DYNAGEAR AUSTRALIA

CATALOGUE

2020

POWER TRANSMISSION **SOLUTIONS**

OEM DYNAMICS

Manufacturer & supplier of leading power transmission and heat exchanger brands

DYNAGEAR

TTP AN API HEAT TRANSFER COMPANY

Guardian Couplings

HAIGHT Pumps That Perform

HUB CITY

TECHNODRIVE

DURST

DYNACOOL HEAT EXCHANGER

The Company And The Products

OEM Dynamics Pty Limited is a wholly Australian owned Company operating for over 40 years. The Company is a major supplier of fluid power related mechanical drives and accessories and industrial drives as well as being the industry leader in supply of oil heat transfer products for fluid power, gear and transmission oil cooling and compressor oil cooling through its DYNACOOL Division. The Company exports products to over 20 countries. OEM Dynamics has Quality Assurance accreditation to the requirements of ISO9001.

About This Catalogue

Our new catalogue supersedes all previous publications. The DYNAGEAR power transmission catalogues have become a popular reference in the fluid power, mobile/off road and diesel industry for hydraulic pump and diesel engine interfacing standards as well as a useful sourcing reference for drive components for these industries. The new publication continues in this tradition, but with a broader sourcing selection for general mobile/off road applications by inclusion of some new products and greater detail on existing products. With the exception of those items requiring assembly to customer specifications, most catalogue products are stock lines and can usually be shipped immediately.

The Products

DYNAGEAR - These products are Australian made and produced at our factory in Ballina NSW. They include a wide range of splined accessories, couplings, diesel drives, agricultural gearboxes, driveline components and overhung load adaptors.

FLEXILOCK

FLEXILOCK - Australian designed and made, gear type polymer element shaft couplings for fluid power applications and direct hydraulic pump drive kits for diesel engines.

CLAMPLOCK

CLAMPLOCK - Australian designed and made, spline locking mechanisms which are incorporated in our gear type couplings, splined universal joint yokes and splined driveline companion flanges.

HUB CITY - The Hub City line is of US origin. Some of these products are assembled in Australia under licence they include a range of worm reduction gearboxes, right angle bevel gearboxes and agricultural accessories.

DURST - Another of the Regal-Beloit US based companies which manufacture a range of high quality gear drives. OEM Dynamics assemble to order, from our Australian inventory, the new improved range of next generation hydraulic pump drive gearboxes for diesel engines.

TECHNODRIVE - We represent this well respected transmission manufacturer in Australia and South East Asia, with their range of Hydraulic pump drive gearboxes.

DYNACOOL HEAT EXCHANGER

DYNACOOL- Dynacool division is a leading supplier of heat exchangers for fluid power service in Australia. We have provided in this catalogue some selections of our range of air cooled mobile oil coolers. For full details on our heat transfer products please refer to DYNACOOL catalogue for air cooled oil coolers and accessories.

CUSTOM MACHINING

This Division provides contract manufacturing facilities for custom parts such as tractor and vehicle drivetrain components, shafts for pumps and complex 5 axis machined, drilled and milled items.

The Service

OEM Dynamics prides itself on the ability to provide excellent customer service and rapid delivery of product. Our application engineers are highly experienced in providing technical advice in selection and the application of products. They have extensive training in mechanical interfacing, including hydraulic pump and motor attachments, spline identification, diesel engine housing and flywheel interfacing and the application of mechanical drives on mobile equipment in off road environments. The company maintains extensive inventory and customers can usually expect same day despatch of most items.

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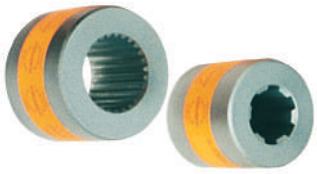
DYNAGEAR AUSTRALIA

SPLINED HUBS
FOR HYDRAULIC PUMPS, MOTORS & TRACTORS

PRECISION SPLINED HUBS



SPLINED HUBS are manufactured from K1045 Carbon Steel. O.D. is machined true to spline axis after broaching. All items are supplied in soft condition and may be induction or case hardened. Hub outside diameter reflects a tolerance of - 0.000" + 0.001". Length tolerance is + or - 0.030". Welding operations should be carried out using a low hydrogen electrode. For best results use a stainless steel electrode such as STAINCRAFT (CIG). Preheat parts to 200°C temp before welding.

