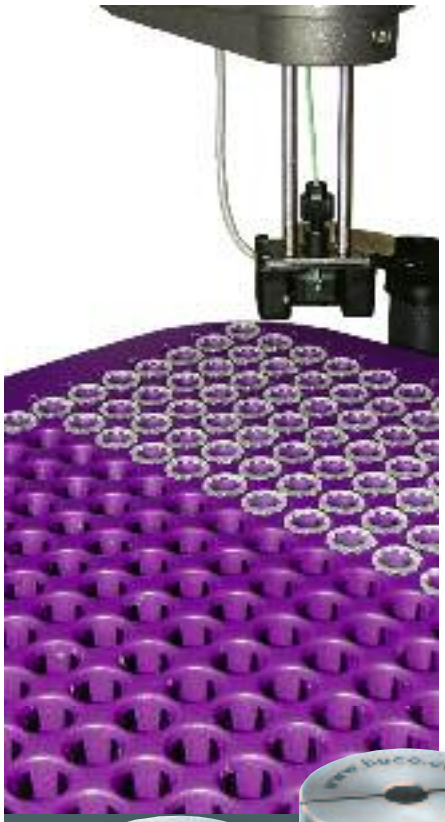
ALTRA INDUSTRIAL MOTION















Huco Dynatork Flexible Couplings

Huco Dynatork

The Company & Its Products

Huco products are manufactured in Hertford, England, in a modern plant equipped with all necessary design, development, toolroom and production facilities. The plant operates a total quality assurance system assessed to ISO 9001-2000.

Huco products are available through distribution or Huco warehouses in most of the industrialised nations of the world. Recognised as one of the leading manufacturers of small flexible couplings, Huco has been responsible for several 'firsts' since its inception in 1965

Huco was first to use thermoplastics as active transmission elements and was demonstrating plastic universal joints as far back as 1962. Other 'moving parts' couplings followed, notably the Uni-Lat and Oldham concepts. In the early 1990's Huco launched the Flex-M high integrity membrane coupling and this was followed by the Flex-B series of bellows couplings, another new and innovative design.

With the recent addition of the Multi-Beam and Single-Beam range of helical beam couplings, Huco can offer solutions that address specific issues in most coupling applications.

Whether the accent is on high torsional stiffness, generous misalignment capability, high speed operation recyclable hubs, or a capacity for operating in push/pull mode, Huco can help. If your needs should fall outside our standard range, we offer a customised service to meet your low-cost, high volume requirements.

Product Overview

Stainless Steel Bellows type	Nickel Bellows type	Membrane type	Multi-Beam type	Single-Beam type	Step-Beam type
Flex B, Flex K Short 3-convolution  Stretched 2-convolution  Long 9-convolution 	**Flex Ni**  	**Flex M** Single-stage  Short two-stage  Long two-stage 	**Multi-Beam** 6-Beam   Material Options: Aluminium Stainless Steel Acetal	**Single-Beam**  Material Options: Aluminium Stainless Steel	**Step-Beam**  Material Options: Nylon
General description					
Precision couplings with excellent kinematic properties. The 3 types offer differing combinations of stiffness, radial compensation and axial motion.	Precision couplings with excellent kinematic properties. The 3 types offer differing combinations of stiffness, radial compensation and axial motion.	Precision couplings with excellent kinematic properties. Dynamically balanced construction. Single-stage versions make up into 'whirl' free Cardans. The 2-stage versions offer short envelopes and low bearing loads respectively.	General purpose single piece couplings Single stage (3-beam) Two stage (6-beam) Material options for moisture and corrosion resistance.	More flexible than Multi-Beam but less torsional rigidity.	Unique coupling design gives excellent combination of radial flexibility with torsional stiffness.
Where to use					
High-end servo drives, pulse generators, scanners, positioning slides, metering valves, etc.	High-end servo drives, pulse generators, scanners, positioning slides, metering valves, etc.	High-end servo drives, pulse generators, scanners, positioning slides, high speed dynamometers, unsupported drive shafts, etc.	Stepper and servo drives, encoders, general purpose light duty power transmission applications.	Stepper drives, encoders, general purpose light duty power transmission applications.	Encoders, tachogenerators, small pumps, motors and drives
Speeds					
Up to 5000 rpm in standard form.	Up to 5000 rpm in standard form.	Up to 5000 rpm in standard form. Up to 30000 rpm in balanced form.	Up to 5000 rpm in standard form. Up to 30000 rpm in balanced form.	Up to 5000 rpm in standard form. Up to 30000 rpm in balanced form.	Up to 10000 rpm
Peak torque largest size					
500 Nm	12.5 Nm	100 Nm	140 Nm	30 Nm	25 Nm
Standard bores					
3 to 65	3 to 20	3 to 38	1 to 38	3 to 26	3 to 12.7
Temperature range					
–40° to +120°C	–40° to +120°C	–40° to +120°C	–40° to +140°C	–40° to +140°C	–20 to +150°C
Electrically isolating					
No, unless used with insulating bore adaptors	No, unless used with insulating bore adaptors	No, unless used with insulating bore adaptors	Aluminium } Stainless Steel } No Acetal Yes	Aluminium } Stainless Steel } No Acetal Yes	Yes
Connection					
Clamp, Set Screw or Spiggot	Clamp or Set Screw	Clamp or Set Screw	Clamp or set screw	Clamp or Set Screw	Clamp or Set Screw
Page 12 - 17	**Page 18 - 19**	**Page 20 - 23**	**Page 32 - 37**	**Page 38 - 39**	**Page 40**

