.051</sup>	14.224	Ma	1 3/8	5/16	34.925 <sup>+0.0254</sup>	7.937 <sup>+0.051</sup>	38.557
DNC	17/32	1/8	13.495 <sup>+0.0254</sup>	3.175 <sup>+0.051</sup>	15.011	RH1	1 3/8	3/8	34.925 <sup>+0.0254</sup>	9.525 <sup>+0.063</sup>	39.141
Do	9/16	1/8	14.287 <sup>+0.0254</sup>	3.175 <sup>+0.051</sup>	15.824	Cb	1 7/16	3/8	36.512 <sup>+0.0254</sup>	9.525 <sup>+0.063</sup>	40.767
E	5/8	1/8	15.875 <sup>+0.0254</sup>	3.175 <sup>+0.051</sup>	17.424	Ca	1 1/2	5/16	38.1 <sup>+0.0254</sup>	7.937 <sup>+0.051</sup>	41.783
Es	5/8	5/32	15.875 <sup>+0.0254</sup>	3.968 <sup>+0.051</sup>	17.729	C	1 1/2	3/8	38.1 <sup>+0.0254</sup>	9.525 <sup>+0.0635</sup>	42.392
Ed	5/8	3/16	15.875 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	18.008	Nb	1 5/8	3/8	41.275 <sup>+0.0254</sup>	9.525 <sup>+0.0635</sup>	45.618
DNH	11/16	3/16	17.462 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	19.634	Ls	1 3/4	3/8	44.45 <sup>+0.0254</sup>	9.525 <sup>+0.0635</sup>	48.818
Ad	3/4	1/8	19.05 <sup>+0.0254</sup>	3.175 <sup>+0.051</sup>	20.624	L	1 3/4	7/16	44.45 <sup>+0.0254</sup>	11.112 <sup>+0.0635</sup>	49.428
A	3/4	3/16	19.05 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	21.259	Lu	1 7/8	1/2	47.625 <sup>+0.0254</sup>	12.7 <sup>+0.0635</sup>	53.238
G	7/8	3/16	22.225 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	24.485	Da	1 15/16	1/2	49.212 <sup>+0.0254</sup>	12.7 <sup>+0.0635</sup>	54.864
F	7/8	1/4	22.225 <sup>+0.0254</sup>	6.35 <sup>+0.051</sup>	25.069	Ds	2	1/2	50.8 <sup>+0.0254</sup>	12.7 <sup>+0.0635</sup>	56.464
Gf	15/16	1/4	23.812 <sup>+0.0254</sup>	6.35 <sup>+0.051</sup>	26.695	Pa	2 1/8	1/2	53.975 <sup>+0.0381</sup>	12.7 <sup>+0.063</sup>	59.69
H	1	3/16	25.4 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	27.686	U	2 1/4	1/2	57.15 <sup>+0.0381</sup>	12.7 <sup>+0.063</sup>	62.915
Hs	1	1/4	25.4 <sup>+0.0254</sup>	6.35 <sup>+0.051</sup>	28.295	Ub	2 3/8	5/8	60.325 <sup>+0.0381</sup>	15.875 <sup>+0.076</sup>	67.335
R	1 1/16	3/16	26.987 <sup>+0.0254</sup>	4.762 <sup>+0.051</sup>	29.286	Wd	3 3/8	7/8	85.725 <sup>+0.0381</sup>	22.225 <sup>+0.076</sup>	95.504
Sb	1 1/8	1/4	28.575 <sup>+0.0254</sup>	6.35 <sup>+0.051</sup>	31.521	Wf	3 5/8	7/8	92.075 <sup>+0.0381</sup>	22.225 <sup>+0.076</sup>	101.955

The splines and inch bores specified are only a part of KTR's options. Many other variants are available, too.