

Couplings

Flexible Jaw

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Materials & Finishes

Hub sizes 14 to 30: Al. Alloy 2024

Hub size 40: Cast Aluminium LM9

Membranes: Polyurethane

Fastener: Alloy steel, black oiled

General description

High torque capacity and high speed are available from this naturally balanced coupling.

Where to use

Light power drives where misalignment is small.

Speeds

Up to 40,000 rpm.

Peak torque largest size

133 Nm

Standard bores

3mm to 16mm

Temperature range

-40 °C to +80 °C

Electrically isolating

Yes

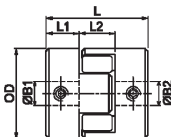
Connection

Clamp or Set Screw

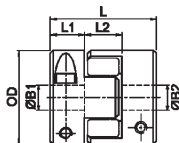
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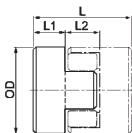
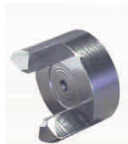
Set Screw Hubs



Thro' Clamp Hubs

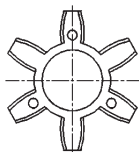


Pilot hubs



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. Except size 40 which has 6.35mm pilot hole.

Elements



Polyurethane elements are available with three hardness levels; hard, standard and soft which exhibit different operating characteristics. Other features of polyurethane are:

- Resistance to oils, grease and many solvents
- Good atmospheric and chemical resistance
- Excellent shock and vibration damping

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Performance (At 20° C)

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Coupling Size	Spider Rigidity Duro ①	Misalignment		Speed R.P.M max
		Angular deg	Radial mm	
14	80 Blue	2	0.10	40000
	92 White			
	98 Red			
20	80 Blue	2	0.15	28000
	92 White			
	98 Red			
30	80 Blue	2	0.20	19000
	92 White			
	98 Red			
40	80 Blue	2	0.38	14000
	92 White			
	98 Red			

- Spider Durometer is shore 'A' hardness
- Values apply at 50% nominal torque, measured shaft-to-shaft with largest standard bores.
- Nominal Torque. Select a size where Nominal Torque exceeds application torque x service factor

Standard Bores

Coupling Size	Bore Size + 0.03 / - 0 mm							
	3	3.175	4	4.763	5	6	6.350	8
14	●	●	●	●	●	●	●	
20			●	●	●	●	●	
30						●	●	●
40								●
<i>Bore ref.</i>	14	16	18	19	20	22	24	28

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Coupling Size	Torsional ^②		Backlash Free Torque Nm	Torque Nominal ^③ Nm	Torque Max Nm
	Rate deg / Nm	Stiffness Nm/ Rad			
14	6.7	8.5	0.22	0.67	1.34
	3.9	14.7		1.12	2.24
	2.29	25.0		1.90	3.80
20	3.37	17	0.45	1.80	3.60
	2.05	28		2.93	6.00
	1.22	47		4.85	9.70
30	1.24	71	1.00	3.95	7.90
	0.40	143		7.33	14.60
	0.25	228		12.40	24.80
40	0.34	170	2.40	4.85	9.70
	0.17	344		9.80	19.60
	0.10	573		16.70	33.40

Coupling Size	Bore Size + 0.03 / - 0 mm							
	9.525	10	12	12.7	14	15	15.875	16
14								
20								
30	●	●	●	●	●			
40	●	●	●	●	●	●	●	●
<i>Bore ref.</i>	31	32	35	36	38	40	41	42



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Dimensions & Order Codes

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PART NUMBER			Coupling Type & Size	ØD	L	④	L2	⑤	⑥
Set Screw Style	Clamp Style	Pilot Hub				L1		ØB1 max	Mi
HPC802.14.--	-	-	14	14.0	22.0	7.0	8.0	6.35	18.4
-	HPC803.14.--	-							
-	-	HPC800.14.--							
HPC802.20.--	-	-	20	20.0	30.0	10.0	10.0	9.0	106.0
-	HPC803.20.--	-							
-	-	HPC800.20.--							
HPC802.30.--	-	-	30	30.0	35.0	11.0	13.0	14.0	606.0
-	HPC803.30.--	-							
-	-	HPC800.30.--							
HPC802.40.--	-	-	40	40.0	66.0	25.0	16.0	16.0	4230.0
-	HPC803.40.--	-							
-	-	HPC800.40.--							

Order codes: Please combine the coupling part number in the above table with the bore reference in the standard bores table (see pages 3.62 & 3.63).

Please note that the hubs and discs are sold separately, i.e. :

HPC802.14.14 - Hub with 3mm bore

HPC802.14.24 - Hub with 6.35mm bore

HPC804.14 - Soft (Blue) element

To order a complete coupling you must order TWO hubs and ONE element.

- ④ Maximum permissible hub penetration.
- ⑤ Hubs can be provided with keyways or 'D' bores.
- ⑥ Values apply to complete couplings with max bores.
- ⑦ Maximum recommended tightening torque.

Mi: Moment of inertia $\text{kgm}^2 \times 10^{-8}$

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DISCOUNTS

1 - 5	6-19	20-39	40-59	60 +
List Price	-5%	-10%	-20%	-25%

7 Fasteners			ELEMENT Ref.			6 Mass kg x10 ⁻³	PRICE EACH 1-5
Screw	Torque Nm	Wrench mm	Soft (Blue)	Med (White)	Hard (Red)		
M3	0.94	1.5	HPC804.14	HPC805.14	HPC806.14	7.0	£22.59
M2.5	1.32	2.5					£25.70
-	-	-					£19.92
M3	0.94	1.5	HPC804.20	HPC805.20	HPC806.20	17.0	£26.84
M3	2.43	2.5					£29.97
-	-	-					£22.71
M4	2.27	2.0	HPC804.30	HPC805.30	HPC806.30	51.0	£38.53
M3	2.43	2.5					£43.29
-	-	-					£33.88
M5	4.62	2.5	HPC804.40	HPC805.40	HPC806.40	108.0	£48.32
M4	5.66	3.0					£53.31
-	-	-					£42.38

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ELEMENT Ref.

Soft (Blue)	PRICE EACH 1-5	Med (White)	PRICE EACH 1-5	Hard (Red)	PRICE EACH 1-5
HPC804.14	£5.98	HPC805.14	£5.98	HPC806.14	£5.98
HPC804.20	£7.67	HPC805.20	£7.67	HPC806.20	£8.06
HPC804.30	£8.86	HPC805.30	£8.86	HPC806.30	£8.86
HPC804.40	£16.56	HPC805.40	£16.56	HPC806.40	£16.56

