

Shaft Couplings & Universal Joints



Lenze

ideas in motion

Shaft couplings & universal joints | the extensive range from Lenze Ltd



Universal joints

Shaft sizes 10 to 50mm
Suitable for angles up to 45°
Single, double & telescopic

page 7-11



Collars & rigid couplings

Nomar® range
Shaft sizes 3 to 50mm
Clamp hub & 2 piece split designs
Steel and stainless steel

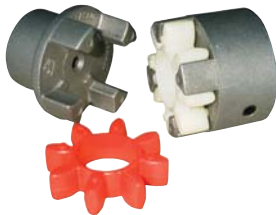
page 12-13



Oldham couplings

Paradrive™ Oldham couplings
Shaft sizes 4 to 30mm
Temperature range -25 to +60°C
Backlash free option

page 14-15



Curved jaw couplings

Curved jaw couplings model GR
Shafts 10 to 90mm
Temperature range -30 to +80°C
Simple and economic

page 16-17



Clamp hub curved jaw couplings

Models GESA and GESM
Shafts 4 to 45mm
Temperature range -40 to + 120°C
Backlash free for torques up to 450Nm

page 18-21



Straight sided jaw couplings

Lovejoy jaw
Shafts 4 to 67mm
Torque range 0.4 to 660Nm
General purpose, variable stiffness

page 22-26



Easy maintenance couplings

Lovejoy Jaw in-shear
Shafts 12 to 67mm
Torque range 38 to 475Nm
Radially removable spider

page 27



Barrel gear couplings

Nylon sleeve coupling

For shafts up to 80mm diameter

Temperature range -25 to 90°C

page 28-29



Reinforced rubber disc

Hexaflex

Shafts 16 to 100mm

Spacer versions up to 3m available

page 30-32



Beam couplings

Flexbeam™

Shafts 3 to 152mm

Aluminium or stainless models

page 33



Spring couplings

Simplaflex

Shafts 3 to 75mm

Stainless steel construction possible

page 34-36



Bellows couplings

Belflex™

Shafts 3 to 25mm

Stainless steel bellows with aluminium alloy hubs

page 37



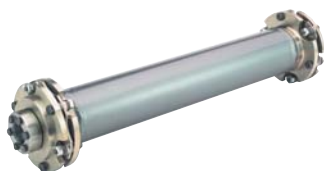
Standard metal disc couplings

Mini Servoflex, Servoflex & Arcoflex

Shafts 4 to 120mm

Backlash free and torsionally rigid

page 40



Metal disc spacer couplings

Servoflex & Arcoflex

Shafts 7 to 120mm

Built to order up to 5m long

page 45



Heavy duty couplings

Modulflex metal disc coupling

Lovejoy Sier-Bath gear coupling

Torques up to 300kNm, bores to 340mm

page 46-47

Also see pages 4-6 for terminology and a selection guide.

Selection guide

Coupling type	Nominal torque range Nm	Speed capacity	Range of bores mm	Torsionally soft	Torsionally rigid	Backlash free	
Universal joints	10 to 580	Low to medium	6 to 50	✗	✓	✓	
Oldham	0.2 to 42	Medium	3 to 30	✗	✓	✗	
Curved jaw	11 to 1465	High	14 to 90	✓	✗	✗	
Clamp hub curved jaw	0.65 to 187	High	4 to 45	✓	✗	✓	
High torque curved jaw	7 to 450	High	10 to 47	✓	✗	✓	
Straight sided jaw	0.4 to 660	High	4 to 67	✓	✗	✗	
Jaw in-shear	38 to 475	Medium	12 to 67	✓	✗	✗	
Barrel gear	10 to 700	High	7 to 80	✗	✓	✗	
Reinforced rubber disc	100 to 2250	Medium	14 to 100	✓	✗	✓	
Beam	0.4 to 5	High	3 to 12	✗	✓	✓	
Simplaflex	2.5 to 900	High	3 to 75	Slight	✗	✓	
Bellows	2.5 to 45	High	3 to 25	✗	✓	✓	
Mini Servoflex & Servoflex	1 to 500	High	4 to 55	✗	✓	✓	
Arcoflex	800-9000	High	25 to 120	✗	✓	✓	
Modulflex	280 to 300000	Very high	15 to 335	✗	✓	✓	
Gear couplings	280 to 500000	High	12 to 340	✗	✓	✗	

	Typical misalignment values			Ambient temperatures °C	Spacer models	Comments	Page No.
	Angular degrees	Radial mm	Axial mm				
	45 per joint	-	with telescopic models	to 100°C	Telescopic	Not true flexible couplings, Double & telescopic version available	7 to 11
	0.5	0.2	0.15	-25 to +60°C		Compact design clamping hubs standard	14 to 15
	1.5	0.12	1.4	-40 to +120°C	on request	General purpose & economic	16 to 17
	1	0.12	1.4	-40 to +120°C	on request	Eliminates keyways	18 to 19
	1	0.12	1.4	-40 to +120°C	on request	Compact with high torque	20 to 21
	1	0.12	1.4	-51 to +120°C		General purpose, variable stiffness	22 to 26
	2	0.8	0.8	-30 to +93°C		Radially removable	27
	1	0.4	<u>±</u> 1	-25 to +90°C		Suits blind assembly, electrically insulating	28 to 29
	3	0.7	3	-30 to +80°C	built from stock	General purpose coupling, rugged.	30 to 32
	3	0.2 to 0.38	0.1 to 0.25	-40 to +170°C	On request	Set screw or clamp hub. Special materials available	33
	3-6	0.5	+1	-30 to +100°C		Strong all steel coupling, 3 lengths available	34 to 36
	1.5 to 2	0.1 to 0.25	0.2 to 0.5	-45 to +90°C		Lowest inertia, clamping hubs standard	37
	2	0.2 to 0.5	<u>±</u> 0.3 to <u>±</u> 3	-40 to +270°C	to 5m	Clamping hubs optional	38 to 41 & 45
	2	2.2	<u>±</u> 2	-40 to +270°C	to 5m or more	Adaptable metal disc couplings. Clamp hubs available	42 to 45
	1.5	0.9 to 5	<u>±</u> 2	-25 to +150°C	On request	High speed and high performance	46
	1	0.2 to 2	3	-30 to +120°C	to 5m	All steel heavy duty couplings to AGMA standards	47

Shaft couplings | How to select your flexible shaft couplings

The optimum choice of flexible coupling for any application is the result of a compromise between many factors. Care should be taken to select a coupling which meets the performance criteria at the minimum cost.

1. Decide if the coupling should be torsionally soft or rigid. Torsionally soft types are generally less expensive.
2. Consider whether a small amount of backlash is tolerable; a backlash-free coupling is usually more expensive.
3. Calculate the required torque by multiplying the running power and speed by the service factors shown in the table below.
4. Make a provisional selection.
5. Check maximum speed and coupling dimensions meet requirements.
6. Contact Lenze to confirm price and delivery. Please give the type number where possible. Our couplings specialists are able to give advice where needed and can offer other models.

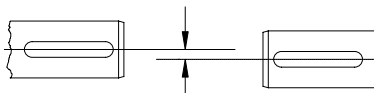
Angular

This is usually present to some extent on all applications, typical values 1° – 2°. Sometimes higher values are necessary.



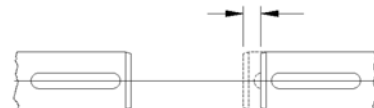
Radial

Also known as parallel misalignment, this is also nearly always present. A well aligned installation might have values below 0.20mm.



Axial

This can be considered as end float. It is sometimes caused by thermal expansion or is a result of machine design.



With backlash or backlash free

Couplings that are one part or comprise bolted joints are backlash free. These are useful for precise positioning and to avoid wear on reversing drives. Couplings with backlash tend to have lower cost and are easier to install.

Torsionally soft or torsionally rigid

As a guide, couplings with rubber or plastic elements can be considered as torsionally soft. Most metal couplings are rigid, but some such as Simplaflex have quite low stiffness. A soft coupling may wind up 5° or more at rated torque whilst a rigid one would twist as little as 0.1°. Soft couplings are generally lower in cost.

Often a combination of all three types of misalignment is present.
Coupling maximum limits should not be used simultaneously.

Service factors

The required torque is determined using the following equation:

$$\text{Torque required} = 7124 \times \frac{\text{hp}}{\text{N}} \times k \times S, \text{ Nm or Torque required} = 9550 \times \frac{\text{kW}}{\text{N}} \times k \times S, \text{ Nm}$$

- N = revolutions per minute
k = safety factor depending on operating conditions
S = starting frequency factor

Safety factor K

1 or 2 cylinder internal combustion engine	1.0
Hydraulic motor	1.25
Multi-cylinder engine	1.5
Electric motor	2.0
Hours running day	2.5

Type of machine

Light, even load	4	0.8	1.0	1.25
Small generators, centrifugal pumps, turbo-compressors, belt conveyors	8	1.0	1.25	1.5
	24	1.25	1.5	1.75
Irregular shock-free load – few drive reversals	4	1.0	1.25	1.5
Screw conveyors, agitators, woodworking machines, machine tools	8	1.25	1.5	1.75
	24	1.5	1.75	2.0
Irregular shock load – few drive reversals	4	1.25	1.5	1.75
Piston-type pumps and compressors	8	1.5	1.75	2.0
textile machines, agitators, centrifuges	24	1.75	2.0	2.25
Arduous driving conditions – frequent drive reversals	4	1.5	1.75	2.0
Piston type compressors (without flywheel)	8	1.75	2.0	2.25
vibrators, rolling mills	24	2.0	2.25	2.5

Starting frequency, factor S

Maximum number of starts per hour	up to 30	up to 60	up to 120	up to 180
Starting frequency, factor	1	1.2	1.5	2.0

Universal joints | Single, double & telescopic

Lenze precision universal joints achieve consistent performance and longer life due to design features. Particular attention is paid to matching the hardness of wearing parts and lubrication.



- Single, double & telescopic models
- Allows speeds up to 4000r/min
- Angles up to 45° per joint
- Designed for long life
- Square & hexagonal bores on request
- Optional gaiters & quick release hubs



Low speed models, type G and GD, feature plain bearings, while our high speed models, type H and HD, are fitted with special needle roller bearings and are sealed for life.

All joints meet the European dimension standard DIN808.

Single joints



Precision single joints suit angles up to 45° and speeds to 4000 r/min. Shaft sizes 6 to 50 mm, dimensions to DIN 808.

Two versions are available, Type G, the low speed model with sliding plain bushes or Type H a high speed model with needle roller bearings.

Double joints



Precision double joints suit angles up to 90° and give constant velocity output. Shaft sizes 6 to 50 mm, dimensions to DIN 808.

Types GD suit up to 1000 r/min, while Type HD offers higher speeds due to its needle roller bearing construction.

Telescopic joints



Telescopic universal joint with plain bearings either to standard lengths or customised to your requirements. Angles up to 45° per joint and speeds to 1000 r/min, Type HA offers higher speeds.

Shaft sizes 10 to 50mm, dimensions to DIN 808.



Gaiters & Quick release hubs

Quick release hubs can be provided for all types of joints with keyways, square or hexagon boxes.

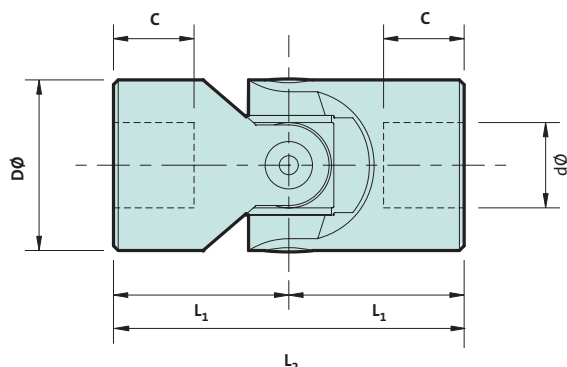
Gaiters in synthetic rubber are available for all types of joints, recommended for models G, GA & GD. For models H, HD and HA they are not usually necessary except in severe environments.



- Suitable for up to 4000 r/min and up to 45°
- Type G for low speed, Type H for high speed
- Precision ground surfaces
- Gaiters are recommended for Type G
- Available with round bores to H7 for pinning or with Js9 keyways to BS4235
- Square and hexagonal bores on request



Selection – size selection depends on torque, speed and running angle. Contact us with your application.



Dimensions

Bores d(H7)	Size	D	C	Dimensions (mm) L ₁	L ₂	Weight kg
6	01*	16	8	17	34	0.05
8	02*	16	11	20	40	0.05
10	03*	22	12	24	48	0.10
12	04*	25	13	28	56	0.16
14	05	28	14	30	60	0.20
16	1*	32	16	34	68	0.30
18	2	36	17	37	74	0.45
20	3*	42	18	41	82	0.60
22	4	45	22	47.5	95	0.95
25	5*	50	26	54	108	1.20
30	6*	58	29	61	122	1.85
32	6□1	58	33	65	130	2.00
35	7	70	35	70	140	3.15
40	8	80	40	80	160	4.60
50	9	95	50	95	190	7.60

Selections

Type G - precision single joint with sliding plain bushes. Suits angles up to 45° and speeds to 1000 r/min. Shaft sizes 6 to 50 mm, dimensions to DIN 808.

Type H - precision high speed single joint with needle roller bearings. Suits angles up to 45° and speeds to 4000 r/min. Shaft sizes 10 to 50mm. Maintenance-free, dimensions to DIN 808.

Gaiters recommended, [see page 11](#).

* Stainless steel construction available on request.

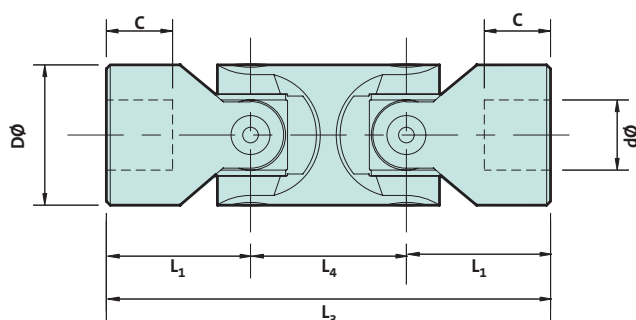
Bores d(H7)	Size	Type G - low speed			Type H - high speed		
		Nominal torque (Nm) at 200 r/min max 10°	Type no. plain bores	Type no. Keyways to BS4235	Nominal torque (Nm) at 200 r/min max 10°	Type no. plain bores	Type no. Keyways to BS4235
6	01*	10	13009175	-	-	-	-
8	02*	10	13009242	-	-	-	-
10	03*	26	13009147	13009237	22	13009250	13009207
12	04*	35	13009246	13008363	36	13009183	13009085
14	05	48	13009187	13009124	55	13008318	13008366
16	1*	70	13009223	13009217	80	13009120	13009065
18	2	95	13009186	13009068	110	13009121	13008367
20	3*	130	13009092	13009080	140	13009133	13009125
22	4	160	13009196	13009112	160	13038530	13009123
25	5*	200	13009076	13009108	220	13008316	13009209
30	6*	240	13009224	13009102	260	13008315	13009208
32	6G1/6H1	240	13009119	13009115	260	13008314	13008370
35	7	360	13009104	13009129	350	13009189	13009090
40	8	450	13009100	13009214	420	13009248	13009083
50	9	580	On Request	13009148	550	On Request	On Request



- Suitable for up to 4000 r/min and up to 90°
- Type GD for low speed, Type HD for high speed
- Precision ground surfaces
- Gaiters are recommended for Type GD
- Available with round bores to H7 for pinning or with Js9 keyways to BS4235
- Square and hexagonal bores on request



Selection – size selection depends on torque, speed and running angle. Contact us with your application.



Dimensions

Bores d(H7)	Size	Dimensions (mm)					Weight kg
		D	C	L ₁	L ₃	L ₄	
6	01*	16	8	17	56	22	0.08
8	02*	16	11	20	62	22	0.08
10	03*	22	12	24	74	26	0.15
12	04*	25	13	28	86	30	0.25
14	05	28	14	30	96	36	0.4
16	1*	32	16	34	104	36	0.45
18	2	36	17	37	114	40	0.7
20	3*	42	18	41	128	46	1
22	4	45	22	47.5	145	50	1.55
25	5*	50	26	54	163	55	2
30	6*	58	29	61	190	68	2.9
32	6□D1	58	33	65	198	68	3
35	7	70	35	70	212	72	4.75
40	8	80	39	80	245	85	7.2
50	9	95	46	95	290	100	12

Selections

Type GD - precision double joint with sliding plain bushes. Suits angles up to 90° and speeds to 1000 r/min. Shaft sizes 6 to 50 mm, dimensions to DIN 808.

Type HD - precision high speed double joint with needle roller bearings. Suits angles up to 90° and speeds to 4000 r/min. Shaft sizes 10 to 50mm. Maintenance-free, dimensions to DIN 808.

Gaiters recommended, [see page 11](#).

* Stainless steel construction available on request.

