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

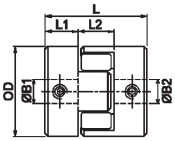
Standard bores
3mm to 16mm

Temperature range
-40˚C to +80˚C

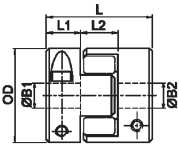
Electrically isolating
Yes

Connection
Clamp or Set Screw

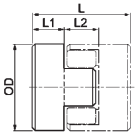
Set Screw Hubs



Thro' Clamp Hubs

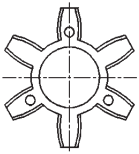


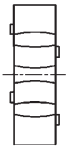
Pilot hubs



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

Performance (At 20° C)

Coupling Size	Spider Rigidity Duro ❶	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			

❶ Spider Durometer is shore 'A' hardness

❷ Values apply at 50% nominal torque, measured shaft-to-shaft with largest standard bores.

❸ Nominal Torque. Select a size where Nominal Torque exceeds application torque x service factor

Standard Bores

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

Coupling Size	Torsional ❷		Backlash Free Torque	❸ Torque Nominal	Torque Max
	Rate deg / Nm	Stiffness Nm/ Rad	Nm	Nm	Nm
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

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

Dimensions & Order Codes

PART NUMBER			Coupling Type & Size	ØD	L	❹ L1	L2	❺ ØB1 max	❻ Mi
Set Screw Style	Clamp Style	Pilot Hub							
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 seperately, 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.

❹ Maximum permissible hub penetration.

❺ Hubs can be provided with keyways or 'D' bores.

❻ Values apply to complete couplings with max bores.

❼ Maximum recommended tightening torque.

Mi: Moment of inertia kgm^2 x 10^{-8}

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					£22.59
M2.5	1.32	2.5	HPC804.14	HPC805.14	HPC806.14	7.0	£25.70
-	-	-					£19.92
M3	0.94	1.5					£26.84
M3	2.43	2.5	HPC804.20	HPC805.20	HPC806.20	17.0	£29.97
-	-	-					£22.71
M4	2.27	2.0					£38.53
M3	2.43	2.5	HPC804.30	HPC805.30	HPC806.30	51.0	£43.29
-	-	-					£33.88
M5	4.62	2.5					£48.32
M4	5.66	3.0	HPC804.40	HPC805.40	HPC806.40	108.0	£53.31
-	-	-					£42.38

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

Couplings
Double Loop

Materials & Finishes	
Hubs:	*Steel 230M07 pb Zn plated + clear passivate or Stainless Steel 303 S31 natural finish*
Flexing Element:	*Hytrel*
Fastener:	*Steel Hub: Alloy steel, black oiled Stainless Steel Hub: stainless steel*

General description
Exceptional flexibility in all three directions, radial, angular and axial.

Where to use
Light power drives, pumps and small generators.

Speeds
Up to 3000 rpm.

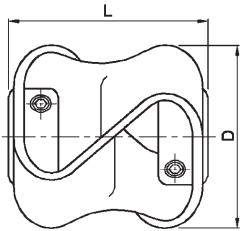
Peak torque largest size
18 Nm

Standard bores
3mm to 16mm

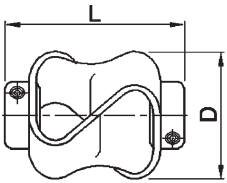
Temperature range
-40˚C to +100˚C

Electrically isolating
Yes

Connection
Set Screw



Sizes: 20, 30, 40



Size: 10

Performance

Coupling Size	Max Torque 1 (Nm)	Max Torque 2 (Nm)	max misalignment / displacement		
			Angular deg	Radial mm	Axial ± mm
10	0.5	0.8	10	2.6	4.5
20	1.8	3	15	3.2	7.5
30	5	8	15	3.2	8.5
40	10	18	15	3.2	11

Torque 1 = torque at maximum displacement

Torque 2 = torque at 1 deg. angular, 2mm axial and 0.5mm radial displacement

Dimensions & Order Codes

PART NUMBER		Dimensions				
steel zinc plated hubs	stainless steel hubs	Coupling Type & Size	Max Diameter	Length L ± 1.0	Bore length	Max Bores
HPC047.10.----	-	10	27	27	7.9	9.53
-	HPC049.10.----					
HPC047.20.----	-	20	48	48	12.7	12.7
-	HPC049.20.----					
HPC047.30.----	-	30	54	55	16.0	16.0
-	HPC049.30.----					
HPC047.40.----	-	40	56	56	16.0	16.0
-	HPC049.40.----					

Order codes: Please combine the coupling part number in the above table with the bore reference in the standard bores table (see pages below).
Please identify both bores to complete the part number eg. HPC047.10. 14 31

Part Number ØB1 ØB2

Standard Bores *

Bore Size / Coupling Size	+ 0.05 / - 0 mm								
	3	3.175	4	4.763	5	6	6.350	7.938	8
10	●	●	●	●	●	●	●	●	●
20						●	●	●	●
30									
40									
Bore ref.	14	16	18	19	20	22	24	27	28

** Couplings with dissimilar bores are non-standard*

DISCOUNTS	1 - 19	20-39	40-59	60-99	100 +
	List Price	-15%	-20%	-25%	-30%

PART NUMBER		Fasteners				PRICE EACH 1-19
steel zinc plated hubs	stainless steel hubs	Size	Torque (Nm)	A/F (mm)	Mass kg $x10^{-3}$	
HPC047.10.----	-	M3	0.94	1.5	25	£20.04
-	HPC049.10.----		0.32			£30.06
HPC047.20.----	-	M4	2.27	2.0	92	£22.36
-	HPC049.20.----		2.0			£33.54
HPC047.30.----	-	M5	4.62	2.5	124	£24.68
-	HPC049.30.----		2.1			£37.05
HPC047.40.----	-	M6	7.61	3.0	136	£24.68
-	HPC049.40.----		3.75			£40.53

Bore Size / Coupling Size	+ 0.05 / - 0 mm							
	9.525	10	12	12.7	14	15	15.875	16
10	●							
20	●	●	●	●				
30	●	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●	●
Bore ref.	31	32	35	36	38	40	41	42