Selecting Flexible Couplings

Introduction to couplings

In the simplest of terms a coupling's purpose is to transfer rotational movement from one shaft to another. Reality is somewhat more complicated, though, as flexible shaft couplings have also to compensate for misalignment between two shafts. This ability must be balanced with the need to be pliable in the planes of misalignment while still having the torsional strength to carry out the coupling's main function. This is known as the Compliance mechanism where compliance is the capacity for allowing relative displacement.

Several factors should always be taken into consideration when looking to specify flexible shaft couplings. These are torsional stiffness, backlash, torque, life and attachment system. All of these have bearing on coupling selection.

Selecting the ideal coupling

The choice of couplings available to today's engineers can be daunting, but follow our guidelines and you will arrive at the optimum coupling for your particular application.

- *Does the coupling provide adequate misalignment protection?*
- *Can it transmit the required torque?*
- *Do I need axial motion or axial stiffness?*
- *Can it sustain the required speed of rotation?*
- *Will it fit within the available space envelope?*
- *Can it operate at the designated ambient temperature?*
- *Does it provide torsional stiffness required for positional accuracy?*
- *Does it provide electrical isolation between the shafts?*
- *Will it have the required life expectancy?*



Service Factors

- Peak torque values quoted in the coupling performance tables apply to uniform load conditions at constant speed where there is no misalignment or axial displacement.
- The torque capacity of flexible couplings will reduce when acceleration is present, for example, in stop/start or reversing conditions.
- The more severe the acceleration, the greater reduction in torque capacity.
- Sliding couplings (Oldham and UniLat) are subject to a wear rate dependent on the number of cycles completed.

Peak torque must be greater than application torque x service factor

	Load					Duty (Hours/Day)				
	Steady State	Stop/Start	Reversing	Shock	Shock & Reversing	<1	1 - 2	3 - 5	6 - 12	>12
Huco Flex B	1.5	2.0	2.0	3.0	4.0	-	-	-	-	-
Huco Flex K	1.5	2.0	2.0	3.0	4.0	-	-	-	-	-
Huco Flex M	1.5	2.0	2.0	3.0	4.0	-	-	-	-	-
Huco Flex Ni	1.0	2.0	2.0	3.0	4.0	-	-	-	-	-
Huco Flex P	1.0	1.5	1.5	3.0	4.0	-	-	-	-	-
Huco Flex G	1.0	2.0	4.0	4.0	4.0	-	-	-	-	-
Huco MultiBeam	1.0	1.5	2.0	(Note 1)	(Note 1)	-	-	-	-	-
Huco S-Beam	1.0	1.5	2.0	(Note 1)	(Note 1)	-	-	-	-	-
Huco TorqLink	1.0	1.5	2.0	(Note 1)	(Note 1)	-	-	-	-	-
Huco Oldham	-	-	-	-	-	1.0	2.0	4.0	6.0	8.0
Huco Flex - B	-	-	-	-	-	1.0	1.5	2.0	3.0	4.0
Uni-Lat	-	-	-	-	-	1.0	1.5	2.0	3.0	4.0