		Type GD - low speed			Type HD - high speed		
Bores d(H7)	Size	Nominal torque (Nm) at 200 r/min max 10°	Type no. plain bores	Type no. Keyways to BS4235	Nominal torque (Nm) at 200 r/min max 10°	Type no. plain bores	Type no. Keyways to BS4235
6	01*	10	13009185	-	-	-	-
8	02*	10	13009261	-	-	-	-
10	03*	26	13009251	13009258	22	13009235	13009252
12	04*	35	13009225	13009215	36	13008360	On Request
14	05	48	13009109	13009216	55	13008359	On Request
16	1*	70	13009127	13009182	80	13012397	13009099
18	2	95	13009212	13009122	110	13009096	13009135
20	3*	130	13009128	13009253	140	13009094	13009163
22	4	160	13009069	On Request	160	13038532	13009171
25	5*	200	13009164	13009199	220	13009276	13009228
30	6*	240	13008317	On Request	260	13009260	On Request
32	6GD1/6HD1	240	On Request	13009238	260	On Request	On Request
35	7	360	On Request	13009086	350	On Request	13009144
40	8	450	On Request	13038531	420	On Request	13009229
50	9	580	13009192	13009184	550	13009259	On Request

Universal joints | Telescopic

Type GA & HA

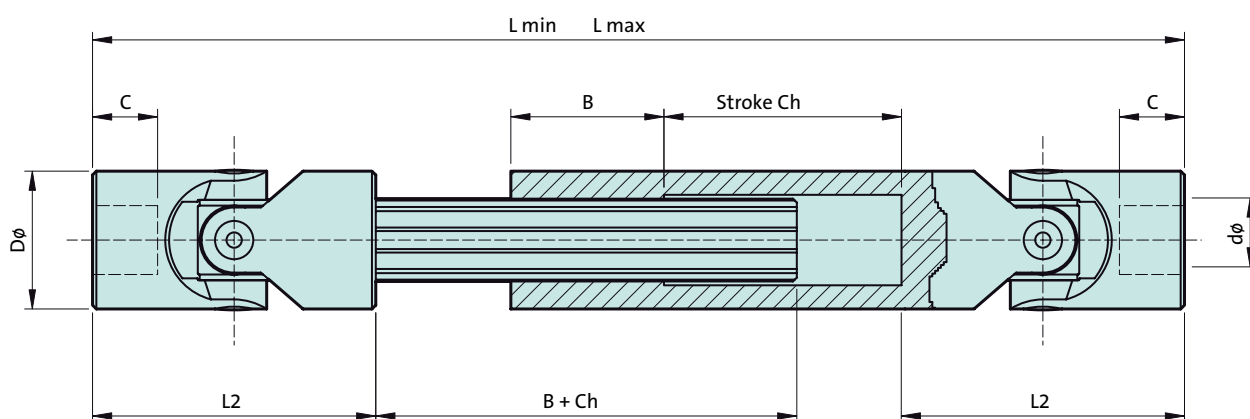


- Available customised to any length up to 3m or as standard lengths from stock
- Suitable for all types of machinery where the distance between shafts is variable
- Type GA with sliding plain bearing for speeds up to 1000r/min
- Type HA with needle roller bearings for high speeds, maintenance free
- Up to 90° total drive angle
- Two versions available from stock to suit varying speeds and duties



(Quick release hubs on request)

Length adjustments should be made statically without torque loadings



Size	Dimensions					L min. mm	Lmax. mm	Model	Type No.	Model	Type No.
	dø	D	L2	C	B						
03	10	22	48	12	30	140 180	170 240	03GA	13009320 13009294	03HA	13009274 13009277
04	12	25	56	13	40	160 200	190 270	04GA	13009326 13009331	04HA	13009281 13009300
05	14	28	60	14	40	170 220	200 300	05GA	13009290 13009282	05HA	13009310 13009311
1	16	32	68	16	40	190 240	220 320	1GA	13009299 13009297	1HA	13009313 13009315
2	18	36	74	17	40	230 290	280 400	2GA	13009291 13009298	2HA	13009273 13009333
3	20	42	82	18	45	250 320	300 440	3GA	13009266 13009324	3HA	13009325 13009308
4	22	45	95	22	45	270 330	320 430	4GA	13009319 13009272	4HA	13009335 13009328
5	25	50	108	26	45	295 350	345 450	5GA	13009280 13009264	5HA	13009329 13009309
6	30	58	122	29	50	330 400	380 510	6GA	13009321 13009317	6HA	13009295 13009323
7	35	70	140	35	70	Built to order up to 3m long					
8	40	80	160	39	80						
9	50	95	190	46	90						

Universal joints | Telescopic

Type GA & HA

Ordering example

(2) off telescopic universal joints type 1HA, stroke 190-220mm.

Type no. [13009313](#)

Specials

Specials are available on request providing the following criteria must be met:

$$\text{Stroke } C_H \leq \frac{L \text{ max} - 2L_2 - B}{2}$$

$$L \text{ min} \geq \frac{L \text{ max} + 2L_2 + B}{2}$$

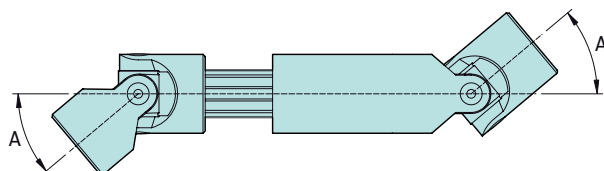
Performance

	Type GA	Type HA
Maximum speed (r/min)	1000	4000
Construction	hardened plain bearings	needle roller bearings
Maintenance	re-lubricate regularly	maintenance free

Mounting

For correct running, the inner journals must be in line, and the joint angles must be equal.

Type GA telescopic universal joints are pre-lubricated but we recommend regular re-greasing. FERRI gaiters can be fitted, see below.

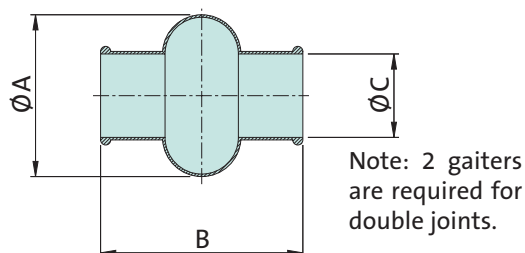


Materials

All telescopic universal joints have splines made from extruded steel grade C45 to UNI222. Precision machined female bushes are made from the same material.

Gaters | Optional protection

Designed to protect the joint in severe or aggressive environments, these gaiters are made from synthetic rubber that is itself oil and acid resistant. They can be used to allow permanent lubrication of the joint.

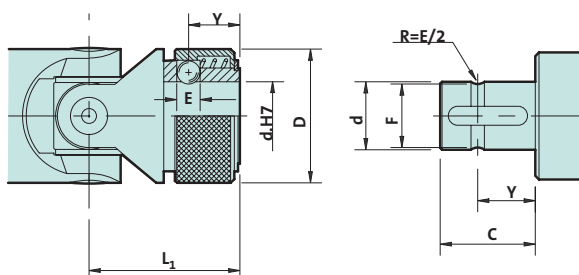


Type	Size	A	B	C	Type No.
01M	01	28	34	15	13009162
02M	02	32	40	16.5	13009173
03M	03	40	45	20.5	13009159
04M	04	48	50	24.5	13009130
05M	05	52	56	27.5	13009111
1M	1	56	65	30.5	13009174
2M	2	66	72	35.5	13009236
3M	3	75	82	40	13009190
4M	4	84	95	45	13009232
5M	5	92	108	50	13009136
6M	6	100	122	56	13009138

Quick release hubs

Quick release hubs are available for sizes 02-6 and can be fitted to any type of universal joint.

Please send us your application requirements.



Shaft d(h7)	Size	Dimensions mm					
		C	D	E	F	L1	Y
8	02	14	16	3.5	6.3	26	9.5
10	03	17	22	4	8.7	31	11.5
12	04	21	25	4	11	37	13.5
14	05	21	25	4	13	37	13.5
16	1	24	32	6.35	14.8	43	14
18	2	28	36	8	16	48	19
20	3	31	42	8	18	54	19
22	4	34	45	10	20	60	20.5
25	5	38	50	10	23	66	20.5
30	6	49	58	10	28	83	25



- Easy to fit
- Even distribution of clamping forces
- High speed capability
- Stainless steel or mild steel construction available
- Clamp action eliminates shaft damage caused by set screws

Ordering example

5 off one piece in mild steel to suit 12mm shaft.
6 off two piece in stainless steel to suit 28mm shaft.

5 off type no. [13008053](#)

6 off type no. [13008031](#)

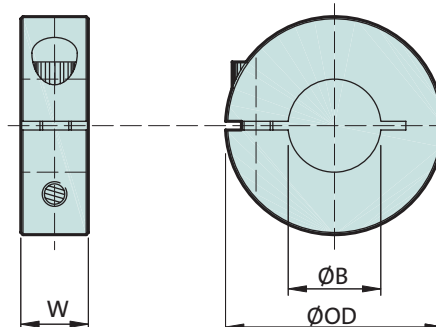
- Imperial bores available
 - Some sizes available in aluminium
- Please ask for details

MCL one piece

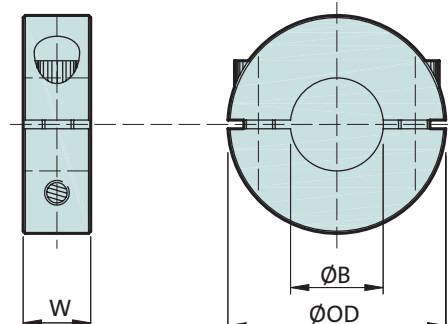
Bore B	Diameter OD	Width W	Clamp screw	Steel Type No.	Stainless Type No.
3	16	9	M3	13008106	13008044
4	16	9	M3	13008070	13008040
5	16	9	M3	13008047	13008079
6	16	9	M3	13008073	13008067
8	18	9	M3	13008048	13008086
10	24	9	M3	13008085	13008078
12	28	11	M4	13008053	13008080
14	30	11	M4	13008043	13008081
15	34	13	M5	13008032	13008083
16	34	13	M5	13008034	13008051
20	40	15	M6	13008109	13008036
22	42	15	M6	13008060	13008076
25	45	15	M6	13008061	13008039
28	48	15	M6	13008059	13008099
30	54	15	M6	13008064	13008114
35	57	15	M6	13008062	13008052
40	60	15	M6	13008030	13007685
50	78	19	M8	13008028	13007682



Type MCL one piece



Type MSP two piece



MSP two piece

Bore B	Diameter OD	Width W	Clamp screw	Steel Type No.	Stainless Type No.
3	16	9	M3	13008113	13008045
4	16	9	M3	13008112	13008029
5	16	9	M3	13008107	13008054
6	16	9	M3	13008105	13008063
8	18	9	M3	13007688	13008065
10	24	9	M3	13008092	13008050
12	28	11	M4	13007689	13008093
14	30	11	M4	13008042	13008082
15	34	13	M5	13008049	13008058
16	34	13	M5	13008041	13008111
20	40	15	M6	13008098	13008038
22	42	15	M6	13008035	13008100
25	45	15	M6	13008101	13008104
28	48	15	M6	13008102	13008031
30	54	15	M6	13008033	13008088
35	57	15	M6	13008072	13008089
40	60	15	M6	13008077	13008090
50	78	19	M8	13008068	13008110



- High torsional holding power
- Easy assembly
- Mild and stainless steel construction available
- Nypatch® anti-vibration screws
- Precision honed bores
- Backlash free

- Imperial bores available
- Some sizes available in aluminium

Please ask for details

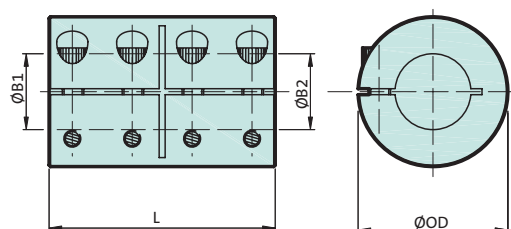
MCLX one piece plain bore



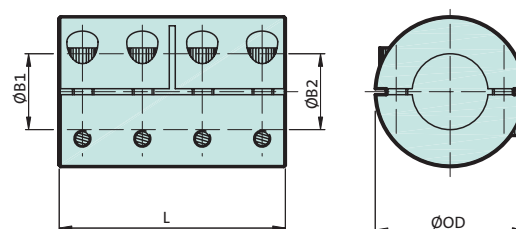
MSPX two piece plain bore

Plain bores

TYPE MCLX



TYPE MSPX



Bore B1	Bore B2	OD	Length	Clamp screw	Part No. steel one piece MCLX	Part No. S/steel one piece MCLX	Part No. steel two piece MSPX	Part No. S/steel two piece MSPX
6	6	18	30	M3	13004763	13004710	13004754	13004750
8	8	24	35	M3	13004731	13004728	13004740	13004744
10	10	29	45	M4	13004730	13004746	13004717	13004762
12	12	29	45	M4	13004720	13004720	13004736	13004725
14	14	34	50	M5	13004726	13004726	13004757	13004734
15	15	34	50	M5	13004709	13004748	13004751	13004735

Ordering example

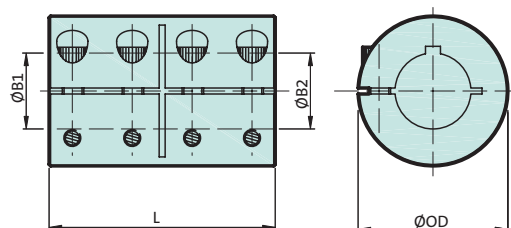
3 off one piece steel with plain 8mm bores.
6 off two piece steel with 15mm plain bores.

3 off MCLX type no. [13004731](#)
6 off MSPX type no. [13004735](#)

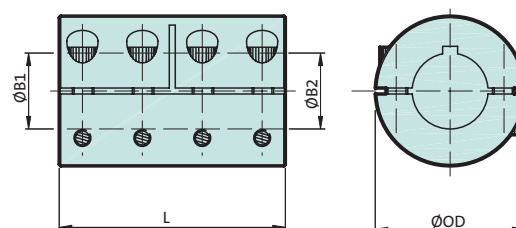
Maximum speed 3000

Keywayed bores

TYPE MCLC



TYPE MSPC



Bore B1	Bore B2	OD	Length	Clamp screw	Key (mm)	Type No. steel one piece MCLC	Type No. S/steel one piece MCLC	Type No. steel two piece MSPC	Type No. S/steel two piece MSPC
16	16	34	50	M5	5x5	13004743	13004708	13004721	13004745
20	20	42	65	M6	6x6	13004739	13004727	13004759	13004749
25	25	45	75	M6	8x8	13004741	13004733	13004714	13004752
30	30	53	83	M6	8x8	13004738	13004760	13004761	13004766
35	35	67	95	M8	10x10	13004747	13004712	13004713	13004715
40	40	77	108	M8	12x12	13004718	13004724	13004764	13004722
50	50	85	124	M10	14x14	13004755	13004765	13004729	13004758

Ordering example

5 off one piece stainless steel with keywayed 16mm bores.
2 off two piece steel with 20mm keywayed bores.

5 off MCLC type no. [13004708](#)
2 off MSPC type no. [13004759](#)

Maximum speed 3000

These Oldham style couplings combine performance, economy and a wide ex-stock range.



- High radial misalignment capacity
- Low inertia alloy hubs
- Clamp hubs standard, sizes 19-57
- Hub configuration is in balance
- Zero backlash option for all sizes
- Temperature range -25 to +60°C (+50°C for nylon discs)



Materials

Hubs are in high strength aluminium alloy with hard anodised finish. Carbon steel screws have a black oxide finish. Two disc materials are available:

Acetal – torsionally stiff with zero backlash

Nylon 11 – torsionally softer with some backlash

Ordering example

Qty 5 Paradrive Oldham couplings size 41 with clamp hubs and acetal discs, comprising of:

Qty 5 Type No. [13005069](#) hub 12mm

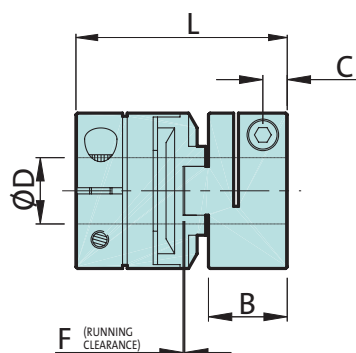
Qty 5 Type No. [13005032](#) hub 14mm

Qty 5 Type No. [13005277](#) acetal disc

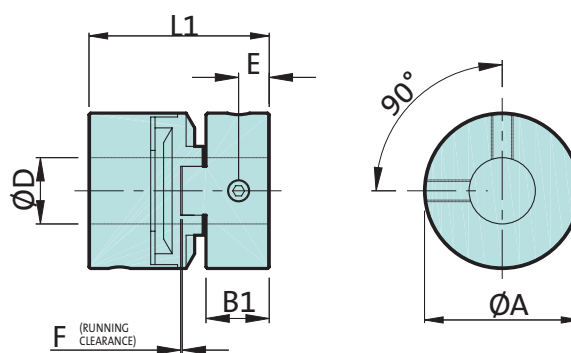
Performance

Size	Disc material	Torques (Nm)		Angular degrees	Misalignments		Torsional stiffness Nm/°	Weights (g)	
		Rated*	Static Breaking		Radial mm	Axial mm		Clamp	Set screw
13	Acetal	0.68	3.9	0.5	0.1	0.05	1.6	–	7
19		2.25	10.5	0.5	0.2	0.1	2.6	16	15
25		4.75	19.0	0.5	0.2	0.1	3.4	34	34
33		8.0	39.5	0.5	0.2	0.15	12.7	82	96
41		14.75	54.5	0.5	0.25	0.15	14.7	141	159
51		28.50	85	0.5	0.25	0.2	23	256	–
57		42.50	125	0.5	0.25	0.2	37	437	–
13	Nylon 11	0.17	2.8	0.5	0.1	0.05	0.4	–	7
19		0.57	9.6	0.5	0.2	0.1	0.8	16	15
25		1.13	15.9	0.5	0.2	0.1	0.9	34	34
33		2.05	34	0.5	0.2	0.15	2.2	82	96
41		3.65	45.3	0.5	0.25	0.15	3.0	141	159

* Rated torques are at maximum misalignment. For reversing applications reduce the rated torque by 2.



