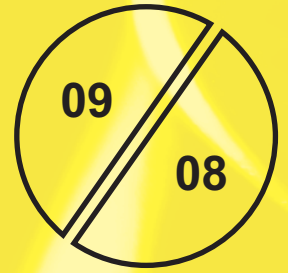




Quality Products for Mechanical
& Fluid Power



PUMP DRIVE COMPONENTS





an excellence in engineering

www.jbj.co.uk/couplingelementchart.html

Coupling Element Size Selection Chart

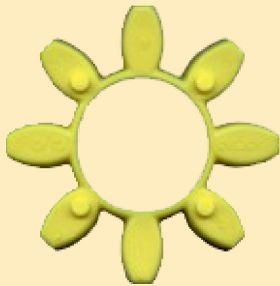
Telephone: 01737 767493 or fill in [this form](#) for a complimentary chart.

Coupling Element Size Comparison Chart (up to Spidex S/CJ125 & Dentex B80)

Simply size your coupling, decide the shore hardness colour and contact us immediately.

This 'Pump Drive Component' catalogue provides technical specifications, power, torque, speeds & other selection data.

When your coupling element should look like this



but actually looks like this



you can size the element using our chart with just a fraction of the original coupling



If you require a coupling other than a spider type or gear type coupling there are a range of criteria ([link to selection table](#)) in specifying the most suitable coupling for your application but we will guide you all the way to obtain the right coupling for power transmission.

For assistance please telephone the jbj Techniques technical office: 01737 767493

or email: info@jbj.co.uk



quality products for mechanical & fluid power



01737 767493



info@jbj.co.uk



www.jbj.co.uk



jbj Techniques Limited is ISO certified, committed to international coordination & unification of industrial standards.

- registered in England No: 1185469 -

A range of products ATEX certified to directive 94/9/E requirements



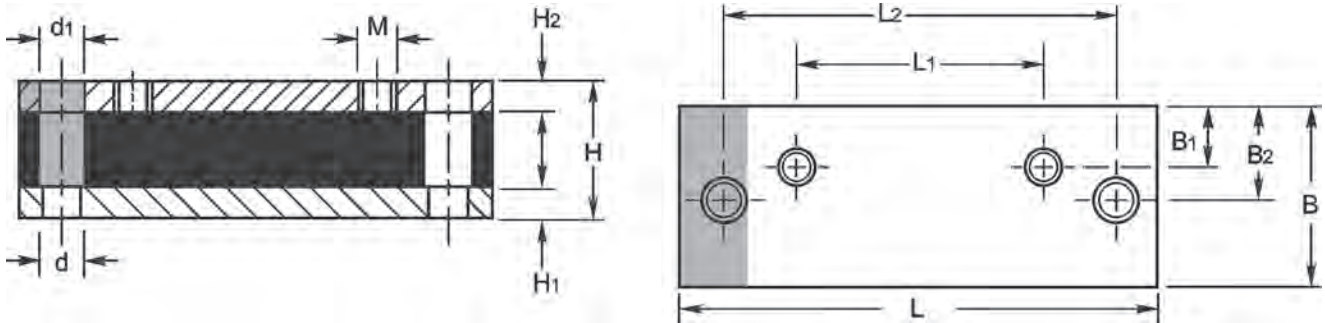


CONTENTS

quality products for mechanical & fluid power

The details contained within this catalogue are reproduced in accordance with the latest information at going to press..... E & OE

	<i>Page</i>
Anti-vibration / noise reduction components	1 - 3
Spidex couplings	4 - 10
CJ series couplings	11 - 17
G series couplings	18 - 21
Spidex® non backlash coupling	22 - 25
Dentex® couplings	26 - 30
Dentex "fl" engine drive couplings	31 - 33
Splined bushes	34
L series bellhousings	35 - 36
RV series bellhousings	37 - 39
Module 3 bellhousings	40 - 42
Popular pump flange details	43
Popular machining codes	44
Cooler bellhousings series KPV	45 - 47
P series foot brackets	48
PTFL & PTFS foot brackets	49
Foot brackets/mounting plates	50
Petrol engine adaptors	51 - 53



For MDL 80, 90S, 90L remove grey shaded area.

MDL for Electric Motors

Damping Rod Type	for	Dimensions (mm)											
		L	L1	L2	H	H1	H2	B	B1	B2	d	d1	M
MDL 71	71	176	90	156	40	8	12	50	21	25	14	20	M 6
MDL 80	80	196	100						22				
MDL 90 S	90 S								24				
MDL 90 L	90 L	240	125	205	45	8	12	50	24	25	14	20	M 8
MDL 100 L	100 L		140										
MDL 112 M	112 M	285	178	245	45	8	12	50	20	25	14	20	M 10
MDL 132 S	132 S												
MDL 132 M	132 M	340	210	300	60	15	15	70	28	35	18	26	M 12
MDL 160 M	160 M												
MDL 160 L	160 L	416	254	370	60	15	15	70	35	35	22	32	M 16
MDL 180 M	180 M												
MDL 180 L	180 L	446	279	400	60	15	15	70	35	35	22	32	M 16
MDL 200 L	200 L												
MDL 225 S	225 S	496	286	445	60	15	15	70	35	35	22	32	M 16
MDL 225 M	225 M												
MDL 250 S	250 S	580	311	530	60	15	15	70	35	35	22	32	M 16
MDL 250 M	250 M												
MDL 280 S	280 S	580	349	530	60	15	15	70	35	35	22	32	M 16
MDL 280 M	280 M												
MDL 280 S	280 S	660	368	530	70	15	15	70	35	35	22	32	M 20
MDL 280 M	280 M												
MDL 315 S	315 S	660	406	610	70	15	15	70	35	35	22	32	M 20
MDL 315 M	315 M												
MDL 315 L	315 L	720	508	670	70	15	15	70	35	35	22	32	M 24

PTFSDL for footbrackets

PTFSDL 250	PTFS 250	290	185	260	40	8	12	50	20	25	14	20	M 12
PTFSDL 300	PTFS 300	350	225	300									
PTFSDL 350	PTFS 350	375	265	340	60	15	15	70	30	35	18	26	M 16
PTFSDL 400	PTFS 400	420	300	385									
PTFSDL 450	PTFS 450	455	335	420	60	15	15	70	30	35	18	26	M 16
PTFSDL 550	PTFS 550	535	415	500									
PTFSDL 660	PTFS 660	660	495	610	40	8	12	50	31	25	14	20	M 8
PTFSDL 160	PTFL 160	166	50	120									
PTFSDL 200	PTFL 200	176	60	130	40	8	12	50	33	25	14	20	M 10
PTFSDL 250	PTFL 250	230	60	140									
PTFSDL 300	PTFL 300	270	80	170	40	8	12	70	20	35	18	26	M 12
PTFSDL 300	PTFL 300	270	80	170									

Pump Drive Components

Anti-Vibration/Noise Reduction Mountings

for noise reduction of hydraulic power units



Damping flanges

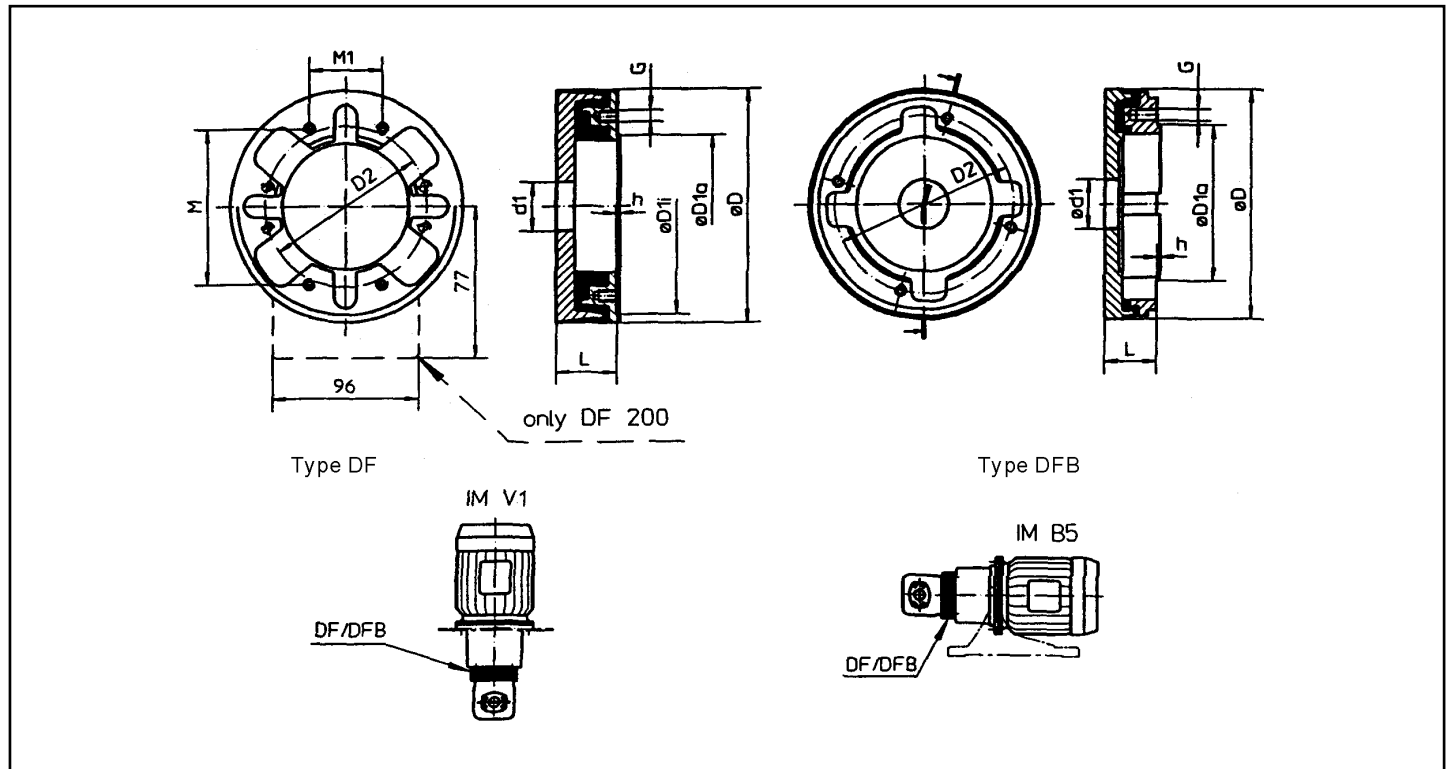
For use in combination with Raja bellhousings between electric motor and hydraulic pump.

They consist of two aluminium parts which are connected by a rubber coat (Nitrile) without any metal connection.

They are resistant against mineral oils and suitable for working temperatures up to +80°C, for short time +100°C.

The possible noise reduction will be approx. 3 - 8 db(A). Damping flanges are available in two degrees of hardness with the description

N - normal / H - hard.



Damping flanges type	Dimensions (mm)									
	L	D	D1a	D1i	D2	M	M1	d1	h	G
DF 200	42	145	100	-	130	-	-	25	3	3 x 9
DFB 250/35	35	191	130	-	146	-	-	40	3	4 x M10
DFB 250/40	40	191	130	-	146	-	-	40	3	4 x M10
DFB 250/45	45	191	130	-	146	-	-	40	3	4 x M10
DFB 250/50	50	191	130	-	146	-	-	40	3	4 x M10
DFB 250/55	55	191	130	-	146	-	-	40	3	4 x M10
DF 250	60	191	-	175	-	126	73	45	3	4 x M10
DFB 300/40	40	232	160	-	180	-	-	50	3	4 x M12
DFB 300/50	50	232	160	-	180	-	-	50	3	4 x M12
DFB 300/55	55	232	160	-	180	-	-	50	3	4 x M12
DF 300	60	232	-	215	-	160	80	50	3	4 x M12
DFB 350/40	40	260	180	-	200	-	-	50	3.5	4 x M12
DFB 350/45	45	260	180	-	200	-	-	50	3.5	4 x M12
DFB 350/50	50	260	180	-	200	-	-	50	3.5	4 x M12
DFB 350/55	55	260	180	-	200	-	-	50	3.5	4 x M12
DF 350	60	260	-	242	-	185	90	50	3	4 x M12
DF 400	83	362	220	-	255	-	-	80	5	8 x M16

For bellhousings damped according to VDMA 24561 use type B.

For maximum load contact: **jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk**

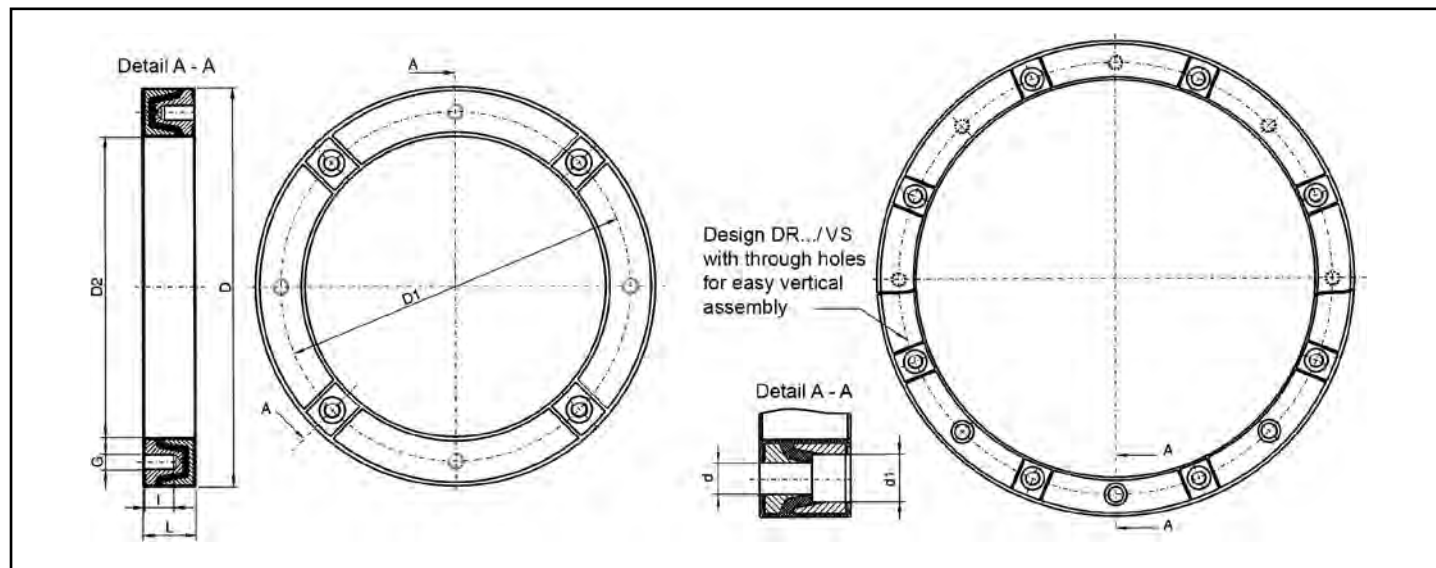


Damping rings

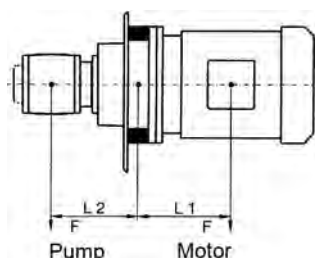
For use when vertical mounting (VI-construction) between bellhousing and tank lid or horizontal (B5-construction) mounting position between motor and bellhousing flange.

They consist of two reinforced aluminium rings which are connected by a rubber coat without any metal connection. The used materials (Nitrile) are resistant against mineral oils and suitable for working temperatures up to +80°C.

The possible noise reduction will be approx. 3 - 5 db(A).



Damping Rings Type	IEC - Motor Frame Size	Dimensions (mm)							
		D	D1	D2	G	I	L	d	d1
DR-V1/B5-200	80, 90S/90L	200	165	146	4 x M10	18	40	-	-
DR-V1/B5-250	100L/112M	250	215	191	4 x M12	22	45	-	-
DR-V1/B5-300	132S/132M	300	265	235	4 x M12	22	50	-	-
DR-V1/B5-350	160M/160L/180M/180L	350	300	261	4 x M16	22	60	-	-
DR-V1/B5-400	200L	400	350	301	4 x M16	29	50	-	-
DR-V1/B5-450	225S/225M	450	400	352	8 x M16	32	60	-	-
DR-V1/B5-550	250M/280S/280M	550	500	452	8 x M16	32	60	-	-
DR-V1/B5-660	315S/315M	660	600	552	8 x M20	33	65	-	-
DR-V1/B5-300/VS	132S/132M	300	265	235	4 x M12	22	50	4 x 14	4 x 20
DR-V1/B5-350/VS	160M/160L/180M/180L	350	300	261	4 x M16	22	60	4 x 18	4 x 26
DR-V1/B5-400/VS	200L	400	350	301	4 x M16	29	50	4 x 18	4 x 26
DR-V1/B5-450/VS	225S/225M	450	400	352	8 x M16	32	60	8 x 18	8 x 26
DR-V1/B5-550/VS	250M/280S/280M	550	500	452	8 x M16	32	60	8 x 18	8 x 26
DR-V1/B5-660/VS	315S/315M	660	600	552	8 x M20	32	65	8 x 22	8 x 26



Permissible radial weight and bending loads with an operating temperature of + 60°C

$$F_{zul} \geq F_{pump} + F_{motor}$$

$$Mb_{zul} \geq F_{motor} \times L1 - F_{pump} \times L2$$

DR-Type	200	250	300	350	400	450	550	660
Fzul (N)	385	755	1520	3780	5040	6800	13390	24720

For maximum load contact: jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk

Pump Drive Components

Introduction to the Spidex® Coupling



Spidex couplings are torsional flexible shaft couplings, the operating characteristics of which are two hubs with concave claws, transmitting the torque by meshing with an elastic involute gear ring. The coupling concept gives a reliable, smooth power transmission without torsional oscillation and thus protects the connected machines. Due to the complete flexibility and ductility of the elastomer ring, it compensates for parallel and angular displacements as well as to absorb longitudinal movements of the shafts.

The involute teeth of the elastomer element are crowned in order to avoid edge pressure on the tooth flanks and thus avoid undesirable axial thrust. The puncture proof coupling can be loaded extremely high since the elastic elements are submitted to compression and not to bending moments of force. The elastomer gear ring, made of a newly developed Simit-Polyurethane of various degrees of shore hardness, has important advantages in comparison with the standard polyurethanes. It is non-ageing, with resistance against hydrolysis (can be used in tropical conditions), non-abrasive, has a high self-damping effect and is also resistant to oil and ozone. It can be used with temperatures ranging from -40°C to +100°C.

Spidex couplings can be used for horizontal as well as for vertical shaft connections, for reversing, intermittent service and are electrically insulating. The operating characteristics and the durability of the coupling are very positively influenced by the high overall precision of the machining, especially the claws, unbalance is reduced to a minimum, running is improved and service life considerably increased.



Application Service Factor (K1)	
	Service Factor (K1)
Uniform operation with small masses to be accelerated. Hydraulic and centrifugal pumps, light generators, blowers, fans, ventilators, belt/screw conveyors.	1.0
Uniform operation with medium masses to be accelerated. Sheet metal bending machines, wood working machines, mills, textile machines, mixers.	1.2
Irregular operation, with medium masses to be accelerated. Rotating ovens, printing presses, generators, shredders, winders, spinning machines, pumps for viscous fluids.	1.3
Irregular operation, and shocks, with medium masses to be accelerated. Concrete mixers, drop hammers, cable cars, paper mills, compression pumps, propeller pumps, rope winders, centrifuges.	1.4
Irregular operation and heavy shocks, with large masses to be accelerated. Excavators, hammer mills, piston pumps presses, rotary boring machines, shears, forge presses, stone crushers	1.6
Irregular operation and very heavy shocks, with very large masses to be accelerated. Piston type compressors and pumps without speed variations, heavy roll sets, welding machines, brick presses, stone crushers.	1.8

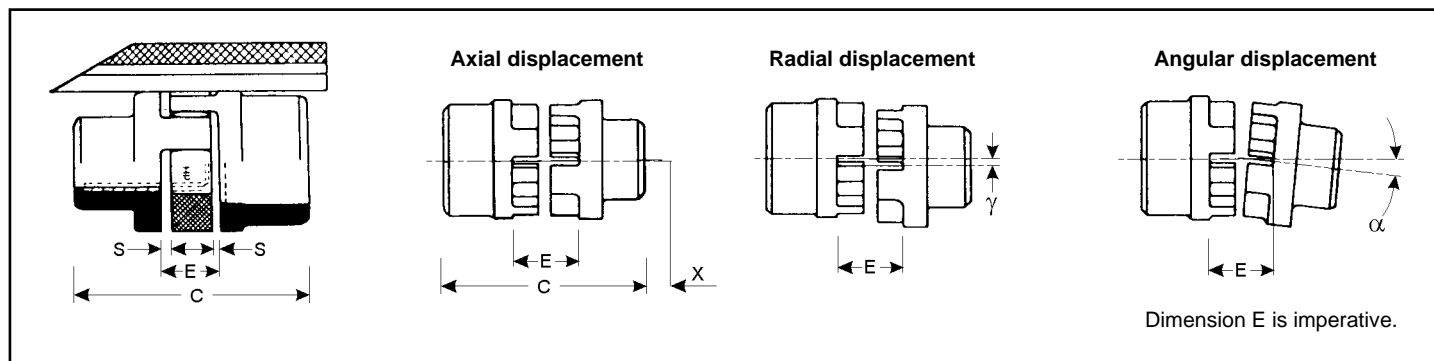
Application Service Factor for Starts per Hour (K2)				
Starts per hour	100	200	400	800
Service Factor (K2)	1.0	1.2	1.4	1.6

Application Service Factor for Ambient Temperature (K3)				
Ambient Temperature	-30 to +30°C	+40°C	+60°C	+80°C
Service Factor (K3)	1.0	1.2	1.4	1.8

Total service factor for K = K1 x K2 x K3

Displacement values

Valid for 1500rpm and for a given temperature range -25°C to +30°C. For other speeds and temperature ranges please contact:



Type	14	15	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
Max. axial displacement (mm) x	0.6	0.6	1.2	1.5	1.5	1.8	2	2.1	2.3	2.6	3	3.4	3.8	4.2	4.6	5.0	5.7	6.4
Max. angular displacement α	1.2	1.2	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.2	1.2
Max. radial displacement (mm) γ	0.17	0.17	0.20	0.22	0.25	0.28	0.32	0.36	0.38	0.42	0.48	0.50	0.52	0.55	0.60	0.62	0.64	0.68

Pump Drive Components

Torque Ratings for the Spidex® Coupling



Size	Torque (Nm)			Maximum Speed (1/min) at peripheral speed =		Wind-up Angle		Dynamic Torsional Stiffness (Nm/rad)			
	Nominal	Maximum	Varying Load	30 m/s*	40 m/s	T _{kn}	T _{kmax}	100% T _{kn}	75% T _{kn}	50% T _{kn}	25% T _{kn}
	T _{kn}	T _{kmax}	T _{kw}								
WHITE or YELLOW Polyurethane Spider: 92° Shore Hardness (for general & hydraulic applications) temp. range -40° to +90°C (normal) -50°C to 120°C (max)											
14	7.5	15	2.0	19000	-	6.4°	10°	0.38 x 10 ³	0.31 x 10 ³	0.24 x 10 ³	0.14 x 10 ³
19	10.0	20	2.6	14000	19000			1.28 x 10 ³	1.05 x 10 ³	0.80 x 10 ³	0.47 x 10 ³
24	35.0	70	9.1	10600	14000			4.86 x 10 ³	3.98 x 10 ³	3.01 x 10 ³	1.79 x 10 ³
28	95.0	190	25.0	8500	11800			10.90 x 10 ³	8.94 x 10 ³	6.76 x 10 ³	4.01 x 10 ³
38	190.0	380	49.0	7100	9500			21.05 x 10 ³	17.26 x 10 ³	13.05 x 10 ³	7.74 x 10 ³
42	265.0	530	69.0	6000	8000			23.74 x 10 ³	19.47 x 10 ³	14.72 x 10 ³	8.73 x 10 ³
48	310.0	620	81.0	5600	7100			36.70 x 10 ³	30.09 x 10 ³	22.75 x 10 ³	13.49 x 10 ³
55	410.0	820	107.0	4750	6300			50.72 x 10 ³	41.59 x 10 ³	31.45 x 10 ³	18.64 x 10 ³
65	625.0	1250	163.0	4250	5600	3.2°	5°	97.13 x 10 ³	79.65 x 10 ³	60.22 x 10 ³	35.70 x 10 ³
75	1280.0	2560	333.0	3550	4750			113.32 x 10 ³	92.92 x 10 ³	70.26 x 10 ³	41.65 x 10 ³
90	2400.0	4800	624.0	2800	3750			190.09 x 10 ³	155.87 x 10 ³	117.86 x 10 ³	69.86 x 10 ³
100	3300.0	6600	858.0	2500	3350			253.08 x 10 ³	207.53 x 10 ³	156.91 x 10 ³	93.01 x 10 ³
110	4800.0	9600	1248.0	2240	3000			311.61 x 10 ³	255.52 x 10 ³	193.20 x 10 ³	114.52 x 10 ³
125	6650.0	13300	1729.0	2000	2650			474.86 x 10 ³	389.39 x 10 ³	294.41 x 10 ³	174.51 x 10 ³
140	8550.0	17100	2223.0	1800	2360			660.49 x 10 ³	541.60 x 10 ³	409.50 x 10 ³	242.73 x 10 ³
160	12800.0	25600	3328.0	1500	2000			890.36 x 10 ³	730.10 x 10 ³	552.03 x 10 ³	327.21 x 10 ³
180	18650.0	37300	4849.0	1400	1800			2568.56 x 10 ³	2106.22 x 10 ³	1592.51 x 10 ³	943.95 x 10 ³
RED Polyurethane Spider: 98° Shore Hardness (for high torque requirements) temp. range -30° to +100°C (normal) -40° to 120°C (max)											
14	12.5	25	3.3	19000	-	6.4°	10°	0.56 x 10 ³	0.46 x 10 ³	0.35 x 10 ³	0.21 x 10 ³
19	17.0	34	4.4	14000	19000			2.92 x 10 ³	2.39 x 10 ³	1.81 x 10 ³	1.07 x 10 ³
24	60.0	120	16.0	10600	14000			9.93 x 10 ³	8.14 x 10 ³	6.16 x 10 ³	3.65 x 10 ³
28	160.0	320	42.0	8500	11800			26.77 x 10 ³	21.95 x 10 ³	16.60 x 10 ³	9.84 x 10 ³
38	325.0	650	85.0	7100	9500			48.57 x 10 ³	39.83 x 10 ³	30.11 x 10 ³	17.85 x 10 ³
42	450.0	900	117.0	6000	8000			54.50 x 10 ³	44.69 x 10 ³	33.79 x 10 ³	20.03 x 10 ³
48	525.0	1050	137.0	5600	7100			65.29 x 10 ³	53.54 x 10 ³	40.48 x 10 ³	24.00 x 10 ³
55	685.0	1370	178.0	4750	6300			94.97 x 10 ³	77.88 x 10 ³	58.88 x 10 ³	34.90 x 10 ³
RED Polyurethane Spider: 95° Shore Hardness (for general & hydraulic applications) temp. range -30° to +100°C (normal) -40° to 120°C (max)											
65	940.0	1880	244.0	4250	5600	3.2°	5°	129.51 x 10 ³	106.20 x 10 ³	80.30 x 10 ³	47.60 x 10 ³
75	1920.0	3840	499.0	3550	4750			197.50 x 10 ³	161.95 x 10 ³	122.45 x 10 ³	72.58 x 10 ³
90	3600.0	7200	936.0	2800	3750			312.20 x 10 ³	256.00 x 10 ³	193.56 x 10 ³	114.73 x 10 ³
100	4950.0	9900	1287.0	2500	3350			383.26 x 10 ³	314.27 x 10 ³	237.62 x 10 ³	140.85 x 10 ³
110	7200.0	14400	1872.0	2240	3000			690.06 x 10 ³	565.85 x 10 ³	427.84 x 10 ³	253.60 x 10 ³
125	10000.0	20000	2600.0	2000	2650			1343.64 x 10 ³	1101.79 x 10 ³	833.06 x 10 ³	493.79 x 10 ³
140	12800.0	25600	3328.0	1800	2360			1424.58 x 10 ³	1168.16 x 10 ³	883.24 x 10 ³	523.54 x 10 ³
160	19200.0	38400	4992.0	1500	2000			2482.23 x 10 ³	2035.43 x 10 ³	1538.98 x 10 ³	912.22 x 10 ³
180	28000.0	56000	7280.0	1400	1800			3561.45 x 10 ³	2920.40 x 10 ³	2208.10 x 10 ³	1308.84 x 10 ³
BLUE Polyurethane Spider: 80° Shore Hardness (for good damping properties) temp. range -40° to +80°C (normal) -60° to +80°C (max)											
14	4.0	8.0	1.0	19000	-	6.4°	10°	-	-	-	-
19	4.9	9.7	1.3	14000	19000			0.25 x 10 ³	0.21 x 10 ³	0.17 x 10 ³	0.11 x 10 ³
24	17.0	34.0	4.4	10600	14000			0.90 x 10 ³	0.75 x 10 ³	1.52 x 10 ³	1.03 x 10 ³
28	46.0	92.0	12.0	8500	11800			2.30 x 10 ³	1.93 x 10 ³	1.52 x 10 ³	1.03 x 10 ³
38	93.0	185.0	24.0	7100	9500			4.10 x 10 ³	3.45 x 10 ³	2.75 x 10 ³	1.85 x 10 ³
GREEN Polyurethane Spider: 64° Shore Hardness** (for high torque & humidity environments) temp. range -20°C to +100°C(normal) -30° to +120°C (max)											
14	16	32	4.2	19000	-	4.5°	7.0°	0.76 x 10 ³	0.62 x 10 ³	0.47 x 10 ³	0.28 x 10 ³
19	21	42	5.5	14000	19000			5.35 x 10 ³	4.39 x 10 ³	3.32 x 10 ³	1.97 x 10 ³
24	75	150	19.5	10600	14000			15.11 x 10 ³	12.39 x 10 ³	9.37 x 10 ³	5.55 x 10 ³
28	200	400	52.0	8500	11800			27.52 x 10 ³	22.57 x 10 ³	17.06 x 10 ³	10.12 x 10 ³
38	405	810	105.0	7100	9500			70.15 x 10 ³	57.52 x 10 ³	43.49 x 10 ³	25.78 x 10 ³
42	560	1120	146.0	6000	8000			79.86 x 10 ³	65.49 x 10 ³	49.52 x 10 ³	29.35 x 10 ³
48	655	1310	170.0	5600	7100			95.51 x 10 ³	78.32 x 10 ³	59.22 x 10 ³	35.10 x 10 ³
55	825	1650	215.0	4750	6300			107.92 x 10 ³	88.50 x 10 ³	66.91 x 10 ³	39.66 x 10 ³
65	1175	2350	306.0	4250	5600	2.5°	3.6°	151.09 x 10 ³	123.90 x 10 ³	93.68 x 10 ³	55.53 x 10 ³
75	2400	4800	624.0	3550	4750			248.22 x 10 ³	203.54 x 10 ³	153.90 x 10 ³	91.22 x 10 ³
90	4500	9000	1170.0	2800	3750			674.52 x 10 ³	553.11 x 10 ³	418.20 x 10 ³	247.89 x 10 ³
100	6185	12370	1608.0	2500	3350			861.17 x 10 ³	706.16 x 10 ³	533.93 x 10 ³	316.48 x 10 ³
110	9000	18000	2340.0	2240	3000			1138.59 x 10 ³	933.64 x 10 ³	705.92 x 10 ³	418.43 x 10 ³
125	12500	25000	3250.0	2000	2650			1435.38 x 10 ³	1177.01 x 10 ³	889.93 x 10 ³	527.50 x 10 ³
140	16000	32000	4160.0	1800	2360			1780.73 x 10 ³	1460.20 x 10 ³	1104.05 x 10 ³	654.42 x 10 ³
160	24000	48000	6240.0	1500	2000			3075.80 x 10 ³	2522.16 x 10 ³	1907.00 x 10 ³	1130.36 x 10 ³
180	35000	70000	9100.0	1400	1800			6011.30 x 10 ³	4929.27 x 10 ³	3727.01 x 10 ³	2209.15 x 10 ³

