



# Beam Couplings

- Multi-Beam
  - Single-Beam
  - Step-Beam
- **Torsionally rigid design**
  - **Zero backlash**
  - **No moving parts**
  - **Single beam simple coupling compatible with industry standard types**
  - **3-Beam single stage for increased torsional stiffness**
  - **6-Beam two stage for torsional stiffness and increased radial compliance**
  - **Step Beam for low inertia, electrical isolation, low cost**

Beam couplings will readily accommodate any combination of axial motion, angular and parallel misalignment.

The 3 start helical-cut design provides higher torque capability and reduced wind-up compared with single beam versions.

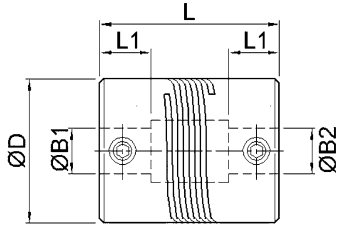
Multi-Beam is available in three standard materials: stainless steel, aluminium and acetal, for shaft diameters from 1mm to 38mm.



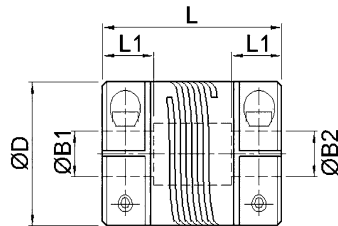
# S-Beam

## Single Helix Beam Couplings - Stainless Steel

Set Screw Hubs



Clamp Hubs



### DIMENSIONS & ORDER CODES

Size	Set Screw Style	Clamp Style	Dimensions							Fasteners			
	Order Code		O.D. in. (mm)	O/A Length L in. (mm)	Bore Depth L1 in. (mm)	Min B1	Min B2	Max B1 & B2	Mass kg x 10-3	Set Screw	Cap Screw	Torque lb.-in. (Nm)	A/F in. (mm)
16	820.16	-	0.63 (15.9)	0.79 (20)	0.25 (6.0)	3	4	6.35	25.6	M4	-	9.2 (1.0)	0.08 (2.0)
	-	821.16		0.87 (22)	0.26 (6.5)				26.0	-	M2.5	6.0 (0.68)	0.08 (2.0)
19	820.19	-	0.75 (19.1)	0.79 (20)	0.25 (6.0)	4	4.76	8	35.8	M4	-	9.2 (1.0)	0.08 (2.0)
	-	821.19		1.1 (28)	0.31 (8.0)				47.7	-	M2.5	6.0 (0.68)	0.08 (2.0)
25	820.25	-	1.0 (25.4)	0.94 (24)	0.3 (7.5)	5	6	10	78	M5	-	18.5 (2.1)	0.1 (2.5)
	-	821.25		1.18 (30)	0.39 (10.0)				91	-	M3	10.6 (1.2)	0.1 (2.5)
32	820.32	-	1.25 (31.8)	1.18 (30)	0.39 (10.0)	6	8	16	152	M6	-	33 (3.7)	0.12 (3.0)
	-	821.32		1.5 (38)	0.47 (12.0)				186	-	M4	25 (2.8)	0.12 (3.0)
38	820.38	-	1.5 (38.1)	1.97 (50)	0.63 (16.0)	8	12	19	365	M6	-	33 (3.7)	0.12 (3.0)
	-	821.38		1.97 (50)	0.63 (16.0)				350	-	M5	51 (5.8)	0.16 (4.0)
50	820.50	-	2.0 (50.8)	2.13 (54)	0.71 (18.0)	10	16	26	680	M8	-	79 (9.0)	0.16 (4.0)
	-	821.50		2.13 (54)	0.71 (18.0)				660	-	M6	86 (9.7)	0.2 (5.0)

### PERFORMANCE

Size	Peak Torque lb.-in. (Nm)	Max misalignment compensation			Nominal stiffness at std. bore size	
		Angular deg	Radial in. (mm)	Axial in. (mm)	Bore	Torsional Nm/rad
16	10.62 (1.2)	5	0.01 (0.25)	0.01 (0.25)	5	16
19	20.36 (2.3)	5	0.01 (0.25)	0.01 (0.25)	6	33
25	38.06 (4.3)	5	0.01 (0.25)	0.01 (0.25)	10	45
32	69.04 (7.8)	5	0.01 (0.25)	0.01 (0.25)	12	84
38	177 (20)	5	0.01 (0.25)	0.01 (0.25)	16	195
50	265 (30)	5	0.01 (0.25)	0.01 (0.25)	20	320

### Materials & Finishes

**Couplings:** Stainless Steel 303 S31

**Fasteners:** Stainless Steel

### Temperature Range

-40°F to +284°F  
(-40°C to +140°C)

### AVAILABLE BORES

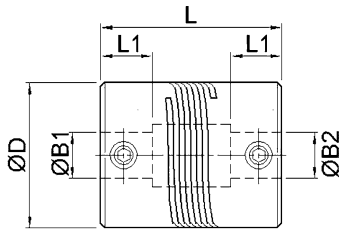
Sizes indicated in parenthesis are metric (mm).