Note 1: Not recommended in these conditions

Round & Keywayed Bore Details & Codes

Metric mm	Inch fraction	Inch decimal	Round bore code	Metric keys		Inch keys		Keywayed bore code
				Key size w x h	K	Key size w x h	K	
1	–	0.0394	08	–	–	–	–	–
1.588	1/16	0.0625	10	–	–	–	–	–
2	–	0.0787	11	–	–	–	–	–
2.286	–	0.0900	12	–	–	–	–	–
3	–	0.1181	14	–	–	–	–	–
3.048	–	0.1200	15	–	–	–	–	–
3.175	1/8	0.1250	16	–	–	–	–	–
*3.969	5/32	0.1563	–	–	–	–	–	–
4	–	0.1575	18	–	–	–	–	–
4.763	3/16	0.1875	19	–	–	–	–	–
5	–	0.1969	20	–	–	–	–	–
6	–	0.2362	22	–	–	–	–	–
6.350	1/4	0.2500	24	–	–	–	–	–
7	–	0.2756	25	2 x 2	8.00	–	–	P25
7.938	5/16	0.3125	27	–	–	1/8 x 1/8	0.3755	R27
8	–	0.3150	28	2 x 2	9.00	–	–	P28
9	–	0.3543	30	3 x 3	10.40	–	–	P30
9.525	3/8	0.3750	31	–	–	1/8 x 1/8	0.4380	R31
10	–	0.3937	32	3 x 3	11.40	–	–	P32
11	–	0.4331	33	4 x 4	12.80	–	–	P33
12	–	0.4724	35	4 x 4	13.80	–	–	P35
12.700	1/2	0.5000	36	–	–	1/8 x 1/8	0.5630	R36
13	–	0.5118	37	5 x 5	15.30	–	–	P37
14	–	0.5512	38	5 x 5	16.30	–	–	P38
15	–	0.5906	40	5 x 5	17.30	–	–	P40
15.875	5/8	0.6250	41	–	–	3/16 x 3/16	0.7160	R41
16	–	0.6299	42	5 x 5	18.30	–	–	P42
17	–	0.6693	43	5 x 5	19.30	–	–	P43
18	–	0.7087	45	6 x 6	20.80	–	–	P45
19	–	0.7480	46	6 x 6	21.80	–	–	P46
19.050	3/4	0.7500	47	–	–	3/16 x 3/16	0.8410	R47
20	–	0.7874	48	6 x 6	22.80	–	–	P48
22	–	0.8661	49	6 x 6	24.80	–	–	P49
22.225	7/8	0.8750	50	–	–	1/4 x 1/4	0.9930	R50
24	–	0.9449	51	8 x 7	27.30	–	–	P51
25	–	0.9843	52	8 x 7	28.30	–	–	P52
25.400	1	1.0000	53	–	–	1/4 x 1/4	1.1180	R53
28	–	1.1024	54	8 x 7	31.30	–	–	P54
28.575	1-1/8	1.1250	55	–	–	5/16 x 1/4	1.2400	R55
30	–	1.1811	56	8 x 7	33.30	–	–	P56
31.750	1-1/4	1.2500	57	–	–	5/16 x 1/4	1.3580	R57
32	–	1.2598	58	10 x 8	35.30	–	–	P58
34.925	1-3/8	1.3750	59	–	–	3/8 x 1/4	1.4830	R59
35	–	1.3780	60	10 x 8	38.30	–	–	P60
38	–	1.4961	61	10 x 8	41.30	–	–	P61
40	–	1.575	63	12 x 8	43.30	–	–	P63
50	–	1.969	70	14 x 9	53.8	–	–	P70
50.800		2.000	71	–	–	1/2 x 1/2	2.224	R71
55	–	2.165	73	16 x 10	59.3	–	–	P73
60	–	2.362	75	18 x 11	64.4	–	–	P75
63.500	2-1/2	2.500	77	–	–	5/8 x 5/8	2.778	R77
65	–	2.559	78	18 x 11	69.4	–	–	P78

*Not manufactured. Nearest alternative 4mm.
Intermediate size available on request

All shaft mounted products in this catalogue can be specified with inch and/or metric bore diameters. A standard range of sizes is listed for each product. Where physical dimensions permit, keyways may be specified at extra cost.