Number of Teeth	Nom Spline O.D.	Specifications of Spline	Origin or Standard	Hub Length	Hub Diameter	Known uses for this Hub	Part Number
6	1"	6B STRAIGHT SAE	IMP. ANSI	1.75"	2.000"	HYD. ORBIT MOTORS	**94/50005**
6	1 3/8"	6B STRAIGHT SAE	IMP. ANSI	2.50"	2.500"	AG. TRACTOR P.T.O.	**94/50033**
9	5/8"	16/32 DP INV CL 5	IMP. ANSI	1.25"	1.250"	HYD. SAE A SPLINE	**94/50001**
8	36mm	8T STRAIGHT 32x36	DIN 5462	2.00"	2.250"	TRUCK P.T.O - Etc	**94/500115**
10	1 3/4"	10B STRAIGHT SAE	IMP. ANSI	2.25"	3.000"	DRIVELINE - SPICER	**94/50081**
11	3/4"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.500"	HYD.SAE A HD SPLINE	**94/50002**
12	13/16"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.500"	HYD. ORBITAL ETC.	**94/50034**
13	7/8"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.500"	HYD. SAE B SPLINE	**94/50003**
13	1 3/4"	8/16 DP INV CL 5	IMP. ANSI	2.25"	3.000"	HYD. SAE D/E SPLINE	**94/50008**
14	20mm	1.25 MODULE INV	DIN 5480	1.50"	1.500"	HYD. REXROTH ETC	**94/50035**
14	1 1/4"	12/24 DP INV CL 5	IMP. ANSI	2.00"	2.250"	HYD.SAE C SPLINE	**94/50006**
14	30mm	2 MODULE INV	DIN 5480	2.00"	2.250"	HYD. REXROTH ETC	**94/50010**
14	1 1/2"	10/20 DP INV CL 5	IMP. ANSI	2.25"	2.250"	GENERAL APPLICATIONS	**94/50036**
14	2 1/2"	6/12 DP INV CL 5	IMP. ANSI	3.25"	4.000"	GENERAL APPLICATIONS	**94/500133**
15	1"	16/32 DP INV CL 5	IMP. ANSI	1.75"	1.750"	HYD. SAE BB SPLINE	**94/50004**
15	2"	8/16 DP INV CL 5	IMP. ANSI	3.00"	3.250"	HYD. SAE F SPLINE	**94/50037**
16	30mm	A 30 x 27	DIN 5482	2.00"	2.000"	LINDE HYD. PUMPS	**94/50068**
16	35mm	2 MODULE INV	DIN 5480	2.00"	2.250"	HYD. REXROTH ETC	**94/50011**
16	1.7"	10/20 DP INV CL 5	IMP. ANSI	2.25"	2.750"	GENERAL APPLICATIONS	**94/50039**
16	2 1/8"	8/16 DP INV CL 5	IMP. ANSI	2.96"	3.500"	HYD. ORBIT MOTORS	**94/50040**
17	1 1/8"	16/32 DP INV CL 5	IMP. ANSI	2.00"	2.250"	GENERAL APPLICATIONS	**94/50027**