Size	ØB1, ØB2 +0.0012/-0 (+0.03mm/-0mm)																						
	(3)	1/8"	(4)	3/16"	(5)	(6)	1/4"	5/16"	(8)	(9)	3/8"	(10)	(12)	1/2"	(14)	(15)	5/8"	(16)	3/4"	(20)	(25)	1"	
16	○	○	●	●	●	●	●																
19			○	●	●	●	●		●														
25					○	●	●	●	●	●	●	●											
32						○	○	●	●	●	●	●	●	●	●	●	●	●					
38											○	○	●	●	●	●	●	●	●				
50														○	○	○	○	●	●	●	●	●	●
<b>Bore Ref</b>	14	16	18	19	20	22	24	27	28	30	31	32	35	36	38	40	41	42	47	48	52	53	

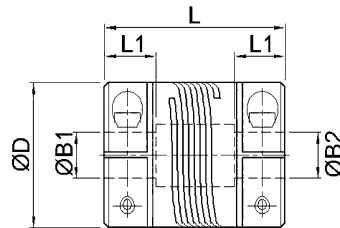
○ B1 only    ● B1 & B2

## Single Helix Beam Couplings - Aluminium

Set Screw Hubs



Clamp Hubs



### DIMENSIONS & ORDER CODES

Size	Set Screw Style	Clamp Style	Dimensions							Fasteners			
			Order Code	O.D. in. (mm)	O/A Length L in. (mm)	Bore Depth L1 in. (mm)	Min B1	Min B2	Max B1 & B2	Mass kg x 10-3	Set Screw	Cap Screw	Torque lb.-in. (Nm)
16	826.16	-	0.63 (15.9)	0.79 (20)	0.25 (6.0)	3	4	6.35	8.8	M4	-	20.0 (2.2)	0.08 (2.0)
	-	827.16		0.87 (22)	0.26 (6.5)				9.8	-	M2.5	11.6 (1.3)	0.08 (2.0)
19	826.19	-	0.75 (19.1)	0.79 (20)	0.25 (6.0)	4	4.76	8	13.1	M4	-	20.0 (2.2)	0.08 (2.0)
	-	827.19		1.1 (28)	0.31 (8.0)				17.3	-	M2.5	11.6 (1.3)	0.08 (2.0)
25	826.25	-	1.0 (25.4)	0.94 (24)	0.3 (7.5)	5	6	10	28	M5	-	40 (4.6)	0.1 (2.5)
	-	827.25		1.18 (30)	0.39 (10.0)				33	-	M3	21.5 (2.4)	0.1 (2.5)
32	826.32	-	1.25 (31.8)	1.18 (30)	0.39 (10.0)	6	8	16	55	M6	-	67 (7.6)	0.12 (3.0)
	-	827.32		1.5 (38)	0.47 (12.0)				67	-	M4	50 (5.6)	0.12 (3.0)
38	826.38	-	1.25 (38.1)	1.97 (50)	0.63 (16.0)	8	12	19	127	M6	-	67 (7.6)	0.12 (3.0)
	-	827.38		1.97 (50)	0.63 (16.0)				130	-	M5	100 (11.4)	0.16 (4.0)
50	826.50	-	2.0 (50.8)	2.13 (54)	0.71 (18.0)	10	16	26	241	M8	-	164 (18.3)	0.16 (4.0)
	-	827.50		2.13 (54)	0.71 (18.0)				237	-	M6	171 (19.3)	0.2 (5.0)

### PERFORMANCE

Size	Peak Torque lb-in. (Nm)	Max misalignment compensation			Nominal stiffness at std. bore size	
		Angular deg	Radial in. (mm)	Axial in. (mm)	Bore	Torsional Nm/rad
16	5.31 (0.6)	5	0.01 (0.25)	0.01 (0.25)	5	6
19	9.74 (1.1)	5	0.01 (0.25)	0.01 (0.25)	6	12
25	19.47 (2.2)	5	0.01 (0.25)	0.001 (0.25)	10	17
32	36.29 (4.1)	5	0.01 (0.25)	0.01 (0.25)	12	32
38	88.51 (10)	5	0.01 (0.25)	0.01 (0.25)	16	70
50	132.76 (15)	5	0.01 (0.25)	0.01 (0.25)	20	119

### Materials & Finishes

**Couplings:** Aluminium L 168 or better

**Fasteners:** Alloy steel, black oiled

### Temperature Range

-40°F to +248°F  
(-40°C to +120°C)

### AVAILABLE BORES

Sizes indicated in parenthesis are metric (mm).

Size	ØB1, ØB2 +0.0012/ -0 (+0.03mm/-0mm)																						
	(3)	1/8"	(4)	3/16"	(5)	(6)	1/4"	5/16"	(8)	(9)	3/8"	(10)	(12)	1/2"	(14)	(15)	5/8"	(16)	3/4"	(20)	(25)	1"	
16	○	○	●	●	●	●	●																
19			○	●	●	●	●		●														
25					○	●	●	●	●	●	●	●											
32						○	○	●	●	●	●	●	●	●	●	●	●	●					
38											○	○	●	●	●	●	●	●	●				
50														○	○	○	○	●	●	●	●	●	●
<b>Bore Ref</b>	14	16	18	19	20	22	24	27	28	30	31	32	35	36	38	40	41	42	47	48	52	53	

○ B1 only    ● B1 & B2