

Lateral Offset Couplings



General Performance Criteria

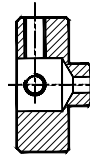
Temperature Range

-20°C to +60°C

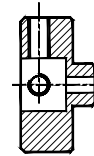
Maximum Rotational Speed

3000 rev/min

- ① **Blind hubs:** Length of parallel bore ± 0.2 . Bores may terminate in 118° incl. angle or flat bottomed.
Thro' hubs: Max permissible hub penetration.



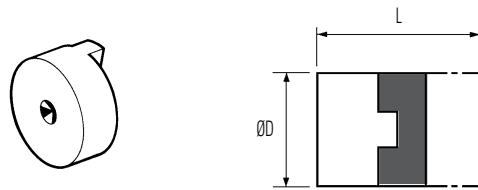
118° Included Angle



Flat Bottomed

- ② **Blind hubs:** Nominal distance between unchamfered shafts bottomed out to L1.
Thro' hubs: Nominal distance between shafts with standard (unbored) disc.
- ③ Maximum recommended tightening torque.
- ④ Values apply to complete couplings with max bores.
- ⑤ **Peak torque.** Select a size where Peak Torque exceeds the application torque x service factor.
- ⑥ Couplings can provide up to $(\text{ØD} \times 0.1)$ radial compensation in extreme cases.
 Observe given values for maximum backlash-free life.
 Axial compensation is set on installation.
 Electrical isolation between shafts > 3kV.
- ⑦ Values apply at 50% peak torque with no misalignment, measured shaft-to-shaft with largest standard bores.
- ⑧ Thro' hubs can be provided with keyways.

Blank hubs



User-adaptable for special needs, e.g. fitting within tubes. Blank hubs are supplied centred with no provision for fastening. External dimensions identical with blind hubs.

Coupling size	Complete hub ref.	ØD	L
06	231.06.00	6.4	12.7
09	231.09.00	9.5	12.7
13	231.13.00	12.7	15.9
19	231.19.00	19.1	22.0
25	231.25.00	25.4	28.4
33	231.33.00	33.3	42.0
41	231.41.00	41.3	50.8

Standard discs (larger sizes are webbed)



- Acetal – High torsional stiffness, good bearing properties, long backlash-free life.
- Nylon 11 – Resilient, isolates noise & vibration. Performance approximately 25% that of acetal disc.

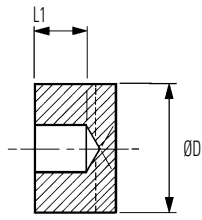
Thro' bored discs



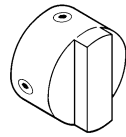
Thro' bored discs allow shafts to near-butt, standard thro' hole diameter = $\text{ØD} \times 0.5$. To order, add suffix 'T' to order code, eg., **236.25T**. Other thro' hole diameters are manufactured to order. Specify the disc ref. and thro' hole diameter. This should equal the larger shaft diameter + 2 x max radial error.

Note that thro' bored discs reduce torsional stiffness.

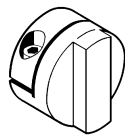
Brass / Aluminium Blind Hubs



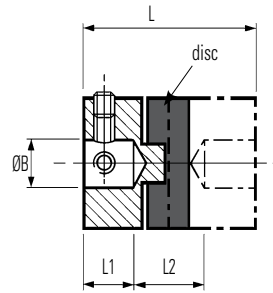
Controlled bore depth L1 provides a register when pre-assembling hubs to shafts