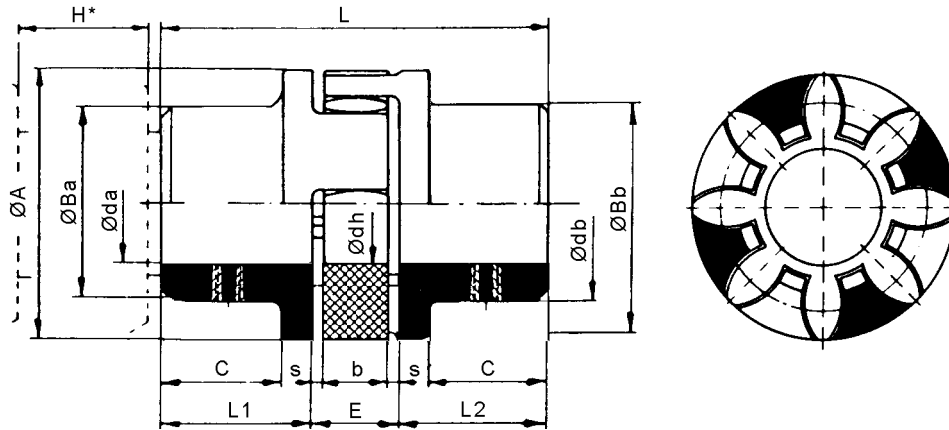
* For peripheral speeds of over V = 30 m/s it is necessary to use either steel or SG iron. Dynamic balancing is also necessary.

** When using 64 shore hardness spider, steel and nodular iron hubs should be used.

92° shore spiders (white) will normally be supplied unless otherwise specified.



Hub combination A/A



Type	Bores			Dimensions (mm)										With d maximum but without key	
	Pre Bore	Finish Bores		A	Ba	L	L1 & L2	E	s	b	C	dh	H*	Weight Kg	Moment of Inertia Kg/m ²
		Min.	Max.												
S 19 D	-	6	19	40	32	66	25	16	2.0	12	20	18	14	0.13	0.00001
S 24 D	-	8	24	55	40	78	30	18	2.0	14	24	27	16	0.26	0.00004
S 28 D	-	10	28	65	48	90	35	20	2.5	15	28	30	18	0.46	0.00010
S 38 D	-	14	38	80	66	114	45	24	3.0	18	37	38	19	0.90	0.00035
S 48 D	-	19	48	105	85	140	56	28	3.5	21	45	51	22	1.86	0.00120

Material: Die cast aluminium

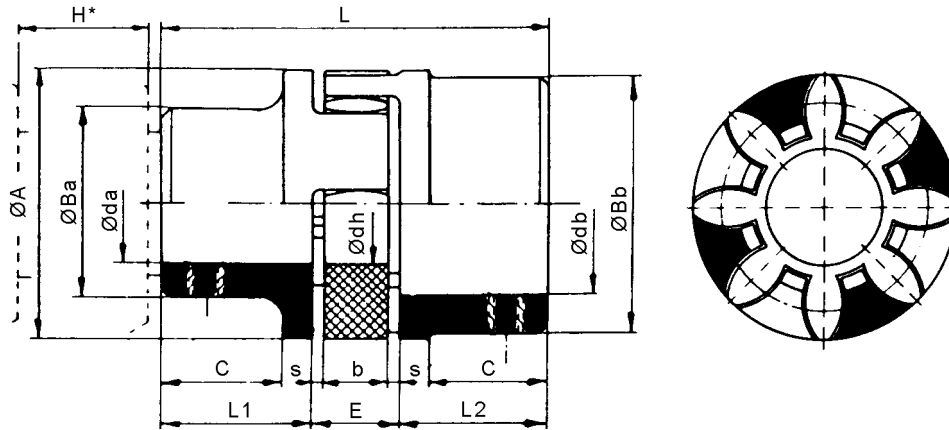
Type	Bores			Dimensions (mm)										With d maximum but without key	
	Pre Bore	Finish Bores		A	Ba	L	L1 & L2	E	s	b	C	dh	H*	Weight Kg	Moment of Inertia Kg/m ²
		Min.	Max.												
S 19 Sint/St	-	6	19	40	32	66	25	16	2.0	12	20	18	14	0.35	0.00005
S 24 Sint/St	-	10	24	55	40	78	30	18	2.0	14	24	27	16	1.00	0.00025
S 28 Sint/St	-	12	28	65	45	90	35	20	2.5	15	28	30	18	1.60	0.00040
S 38 Sint/St	-	14	38	80	66	114	45	24	3.0	18	37	38	19	2.30	0.00100
S 42 GG/GGG/St	-	19	42	95	75	126	50	26	3.0	20	40	46	21	3.60	0.00200
S 48 GG/GGG/St	-	19	48	105	85	140	56	28	3.5	21	45	51	22	4.80	0.00300
S 55 GG/GGG/St	-	19	55	120	98	160	65	30	4.0	22	52	60	23	7.40	0.00600
S 65 GG/GGG/St	-	22	65	135	115	185	75	35	4.5	26	61	68	27	10.90	0.01250
S 75 GG/GGG/St	30	30	75	160	135	210	85	40	5.0	30	69	80	31	17.70	0.02500
S 90 GG/GGG/St	30	40	90	200	160	245	100	45	5.5	34	81	100	35	29.50	0.06900

Material: cast iron = GG; SG iron = GGG; steel = ST; SINT. = Sintered Steel

H* is the minimum dimension required for the disassembly of the components in the radial direction. Finish bore acc. to ISO standard H7, keyway acc. to DIN 6885, sheet 1 (JS9). Weight and moment of inertia in relation to the materials Al/GG/GGG with max. diameter without keyway.



Hub combination A/B



Type	Bores						Dimensions (mm)											With d maximum but without key	
	Hub A			Hub B			A	Ba	Bb	L	L1 & L2	E	s	b	C	dh	H*	Weight Kg	Moment of Inertia Kg/m ²
	Pre Bore	Finish Bore		Pre Bore	Finish Bore														
S 19/24 D	-	6	19	17	19	24	40	32	39	66	25	16	2.0	12	20	18	14	0.13	0.00001
S 24/32 D	-	8	24	22	24	32	55	40	53	78	30	18	2.0	14	24	27	16	0.26	0.00004
S 28/38 D	-	10	28	25	28	38	65	48	63	90	35	20	2.5	15	28	30	18	0.46	0.00010
S 38/45 D	-	14	38	35	38	45	80	66	79	114	45	24	3.0	18	37	38	19	0.90	0.00035
S 48/60 D	-	19	48	46	48	60	105	85	104	140	56	28	3.5	21	45	51	22	1.86	0.00120

Material: Die cast aluminium

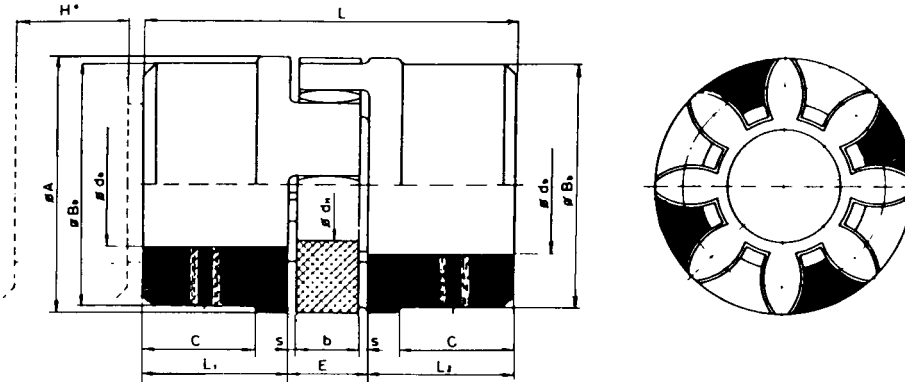
Type	Bores						Dimensions (mm)											With d max. but without key in GG/SINT.	
	Hub A			Hub B			A	Ba	Bb	L	L1 & L2	E	s	b	C	dh	H*	Weight Kg	Moment of Inertia Kg/m ²
	Pre Bore	Finish Bore		Pre Bore	Finish Bore														
S 19/24 Sint/St	-	6	19	-	19	24	40	32	39	66	25	16	2.0	12	20	18	14	0.2	0.00005
S 24/32 Sint/St	-	10	24	-	24	32	55	40	52	78	30	18	2.0	14	24	27	16	0.5	0.00025
S 28/38 Sint/St	-	12	28	-	28	38	65	45	62	90	35	20	2.5	15	28	30	18	0.8	0.00040
S 38/45 Sint/St	-	14	38	36	38	45	80	66	77	114	45	24	3.0	18	37	38	19	1.6	0.00100
S 42/55 GG/GGG/St	-	19	42	40	42	55	95	75	94	126	50	26	3.0	20	40	46	21	3.60	0.00200
S 48/60 GG/GGG/St	-	19	48	46	48	60	105	85	102	140	56	28	3.5	21	45	51	22	4.80	0.00300
S 55/70 GG/GGG/St	-	19	55	53	55	70	120	98	118	160	65	30	4.0	22	52	60	23	7.40	0.00600
S 65/75 GG/GGG/St	-	22	65	63	65	75	135	115	132	185	75	35	4.5	26	59	68	27	10.9	0.01250
S 75/90 GG/GGG/St	-	30	75	73	75	90	160	135	158	210	85	40	5.0	30	65	80	31	17.7	0.02500
S 90/100 GG/GGG/St	30	40	90	85	90	100	200	160	180	245	100	45	5.5	34	81	100	35	29.5	0.06900

Material: cast iron = GG; SG iron = GGG; steel = ST & SINT. = Sintered Steel

H* is the minimum dimension required for the disassembly of the components in the radial direction. Finish bore acc. to ISO standard H7, keyway acc. to DIN 6885, sheet 1 (JS9). Weight and moment of inertia in relation to the materials Al/GG/GGG with max. diameter without keyway.



Hub combination B/B



Type	Bores			Dimensions (mm)										L2 Extended Hub Length	With d max. but without key in GG	
	Pre Bore	Finish Bores		A	Bb	L	L1 & L2	E	s	b	C	dh	H*		Weight Kg	Moment of Inertia Kg/m2
		Min.	Max.													
S 15 D	-	4	15	26	26	28	10	8	1	6	-	12	8	-	0.025	0.000004
S 19/24 D	17	19	24	40	39	66	25	16	2.0	12	20	18	14	55	0.130	0.000020
S 24/32 D	22	24	32	55	53	78	30	18	2.0	14	24	27	16	60	0.260	0.000090
S 28/38 D	25	28	38	65	63	90	35	20	2.5	15	28	30	18	60	0.460	0.000200
S 38/45 D	35	38	45	80	79	114	45	24	3.0	18	37	38	19	70	0.900	0.000450
S 48/60 D	46	48	60	105	104	140	56	28	3.5	21	45	51	22	-	1.860	0.002000






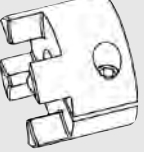

Material: Die cast aluminium

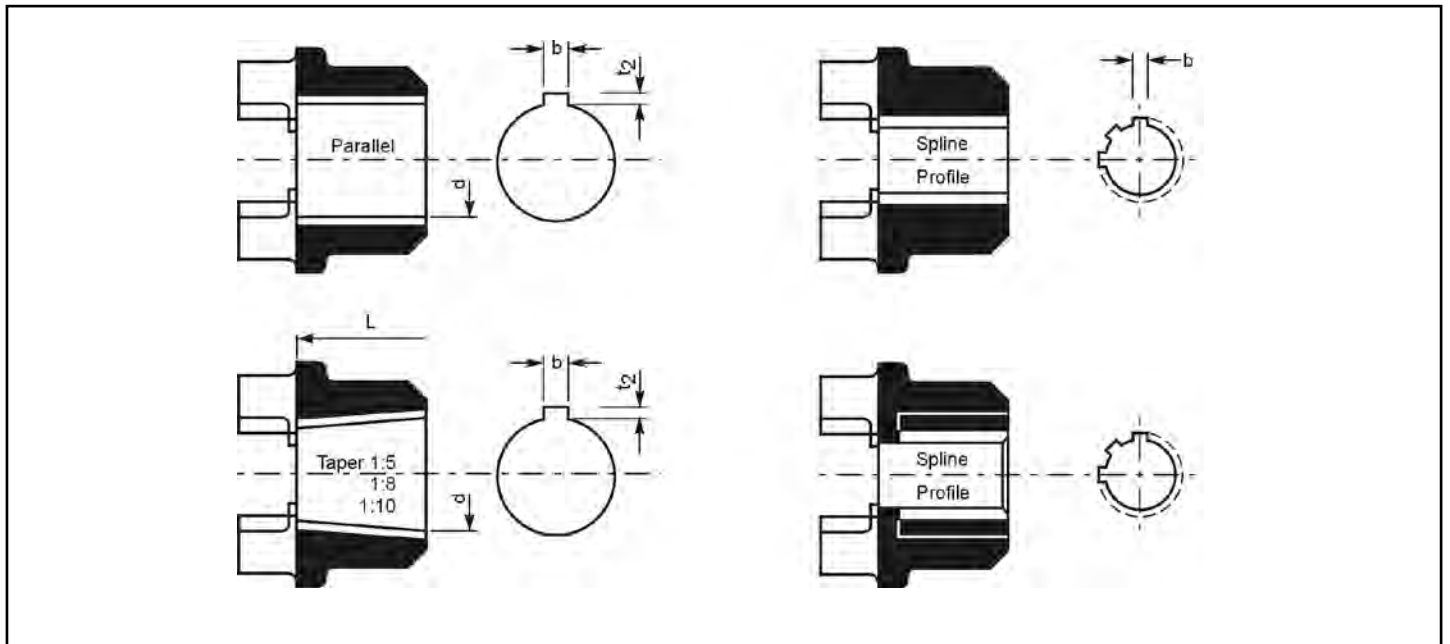
Type	Bores			Dimensions (mm)										L2 Extended Hub Length	With d max. but without key in GG	
	Pre Bore	Finish Bores		A	Bb	L	L1 & L2	E	s	b	C	dh	H*		Weight Kg	Moment of Inertia Kg/m2
		Min.	Max.													
S 14/16 Sint.	-	4	16	30	30	35	11	13	1.5	10	-	10	12	18.5	00.14	0.00002
S 19/24 Sint.	-	6	24	40	40	66	25	16	2.0	12	-	18	14	55	00.35	0.00005
S 24/32 Sint.	-	7	32	55	55	78	30	18	2.0	14	-	27	16	60	01.00	0.00020
S 28/38 Sint.	-	9	38	65	65	90	35	20	2.5	15	-	30	18	80	01.60	0.00070
S 38/45 Sint.	36	38	45	80	77	114	45	24	3.0	18	37	38	19	110	02.30	0.00100
S 42/55 GG/GGG	40	42	55	95	94	126	50	26	3.0	20	40	46	21	110	03.60	0.00300
S 48/60 GG/GGG	46	48	60	105	102	140	56	28	3.5	21	45	51	22	110	04.80	0.00500
S 55/70 GG/GGG	53	55	70	120	118	160	65	30	4.0	22	52	60	23	140	07.40	0.01000
S 65/75 GG/GGG	63	65	75	135	132	185	75	35	4.5	26	59	68	27	140	10.90	0.01830
S 75/90 GG/GGG	73	75	90	160	158	210	85	40	5.0	30	65	80	31	195	17.70	0.04100
S 90/100 GG/GGG/St	79	81	100	200	180	245	100	45	5.5	34	81	100	35	200	29.50	0.09000
S 100 GG/GGG/St*	40	42	110	225	200	270	110	50	6.0	38	89	113	39	-	43.50	0.15400
S 110 GG/GGG/St*	60	62	125	255	230	295	120	55	6.5	42	96	127	43	-	63.00	0.09100
S 125 GG/GGG/St*	60	62	145	290	265	340	140	60	7.0	46	112	147	47	-	95.00	0.57500
S 140 GG/GGG/St**	51	51	160	320	255	375	155	65	7.5	50	155	165	52	-	On request	
S 160 GG/GGG/St**	51	51	185	370	290	425	175	25	9.0	57	175	190	70	-		
S 180 GG/GGG/St**	51	51	200	420	325	475	185	85	10.5	64	185	220	82	-		

Material: cast iron = GG; SG iron = GGG; steel = ST & SINT. * Hubs only available in GGG ** Hubs only available in steel

H* is the minimum dimension required for the disassembly of the components in the radial direction. Finish bore acc. to ISO standard H7, keyway acc. to DIN 6885, sheet 1 (JS9). Weight and moment of inertia in relation to the materials Al/GG/GGG with max. diameter without keyway.



Hub designs				
<p>Keyway with Set Screw (KW) Standard method of securing a hub to a shaft. Clamping style recommended for backlash free torque transmission</p>			<p>Without Keyway with Set Screw (W/SS) Set screw used to secure hub to shaft</p>	
<p>Spline Hub with Set Screw (W/SS) Hub bored to accept standard S.A.E. and metric spline, secured with set screw to shaft..</p>			<p>Spline Hub with Clamp Hub bored to accept standard S.A.E. and metric spline, secured utilizing clamping feature</p>	
<p>Spline Hub with L-Loc Hub bored to accept standard S.A.E. and metric spline using the more efficient L-Loc feature to secure hub on shaft</p>			<p>Clamping Hub with Single Slot without Keyway (SC) Zero backlash clamping style for torque transmission. Torque capacity of hub depends on bore sizes. Sizes: S14-19</p>	
<p>Clamping Hub with Single Slot with Keyway (CWK) Zero backlash clamping style with keyway for torque transmission. Sizes: S14-19</p>				



Taper 1:8

ATOS, Casappa, Dowty, Garbe, Lahmeyer, Jotti & Strozzi, Marzocchi, Plessey, Salami, Turolla etc.

Code	Dimensions (mm)			
	d	b + 0.05	t2	L
....N/1	9.750	2.40	1.3	17.0
....N/1c	11.600	3.00	2.0	16.5
....N/1e	13.000	2.40	1.6	21.0
....N/1d	14.000	3.00	2.2	17.5
....N/1b	14.300	3.20	2.2	19.5
....N/2	17.287	3.20	1.6	24.0
....N/2a	17.287	4.00	2.1	24.0
....N/3	22.002	3.99	2.1	28.0
....N/4	25.463	4.78	3.4	36.0
....N/4b	25.463	5.00	3.9	36.0
....N/4a	27.000	4.78	3.0	32.5
....N/4g	28.450	6.00	2.1	38.5
....N/5	33.176	6.38	3.4	44.0
....N/5a	33.176	7.00	3.4	44.0
....N/6	43.057	7.95	3.4	51.0
....N/6a	41.150	8.00	3.1	42.5

In front of theN put the relevant size of the coupling, and short description of the pump.

Taper 1:5

Bosch, Bucher, Kracht, Leduc, Dusterloh etc.

Code	Dimensions (mm)			
	d + 0.05	b (j9)	t2	L
A10	9.85	2	1.0	11.5
As12	11.85	3	1.8	16.5
B17	16.85	3	1.8	18.5
C20	19.85	4	2.2	21.5
Cs22	21.95	3	1.8	21.5
D25	24.85	5	2.9	26.5
E30	29.85	6	2.6	31.5
F35	34.85	6	2.6	36.5
G40	39.85	6	2.6	41.5

Taper 1:10

Parker Hannifin NMF, ATE - Teves etc.

Code	Dimensions (mm)			
	d + 0.05	b (j9)	d/2 + t2	L
PC 20	19.95	5	12.1	32
PD 25	24.95	6	14.1	45
PE 30	29.75	8	17.0	50

Fitting instructions are available from the named firms.

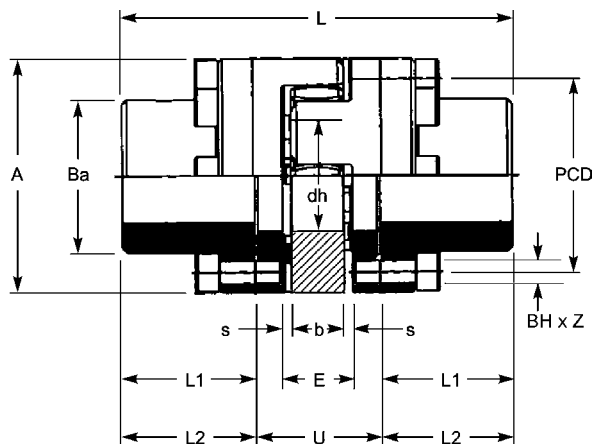
Also to suit:

Commercial, Danfoss, Denison, Dowty, Racine Rex, Rexroth, Schwelm, Towler, Vickers, Vickers-Reichert, Dusterloh, Langen, & Co. etc.

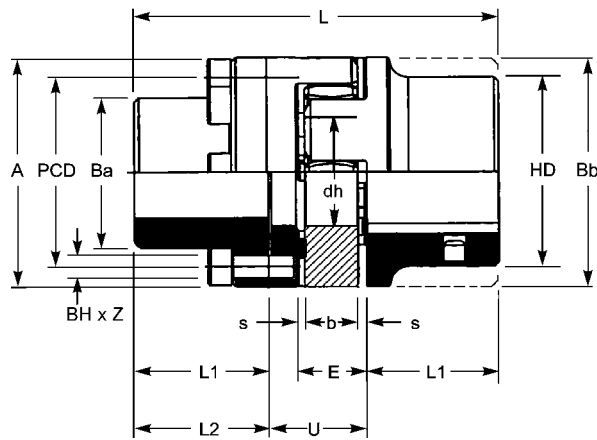
Parallel Shafts

Code	Dimensions (mm)		
	d H7	b	(d+t2) + 0.05
4.0	12.70	3.18	14.07
5.0.1	15.87	4.76	19.00
6.1	19.05	4.76	21.60
7.1	22.23	4.76	24.60
7.2	22.23	6.35	25.07
8.1	25.40	4.76	27.68
8.2	25.40	6.35	28.09
9.2	28.58	6.35	31.32
10.2	31.75	6.35	34.60
10.3	31.75	7.94	35.21
11.3	34.93	7.94	38.60
11.5	34.93	9.53	41.00
12.5	38.10	9.53	42.27
13.5	41.28	9.53	45.47
14.4	44.45	11.11	49.30
14.5	44.45	9.53	49.50
15.8	47.68	12.70	53.11

Details on request for: Abex-Denison - SAE 16/32 pitch, Bosch - DIN 5482, Bruninghaus - DIN 5480, Hydromatik - DIN 5480, LindeGuldner - DIN 5482, SauerGetriebe - SAE 16/32 pitch, ZF Sundstrand - SAE 16/32 pitch.

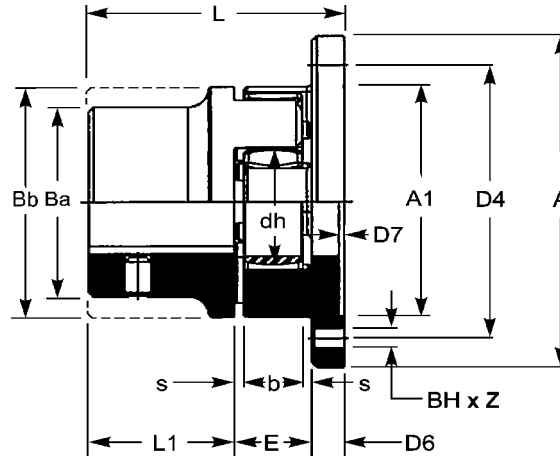


Size	Dimensions												
	A	Ba	E	L	L1	L2	U	b	dh	s	PCD	BH	Z No.
24	55	36	18	94	30	30.5	33	14	27	2.0	45	M5	8
28	65	42	20	110	35	35.5	39	15	30	2.5	54	M6	8
38	80	52	24	134	45	45.5	43	18	38	3.0	66	M8	8
42	95	62	26	150	50	51.0	48	20	46	3.0	80	M8	12
48	105	70	28	164	56	57.0	50	21	51	3.5	90	M8	12
55	120	80	30	192	65	66.0	60	22	60	4.0	102	M10	8
65	135	94	35	217	75	76.0	65	26	62	4.5	116	M10	12
75	160	108	40	248	85	86.5	75	30	80	5.0	136	M12	15
90	200	142	45	285	100	101.5	82	34	100	5.5	172	M16	15
100	225	158	50	320	110	111.5	97	38	113	6.0	195	M16	15
110	255	178	55	347	120	122.0	103	42	127	6.5	218	M20	15
125	290	206	60	400	140	142.0	116	46	147	7.0	252	M20	15
140	320	235	65	443	155	157.5	128	50	165	7.5	282	M20	15
160	370	270	75	501	175	177.5	146	57	190	9.0	325	M24	15
180	420	315	85	555	195	198.0	159	64	220	10.5	375	M24	18



Size	Dimensions														
	A	Ba	Bb	E	HD	L	L1	L2	U	b	dh	s	PCD	BH	Z No.
24	55	36	55	18	40	86	30	30.5	26	14	27	2.0	45	M5	8
28	65	42	65	20	48	100	35	35.5	30	15	30	2.5	54	M6	8
38	80	52	80	24	66	124	45	45.5	34	18	38	3.0	66	M8	8
42	95	62	95	26	75	138	50	51.0	38	20	46	3.0	80	M8	12
48	105	70	105	28	85	152	56	57.0	40	21	51	3.5	90	M8	12
55	120	80	120	30	98	176	65	66.0	46	22	60	4.0	102	M10	8
65	135	94	135	35	115	201	75	76.0	51	26	62	4.5	116	M10	12
75	160	108	160	40	135	229	85	86.5	59	30	80	5.0	136	M12	15
90	200	142	200	45	160	265	100	101.5	65	34	100	5.5	172	M16	15
100	225	158	225	50	180	295	110	111.5	75	38	113	6.0	195	M16	15
110	255	178	255	55	200	321	120	122.0	81	42	127	6.5	218	M20	15
125	290	206	290	60	230	370	140	142.0	90	46	147	7.0	252	M20	15
140	320	235	320	65	255	409	155	157.5	99	50	165	7.5	282	M20	15
160	370	270	370	75	290	463	175	177.5	113	57	190	9.0	325	M24	15
180	420	315	420	85	325	515	195	198.0	125	64	220	10.5	375	M24	18

Flange is available in steel only.



