



MODEL BX 1

BACKLASH-FREE, TORSIONALLY STIFF METAL BELLOWS COUPLINGS



with flange mounting

Features:

- for high torque applications
- compact, simple design
- easy mounting and dismounting
- backlash free and torsionally rigid
- various overall lengths available
- high misalignment compensation

Material:

Bellows made from highly flexible, high grade stainless steel; hubs made from steel

Design:

Flange mount hubs on both sides; 2x bellows with intermediate tube (Series 10 without intermediate tube); welded connection between hubs and bellows

Fit tolerance:

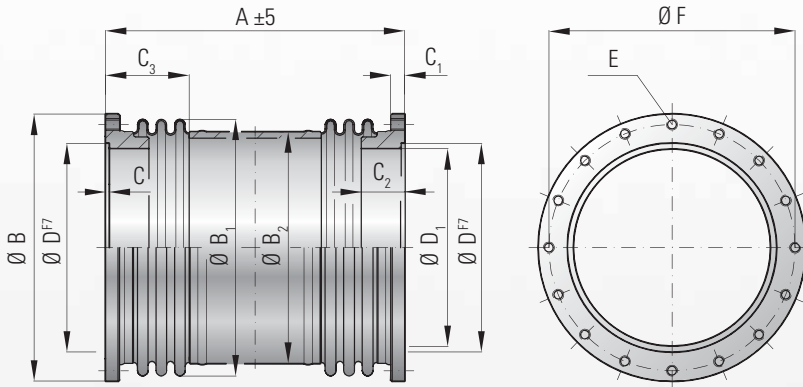
Overall clearance between centering diameters 0.03-0.08 mm

Temperature range:

-40 to +300° C (-40 to +572° F)

Non standard applications:

Custom designs with various tolerances, keyways, materials, dimensions, etc. available upon request



Ordering example

BX 1 / 50 / XX

Model
Series / KNm
Non standard e.g. stainless steel

Model BX 1	Series					
	10	25	50	75	100	
Rated torque (KNm)	T_{KN}	10	25	50	75	100
Maximum torque (KNm)	T_{Kmax}	15	38	75	113	150
Overall length (mm)	$A_{\pm 5}$	125	380	430	560	640
Outside diameter of flange (mm)	B	310	336	398	449	545
Outside diameter of bellows ± 2 (mm)	B_1	300	323	370	412	520
Outside diameter of tube (mm)	B_2	—	273	324	360	460
Fit length (mm)	$C_{\pm 0.5}$	4	5	6	10	15
Thread depth (mm)	C_1	15	25	30	36	36
Hub length (mm)	C_2	24	76	74	93	110
Bellows body length +3 (mm)	C_3	—	115	130	160	170
Centering diameter f7 (mm)	D	265	260	310	350	440
Hub diameter +0.3 (mm)	D_1	250	240	290	320	390
Fastening threads		20xM12	24xM16	24xM20	20xM24	24xM24
Tightening torque of the fastening screws (screw grade 10.9) (Nm)	E	120	300	580	1000	1000
Bolt circle diameter ± 0.4 (mm)	F	290	304	361	404	500
Moment of inertia (10^{-3} kgm ²)	J_{ges}	101	548	1185	2725	7900
Approximate weight (kg)		8.3	27.8	43.7	80	151
Axial \pm (mm)	Max. value	3	5	6	7	8
Lateral \pm (mm)		0.4	2.2	2.5	3	3.5
Angular \pm (degree)		1.5	1	1	1	1
Torsional stiffness bellows (10^3 Nm/rad)		20,000	21,120	36,600	57,300	81,800
Torsional stiffness coupling (10^3 Nm/rad)		20,000	9,000	15,500	23,000	35,000
Axial spring stiffness bellows (N/mm)		985	3,000	4,300	3,900	2,800
Lateral spring stiffness bellows (KN/mm)		21	133	207	175	219