For the sake of uniformity and avoidance of errors when ordering, bore diameters are designated with a 2-digit number which forms part of the order code. *Please note that only the bore diameters listed for each product in the product pages are standard.*

To specify a **keywayed** bore, prefix the 2-digit number with a 'P' for metric keyways or an 'R' for an inch keyway.

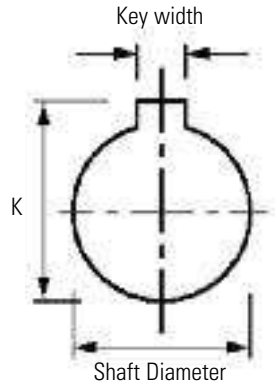
Standard keyways are machined to 2 specifications:

Bore codes prefixed 'P' denote a metric keyway conforming to ISO 773/774 (BS 4235 Pt. 1).

Bore codes prefixed 'R' denote an inch keyway conforming to BS 46 Pt. 1.

In most cases, keyways prefixed 'R' are compatible with AGMA 9002–A86 but can differ in the depth of the key seat.

All Huco couplings are RoHS compliant.



Note that our tooling produces a key seat classified as 'nominal' being a nominal clearance on standard keys

Order Codes

Combine the COUPLING REF in Main Product Tables with BORE REFS in Standard Bores Table.
Please identify both bores e.g.

706.19.1924

Coupling ref.

Ø B1 ref.

Ø B2 ref.

Flexible Coupling Types

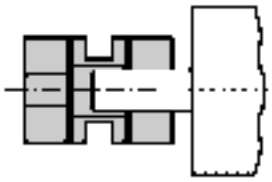
General instructions

1. Ensure that shafts are free of burrs, damage, or foreign matter, and can penetrate the bores.

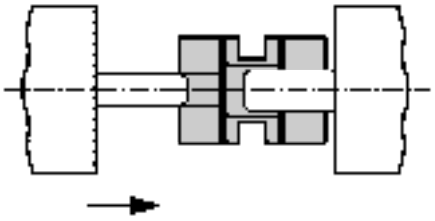
2. Install the coupling by holding the shaft and the related hub, rotating it back and forth as you progress it along the shaft.

3. Do not apply any forces that cause extension, compression or lateral displacement of the coupling beyond its permissible offsets.

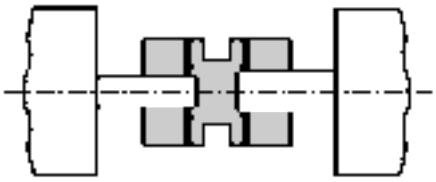
Normal installation



a) Position and secure the larger of the 2 shafts (if different) and progress the coupling onto it.



b) Progress the second shaft into the bore, taking care not to lever either shaft against the inner wall of the spacer.



c) Progress the coupling along the shafts to a position midway between the shaft terminations. Rotate the coupling to ensure it is not binding and is in its natural state, ie., neither extended nor compressed.

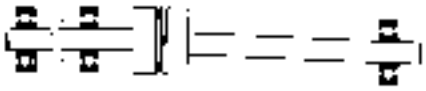
d) Align the second shaft with the first using a straight edge and feeler gauges or a dial indicator.

e) Secure the second shaft and re-check alignment. Final alignment must be within the permissible offsets.

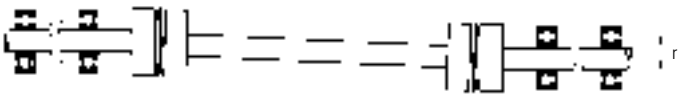
f) Secure one hub, tightening each screw alternately. Repeat for the second hub.

When to use single & two-stage couplings

Single-stage



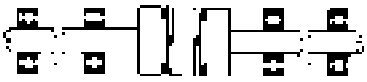
Example 1. With partially supported (1 bearing) shafts.



Example 2. With unsupported intermediate shafts.

Single-stage couplings are radially supportive and function as supplementary bearings. They are used when the connected shaft lacks a full complement of bearings.

Two-stage



Two-stage couplings are radially compliant and are used when both shafts are fully supported by bearings.

CAUTION

These are precision high couplings that have a limited range of permissible flexure. They can be damaged through careless handling. Avoid gratuitous flexure in any direction.

