

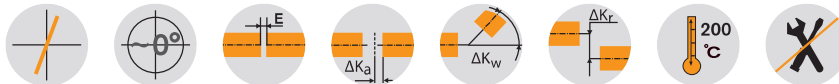
# TOOLFLEX® CF

## Metal bellow-type couplings

### Flange programme



For legend of pictogram please refer to flapper on the cover



#### TOOLFLEX® Type S-CF - Hub material aluminium (size 55 steel)/bellow material stainless steel

Size	Finish bore d		Dimensions [mm]									Clamping screw				Flange		
	Min.	Max.	D <sub>H</sub>	D <sub>B</sub>	D <sub>F</sub>	d <sub>2</sub> H7	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	E	L	D <sub>K</sub>	e <sub>1</sub>	t <sub>1</sub>	M	T <sub>A</sub>	D <sub>T</sub>	M <sub>1</sub>
30	10	30	55	50	47	25	1.5	16	23.0	10.5	49.5	58.0	19	7	M6	10	30	M4
						29											34	
38	12	38	65	60.5	55.75	29	1.5	18	25.5	11.0	54.5	72.6	25	9	M8	25	35	M5
						36											42	
42	14	42	70	66	62.95	36	1.5	21	30.0	15.0	66.0	76.1	27	9	M8	25	42	M5
						43											49	
45	14	45	83	82	77	38	1.5	23	32.0	14.5	69.5	89.0	30	11	M10	49	45	M6
						49											56	
55 <sup>2)</sup>	20	55	100	97	95	51	1.5	28	40.0	23.5	91.5	106.0	37	14	M12	120	60	M8
						68											78	

#### Technical data

Size	Type	Torque of bellow T <sub>KN</sub> <sup>1)</sup> [Nm]	Max. speed [rpm]	Torsion spring stiffness C <sub>T</sub> [Nm/rad]	Axial stiffness C <sub>A</sub> [N/mm]	Radial stiffness C <sub>R</sub> [N/mm]	Perm. displacements		
							Axial [mm]	Radial [mm]	Angular [degree]
30	S	35	8700	14800	97	233	±0.5	0.20	1.5
38	S	65	7350	24900	108	318	±0.6	0.20	1.5
42	S	95	6820	36500	120	499	±0.6	0.20	1.5
45	S	170	5750	64000	132	738	±0.9	0.25	1.5
55 <sup>2)</sup>	S	340	4800	96100	160	894	±1.0	0.25	1.5

#### TOOLFLEX® Type M-CF - Hub material aluminium (size 55 steel)/bellow material stainless steel

Size	Finish bore		Dimensions [mm]									Clamping screw				Flange		
	d <sub>1</sub> min.	d <sub>1</sub> max.	D <sub>H</sub>	D <sub>B</sub>	D <sub>F</sub>	d <sub>2</sub> H7	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	E	L	D <sub>K</sub>	e <sub>1</sub>	t <sub>1</sub>	M	T <sub>A</sub>	D <sub>T</sub>	M <sub>1</sub>
30	10	30	55	50	47	25	1.5	16	23.0	19.5	58.5	58.0	19	7	M6	10	30	M4
						29											34	
38	12	38	65	60.5	55.75	29	1.5	18	25.5	23.0	66.5	72.6	25	9	M8	25	35	M5
						36											42	
42	14	42	70	66	62.95	36	1.5	21	30.0	26.0	77.0	76.1	27	9	M8	25	42	M5
						43											49	
45	14	45	83	82	77	38	1.5	23	32.0	31.0	86.0	89.0	30	11	M10	49	45	M6
						49											56	
55 <sup>2)</sup>	20	55	100	97	95	51	1.5	28	40.0	37.0	105.0	106.0	37	14	M12	120	60	M8
						68											78	

#### Technical data

Size	Type	Torque of bellow T <sub>KN</sub> <sup>1)</sup> [Nm]	Max. speed [rpm]	Torsion spring stiffness C <sub>T</sub> [Nm/rad]	Axial stiffness C <sub>A</sub> [N/mm]	Radial stiffness C <sub>R</sub> [N/mm]	Perm. displacements		
							Axial [mm]	Radial [mm]	Angular [degree]
30	M	35	8700	14800	65	155	±0.8	0.25	2.0
38	M	65	7350	24900	72	212	±0.8	0.25	2.0
42	M	95	6820	36500	80	333	±0.8	0.25	2.0
45	M	170	5750	64000	88	492	±1.0	0.30	2.0
55 <sup>2)</sup>	M	340	4800	96100	107	598	±1.0	0.30	2.0

<sup>1)</sup> For selection see page 22 et seqq.

<sup>2)</sup> Hub made of steel welded with bellow.