Clamp hubs



Set screw hubs

Size	A	B	B1	C	Bores D		E	F	L	L1	Cap screws		Set screws	
					min	max					Size	Torque	Size	Torque
13	12.7	—	5.6	—	3	6	2.2	0.07	—	15.9	—	—	M3	0.9
19	19.1	9.7	7.6	3.4	4	8	3.2	0.13	25.4	22.2	M2.5	1.2	M3	0.9
25	25.4	11.9	9.9	4	6	12	4.3	0.13	31.8	28.6	M3	2.1	M4	2.2
33	33.3	15.0	15.0	4.5	8	16	6.6	0.13	47.6	47.6	M3	2.1	M4	2.2
41	41.3	18	18	5.5	10	20	8.4	0.2	50.8	50.8	M4	4.6	M5	4.0
51	50.8	20.8	—	6.4	12	25	—	0.25	59.7	—	M5	9.5	—	—
57	57.2	28.7	—	7.6	14	30	—	0.25	78.7	—	M6	16	—	—

Size	Clamp hubs type MOCT				Set screw hubs type MOST		Discs type OD	
	Bore	Type No.	Bore	Type No.	Bore	Type No.	Material	Type No.
13	NOT AVAILABLE				3	13005078	Acetal	13005285
					4	13005081	Nylon 11	13005287
					5	13005084		
					6	13005033		
19	4	13005062	6	13005071	4	13005042	Acetal	13005284
	5	13005025	8	13005085	6	13005067	Nylon 11	13005283
25	6	13005077	10	13005052	6	13005073	Acetal	13005280
	8	13005060	12	13005075	10	<i>On Request</i>	Nylon 11	13005282
33	8	13005035	14	13005068	8	13005047	Acetal	13005275
	10	13005056	15	13005059	12	<i>On Request</i>	Nylon 11	13005281
	11	13005064			16	<i>On Request</i>		
	12	13005057						
41	10	13005046	15	13005034	10	13005040	Acetal	13005277
	11	13005037	16	13005055	14	<i>On Request</i>	Nylon 11	13005279
	12	13005069	19	13005066	16	13005063		
	14	13005032	20	13005049	20	<i>On Request</i>		
51	12	13005027	19	13005070	NOT AVAILABLE		Acetal	13005286
	14	13005054	20	13005045				
	15	13005029	24	13005028				
	16	13005044	25	13005036				
57	14	13005030	22	13005083	NOT AVAILABLE		Acetal	13005274
	15	13005031	24	13005041				
	16	13005038	25	13005051				
	19	13005076	28	13005082				
	20	13005080	30	13005053				

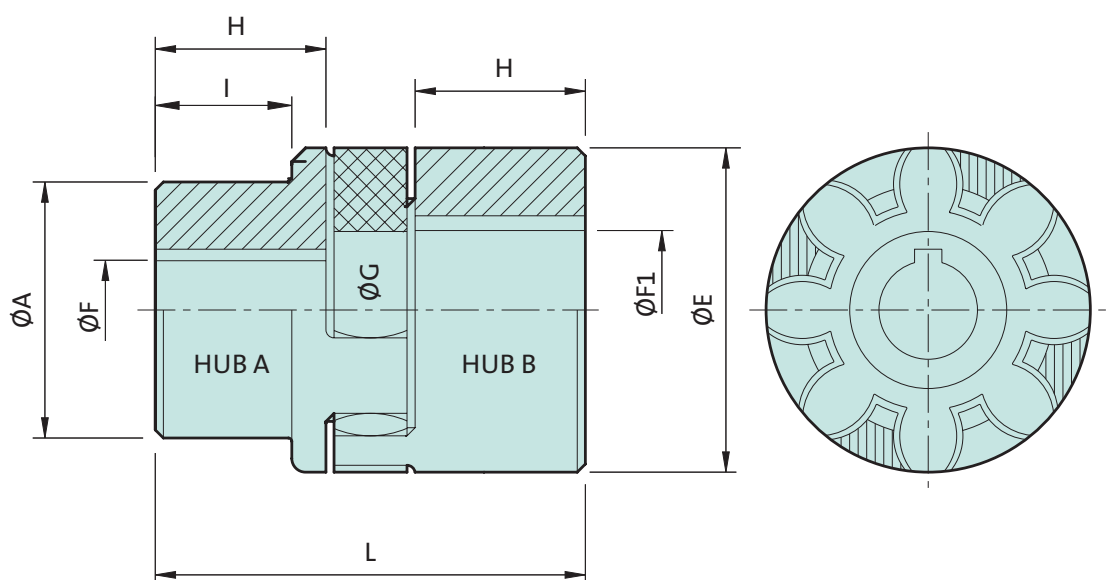
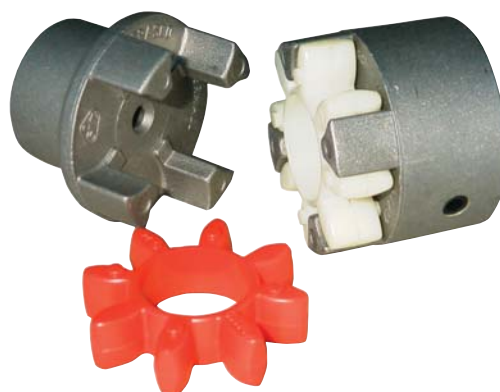
Curved jaw couplings | Type GR

11 - 1465Nm

This extensive range of curved jaw shaft couplings provides simple and economic solutions for shafts up to 90mm.



- Cast iron or aluminium hubs with polyurethane elements
- Temperature range -30 to +80°C
- 2 grades of element, 92 shore (white) and stiffer 98 (red)
- Angular misalignment 1.5°, twist at rated torque 2.5°. Allow a safety factor of 3.5 with torque reversals



Model	Rated torque Nm		Max speed r/min	ØA	ØE	ØG	H	I	L
	Yellow element	Red element							
19/24	11.5	17	14000	-	40	18	25	-	66
24/32	40	60	10600	40	55	27	30	24	78
28/38	115	160	8500	48	65	30	35	28	90
38/45	225	325	7100	66	80	38	45	37	114
42/55	310	450	6000	75	95	46	50	40	126
48/60	360	525	5600	85	105	51	56	45	140
55/70	430	625	4750	98	120	60	65	52	160
65/75	525	640	4250	115	135	68	75	61	185
75/90	1250	1465	3550	135	160	80	85	69	210

Ordering example

(10) off model GR complete couplings. Size 28/38 aluminium hubs bored to Ø14 plus key and red spider elements.

20 off [13004869](#)
10 off [13008686](#)

Pilot bores

Size 19/24

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs (style B only) bored H7 and keyed to BS4235 Aluminium				Red	Yellow
				Ø10	On Request	Ø15	13005868	Ø20	13005906
Hub B (steel)	15	24	13005901	Ø12	On Request	Ø19	13005870	Ø24	13005863
Hub B (aluminium)	4	24	13005909						

Pilot bores

Size 24/32

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Aluminium				Red	13008694
				Hub 'A'		Hub 'B'		Yellow	13008674
Hub A (steel)	0	24	13005867	Ø14	On Request	Ø25	On Request		
Hub A (aluminium)	0	24	13005890	Ø19	On Request	Ø28	13005885		
Hub B (steel)	21	32	13005897	Ø20	13005904				
Hub B (aluminium)	22	32	13005896	Ø24	On Request				

Pilot bores

Size 28/38

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Aluminium		Red	13008686
Hub A (steel)	0	28	13004862			Yellow	13008706
Hub A (aluminium)	0	28	13005865				
Hub B (steel)	27	38	13004863				
Hub B (aluminium)	26	38	13005892				
				Hub 'A'	Hub 'B'		
				Ø14 13004869	Ø30 On Request		
				Ø16 13004864	Ø32 13005887		
				Ø20 On Request	Ø35 On Request		
				Ø25 On Request	Ø38 13005857		
				Ø28 On Request			

Pilot bores

Size 38/45

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Aluminium		Red	13008684
Hub A (cast iron)	0	38	13005858			Yellow	13008688
Hub A (aluminium)	0	38	13004871				
Hub B (cast iron)	37	45	13004872				
Hub B (aluminium)	36	45	13005893				
				Hub 'A'	Hub 'B'		
				Ø20 13005876	Ø40 13005912		
				Ø25 13005907	Ø42 13005854		
				Ø28 On Request			
				Ø30 13004865			
				Ø32 13005898			
				Ø38 13038562			

Pilot bores

Size 42/55

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Cast iron		Red	13008355
Hub A (cast iron)	0	42	13005861			Yellow	13008697
Hub B (cast iron)	41	55	13005880				
				Hub 'A'	Hub 'B'		
				Ø30 13005908	Ø42 13005884		
				Ø32 On Request	Ø48 13005913		
				Ø38 13005905	Ø50 13005888		
				Ø40 13004868	Ø55 13005886		
				Ø42 On Request			

Pilot bores

Size 48/60

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Cast iron		Red	13007695
Hub A (cast iron)	0	48	13005874			Yellow	13008356
Hub B (cast iron)	47	60	13005883				
				Hub 'A'	Hub 'B'		
				Ø35 On Request	Ø50 13024538		
				Ø38 On Request	Ø55 13005882		
				Ø42 On Request	Ø60 13005881		
				Ø48 13024506			

Pilot bores

Size 55/70

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Cast iron		Red	13008692
Hub A (cast iron)	0	55	13005860			Yellow	13008351
Hub B (cast iron)	53	70	13005859				
				Hub 'A'	Hub 'B'		
				Ø42 On Request	Ø55 13005871		
				Ø48 13005850	Ø60 13004870		
				Ø50 On Request	Ø65 13005855		
				Ø55 On Request			

Pilot bores

Size 65/75

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Cast iron		Red	13008708
Hub A (cast iron)	0	65	13005856			Yellow	13008675
Hub B (cast iron)	63	75	13005873				
				Hub 'A'	Hub 'B'		
				Ø42 13004866	Ø65 13005852		
				Ø45 13005910	Ø70 13005851		
				Ø50 On Request	Ø75 On Request		
				Ø55 On Request			
				Ø65 On Request			

Pilot bores

Size 75/90

Finished bores F, F1

Elements

	Pilot	Max bore	Type No.	Hubs bored H7 and keyed to BS4235 Cast iron		Red	13008350
Hub A (cast iron)	0	75	13005878			Yellow	13008705
Hub B (cast iron)	73	90	13005853				
				Hub 'A'	Hub 'B'		
				Ø42 13024544	Ø75 13024507		
				Ø45 13024545	Ø80 13005862		
				Ø55 13005903	Ø90 13005872		
				Ø60 13004873			
				Ø70 13005891			

For bore sizes not listed please contact our internal sales engineers.

Clamp hub curved jaw couplings | Type GESM

0.65 - 187Nm



- Zero backlash
- Variable torsional stiffness
- Extremely fast assembly
- Shaft tolerance h7
- Hubs fully machined to give precision fit with element
- Torque capacity depends on shaft size and model chosen



Hubs

Single screw split clamping hubs: sizes 19/24 to 38/45 have aluminium hubs, size 42 are made from steel. Supplied either rough bored or with H7 finished plain bore.

Elements

Yellow, 92 shore A hardness for standard applications. Red, 98 shore A hardness for higher torque, higher torsional stiffness, but reduced angular and radial misalignment capacity.

Coupling selection

The torque rating of the coupling is the lower of the hub torque rating and the element torque rating from the tables on the facing page.

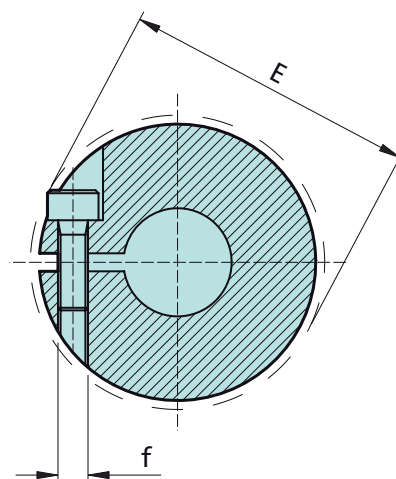
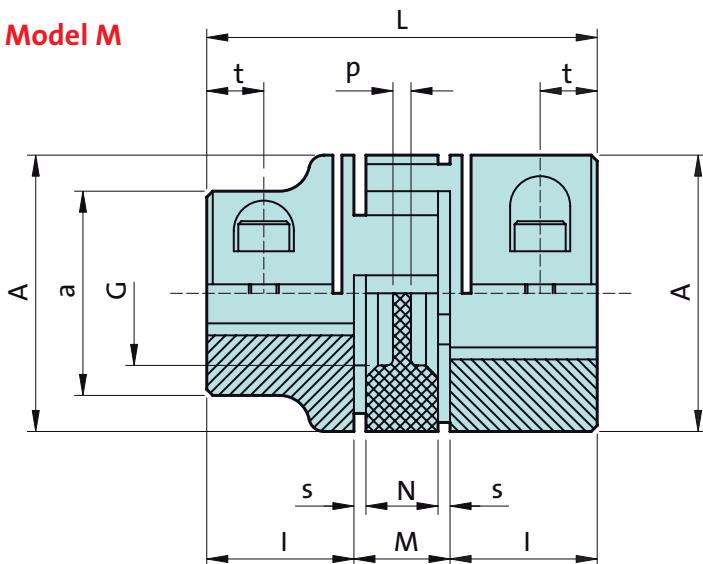
Temperature range

Yellow element -40 to +90°C

Red element -30 to 90°C

Short term rating +120°C

Model M



Size	a	A	G	L	I	M	N	s	p	f	t	E	Screw tightening torque (Nm)
7	—	14	—	22	7	8	6	1.0	6	M2	3.5	15	0.35
9	—	20	7.2	30	10	10	8	1.0	1.5	M2.5	5	23.4	0.75
14	—	30	10.5	35	11	13	10	2.5	2	M3	5	32.2	1.4
19/24	—	40	18	66	25	16	12	2.0	3.5	M6	12	45.7	11
24/28	—	55	27	78	30	18	14	2.0	4	M6	14	56.4	11
28/38	—	65	30	90	35	20	15	2.5	5	M8	15	72.6	25
38/45	—	80	38	114	45	24	18	3.0	5	M8	20	83.3	25
42	75	95	46	126	50	26	20	3.0	5	M8	20	78.8	25

Clamp hub curved jaw couplings | Type GESM

0.65 - 187Nm

Size	min	Bores max	Max speed r/min	Inertia per hub kg.m ² model M	Hub Weight kg	Part numbers – hubs Plain bores H7 no keyway			
						Bore	Type No.	Bore	Type No.
7	3	7	40000	0.085x10 ⁻⁶	0.003	4RB	13003531	5 6	13004652 13004633
9	4	9	28000	0.49x10 ⁻⁶	0.009	4RB 5	13004648 13004646	6 8	13004657 13004658
14	6	16	19000	2.8x10 ⁻⁶	0.02	4RB 8	13003527 13003535	10 12	13003534 13004662
19/24	10	20	14000	20.4x10 ⁻⁶	0.066	6RB 10 11	13004534 13004525 13004689	15 16 19	13004691 13004687 13004683
24/28	10	28	10600	50.8x10 ⁻⁶	0.132	8RB 16 19	13004532 13004533 13004645	20 25 28	13004690 13004686 13004673
28/38	14	35	8500	200x10 ⁻⁶	0.253	10RB 19 20	13004632 13004627 13004664	25 30 35	13004665 13004666 13004685
38/45	15	45	7100	400x10 ⁻⁶	0.455	18RB 25 30	13004626 13004629 13004669	35 40 45	13004631 13004528 13004527
42	20	45	6000	2246x10 ⁻⁶	1.850	24RB 35	13004676 13004526	40 45	13004688 13004677

Maximum transmittable torque (Nm) between hub and shaft

Size	ø 4	ø 5	ø 6	ø 8	ø 10	ø 11	ø 15	ø 16	ø 19	ø 20	ø 22	ø 24	ø 25	ø 28	ø 30	ø 32	ø 35	ø 38	ø 40	ø 42	ø 45
7	0.65	0.70	0.74	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
9	1.5	1.6	1.6	1.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
14	3.2	3.3	3.4	3.7	3.9	4.0	4.5	4.6	–	–	–	–	–	–	–	–	–	–	–	–	–
19/24	–	–	–	–	23	25	34	36	43	45	–	–	–	–	–	–	–	–	–	–	–
24/28	–	–	–	–	–	–	34	36	43	45	50	54	57	63	–	–	–	–	–	–	–
28/38	–	–	–	–	–	–	–	–	79	83	91	100	104	116	124	133	145	–	–	–	–
38/45	–	–	–	–	–	–	–	–	–	83	91	100	104	116	124	133	145	158	166	174	187
42	–	–	–	–	–	–	–	–	–	–	–	–	–	116	124	133	145	158	166	174	187

Elements:

Size	YELLOW (soft)					Type No. element
	Rated torque Nm	Misalignment			Torsional rigidity dynamic (Nm/rad)	
		Angular (°)	Axial (mm)	Radial (mm)		
7	1.2	1.0	0.6	0.10	43	13008696
9	3.0	1.0	0.8	0.13	95	13008672
14	7.5	1.0	1.0	0.15	344	13008679
19/24	10	1.0	1.2	0.10	650	13008691
24/28	35	1.0	1.4	0.14	1640	13008704
28/38	95	1.0	1.5	0.15	2630	13008693
38/45	190	1.0	1.8	0.17	5270	13008689
42	265	1.0	2.0	0.19	7240	13008690

Size	RED (hard)					Type No. element
	Rated torque Nm	Misalignment			Torsional rigidity dynamic (Nm/rad)	
		Angular (°)	Axial (mm)	Radial (mm)		
7	2.0	0.9	0.6	0.06	69	13008677
9	5.0	0.9	0.8	0.08	155	13008685
14	12.5	0.9	1.0	0.09	513	13008702
19/24	17	0.9	1.2	0.06	2830	13008695
24/28	60	0.9	1.4	0.10	6800	13008687
28/38	160	0.9	1.5	0.11	11400	13008673
38/45	325	0.9	1.8	0.12	23630	13008698
42	450	0.9	2.0	0.14	52800	13008700

Two hubs and one element make up one coupling.

Ordering example

(1) off precision clamp hub curved jaw coupling type GESM, size 38/45 with bores 25 and 35mm and a yellow 190 Nm element (rated torque 104Nm based on the hubs).

Type Nos. 13004629
13004631
13008689

For bore sizes not listed please contact our internal sales engineers.

Clamp hub curved jaw couplings | Type GESA high torque

0.75 - 450Nm



- Zero backlash
- Variable torsional stiffness
- High torque capacity
- Shaft tolerance h7
- Hubs fully machined to give precision fit with element
- Torque capacity depends on shaft size and model chosen



Hubs

Shrink disc clamping hubs: have aluminium hubs with steel shrink disc. Supplied either unbored with centring guide or with H7 finished plain bore.

Elements

Yellow, 92 shore A hardness for standard applications. Red, 98 shore A hardness for a higher torsional stiffness, but reduced angular and radial misalignment.

Coupling selection

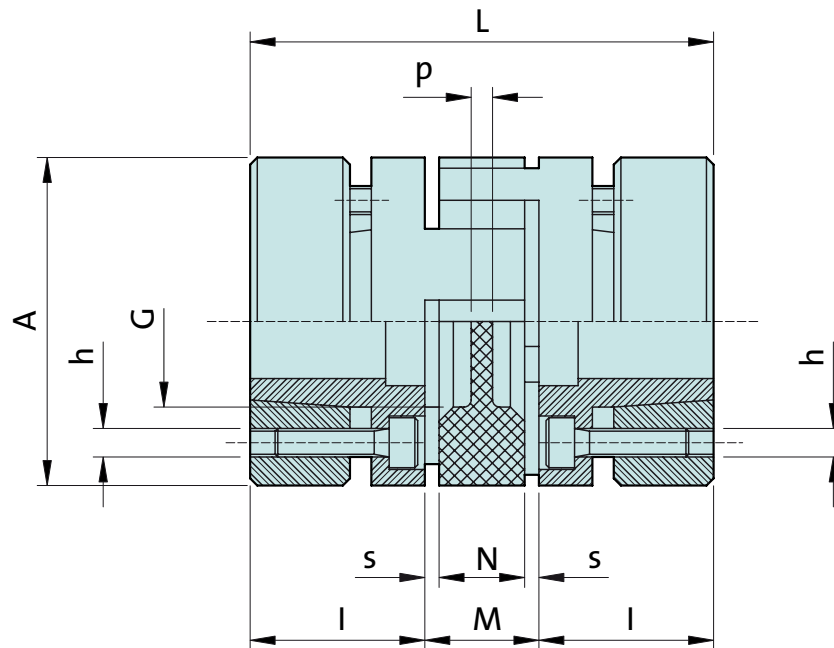
The torque rating of the coupling is the lower of the hub torque rating and the element torque rating from the tables on the facing page.