No axial forces are permitted across the membranes when fitting Huco-Flex M couplings. Keyways with interference fits are not recommended.

Bellows couplings are more tolerant of axial motion, but flexure beyond the permissible limits should be avoided.

Note: Bellows couplings do not provide the same level of radial support as Flex M when used with partially or wholly unsupported shafts. When essential for reasons of greater axial motion, use the 3-convolution type for these purposes.

high performance couplings

- Stainless Steel Bellows
- Nickel Bellows
- Flexible Membrane (Disc)

• Torsionally rigid design

• No moving parts

• All-metal construction

• Low inertia

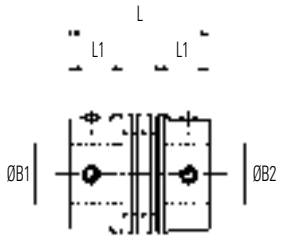
The operating principles of Flex B, Flex K, Flex Ni and Flex M offer the highest performance available with flexible couplings.

With excellent kinematic properties and torsional stiffness of a very high order, they are suitable for servo drives and satisfy the criteria for highly dynamic position and velocity control systems.

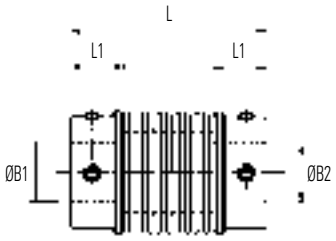
Bellows couplings have the greater torsional stiffness while Flex M have the more tolerant flexural system and feature dynamically balanced construction.



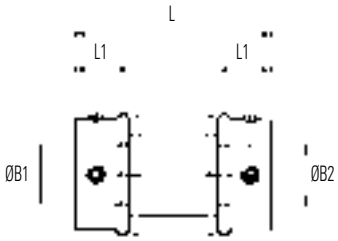
Set screw hubs



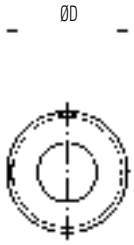
Ref. 530
Short type
for precisely aligned shafts



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

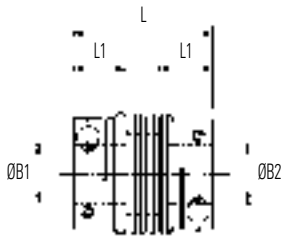


Ref. 534
Stretched type
for greater radial misalignment
and lower bearing loads

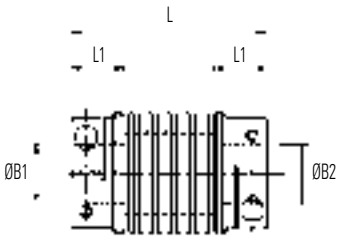


Typical

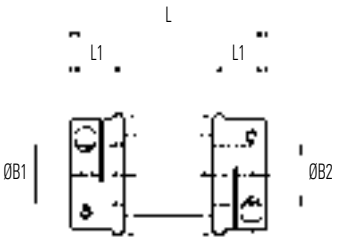
Clamp hubs



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 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

DIMENSIONS & ORDER CODES

Coupling Size	Set Screw Hubs COUPLING REF	Clamp Hubs	ØD	L ±1.0	① L1	ØB1, ØB2 max	Fasteners Screw	② Torque Nm	Wrench mm	③ Moment of inertia kgm2 x 10–8	③ Mass 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 Nm	⑤ Max compensation Angular deg	Radial mm	Axial ± mm	⑥ Flexural stiffness 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.

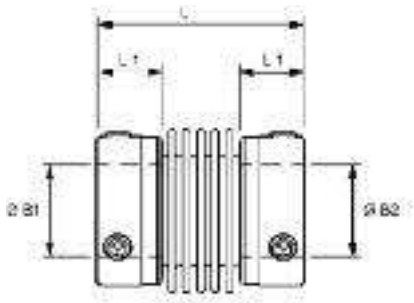
⑥ Torsional stiffness values apply at 50% peak torque with no misalignment, measured shaft-to-shaft with largest standard bores. **Note that in some vendors' catalogues the given torsional stiffness applied to the un-mounted bellows element only, an unrepresentative calculated value.**

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 60* for details of metallic and electrically insulating adaptors.