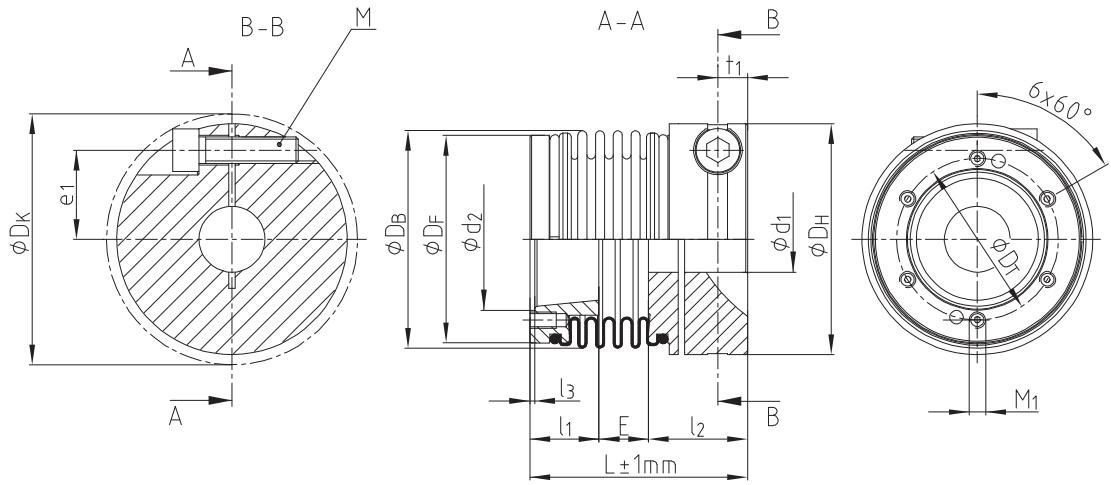
#### Review of shaft-hub-connection: Friction torques T<sub>R</sub> [Nm] for hub design 2.5

Size	Ø10	Ø11	Ø12	Ø14	Ø15	Ø16	Ø18	Ø19	Ø20	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø50	Ø55	
30		33.1	33.8	35.1	35.8	36.5	37.8	38.5	39.2	41.9	42.5	44.6	45.9									
38							84.2	85.4	86.6	91.6	92.8	96.5	99.0	102	105	109						
42				84.2	85.4	86.6	89.1	90.3	91.6	96.5	97.8	102	104	106	110	114	119					
45									157	165	167	173	177	181	187	193	197	200	206			
55 <sup>2)</sup>										397	401	413	421	429	442	454	462	470	482	502	523	

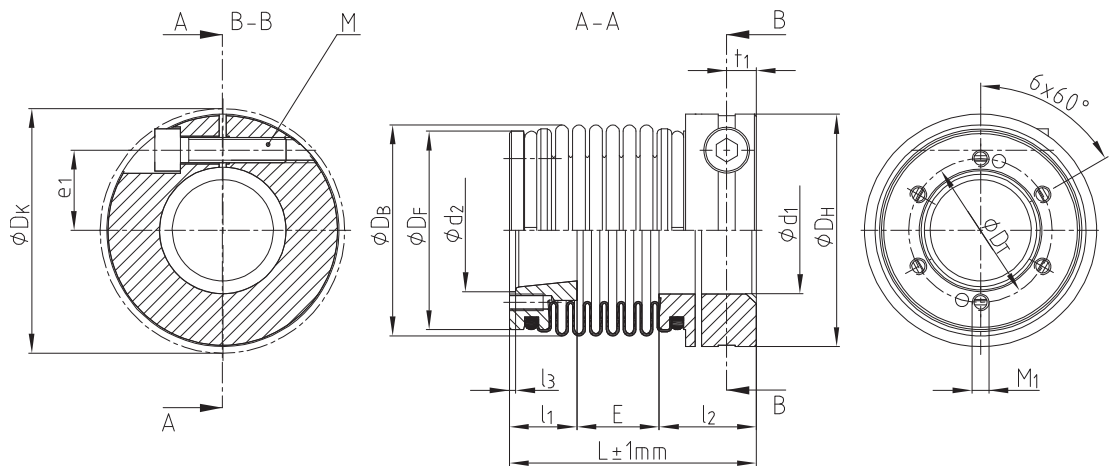
Ordering example:

TOOLFLEX® 38 M-CF	Ø15	Ø29 - Ø35 - 6xM5
Size and type of coupling	Finish bore	Dimensions flange (d <sub>2</sub> - D <sub>T</sub> - M <sub>1</sub> )

TOOLFLEX® S-CF



TOOLFLEX® M-CF



ROTEX® GS

Backlash-free  
servo couplings

TOOLFLEX®

RADEX®-NC

COUNTEX®