Temperature range

Yellow element -40 to +90°C
Red element -30 to +90°C
Short term rating +120°C

20

Model C



Size	A	G	L	I	M	N	s	p	Screw tightening torque (Nm)	h	Number of screws
14	30	10.5	50	18.5	13	10	1.5	4	1.3	M3	4
19/24	40	18	66	25	16	12	2.0	4	2.9	M4	6
24/28	55	27	78	30	18	14	2.0	4	6.0	M5	4
28/38	65	30	90	35	20	15	2.5	5	6.0	M5	8
38/45	80	38	114	45	24	18	3.0	5	10.0	M6	8
42	95	46	126	50	26	20	3.0	5	35	M8	4

Clamp hub curved jaw couplings

Type GESA high torque

0.75 - 450Nm

Size	Max Bores		Max speed r/min	Inertia per hub coupling kg.m ²	Hub Weight kg	Type numbers – hubs Plain bores H7 no keyway			
	min	max				Bore	Type No.	Bore	Type No.
14	6	14	19000	7x10 ⁻⁶	0.049	Solid 10	13005252 13005237	12 14	13005238 13005240
19/24	10	20	14000	30x10 ⁻⁶	0.120	Solid 10 11	13004592 13004586 13005235	15 16 19	13004587 13004599 13004585
24/28	15	28	10600	135x10 ⁻⁶	0.280	Solid 15 16	13004596 13004595 13005243	19 20 25	13005242 13005256 13005257
28/38	19	38	8500	315x10 ⁻⁶	0.450	Solid 19 20	13004593 13005261 13005244	25 30 35	13005253 13005264 13005251
38/45	20	45	7100	950x10 ⁻⁶	0.950	Solid 30	13004594 13005236	35 40	13005249 13005255
42	28	50	6000	3150x10 ⁻⁶	2.3	Solid 30 35	13004597 13004598 13005265	38 40 42	13005250 13005262 13005267

Maximum transmittable torque (Nm) between hub and shaft

Model C Size	Ø10	Ø11	Ø14	Ø15	Ø16	Ø19	Ø20	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42
14	10	12	22	–	–	–	–	–	–	–	–	–	–	–	–	–
19/24	42	46	60	65	69	84	–	–	–	–	–	–	–	–	–	–
24/28	–	–	–	66	72	87	92	113	118	–	–	–	–	–	–	–
28/38	–	–	–	–	–	175	185	225	235	266	287	308	339	–	–	–
38/45	–	–	–	–	–	–	255	312	326	367	398	427	471	515	545	577
42	–	–	–	–	–	–	–	–	–	420	460	500	563	627	670	714

Elements:

Size	YELLOW (soft)					
	Rated torque Nm	Misalignment			Torsional rigidity dynamic (Nm/rad)	Part No. element
		Angular (°)	Axial (mm)	Radial (mm)		
14	7.5	1.0	1.0	0.15	344	13008679
19/24	10	1.0	1.2	0.10	1890	13008691
24/28	35	1.0	1.4	0.14	4720	13008704
28/38	95	1.0	1.5	0.15	7560	13008693
38/45	190	1.0	1.8	0.17	15120	13008689
42	265	1.0	2.0	0.19	15930	13008690

Size	RED (hard)					
	Rated torque Nm	Misalignment			Torsional rigidity dynamic (Nm/rad)	Part No. element
		Angular (°)	Axial (mm)	Radial (mm)		
14	12.5	0.9	1.0	0.9	513	13008702
19/24	17	0.9	1.2	0.06	2830	13008695
24/28	60	0.9	1.4	0.10	6800	13008687
28/38	160	0.9	1.5	0.11	11400	13008673
38/45	325	0.9	1.8	0.12	23630	13008698
42	450	0.9	2.0	0.14	52800	13008700

Two hubs and one element make up one coupling.

Ordering example

(1) off precision clamp hub curved jaw coupling model GESA, size 24/28 with bores 20 and 25mm and a red 60 Nm element (rated torque 60Nm based on the element).

Type Nos. [13005256](#)
[13005257](#)
[13008687](#)

For bore sizes not listed please contact our internal sales engineers.

Straight sided jaw couplings | Lovejoy jaw

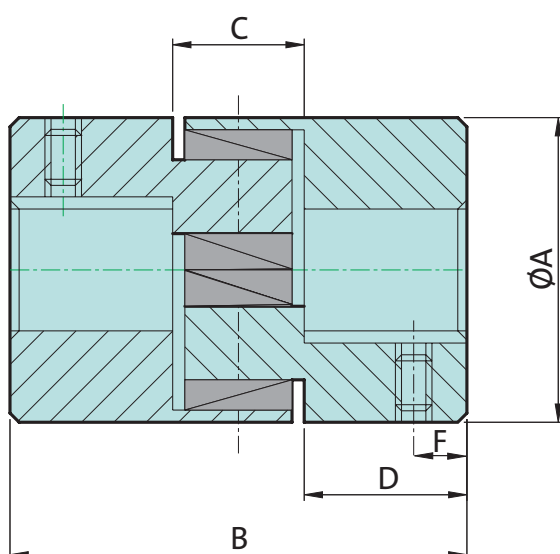
0.4 - 750Nm



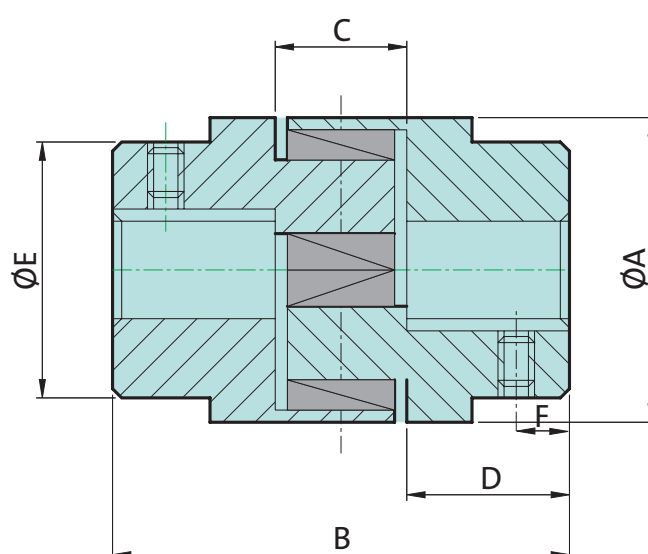
- Quick and simple to install
- Reliable, rugged, compact
- Smooth, silent action
- Grease and oil resistant
- Five standard “spider” types available
- Hubs are supplied in sintered iron as standard. Aluminium and stainless steel are available in some sizes, marked AL and SS on these pages



Complete coupling and alternative “spiders”.



L035 to L110



L150 to L225

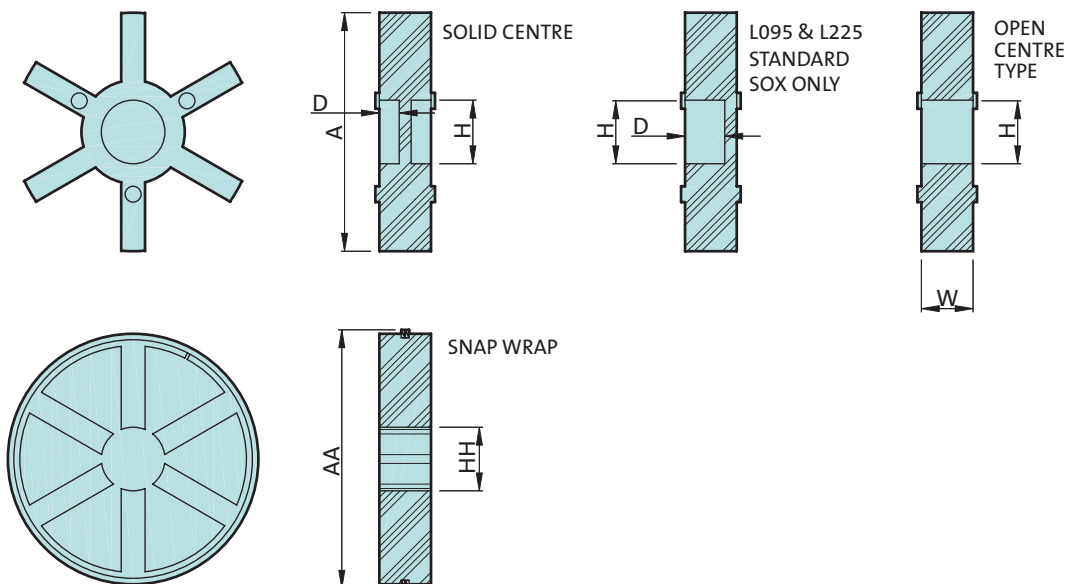
Coupling no.	Rated torque Nm			Max speed rpm	Max bore dia. mm	Complete weight sintered iron (min. bore) kg	Complete weight aluminium (min. bore) kg	Dimensions					
	Standard Spider	Urethane Spider	Hytrel Spider					A	B	C	D	E	F
L035	0.4	—	—	31,000	9	0.03	—	16	21	8	6.5	—	3.3
L050	3	4.5	9	18,000	16	0.13	—	27.4	43	12	15.5	—	8.0
L070	5	8	15	14,000	19	0.24	0.11	35	51	13	19	—	9.6
L075	10	15	26	11,000	22	0.40	0.18	45	54	13	20.5	—	8.0
L090	16	24	45	9,000	25	0.68	0.24	54	54	13	21	—	11
L095	22	33	65	9,000	28	0.82	0.36	54	64	13	25.5	—	11
L100	47	71	118	7,000	35	1.6	0.68	65	89	19	35	—	11
L110	90	135	225	5,000	42	3	1.25	84	108	22	43	—	19
L150	140	210	350	5,000	48	5	—	95	115	25	44	80	19
L190	195	293	488	5,000	54	7.6	—	115	124	26	49	102	22
L225	264	396	660	4,200	67	8	—	127	136	26	55	108	25

Straight sided jaw couplings | 'Spider' elements

0.4 - 660Nm

The rated torque of a particular coupling size can be increased by substituting the standard spider for one of the alternatives shown below

Type	Temp. range °C	Misalignment		Shore hardness	Wind up at rated torque (°)	Remarks and characteristics	Rated torque factor
		Angular	Radial				
Standard (black)	-40 +100	1°	0.4 mm	80A (except L035 60A)	3.75	Good misalignment and damping Good resistance to oil Standard material supplied	1
Urethane (blue)	-34 +71	1°	0.4 mm	55D (L-050-110) 40D (L-100-110)	2	Good oil and chemical resistance Torsionally stiffer than standard	1.5
Hytrel (cream)	-51 +121	0.5°	0.4 mm	55D	1.2	Good oil and chemical resistance High temperature capacity Torsionally stiffer than urethane	2.5 – 3
Bronze	-40 +232	0.5°	0.25 mm	—	—	Excellent oil and chemical resistance Maximum speed 250 r/min Very high temperature capacity	3
Snap Wrap/RRS (black)	-40 +100	1°	0.4 mm	80A	3.75	Good misalignment and damping Can be removed radially without disturbing either hub	1



Size	Solid Centre Spiders						Open Centre Spiders					Snap Wrap Spiders			All	
	Material available			Dimensions			Material available			Dimensions		Sox	Material		W	B
	Std SOX	Urethane URE	Hytrel HYT	A	D	H	Ureth. URE	Hytrel HYT	Bronze BRZ	A	H		AA	HH		
L035	X	—	—	15.8	—	—	—	—	—	—	—	—	—	—	7.1	5.3
L050	X	X	X	27.1	—	—	—	—	X	27.2	7.9	—	—	—	10.7	6.9
L070	X	X	—	35.1	—	—	X	X	X	35.1	12.7	—	—	—	10.7	6.9
L075	X	—	—	44.5	—	—	X	X	X	44.5	19.1	—	—	—	11.2	6.9
L090/L095	X	—	—	53.9	4.6	22.4	X	X	X	53.9	22.4	X	65	27	11.2	9.1
L100	X	—	—	64.5	6.4	26.2	X	X	X	64.5	26.2	X	78	35	15.5	10.9
L110	X	—	X	84.1	SOX 6.4 HYT 4.6	30.2	X	X	X	84.1	30.0	X	99	38	19.1	11.4
L150	X	—	X	95.3	SOX 7.9 HYT 5.3	31.8	X	X	X	95.3	31.8	X	116	44	22.4	15.2
L190	X	—	X	114.3	SOX 7.9 HYT 4.6	35.1	X	X	X	114.3	35.1	X	132	57	22.4	15.2
L225	X	—	X	126.5	SOX 9.7 HYT 4.6	44.5	X	X	X	126.5	44.5	URE.	138	69	22.4	15.2

X = our stock standard — = not available

Straight sided jaw couplings | Lovejoy jaw

0.4 - 26Nm

Coupling No. L035

Pilot bore 1/8 std spider complete [13024167](#)

Rated torque 0.4 Nm

Hubs pilot bore		Hubs imperial plain bore H7		Hubs metric plain bore H7		Spiders	
Size	Type No.	Size	Type No.	Size	Type No.	Type of material	Type No.
Blank	13005644	1/4	13004911	4	13006114	Standard	13007059
1/8	13006884			6	13004929	Hard rubber	13005520
1/4	13004932			8	13006911		

Coupling No. L050

Pilot bore 1/8 std spider complete [13024168](#)

Rated torque 3 Nm

Hubs pilot bore		Hubs plain bore H7				Hubs bored H7 & keyway				Spiders	
Size	Type No.	Imperial		Metric		Imperial BS46		Metric BS4235		Type of material	Type No.
		Size	Type No.	Size	Type No.	Size	Type No.	Size	Type No.		
Blank	13006839	1/4	13007083	10	13006834	1/4	13007008	9	13005648	Standard	13005523
1/4	13006885	3/8	13004905	12	13006877	1/2	13006121	10	13004908	Urethane	13007081
1/2	13005645	1/2	13006844	11	13004926	12	13006847			Hytrel	13005538
		5/8	13006912			14	13006134			Bronze	13005530
						15	13004933				
						16	13006882				

Coupling No. L070

Pilot bore 3/8 std spider complete [13024169](#)

Rated torque 5 Nm

Hubs pilot bore		Hubs plain bore H7				Hubs bored H7 & keyway				Spiders	
Size	Type No.	Imperial		Metric		Imperial BS46		Metric BS4235		Type of material	Type No.
		Size	Type No.	Size	Type No.	Size	Type No.	Size	Type No.		
1/4	13004915	1/2	13004936	12	13006864	1/2*	13006115	9	13006123	Standard	13007070
3/8	13006873					5/8*	13004919	10	13006848	Urethane	13007055
AL 1/4	00476000					3/4*	13006909	11*	13006903	Hytrel	13005531
								12*	13004912	Bronze	13007048
								14*	13006867		
								15*	13006897		
								16*	13006843		
								19*	13006879		
								AL12	00475984		

Coupling No. L075

Pilot bore 1/2 std spider complete [13024170](#)

Rated torque 10 Nm

Hubs pilot bore		Hubs plain bore H7		Hubs bored H7 & keyway				Spiders	
Size	Type No.	Imperial		Imperial BS46		Metric BS4235		Type of material	Type No.
		Size	Type No.	Size	Type No.	Size	Type No.		
1/4	13004939	5/8	13006827	1/2	13006907	10*	13006865	Standard	13005536
1/2	13006890	3/4	13006845	5/8*	13004928	12	13004942	Urethane	13005535
5/8	13004934			3/4*	13006893	14*	13004924	Hytrel	13005532
AL 1/4	13004930			AL 5/8	13006835	15*	13006874	Bronze	13007072
AL 3/8	13006891			AL 3/4	13004917	16*	13006886		
AL 1/2	13006863					19*	13004925		
AL 5/8	13006838					20*	13004938		
SS 1/4	13007082					AL14	13006896		
						AL19	13006914		

Straight sided jaw couplings | Lovejoy jaw

16 to 130Nm

Coupling No. L090

Pilot bore 3/8 std spider complete [13024240](#)

Rated torque 16 Nm

Hubs pilot bore		Hubs imperial bore & keyway to BS46		H7 Hubs metric bore H7 & keyway to BS4235		Spiders	
Size	Type No.	Size	Type No.	Size	Type No.	Type of material	Type No.
3/8	13006900	5/8	13005643	12	13006837	Standard	13007045
AL 3/8	13006860	3/4	13004940	14*	13006828	Urethane	13006899
		7/8	On Request	15*	13006902	Hytrel	13007068
				16*	13004914	Bronze	13007052
				19*	13004935	Snapwrap	13005521
				20*	13006924		
				24*	13006859		
				25*	13006880		

Coupling No. L095

Pilot bore 7/16 std spider complete [13024175](#)

Rated torque 22 Nm

Hubs pilot bore		Hubs plain bore H7				Hubs bored H7 & keyway				Spiders	
Size	Type No.	Imperial		Metric		Imperial BS46		Metric BS4235		Type of material	Type No.
		Size	Type No.	Size	Type No.	Size	Type No.	Size	Type No.		
7/16	13006881	5/8	13004907			1/2	13006875	14*	13006841	Standard	13007045
1/2	13006855	3/4	13006119			5/8*	13004927	15	On Request	Urethane	13006899
AL 1/2	13006906	AL 5/8	On Request	AL16	On Request	3/4*	13006905	16*	13004943	Hytrel	13007068
SS 7/16	On Request					7/8*	13004916	19*	13006872	Bronze	13007052
Special low prices Hubs marked * are mass produced with sintered finished bores and keyways. Special prices are available for orders starting at 100 complete couplings.						1*	13006913	20*	13006895	Snapwrap	13005521
						1 1/8	13007026	24*	13006871		
						AL 9/16	On Request	25*	13006833		
						AL 3/4	On Request	28*	13006135		
								AL16	13004913		
								AL19	13006862		
								AL24	13006933		

Coupling No. L100

Pilot bore 1/2 std spider complete [13024186](#)

Rated torque 47 Nm

Hubs pilot bore		Hubs plain bore H7		Hubs bored H7 & keyway				Spiders	
Size	Type No.	Imperial		Imperial BS46		Metric BS4235		Type of material	Type No.
		Size	Type No.	Size	Type No.	Size	Type No.		
1/2	13006856	25	13006937	3/4*	13004918	15	13006916	Standard	13007046
5/8	13006888	AL28	On Request	1*	13004909	16	13006854	Urethane	13007076
AL 1/2	13006898			1 1/8	13004920	19*	13006926	Hytrel	13007065
SS 7/16	13005479			1 1/4	13007005	20	13006878	Bronze	13007077
				1 3/8	13006116	24*	13006919	Snapwrap	13005539
						25*	13004941		
						28*	13006921		
						30	13006125		
						32*	13005647		

For bore sizes not listed please contact our internal sales engineers.