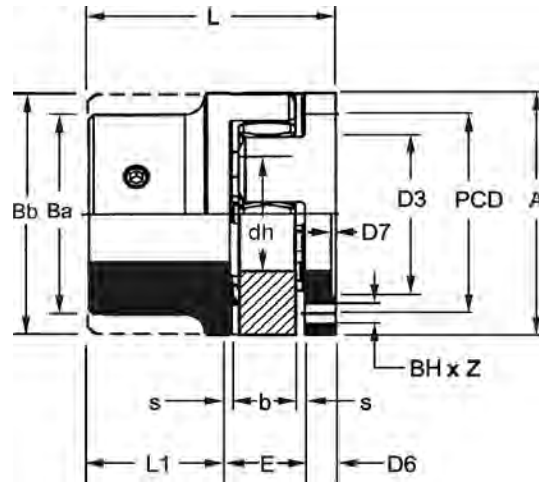
Size	Dimensions														
	A	A1	Ba	Bb	D4	D6	D7	E	L	L1	b	dh	s	BH	Z No.
24	80	55	40	55	65	8	1.5	18	56	30	14	27	2.0	5.5	5
28	100	65	48	65	80	10	1.5	20	65	35	15	30	2.5	6.6	6
38	115	80	66	80	95	10	1.5	24	79	45	18	38	3.0	9.0	6
42	140	95	75	95	115	12	2.0	26	88	50	20	46	3.0	9.0	6
48	150	105	85	105	125	12	2.0	28	96	56	21	51	3.5	9.0	8
55	175	120	98	120	145	16	2.0	30	111	65	22	60	4.0	11.0	8
65	190	135	115	135	160	16	2.0	35	126	75	26	68	4.5	11.0	10
75	215	160	135	160	185	19	2.5	40	144	85	30	80	5.0	13.5	10
90	260	200	160	200	225	20	3.0	45	165	100	34	100	5.5	17.5	12
100*	285	225	200	225	250	25	4.0	50	185	110	38	113	6.0	17.5	12
110*	330	255	230	255	290	26	4.0	55	201	120	42	127	6.5	22.0	12
125*	370	290	265	290	325	30	5.0	60	230	140	46	147	7.0	22.0	16
140**	410	320	255	320	360	34	5.0	65	254	155	50	165	7.5	22.0	16
160**	460	370	290	370	410	38	5.0	75	288	175	57	190	9.0	26.0	16
180**	520	420	325	420	465	40	5.5	85	320	195	64	220	10.5	26.0	16

Alternative flange machining available on request.

Material: SNT, GG, GGG, ST

* Hubs only available in GGG

** Hubs only available in steel



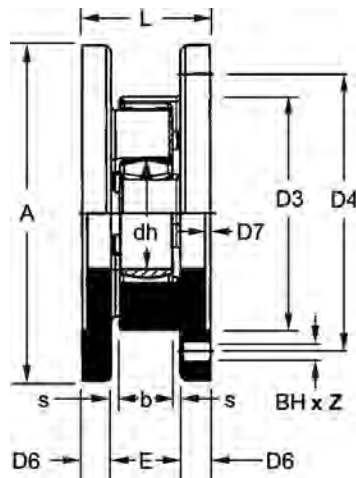
Size	Dimensions														
	A	Ba	Bb	D3	D6	D7	E	L	L1	b	dh	s	PCD	BH	Z No.
24	55	40	55	36	8	1.5	18	56	30	14	27	2.0	45	M5	8
28	65	48	65	44	10	1.5	20	65	35	15	30	2.5	54	M6	8
38	80	66	80	54	10	1.5	24	79	45	18	38	3.0	66	M8	8
42	95	75	95	65	12	2.0	26	88	50	20	46	3.0	80	M8	16
48	105	85	105	75	12	2.0	28	96	56	21	51	3.5	90	M8	16
55	120	98	120	84	16	2.0	30	111	65	22	60	4.0	102	M10	8
65	135	115	135	96	16	2.0	35	126	75	26	68	4.5	116	M10	16
75	160	135	160	112	19	2.5	40	144	85	30	80	5.0	136	M12	20
90	200	160	200	145	20	3.0	45	165	100	34	100	5.5	172	M16	20
100*	225	200	225	165	25	4.0	50	185	110	38	113	6.0	195	M16	20
110*	255	230	255	180	26	4.0	55	201	120	42	127	6.5	218	M20	20
125*	290	265	290	215	30	5.0	60	230	140	46	147	7.0	252	M20	20
140**	320	255	320	245	34	5.0	65	254	155	50	165	7.5	282	M20	20
160**	370	290	370	280	38	5.0	75	288	175	57	190	9.0	325	M24	20
180**	420	325	420	330	40	5.5	85	320	195	64	220	10.5	375	M24	24

Alternative flange machining available on request.

Material: SNT, GG, GGG, ST

* Hubs only available in GGG

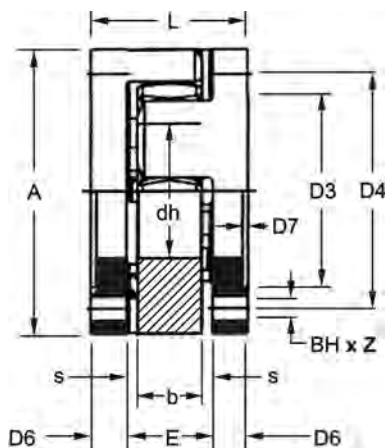
** Hubs only available in steel



Size	Dimensions											
	A	D3	D4	D6	D7	E	L	b	dh	s	BH	Z No.
24	80	55	65	8	1.5	18	34	14	27	2.0	5.5	5
28	100	65	80	10	1.5	20	40	15	30	2.5	6.6	6
38	115	80	95	10	1.5	24	44	18	38	3.0	9.0	6
42	140	95	115	12	2.0	26	50	20	46	3.0	9.0	6
48	150	105	125	12	2.0	28	52	21	51	3.5	9.0	8
55	175	120	145	16	2.0	30	62	22	60	4.0	11.0	8
65	190	135	160	16	2.0	35	67	26	68	4.5	11.0	10
75	215	160	185	19	2.5	40	78	30	80	5.0	13.5	10
90	260	200	225	20	3.0	45	85	34	100	5.5	17.5	12
100	285	225	250	25	4.0	50	100	38	113	6.0	17.5	12
110	330	255	290	26	4.0	55	107	42	127	6.5	22.0	12
125	370	290	325	30	5.0	60	120	46	147	7.0	22.0	16
140	410	320	360	34	5.0	65	133	50	165	7.5	22.0	16
160	460	370	410	38	5.0	75	151	57	190	9.0	26.0	16
180	520	420	465	40	5.5	85	165	64	220	10.5	26.0	16

Alternative flange machining available on request.

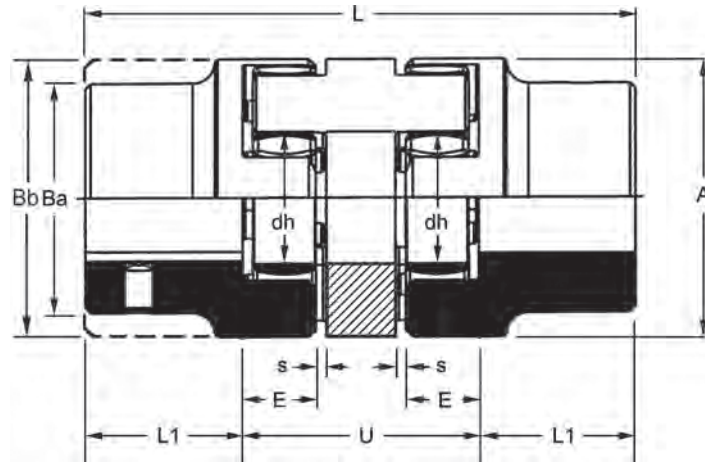
Material: GG (Cast Iron)



Size	Dimensions											
	A	D3	D4	D6	D7	E	L	b	dh	s	BH	Z No.
24	55	36	45	8	1.5	18	34	14	27	2.0	M5	8
28	65	44	54	10	1.5	20	40	15	30	2.5	M6	8
38	80	54	66	10	1.5	24	44	18	38	3.0	M8	8
42	95	65	80	12	2.0	26	50	20	46	3.0	M8	16
48	105	75	90	12	2.0	28	52	21	51	3.5	M8	16
55	120	84	102	16	2.0	30	62	22	60	4.0	M10	8
65	135	96	116	16	2.0	35	67	26	68	4.5	M10	16
75	160	112	136	19	2.5	40	78	30	80	5.0	M12	20
90	200	145	172	20	3.0	45	85	34	100	5.5	M16	20
100	225	165	195	25	4.0	50	100	38	113	6.0	M16	20
110	255	180	218	26	4.0	55	108	42	127	6.5	M20	20
125	290	215	252	30	5.0	60	120	46	147	7.0	M20	20
140	320	245	282	34	5.0	65	133	50	165	7.5	M20	20
160	370	280	325	38	5.0	75	151	57	190	9.0	M24	20
180	420	330	375	40	5.5	85	165	64	220	10.5	M24	24

Flange to flange design available for applications requiring space saving, compact connections.

Shaft to flange design is also available for special application situations requiring an alternative connection.



Size	A	Ba	Bb	E	L	L1	U	dh	s	Max. radial displacement or max. angular displacement i (°) with n = 1500 1/min	T _{kn}	T _{kmax}	Max. axial displacement	
19	40	32	40	16	92	25	42	18	2.0	0.65	1° 30' each hub			
24	55	40	55	18	112	30	52	27	2.0	0.89		35	70	1.4
28	65	48	65	20	128	35	58	30	2.5	1.00		95	190	1.5
38	80	66	80	24	158	45	68	38	3.0	1.15		190	380	1.8
42	95	75	95	26	174	50	74	46	3.0	1.26		265	530	2.0
48	105	85	105	28	192	56	80	51	3.5	1.36		310	620	2.1
55	120	98	120	30	218	65	88	60	4.0	1.52		410	820	2.2
65	135	115	135	35	252	75	102	68	4.5	1.75		625	1250	2.6
75	160	135	160	40	286	85	116	80	5.0	2.00		1280	2560	3.0
90	200	160	200	45	330	100	130	100	5.5	2.50		2400	4800	3.4

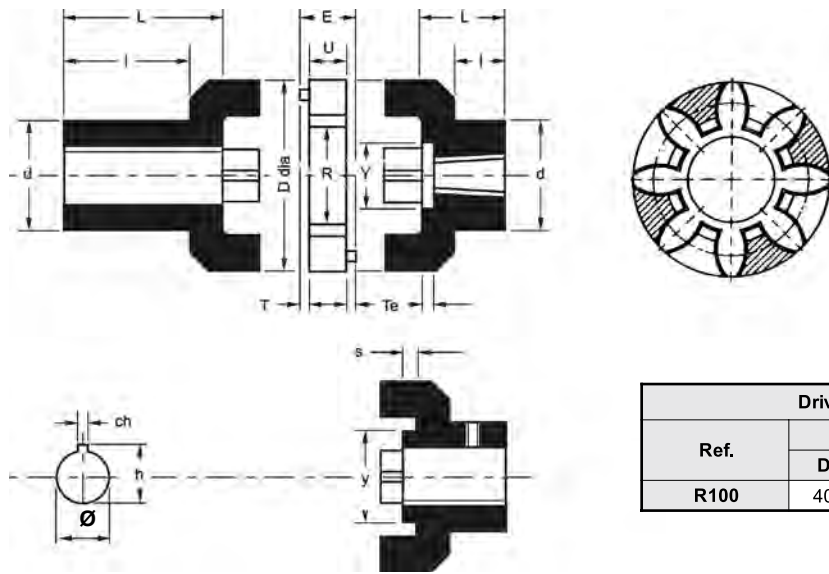
Hubs available in aluminium, sintered iron and steel.

Spacer style features an aluminium spacer piece.

Comes with two inserts to increase damping and parallel misalignment capabilities.

Pump Drive Components

G Series Coupling

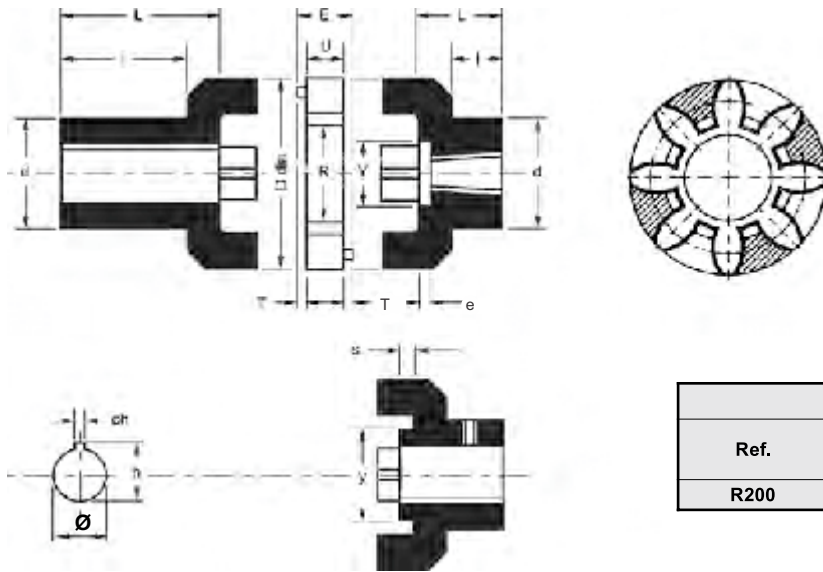


Drive Spider Details					
Ref.	Dimensions mm				
	D	R	U	T	E
R100	40	18	12	2	16

Type	Hub Dimensions (mm)											
	D	L	d	l	s	y	e	Ø	Taper	ch	h	
SG 105	40	17.5	22	9.5	-	17	7.0	6.0	-	2.00	7.0	
SG 105P	40	17.5	22	9.5	-	17	7.0	7.0	-	2.00	8.0	
SG 101P	40	17.5	22	9.5	-	-	1.5	9.8	1.8	2.41	10.8	
SG 100ZB	40	14.0	22	6.0	-	16	3.0	10.0	1.5	2.00	11.0	
SG 110	40	17.5	22	9.5	-	-	-	10.0	-	3.00	11.4	
SG 101C	40	14.0	22	6.0	-	20	1.0	12.0	-	3.00	13.6	
SG 112	40	17.5	22	9.5	-	20	1.0	12.0	-	4.00	13.8	
SG 114 - 23	40	23.0	26	15.0	-	-	-	14.0	-	5.00	16.3	
SG 101M	40	18.0	26	8.0	2	-	-	14.2	1.8	3.00	15.6	
SG 111 - 15	40	15.5	22	7.5	-	-	-	11.0	-	4.00	12.8	
SG 109	40	17.5	22	9.5	-	-	-	9.0	-	3.00	10.5	
SG 111	40	21.0	26	7.5	-	-	-	11.0	-	4.00	12.8	
SG 114	40	28.0	26	15.0	-	-	-	14.0	-	5.00	16.3	
SG 119	40	48.0	35	43.0	-	-	-	19.0	-	6.00	21.8	
SG 124	40	48.0	44	45.0	-	-	-	24.0	-	8.00	27.3	

Material : Light Alloy

Max. Torque = 10 NM

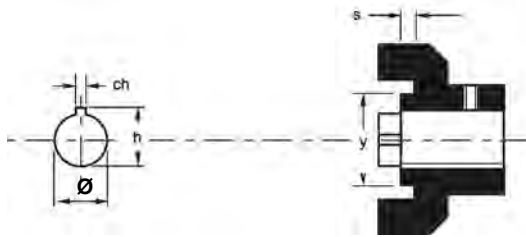
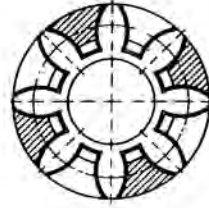
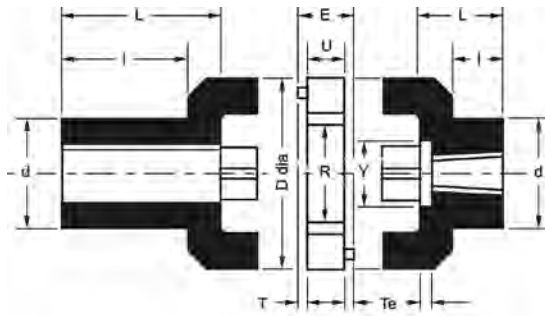


Drive Spider Details					
Ref.	Dimensions (mm)				
	D	R	U	T	E
R200	65	29	15	2.5	20

Type	Hub Dimensions (mm)										
	D	L	d	l	s	y	e	Ø	Taper	ch	h
SG 201P	65	23.5	29	13.5	-	24	9	9.55	1:8	2.41	10.7
SG 201C	65	23.5	29	13.5	-	24	11	12.00	-	3.00	13.6
SG 212	65	23.0	29	13.0	-	-	-	12.00	-	4.00	13.8
SG 200P	65	23.5	29	13.5	-	24	4.5	12.70	1:8	2.41	14.5
SG 201M	65	22.5	35	13.5	-	35	4	14.00	1:8	3.00	15.6
SG 202C	65	23.5	35	13.5	-	-	-	15.00	-	4.00	16.7
SG 216	65	23.5	39	13.5	-	-	-	16.00	-	4.00	17.8
SG 216F	65	23.5	39	13.5	-	-	-	16.00	-	5.00	18.3
SG 200ZF	65	23.5	35	13.5	-	34	4	17.00	1:5	3.00	19
SG 217	65	23.5	39	13.5	-	-	-	17.00	-	5.00	19.3
SG 202P	65	23.5	39	13.5	-	-	-	17.30	1:8	3.18	18.25
SG 202	65	23.5	39	13.5	-	-	-	17.30	1:8	4.00	18.45
SG 218F	65	23.5	36	13.5	-	-	-	18.00	-	5.00	20.50
SG 218	65	23.5	36	13.5	-	-	-	18.00	-	6.00	20.80
SG 219.23	65	23.5	36	13.5	-	-	-	19.00	-	5.00	21.30
SG 219F	65	23.5	36	13.5	-	-	-	19.00	-	6.00	21.80
SG 206.1	65	28.0	46	23.0	-	-	-	19.05	-	4.76	21.60
SG 220	65	44.0	46	34.0	-	-	-	20.00	-	6.00	22.80
SG 222	65	36.0	42	26.0	-	-	-	22.00	-	6.00	24.80
SG 203	65	41.0	43	27.0	-	-	13	22.10	1:8	4.00	23.60
SG 207.1	65	44.0	45	34.0	-	-	-	22.22	-	4.76	25.00
SG 207.2	65	44.0	45	34.0	-	-	-	22.22	-	6.35	25.70
SG 224F	65	44.0	46	34.0	-	-	-	24.00	-	6.00	26.50
SG 200ZG	65	39.0	42	24.0	-	36	13	24.80	1:5	5.00	27.40
SG 225	65	44.0	42	35.0	-	-	-	25.00	-	8.00	28.30
SG 203.5	65	39.0	42	26.0	-	-	6	25.20	1:8	5.00	27.60
SG 208.2	65	44.0	44	34.0	-	-	-	25.40	-	6.35	29.10
SG 215	65	23.5	29	13.5	-	-	-	15.00	-	5.00	17.30
SG 208.1	65	44.0	44	34.0	-	-	-	25.40	-	4.76	28.40
SG 214.24	65	24.0	36	13.5	-	-	-	14.00	-	5.00	16.30
SG 219	65	44.0	36	34.0	-	-	-	19.00	-	6.00	21.80
SG 224	65	44.0	46	34.0	-	-	-	24.00	-	8.00	27.30
SG 228	65	54.0	50	34.0	-	-	-	28.00	-	8.00	31.30
SG 228.44	65	44.0	50	34.0	-	-	-	28.00	-	8.00	31.30
SG 228.58	65	58.0	50	42.0	-	-	-	28.00	-	8.00	31.30
SG 238	65	80.0	65	80.0	-	-	-	38.00	-	10.00	41.30

Material : Light Alloy

Max. Torque = 95 NM

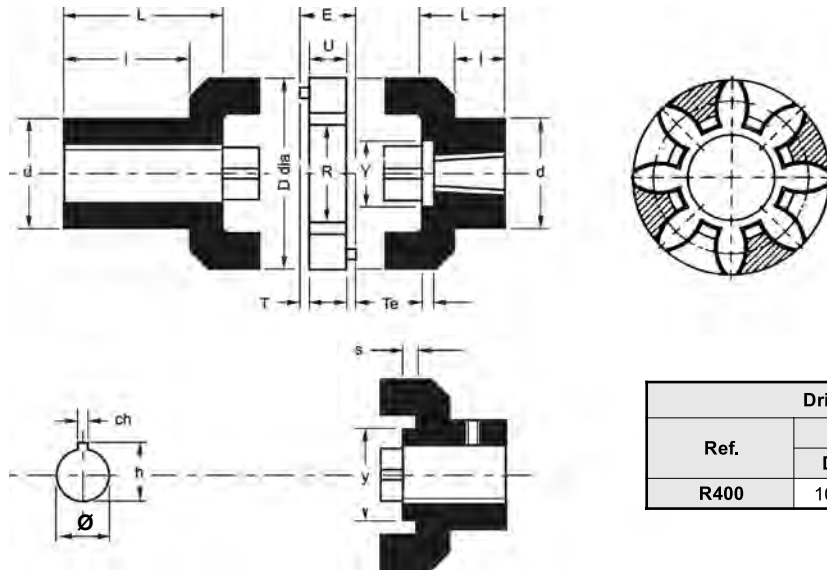


Drive Spider Details					
Ref.	Dimensions (mm)				
	D	R	U	T	E
R300	80	38	18	3	24

Type	Hub Dimensions (mm)										
	D	L	d	l	s	y	e	Ø	Taper	ch	h
SG 301M	80	21.0	42	8.0	-	24	2.0	14.20	1:8	3.00	15.6
SG 302C	80	25.0	42	11.0	-	28	5.5	15.00	-	4.00	16.7
SG 316	80	25.0	42	10.0	10	-	-	16.00	-	5.00	18.3
SG 300ZF	80	22.0	42	8.0	-	-	-	16.50	1:5	3.00	18.5
SG 302P	80	22.5	42	8.5	-	-	-	17.30	1:8	3.20	18.2
SG 302	80	22.5	42	9.5	-	-	-	17.30	1:8	4.00	18.4
SG 318	80	30.0	48	18.0	10	-	-	18.00	-	6.00	20.8
SG 319	80	30.0	48	19.0	10	-	-	19.00	-	6.00	21.8
SG 306.1	80	21.0	48	6.5	10	-	-	19.05	-	4.76	21.6
SG 306.1L	80	34.0	48	18.0	10	-	-	19.05	-	4.76	21.6
SG 320	80	34.0	48	21.0	10	-	-	20.00	-	6.00	23.0
SG 322	80	34.0	48	21.0	10	-	-	22.00	-	6.00	25.0
SG 303	80	38.0	55	18.0	-	36	11.0	22.00	1:8	4.00	23.5
SG 307.1	80	34.0	48	21.0	10	-	-	22.22	-	4.76	24.5
SG 307.2	80	34.0	48	21.0	10	-	-	22.22	-	6.35	25.7
SG 324	80	34.0	48	19.0	10	-	-	24.00	-	8.00	27.3
SG 300ZG	80	38.0	55	25.0	-	38	11.0	24.80	1:5	5.00	27.5
SG 325	80	40.0	55	27.0	10	-	-	25.00	-	8.00	28.3
SG 303.5	80	40.0	55	25.0	-	38	5.0	25.50	1:8	5.00	28.2
SG 308.1	80	40.0	55	28.5	10	-	-	25.40	-	4.76	28.4
SG 308.2	80	40.0	55	28.5	10	-	-	25.40	-	6.35	29.1
SG 303.5D	80	32.0	48	17.0	-	-	-	26.80	1:8	4.76	29.0
SG 330	80	50.0	66	25.0	10	-	-	30.00	-	8.00	33.3
SG 310.2	80	50.0	66	43.0	10	-	-	31.75	-	6.35	34.7
SG 310.3	80	50.0	66	43.0	10	-	-	31.75	-	7.93	35.3
SG 332	80	50.0	66	43.0	10	-	-	32.00	-	10.00	35.3
SG 304	80	50.0	66	43.0	-	-	6.0	33.00	1:8	7.00	36.0
SG 304P	80	50.0	66	43.0	-	-	6.0	33.00	1:8	6.35	35.5
SG 311.3	80	50.0	66	43.0	-	-	-	34.92	-	7.94	39.2
SG 312.5	80	60.0	70	53.0	-	-	-	38.10	-	9.52	42.6
SG 315	80	25.0	42	10.0	-	-	-	15.00	-	5.00	17.3
SG 328	80	52.0	66	40.0	-	-	-	28.00	-	8.00	31.3
SG 338	80	77.0	70	67.0	-	-	-	38.00	-	10.00	41.3
SG 342	80	79.0	75	71.0	-	-	-	42.00	-	12.00	45.3
SG 348	80	95.0	80	95.0	-	-	-	48.00	-	14.00	51.8

Material : Light Alloy

Max. Torque = 190 NM

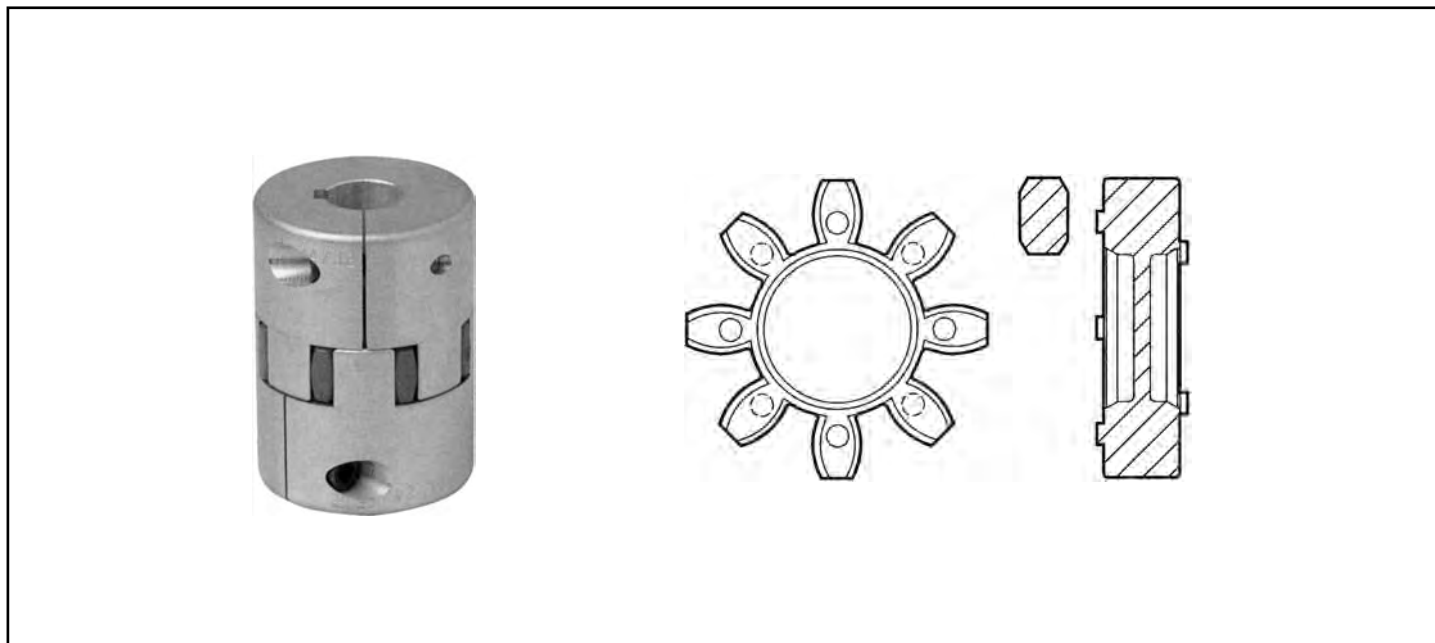


Drive Spider Details					
Ref.	Dimensions (mm)				
	D	R	U	T	E
R400	105	52	21	3.5	28

Type	Hub Dimensions (mm)										
	D	L	d	l	s	y	e	Ø	Taper	ch	h
SG 419	105	34	62	23	12	-	-	19.00	-	6.00	21.8
SG 420	105	34	62	17	12	-	-	20.00	-	6.00	22.8
SG 422	105	34	63	15	12	-	-	22.00	-	6.00	24.5
SG 403	105	32	63	13	12	-	7	21.70	1:8	4.00	23.4
SG 407.1	105	34	63	15	12	-	-	22.22	-	4.76	25.0
SG 407.2	105	34	63	15	12	-	-	22.22	-	6.35	25.8
SG 424F	105	40	63	18	-	-	-	24.00	-	6.00	26.5
SG 424	105	40	63	22	12	-	-	24.00	-	8.00	27.3
SG 400ZG	105	34	63	19	-	38	7	24.80	1:5	5.00	27.7
SG 425	105	40	63	15	-	-	-	25.00	-	8.00	28.3
SG 403.5	105	34	63	19	-	40	1	25.50	1:8	5.00	27.7
SG 408.1	105	40	70	36	-	-	-	25.40	-	4.76	28.4
SG 408.2	105	40	70	36	-	-	-	25.40	-	6.35	29.1
SG 403.5D	105	34	61	21	-	38	-	26.80	1:8	4.76	28.4
SG 428	105	40	63	25	-	-	-	28.00	-	8.00	31.3
SG 430	105	50	70	35	-	-	-	30.00	-	10.00	33.3
SG 410.2	105	52	70	37	-	-	-	31.75	-	6.35	35.2
SG 410.3	105	52	70	37	-	-	-	31.75	-	7.93	35.8
SG 432	105	50	70	35	12	-	-	32.00	-	10.00	35.3
SG 404P	105	46	70	31	-	45	2	33.10	1:8	6.35	35.2
SG 404	105	46	70	31	-	45	2	33.10	1:8	7.00	35.8
SG 414.4	105	60	78	45	-	-	-	44.45	-	11.11	50.0
SG 445	105	80	78	50	-	-	-	45.00	-	14.00	49.0
SG 435	105	50	70	35	12	-	-	35.00	-	10.00	38.3
SG 412.5	105	52	70	36	-	-	-	38.10	-	9.52	42.6
SG 406.1	105	34	63	15	12	-	-	19.05	-	4.76	21.6
SG 440	105	60	78	45	-	-	-	40.00	-	12.00	43.3
SG 450	105	70	84	55	-	-	-	50.00	-	14.00	53.8
SG 411.3	105	52	70	36	-	-	-	34.92	-	7.94	39.2
SG 438	105	77	76	61	-	-	-	38.00	-	10.00	41.3
SG 442	105	91	76	75	-	-	-	42.00	-	12.00	45.3
SG 448	105	91	84	75	-	-	-	48.00	-	14.00	51.8
SG 455	105	109	105	109	-	-	-	55.00	-	16.00	59.3
SG 460	105	109	105	109	-	-	-	60.00	-	18.00	64.6

Material : Light Alloy

Max. Torque = 310 NM



The NBL series curved jaw coupling offers zero backlash capability in a 3-piece design. The coupling is provided assembled under preload. The NBL series can be used in a variety of different applications requiring precision and accuracy.