17	1 1/2"	12/24 DP INV CL 5	IMP. ANSI	2.25"	2.500"	HYD. SAE CC SPLINE	**94/50032**
17	2 1/4"	8/16 DP INV CL 5	IMP. ANSI	3.00"	3.250"	GENERAL APPLICATIONS	**94/50096**
18	25mm	1.25 MODULE INV	DIN 5480	1.75"	1.750"	REXROTH	**94/50020**
18	25mm	1.25 MODULE INV	DIN 5480	1.75"	1.750"	KUBOTA	**94/50020K**
18	35mm	A35 x 31	DIN 5482	2.12"	2.250"	GENERAL APPLICATIONS	**94/50021**
18	40mm	2 MODULE INV	DIN 5480	2.25"	3.000"	HYD. REXROTH ETC	**94/50041**
19	1 1/4"	16/32 DP INV CL 5	IMP. ANSI	2.00"	2.500"	GENERAL APPLICATIONS	**94/50069**
20	3 1/2"	6/12 DP INV CL5	IMP. ANSI	3.25"	5.000"	STAFFA SHAFT	**94/500137**
21	1 3/8"	16/32 DP INV CL 5	IMP. ANSI	2.12"	2.250"	HYD. SUNDSTRAND, EATON	**94/50007**
21	45mm	2 MODULE INV	DIN 5480	2.25"	3.000"	HYD. REXROTH ETC	**94/50042**
22	70mm	3 MODULE INV	DIN 5480	2.50"	4.500"	STAFFA Z SHAFT	**94/500127**
23	1 1/2"	16/32 DP INV CL 5	IMP. ANSI	2.12"	2.250"	HYD.SUNDSTRAND.EATON	**94/50043**
23	48mm	A48 x 44	DIN 5482	2.75"	3.000"	GENERAL APPLICATIONS	**94/50044**
23	3"	8/16 DP INV CL 5	IMP. ANSI	3.75"	3.860"	GENERAL APPLICATIONS	**94/500134**
24	50mm	2 MODULE INV	DIN 5480	2.75"	3.250"	HYD.REXROTH ETC	**94/50045**
25	80mm	3 MODULE INV	DIN 5480	80mm	195mm	GENERAL APPLICATIONS	**94/500129**
26	1.4"	20/40 DP INV CL 5	IMP. ANSI	2.00"	2.000"	MARINE TRANSMISSIONS	**94/50046**
26	55mm	2 MODULE INV	DIN 5480	2.75"	3.250"	GENERAL APPLICATIONS	**94/50047**
26	2 1/4"	12/24 DP INV CL 5	IMP. ANSI	3.00"	3.250"	GENERAL APPLICATIONS	**94/50048**
27	1 3/4"	16/32 DP INV CL 5	IMP. ANSI	2.25"	3.000"	HYD.SUNDSTRAND.EATON	**94/50009**
28	60mm	2 MODULE INV	DIN 5480	75mm	100mm	GENERAL APPLICATIONS	**94/500118**
28	90mm	3 MODULE INV	DIN 5480	80mm	195mm	GENERAL APPLICATIONS	**94/500128**
40	2 9/16"	16/32 DP INV CL 5	IMP. ANSI	2.37"	3.375"	HYD.SUNDSTRAND.EATON	**94/50049**