Straight sided jaw couplings | Lovejoy jaw

90 - 660Nm

Coupling No. L110

Pilot bore $\frac{5}{8}$ std spider complete [13024187](#)

Rated torque 90 Nm

Hubs pilot bore		Hubs imperial bore H7 & keyway to BS46		Hubs metric bore H7 & keyway to BS4235		Spiders	
Size	Type No.	Size	Type No.	Size	Type No.	Type of material	Type No.
$\frac{5}{8}$	13006857	$\frac{3}{4}$	13006904	19	13004904	Standard	13007047
AL $\frac{5}{8}$	00480806	$\frac{7}{8}$	13004923	20	13004910	Urethane	13007079
SS $\frac{5}{8}$	13005544	$1\frac{5}{8}$	<i>On Request</i>	24*	13004931	Hytrel	13007043
				28*	<i>On Request</i>	Bronze	13007051
				30	13006108	Snapwrap	13005533
				32*	13006927		
				38*	13005646		
				40	13006126		
				42*	13004937		

Coupling No. L150

Pilot bore $\frac{5}{8}$ std spider complete [13024188](#)

Rated torque 140 Nm

Hubs pilot bore		Hubs imperial bore H7 & keyway to BS46		Hubs metric bore H7 & keyway to BS4235		Spiders	
Size	Type No.	Size	Type No.	Size	Type No.	Type of material	Type No.
$\frac{5}{8}$	13006858	1	<i>On Request</i>	28	13006131	Standard	13007054
SS $\frac{5}{8}$	13005481	$1\frac{7}{8}$	13006892	30	13006850	Urethane	13005537
				32	13006923	Hytrel	13007050
				38*	13006889	Bronze	13005522
				40	13006846	Snapwrap	13005534
				42*	13006868		
				48	13006917		

Coupling No. L190

Pilot bore $\frac{3}{4}$ std spider complete [13024189](#)

Rated torque 195 Nm

Hubs pilot bore		Hubs metric bore H7 & keyway to BS4235		Spiders	
Size	Type No.	Size	Type No.	Type of material	Type No.
$\frac{3}{4}$	13006124	32	13006117	Standard	13007042
		38*	13006129	Urethane	13005540
		42*	13006842	Hytrel	13007069
		45	13006851	Bronze	<i>On Request</i>
		48	13006130	Snapwrap	13007078
		50	13005649		

Coupling No. L225

Rated torque 264 Nm

Hubs pilot bore		Hubs metric bore H7 & keyway to BS4235		Spiders	
Size	Type No.	Size	Type No.	Type of material	Type No.
$\frac{3}{4}$	13006120	42	<i>On Request</i>	Standard	13005528
		50	<i>On Request</i>	Urethane	13007067
		55	13006955	Hytrel	13007066
		60	13006930	Bronze	<i>On Request</i>
				Snapwrap	13007060

Easy maintenance couplings | Lovejoy jaw in-shear

38 - 475Nm



- Quick, simple to install
- Radially removeable spider
- 2° angular misalignment capacity
- 50A shore urethane spider
- Max temperature of 93°C
- Uses standard Lovejoy hubs

The Jaw in-shear spider can be radially removed, meaning that neither hub has to be moved to make regular maintenance. This saves time and money.

Materials

The Jaw in-shear spider is made from a tough urethane material. Retaining ring is made from cast stainless steel. Coupling hubs are sintered iron as standard, with some sizes available in aluminium.



Ordering

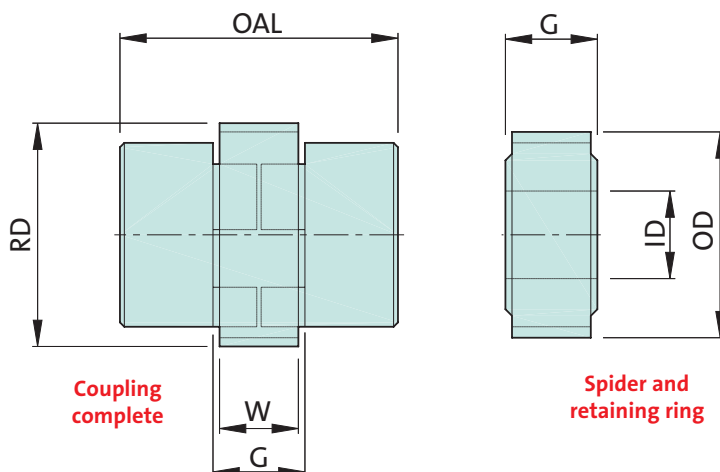
A complete coupling consists of two Lovejoy hubs, a jaw in-shear spider and a retaining ring. Either

- buy a complete coupling with pilot bore hubs from the table below
- or
- buy the set of spider and retaining ring from the table below, plus two finish bored hubs from pages 15-16.

Example

Qty 2 LS095 jaw in-shear couplings with finish bored and keywayed hubs 20 and 25mm.

2 off	13024210
2 off	13006895
2 off	13006833



Coupling size	Rated torque (Nm)	Max speed (r/min)	Complete weight at max bore (kg)	Dimensions (mm)					
				RD	OAL	W	G	OD	ID
LS090	38	9200	3.3	70	67	21	25.4	63	29
LS095	38	9200	3.3	70	76	21	25.4	63	29
LS100	63	7700	6.4	81	106	31	35.6	74	35
LS110	123	5900	13	102	127	37	42	95	47
LS150	205	5200	19	119	138	43.5	49	110	48
LS190	330	4300	32	140	148	43.5	49	130	58
LS225	475	3900	38	156	160	43.5	49	146	69

Type numbers

Coupling size	Complete coupling with pilot bore hubs		Set of spider and retaining ring	Spider only	Retaining ring only
LS090	3/8"	13024198	13024210	13007075	13007080
LS095	1/2"	13024199	13024210	13007075	13007080
LS100	1/2"	13024200	On Request	13007074	13007071
LS110	5/8"	13024201	13024208	13007073	13007062
LS150	5/8"	On Request	On Request	13007063	On Request
LS190	3/4"	On Request	13007044	13007061	On Request
LS225	3/4"	On Request	13005524	13005525	On Request

For bore sizes not listed please contact our internal sales engineers.

Barrel gear | nylon sleeve couplings

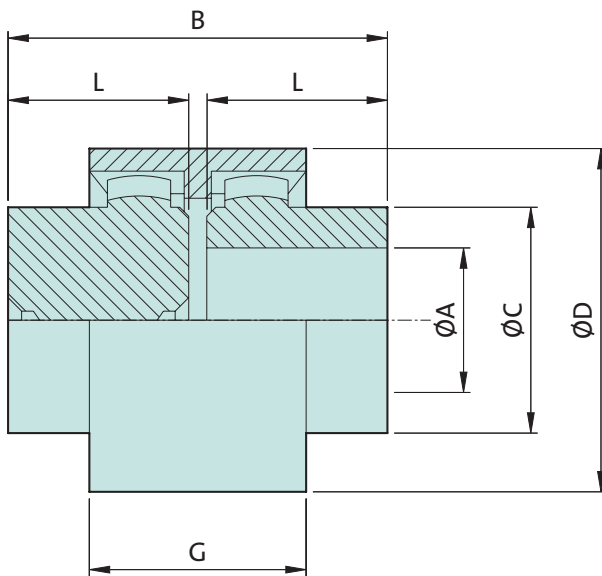
10 - 700Nm



- For shafts up to 80mm diameter
- Rated torques up to 700Nm
- Fast and easy to fit
- No maintenance required
- Hubs available un-bored, for maximum bore flexibility or with bore and keyways
- Maximum angular misalignment 1°
- Maximum axial misalignment $\pm 1\text{mm}$
- Temperature range -25°C to 90°C



The barrel gear coupling is a flexible coupling having two fully machined steel hubs with crowned barrel-shaped teeth. These transmit torque by meshing with the axially parallel involute gear teeth of the stabilised 6.6 super polyamid sleeve.



One complete coupling comprises two hubs and one sleeve

Size	Un-bored complete coupling	Un-bored hub only	Sleeve only
14	13024044	13003923	13003960
19	13024045	13002112	13003962
24	13024049	13003928	13003961
28	13024050	13003942	13003964
32	13024051	13003919	13003967
38	13024050	13003932	13003969
42	13024053	13003915	13003968
48	13024054	13003908	13003965
65	13024055	13003926	13003966
80	13024056	13003903	13003959

Ordering example

(15) off barrel gear couplings, size 42 un-bored complete

Type No. 13024053

Coupling size	Rated Torque Nm	Max speed r/min	Weight complete kg	Inertia complete $\text{kgm}^2 \times 10^{-4}$	Max radial misalignment	Number of teeth per hub	A (max)	B	C	D	G	L
14	10	14000	0.21	0.26	± 0.3	20	14	50	25	40	37	23
19	16	11800	0.32	0.47	± 0.4	24	19	54	32	48	37	25
24	21	10500	0.48	0.93	± 0.4	28	24	56	36	52	41	26
28	45	8500	1.18	3.09	± 0.4	34	28	84	44	66	46	40
32	60	7600	1.47	5.48	± 0.4	40	32	84	50	76	48	40
38	81	6700	1.91	8.68	± 0.4	44	38	84	58	83	48	40
42	100	6000	2.52	14.28	± 0.4	50	42	88	65	92	50	42
48	142	5580	3.21	18.38	± 0.4	50	48	104	68	100	50	50
65	380	4000	8.86	109.6	± 0.6	42	65	144	96	140	72	70
80	700	3100	11.2	371	± 0.7	46	80	186	124	175	93	90

Bore & keyway mm	Coupling size				
	14	19	24	28	32
10	13002105				
11	13003900				
12	13002109				
14	13002104	13002103	13002100		
15		13003930	13003931		
16		13002102	13003921	13002113	
19		13002101	13003904	13002115	13003929
20			13003894	13002117	
22					13003937
24	These type numbers refer to individual hubs only		13002114	13002118	13002110
25				13003938	13003939
28				13002099	13002120
30					13002121
32					13002122

Bore & keyway mm	Coupling size				
	38	42	48	65	80
14	13003896				
20	13002123				
24	13002116	13003914			
25	13003897	13003936	13003893		
28	13002111	13002106	13003890		
30	13003891	13003888	13003917		
32	13003920				
35		13003935			
38	13003901	13003909	13003907	13003913	
40		13003902			
42		13003948	13003886		
48			13003918	13003895	
50	These type numbers refer to individual hubs only				
55				13003934	
60				13003922	
70					13003910
80					13003898

This page shows hubs only, see facing page for sleeve details

For bore sizes not listed please contact our internal sales engineers.

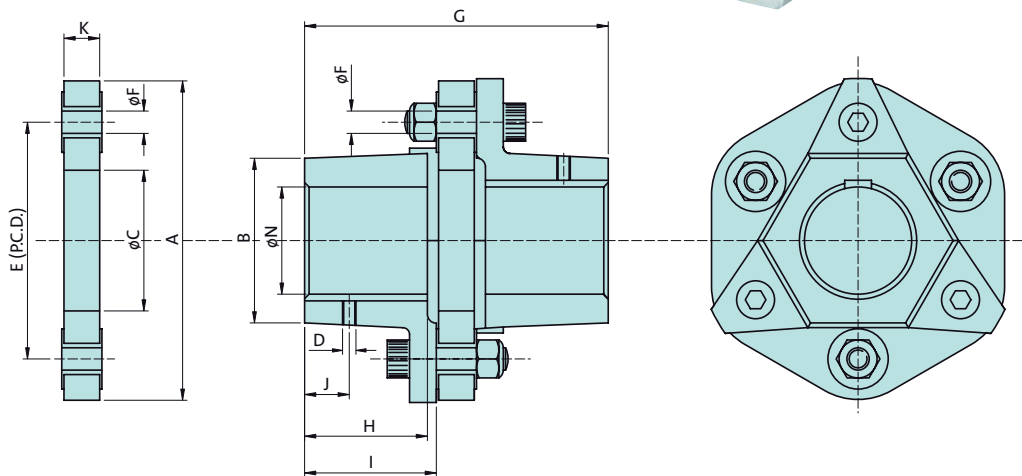
Reinforced rubber disc couplings | Hexaflex

100 - 2250Nm

Type 313.□□ .2.1



- Zero backlash excepting keyways
- Designed for simple installation & removal
- Angular, radial & axial misalignment accommodated
- Elements can be removed without any axial movement of the hubs
- Aluminium hubs give minimal inertia (except size 98, cast iron)

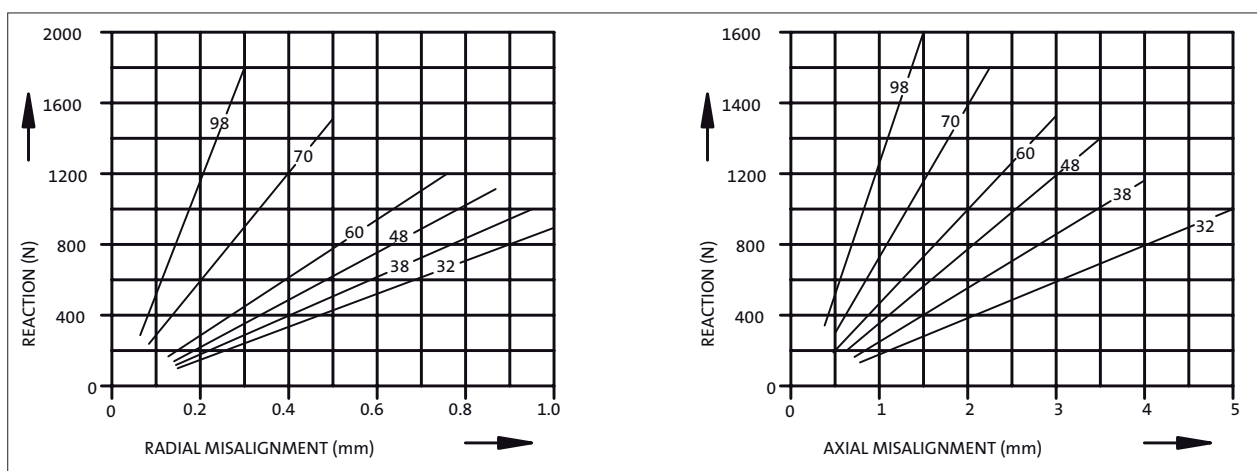


Size	A	B A/F	C	D	E	F	G	H	I	J	K	N max	Nominal torque Nm	Max. speed r/min	Angular misalignment max.	Screw tightening torque Nm	Complete weight kg
32	99	51	40	M5	75	M10	103	40	43.5	11	16	32	100	7100	5°	49	1.1
38	123	60	40	M6	85	M10	125	50	53.5	20	18	38	200	6400	3°	60	1.7
48	143	74	63	M6	106	M10	136	55	59	20	18	48	350	5200	3°	69	2.7
60	162	86	61	M8	120	M16	198	80	84	30	30	60	800	4500	2°	150	4.7
70	195	100	70	M8	140	M16	232	95	99.5	40	33	70	1200	3800	2°	150	7.1
98	262	150	102	M8	200	M24	287	120	125	50	37	95	2250	2700	2°	300	42.5

Misalignment

Parallel misalignment and axial misalignment result in additional radial and axial forces on the bearings supporting the related shafts. These values can be taken from the graphs below.

These are mean values and can vary by $\pm 30\%$. The extremes of the graphs show also the maximum permitted misalignment values.



Reinforced rubber disc couplings | Hexaflex

100 - 2250Nm

Type 313.□□ .2.1

The HexaFlex coupling is very easy to mount. The flexible element can be removed without axial hub movement. The hubs can be aligned using either the outer diameter or the machined faces. The hexagonal hub form gives small overall dimensions for large bores and permits a relatively large angular misalignment.

A complete coupling consists of

- 2 hubs (select required bores from table below)
- 1 off element and screw set



Unique element construction

Size	Pilot bore mm	Type numbers Pilot bore hubs (2 reqd.)	Flexible element and screws	Pilot bore coupling 2 hubs, 1 element and 1 screw set
32	14	13010779	13024124	13024153
38	19	00487444	13024123	13024154
42	22	13010780	13024127	13024155
48	22	00476138	13024122	13024156
60	24	00473668	13024121	13024157
70	30	00476142	13024120	13024158
98	40	13010815	On Request	13024159

Bore & keyway mm	Coupling size					
	Size 32	Size 38	Size 48	Size 60	Size 70	Size 98*
16	13010807					
18	13010792	-				
19	13010781	00477506				
20	00476135	13010797				
22	13010806	13010813				
24	13010787	13010798	-	-		
25	13010782	13010789	-	-		
28	13010804	13010790	13010784	-		
30	00475816	13010783	-	-		
32	13010791	13010788	13010794	-		
35		00476136	00473693	-		
38		13010796	00406428	00476141	-	
40			00476137	-	-	
42			13010805	-	-	
45			-	-	-	
48			13010803	-	-	
50				13010785	-	
55					-	
60					13010786	
65						
70						
75						
80						

These type numbers refer to individual hubs only

Other bore sizes are available upon request.

* Size 98 available in cast iron only. Type nos on request.

Ordering example

(10) off HexaFlex coupling hubs, size 48, 22mm,pilot bore

(5) off HexaFlex coupling flexible elements and screws to suit size 48 coupling

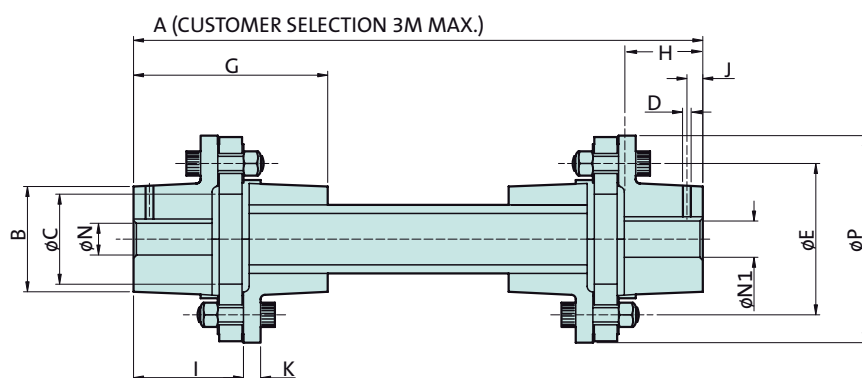
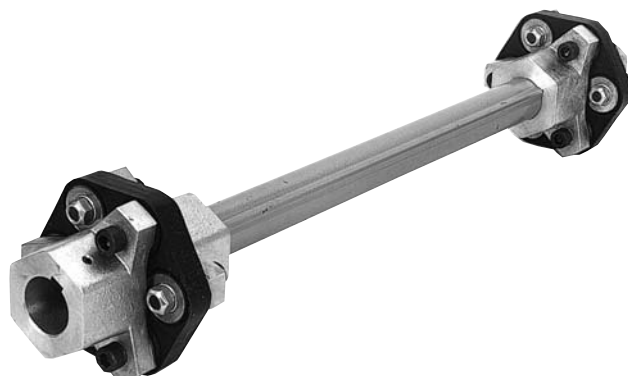
00476138
13024122

Reinforced rubber disc couplings | Hexaflex spacer

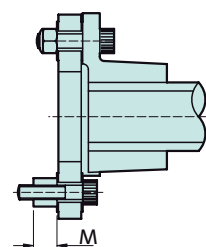
100 - 1200Nm



- Low cost, fast delivery
- Lightweight - easy to handle
- High operational speed - 3000r/min for couplings up to one metre long
- Zero backlash excepting keyways
- Lengths up to 3metres
- Flange or shaft mounting versions available



Type 24.333.□□.2.1 Shaft to shaft



Type 24.333.□□.2.0
Shaft to flange

Size	B A/F	C	E	F	G	H	J	I	K	M	D	P	Bores N/N ₁ (H7)	
													min (pilot)	max bore
32	51	40	75	M10	103	40	11	43.5	16	16.5	M5	100	14	32
38	60	40	85	M10	125	50	20	53.5	18	16.5	M6	118	19	38
48	74	63	106	M10	136	55	20	59	18	16.5	M6	145	22	48
60	86	61	120	M16	198	80	30	84	30	23	M8	170	24	60
70	100	70	140	M16	227	95	40	99.5	33	23	M8	200	30	70

Angular misalignment

The angular misalignment of the spacer coupling is twice the figure given for the HexaFlex standard coupling, that is 4-10°.