The NBL series spider features a straight centre of the spider tooth, providing higher stiffness due to coupling preload. The crowning of the ends of the spider legs allows for misalignment, while the curved jaws and solid spider centre provide high-speed capability.

The jaws of the hubs and the spider legs are chamfered to provide easy assembly. The NBL coupling design also allows the blind assembly in tight spaces. Raised spider dots on the legs of the spider ensure proper spacing of the hubs and spider.

Proper installation of the coupling can provide isolation of electrical currents. Check the 's' dimension listed on page 24 to ensure the proper spacing between spiders between spiders and hubs.

The NBL coupling has spiders available in four different shore hardnesses. Each spider offers benefits for different vibratory, environmental and torque transmission requirements.

Elastomer Performance Data for NBL Series

Spider Type	Colour	Material	Normal	Maximum	Size	Typical Application
80 Shore	Blue	Urethane	-50° to 80°C	-80° to 120°C	14 - 19	Electric measuring equipment
92 Shore	Yellow	Urethane	-40° to 90°C	-50° to 120°C	14 - 55	Electric measuring control systems
95/98 Shore A	Red	Urethane	-30° to 90°C	-40° to 120°C	14 - 55	Positioning drives, main spindle drives, high load applications
64 Shore	Green	Urethane	-20° to 110°C	-30° to 120°C	14 - 55	High load applications requiring torsionally stiff spider material

Coupling Selection for the NBL Series

Typical Applications

Measurement and Control Systems

The torsional stiffness of the NBL series coupling provides the needed accuracy for measurement and control systems. The low torques of these applications gives the NBL series the ability to provide zero backlash due to the elastomer preload.

Servo and Positioning Drives

The NBL coupling provides a zero backlash, flexible connection for servo and positioning drives. An added benefit of the NBL series is its damping capabilities. For applications that have vibrations at critical speeds, the NBL coupling can provide a zero backlash solution for vibration problems.

Pump Drive Components

Spidex® NBL Coupling



Main Spindle Drives

The NBL coupling is used in main spindle drives for machine tools. Torque spikes and cyclical loading are handled by the NBL series by damping or by shifting the vibratory frequency range to a non-critical speed range.

NBL Series Service Factors

Temperature Factor K3

	-30° to 30°C	40°C	60°	80°C
K3	1	1.2	1.4	1.8

Torsional Stiffness Factor K4

	Main Spindle Drive of Machine	Positioning Drive	Shaft Encoders, Angle Encoders
K4	2-5	3-8	10

Calculation Formula

$$\text{Rated nominal torque } T_n \text{ (Nm)} = \frac{9550 \times P \text{ (kW)}}{\text{rpm} \text{ (1/min)}}$$

$$\text{Rotational inertia coefficient (driver)} = \frac{\text{Moment of inertia (driver)}}{\text{Moment of inertia (driver)} + \text{Moment of inertia (driven)}}$$

$$\text{Rotational inertia coefficient (driven)} = \frac{\text{Moment of inertia (driven)}}{\text{Moment of inertia (driver)} + \text{Moment of inertia (driven)}}$$

Shock Load Factors K5

	K5
Light shock loads	1.0
Medium shock loads	1.4
Heavy shock loads	1.8

Check the nominal torque for the application against the rating for the coupling:

$$T_{kn} > \text{Rated torque of machine} \times K3 \times K4$$

Peak Torque

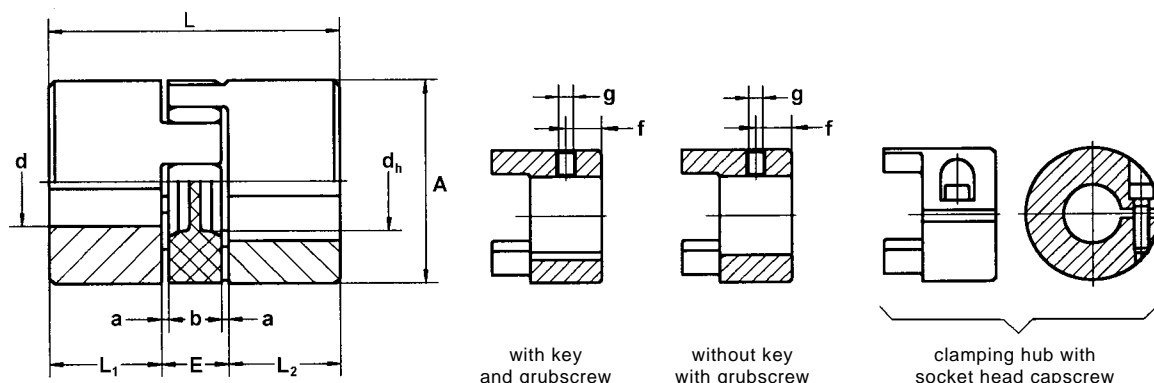
$$\text{Shock load (driver side)} = \text{Peak torque (driver)} \times \text{rotational inertia coefficient (driver)} \times K5$$

$$\text{Shock load (driven side)} = \text{Peak torque (driven)} \times \text{rotational inertia coefficient (driven)} \times K5$$

Check the peak torque for the application against the rating for the coupling checking both driver and driven sides:

$$T_{kmax} > \text{Peak Torque (driver or driven side)} \times K3 \times K4$$

NBL Size	Spider Type	Maximum Speed for Clamping Styles (rpm)			Torque (Nm)		Static Torsional Stiffness (Nm/rad)	Dynamic Torsional Stiffness (Nm/rad)	Radial Stiffness N/mm	Weight (kg)		Moment of Inertia J (kgm ²)	
		Clamping Hub	Set Screw Hub	Locking Device Hub	T _{kn}	T _{kmax}				Hub (x10 ⁻³)	Spider (x10 ⁻³)	Hub (x10 ⁻⁶)	Spider (x10 ⁻⁶)
14	80	12700	15900	25400	4.0	8.0	60.2	180	153	20	4.6	2.8	0.457
	92				7.5	15.0	114.6	344					
	98				12.5	25.0	171.9	513	654				
	64				16.0	32.0	234.2	702	856				
19	80	9550	11900	19000	4.9	9.8	343.8	1030	582	66	7.0	20.4	1.49
	92				10.0	20.0	573.0	1720	1120				
	98				17.0	34.0	859.5	2580	2010				
	64				21.0	42.0	1240.3	3720	2930				
24	92	6950	8850	13800	35.0	70.0	1432.0	4296	1480	132	18.0	50.8	7.5
	98				60.0	120.0	2063.0	6189	2560				
	64				75.0	150.0	2978.0	8934	3696				
28	92	5850	7350	11700	95.0	190.0	2292.0	6876	1780	253	29.0	200.3	16.5
	98				160.0	320.0	3438.0	10314	3200				
	64				200.0	400.0	4350.0	13050	4348				
38	92	4750	5950	9550	190.0	380.0	4584.0	13752	2350	455	49.0	400.6	44.6
	98				325.0	650.0	7160.0	21486	4400				
	64				405.0	810.0	10540.0	31620	6474				
42	92	4000	5000	8050	265.0	530.0	6300.0	14400	2430	1850	79.0	2246.0	100.0
	98				450.0	900.0	19200.0	48000	5570				
	64				560.0	1120.0	27580.0	68950	7270				
48	92	3600	4550	7200	310.0	620.0	7850.0	18055	2580	2520	98.0	3786.0	200.0
	98				525.0	1050.0	22370.0	55925	5930				
	64				655.0	1310.0	36200.0	90500	8274				
55	92	3150	3950	6350	410.0	820.0	9500.0	21850	2980	3800	115.0	7496.0	300.0
	98				685.0	1370.0	23800.0	59500	6686				
	64				825.0	1650.0	41460.0	103650	9248				



Spidex® NBL	Bores			Dimensions (mm)									Weight Kg	Moment of Inertia Kg/m ²
	Pre Bore	Finish Bores		A	L	L1 & L2	E	a	b	dh	g	f		
		Min.	Max.											
14/16 Al	-	4	16	30	35	11	13	1.5	10	10.5	M 4	5	0.060	0.06
19/24 Al	-	6	24	40	66	25	16	2.0	12	18.0	M 5	10	0.130	0.37
24/32 Al	-	8	32	55	78	30	18	2.0	14	27.0	M 5	10	0.280	1.35
28/38 Al	-	10	38	65	90	35	20	2.5	15	30.0	M 8	15	0.460	3.10
38/45 Al	-	12	45	80	114	45	24	3.0	18	38.0	M 8	15	0.900	9.00
42/55 St	-	14	55	95	126	50	26	3.0	20	46.0	M 8	20	3.600	41.10
48/60 St	-	15	60	105	140	56	28	3.5	21	51.0	M 8	20	4.800	82.50
55/70 St	-	20	70	120	160	65	30	4.0	22	60	M 10	20	7.400	170.00

NBL Series Hub designs			
<p>Keyway with Set Screw (KW) Standard method of securing a hub to a shaft. Clamping style recommended for backlash free torque transmission</p>		<p>Without Keyway with Set Screw (W/SS) Set screw used to secure hub to shaft. This hub design should be used in applications with non reversing and low torque characteristics.</p>	
<p>Clamping Hub with Single Slot without Keyway (C) Zero backlash, clamping style for torque transmission. Torque capacity of hub depends on bore size. Available standard for sizes 14 - 19</p>		<p>Clamping Hub with Single Slot with Keyway (CWK) Zero backlash, clamping style with keyway for torque transmission. Usable in applications featuring reversing loads. Available standard for sizes 14 - 19</p>	
<p>Clamping Hub with Double Slot without Keyway (DSC) Transmits torque utilizing a double split clamp to attach hub to shaft. Zero or minimum backlash. Torque capacity of coupling determined by bore size. Available standard for sizes NBL 25 - 55</p>		<p>Clamping Hub with Double Slot with Keyway (DSCK) Transmits torque utilizing a double split clamp to attach hub to shaft. Zero or minimum backlash. Available standard for sizes NBL 24 - 55</p>	

The NBL coupling features different hub designs for different applications. Each type offers specific benefits for different types of application. The clamping styles offer the benefit of minimal to zero backlash.



Misalignment

The NBL coupling handles the axial, angular and radial misalignment whilst retaining it's zero backlash properties due to its spider design.

<p>Axial misalignment can be caused by different shaft tolerances or by thermal expansion of shafts. The NBL series coupling handles axial misalignment while keeping reactionary forces low.</p>	<p>Radial misalignment can be defined as a measure of the offset distance between the centrelines of the driving and driven shafts. This type of misalignment causes the highest stress due to the forces involved.</p>	<p>Angular misalignment can be defined as a measure of the angle between the centre lines of the driving and driven shafts, where those centre lines would intersect approximately halfway between shaft ends. The NBL coupling can handle a specific amount of angular misalignment for each given size.</p>

Refer to table on next page.

Size	Spider Shore	Axial ΔKa (mm)	Radial ΔKr (mm)	Angular ΔKW (deg.)
14	80	+1.0 -0.5	0.21	1.1
	92		0.15	1.0
	98		0.09	0.9
	64		0.06	0.8
19	80	+1.2 -0.5	0.15	1.1
	92		0.10	1.0
	98		0.06	0.9
	64		0.04	0.8
24	92	+1.4 -0.5	0.14	1.0
	98		0.10	0.9
	64		0.07	0.8
28	92	+1.5 -0.7	0.15	1.0
	98		0.11	0.9
	64		0.08	0.8
38	92	+1.8 -0.7	0.17	1.0
	98		0.12	0.9
	64		0.09	0.8
42	92	+2.0 -1.0	0.19	1.0
	98		0.14	0.9
	64		0.10	0.8
48	92	+2.1 -1.0	0.23	1.0
	98		0.16	0.9
	64		0.11	0.8
55	92	+2.2 -1.0	0.24	1.0
	98		0.17	0.9
	64		0.12	0.8

Pump Drive Components

Introduction to the Dentex® Coupling



The Dentex® coupling is a flexible gear coupling whose typical features are two congruent hubs with crowned teeth which transmit torque by meshing with the internal toothing of a housing component. The coupling sleeve with axially parallel involute gearing is centred at the tooth flanks of the coupling hubs.

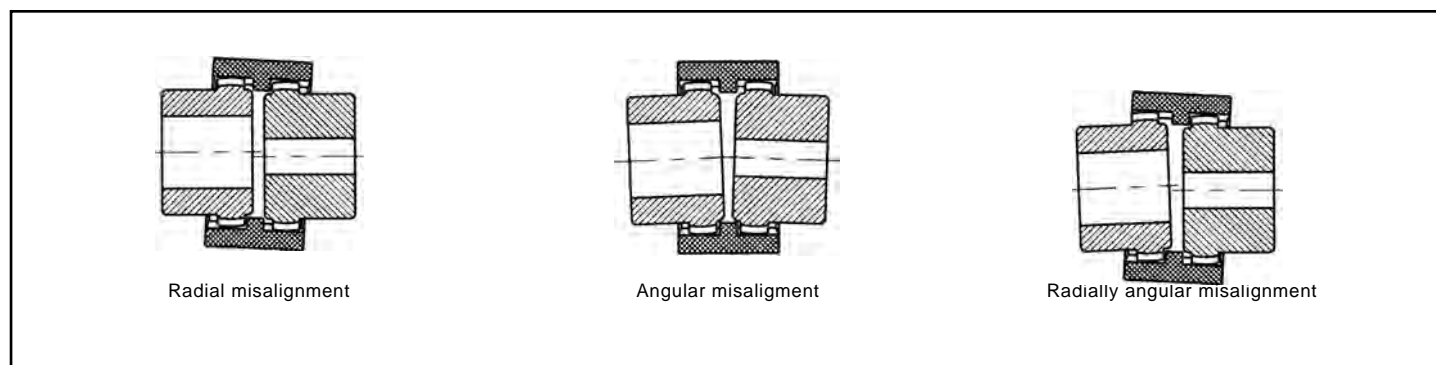
The coupling design meets the requirement to compensate radial, angular, and axial shaft displacements in order to release the neighbouring shaft bearings from non-controlled additional bearing loads. Even with the maximum permissible displacement edge contact of the teeth is excluded and there will be no periodic variation of the angular velocity. The high internal cushioning properties of the plastic material used for the coupling sleeve reduce the effect of shock loading.

Dentex® couplings are as suitable for horizontal shaft connection as they are for vertical connection, for reversing and intermittent service, and they have electrical insulating properties, a low weight, a low flywheel effect and, owing to their compactness, only little space is required for them.

The steel/plastic combination also has the advantage that no lubrication by oil or grease is required; the coupling therefore does not need any maintenance.

The 6,6-polyamide used for the coupling sleeve excels due to its excellent sliding and wear resistance properties especially with the combination of toughness, hardness and rigidity; it is also resistant to condensation and splash water, engine fuels, oils, greases, alcohols, esters, ketones, aliphatic and aromatic hydrocarbons and many other agents. However, substances of strongly polar character such as concentrated mineral acids, formic acid, cresol, glycol, benzyl alcohol can dissolve 6,6-polyamide at high temperature.

Maximum service reliability is guaranteed at temperatures in the range from -25°C to +80°C. It is necessary to use a coupling sleeve in heat stabilised polyamide for temperature up to 140°C.



Technical Detail

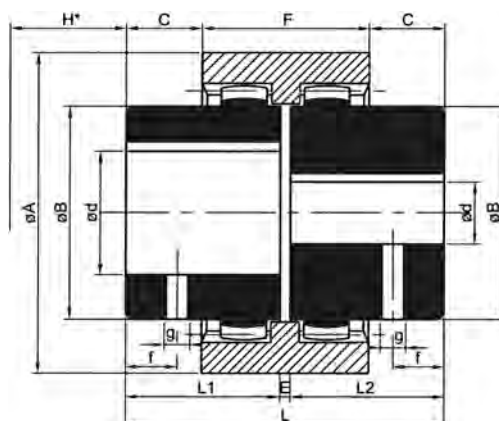
Type	Maximum Speed RPM	Torque NM		Power kw/RPM		Maximum Misalignment					
		Normal T_{KN}	Maximum T_K	Normal	Maximum	Axial (mm)	Radial (mm)	Angular (per hub)			
B - 14	8000	10	20	0.0010	0.0021	+/- 1	+/- 0.3	+/- 1deg.			
B - 19	8000	16	32	0.0017	0.0033						
B - 24	8000	20	40	0.0021	0.0042						
B - 28	8000	45	90	0.0047	0.0094						
B - 32	7000	60	120	0.0063	0.0130						
B - 38	6000	80	160	0.0084	0.0170						
B - 42	5400	100	200	0.0100	0.0200						
B - 48	5000	140	280	0.0150	0.0290						
B - 55	4000	250	500	0.0260	0.0520						
B - 65	3800	390	780	0.0410	0.0800						
B - 80	3000	700	1400	0.0730	0.1500	+/- 1	+/- 0.4	+/- 1deg.			
B - 100	2400	1250	2400	0.1300	0.2500						
B3R	24	20	40	0.0020	0.0040						
	28	45	90	0.0045	0.0095						
	32	80	160	0.0084	0.0170						
B3R	45	140	280	0.0150	0.0290				+/- 1	+/- 0.6	+/- 1deg.
B3R	65	390	780	0.0410	0.0800						
B4R	80	700	1400	0.0730	0.1500						
B4R	100	1250	2400	0.1300	0.2500				+/- 1	+/- 0.7	+/- 1deg.
B4R	2400	1250	2400	0.1300	0.2500						

Pump Drive Components

Dentex® Couplings for IEC Standard Motors



Motor Size	Shaft D x l (mm)		n = 750 (1/min) Power P		Dentex Type	T _K max (Nm)	n = 1000 (1/min) Power P		Dentex Type	T _K max (Nm)	n = 1500 (1/min) Power P		Dentex Type	T _K max (Nm)	n = 3000 (1/min) Power P		Dentex Type	T _K max (Nm)								
	1500 1/min	3000 1/min	kW	T _{AN} (Nm)			kW	T _{AN} (Nm)			kW	T _{AN} (Nm)			kW	T _{AN} (Nm)			kW	T _{AN} (Nm)						
56	9 x 20		—	—	14	20	—	—	14	20	0.06	0.40	14	20	0.09	0.30	14	20								
63	11 x 23		—	—							—	—							0.12	0.90			0.18	0.60		
71	14 x 30		—	—	19	32	—	—	19	32	0.25	1.80	19	32	0.37	1.30	19	32								
80	19 x 40		—	—							0.37	3.70							0.55	3.70			0.75	2.50		
					24	40	0.55	5.50	24	40	0.75	5.00	24	40	1.10	3.70	24	40								
90 S	24 x 50		—	—							0.75	7.90							1.10	7.500			1.50	4.90		
90 L											1.10	11.00							1.50	10.00			2.20	7.40		
100 L	28 x 60		0.75	11	28	90	1.50	15.00	28	90	2.20	15.00	28	90	3.00	9.80	28	90								
			1.10	16							1.50	15.00							2.20	15.00			3.00	13.00		
112 M			1.50	21							2.20	22.00							4.00	27.00			4.00	13.00		
132 S	38 x 80		2.20	29	38	160	3.00	30.00	38	160	5.50	36.00	38	160	5.50	18.00	38	160								
132 M			3.00	40							4.00	39.00							7.50	49.00			—	—		
					42	200	5.50	55.00	42	200	11.00	72.00	42	200	11.00	35.00	42	200								
160M	42 x 110		4.00	54							7.50	74.00							11.00	72.00			15.00	49.00		
			5.50	74							11.00	108.00							15.00	98.00			18.50	60.00		
160 L			7.50	100	48	280	—	—	48	280	18.50	121.00	48	280	22.00	72.00	48	280								
180 M	48 x 110		—	—							—	—							18.50	121.00			22.00	72.00		
180 L			11.00	147							15.00	147.00							22.00	144.00			—	—		
200 L	55 x 110		15.00	196	55	500	18.50	185.00	55	500	30.00	195.00	55	500	30.00	97.00	55	500								
											22.00	215.00							30.00	195.00			37.00	117.00		
225 S	60 x 140	55 x 110	18.50	245							—	—							37.00	245.00			—	—		
225 M			22.00	294	65	780	30.00	292.00	65	780	45.00	294.00	65	780	45.00	146.00	65	780								
250 M	65 x 140	60 x 140	30.00	390							37.00	361.00							55.00	357.00			55.00	176.00		
280 S			37.00	490							45.00	440.0							75.00	487.00			75.00	245.0		
280 M	75 x 140	65 x 140	45.00	585	80	1400	55.00	536.00	80	1400	90.00	584.00	80	1400	90.00	294.00	80	1400								
											75.00	730.00							110.00	714.00			110.00	350.00		
315 S			55.00	715							90.00	876.00							132.00	857.00			132.00	420.00		
315 M	80 x 170		75.00	970	100	2400	110.00	1070.00	100	2400	160.00	1030.00	100	2400	160.00	513.00	80	1400								
			90.00	1170							132.00	1280.00							200.00	1290.00			200.00	641.00		
315 L			110.00	1420							132.00	1280.00							200.00	1290.00			200.00	641.00		



H* is the minimum dimension required for the disengaging of the coupling.

Finish bores according to ISO-standard H7, keyway according to DIN 6885, sheet 1 (JS9).

Weight and moment of inertia values refer to maximum diameter d without keyway.

Type	Bores			Dimensions (mm)										L2 Extended hub length	With d max. but without key	
	Pre Bore	Finish Bores		A	B	L	L1 + L2	E	H*	C	F	g	f		Weight kg	Moment of Inertia kg/m ²
		Min.	Max.													
B - 14	—	6	14	40	25	50	23	4	15	6.5	37	M5	6	40	0.175	0.000030
B - 19	—	8	19	48	30	54	25	4	17	7.0	37	M5	6	—	0.320	0.000047
B - 24	—	10	24	52	36	56	26	4	17	7.5	41	M5	6	50	0.316	0.000093
B - 28	7	10	28	66	44	84	40	4	20	19.0	46	M8	10	55	0.739	0.000310
B - 32	12	12	32	76	50	84	40	4	20	18.0	48	M8	10	55	0.950	0.000550
B - 38	12	14	38	83	58	84	40	4	20	18.0	48	M8	10	60	1.220	0.000870
B - 42	12	20	42	92	68	88	42	4	22	19.0	50	M8	10	60	1.490	0.001400
B - 48	12	20	48	100	68	104	50	4	22	27.0	50	M8	10	60	1.810	0.001800
B - 55	15	25	55	125	83	124	60	4	30	30.0	65	M10	20	—	3.450	0.004600
B - 65	15	25	65	140	96	144	70	4	32	36.0	72	M10	20	—	5.180	0.009900
B - 80	20	30	80	175	124	186	90	6	45	46.5	93	M10	20	—	11.500	0.037000
B - 100	35	40	100	210	152	228	110	8	55	63.0	102	M12	30	—	20.500	0.115600

Assembly Instructions

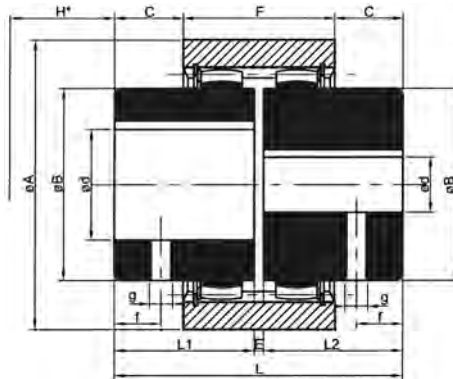
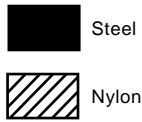
On assembly it is important that the hubs are correctly fitted on the shafts and that the dimension E is maintained. The dimension E can be controlled by the total assembly length L.

An incorrect dimension E has a negative influence on the performance of the coupling. Check the coupling sleeve has minimal axial movement before machine operation.

The permissible displacement values depend on rotation and transmitted power.



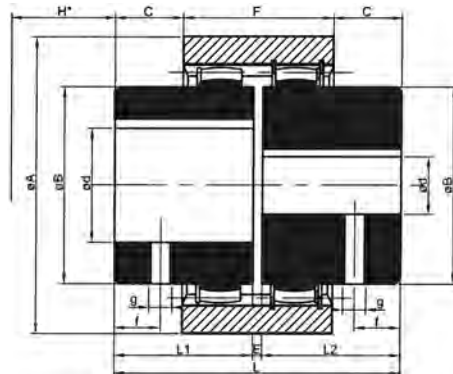
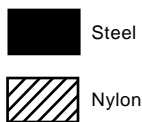
B4R with dust seal and circlips



H* is the minimum dimension required for the disengaging of the coupling.
 Finish bores according to ISO-standard H7, keyway according to DIN 6885, sheet 1 (JS9).
 Weight and moment of inertia values refer to maximum diameter d without keyway.

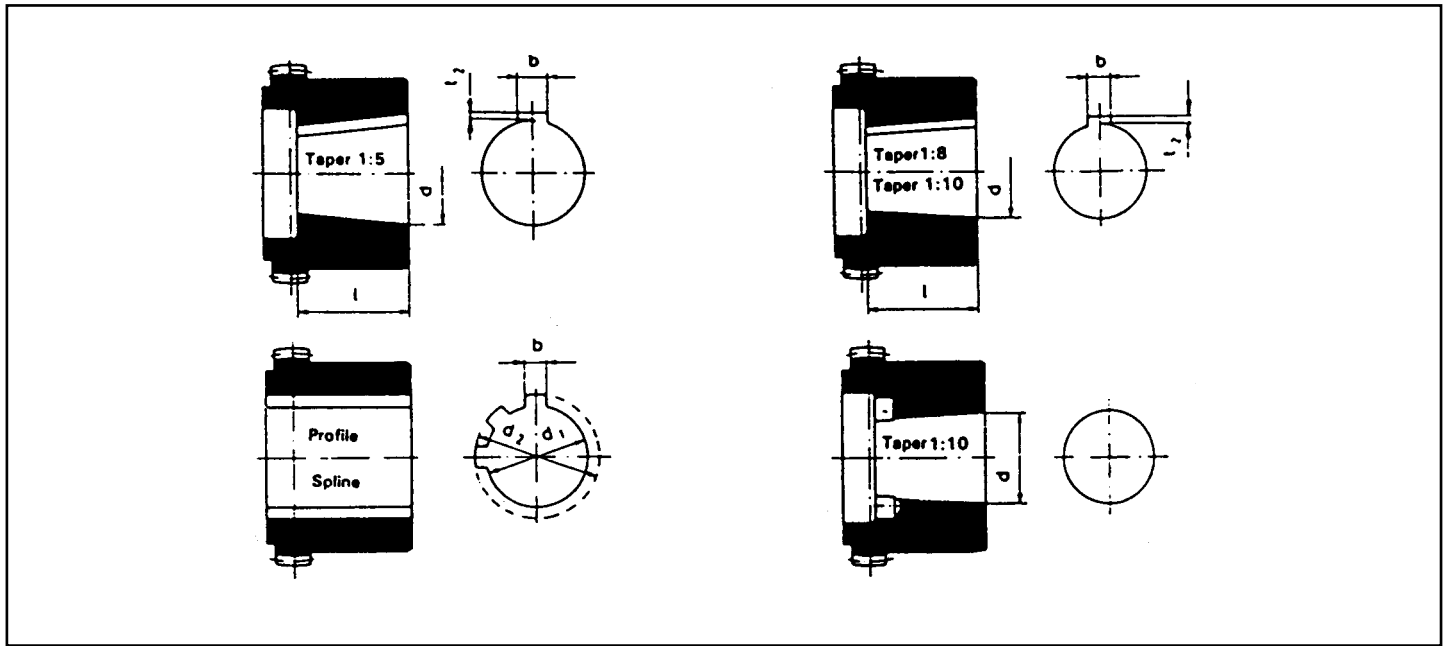
Type	Bores			Dimensions (mm)										With d max. but without key	
	Pre Bore	Finish Bores		A	B	L	L1 + L2	E	H*	C	F	g	f	Weight kg	Moment of Inertia kg/m2
		Min.	Max.												
B4R 32	12	12	32	84	50	84	40	4	18.0	13.0	58	M8	10	1.1	0.0007
B4R 45	12	20	42	100	65	88	42	4	18.0	14.0	60	M8	10	1.5	0.0017
B4R 65	15	25	65	140	96	144	70	4	15.0	30.0	84	M10	20	5.4	0.0118
B4R 80	20	30	80	175	124	186	90	6	3.5	46.5	93	M10	20	11.7	0.0385
B4R 100	35	40	100	210	152	228	110	8	—	63.0	102	M12	30	20.8	0.0987

B3R with inner and outer circlips



H* is the minimum dimension required for the disengaging of the coupling.
 Finish bores according to ISO-standard H7, keyway according to DIN 6885, sheet 1 (JS9).
 Weight and moment of inertia values refer to maximum diameter d without keyway.