Set screw hubs

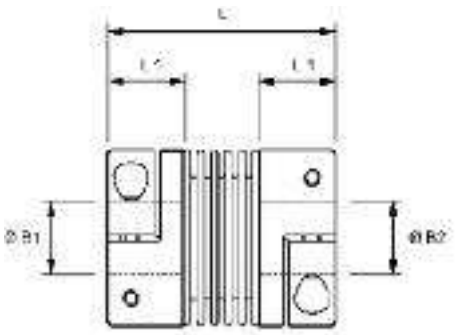


Ref. 550 & 551

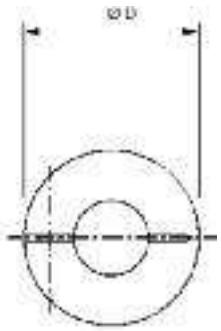


Typical

Clamp hubs

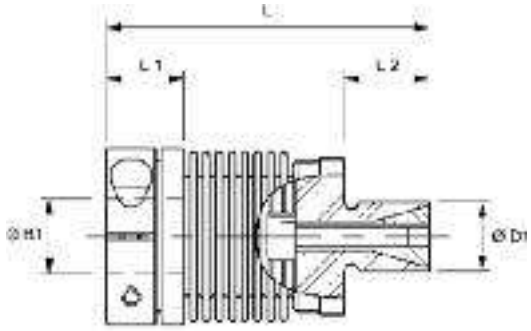


Ref. 554 & 555



Typical

Spiggot hub



Ref. 558 & 559

Materials & Finishes

Hubs: Al. Alloy [Clamp hubs size 66 and larger - steel]

Bellows: Spring quality stainless steel

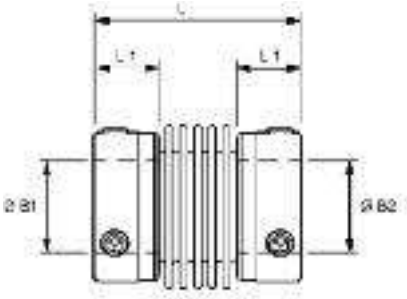
Fasteners: Alloy steel, black oiled

Temperature Range

–30°C to +120°C

SET SCREW HUBS





Ref. 550 & 551



Typical

DIMENSIONS & ORDER CODES

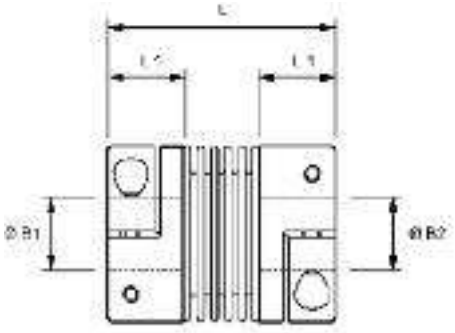
Coupling Size	Set Screw Hubs	Clamp Hubs	ØD	L ①	L1	ØB1, ØB2 Max	Fasteners			Moment of inertia kgm² x10⁻⁸ ③	Mass kgx10⁻³ ③
							Screw	Torgue Nm ②	Wrench mm		
	COUPLING REF										
10	550.10	-	10.0	23.0	6.0	4.0	M3	0.5	1.5	4	3
	-	554.10		25.0	7.0		M1.6	0.1		5	2.6
16	550.16	-	15.0	21.0	6.0	8.0	M3	0.5	1.5	17	4.1
	551.16	-		25.0						19	4.6
	-	554.16	15.5	23.0	8.0	7.0	M2	0.43		30	7.6
	-	555.16		26.0						33	7.9
20	550.20	-	19.0	26.0	8.0	12.0	M4	1.50	2.0	51	5.3
	551.20	-		30.0						65	7.3
	-	554.20	20.0	26.0	9.0	10.0	M2.5	0.85		75	9.5
	-	555.20		31.0						88	11.5
25	550.25	-	24.0	22.0	6.0	14.0	M4	1.50	2.0	80	6
	551.25	-		28.0						114	8
	-	554.25	25.0	32.0	11.0	12.7	M3	2	2.5	225	17
	-	555.25		42.0						275	22
33	550.33	-	32.0	40.0	12.0	18.0	M6	3.00	3.0	613	29
	551.33	-		48.0						723	35
	-	554.33	32.5	41.0	14.0	16.0	M4	3.50		950	48
	-	555.33		48.0	15.5					1036	51
41	550.41	-	40.0	45.0	12.0	18.0	M6	3.00	3.0	1285	32
	551.41	-		55.0						1885	51
	-	554.41	40.5	48.0	14.0	22.0	M4	4.50		2150	59
	-	555.41		57.0						2720	79

