

Optional:

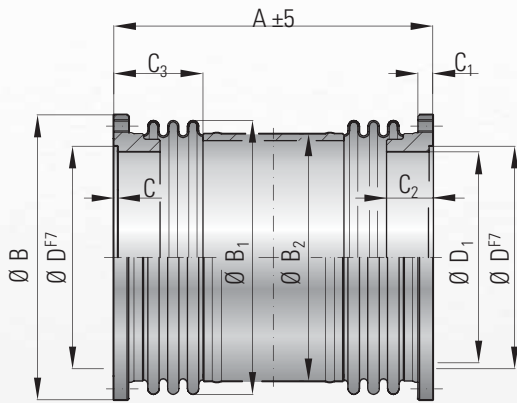


MODEL BX 1

BACKLASH-FREE, TORSIONALLY STIFF METAL BELLOWS COUPLINGS



with flange mounting



Ordering example

BX 1 / 50 / XX

Model

Series / KNm

Non standard e.g. stainless steel

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

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	450	580	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  ± (mm)		Max. value	3	5	6	7	8
Lateral  ± (mm)			0.4	2.2	2.5	3	3.5
Angular  ± (degree)			1.5	1	1	1	1
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