Type	Bores			Dimensions (mm)										With d max. but without key	
	Pre Bore	Finish Bores		A	B	L	L1 + L2	E	H*	C	F	g	f	Weight kg	Moment of Inertia kg/m2
		Min.	Max.												
B3R 24	—	10	24	58	36	56	26	4	23.5	2.5	51	M5	6	0.3	0.0001
B3R 28	—	10	28	70	44	84	40	4	26.0	14.0	56	M8	10	0.8	0.0004
B3R 32	12	12	32	84	50	84	40	4	27.0	13.0	58	M8	10	1.1	0.0007
B3R 45	12	20	42	100	65	88	42	4	28.0	14.0	60	M8	10	1.5	0.0016
B3R 65	15	25	65	140	96	144	70	4	40.0	30.0	84	M10	20	5.4	0.0115
B3R 80	20	30	80	175	124	186	90	6	45.0	46.5	93	M10	20	11.6	0.0378
B3R 100	35	40	100	210	152	228	110	8	49.0	63.0	102	M12	30	20.7	0.0974



Taper 1:8

ATOS, Casappa, Dowty, Garbe, Lahmeyer, Jotti & Strozzi, Marzocchi, Plessey, Salami, Turolla etc.

Code	Dimensions (mm)			
	d	b + 0.05	t2	L
....N/1	9.750	2.40	1.3	17.0
....N/1c	11.600	3.00	2.0	16.5
....N/1e	13.000	2.40	1.6	21.0
....N/1d	14.000	3.00	2.2	17.5
....N/1b	14.300	3.20	2.2	19.5
....N/2	17.287	3.20	1.6	24.0
....N/2a	17.287	4.00	2.1	24.0
....N/3	22.002	3.99	2.1	28.0
....N/4	25.463	4.78	3.4	36.0
....N/4b	25.463	5.00	3.9	36.0
....N/4a	27.000	4.78	3.0	32.5
....N/4g	28.450	6.00	2.1	38.5
....N/5	33.176	6.38	3.4	44.0
....N/5a	33.176	7.00	3.4	44.0
....N/6	43.057	7.95	3.4	51.0
....N/6a	41.150	8.00	3.1	42.5

In front of theN put the relevant size of the coupling, and short description of the pump.

Taper 1:5

Bosch, Bucher, Kracht, Leduc, Dusterloh etc.

Code	Dimensions (mm)			
	d + 0.05	b (j9)	t2	L
A10	9.85	2	1.0	11.5
As12	11.85	3	1.8	16.5
B17	16.85	3	1.8	18.5
C20	19.85	4	2.2	21.5
Cs22	21.95	3	1.8	21.5
D25	24.85	5	2.9	26.5
E30	29.85	6	2.6	31.5
F35	34.85	6	2.6	36.5
G40	39.85	6	2.6	41.5

Taper 1:10

Parker Hannifin NMF, ATE - Teves etc.

Code	Dimensions (mm)			
	d + 0.05	b (j9)	d/2 + t2	L
PC 20	19.95	5	12.1	32
PD 25	24.95	6	14.1	45
PE 30	29.75	8	17.0	50

Fitting instructions are available from the named firms.

Also to suit:

Commercial, Danfoss, Denison, Dowty, Racine Rex, Rexroth, Schwelm, Towler, Vickers, Vickers-Reichert, Dusterloh, Langen, & Co. etc.

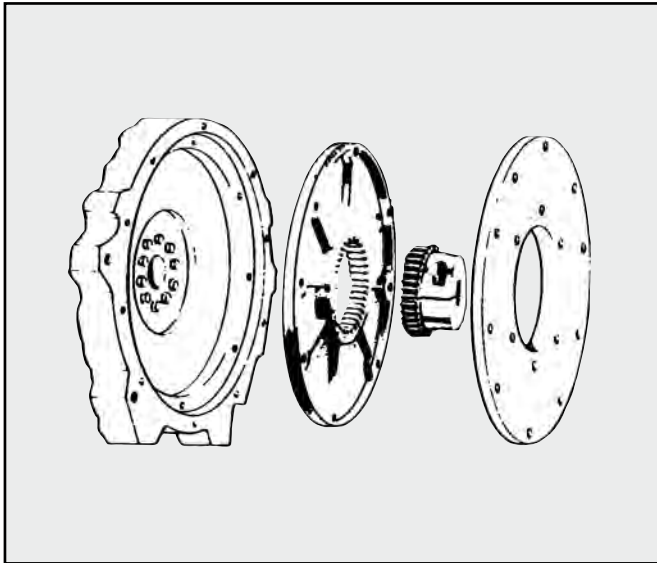
Parallel Shafts

Code	Dimensions (mm)		
	d H7	b	(d+t2) + 0.05
4.0	12.70	3.18	14.07
5.0.1	15.87	4.76	19.00
6.1	19.05	4.76	21.60
7.1	22.23	4.76	24.60
7.2	22.23	6.35	25.07
8.1	25.40	4.76	27.68
8.2	25.40	6.35	28.09
9.2	28.58	6.35	31.32
10.2	31.75	6.35	34.60
10.3	31.75	7.94	35.21
11.3	34.93	7.94	38.60
11.5	34.93	9.53	41.00
12.5	38.10	9.53	42.27
13.5	41.28	9.53	45.47
14.4	44.45	11.11	49.30
14.5	44.45	9.53	49.50
15.8	47.68	12.70	53.11

Details on request for: Abex-Denison - SAE 16/32 pitch, Bosch - DIN 5482, Bruninghaus - DIN 5480, Hydromatik - DIN 5480, LindeGuldner - DIN 5482, SauerGetriebe - SAE 16/32 pitch, ZF Sundstrand - SAE 16/32 pitch.

Pump Drive Components

Standard Dentex® FL Coupling



DENTEX® FL couplings are torsionally stiff crowned tooth flange couplings made from a combination of steel and plastic for diesel engine drives.

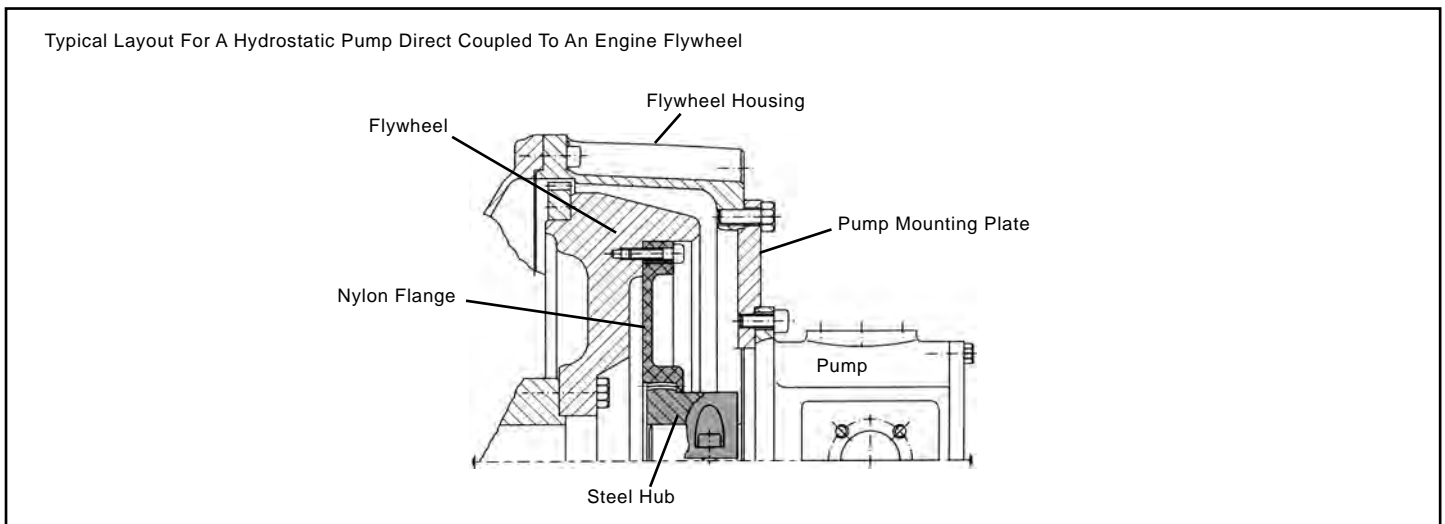
The driving flange is made from glass-fibre reinforced polyamide for high mechanical rigidity and heat resistance. The coupling hub with external crowned teeth is made from steel.

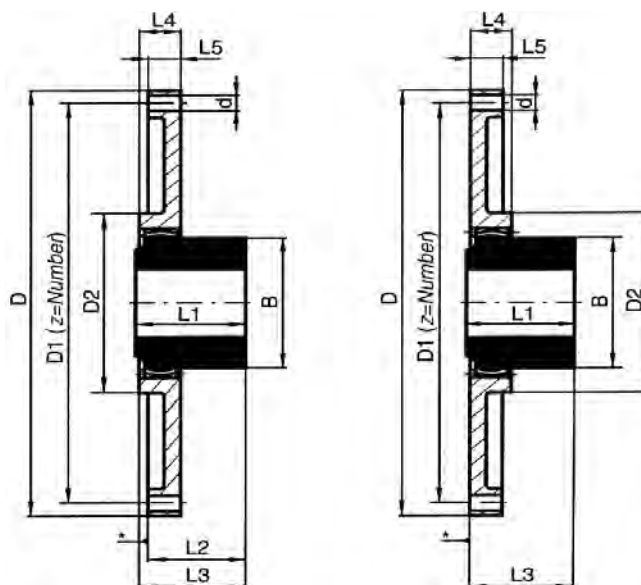
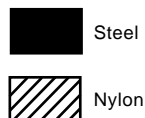
The Dentex® FL coupling allows a keyed connection between diesel engine and hydraulic pump, the pump centred over the SAE housing.

The application of the Dentex® FL coupling results in a non-critical service due to the coupling stiffness. The hazard of a rotating oscillation during the drive will be avoided.

If it is not possible to secure the hub by means of end-disc and screw in the case of pump shafts with profiled gear teeth (according to DIN 5480, 5482, SAE), the use of a clamping hub connection should be considered. The radial distortion guarantees a fit on the pump shaft which is free from clearance.

'FL' Technical Data - Weights - Inertia - Torsional Stiffness												
Hub Size	Torque		Power T _{KW}	Weight Inertia	With Hub Max. Bore	SAE Size						Dynamic Torsional Stiffness NM/RAD
	T _{KN}	T _{Kmax*}				6.5"	7.5"	8"	10"	11.5"	14"	
42	240	480	120	kg	0.6750	0.4000	0.5200	0.5000	0.7500	-	-	0.30Tkn = 35 x 10 ³
				kgm2	0.0006	0.0025	0.0045	0.0048	0.0100	-	-	0.50Tkn = 75 x 10 ³
48	240	480	120	kg	0.7900	0.3200	0.4300	0.5100	0.6400	-	-	0.75Tkn = 105 x 10 ³
				kgm2	0.0007	0.0021	0.0035	0.0049	0.0085	-	-	1.00Tkn = 125 x 10 ³
65	650	1600	325	kg	2.1900	-	-	-	0.6400	0.890	-	0.30Tkn = 110 x 10 ³
				kgm2	0.0039	-	-	-	0.0065	0.012	-	0.50Tkn = 160 x 10 ³
80	1200	3000	600	kg	5.2000	-	-	-	-	1.120	-	0.75Tkn = 200 x 10 ³
				kgm2	0.0151	-	-	-	-	0.022	-	1.00Tkn = 230 x 10 ³
80	1200	3000	600	kg	5.2000	-	-	-	-	-	7.350	0.30Tkn = 200 x 10 ³
				kgm2	0.0151	-	-	-	-	-	-	0.187
												0.75Tkn = 580 x 10 ³
												1.00Tkn = 700 x 10 ³





Flange Dimensions (SAE J620)

Type	Size	D	D1	d	Z No.
FL6	6½"	215.90	200.02	9	6
FL7	7½"	241.30	222.25	9	8
FL8	8"	263.52	244.47	11	6
FL10	10"	314.32	295.27	11	8
FL11.5	11½"	352.42	333.37	11	8
FL14	14"	438.15	466.72	14	8

Hub coupling	Pilot bore	Machined bore		Dimensions							SAE size					Max. Axial displacement (mm)	
		Min.	Max.	B	D2	L1	L2	L3	L4	L5	6.5"	7.5"	8"	10"	11.5"		14"
42	15	20	42	65	100	42 to 60	33	42	20	13	X	X	X	X			+/- 0.2
48	15	20	48	68	100	50 to 60	41	50	20	13	X	X	X	X			+/- 0.2
65	-	25	65	96	132	70	60	70	27	21				X			+/- 0.2
65		25	65	96	172	70	60	70	31	22					X		+/- 0.2
80		30	80	124	172	90	78	87	30	21					X	X	+/- 0.2

Metric Flange Dimensions

Type	Circular bore Ø D1 mm	Outer Ø D mm	Clamping bore hole Ø mm	Number z
FL96	50	96	4 x 8	70
FL125	100	125	3 x 8	80
FL135	100	135	3 x 8	135
FL150	130	150	5 x 8	106
FL152	122	152	3 x 12	105
FL155	125	155	3 x 12	155
FL210	185	210	3 x 10	125
FL220	165	220	6 x 10	220
FL220	185	220	3 x 12	125

Alternative flange dimensions available on request.



Minimum Space - The entire length is normally mounted inside the housing face requiring only a flat pump mounting adaptor. The reduced space may result in savings within the equipment frame manufacture or hydraulic costs.

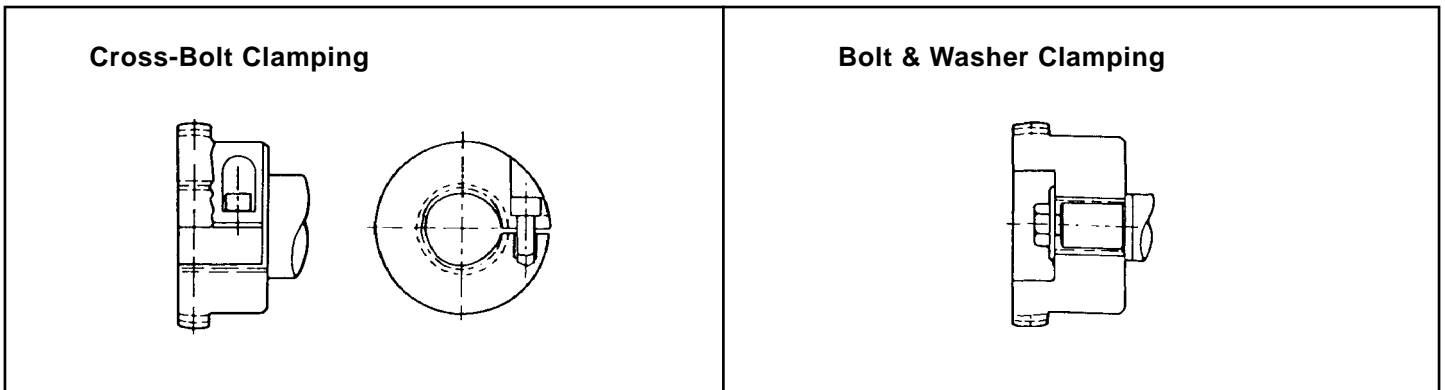
Free Axial Travel - Crowned teeth slide freely in the nylon spline with a +/- 2mm axial travel. Any shaft float is absorbed within the coupling and is not transmitted to the pump components.

Blind Assembly - Pump hub gear ring fits through the pilot hole of the pump mounting plate resulting in faster assembly at lower cost, therefore requiring no inspection ports or cut outs.

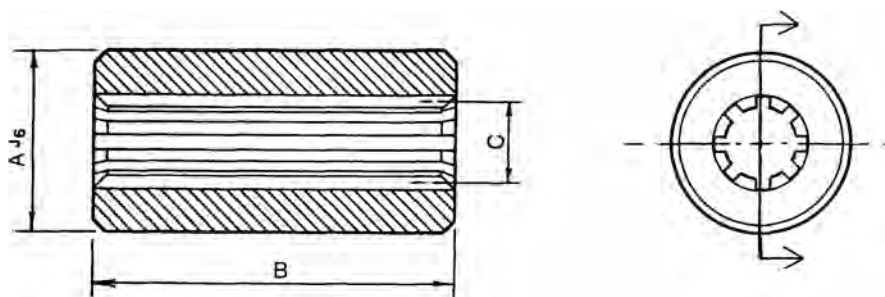
Crowned Gear Teeth - Provides for angular misalignment, preventing angular force on the pump shaft bearings and seals.

Heat Stable - Fibreglass reinforced nylon designed to operate in diesel engine ambients without air circulation. Dimensionally stable to 120°C.

	Model	Dentex Hub - Type	Engine / Type
SAE	FL6	B 42/48	Ford, Hatz, KHD, Kubota, Lister Petter, Lombardini, Perkins, Ruggerini, Slanzi, Teledyne.
	FL7 FL8	B 42/48 B 42/48	Ford, Isuzi, Kubota, Lombardini, Mitsubishi, Yanmar, Cummins, Ford, Hatz, Isuzu, KHD, Lister Petter, Lombardini, Mitsubishi, Perkins, Peugeot, Slanzi, Teledyne, Toyota
	FL10	B 42/48	Cummins, Hatz, Isuzu, KHD, Kubota, Lombardini, Lister Petter, Mitsubishi, Perkins, Slanzi, Toyota
	FL10	B 65	Caterpillar, Cummins, Detroit Diesel, Daimler-Benz, Ford, Hercules, Isuzu, John Deere, KHD, Lister Petter, Perkins, Slanzi
	FL96	B 42/48	Hatz Z 788/789/790
METRIC	FL125	B 42/48	Lombardini 9LD 560-2, KHD FIL 208 D, 210 D, F2L511, F2L912
	FL135	B 42/48	Kubota D 650, 750, 850, 950, 140, Kubota V 1100, 1200, 1102, 1302
	FL150 FL152	B 42/48 B 42/48	Kubota Z 400, 430, D 600, Hatz E 513, 673, 780, 786, E71, 75, 79



- Available in all hub sizes with parallel bores and metric or SAE splines
- Maximum holding power without damage to pump spline. Easy removal
- Hub length machined to meet minimum assembly requirements and available space.
- Sintered steel hubs for excellent corrosion protection.
- Simple, inexpensive, positive clamping.
- Requires drilled and tapped pump shaft.
- Available for SAE, metric or special splines and straight shafts with keyway.



Type	A	B	C	Specifications		Number of Teeth
				SAE/MOD	DIN	
SAE 9T16/32	42	25	16/32DP	1.587	-	9
SAE 11T16/32	42	25	16/32DP	1.587	-	11
SAE 13T8/16	62	66	8/16DP	3.175	-	13
SAE 13T16/32	42	30	16/32DP	1.587	-	13
SAE 14T12/24 x 42	48	42	12/24DP	2.116	-	14
SAE 14T12/24 x 48	48	48	12/24DP	2.116	-	14
SAE 15T16/32	48	25	16/32DP	1.587	-	15
SAE 15T8/16	83	66	8/16DP	3.175	-	15
SAE 17T12/24	62	50	12/24DP	2.116	-	17
SAE 21T16/32	48	48	16/32DP	1.587	-	21
SAE 23T16/32	53	48	16/32DP	1.587	-	23
SAE 27T16/32	62	66	16/32DP	1.587	-	27
SAE 40T16/32	83	66	16/32DP	1.587	-	40
DIN B8-5462	55	40	B8 x 32 x 35	-	5462	8
DIN W25 x 1.25 x 18	48	44	W25 x 1.25 x 9G	-	5480	18
DIN W30 x 2 x 14	55	45	W30 x 2 x 9G	-	5480	14
DIN W35 x 2 x 16	60	49	W35 x 2 x 9G	-	5480	16
DIN W40 x 2 x 18	65	50	W40 x 2 x 9G	-	5480	18
DIN W45 x 2 x 21	70	55	W45 x 2 x 9G	-	5480	21
DIN W50 x 2 x 24	70	60	W50 x 2 x 9G	-	5480	24
DIN W55 x 2 x 26	75	50	W55 x 2 x 9G	-	5480	26
DIN B17 x 14 X 9	30	25	17 x 14	-	5482	9
DIN B25 x 22 x 14	42	27	25 x 22	-	5482	14
DIN B30 x 27 x 16	48	30	30 x 27	-	5482	16
DIN B35 x 31 x 18	55	32	35 x 31	-	5482	18
DIN B35 x 31 x 18 - 35	55	35	35 x 31	-	5482	18
DIN B40 x 36 x 20	70	37	40 x 36	-	5482	20
DIN B45 x 41 x 22	70	45	45 x 41	-	5482	22
DIN B45 x 41 x 22 - 50	70	50	45 x 41	-	5482	22
DIN B45 x 41 x 22 - 48	70	48	45 x 41	-	5482	22
DIN B50 x 45 x 24	80	52	50 x 45	-	5482	24

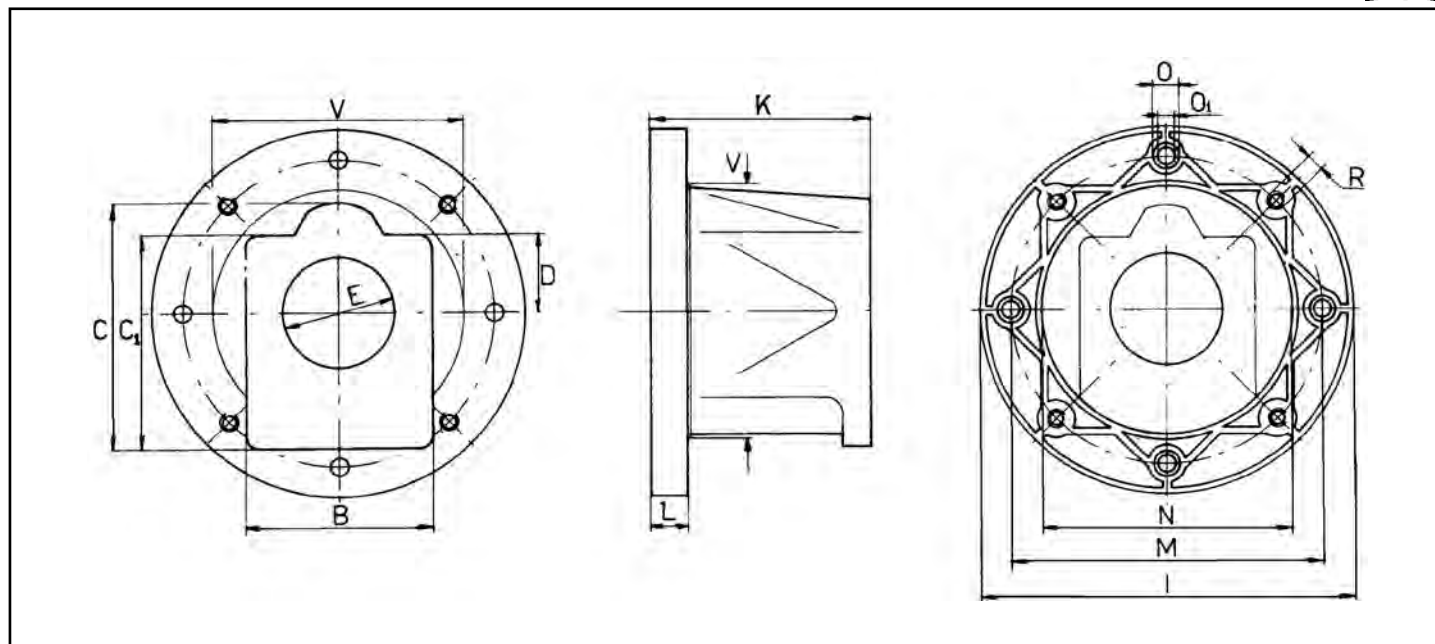
Material : En24T

Also available Japanese JIS D2001 2.5 mod/1.667 mod

- Alternative materials on request.
- Alternative bush sizes available.
- Alternative splines on request.
- External splines also available.

Pump Drive Components

L Series Bellhousing

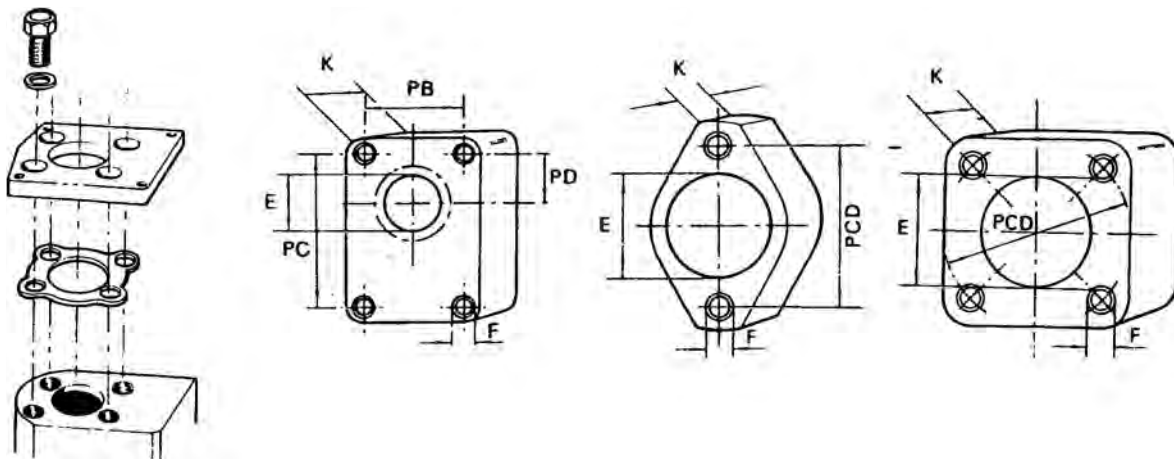


Bellhousing	B	C	C1	D	E	I	L	M	N	O	O1	R	V	K
LX09 - 1	58	89	89	34.0	40	90	7.2	75	60	-	6.0	-	64	60
LY12 - 1	68	89	89	34.0	40	120	13.0	100	80	-	7.0	-	84	60
LX10 - 1	68	89	89	34.0	40	105	8.0	85	70	-	7.0	-	74	67
LY14 - 1	68	89	89	34.0	40	140	15.0	115	95	-	9.0	-	95	67
LX12 - 1	68	89	89	34.0	40	120	10.0	100	80	-	7.0	-	84	87
LX12 - 2	90	115	115	42.0	65	120	13.0	100	80	-	7.0	-	84	95
LY16 - 1	68	89	89	34.0	40	160	15.0	130	110	-	9.0	-	110	87
LY16 - 2	88	114	149	42.0	65	160	15.0	130	110	-	9.0	-	110	95
LX14 - 1	68	89	89	34.0	40	140	15.0	115	95	-	9.0	-	95	87
LX14 - 2	88	114	114	42.0	65	140	15.0	115	95	-	9.0	-	95	95
LX16 - 2	88	113	114	42.0	65	160	15.0	130	110	-	9.0	-	110	109
LY20 - 2	88	114	114	42.0	65	200	15.0	165	130	-	11.5	-	145	109
L14 - 1	68	85	85	32.0	40	140	14.0	115	95	14	9.0	M8	95	60
L16 - 1	68	85	85	32.0	40	160	14.5	130	110	14	9.0	M8	110	67
L16 - 2	90	135	115	42.0	65	160	15.0	130	110	14	9.0	M8	110	75
L20 - 1W	68	105	105	52.5	40	200	17.5	165	130	17	11.0	M10	145	87
L20 - 2W	90	135	115	42.0	65	200	17.5	165	130	17	11.0	M10	145	95
L20 - 2U	90	135	115	42.0	80	200	17.5	165	130	17	11.0	M10	145	95
L20 - 0U	90	135	115	42.0	80	200	15.0	165	130	17	11.0	M10	145	95
L20 - SU	90	135	115	42.0	80	200	17.5	165	130	17	11.0	M10	145	100
L20 - 0F	68	89	89	34.0	30	200	15.0	165	130	17	11.0	M10	145	82
L25 - 2W	90	135	115	42.0	65	250	21.5	215	180	20	13.0	M12	190	109
L25 - 2U	90	135	115	42.0	80	250	21.5	215	180	20	13.0	M12	190	109
L25 - 0U	90	135	115	42.0	80	250	21.0	215	180	20	13.0	M12	190	109
L25 - SU	90	135	115	42.0	80	250	21.5	215	180	20	13.0	M12	190	114
L30 - 2U	90	135	115	42.0	80	300	23.0	265	230	20	13.0	M12	234	130
L30 - 0U	90	135	115	42.0	80	300	21.5	265	230	20	13.0	M12	234	130

Because of the variety of pumps that our bell housings cater for the dimensions in the tables apply only to bell housings with unmachined pump face detail.