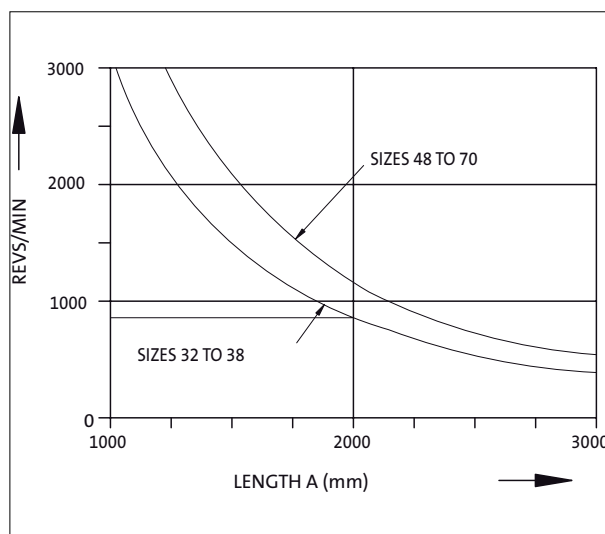
Description

The spacer is a drawn steel tube having a unique cross-section which precludes the use of keys and keyways. The spacer is firmly fitted in the inner hubs and pinned to ensure complete freedom from backlash.

The reinforced rubber discs provide for misalignment, and are virtually indestructible.

The outer hubs are supplied either pilot bored or with a range of finished bores as on the following pages.

The shortest length of spacer coupling will be 2 x dimension G, i.e. the length of the two HexaFlex couplings.



Ordering example

(5) off HexaFlex spacer couplings 24.333.38.2.1, overall length 'A' = 1 metre. Bore N = 30mm, bore N₁ = 32mm tolerances H7 keyways to BS 4235.

Beam couplings | Flexbeam™

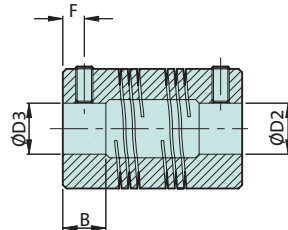
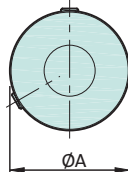
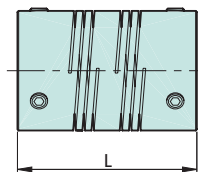
0.4 - 5Nm



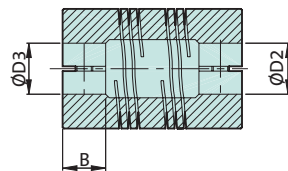
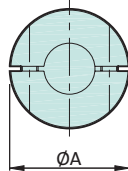
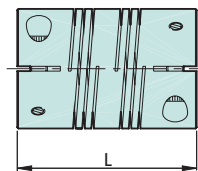
- Backlash free
- Aluminium or stainless steel
- Low inertia
- Special designs possible
- Clamp action eliminates shaft damage



MWS



MWC



Materials

- aluminium alloy for minimum weight and inertia with a temperature range -40 to +100°C
- stainless steel for increased performance and high corrosion resistance with a temperature range of -40 to +170°C

Carbon steel blackened screws are standard for all models. Stainless steel screws can be supplied on request, however lower coupling nominal torques will apply.

Ordering example

6 off Flexbeam couplings type MWC-A 25 bores D2=D3=8mm

Type No. **13005628**

Size	A	B	B1	E	F	L	Misalignments			Cap screw size	Tightening torque Nm	Set screw size	Tightening Torque Nm
							Angular	Radial	Axial				
MWS 15	15	—	5.2	3.1	2.6	20	3°	0.20	0.12	—	—	M3	0.9
MWC 15		6.2	—		—	22				M2	0.6	—	—
MWS 20	20	—	4.8	4.4	2.4	20	3°	0.20	0.12	—	—	M3	0.9
MWC 20		8.8	—		—	28				M3	2.1	—	—
MWS 25	25	—	5.4	4.2	2.7	24	3°	0.38	0.25	—	—	M4	2.2
MWC 25		8.4	—		—	30				M3	2.1	—	—
MWS 30	30	—	7.2	5.6	3.6	30	3°	0.38	0.25	—	—	M5	4
MWC 30		11.2	—		—	48				M4	4.6	—	—

Size	ALUMINIUM						STAINLESS STEEL				
	Bores D2 & D3 mm		Nominal Torque Nm	Torsional Stiffness Nm/Deg	Type No. set screw (MWS-A)	Type No. clamp hub (MWC-A)	Bores D2 & D3 mm		Nominal torque Nm	Torsional stiffness Nm/Deg	Type No. clamp hub (MWC-SS)
MWS 15 MWC 15	3	3	0.4	0.23	13007533	13008219	3	3	0.6	0.45	13008154
	4	4	0.4	0.23	13007523	13008216	4	4	0.6	0.45	13008210
	5	5	0.4	0.19	13008201	13008217	5	5	0.6	0.45	13008173
MWS 20 MWC 20	4	4	0.6	0.50	13007524	13006503	4	4	1.0	1.0	13008212
	5	5	0.6	0.50	13008180	13005632	5	5	1.0	1.0	13006495
	6	6	0.6	0.40	13008194	13008181	6	6	0.8	0.78	13008165
MWS 25 MWC 25	6	6	1.7	0.82	13008198	13005626	6	6	2.5	1.72	13008164
	6	10	1.5	0.57	13005635	13005627	6	10	2.3	1.2	13008163
	8	8	1.7	0.82	13005636	13005628	8	8	2.5	1.72	13008222
	10	10	1.5	0.57	13005638	13005629	10	10	2.3	1.2	13008226
MWS 30 MWC 30	8	8	3.4	1.41	13008193	13005640	8	8	5.2	3	13008215
	8	10	3.4	1.41	13008192	13008214	8	10	5.2	3	13008151
	10	10	3.4	1.41	13008191	13005637	10	10	5.2	3	13008156
	12	12	3.3	1.07	13008190	13008225	12	12	5.0	2.2	13008169

Please note: all nominal torques are at maximum misalignment. For reversing applications the nominal torque must be divided by 2.



- Very strong for long life, all metal construction
- Allows high levels of misalignment
- Zero backlash with variable wind-up
- Unaffected by dirt or oil
- Temperatures up to 100°C (300°C available on request)
- Small diameter - low inertia - high speeds
- Stainless steel construction possible

Simplaflex couplings are available with three different spring elements:

Short – **type K** – 3° angular misalignment

Medium – **type L** – 4.5° angular misalignment

Long – **type D** – 6° angular misalignment

Selection

Generally the peak torque should be calculated and a safety factor applied. For guidance refer to the general selection advice on [page 6](#).

Size	Rated torque Nm	Angle of twist at rated torque degrees		Radial misalignment (mm)	Max speed r/min	Type number (pilot bores)		
						Type MM	Type MF	Type FF
6	2.5	K	1.0	0.18	20000	13008522	13008468	-
		L	1.7	0.27		13007146	-	-
		D	2.0	0.36		13007141	-	-
8	5	K	1.0	0.24	15000	13008516	13008504	-
		L	1.7	0.36		13008511	-	-
		D	2.3	0.48		13008510	-	-
12	10	K	1.0	0.36	12000	13008518	13008494	-
		L	1.7	0.54		13008492	13007151	-
		D	2.5	0.72		13008493	13008536	-
14	10	K	1.0	0.42	10000	13007153	-	-
		L	1.7	0.63		13008515	-	-
		D	2.5	0.84		13008520	-	-
16	20	K	1.0	0.48	9000	13007143	13007156	13007154
		L	1.7	0.72		13007145	13007155	-
		D	2.5	0.96		13008533	-	-
19	20	K	1.0	0.57	8000	13008477	13007140	-
		L	1.7	0.86		13008519	-	13008455
		D	2.5	1.1		13007152	-	-
20	40	K	1.0	0.6	7000	13008521	13007140	-
		L	1.7	0.9		13007147	-	-
		D	2.5	1.2		13008547	13024042	-
24	40	K	1.0	0.72	7000	13008540	-	-
		L	2.0	1.0		13008449	-	-
		D	2.8	1.4		13024037	-	-
25	90	K	1.5	0.75	6000	13008502	13008508	-
		L	2.4	1.1		13008491	-	-
		D	2.8	1.5		-	-	-
28	90	K	1.8	0.84	6000	13008488	-	-
		L	2.5	1.2		13008441	-	-
		D	3.0	1.7		-	-	-
30	150	K	2.0	0.9	5000	13008474	13008475	-
		L	2.5	1.3		13007139	-	13007787
		D	3.0	1.8		13007138	-	-
35	220	K	2.0	1.0	4500	13008513	13008499	-
		L	2.5	1.6		13008538	-	-
		D	3.0	2.0		-	-	-
40	300	K	2.0	1.2	3000	13008512	13008452	13008467
		L	2.7	1.8		13008523	-	-
		D	3.5	2.4		-	-	-
50	500	K	2.5	1.5	1500	13008453	-	13008509
		L	3.2	2.2		-	-	-
		D	4.0	3.0		-	-	-
60	900	K	2.5	1.8	1500	13008534	-	-
		L	3.2	2.7		-	-	-
		D	4.0	3.6		-	-	-

Type numbers in blue are usually available from stock. Where no type no. is shown, enquire for a price and delivery.

Type MM



Type MF



Type FF



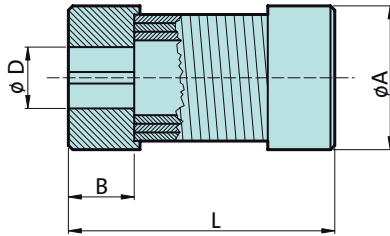
Ordering example

(10) off Simplaflex couplings type MM 14 K pilot bore

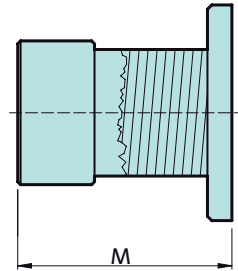
Type No. **13007153**

See also Simplaflex with clamp hubs, [page 36](#).

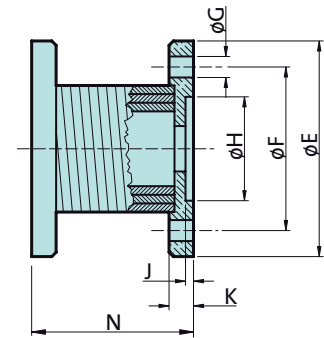
Type MM



Type MF



Type FF



Size	A	B	D* pilot	Max with key	Max for pinning	E	F	G	H	J	K	L	M	N
6	17	8	2.5	6	10	32	24	3x3.4	15	1.5	4	K 25 L 30 D 35	20 25 30	15 20 25
8	21	10	3.5	8	12	42	30	3x4.8	18	1.5	6	K 35 L 45 D 50	30 40 45	25 35 40
12	26	15	5.5	12	15	48	37	3x4.8	22	1.5	6	K 50 L 60 D 70	40 50 60	30 40 50
14	30	15	5.5	14	19	52	40	3x4.8	25	1.5	6.5	K 50 L 60 D 70	40 50 60	30 40 50
16	35	20	5.5	16	20	58	47	4x4.8	30	1.5	6.5	K 65 L 80 D 90	50 65 75	35 50 60
19	38	20	5.5	19	25	62	50	4x4.8	32	1.5	7	K 65 L 80 D 90	50 65 75	35 50 60
20	45	25	5.5	20	27	65	52	4x4.8	35	1.5	7	K 80 L 95 D 110	60 75 90	40 55 70
24	48	25	5.5	24	31	70	57	4x4.8	40	1.5	7	K 80 L 95 D 110	60 75 90	40 55 70
25	55	31	5.5	25	34	75	62	6x5.8	42	1.5	8.5	K 100 L 120 D 140	75 95 115	50 70 90
28	55	31	5.5	28	35	78	65	6x5.8	45	1.5	8.5	K 100 L 120 D 140	75 95 115	50 70 90
30	65	37	5.5	30	40	90	74.5	4x7	47	2.5	10	K 125 L 150 D 175	95 120 145	65 90 115
35	75	44	5.5	35	45	100	84	6x7	57	2.5	13	K 150 L 180 D 210	115 145 175	80 110 140
40	80	50	21	40	50	120	101.5	8x7	75	2.5	14	K 170 L 200 D 240	130 160 200	90 120 160
50	100	62	24	50	64	150	130	8x9.5	90	3	17	K 210 L 250 D 300	160 200 250	110 150 200
60	120	75	34	60	75	180	155.5	8x11.5	110	3	20	K 250 L 300 D 350	190 240 290	130 180 230

Type KMM



A splined hub design which allows axial movement. Details on request.

Type FN



A compact shaft to flange design. Details on request.

Special designs

Customised specials based on the Baumann triple spring principle are possible for volume applications, typically 100 off or more.

* Couplings can be supplied with finished bores, keyways, crosspin holes and grub screws as required. Ask for a quotation.

Spring couplings | Simpliflex with clamp hubs

2.5 - 90Nm



- Backlash-free connection to plain shafts
- Compact dimensions
- Tough construction, long life
- High speed capacity
- High misalignment capacity

Simpliflex couplings are available with three different lengths for the spring element.

Type K – short, 3° angular misalignment

Type L – medium, 4.5° angular misalignment

Type D – long, 6° angular misalignment.

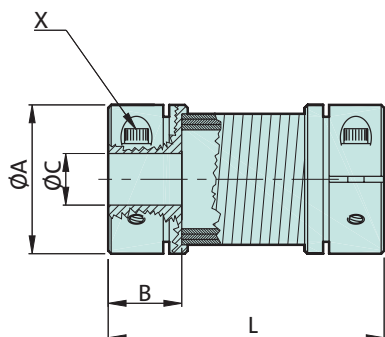
See page 34 for radial misalignments.



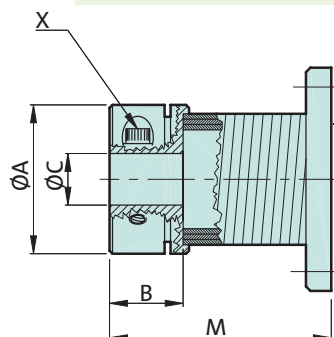
Ordering example

5 off Simpliflex couplings MM16K with clamp hubs, 10mm pilot bore.

Type No. **13008550**



Type MM



Type MF

For flange dimensions see page 35

Type numbers in blue are usually available from stock. Where no type no. is shown, enquire for a price and delivery.

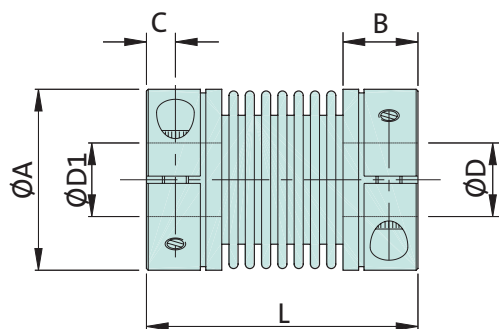
Size	Rated torque Nm	Angle of twist at rated torque degrees	Max speed r/min	Pilot bore					Screw tight torque Nm	Type number		Type MM	(clamp hub) Type MF
				A	B	C Max bore	X screw	L		M			
6	2.5	K 1.0	20000	17	8	3	6	M2.5	1.2	K 25	20	13008463	13008432
		L 1.7								L 30	25	13008447	-
		D 2.0								D 35	30	13008507	-
8	5	K 1.0	15000	21	10	4	8	M3	2.1	K 35	30	13008466	13008427
		L 1.7								L 45	40	13008470	-
		D 2.3								D 50	45	13008473	-
12	10	K 1.0	12000	26	15	7	12	M4	4.9	K 50	40	13008442	13007546
		L 1.7								L 60	50	13008446	-
		D 2.5								D 70	60	13008531	13008536
14	10	K 1.0	10000	30	15	7	14	M4	4.9	K 50	40	13007157	13008430
		L 1.7								L 60	50	13007136	-
		D 2.5								D 70	60	13008531	-
16	20	K 1.0	9000	35	20	10	16	M5	9.7	K 65	50	13008550	13008429
		L 1.7								L 80	65	13008551	-
		D 2.5								D 90	75	13008505	-
19	20	K 1.0	8000	38	20	10	19	M5	9.7	K 65	50	13008548	13007547
		L 1.7								L 80	65	13008456	-
		D 2.5								D 90	75	13008478	-
20	40	K 1.0	7000	45	25	12	20	M6	16.5	K 80	60	13007150	13008431
		L 2.0								L 95	75	13007148	-
		D 2.5								D110	90	13008489	-
24	40	K 1.0	7000	48	25	12	24	M6	16.5	K 80	60	13008487	13007548
		L 2.0								L 95	75	13008483	-
		D 2.8								D110	90	13008482	-
25	90	K 1.5	6000	55	31	15	25	M8	40	K100	75	13008481	13008428
		L 2.4								L120	95	13008479	-
		D 2.8								D140	115	-	-
28	90	K 1.8	6000	55	31	15	28	M8	40	K100	75	13008460	-
		L 2.5								L120	95	13008490	-
		D 3.0								D140	115	-	-

Bellows couplings | Belflex™

1 - 25Nm



- Stainless steel bellows with aluminium alloy hubs
- Very low inertia
- Clamping hubs
- High torsional stiffness
- Maintenance free
- Temperature range -45°C to +90°C



Ordering example

10 off MBC 33 bellows couplings with 14mm bores.

Type No. [13004902](#)

Size	Nominal torque Nm	Misalignments				Angular deg	Radial mm	Axial mm	Torsional stiffness Nm/deg	Clamp screw size	Tightening torque Nm	Weight min bore (g)
		A	B	C	L							
MBC 15	2.5	15	8.65	3.0	25	1.5	0.1	0.2	8	M2	0.6	10
MBC 19	4.5	19	10.40	3.4	30	1.5	0.1	0.25	14	M2.5	1.2	14
MBC 25	6.8	25	11.85	4	33	1.5	0.1	0.3	27	M3	2.1	30
MBC 33	13.6	33	15.00	4.5	40	1.5	0.15	0.4	45	M3	4.6	70
MBC 41	28	41	18.05	5.5	51	2	0.25	0.5	63	M4	9.5	120
MBC 51	45.2	51	20.55	6.4	59	2	0.25	0.5	108	M5	16	200

Size	Bores D & D1 mm		Type No.	Size	Bores D & D1 mm		Type No.
MBC 15	3	3	13008177	MBC 33	8	8	13008220
	4	4	13008175		10	10	13005639
	5	5	13006491		12	12	13006497
	6	6	13005642		14	14	13004902
MBC 19	4	4	13008209		15	15	13008206
	5	5	13008202		16	16	13006492
	6	6	13008203	MBC 41	10	10	13006493
	6	8	13008204		12	12	13006494
	8	8	13008211		14	14	13006504
MBC 25	6	6	13008208		15	15	13006496
	6	8	13007534		19	19	13005641
	6	10	13008207		20	20	13006498
	8	8	13008213	MBC 51	12	12	13006499
	10	10	13008223		14	14	13006500
	12	12	13008224		15	15	13006501
					19	19	13006502
					20	20	13008171
					25	25	13008205

Please note: all nominal torques are at maximum misalignment. For reversing applications the nominal torque must be divided by 2.

