Metal Bellows Coupling with Intermediate Pipe I WDE

- cost-effective version with reduced operational parameters
- variable length up to 3 m - simple installation - split-hub design
- backlash-free, precise torque transfer - no additional intermediate bearing

technical data:

WDE	T_N	T_{max}	torsional stiffness [Nm/arcmin]			moment of inertia [10^{-3}kgm^2]			max. speed approx. [min^{-1}]			mass approx. [kg]		
size	[Nm]	[Nm]	1m	2m	3m	1m	2m	3m	1m	2m	3m	1m	2m	3m
40	40	80	0,46	0,23	0,15	0,4	0,6	0,8	2.900	700	300	1,1	1,8	2,5
80	80	160	1,1	0,5	0,4	1,2	1,6	2,0	3.000	900	400	1,7	2,6	3,5
160	160	320	2,0	1,0	0,6	2,0	2,7	3,4	3.000	1.100	500	2,3	3,4	4,6
250	250	500	4,9	2,4	1,6	4,8	6,7	8,7	3.000	1.500	650	3,6	5,4	7,1
500	500	1000	8,9	4,4	2,9	9,4	12,3	15,2	3.000	1.700	750	4,5	6,5	8,5

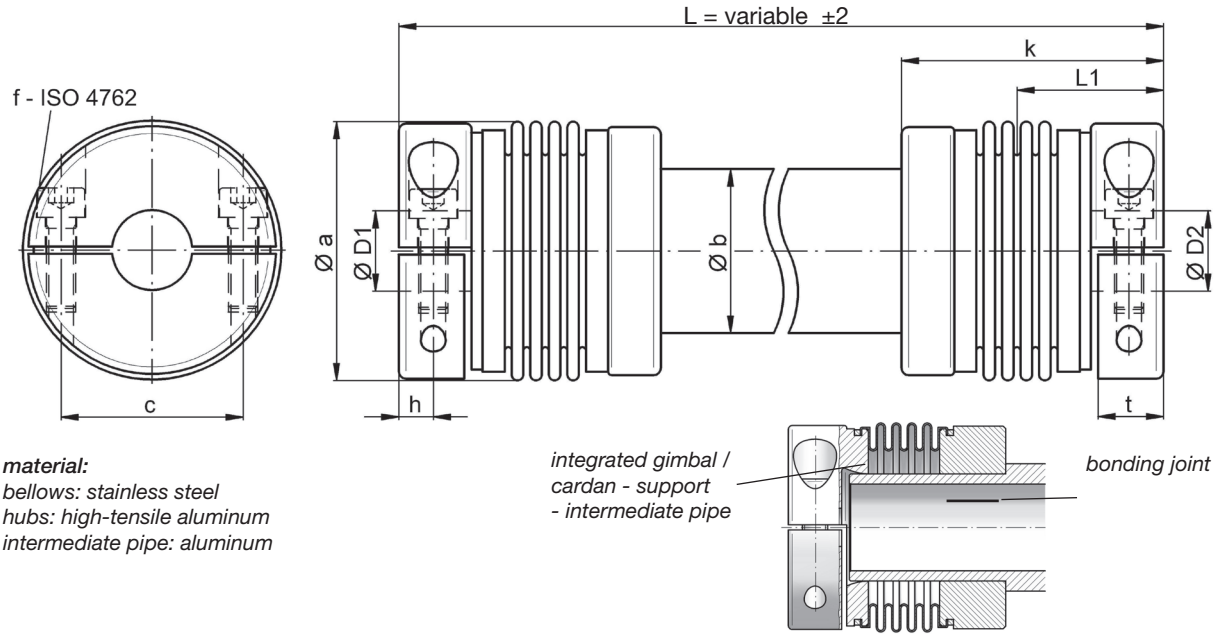
maximum temperature range: -40°C up to +90°C

maximum axial shaft misalignment: $\Delta A = \pm 1{,}5$ mm | maximum angular shaft misalignment : $\alpha = 1°$

maximum lateral shaft misalignment: $\Delta R = \tan \alpha \bullet L_x = L - (2 \bullet L_1) / \tan 1° = 0{,}0174$

calculation example: WDE 80 / L = 900 mm -> $\Delta R = \tan \alpha \bullet L_x$

with Lx = 900 - (2 • 40) = 820 mm; $\alpha = 1°$ $\Delta R = \tan 1° \bullet 820$ mm ≈ 14 mm



material:
bellows: stainless steel
hubs: high-tensile aluminum
intermediate pipe: aluminum

Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

WDE	Øa	Øb	c	f-tightening torque*	h	L1	k	t	L_{min}	ØD1/2 min	ØD1/2 max(*)
40	57	35	38	2x M6 - 14Nm	8	37	62	16	124	14	30
80	72	45	50	2x M8 - 35Nm (30)*	9,5	40	72	18	144	22	31 (38)*
160	83	55	57	2x M10 - 65Nm (50)*	10,5	45	84,5	21	170	22	37 (43)*
250	103	70	70	2x M12 - 115Nm (90)*	12,5	49	92,5	24	185	25	44 (55)*
500	123	80	87	2x M14 - 180Nm (140)*	15	61	109	30	218	32	54 (70)*

(*) note: reduced tightening torque (see brackets) for bigger hub bore diameter - see also Ø D 1/2max!

order example: WDE 250 - D1 = 28 ^{F6} D2 = 38 ^{F6} L = 980