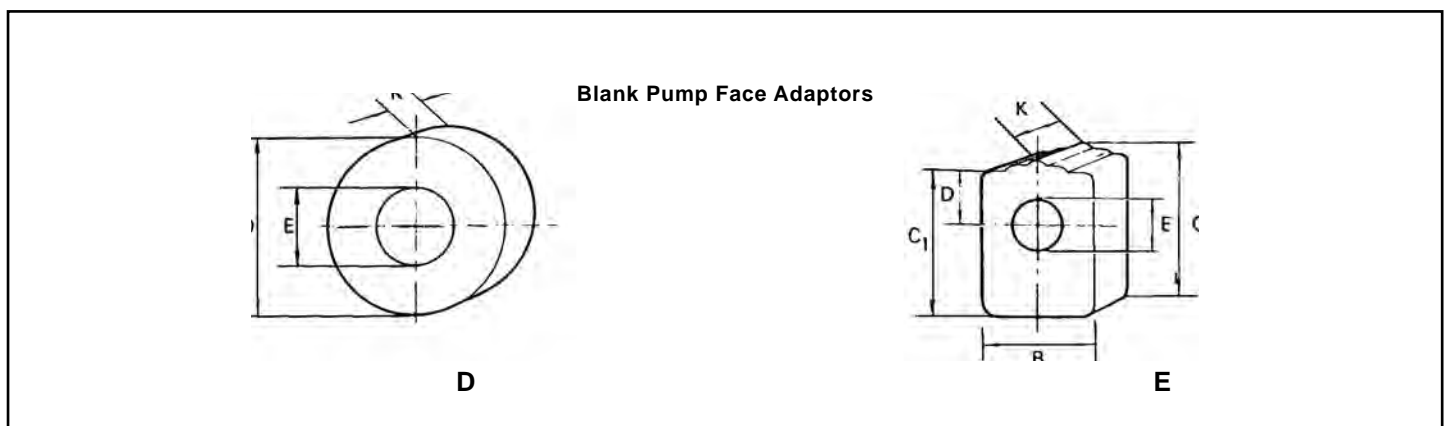
Details missing are the pump spigot and fixings.

Spigots smaller than 'E' dimensions are obtained by the use of steel adaptor rings.



L30-OU/000
L25-OU/000
L20-OU/000

Rectangular Adaptor Flange A								Oval Adaptor Flange B																																																					
Flange Ref.	K	PD	PC	PB	F	E	Base Style	Flange Ref.	K	PCD	E	F	Base Style																																																
FR12/005/017	17	43.0	128.0	98.5	M8	50.8	2U	FR12/060/023	23	106.4	82.55	M10	2U																																																
FR12/006/017	17	45.0	137.0	98.5	M10	50.8	2U	FR12/042/023	23	100.0	63.00	M8	0U																																																
FR12/007/020	20	48.7	148.0	127.0	M12	60.0	2U	FR12/063/023	23	110.0	80.00	M10	0U																																																
FR12/008/020	20	43.9	149.4	114.3	M10	60.8	2U	FR12/066/023	23	106.4	85.00	M10	0U																																																
FR12/009/020	20	42.5	153.0	105.0	M10	101.6	2U	FR12/083/023	23	106.4	80.00	M10	0U																																																
FR12/015/020	20	48.0	145.0	102.0	M10	105.0	2U	FR12/070/023	23	146.0	101.60	M12	SU																																																
FR12/016/033	33	50.0	164.0	124.0	M10	85.0	2U	FR12/023/023	23	125.0	100.00	M10	0U																																																
FR12/010/033	33	65.1	196.0	142.8	M12	63.5	2U	FR12/076/023	23	146.0	105.00	M12	0U																																																
FR12/011/033	33	64.3	188.0	143.0	M12	63.5	2U	FR12/075/023	23	146.0	100.00	M12	0U																																																
<table border="1"> <thead> <tr> <th colspan="6">Square Adaptor Flange C</th> </tr> <tr> <th>Flange Ref.</th> <th>K</th> <th>PCD</th> <th>E</th> <th>F</th> <th>Base Style</th> </tr> </thead> <tbody> <tr> <td>FR12/025/020</td> <td>23</td> <td>125.0</td> <td>100.0</td> <td>M10</td> <td>0U</td> </tr> <tr> <td>FR12/125/023</td> <td>23</td> <td>127.0</td> <td>101.6</td> <td>M12</td> <td>0U</td> </tr> <tr> <td>FR12/021/025</td> <td>25</td> <td>161.5</td> <td>127.0</td> <td>M12</td> <td>SU</td> </tr> <tr> <td>FR12/026/025</td> <td>25</td> <td>160.0</td> <td>125.0</td> <td>M12</td> <td>0U</td> </tr> <tr> <td>FR12/021/033</td> <td>33</td> <td>161.5</td> <td>127.0</td> <td>M12</td> <td>0U</td> </tr> <tr> <td>FR12/026/033</td> <td>33</td> <td>160.0</td> <td>127.0</td> <td>M12</td> <td>SU</td> </tr> </tbody> </table>								Square Adaptor Flange C						Flange Ref.	K	PCD	E	F	Base Style	FR12/025/020	23	125.0	100.0	M10	0U	FR12/125/023	23	127.0	101.6	M12	0U	FR12/021/025	25	161.5	127.0	M12	SU	FR12/026/025	25	160.0	125.0	M12	0U	FR12/021/033	33	161.5	127.0	M12	0U	FR12/026/033	33	160.0	127.0	M12	SU	FR12/072/023	23	140.0	100.00	M12	0U
								Square Adaptor Flange C																																																					
								Flange Ref.	K	PCD	E	F	Base Style																																																
								FR12/025/020	23	125.0	100.0	M10	0U																																																
								FR12/125/023	23	127.0	101.6	M12	0U																																																
								FR12/021/025	25	161.5	127.0	M12	SU																																																
								FR12/026/025	25	160.0	125.0	M12	0U																																																
FR12/021/033	33	161.5	127.0	M12	0U																																																								
FR12/026/033	33	160.0	127.0	M12	SU																																																								
FR12/071/023	23	125.0	100.00	M12	0U																																																								
FR12/074/023	23	140.0	112.00	M12	0U																																																								
FR12/060/035	35	106.4	82.55	M10	SU																																																								
FR12/063/035	35	110.0	80.00	M10	0U																																																								
FR12/065/035	35	115.0	80.00	M10	0U																																																								
FR12/080/025	25	181.2	127.00	M16	SU																																																								
FR12/082/025	25	180.0	125.00	M16	SU																																																								

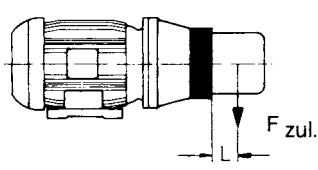


Round Adaptor Flange D				
Flange Ref.	D	E	K	Base Style
OL	158	145	-	95
OM	158	190	-	110

Rectangular Adaptor Flange E							
Flange Ref.	B	C	C1	D	E	K	Base Style
OG	90	135	115	42	35	10	OU



Permitted Load for Damped Bellhousings

	Permitted Load for Dampened Bellhousing and Damping Flange Calculated at Operating Temperature of 60°C					
	Bellhousing with Integrated Noise Reduction Flange			Damping Flange		
	RV250	RV300	RV350	DV400/1N	DF400/1N	DF400/1H
Centre to Centre Spacing (mm)	100	100	200	300	300	300
Permitted Load F (N)	400	1300	1000	2500	2500	4000

For other centre to centre spacing Lx, the permitted weight T_{perm.} can be calculated using the following approximated formula:

$$F_{zul.[N]} = F[N] + 0.5 F \left(\frac{L(mm)}{L_x(mm)} - 1 \right)$$

Maximum operating temperature permitted + 80°C, for short periods + 100°C

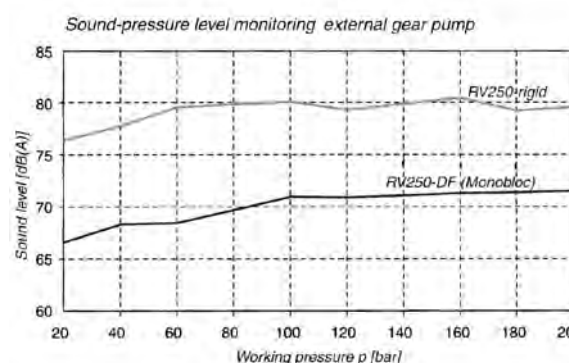
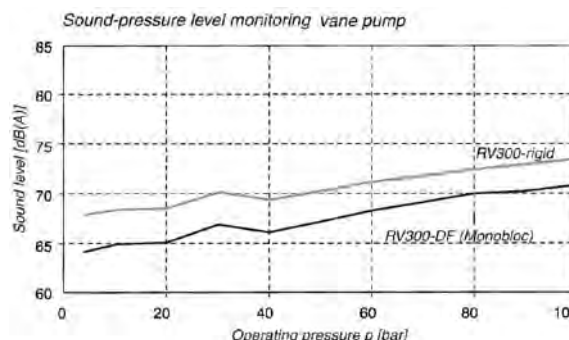
Monobloc-Bellhousings with noise damper acc. to VDMA 24 561

It's a well known fact, that manufacturers of hydraulic accessories have no influence at all upon the noise characteristics of a pump. The influencing of airborne, structure borne and liquid sound is incumbent on the pump design engineer himself. The noise characteristics of a pump – consisting of basic frequency and harmonic waves – can become very annoying when the structure borne noise of the hydraulic unit and the integrated elements of the machine are combined. The flow vibration of a pump combined with its pressure vibration, can cause a particularly unpleasant resonance of the structure, which in itself cannot always be calculated, even by means of a sound pressure level monitoring in form of a dB(a) value.

In order to prevent the reproduction of this vibration into other integrated elements of the structure, it is necessary to isolate the structure borne noise. This is achieved by the use of flexible drive couplings, flexible connections on pipe work and also by the use of bellhousings with integrated noise / vibration reduction flanges.

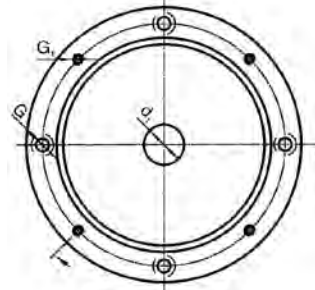
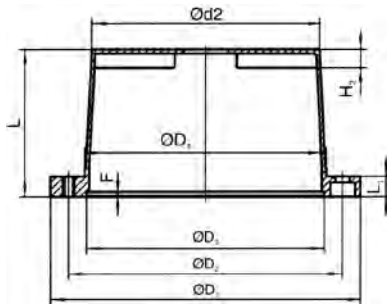
Damping flanges of this type consist of an elastomeric element, which isolates the metallic contact between the pump and other elements of the hydraulic unit. Our associate company, Raja-Lovejoy manufactures and distributes damping flanges for the reduction of noise within hydraulic units. With many years of experience within this field, a monobloc bellhousing system with integrated noise damping has been developed, (top left drawing, page 39), which offers a simple solution against conventional solutions. The connection between the noise damping ring and the bellhousing is of moulded design using a form conclusive and vulcanised elastomer compound and is designed to avoid rotation and radial wind up. The design provides a noticeable improvement in stiffness, resulting in a tensile strength of 56 kN, (based upon a monobloc bellhousing with a motor flange diameter of 300mm and is suitable for use with an electric motor with frame size D132). The higher stiffness results in reduced shaft misalignment and increases the service life of the drive coupling.

The noise damping effect of the monobloc bellhousing is effected by the installation as well as the noise characteristics of the pump. The more annoying the pumps noise the higher the damping degree will be. The spectrum of sound level reduction generally lies between 3 dB(a) in the case of less noisy pumps (Fig. 1) and more than 10 dB(a) by pumps (Fig. 2), which produce higher levels of noise.





Rigid Version RV
 Ø D = 160 - 350 mm
 according to VDMA 24 561



Type	Frame Size	Power kW	Shaftend D x l mm	Footbracket	D1	D2	D3	D4	d1	d2	L	L1	F	G	G1	H2	
RV160/80/...	71	0.25	14 x 30	PTFL160	160	130	110	110	21	107	80	13	4	9	M8	8.5	
RV160/90/...		0.37									90						
RV200/100/...	80	0.55-0.75	19 x 40	PTFL200	200	165	130	145	36	129	100	16	5	11	M10	12.5	
RV200/110/...	90 S+L										1.1 - 1.5						24 x 50
RV200/118/...		118															
RV200/124/...		124															
RV200/140/...		140															
RV250/120/...	100L	2.2 - 3.0	28 x 60	PTFL250	250	215	180	190	45	178	120	19	5	14	M12	14.5	
RV250/124/...	112M										4						28 x 60
RV250/128/...		128															
RV250/135/...		135															
RV250/148/...		148															
RV 250/175/...		175															
RV300/144/...	132S	5.5	38 x 80	PTFL300	300	265	230	234	50	222	144	20	5	14	M12	18	
RV300/150/...	132M										7.5						38 x 80
RV300/155/...		155															
RV300/168/...		168															
RV300/196/...		196															
RV350/188/...	160M+L	11 - 15	42 x 110	PTFS350	350	300	250	260	50	222	188	26	6	18	M16	18	
RV350/204/...	180M+L										18.5 x 22						48 x 110
RV350/228/...		228															
RV350/256/...		256															
RV400/204/...	200L	30	55 x 110	PTFS400	400	350	300	300	50	265	204	26	6	18	M16	20	
RV400/228/...											228						
RV400/256/...											256						
RV450/234/...	225S	37	60 X 140	PTFS450	450	400	350	350	80	301	234	26	6	18	M16	20	
RV450/262/...	225M										45						60 X 140
RV450/285/...		285															
RV450/315/...		315															
RV550/248/...		250M	55	65 x 140	PTS5500	550	500	450	450	80		362	248	26	6	18	
RV550/265/...	280S+M	75 - 90									75 x 140		PTS5500				550
RV550/275/...			275														
RV550/295/...			295														
RV550/315/...			315														
RV660/310/...	315S+M+L	110 - 132	80 x 170	PTS660	660	600	550	550	80	414	310	32	6	23	M20	20	
RV660/330/...		160 - 200									276						330
RV660/345/...																	345
RV800/315/...*	355+L	250 - 315	95 x 170	-	800	740	680	680	125	468	315	60	10	23	M20	35	
RV800/335/...*	400L										355 - 400						100 x 210
RV800/350/...*		350															
RV800/443/...*		443															

Bellhousings with flange Ø D1 = 160 mm according to VDMA 24 561 only in rigid version. Noise reduction version with flange Ø D1 = 200 mm with screwed damping flange on request.

Pump Drive Components

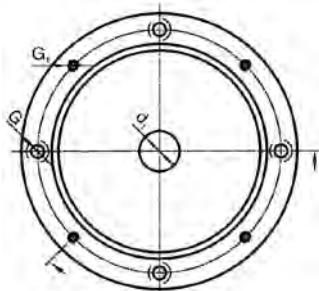
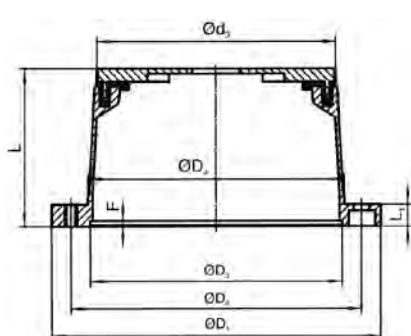
RV Bellhousings with noise reduction



Monobloc-system, noise reduction

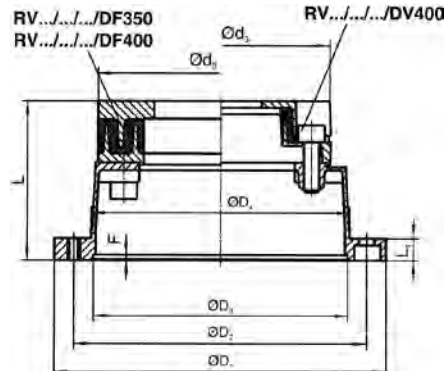
Ø D1 = 250 - 350 mm

according to VDMA 24 561 form fitting without screw joint



Noise reduction version, 2-piece

Ø D1 = 400 - 800 mm



Type	Frame Size	Power kW	Shaftend D x l (mm)	Footbracket	D1	D2	D3	D4	d1	d3	L	L1	F	G	G1	H2
Monobloc system, noise reduction version																
RV160/80/...	71	0.25	14 x 30	PTFL160	160	130	110	110	21	-	80	13	4	9	M8	8.5
RV160/90/...		0.37									90					
RV200/100/...	80	0.55-0.75	19 x 40	PTFL200	200	165	130	145	36	-	100	16	5	11	M10	12.5
RV200/110/...	90 S+L										110					
RV200/118/...		118														
RV200/124/...		124														
RV200/140/...		140														
RV250/120/...	100L	2.2 - 3.0	28 x 60	PTFL250	250	215	180	190	45	172	120	19	5	14	M12	14.5
RV250/124/...	124															
RV250/128/...	112M	4	PTFS250	300	265	230	234	50	217	231	128	26	6	18	M16	18
RV250/135/...											135					
RV250/148/...											148					
RV 250/175/...											175					
RV300/144/...	132S	5.5	38 x 80	PTFL300	350	300	250	260	41	231	144	26	6	18	M16	18
RV300/150/...	150															
RV300/155/...	132M	7.5	PTFS300	550	500	450	450	80	362 (DF400)	228	155	26	6	18	M16	20
RV300/168/...											168					
RV300/196/...											196					
RV350/188/...	160M+L	11 - 15	42 x 110	PTFS350	800	740	680	680	125	228	188	60	10	23	M20	35
RV350/204/...	180M+L	18.5 x 22	48 x 110								53					
RV350/228/...											70					
RV350/256/...											90					
Noise reduction version, 2-piece																
RV400/204/...	200L	30	55 x 110	PTFS400	400	350	300	300	50	260	204	26	6	18	M16	20
RV400/228/...											(DF350) 228					
RV400/256/...											283					
RV450/234/...	225S	37	60 X 140	PTFS450	450	400	350	350	80	362 (DF400)	(DV400) 234	26	6	18	M16	20
RV450/262/...	225M	45									262					
RV450/285/...											285					
RV450/315/...											315					
RV550/248/...	250M	55	65 x 140	PTS5500	550	500	450	450	80	362 (DF400)	248	26	6	18	M16	20
RV550/265/...	280S+M	75 - 90	75 x 140								265					
RV550/275/...											275					
RV550/295/...											295					
RV550/315/...				315												
RV660/310/...	315S+M+L	110 - 132	80 x 170	PTS660	660	600	550	550	80	362 (DF400)	310	32	6	23	M20	20
RV660/330/...		160 - 200									330					
RV660/345/...											345					
RV800/315/...*	355+L	250 - 315	95 x 170	-	800	740	680	680	125	228	315	60	10	23	M20	35
RV800/335/...*	400L	355 - 400	100 x 210								335					
RV800/350/...*											350					
RV800/443/...*											443					

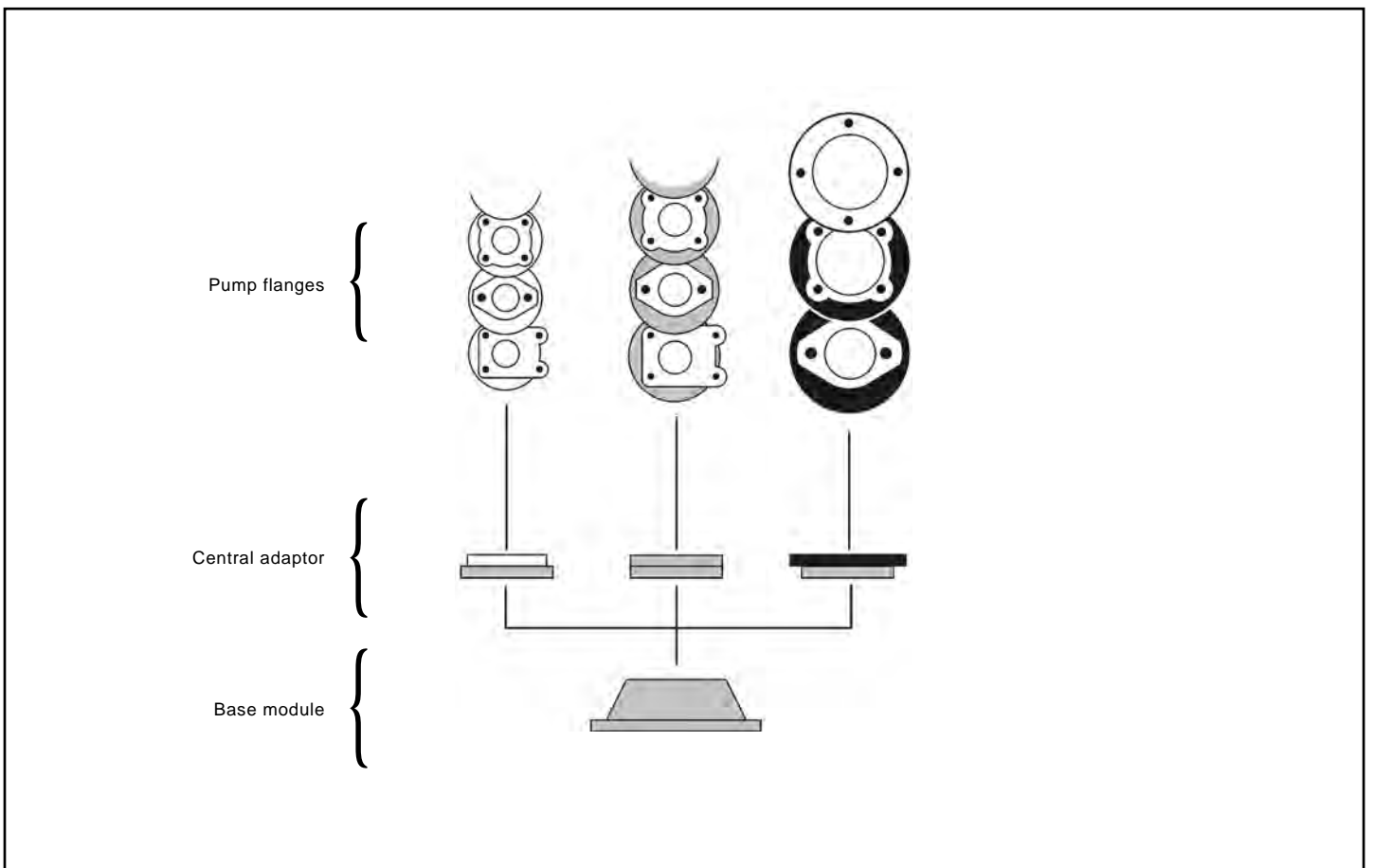
*Not included in the VDMA standard

Bellhousings with flange Ø D1 = 160 mm according to VDMA 24 561 only in rigid version.
Noise reduction version with flange Ø D1 = 200 mm with screwed damping flange on request.



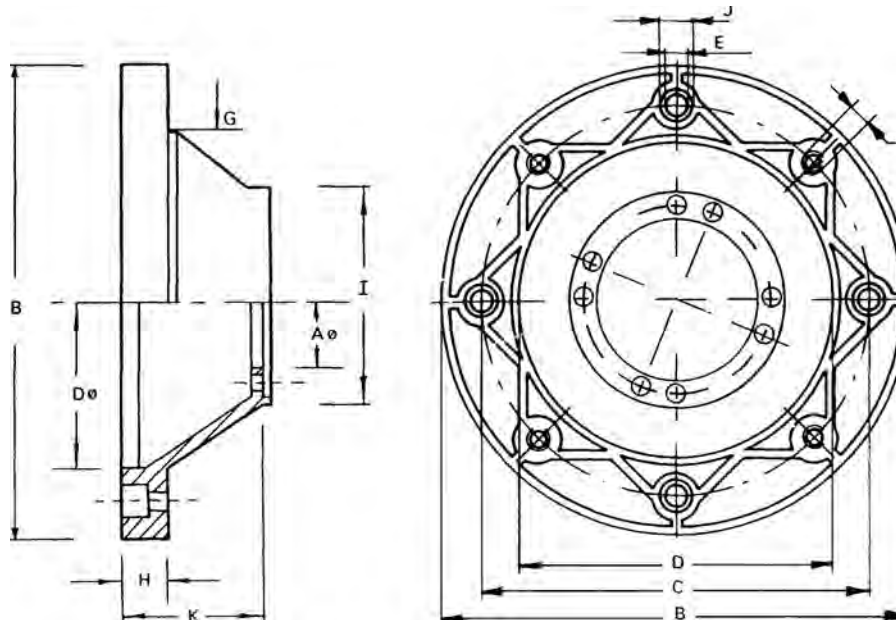
How it works

A range of composite bellhousings to accommodate electric motor flanges from 300mm diameter to 800mm diameter.