Screws

Carbon steel screws with black oxide finish are used in all couplings as standard. Stainless steel screws can be

supplied on request, but a lower coupling nominal torque applies.

Metal disc couplings | Mini Servoflex type 328

1 - 25Nm



- Backlash-free and torsionally rigid
- Maintenance free
- Stainless steel disc packs
- High speed capacity
- Single and double flexing designs
- Clamp hubs with multiple bore options



Materials

Hubs and central spacers – aluminium alloy. Disc packs – stainless steel.

Temperature

Suits ambient temperatures –30 to +150°C.

Clamp hubs

All models are supplied with clamp hubs as standard.

Centre assemblies

For easy ordering we offer the centre assemblies in standard designs 1.4 short design and 4.4 standard design. These assemblies include all necessary components.

Models

328.□□.1.4

Single flexing design.

Accepts no radial misalignment.

328.□□.4.4

Double flexing design.

Standard model, accepts maximum misalignment

Size	Nominal torque Nm	Bores d, d ₁		Max speed r/min	Torsional stiffness Nm/°		Inertia Kgm ² x10 ⁻⁶		Weight Kg	
		Min	Max		1.4	2.4	1.4	4.4	1.4	4.4
08	1	4	8	10000	3.8	3	0.67	0.9	0.012	0.016
10	1.5	5	10	10000	13	10	2	3	0.025	0.035
14	3	6	14	10000	30	23	7.6	10.5	0.044	0.062
16	6	8	16	10000	45	35	19.3	26.3	0.083	0.116
19	9	8	19	10000	61	47	27	38	0.091	0.131
25	25	10	24	10000	150	110	105	144	0.221	0.302

Size	Angular (°)		Maximum misalignment Axial (mm)		Radial (mm)	
	1.4	4.4	1.4	4.4	1.4	4.4
08	1	2	±0.1	±0.2	NOT PERMITTED	0.12
10	1	2	±0.15	±0.33		0.15
14	1	2	±0.2	±0.4		0.17
16	1	2	±0.25	±0.5		0.22
19	1	2	±0.3	±0.6		0.22
25	1	2	+0.4	+0.8		0.27

All couplings are supplied fully assembled to ensure concentricity of components is maintained

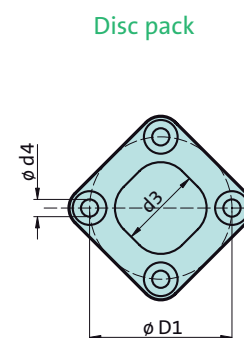
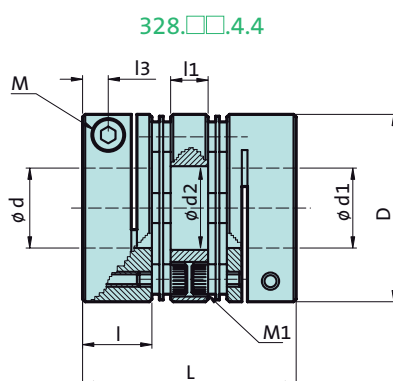
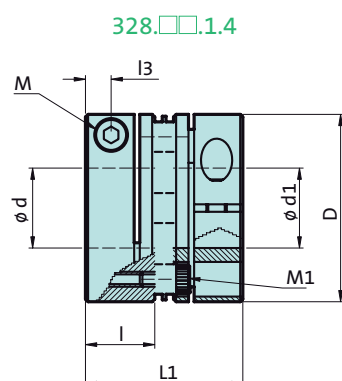
Ordering example

5 off Mini Servoflex metal disc couplings model 328.16.4.4 with 16 and 16mm H7 bores

Type No. **13010668**

Metal disc couplings | Mini Servoflex type 328

Type 328



Size	D	D1	d2	d3	d4	L	L1	l	l1	l3	M	Screws Nm	M1	Nm
08	19	14	8.5	8.5	1.6	26.7	19.9	9	5	3	M2.5	1	M1.6	0.2
10	26	19	10.6	10.6	2.5	31.9	23.5	10.5	6	3.5	M2.5	1	M2.5	1
14	34	25	15	14.5	3	37.2	27.1	12	7	4	M3	1.5	M3	1.5
16	39	29	17	17	4	47.2	34.1	15	9	5	M4	3.4	M4	3.4
19	44	34	20	19.5	4	47.2	34.1	15	9	5	M4	3.4	M4	3.4
25	56	44	26	26	5	61	45	20	11	7	M5	7	M5	7

Size	Complete coupling 328.□□.1.4				Complete coupling 328.□□.4.4			
	H7 bores	Type No.	H7 bores	Type No.	H7 bores	Type No.	H7 bores	Type No.
08	4-4	13011021	5-6	-	4-4	13011022	5-6	-
	4-6	13011023	6-6	13010675	4-6	13011024	6-6	00480695
	4-8	-	6-8	-	4-8	-	6-8	-
	5-5	13010674	8-8	-	5-5	13010661	8-8	13010662
10	5-5	13011025	6-10	13010678	5-5	13011027	6-10	13010673
	5-6	13011026	8-8	13010677	5-6	13011028	8-8	13010663
	6-6	13010676	8-10	-	6-6	00480697	8-10	-
	6-8	-	-	-	6-8	-	10-10	13010664
14	8-8	13011029	10-12	-	8-8	13010659	10-12	-
	8-10	13011030	10-14	-	8-10	13010660	10-14	-
	8-12	-	12-12	13010680	8-12	-	12-12	00463328
	8-14	-	12-14	-	8-14	00416267	12-14	-
	10-10	13010679	14-14	13010681	10-10	00475867	14-14	13010665
16	10-10	13010682	12-16	13011035	10-10	13010666	12-16	-
	10-12	-	14-14	13040683	10-12	13024485	14-14	00475874
	10-14	-	14-16	-	10-14	-	14-16	-
	10-16	13011033	15-15	13010684	10-16	-	15-15	13010667
	12-12	00475881	16-16	13010685	12-12	00476299	16-16	13010668
	12-14	13011034	-	-	12-14	-	-	-
19	11-11	-	14-16	-	11-11	-	14-16	-
	12-12	13010686	14-19	-	12-12	00476321	14-19	-
	12-14	-	15-15	13010688	12-14	-	15-15	13010669
	12-16	-	15-15	13010689	12-16	-	16-16	00476052
	12-19	-	16-19	-	12-19	-	16-19	13011037
	14-14	13010687	19-19	13010690	14-14	00475868	19-19	00475871
25	14-14	13010691	16-20	-	14-14	13010670	16-20	-
	14-16	-	16-24	13011036	14-16	-	16-24	-
	14-20	-	20-20	13010694	14-20	-	20-20	13010672
	14-24	-	20-24	-	14-24	-	20-24	-
	15-15	13010692	22-22	13011031	15-15	13010671	22-22	00475879
	16-16	13010693	22-24	13011032	16-16	00475872	24-24	00475870
	-	-	-	-	-	-	-	-

Type number in blue are usually available from stock. Where no type number is shown, enquire for a price and delivery.

Please note: Other bore sizes and combinations are available

Metal disc couplings | Servoflex type 318

35 - 500Nm



- Backlash-free and torsionally rigid
- Maintenance free
- Stainless steel pre-assembled disc packs
- High speed capacity
- Suits -40°C to +270°C ambients
- Three designs and multiple bore options



Models

318.□.□.1.1

Single flexing, allows no radial misalignment.

318.□.□.2.1

Double flexing, standard model accepts maximum misalignment.

318.□.□.4.1

Double flexing, short spacer model, lower radial misalignment.

Selection options

- Design 2.1 larger misalignment and through bore capacity.
- Design 4.1 lower inertia, compact
- Design 0.4 clamping hubs suit all models. Supplied as standard without keyways.

Size	Torque at angle of misalignment per disc pack Nm				Bores d, d1				Max speed r/min	Torsional stiffness Nm/°		Inertia kgm ² x 10 ⁻³			Weight kg		
	0.5°	0.75°	1°	Reversing†	Standard min	Standard max	Clamp min	Clamp max		1.1	2/4.1	1.1	2.1	4.1	1.1	2.1	4.1
20	35*	25	10	18	7	20	12	17	20000	279	139	0.11	0.20	0.15	0.3	0.50	0.4
25	60*	40	25	40	7	25	12	22	16000	506	244	0.30	0.55	0.42	0.6	1.1	0.7
35	150*	100	50	55	12	35	19	32	13000	1448	715	0.87	1.50	1.10	1.0	1.7	1.2
38	200*	120	70	120	12	38	20	32	12000	2967	1483	1.60	2.90	2.20	1.4	2.4	1.8
42	300*	160	—	135	20	42	30	35	10000	4363	2182	2.60	4.60	3.60	2.1	3.3	2.5
50	500*	200	—	250	20	55	32	40	8000	7505	3752	6.5	11.8	9.2	3.4	5.8	4.6

* In some cases the maximum transmittable torque will exceed the torque capacity of a standard keyway, if this occurs clamp hubs should be selected.

† Use this rating where either direction or torque loads are reversing.

Maximum misalignments

Size	Angular (°)		Axial (±mm)			Radial (mm)	
	1.1	2.1 & 4.1	1.1	2.1 & 4.1		1.1	2.1
20	1	2	0.6	1.2	NOT PERMITTED	0.5	0.1
25	1	2	0.8	1.6		0.5	0.2
35	1	2	1	2		0.5	0.2
38	1	2	1.2	2.4		0.6	0.3
42	1	2	1.4	2.8		0.6	0.3
50	1	2	1.6	3.2		0.8	0.4

Materials

Hubs and centre spacers – carbon steel.
Disc packs – stainless steel.

Temperature

Ambient temperatures up to 270°C are possible but performance data must be derated above 150°C. Ask for details.

Clamp hubs

Clamp hubs are available and eliminate the need for keys and keyways. The design 0.4 uses a single pinch bolt principle, which is very quick and easy to mount and maintain. Cone clamping models for high torques are also available, please ask for details.

Note that maximum bore capacity is reduced compared to standard hubs. Inertias, stiffnesses and weights can be considered the same as standard hubs.

Ordering example

12 off ServoFlex couplings model 318.38.2.1 with 28 and 38mm bores and keyways.

Hub 28 bore and key

Type No. **13010033**

Hub 38 bore and key

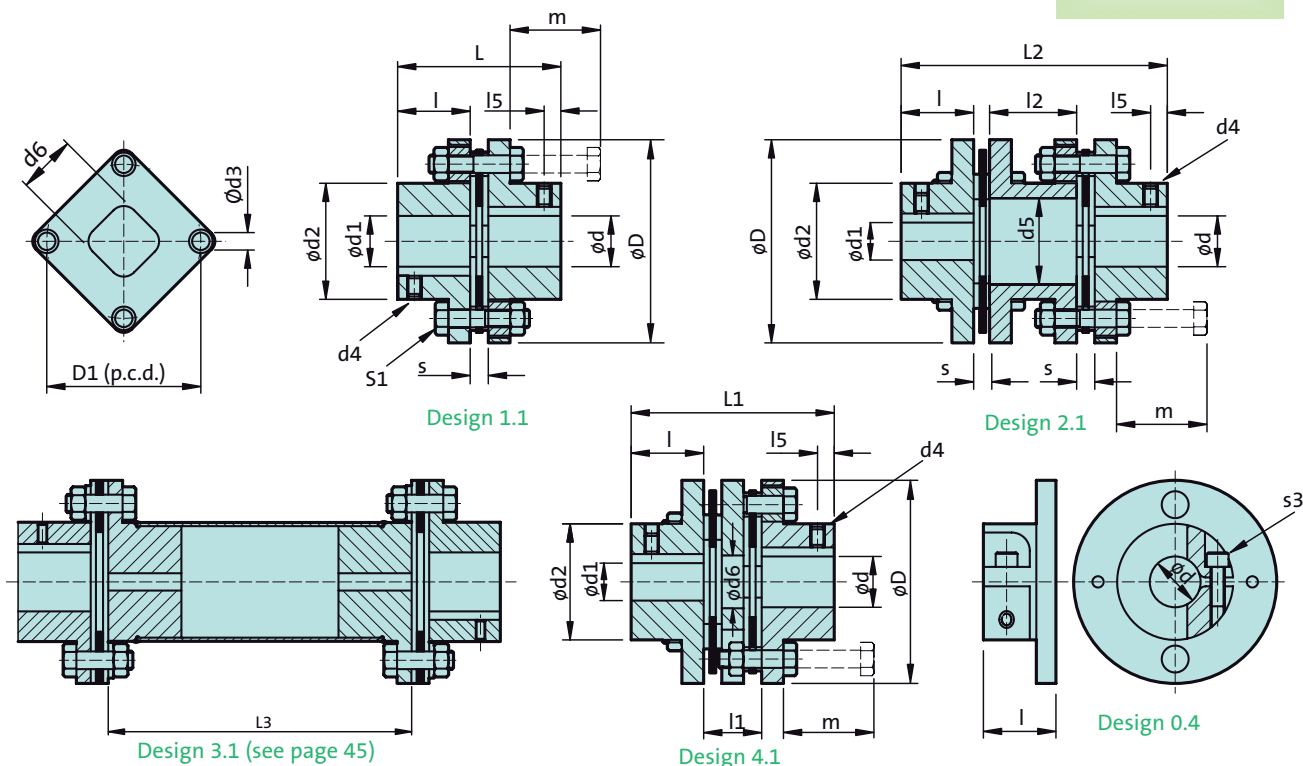
Type No. **13010883**

design 2.1 centre assembly

Type No. **13024386**

Metal disc couplings | Servoflex type 318

Type 318



Size	D	D ₁	d ₂	d ₃ H8	d ₄	d ₅	d ₆	L	L ₁	L ₂	l	l ₁	l ₂	l ₅	s	m (min)		Screw		Screw tightening Torque Nm	
																Designs 1,2,3	Design 4	s ₁	s ₃	s ₁	s ₃
20	56	44	32	5	M5	27	24	45	55	74	20	15	24	6	5	27	20	M5	M4	5.5	5
25	68	53	40	6	M5	35	30	56	68	88	25	18	26	8	6	31	24	M6	M6	13	10
35	82	67	54	6	M6	48	38	66	78	98	30	18	26	8	6	35	26	M6	M6	13	17
38	94	75	58	8	M6	50	42	68	86	106	30	26	30	8	8	44	35	M8	M8	33	33
42	104	85	68	8	M6	60	48	80	98	118	35	28	28	10	10	44	35	M8	M10	33	75
50	128	100	78	10	M6	50	54	91	112	140	40	32	38	12	11	57	44	M10	M12	65	95

Type no. selections

Size	Standard hub Bores d & d1 H7				Clamping hub design 0.4 Bores dH7				Centre assemblies		
									1.1	2.1	4.1
20	7PB	13010861	16	13010953			14	13010650			
	14	13010992	19	13010866	12PB	13010644	15	13010645	13024391	13024383	13024370
	15	13010867	20	13010885			16	13010651			
25	7PB	13010853	20	13010870			19	13010932			
	14	13010963	24	13010875	12PB	13010622	20	13010623	13024390	13024384	13024371
	19	13010871	25	13010887			24	13010931			
35	12PB	13010857	28	13010873	19PB	13010624	25	13010626			
	24	13010864	30	13010878	22	13010625	30	13010627	13024389	13024385	13024372
	25	13010928	35	13010881	24	13010990	32	13010991			
38	12PB	13010862	30	13010876	20PB	13010628					
	25	13010952	35	13010959	25	13010630	30	13010632	13024388	13024386	13024373
	28	13010868	38	13010883	28	13010631	32	13010633			
42	20PB	13010854	32	13010987							
	24	13010973	38	13010879	30PB	13010637	32	13010635	13024382	13024387	13024369
	30	13010880	42	13010884	30	13010634	35	13010636			
50	20PB	13010936	35	13010939	32PB	13010652	32	-			
	30	13010937	42	13010946	28	13010653	35	13010655	13024470	13024471	13024472
	32	13010938	45	13010947	30	13010654	40	13010656			

Type no. in blue are usually available from stock. Where no type no. is shown, enquire for a price and delivery.

Other bore sizes are available on request

Metal disc couplings | Arcoflex type 314

800 - 9000Nm



- Backlash-free and torsionally rigid
- Hubs mount externally or internally (style Y)
- Maintenance free
- Pre-assembled disc packs
- High speed capacity
- Resistant to chemicals and ambients from -40°C to +270°C



Selection options

Rated torques to achieve long life are based on the actual misalignment of the installation, 0.25° is best case, 1.3° is worst case. Lower figures apply if reversing.

Hubs

Standard hubs to style X have larger bore capacity but will not fit inside the spacers. To achieve this use one or two hubs of style Y.

Spacers

Two spacer lengths are available, long to Design 2.1 with length L2 and short to Design 4.1 with length L8. Design 4.1 is more compact but has lower misalignment capacity.

Size	Torque at angle of misalignment per disc pack Nm				Bores d, d1			Max speed r/min	Torsional stiffness Nm/°		Inertia kgm ² x 10 ⁻³			Weight kg		
	0.5°	1°	1.3°	Reversing†	Min Style X	Max Style X	Max Style Y		1.1	2/4.1	1.1	2.1	4.1	1.1	2.1	4.1
55	800	600	400	250	25	65	55	6700	6982	3491	6.1	10.2	9.8	4.2	5.7	5.5
65	1200	900	600	300	30	75	65	5900	14138	6982	11.8	18.7	17.7	6.4	8.5	8.1
75	1800	1400	1000	550	35	85	75	5100	12742	6458	23.8	37.5	35.6	9.6	12.5	12.1
80	2800	2000	1500	850	35	90	80	4750	16058	8029	36.5	59	56	12.5	16.5	16.2
85	4500	2500	—	1600	40	100	85	4300	22866	11520	57	95	91	15.5	21	20.5
90	6000	3000	—	1900	45	110	90	4000	52016	26008	83	138	133	19.5	27	26
98	9000	4000	—	3500	50	120	100	3400	104555	52190	174	294	285	30	42	40.6

† Use this rating where either direction or torque loads are reversing.

