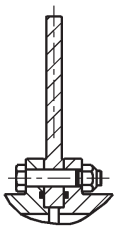
Curved Tooth Couplings

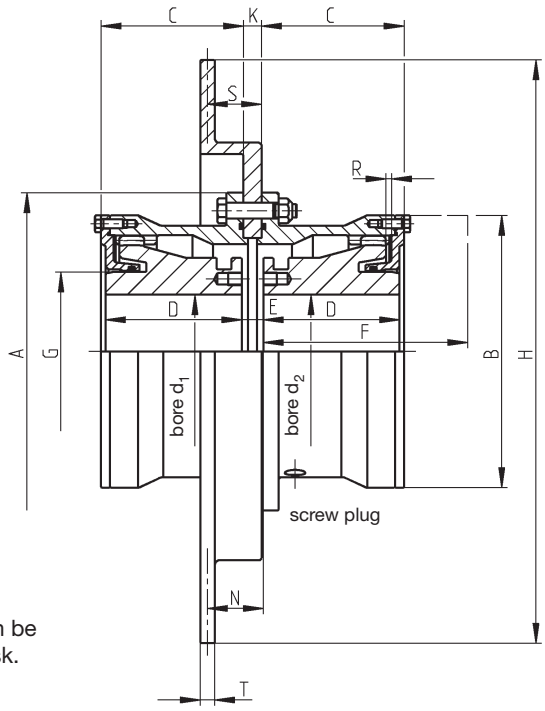
Construction Series SBT

Dimension Table No. 243 138

Fig. 2



As an option, the couplings can be supplied with straight brake disk.



Recommended brake disk allocation				
Coupling size	Brake disk ØH (nominal dimension) mm	mm	mm	mm
30	300			
40	300			
50	350			
60	400	460	515	
70	400	460	515	
80	460	515	610	
90	460	515	610	710
100	515	610	710	
110	515	610	710	810
125	610	710	810	
140	610	710	810	915
160	710	810	915	
180	710	810	915	
200	810	915		

Brake disk dimensions				Mass [4] moment of inertia	Weight [4]
ØH mm	T mm	K mm	S mm	kgm²	kg
300	12.7	8	34.65	0.099	6.7
356	12.7	10	47.65	0.19	10
406	12.7	13	47.65	0.30	12
457	12.7	16	47.65	0.48	16
514	12.7	16	47.65	0.57	20
610	12.7	16	47.65	1.5	26
711	12.7	18	47.65	2.9	39
812	12.7	23	47.65	5.8	61
915	12.7	23	47.65	10.0	92

The dismounting dimension F is required to allow the vertical installation and removal of the machines and O-ring replacement.

1) The speed n_{max} depends on the permissible circumferential speed of the brake disk. The specifications of the brake supplier have to be observed!

2) Based on a permissible angular misalignment of $\Delta K_{w\ perm.} = 1.5°$ per coupling half.
These values only apply to the couplings, not to the brake.

3) Values for the complete coupling, without brake disk, with bore d_1; $d_{2\ max.}$

4) Weights and mass moments of inertia are based on the largest coupling size allocated.

5) The axial clearances have to be checked in relation to the brake calipers.

Torsional stiffness values are contained in the data table for SB-type couplings.

For coupling selection, please see page 6.

Other sizes available on request.

Type SBT Size	Norm. cont. duty $\frac{P_{KN}}{n}$ kW·min	Speed [1] $n_{max.}$ rpm	Dimensions bore $d_1;d_2$ pre mm	min mm	max mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	N mm	R^{5} mm	Max. static radial misalign- mm	Total grease quantity kg	Total oil quantity litres	Mass [3] moment of inertia J kgm²	Weight [3] kg
30	0.082	7500	10	12	32	118	92	53	50	K+ 3	75	45	36.15	2	±1.95	0.09	0.03	0.007	4.4
40	0.146	6900	20	22	46	145	115	62.5	60	K+ 3	90	60	36.15	2	±2.70	0.09	0.04	0.016	7.4
50	0.288	6300	20	22	58	165	135	72.5	70	K+ 4	110	75	49.65	2	±3.00	0.17	0.07	0.029	11.1
60	0.50	5900	26	28	70	200	160	84.5	80	K+ 5	120	90	50.15	2	±3.45	0.25	0.11	0.075	18.3
70	0.82	5400	26	28	78	220	178	93.5	90	K+ 5	130	100	50.15	2	±3.90	0.35	0.15	0.13	25.4
80	1.14	5000	30	32	92	240	196	103.5	100	K+ 5	150	120	50.15	2	±4.35	0.40	0.20	0.19	31.4
90	1.64	4700	30	32	100	270	225	115.5	110	K+ 5	170	130	50.15	3	±4.80	0.60	0.30	0.37	46
100	2.30	4300	53	55	110	280	240	125.5	120	K+ 7	180	140	51.15	3	±5.25	0.75	0.35	0.47	54
110	2.88	4000	63	65	120	310	265	135.0	130	K+ 6	190	155	50.65	3	±5.70	1.0	0.45	0.81	72
125	4.60	3700	73	75	138	340	295	157.5	150	K+11	215	175	53.15	3	±6.45	1.3	0.65	1.31	100
140	6.48	3400	83	85	156	390	325	172.5	165	K+11	230	200	53.15	3	±7.20	1.6	0.85	2.35	140
160	9.24	3100	118	120	180	435	370	199.0	190	K+14	270	230	54.65	3	±8.40	2.6	1.4	4.2	198
180	12.92	2900	138	140	200	480	415	225.0	220	K+16	300	260	55.65	3	±9.60	3.3	1.8	7.4	283
200	18.4	2700	158	160	225	545	465	252.5	245	K+19	340	290	57.15	4	±10.80	4.8	2.5	14	417

Subject to change due to technical improvement.