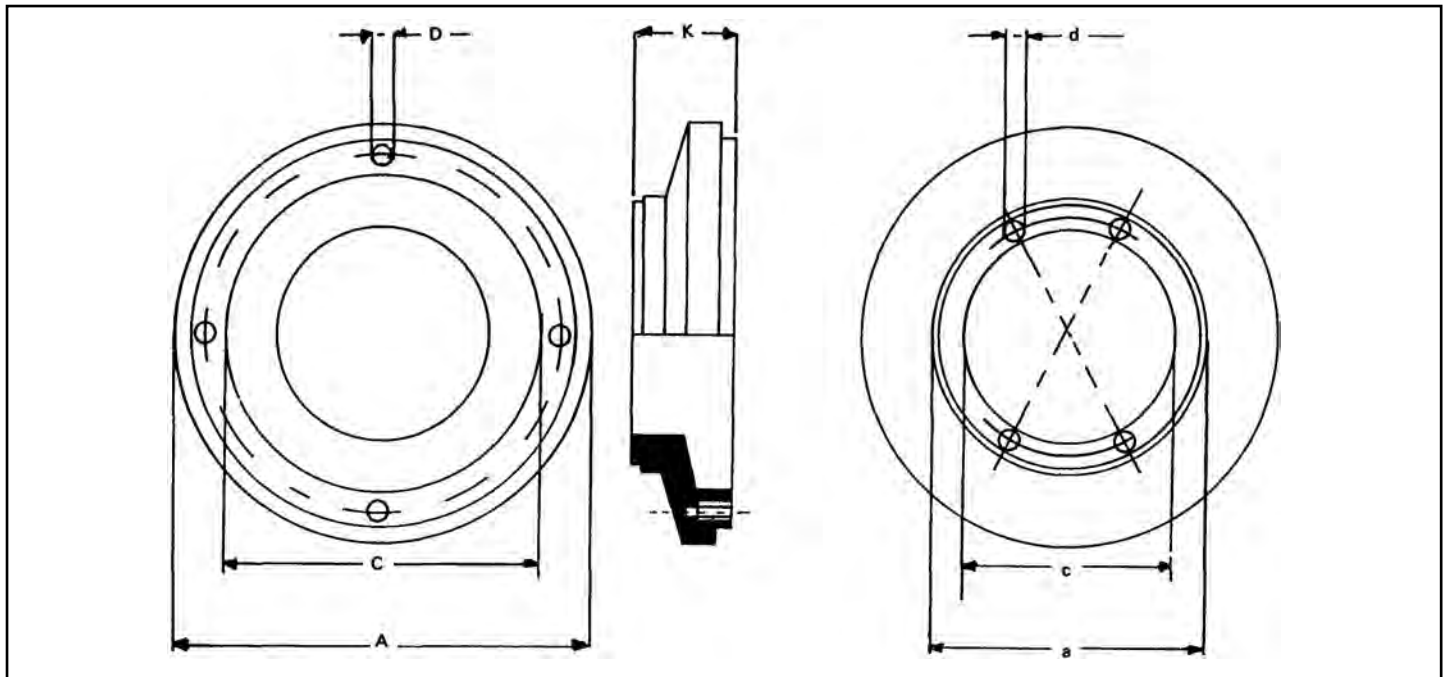


Pump Drive Components

Base Module Detail



Type	Dimensions (mm)										
	A	B	C	D	E	F	G	H	I	J	K
BM 3020	132	300	265	230	13	M12	234	24	200	19	80
BM 3520	132	350	300	250	17	M16	260	32	200	25	110
BM 4025	180	400	350	300	17	M16	300	32	250	25	110
BM 4525	180	450	400	350	M16	M16	350	32	250	-	140
BM 5530	205	550	500	450	M16	M16	450	32	300	-	140
BA 8030/270	205	800	740	680	M20	M20	678	40	300	-	270



Type	Dimensions (mm)						
	A	C	D	a	c	d	K
AD 2020	200	132	M14	200	132	M14	38
AD 2025	200	132	M14	250	180	M14	38
AD 2030	200	132	M14	300	130	M20	46
AD 2520	250	180	M16	200	132	M14	46
AD 2525	250	180	M16	250	180	M16	46
AD 2530	250	180	M16	300	205	M20	46
AD 3025	300	205	M20	250	180	M16	56
AD 3030	300	205	M20	300	205	M20	56
AD 3025 UK	300	205	M20	250	180	M16	86
AD 3030 UK	300	205	M20	300	205	M20	86

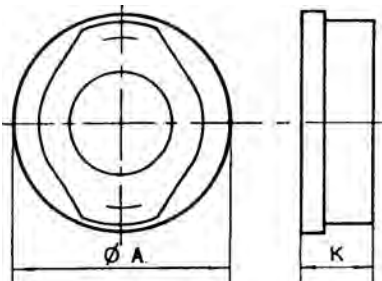
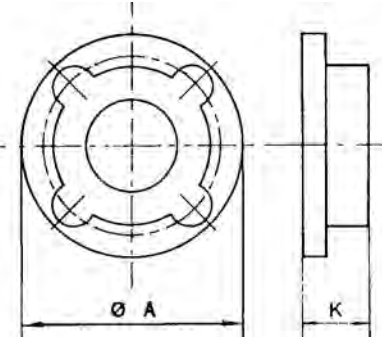
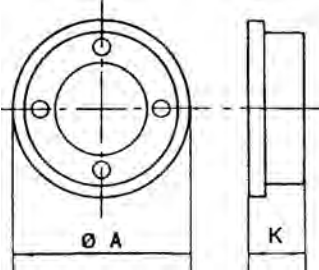
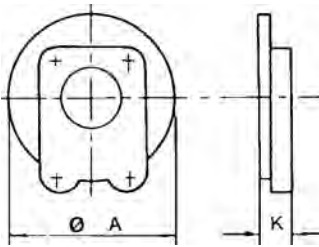
Pump Drive Components

Popular Pump Flange Details



Ordering Code

FPxx / + + + / K

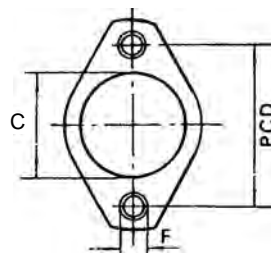
	XX	ØA	Machining Code (+ + +)	K (mm)
Oval Fixing Flange 	20	200	023/070/071/072/074/075/106	26
	20	200		35
	20	200		45
	20	200		63
	25	250	080/081/082	32
	25	250		45
	25	250		58
	30	300	090/092/117/145/166	66
	30	300		86
	30	300		111
	Four Bolt Fixing Flange 	20	200	025/125
20		200	45	
20		200	63	
25		250	021/026/068	45
25		250	027/069/077	45
25		250		86
30		300	028/078/108/112	52
30		300		86
30		300		111
30		300	143	69
30		300	146	69
30		300	144	111
Face Mounting Flange 		20	200	031/116
	20	200	033	91
	25	250	035	101
	25	250	118/035	140
	30	300	095	161
	Rectangular Mounting Flange 	20	200	005/006
25		250	007/008/009/015/016	32
25		250	010/011	45
For details of flanges not shown please contact jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk				

Pump Drive Components

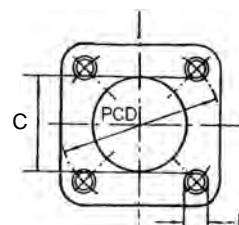
Popular Machining Codes



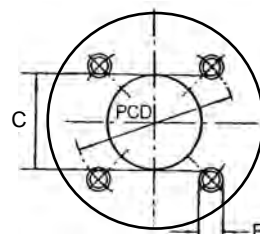
Oval Fixing				
Code	No.	F	PCD	C
023	2	M10	125.00	100.0
060	2	M10	106.40	82.5
070	2	M12	146.00	101.6
071	2	M12	140.00	100.0
074	2	M12	140.00	112.0
075	2	M12	145.60	100.0
080	2	M16	181.20	127.0
081	2	M12	180.00	140.0
082	2	M16	180.00	125.0
092	2	M20	224.00	160.0
106	2	M10	126.00	100.0
117	2	M24	280.00	200.0
145	2	M24	317.35	165.1
166	2	M20	228.00	152.4



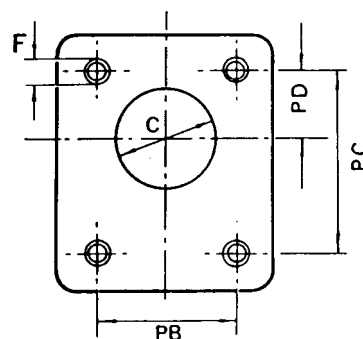
Four Bolt Fixing				
Code	No.	F	PCD	C
021	4	M12	161.50	127.0
025	4	M10	125.00	100.0
026	4	M12	160.00	125.0
027	4	M16	200.00	160.0
028	4	M20	250.00	200.0
068	4	M12	150.00	130.0
069	4	M16	185.00	150.0
077	4	M12	180.00	140.0
078	4	M16	216.00	180.0
108	4	M18	228.60	152.4
112	4	M16	224.00	180.0
125	4	M12	127.00	101.6
143	4	M20	317.35	165.1
144	4	M20	280.00	224.0
146	4	M24	350.00	177.8



Face Fixing				
Code	No.	F	PCD	C
031	4	13	125.0	100.0
033	4	13	160.0	125.0
035	4	17	200.0	160.0
095	4	22	250.0	200.0
116	4	11	125.4	98.5
118	4	17	217.5	152.4



Rectangular Fixing						
Code	No.	F	PB	PD	PC	C
002	4	M6	52.4	26.5	72.0	25.4
003	4	M6	56.0	24.5	73.0	30.0
004	4	M8	71.5	32.5	96.0	36.5
005	4	M8	98.5	43.0	128.0	50.8
006	4	M10	98.5	45.0	137.0	50.8
007	4	M12	127.0	48.2	148.0	60.0
008	4	M10	114.3	49.3	149.4	60.3
009	4	M10	105.5	52.5	153.0	101.6
010	4	M12	142.8	65.1	196.0	63.5
011	4	M12	143.0	64.3	188.0	63.5
012	4	M6	71.5	32.5	96.0	36.5
014	4	M8	72.0	34.0	100.0	80.0
015	4	M10	102.0	48.0	145.0	105.0
016	4	M10	124.0	50.0	164.0	85.0

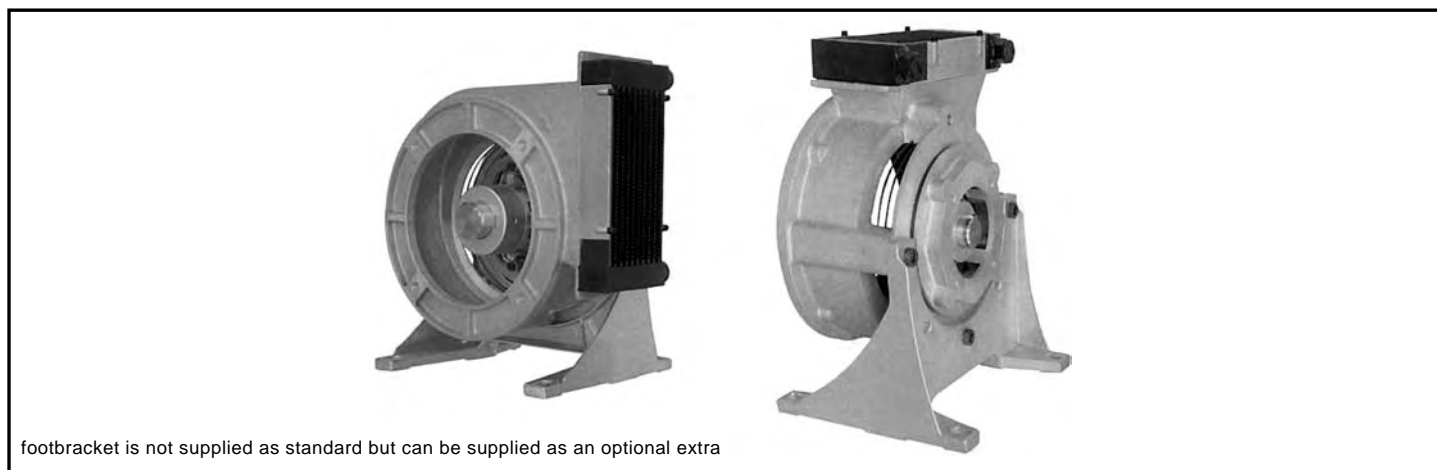


NB. Other machine codes available on request.

For details please contact

jbj Techniques Limited technical office,

telephone: 01737 767493 or email: info@jbj.co.uk



footbracket is not supplied as standard but can be supplied as an optional extra

Ordering Code

K P V 2 5 0 / 1 2 0 / X X X - D 2 8 - D F

VDMA - Bellhousing	
0.55 - 1.5 kW	KPV200
2.2 - 4 kW	KPV250
5.5 - 7.5 kW	KPV300
11 - 22kW	KPV350

Version	
-	Rigid
DF	Damped

Fan -shaft Ø	
D19	0.55 - 0.75 kW
D24	1.1 - 1.5 kW
D28	2.2 - 4 kW
D38	5.5 - 7.5 kW
D42	11 - 15 kW
D48	18.5 - 22 kW

Length of Cooler Bellhousing	
KPV200	100
	110
	118
	124
	128
KPV250	120
	124
	128
	135
	148
KPV300	175
	144
	150
	155
KPV350	168
	196
	188
	204
	228
	256

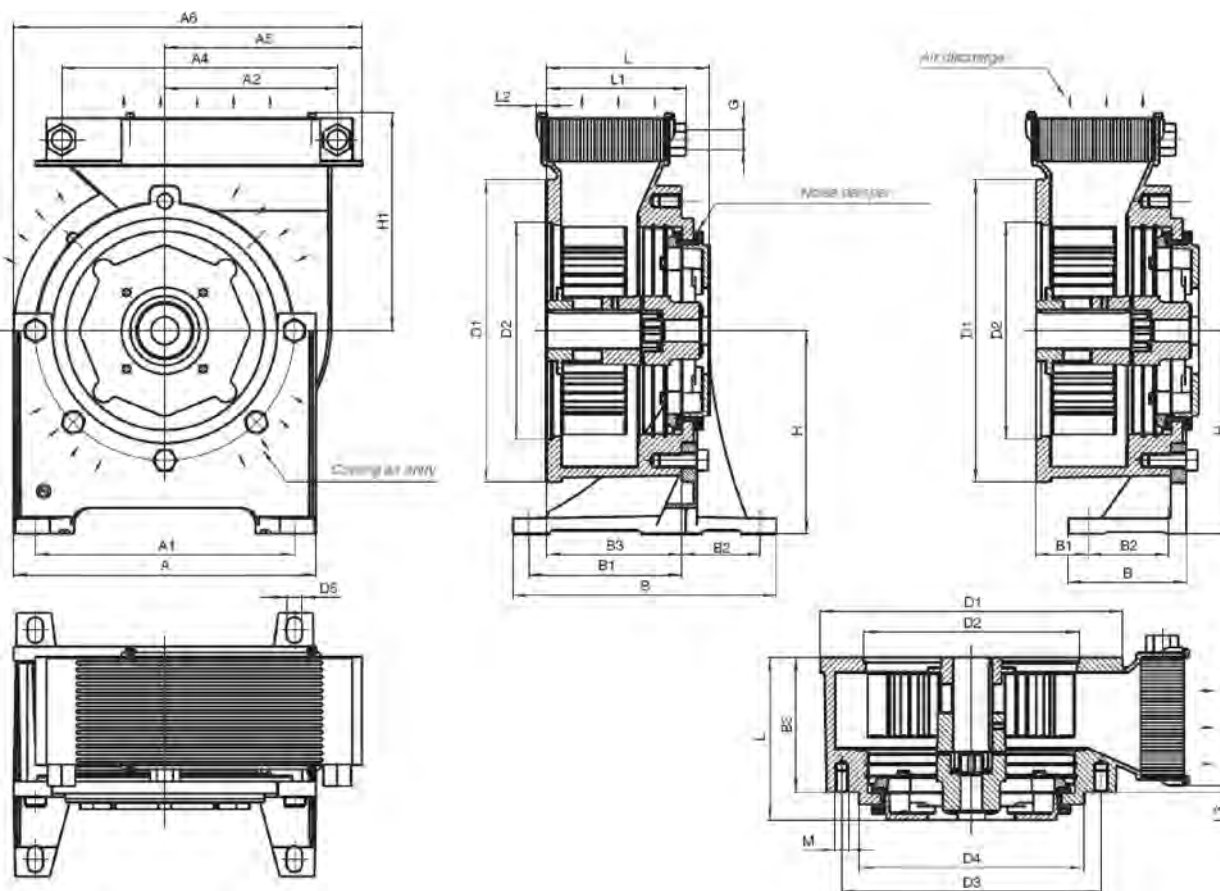
Boring Code for Pump Connection	
xxx	Internal Machining Code

Technical Data

Working Pressure		Load cycles		Maximum Static Pressure	
16 bar		1 x 10 ⁶ ; f = 2 Hz		40 bar	

Cooler Type	Cooling Capacity P (kW) Δt = 40°C	Power E-Motor (kW) n = 1500 1 rpm ⁽¹⁾	Airflow (m ³ /h)	Fan Input Power (W)	Noise Level ⁽²⁾ (dB(A))
KPV200	0.95	0.55 - 1.5	72	20	52
KPV250	2.10	2.2 - 4.0	260	30	58
KPV300	3.22	5.5 - 7.5	430	90	69
KPV350	5.15	11 - 22	780	140	70

- Nominal rotation ⁽¹⁾ of driven machine 1500 rev/min. In case of different rpm please contact jbj Techniques Technical Office.
- Noise levels⁽²⁾ of damped version are measured with a bellhousing and electric motor distance to the tested object of 1m. The values of noise level will vary depending on the electric motor used.
- Direction of pump rotation always clockwise, looking on pump shaft.



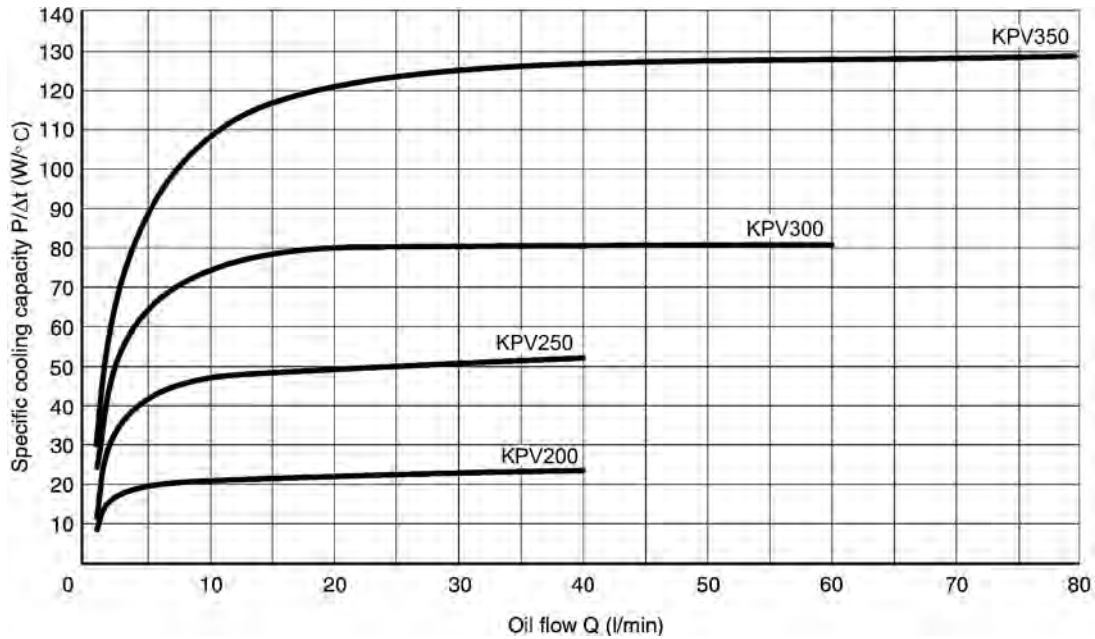
footbracket is not supplied as standard but can be supplied as an optional extra

Type	Footbracket PTFS						Footbracket PTFL					
	A	A1	B	B1	B2	H	A	A1	B	B1	B2	H
KPV200	-	-	-	-	-	-	210	180	90	20	60	112
KPV250	250	215	230	125	60	155	250	220	110	40	60	132
KPV300	300	265	270	150	75	185	290	260	120	40	80	160
KPV350	350	300	305	175	90	235	-	-	-	-	-	-

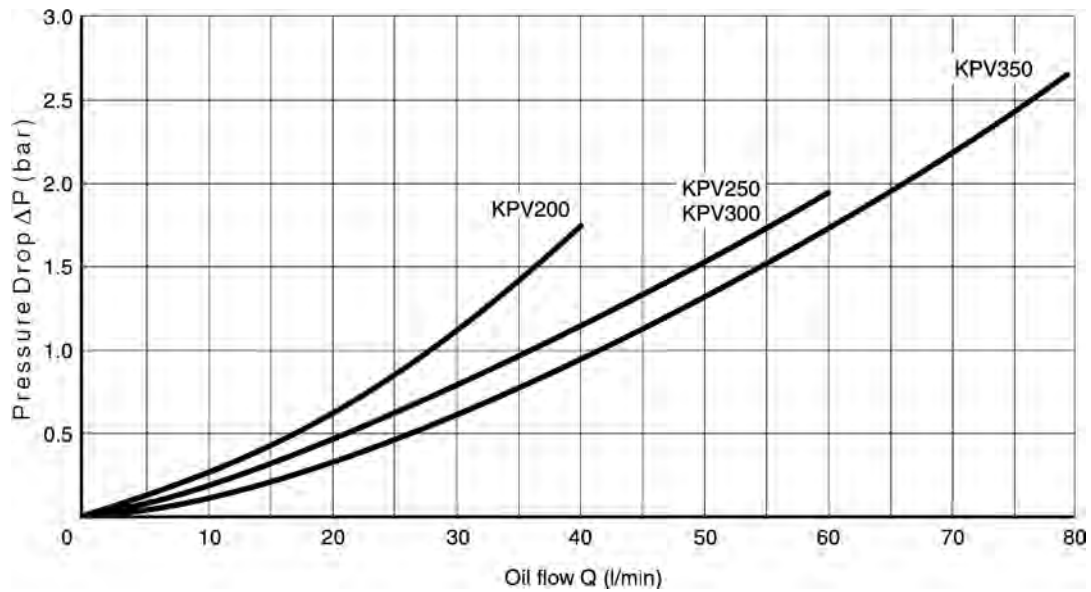
Type of Cooler	Frame Size	Power P(kW)	Shaft D x l	L	L1	L2	L3	A2	A4	A5	A6	B3	H1	D1	D2	D3	D4	D5	M	G
KPV200	80	0.55 0.75	19 x 24	100 110 118	88	10.3	6*	122.5	205	141	241	70	180.5	200	130	165	145	11	10	G½
	90 S + L	1.1 1.5	24 x 50	124 128																
KPV250	100L	2.2 3.0	28 x 60	120 124 128 135 148 175	108.5	26	6	144.5	267	174	326	102	192	250	180	215	190	14	12	G¾
	112M	4.0																		
KPV300	132 S + M	5.5 7.5	38 x 80	144 150 155 168 196	128.5	6	10	168.5	267	200	350	126	234.5	300	230	265	234	14	12	G¾
KPV350	160 M + L	11 15	42 x 110	188 204 228 256	161	4	7.5	198	316	228	403	156	252	350	250	300	260	18	16	G¾
	180 M + L	18.5 22.0	48 x 110																	



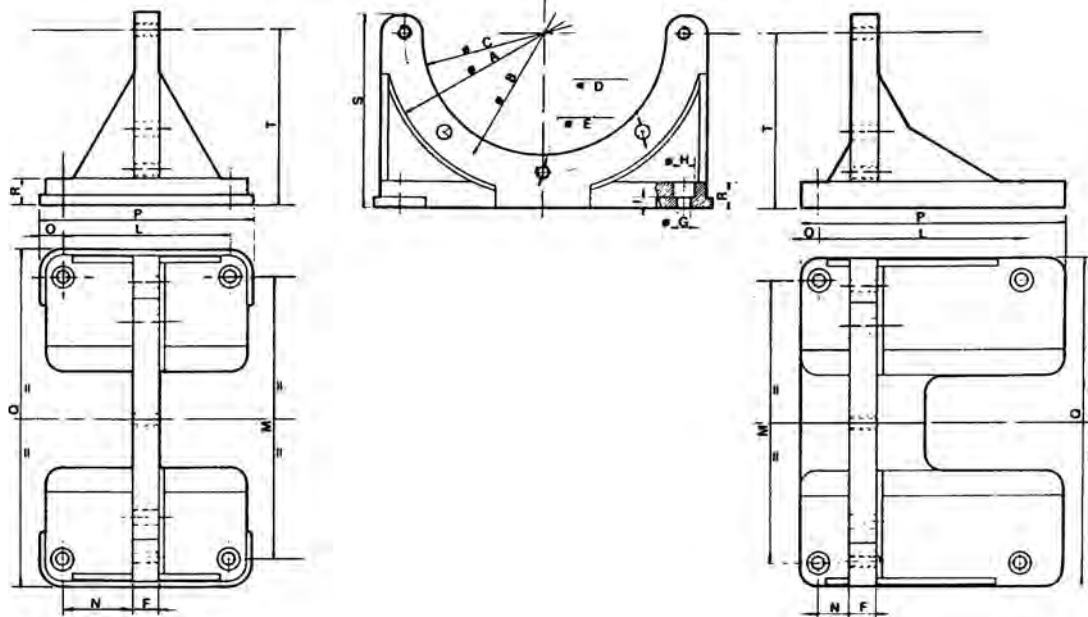
Specific cooling capacity depending on oil flow Q (l/min) and the temperature difference Δt 2°C (Oil inlet and air inlet)



Pressure drop of cooler matrix at the oil viscosity of 32 cSt



Correction Factor k for Dp Values at Varying Viscosities in cSt									
kSt	15	22	32	46	68	100	150	220	460
k	0.64	0.73	1.0	1.28	1.62	2.65	3.9	6.9	17.1



P160 - P300

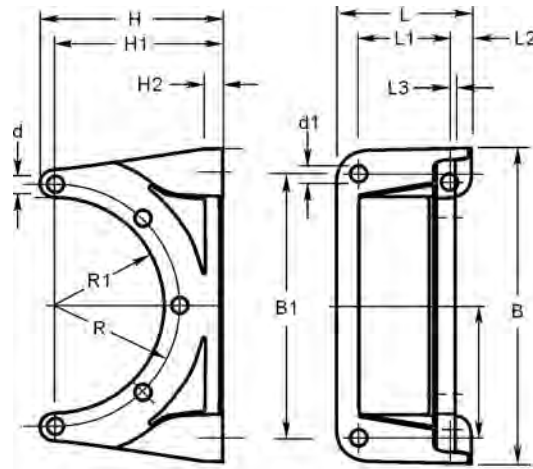
P350 Only

Type	Dimensions (mm)																	
	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T
P 160	160	130	111	8.5	M8	14	8.5	13.5	6	80	135	33	21	122	180	16	100	86
P 200	200	165	145	11.5	M10	14	11.5	-	-	98	175	42	21	140	217	14	130	115
P 250	250	215	191	13.5	M12	16	12.5	-	-	130	220	57	25	172	262	18	162	145
P 300	300	265	235	13.5	M12	20	12.5	-	-	160	270	70	20	210	320	18	188	170
P 350	350	300	260	17.5	M16	30	17.5	25.0	12	200	310	35	20	290	360	30	215	190

Material cast aluminium

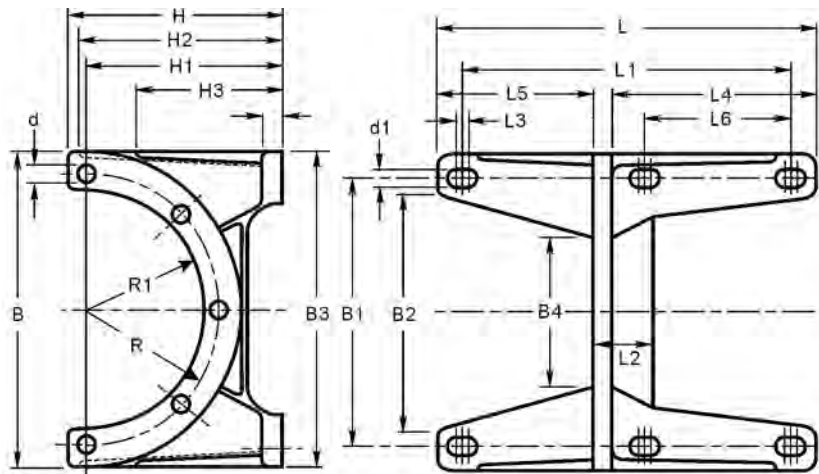


PTFL



Type	PTFL Dimensions (mm)																					
	B	B1	B2	B3	B4	L	L1	L2	L3	L4	L5	L6	H	H1	H2	H3	H4	R	R1	S	d	d1
PTFL 160	160	140	-	-	-	80	50	15	7	-	-	-	108	100	10	-	-	65.0	55.0	12	9	9
PTFL 200	210	180	-	-	-	90	60	15	4	-	-	-	122	112	12	-	-	82.5	72.5	14	11	11
PTFL 250	250	220	-	-	-	110	60	21	21	-	-	-	146	132	15	-	-	107.5	95	19	14	14
PTFL 300	290	260	-	-	-	120	80	20	20	-	-	-	172	160	20	-	-	132.5	117	18	14	14

PTFS



Type	PTFS Dimensions (mm)																					
	B	B1	B2	B3	B4	L	L1	L2	L3	L4	L5	L6	H	H1	H2	H3	H4	R	R1	S	d	d1
PTFS 250	250	215	193	250	162	230	185	22.5	10	147.5	67.5	110	167	155	155	120	15	107.5	95.15	15	14	14
PTFS 300	300	265	243	300	207	270	225	28.4	10	172.0	80.0	130	197	185	185	145	18	132.5	117.25	18	14	14
PTFS 350	350	300	260	350	210	305	265	35.0	12	195.0	92.0	150	255	235	235	184	18	150.0	130.00	18	18	18
PTFS 400	400	350	320	400	260	350	300	51.0	12	225.0	105.0	-	277	260	232	220	20	175.0	151.00	20	18	18
PTFS 450	450	400	364	450	317	385	335	52.0	12	250.0	113.0	-	312	295	272	238	20	200.0	176.00	22	18	18
PTFS 550	550	500	454	550	401	465	415	55.0	12	300.0	140.0	-	365	350	335	285	25	250.0	226.00	25	18	18
PTFS 660	660	600	550	660	486	555	495	60.0	18	360.0	165.0	-	400	380	360	308	30	300.0	276.00	30	22	22

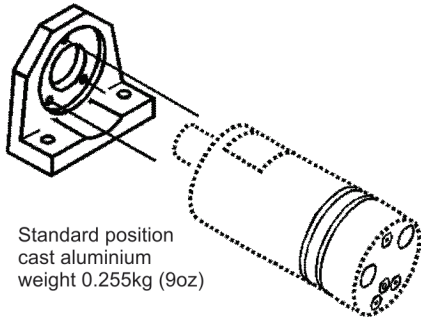
Standard material - Cast Aluminium

Foot Mount Brackets for Hydraulic Pumps & Motors FM Series

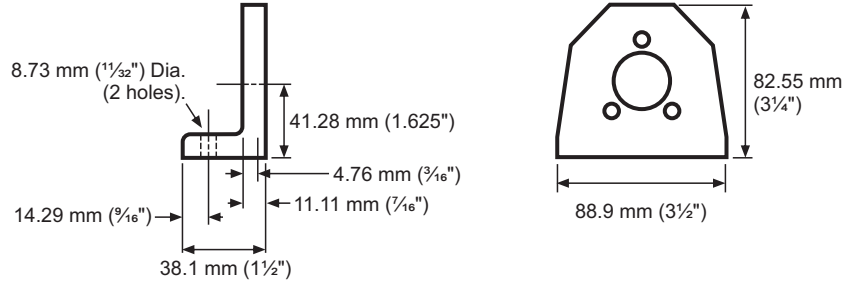


FM-36-M3

Foot mounting bracket for small gerotor torque motors. Fits Eaton M series, Danfoss, OMM and other motors with same mounting.

