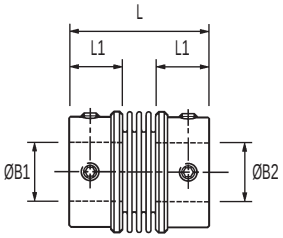
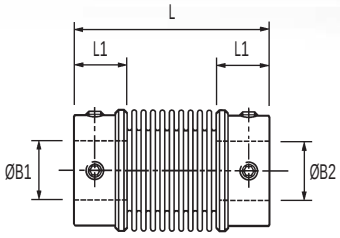
Flex - B Stainless Steel Bellows Couplings

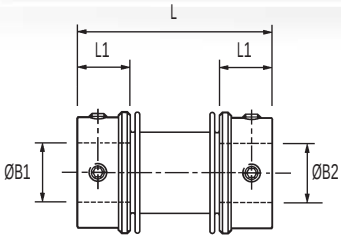
Set screw hubs



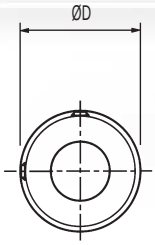
Ref. 530
Short type
for precisely aligned shafts



Ref. 532
Long type
for greater angular offsets
or axial motion

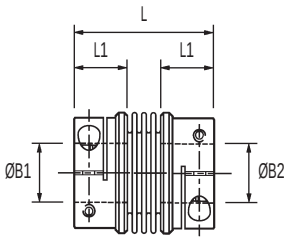


Ref. 534
Stretched type
for greater radial misalignment
and lower bearing loads

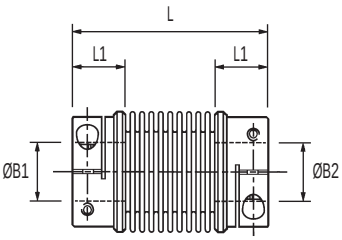


Typical

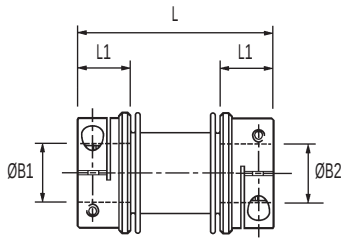
Clamp hubs



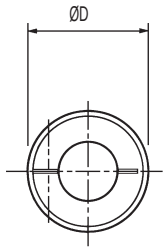
Ref. 536 & 537
Short type
for precisely aligned shafts



Ref. 538 & 539
Long type
for greater angular offsets
or axial motion



Ref. 540 & 541
Stretched type
for greater radial misalignment
and lower bearing loads



Typical

Comparative properties

The properties of the 3 types compared on a scale of 1 to 3. 3 = best.

Parameter	Short	Long	Stretched
Peak Torque	2	1	3
Torsional Stiffness	3	1	2
Angular Compensation	2	3	1
Axial Compensation	2	3	1
Radial Compensation	1	3	2

Materials & Finishes

Hubs: Al. Alloy 2014T6 and AlEco 62sn T9 Clear anodised finish

Bellows: Spring quality stainless steel

Joint assembly: Copper C106, heat treated Zinc plate, clear passivate

Fasteners: Alloy steel, black oiled

Temperature Range

–40°C to +120°C

Flex - B Stainless Steel Bellows Couplings

DIMENSIONS & ORDER CODES

Coupling Size	Set Screw Hubs	Clamp Hubs	ØD	L	[1] L1	ØB1, ØB2 max	Fasteners			[3] Moment of inertia	[3] Mass
	COUPLING REF			±1.0			Screw	[2] Torque Nm	Wrench mm	kgm2 x 10–8	kg x 10–3
20	530.20	–	20.0	31.0	11.0	8	M4	2.27	2	90	18
	532.20	–		45.2						100	19
	534.20	–		43.6						90	18
	–	537.20		31.0			4–40	2.33	2	90	16
	–	539.20		45.2						100	18
	–	541.20		43.6						90	17
26	530.26	–	26.0	37.5	14.0	12	M5	4.62	2.5	350	35
	532.26	–		54.3						400	39
	534.26	–		53.2						370	34
	–	536.26		37.5			M3	2.43	2.5	330	34
	–	538.26		54.3						380	38
	–	540.26		53.2						350	33
34	530.34	–	34.0	40.0	14.0	16	M5	4.62	2.5	975	58
	532.34	–		57.0						1128	65
	534.34	–		56.6						988	59
	–	536.34		40.0			M3	2.43	2.5	925	56
	–	538.34		57.0						1078	63
	–	540.34		56.6						938	57
41	530.41	–	41.0	49.7	18.0	20	M6	7.61	3	2490	102
	532.41	–		71.4						2740	110
	534.41	–		70.7						2477	102
	–	536.41		49.7			M4	5.66	3	2390	99
	–	538.41		71.4						2660	107
	–	540.41		70.7						2377	99

IMPORTANT

Load capacity depends on application conditions: *see page 6* for details

PERFORMANCE

Coupling Size	Ref.	[4] Peak torque	[5] Max compensation			[6] Flexural stiffness			
		Nm	Angular deg	Radial mm	Axial ± mm	Torsional Nm / rad	Angular N / deg	Radial N / mm	Axial N / mm
20	530 & 537	2.0	2	0.06	0.35	315	1.03	115	17.7
	532 & 539	1.0	6	0.50	1.00	170	0.33	6.7	7.8
	534 & 541	2.5	1.3	0.20	0.20	225	0.33	8.2	7.1
26	530 & 536	3.2	2	0.06	0.36	755	1.27	238	5.7
	532 & 538	1.6	6	0.50	1.00	380	0.39	8.2	3.3
	534 & 540	4.0	1.3	0.20	0.20	615	1.52	14.6	6.4
34	530 & 536	7.5	2.5	0.10	0.60	1740	1.34	227	6.6
	532 & 538	3.8	8	1.00	1.90	915	0.62	12.7	3.8
	534 & 540	9.4	1.5	0.30	0.30	1455	1.98	23.2	27.9
41	530 & 536	10.0	2.5	0.15	0.80	2880	1.58	144	13.1
	532 & 538	5.0	8	1.20	2.50	1310	0.52	9.3	3.8
	534 & 540	12.5	1.8	0.40	0.50	2245	2.30	19.2	7.2

1. Length of supported thro' bore. Shafts can near-butt.
2. Maximum recommended tightening torque.
3. Values apply with max bores.
4. Peak torque. Select a size where Peak Torque exceeds the application torque x service factor. (*see page 6*)
5. Max. compensation values are mutually exclusive.
6. Torsional stiffness values apply at 50% peak torque with no misalignment, measured shaft-to-shaft with largest standard bores. Note that in some vendors' catalogues the given torsional stiffness applied to the un-mounted bellows element only, an unrepresentative calculated value.

STANDARD BORES

Coupling Size	ØB1, ØB2 +0.03/–0mm																					
	3	3.175	4	4.763	5	6	6.350	8	9	9.525	10	11	12	12.700	14	15	15.875	16	18	19	19.050	20
20	●	●	●	●	●	●	●	●														
26			●	●	●	●	●	●	●	●	●	●	●									
34						●	●	●	●	●	●	●	●	●	●	●	●	●				
41							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Bore ref.	14	16	18	19	20	22	24	28	30	31	32	33	35	36	38	40	41	42	45	46	47	48
Corresponding bore adaptor					251		253	255			257			259				260				261

Diameters for which a bore adaptor is shown can be adapted to smaller shaft sizes. See *page 56* for details of metallic and electrically insulating adaptors.