Maximum misalignments

Size	Angular		Axial		Radial	
	1.1	2.1 & 4.1	1.1	2.1 & 4.1	1.1	2.1 & 4.1
55	1.3°	2.6°	1.0	2.0	NOT PERMITTED	1.75 1.0
65	1.3°	2.6°	1.1	2.2		2.15 1.2
75	1.3°	2.6°	1.3	2.6		2.5 1.4
80	1.3°	2.6°	1.3	2.6		2.55 1.5
85	1°	2°	1.0	2.0		2.0 1.1
90	1°	2°	1.2	2.4		2.5 1.4
98	1°	2°	1.4	2.8		2.0 1.5

Materials

Hubs and centre spacers – Carbon steel
Disc pack – Stainless steel

Temperature

Ambient temperatures up to 270°C are possible but performance data must be derated above 150°C. Ask for details.

Ordering example

8 off Arcoflex couplings model 314.65.2.1 with style X hubs, d1 = pilot bore, d2 = 65H7, with Design 2:1 central spacer assembly.

8 off

Type No. [13010940](#)

8 off

Type No. [13011010](#)

8 off

Type No. [13024375](#)

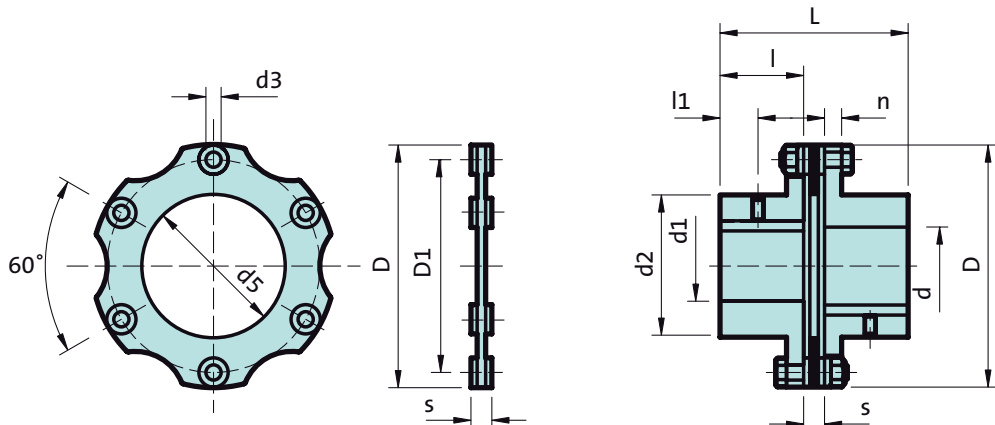
Type numbers, clamp hubs and spacer couplings, see following pages.

Fixing bolts

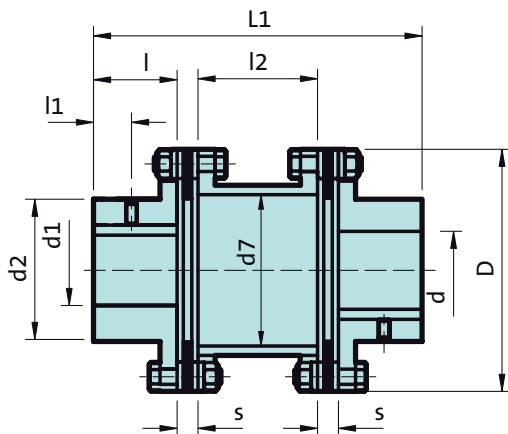
High tensile fitted hexagonal head bolts are supplied with all metal locknuts and washers. The minimum clearance to remove bolts is given by dimension m.

Size	k	m(min)	Screw tightening torque Nm	
55	5.5	38	M8	33
65	5.5	38	M8	33
75	7	46	M10	65
80	8	54	M12	115
85	10	61	M16	280
90	10	66	M16	280
98	13	79	M20	550

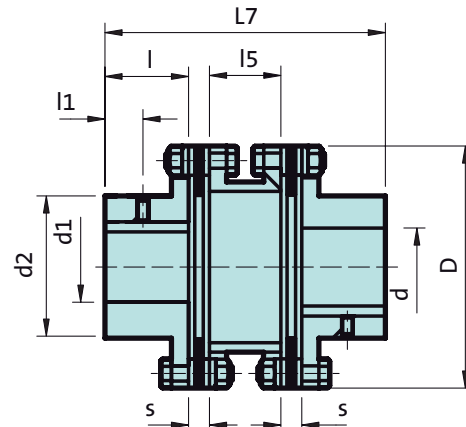
Bolts should be fitted as received. If re-lubrication is required, only light oil should be used.



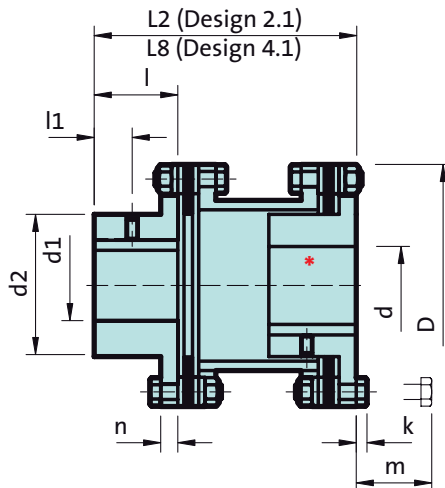
Design 1.1



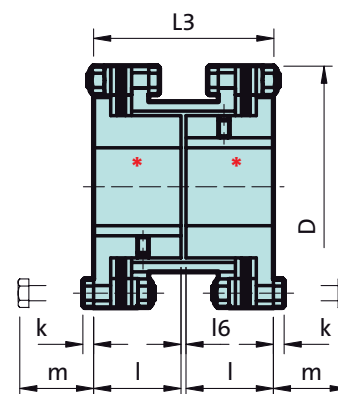
Design 2.1



Design 4.1



Design 2.1/4.1 (1 hub style Y)



Design 2.1 (2 hubs style Y)

Size	D	D1	d2	d2*	d3	d5	d7	L	L1	L2	L3	L7	L8	l	l1	l2	l5	l6	n	s	m
					H7																
55	128	112	88	77	8	80	77	121	206	160	114	170	124	55	20	74	38	4	9	11	38
65	145	128	103	90	8	94	90	141	246	190	134	200	144	65	25	94	48	4	9	11	38
75	168	148	117	104	11	108	104	164	286	220	154	233	167	75	30	108	55	4	9	14	46
80	180	158	125	112	13	116	112	175	300	232	164	246	179	80	30	110	56	4	12	15	59
85	200	170	134	119	17	124	119	175	300	233	166	246	179	80	30	110	56	6	13	15	61
90	215	185	147	128	17	130	128	200	340	263	186	281	204	90	35	120	61	6	13	20	66
98	250	214	164	145	21	149	145	223	370	288	206	309	227	100	40	124	63	6	18	23	79

* Style Y hubs only for internal mounting

Size	Hubs								Central assemblies	
	Style X						Style Y			
	Bore	Type No.	Bore	Type No.	Bore	Type No.	Bore	Type No.	Design	Type No.
55	25PB	13010935	38H7	13010614	50H7	13011004	25PB	13010850	1.1	13024398
	32H7	13010613	40H7	13010612	55H7	13011005	50H7	13024368	2.1	13024374
	35H7	13011002	45H7	13011003	65H7	13011006	55H7	-	4.1	13024443
65	30PB	13010940	40H7	13010616	55H7	13011009	30PB	13010858	1.1	13024455
	32H7	13002703	45H7	13011007	65H7	13011010	55H7	-	2.1	13024375
	38H7	13010615	50H7	13011008	75H7	13011011	65H7	-	4.1	13024454
75	35PB	13010929	55H7	13009805	70H7	13003620	35PB	13010851	1.1	13024456
	48H7	13010617	60H7	13009806	80H7	13003632	60H7	-	2.1	13024376
	50H7	13011012	65H7	13003622	85H7	13009807	75H7	-	4.1	13024457
80	35PB	13009808	55H7	13003628	70H7	13009811	35PB	-	1.1	13024458
	48H7	-	60H7	13009810	80H7	13010602	60H7	-	2.1	13024377
	50H7	13009809	65H7	13003641	90H7	13010603	80H7	-	4.1	13024463
85	40PB	13010943	65H7	-	80H7	-	40PB	13010859	1.1	13024459
	55H7	-	70H7	-	90H7	-	70H7	-	2.1	13024378
	60H7	-	75H7	-	100H7	-	90H7	-	4.1	13024462
90	45PB	13010944	75H7	-	100H7	-	45PB	13010855	1.1	13024460
	60H7	-	80H7	-	105H7	-	80H7	-	2.1	13024379
	70H7	-	90H7	-	110H7	-	90H7	-	4.1	13024464
98	50PB	13010945	80H7	-	105H7	-	50PB	13010852	1.1	13024461
	70H7	-	90H7	-	110H7	-	90H7	-	2.1	-
	75H7	-	100H7	13010611	120H7	-	100H7	-	4.1	13024465

Type no. in blue are usually available from stock. Where no type no. is shown, enquire for a price and delivery.

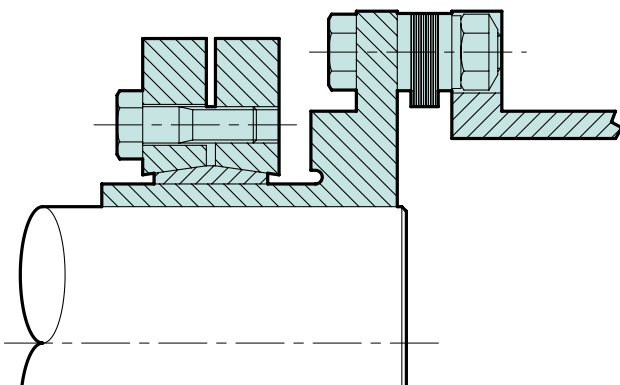
Keyways to BS4235

Other bore sizes available please ask.

Shrink disc clamping with mechanical locking bushes



- Zero backlash
- No keys or keyways
- Infinite angular adjustment
- Easy and fast to fit and remove
- Increases bore capacity



Selection

Contact our engineers for assistance and ordering codes.

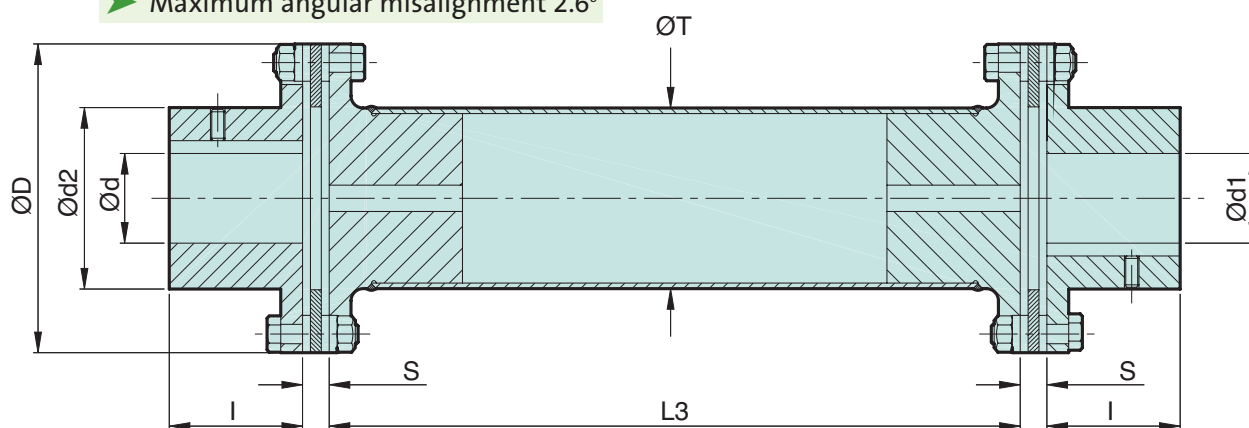
Metal disc couplings | Spacer couplings

Up to 5m long

Type 318.□□.3.1 Servoflex & Type 314.□□.3.1 Arcoflex



- All steel construction, torsionally rigid
- Spacer sections made to order up to 5m long
- High operating speeds without maintenance
- Resistant to chemicals and suits ambients to 270°C
- Dynamic balancing and vertical mounting options available
- Maximum angular misalignment 2.6°



Model	Rated torque Nm	D	d ₂	T	I	S	L max	Screw tightening torques Nm	Hub bores d, d ₁		Torsional stiffness	
									min	max	spacer x10 ³	discpacks Nm/°
318.20.3.1	See Servoflex pages	56	32	32	20	5	2000	8	7	20	30.5 ÷ L	0.14
318.25.3.1		68	40	40	25	6	2000	14	7	25	62.5 ÷ L	0.24
318.35.3.1		82	54	50	30	6	2000	14	12	35	340 ÷ L	0.72
318.38.3.1		94	58	60	30	8	2000	34	12	38	340 ÷ L	1.48
318.42.3.1		104	68	70	35	10	3000	34	20	42	607 ÷ L	2.18
318.50.3.1		128	78	80	40	11	5000	68	25	50	1710 ÷ L	4.88
314.55.3.1	See Arcoflex pages	128	X 88 Y 77	90	55	11	5000	33	25	65	1710 ÷ L	6.45
314.65.3.1		145	103 90	100	65	11	5000	33	30	75	2790 ÷ L	7.50
314.75.3.1		168	117 104	100	75	14	5000	65	35	85	5450 ÷ L	12.4
314.80.3.1		180	125 112	120	80	15	5000	115	35	90	5450 ÷ L	16.75
314.85.3.1		200	134 119	120	80	15	5000	280	40	100	8480 ÷ L	26.2
314.90.3.1		215	147 128	140	90	20	5000	280	45	110	10650 ÷ L	41.4
314.98.3.1		250	164 145	140	100	23	5000	550	50	120	20380 ÷ L	70.2

Coupling critical speed is calculated by:

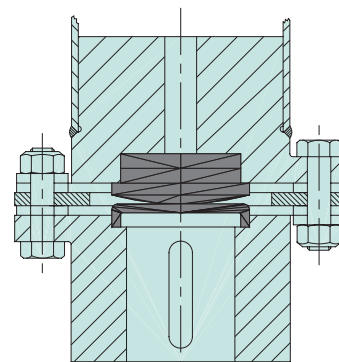
$$\text{Critical speed } N_k = \frac{C \times 10^6}{L^3}$$

where C is found from the table below.

Servoflex size	20	25	35	38	42	50	—
C	4036	5242	7157	7157	8675	10000	—
Arcoflex size	55	65	75	80	85	90	98
C	11645	12189	14320	14320	15957	19021	20633

Ordering example

(5) off Servoflex spacer couplings model 318.38.3.1 with bores d₁ = 35 mm H7 + key, d₂ = 38mm H7 + key and spacer length L3 = 1783mm



For vertical mounting specify additional weight supporting button

Metal disc couplings | Modulflex®

280 - 300000Nm

The new BSD Modulflex range are high performance disc couplings available with steel or aluminium construction. Basic models are type 921 single flexing and type 923 double flexing.



- Backlash free torsionally rigid
- Very high speed capacity
- Temperature range 25°C to +150°C, lower and higher temperatures on request
- Maintenance free
- Steel or aluminium options



Hubs

Made from high strength carbon steel. Available either blank with centring guide, finished bore and keyway or Koniclamp keyless clamping hubs. Bores range from 20 to 335mm.

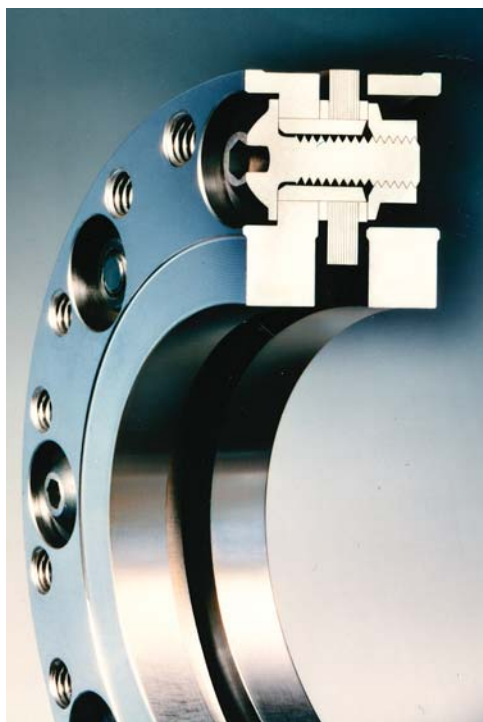
Disc pack cassettes

Discs made from high strength stainless steel, flanges from high strength carbon steel. Pre-assembled cassette for ease and speed of assembly.

Spacers

One standard spacer available (type 923/924), shorter and longer spacer lengths available to order. Lightweight composite spacers are possible.

Disc pack cassettes

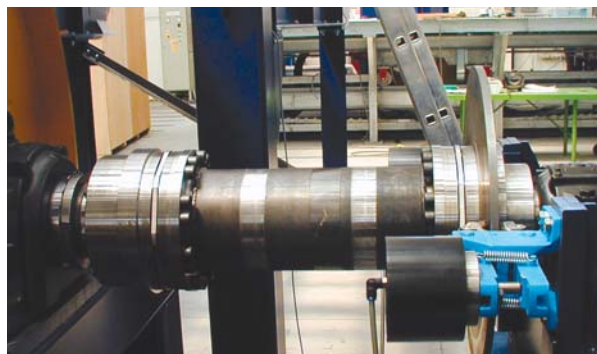


BSD-Modulflex disc pack cassettes are factory precision assembled to make a permanent backlash-free connection between the flanges and the disc laminae. This lack of movement ensure long life.

The cassette design allows radial removal and replacement without moving shafts.



Type 924 double flexing coupling with KONICLAMP hubs



Special spacer coupling with one KONICLAMP hub and integral brake disc

Full technical data on request

Gear couplings | Lovejoy Sier-Bath

280 - 500000Nm

Lovejoy Inc. are exclusive manufacturers of the established Sier-Bath ranges of gear couplings. Ideal for heavy duty machinery such as in metals processing, gear couplings transmit high-torques in small dimensions and are economic. They are torsionally stiff but exhibit a small amount of backlash.

Two main ranges are available - continuous sleeve and flanged - but specials and established variants such as mill motor, marine, Jordan can be supplied.

Type CS continuous sleeve

Torques	min	280Nm
	max	285000Nm
Bores	min	12
	max	248mm

Type FS Flanged

Torques	min	850Nm
	max	500000Nm
Bores	min	12
	max	340



Continuous sleeve gear coupling



- Minimum diameter with high torque
- Stock range up to 30600Nm
- Larger sizes up to 285000Nm
- Shafts sizes 12 to 160mm and beyond
- High speed capacity
- Torsionally rigid
- Temperature range -30 to +120°C



Flanged gear coupling



- Available from stock to 64800Nm
- Larger sizes up to 500000Nm
- Shafts sizes 12 to 249mm and beyond
- AGMA standard flange dimensions allow half couplings to be replaced
- Vari-crown toothform for long life
- Temperature range -30 to +120°C

Full technical data on request