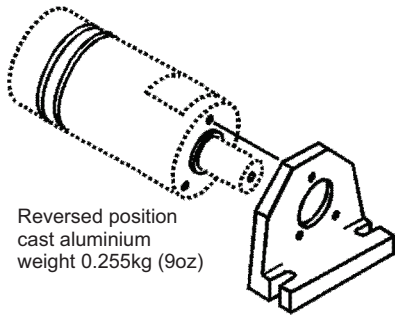


Standard position
cast aluminium
weight 0.255kg (9oz)

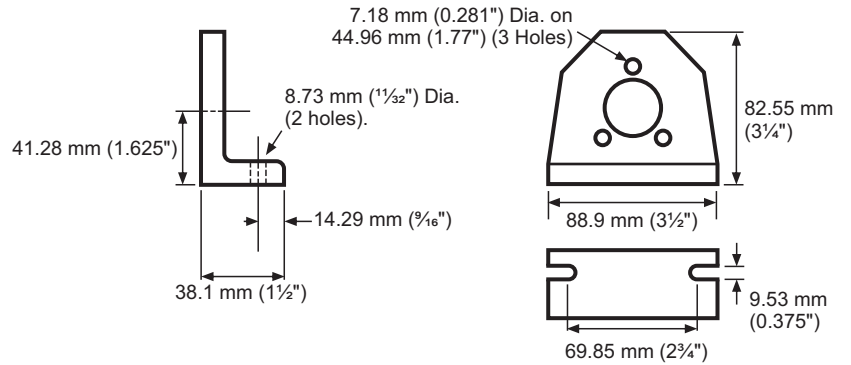


FM-37-M3R

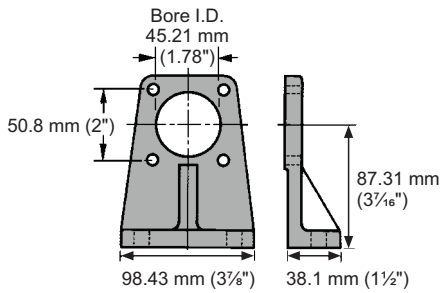
Foot mounting bracket for small gerotor torque motors. Fits Eaton M series, Danfoss, OMM and other motors with same mounting.



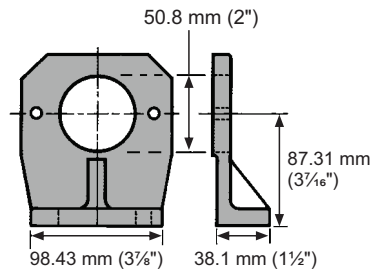
Reversed position
cast aluminium
weight 0.255kg (9oz)



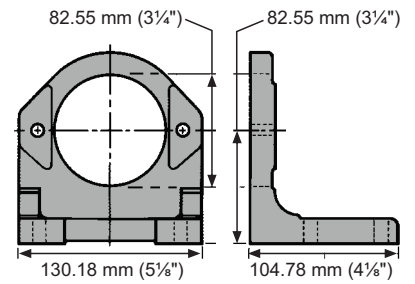
FM-38-4F Weight 0.369 kg (13 oz)



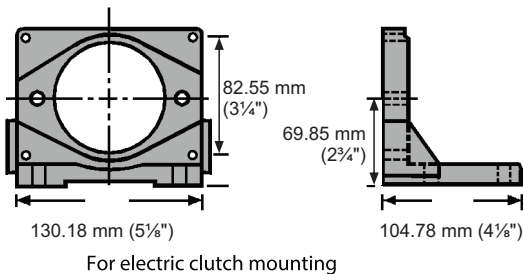
FM-39-AA2 Weight 0.454 kg (1 lb)



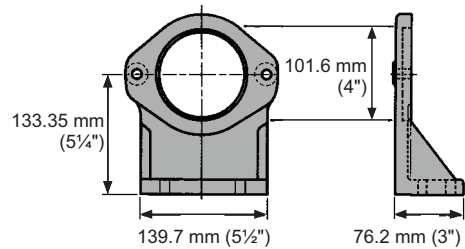
FM-40-A2 Weight 0.765 kg (1 lb 11 oz)



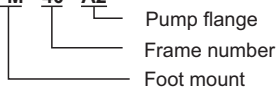
FM-41-A2C Weight 0.936 kg (2 lb 1 oz)

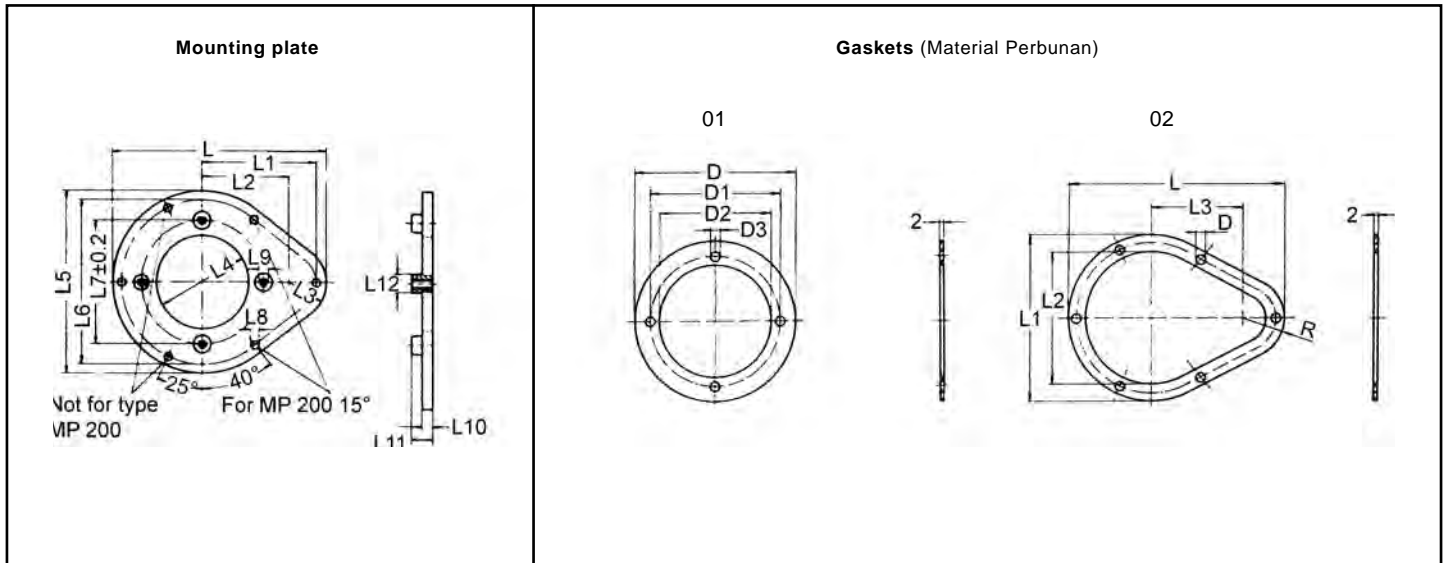


FM-42-B2 Weight 1.276 kg (2 lb 13 oz)



Part number ordering code eg: **FM - 40 - A2**





Mounting Plate															
Mounting plate type	Sealing 1 between bellhousing and flange plate	Sealing 2 between flange plate and tank lid	Dimensions (mm)												
			L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
MP 200	D 200 NBR	D 325 NBR	325	190	140	60	147	250	225	165	9	M10	8	16	20
MP 250	D 250 NBR	D 355 NBR	350	190	140	60	192	300	275	215	9	M12	8	16	20
MP 300	D 300 NBR	D 420 NBR	420	225	150	90	236	360	330	265	14	M12	8	16	20
MP 350	D 350 NBR	D 475 NBR	475	255	160	110	262	410	380	300	14	M16	10	20	25

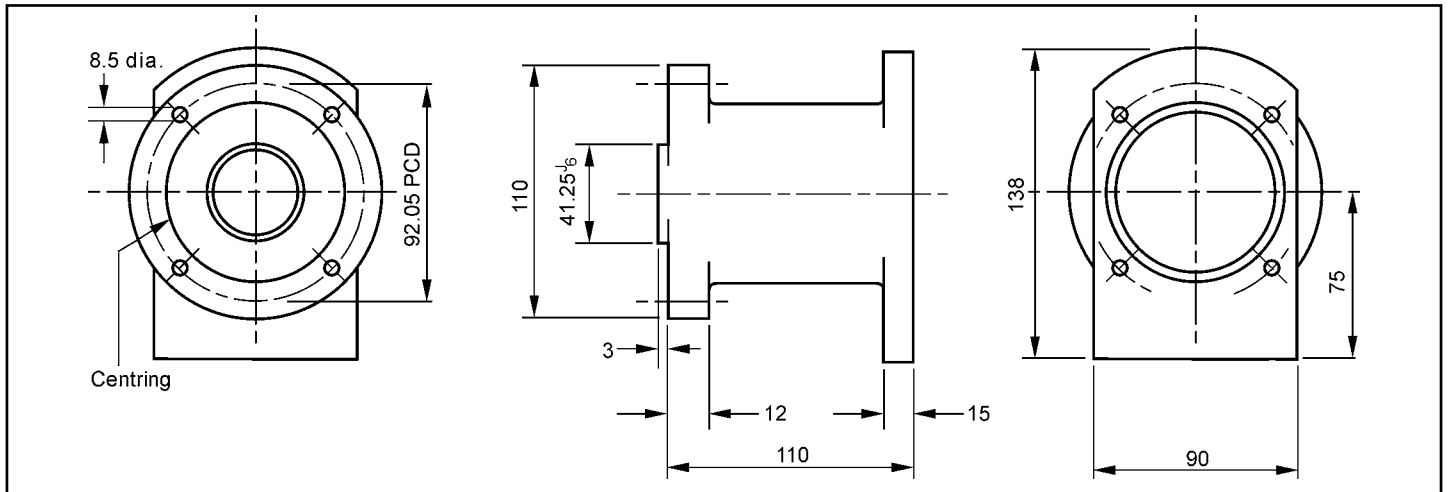
Standard material - Cast Aluminium

Gasket 1				
Type	Dimensions (mm)			
	D	D1	D2	D3
D 140 NBR	140	115	97	10
D 160 NBR	160	130	112	10
D 200 NBR	200	165	147	12
D 250 NBR	250	215	193	14
D 300 NBR	300	265	245	14
D 350 NBR	350	300	270	19
D 400 NBR	400	350	303	19
D 450 NBR	450	400	353	19
D 550 NBR	550	500	453	19
D 660 NBR	660	600	554	24

Gasket 2						
Type	Dimensions (mm)					
	L	L1	L2	L3	R	D
D 325 NBR	325	250	200	140	60	10
D 355 NBR	350	300	250	140	60	10
D 420 NBR	420	360	300	150	90	15
D 475 NBR	475	410	350	160	110	20

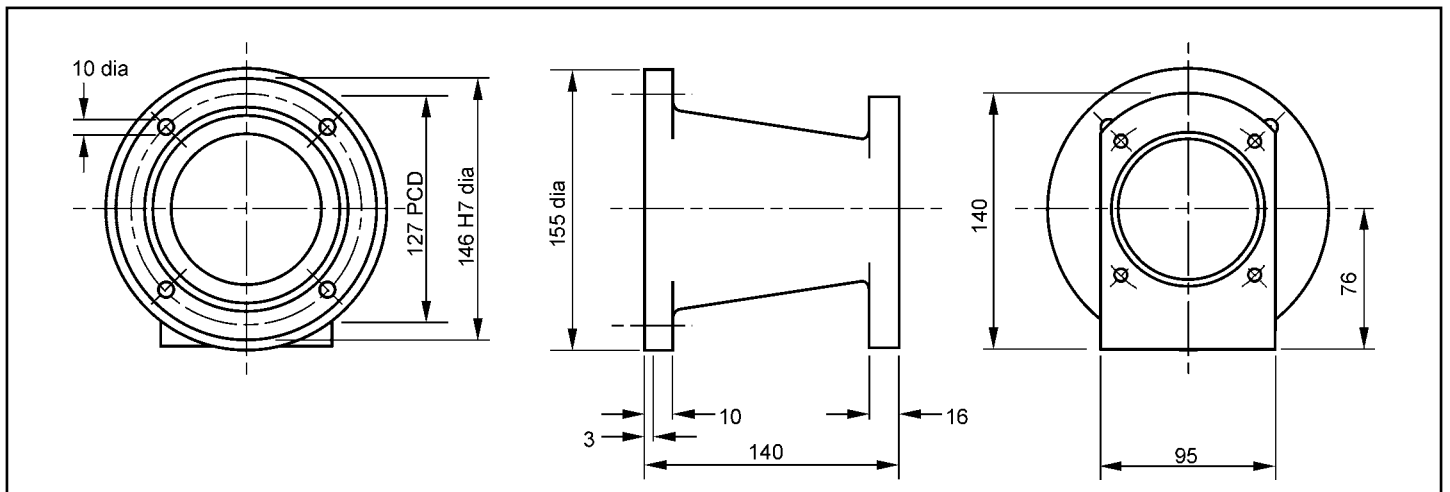
Pump Drive Components

Petrol Engine Adaptors



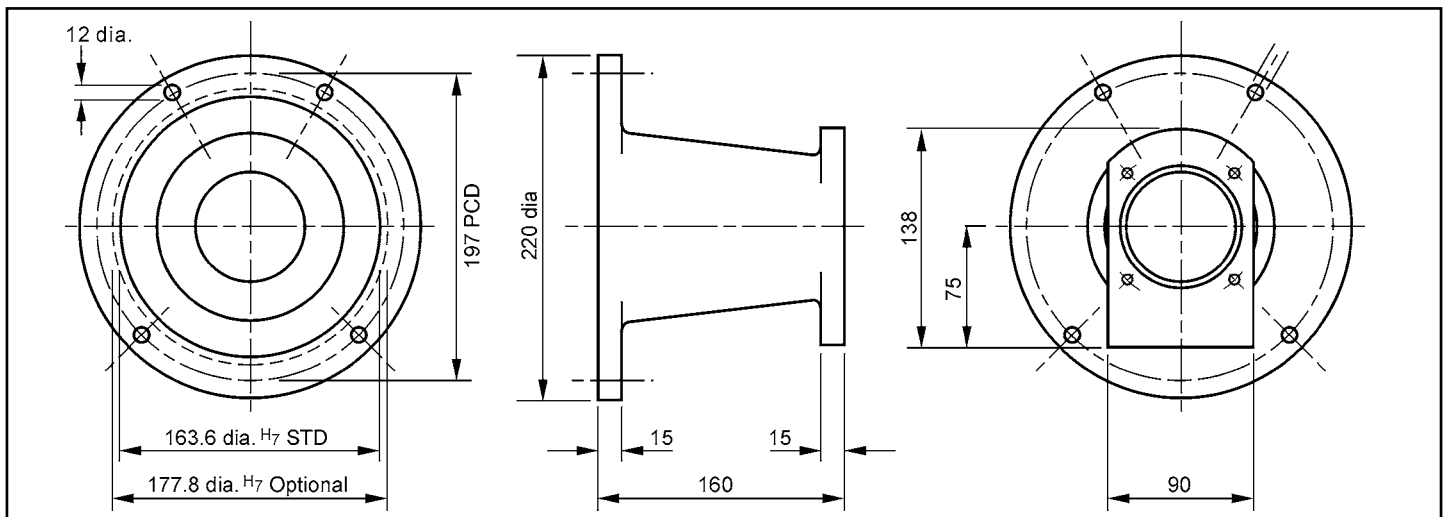
Part No: PED 1/- - /110

To suit: Honda, Briggs & Stratton, Kawasaki, Mag, Robin, Suzuki, Winsconsin, etc.
Units can be machined to suit most hydraulic pump mountings.



Part No: LTO 414/- - /140

To suit: Honda, Briggs & Stratton, Kubota, etc.
Units can be machined to suit most hydraulic pump mountings.

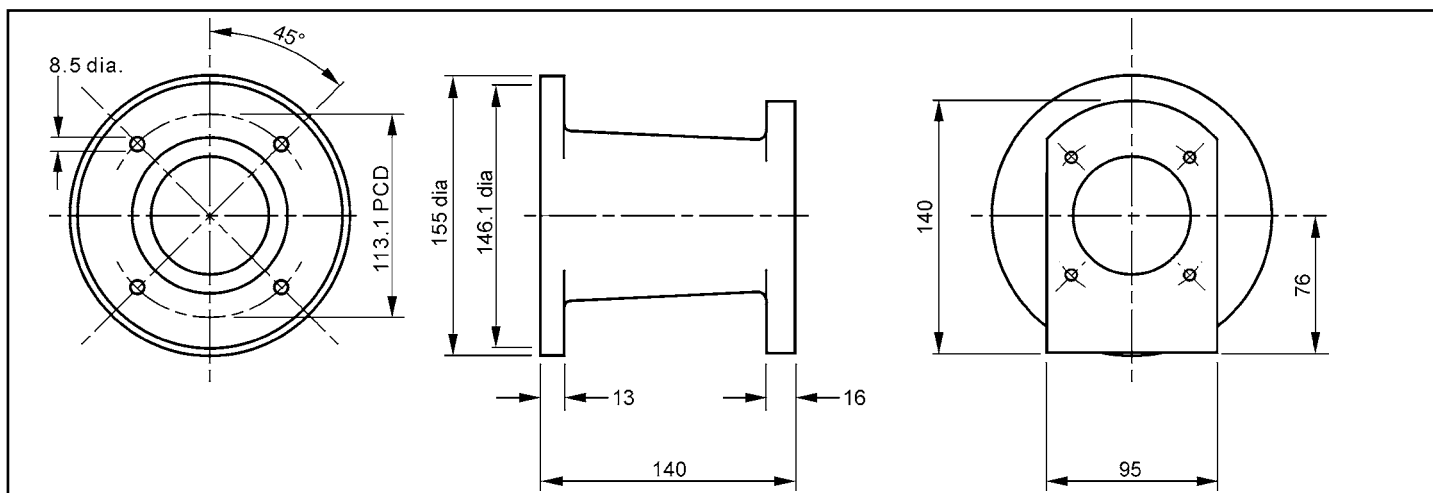


Part No: PED 3/- - /160 (STD Spigot), PED 3X/- - /160 (Optional spigot)

To suit: Honda, Briggs & Stratton, Kawasaki, Mag, Robin, Suzuki, Winsconsin, etc.
Units can be machined to suit most hydraulic pump mountings.

Pump Drive Components

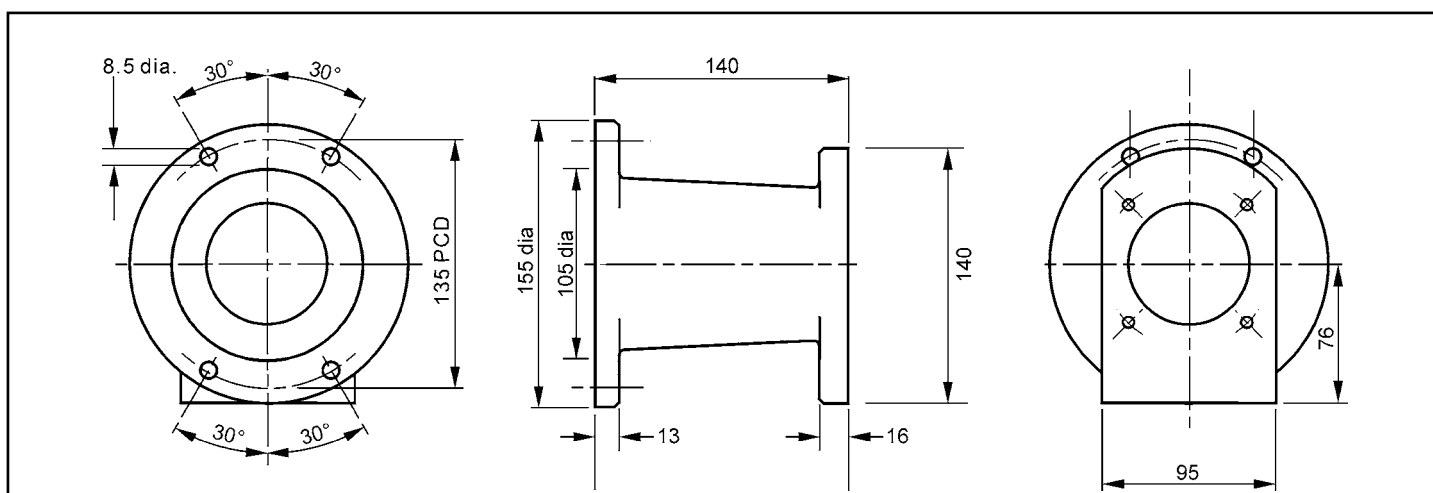
Petrol Engine Adaptors



Part No: LTOC95/- - /140

To suit: Kubota OC95 engine.

Units can be machined to suit most hydraulic pump mountings.



Part No: LTO1B40/- - /140

To suit: Hatz 1B40 engine.

Units can be machined to suit most hydraulic pump mountings.

Adaptors to suit engine camshaft drives and for vertical mounting available on request.

Please contact jbj Techniques technical office, telephone: **01737 767493** or email: **info@jbj.co.uk**

Additional reference catalogues

Compatible couplings - **Pump Drive Components** catalogue and **Torsional Couplings** catalogue

Diesel engine adaptors - **Pump Drives** catalogue and **Torsional Couplings** catalogue

For pump mounting machine codes and adaptors please refer to back page of this leaflet.

Pump Drive Components

Petrol Engine Adaptors



Pump face machining codes (- - -)

Rectangular Adaptor Flange						
Code	No. off	F	PB	PD	PC	C
002	4	M6	52.4	26.5	72.0	25.4
003	4	M6	56.0	24.5	73.0	30.0
004	4	M8	71.5	32.5	96.0	36.5
005	4	M8	98.5	43.0	128.0	50.8
006	4	M10	98.5	45.0	137.0	50.8
007	4	M12	127.0	48.2	148.0	60.0
008	4	M10	114.3	49.3	149.4	60.3
009	4	M10	105.5	52.5	153.0	101.6
010	4	M12	142.8	65.1	196.0	63.5
011	4	M12	143.0	64.3	188.0	63.5
012	4	M6	71.5	32.5	96.0	36.5
014	4	M8	72.0	34.0	100.0	80.0
015	4	M10	102.0	48.0	145.0	105.0
016	4	M10	124.0	50.0	164.0	85.0

Square Adaptor Flange				
Flange Ref.	K	PCD	E	F
FR12/025/020	23	125.0	100.0	M10
FR12/125/023	23	127.0	101.6	M12
FR12/021/025	25	161.5	127.0	M12
FR12/026/025	25	160.0	125.0	M12
FR12/021/033	33	161.5	127.0	M12
FR12/026/033	33	160.0	127.0	M12

Oval Adaptor Flange				
Flange Ref.	K	PCD	E	F
FR12/060/023	23	106.4	82.55	M10
FR12/042/023	23	100.0	63.00	M8
FR12/063/023	23	110.0	80.00	M10
FR12/066/023	23	106.4	85.00	M10
FR12/083/023	23	106.4	80.00	M10
FR12/070/023	23	146.0	101.60	M12
FR12/023/023	23	125.0	100.00	M10
FR12/076/023	23	146.0	105.00	M12
FR12/075/023	23	146.0	100.00	M12
FR12/072/023	23	140.0	100.00	M12
FR12/071/023	23	125.0	100.00	M12
FR12/074/023	23	140.0	112.00	M12
FR12/060/035	35	106.4	82.55	M10
FR12/063/035	35	110.0	80.00	M10
FR12/065/035	35	115.0	80.00	M10
FR12/080/025	25	181.2	127.00	M16
FR12/082/025	25	180.0	125.00	M16



an excellence in engineering

www.jbj.co.uk/couplings.html

Mechanical power transmission couplings

- 1) What is your application?
- 2) Which power transmission coupling would best serve your purpose?
- 3) Which size & specification of coupling will safely and cost effectively fulfill your requirements?

jbj Techniques provide:

- » An extensive range of couplings for mechanical power transmission.
- » Many standard types and sizes held in stock for quick despatch.
- » Technical expertise and in-house machining facilities for minor customisation or full bespoke couplings.
- » A wide range of coupling types to fulfill the requirements of a vast range of applications.

Ranging from miniature couplings, all steel gear couplings, flexible spider couplings, shaft couplings, torque limiting couplings, disc and grid type couplings, ATEX compliant and shaft locking devices. Magnetic couplings for power transmission between hermetically sealed areas.

There are a range of criteria ([link to selection table](#)) in specifying the most suitable coupling for your application but the jbj Techniques technical department will guide you all the way to specify the right coupling for power transmission.



Spider Couplings
also known as jaw couplings



Gear Couplings



Steel Gear Couplings



Grid Couplings



Torsional Couplings



S-Flex Couplings



Disc Couplings



ATEX Couplings



Questions?

jbj Techniques Limited
technical office
telephone: 01737 767493
email: info@jbj.co.uk

happy to help



Tyre Couplings



Torque Limiting



Magnetic Couplings



jbj Techniques is a specialist supplier of high-quality products for the mechanical power transmission and fluid power sectors. The company offers a high level of in-house expertise plus a huge selection of products to meet a very broad range of customer applications. From specification, through technical advice and manufacture to after-sales support, jbj Techniques provides a comprehensive and valued service to the power transmission and hydraulics industries. The company fields a UK-wide team of technical sales engineers to ensure that the business is close to its customers, and it enjoys excellent associations with European manufacturers, acting as sole UK distributor in many cases.

jbj's team is recognised for its expertise in the selection and configuration of hydraulic and mechanical transmission systems. Able to draw on an extensive product range that provides the building blocks for bespoke systems both large and small, the in-house design team offers a complete service, ranging from an assessment of customer requirements to full technical backup, including product specification, CAD based system design, system build and certification. Moreover, customers can take advantage of jbj's own machine-shop facilities and skilled engineers to guarantee quality and control costs.

jbj Techniques provides probably the widest range of couplings available within the UK with 14 different designs and 22 different styles of gear couplings alone. The product portfolio includes miniature couplings, all-steel gear couplings, flexible spider couplings, shaft couplings, torque limiting couplings, disc and grid type couplings, ATEX compliant and shaft locking devices. However, as extensive as the selection is, couplings make up a fraction of jbj's portfolio. In addition, the company can provide gearboxes, clutches, pumps, hydraulic motors, flowmeters, fluid power accessories - including cooling systems, reservoirs, seals and indicators - as well as a variety of bell housings and flanges, to name just a few of the product categories.

jbj Techniques Limited is proud of its relationship and reputation with customers and suppliers. The core client base is stable and loyal, which is testament to the quality of service provided by the company. A similar relationship exists with suppliers, ensuring a continuing high-quality service in which customers can have complete confidence.



from
Small Individual Components
 to
Large Combinations



jbj Techniques Limited

providing . . .

a diverse range of mechanical drive & transmission solutions to industrial markets, including design engineering, product supply & after-sales service . . .



» overview video

“ as extensive as the selection is, couplings make up a fraction of jbj's portfolio ”



» overview video

“ ensuring a continuing high-quality service in which customers can have complete confidence. ”



AN EXCELLENCE IN ENGINEERING

comprehensive range of components www.jbj.co.uk



Gear Pumps/Motors



Mini Power Packs



Screw Pumps



Vane Pumps



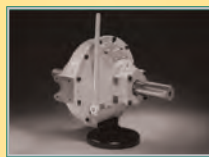
Axial & Radial Piston Motors



Pneumatic Motors & Starters



BD Clutches & Gearboxes



BDS Clutches



Planetary Gearboxes



Splitter Gearboxes



Coolers



Oil Bath Clutches



LSHT Motors/Geared Motors



Bellhousings



Torsional Couplings



Torsionally Flexible Couplings



Torsionally Rigid Couplings



Anti-static/Flameproof Couplings



Tyre Couplings



Permanent Magnetic Couplings



Torque Limiting Couplings



Hydraulic Adaptors



Engine Adaptor Kits



Dampers



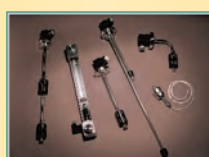
Pressure Intensifiers



Flow Dividers



Tanks/Accessories



Fluid Level Indicators



Flanges



Range of ATEX certified



quality products for mechanical & fluid power



01737 767493



info@jbj.co.uk



www.jbj.co.uk



jbj Techniques Limited is ISO certified, committed to international coordination & unification of industrial standards.

- registered in England No: 1185469 -

A range of products ATEX certified to directive 94/9/E requirements





jbj Techniques Limited
28 Trowers Way Holmethorpe Industrial Estate
Redhill Surrey RH1 2LW. UNITED KINGDOM

quality products for mechanical & fluid power

 **01737 767493**  **info@jbj.co.uk**  **www.jbj.co.uk**



jbj Techniques Limited is ISO certificated,
committed to international coordination &
unification of industrial standards.

registered in England No: 1185469

A range of products ATEX certificated
to directive 94/9/EC requirements