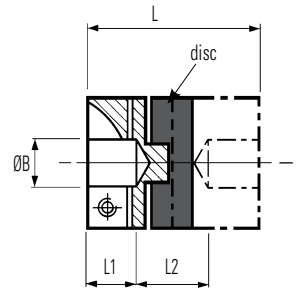
Set screw style



Clamp style



Refs. 232
Set screw style



Refs. 234
Clamp style

DIMENSIONS & ORDER CODES

Coupling Type and Size	Hub Ref		Dimensions								Fasteners			Disc Ref	
	Set Screw Style	Clamp Style	ØD mm	L mm	① L1 mm	② L2 mm	ØB1 Max mm	④ Moment of Inertia kgm ² x10 ⁻⁸	④ Mass kg x10 ⁻³	Size	③ Torque Nm	Wrench mm	Acetal (black) Std.	Nylon 11 (Natural)	
Blind Hubs	06	232.06	-	6.4	12.7	3.8	5.1	3.18	6	2.5	M3	0.9	1.5	236.06	238.06
	09	232.09	-	9.5	12.7	3.8	5.1	5	18	4	M3	0.9	1.5	236.09	238.09
	13	232.13	-	12.7	15.9	4.3	7.3	6.35	26	11	M3	0.9	1.5	236.13	238.13
	19	232.19	-	19.1	22.0	6.3	9.4	8	67	12	M3	0.9	1.5	236.19	238.19
	-	234.19	M2.5								1.3	2.0			
	25	232.25	-	25.4	28.4	8.6	11.2	12	252	31	M4	2.2	2.0	236.25	238.25
	-	234.25	M3								2.4	2.5			
	33	232.33	-	33.3	42.0	13.0	16.0	16	1074	72	M5	4.6	1.5	836.33	838.33
-	234.33	M4	2.3								2.0				
41	232.41	-	41.3	50.8	16.7	17.4	20	3327	148	M5	4.6	2.5	236.41	238.41	
-	234.41	M4								5.6	3.0				

PERFORMANCE (AT 20°C WITH STANDARD ACETAL DISC)

Coupling Size	⑤ Peak torque Nm	⑥ Max compensation @ 3000 rpm			⑦ Torsional		Static break torque Nm
		Angular deg	Radial mm	Axial ± mm	Rate deg / Nm	Stiffness Nm / rad	
06	0.06	0.5	0.1	0.05	5.7	10	0.7
09	0.21		0.1	0.05	1.9	30	2
13	0.5		0.1	0.05	0.88	65	4
19	1.7		0.2	0.1	0.50	115	8
25	4		0.2	0.1	0.28	205	13
33	9		0.2	0.15	0.093	615	53
41	17		0.25	0.15	0.048	1200	57

Materials & Finishes

Hubs sizes 06 to 13: Brass Cu Zn 21 Si 3P (Lead Free)

Hub sizes 19 to 41: Al Alloy 2014 T6 or 6026 LF

Fasteners: Alloy steel, black oiled

Hub sizes 19 to 41: Iridite NCP finish

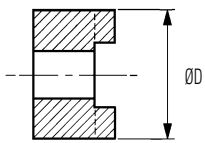
IMPORTANT

Load capacity depends on application conditions:
see page 4 for details

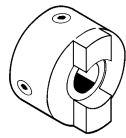
STANDARD BORES FOR ALL TYPES

Coupling Size	ØB1, ØB2 +0.03mm/-0mm (+0.0012/ -0)																							
	2	3 (1/8")	4 (3/16")	5	6 (1/4")	8 (3/8")	10 (1/2")	12 (5/8")	14	15	16 (5/8")	18	19 (3/4")	20	24	25	30							
06	•	•	•																					
09		•	•	•	•																			
13		•	•	•	•	•																		
19			•	•	•	•	•																	
25					•	•	•	•																
33							•	•	•	•	•	•	•	•										
41								•	•	•	•	•	•	•	•	•	•							
Bore ref.	11	14	16	18	19	20	22	24	28	31	32	35	36	38	40	41	42	45	46	47	48	51	52	56

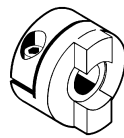
Aluminium Thro' Hubs



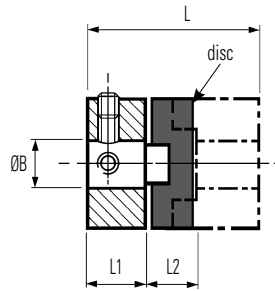
Thro' bores allow disc replacement without disturbing shaft alignment