METRIC SPLINES TO DIN STANDARD

When ordering metric splines to DIN standard, the following criteria will be required.

W35 X 2 X 30 X 16 X 9g

Spline Dia Module Pressure Angle No of teeth Fit

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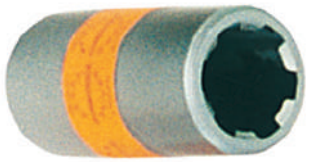
SPLINED COUPLINGS
FOR HYDRAULIC PUMPS, MOTORS & TRACTORS

SPLINE DETAILS. Female involute splines listed in this catalogue are fillet root side fit. They may be used with flat root fit shafts.

Imperial involute splines are to ANSI B92.1-1970 Class 5. On ANSI splines actual O.D. of mating shaft may be smaller than shown as nominal spline O.D. to allow for root clearance.

Metric involute splines listed are to DEUTSCHE NORMEN DIN 5480, DIN 5482 or DIN 5462.

SPLINED COUPLINGS



SPLINED COUPLINGS are manufactured from K1045 Carbon steel. They are intended for joining two splined shafts together and the outside diameter of the coupling cannot be guaranteed to be true to the axis of the spline. Couplings have thin wall, take care if welding.

Number of Teeth	Nom Spline O.D.	Specifications of Spline	Origin or Standard	Coupling Length	Coupling Diameter	Known uses for this Coupling	Part Number
6	3/4”	6B STRAIGHT SAE	IMP.	2.5”	1 3/8”	MOBILE EQUIPMENT	**94/600100**
6	7/8”	6B STRAIGHT SAE	IMP.	2.5”	1 3/8”	MOBILE EQUIPMENT	**94/600101**
6	1”	6B STRAIGHT SAE	IMP.	2.75”	1 3/8”	MOBILE EQUIPMENT	**94/60005**
6	1 1/8”	6B STRAIGHT SAE	IMP.	2.75”	1 9/16”	MOBILE EQUIPMENT	**94/600102**
6	1 1/4”	6B STRAIGHT SAE	IMP.	3.25”	1 7/8”	MOBILE EQUIPMENT	**94/60082**
6	34mm	DIN 5463 6 x 28 x 34	DIN.	80mm	50mm	SAI MOTORS	**94/600114**
6	1 3/8”	6B STRAIGHT SAE	IMP.	3.75”	1 3/4”	AG TRACTOR P.T.O.’s	**94/60033**
6	1 3/8”	6B STRAIGHT SAE	IMP.	6”	1 3/4”	AG TRACTOR P.T.O.’s	**94/60033L**
6	1 1/2”	6B STRAIGHT SAE	IMP.	3.75”	1 7/8”	MOBILE EQUIPMENT	**94/600104**
6	1 5/8”	6B STRAIGHT SAE	IMP.	3.75”	2”	MOBILE EQUIPMENT	**94/600105**
6	1 3/4”	6B STRAIGHT SAE	IMP.	3.75”	2 1/4”	MOBILE EQUIPMENT	**94/60083**
9	5/8”	16/32 DP INV CL 5	IMP.	2”	1 3/8”	HYD. SAE A SPLINE	**94/60001**
10	25mm	METRIC INV	DIN.	2.75”	1 3/8”	KUBOTA ETC	**94/600107**
10	1”	10B STRAIGHT SAE	IMP.	2.5”	1 3/8”	MOBILE EQUIPMENT	**94/600108**
10	1 1/32”	10B STRAIGHT SAE	IMP.	3.25”	1 1/2”	MOBILE EQUIPMENT	**94/600123**
10	1 1/8”	10B STRAIGHT SAE	IMP.	3.25”	1 1/2”	MOBILE EQUIPMENT	**94/600109**
10	1 1/4”	10B STRAIGHT SAE	IMP.	3.75”	1 3/4”	MOBILE EQUIPMENT	**94/600110**
10	1 3/8”	10B STRAIGHT SAE	IMP.	3”	1 3/4”	MOBILE EQUIPMENT	**94/600111**
10	1 1/2”	10B STRAIGHT SAE	IMP.	3”	1 7/8”	MOBILE EQUIPMENT	**94/600112**
11	3/4”	16/32 DP INV CL 5	IMP.	2”	1 3/8”	HYD. SAE A HD SPL	**94/60002**
13	7/8”	16/32 DP INV CL 5	IMP.	2”	1 3/8”	HYD. SAE B SPLINE	**94/60003**
13	7/8”	16/32 DP INV CL 5	IMP.	3”	1 3/8”	HYD. SAE B SPLINE	**94/60003L**
13	1 3/4”	8/16 DP INV CL 5	IMP.	3.75”	2 1/4”	HYD. SAE D/E SPLINE	**94/60008**
14	1 1/4”	12/24 DP INV CL 5	IMP.	3”	1 3/4”	HYD. SAE C SPLINE	**94/60006**
15	1”	16/32 DP INV CL 5	IMP.	3”	1 1/2”	HYD. SAE BB SPLINE	**94/60004**
20	1 3/4”	12/24 DP INV CL 5	IMP.	3”	2 1/4”	AG TRACTOR P.T.O.’s	**94/600113S**
20	1 3/4”	12/24 DP INV CL 5	IMP.	3.75”	2 1/4”	AG TRACTOR P.T.O.’s	**94/600113**
21	1 3/8”	16/32 DP INV CL 5	IMP.	3”	1 3/4”	AG TRACTOR P.T.O.’s	**94/60007**
21	1 3/8”	16/32 DP INV CL 5	IMP.	6”	1 3/4”	AG TRACTOR P.T.O.’s	**94/60007L**
23	1 1/2”	16/32 DP INV CL 5	IMP.	3”	2”	HYD SUNDSTRAND	**94/60043**
27	1 3/4”	16/32 DP INV CL 5	IMP.	3”	2 1/4”	HYD AND AG.	**94/60009**