PERFORMANCE

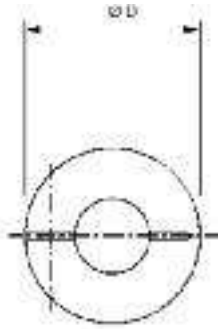
Coupling Size	Ref.	Peak torque Nm ④	Max compensation ⑤			Flexural Stiffness ⑥		
			Angular deg	Radial mm	Axial± mm	Torsional Nm/rad	Radial N/mm	Axial N/mm
10	550 & 554	0.1	1.2	0.12	0.2	65	10	14
16	550 & 554	1.0	1.0	0.10	0.2	510	74	27
	551 & 555		1.5	0.15	0.3	380	31	20
20	550 & 554	1.5	1.5	0.10	0.3	750	59	15
	551 & 555		2.0	0.15	0.4	700	20	9
25	550 & 554	2.0	1.5	0.15	0.3	1500	67	12
	551		1.5	0.20	0.4	1300	21	11
	555		2.0	0.25	0.5	1050	11	9
33	550, 554 & 555	4.50	1.5	0.10	0.3	6500	168	32
	551		2.0	0.20	0.5	4200	41	20
41	550 & 554	10.0	1.5	0.15	0.4	8100	120	27
	551 & 555		2.0	0.30	0.6	6800	29	17

CLAMP HUBS





Ref. 554 & 555



Typical

DIMENSIONS & ORDER CODES

Coupling Size	Set Screw Hubs	Clamp Hubs	ØD	L ①	L1	ØB1, ØB2 Max	Fasteners			Moment of inertia kgm² x10⁻⁸ ③	Mass kgx10⁻³ ③
							Screw	Torque Nm ②	Wrench mm		
	COUPLING REF										
45	-	554.45	45.0	63.0	19.5	25.4	M5	8.0	4.0	3560	54
	-	555.45		71.0						4560	104
56	-	554.56	56.0	65.0	24.5	30.0	M6	15.0	5.0	13930	215
	-	555.56		73.0						14930	235
66	-	554.66	66.0	79.0	29.0	32.0	M8	40.0	6.0	31360	390
	-	555.66		89.0						34360	490
82	-	554.82	82.0	91.0	33.5	42.0	M10	84.0	8.0	183930	1150
	-	555.82		102.0						193930	1250
90	-	554.90	90.0	101.0	38.0	45.0	M12	125.0	10.0	305980	1875
	-	555.90		113.0						325980	1975
110	-	554.110	110.0	105.0	38.0	60.0	M12	125.0	10.0	654095	2330
	-	555.110		116.0						674095	2430
122	-	554.122	122.0	112.0	42.0	65.0	M12	125.0	10.0	1124450	3540
	-	555.122		123.0						1154450	3640

PERFORMANCE

Coupling Size	Ref.	Peak torque Nm ④	Max compensation ⑤			Flexural Stiffness ⑥		
			Angular deg	Radial mm	Axial± mm	Torsional Nm/rad	Radial N/mm	Axial N/mm
45	554	18	1.5	0.20	0.5	20000	790	100
	555		2.0	0.25	0.5	15000	970	85
56	554	30	1.5	0.15	0.6	38000	720	50
	555		2.0	0.25	1.0	28000	225	28
66	554	60	1.5	0.15	0.6	75000	1150	90
	555		2.0	0.25	1.0	50000	340	50
82	554	150	1.5	0.20	0.5	155000	1200	145
	555		2.0	0.25	0.5	105000	400	185
90	554	200	1.5	0.20	0.5	175000	2020	145
	555		2.0	0.25	0.8	120000	595	82
110	554	300	1.5	0.20	0.5	502000	2500	280
	555		2.0	0.25	0.8	285000	460	145
122	554	500	1.5	0.20	0.5	690000	6300	100
	555		2.0	0.25	1.0	320000	1400	85

① Length of supported bore
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 peak torque with no misalignment.