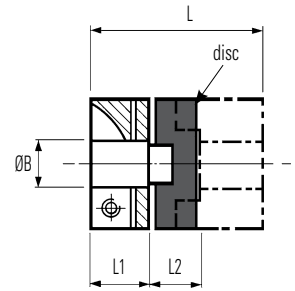
Set screw style



Clamp style



Refs. 450
Set screw style



Refs. 452
Clamp style

DIMENSIONS & ORDER CODES

Coupling Type and Size	Hub Ref		Dimensions								Fasteners			Disc Ref	
	Set Screw Style	Clamp Style	ØD mm	L mm	① L1 mm	② L2 mm	ØB1 Max mm	④ Moment of Inertia kgm ² x10 ⁻⁸	④ Mass kg x10 ⁻³	Size	③ Torque Nm	Wrench mm	Acetal (black) Std.	Nylon 11 (Natural)	
Thro' Hubs	13	450H13	-	12.7	15.9	5.5	1.7	6.35	20	10	M3	0.9	1.5	236.13	238.13
	19	450H19	-	19.1	26.0	9.4	7.2	8	59	13	M4	2.2	2.0	236.19	238.19
		-	452H19								M2.5	1.3	2.0		
	25	450H25	-	25.4	32.4	11.6	9.2	12	252	31	M5	4.6	2.5	236.25	238.25
		-	452H25								M3	2.4	2.5		
	33	450H33	-	33.3	42.0	15.0	12.0	16	1080	67	M6	7.6	3.0	836.33	838.33
		-	452H33								M4	5.6	3.0		
	41	450H41	-	41.3	50.8	17.8	15.3	20	3177	142	M6	7.6	3.0	236.41	238.41
-		452H41	M4								5.6	3.0			
50	450H50	-	50.0	59.6	20.6	18.4	25.4	7550	208	M8	18.3	4.0	236.50	-	
	-	452H50								M5	11.4	4.0			
57	450H57	-	57.1	78.0	28.4	21.2	30	12410	361	M8	18.3	4.0	236.57	-	
	-	452H57								M6	19.3	5.0			

PERFORMANCE (AT 20°C WITH STANDARD ACETAL DISC)

Coupling Size	⑤ Peak torque Nm	⑥ Max compensation @ 3000 rpm			⑦ Torsional		Static break torque Nm
		Angular deg	Radial mm	Axial ± mm	Rate deg / Nm	Stiffness Nm / rad	
13	0.5	0.5	0.1	0.05	0.88	65	4
19	1.7		0.2	0.1	0.50	115	8
25	4		0.2	0.1	0.28	205	13
33	9		0.2	0.15	0.093	615	53
41	17		0.25	0.15	0.048	1200	57
50	30		0.25	0.2	0.042	1375	95
57	44		0.25	0.2	0.022	2610	150

Materials Finishes

Hub sizes 13 to 57 : Al Alloy 2014A T6 or 6026 LF

Fasteners: Alloy steel, black oiled

Hubs: Clear anodised finish

IMPORTANT

Load capacity depends on application conditions:
see page 4 for details

STANDARD BORES® FOR ALL TYPES

Coupling Size	ØB1, ØB2 +0.03mm/-0mm (+0.0012/ -0)																								
	2	3	(1/8")	4	(3/16")	5	6	(1/4")	8	(3/8")	10	12	(1/2")	14	15	(5/8")	16	18	19	(3/4")	20	24	25	30	
13		•	•	•	•	•	•	•																	
19				•	•	•	•	•																	
25						•	•	•	•	•	•	•													
33							•	•	•	•	•	•	•	•	•	•	•								
41								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
50									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
57										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bore ref.	11	14	16	18	19	20	22	24	28	31	32	35	36	38	40	41	42	45	46	47	48	51	52	56	