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SPLINED SHAFTING & NIB SHAFTS
FOR HYDRAULICS, OFF-ROAD & AGRICULTURAL

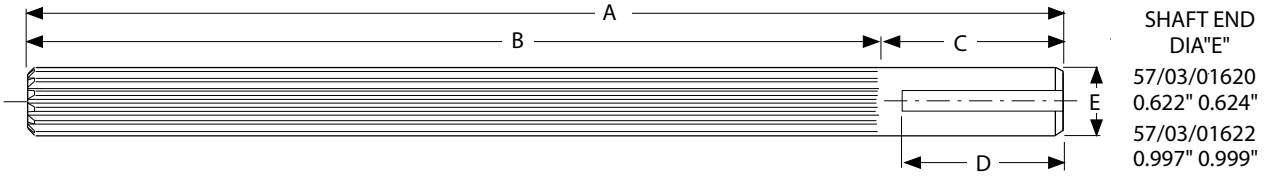
STANDARD SPLINED SHAFTING

Splined shafting is hobbed for the full listed length. In some instances undercut chucking registers may be present at one end. A centre is provided at one end. Material is K1045 Carbon steel. Finish is black oxide rust preventative. Imperial involute splines are to ANSI B92.I-1970. Pressure angles on all involute splines listed are 30 degrees. Spline OD* as listed for shafting, stubwelds and nibs is the form diameter. Actual major diameter may be smaller than form diameter by the form clearance for the subject spline. Straight sided splines are all to SAE standard.

Number of Teeth	Nom Spline O.D.*	Specifications of Spline	Origin or Standard	Shaft Length	Known uses for this Hub	Part Number
6	1”	STRAIGHT SAE	IMP	8”	MOBILE EQUIP	**94/70005S**
6	1”	STRAIGHT SAE	IMP	10”	MOBILE EQUIP	**94/70005**
6	1 1/8”	STRAIGHT SAE	IMP	10”	AGRICULTURE	**94/700102**
6	1 1/4”	STRAIGHT SAE	IMP	8”	MOBILE EQUIP	**94/70082**
6	34mm	34 x 28	DIN 5463	8”	AGRICULTURE	**94/700114**
6	1 3/8”	STRAIGHT SAE	IMP	8”	AGRICULTURE	**94/70033**
6	1 1/2”	STRAIGHT SAE	IMP	10”	MOBILE EQUIP	**94/700104**
6	1 5/8”	STRAIGHT SAE	IMP	8”	MOBILE EQUIP	**94/700105**
6	1 3/4”	STRAIGHT SAE	IMP	8”	MOBILE EQUIP	**94/70083**
6	1 3/4”	STRAIGHT SAE	IMP	10”	MOBILE EQUIP	**94/70083L**
9	5/8”	16/32 DP INV 30PA	IMP. ANSI	6”	HYD. SAE A	**94/70001**
10	1 1/4”	STRAIGHT SAE	IMP	10”	MOBILE EQUIP	**94/700110**
10	1 3/4”	STRAIGHT SAE	IMP	8”	MOBILE EQUIP	**94/70081**
11	3/4”	16/32 DP INV 30PA	IMP. ANSI	6”	HYD. SAE AH	**94/70002**
12	13/16”	16/32 DP INV 30PA	IMP. ANSI	80mm	GENERAL	**94/70034S**
13	7/8”	16/32 DP INV 30PA	IMP. ANSI	6”	HYD. SAE B	**94/70003**
13	1 3/4”	8/16 DP INV 30PA	IMP. ANSI	8”	HYD. SAE D/E	**94/70008**
14	1 1/4”	12/24 DP INV 30PA	IMP	8”	HYD.SAE C	**94/70006**
14	1 1/4”	12/24 DP INV 30PA	IMP	11”	HYD.SAE C	**94/70006LL #**
15	1”	16/32 DP INV 30PA	IMP. ANSI	8”	HYD. SAE BB	**94/70004**
16	35mm	2 MODULE INV W35	DIN 5480	203mm	HYD. REXROTH	**94/70011**
16	1.7”	10/20 DP INV 30PA	IMP. ANSI	8”	GENERAL	**94/70039**
16	2 1/8”	8/16 DP INV 30PA	IMP. ANSI	8”	GENERAL	**94/70040**
17	1 1/2”	12/24 DP INV 30PA	IMP. ANSI	8”	GENERAL	**94/70032**
18	35mm	A35 x 31	DIN 5482	203mm	GENERAL	**94/70021**
18	40mm	2 MODULE INV W50	DIN 5480	204mm	GENERAL	**94/70041**
19	2 1/2”	8/16 DP INV 30PA	IMP. ANSI	8”	GENERAL	**94/700131**
20	1 3/4”	12/24 DP INV 30PA	IMP. ANSI	8”	AGRICULTURE	**94/700113**
21	1 3/8”	16/32 DP INV 30PA	IMP. ANSI	8”	AGRICULTURE	**94/70007**
21	45mm	2 MODULE INV W50	DIN 5480	203mm	GENERAL	**94/70042**
22	70mm	3 MODULE INV W50	DIN 5480	254mm	GENERAL	**94/700127**
23	1 1/2”	16/32 DP INV 30PA	IMP. ANSI	8”	HYD.SUND	**94/70043**
24	50mm	2 MODULE INV W50	DIN 5480	203mm	HYD. REXROTH	**94/70045**
26	2 1/4”	12/24 DP INV 30PA	IMP. ANSI	8”	GENERAL	**94/70048**
27	1 3/4”	16/32 DP INV 30PA	IMP. ANSI	8”	AGRICULTURE	**94/70009**
28	60mm	2 MODULE INV W50	DIN 5480	203mm	GENERAL	**94/700118**
40	2 9/16”	16/32 DP INV 30PA	IMP.ANSI	8”	HYD.SUND	**94/70049**

SPLINED FLOATING NIB SHAFTS

Long spline area for telescoping drives or transfer drive applications. Keyed shaft end for drive attachment.
Use with our standard splined hubs or splined couplings.



Part Number	A	B	C	D	Spline OD*	Key	No Of teeth	DP	Mating Cplgs	Mating Hubs
57/03/01620	470	410	60	40	0.625”	0.187”	9	16/32	94/60001	94/50001
57/03/01622	410	350	60	40	1.000”	0.250”	15	16/32	94/60004	94/50004

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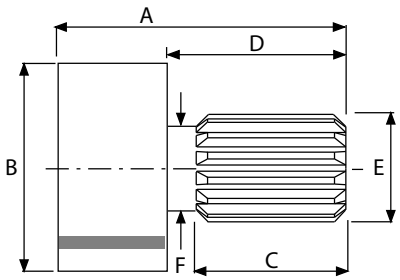
STUBWELDS & P.T.O. ADAPTORS

SPLINED STUBWELDS FOR SAE HYDRAULIC APPLICATIONS

DETAILS AND APPLICATIONS

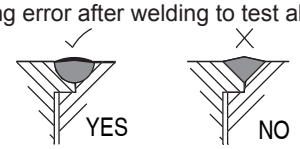
Material is EN36A or 8620 alloy steel with splined end fully hardened. Buttress end is left as soft as possible for later machining and welding. Machining is held true on all surfaces for setup. Ideal for use with precision splined hubs for manufacturing of M & F couplings. Stubwelds may also be used for replacing splined ends of worn shafts or manufacturing splined ends on new shafts.

Splined End Is Centred



MACHINING AND WELDING

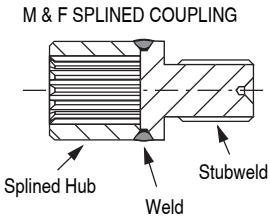
Machine mated pilot registers and fillets true on both items to be joined. See cutaway sketch and machine same as YES below. Hold firmly under press or between pressed centres. Preheat to electrode suppliers recommendations. Use alternate welding deposits to fully fix parts then fully weld while rotating in horizontal position. Some post heating may be necessary to insure slow cooling. Use only a special purpose electrode such as Staincraft or other comparable brand. Use a spray-pack type spatter protection coating on spline area while welding. Check clocking error after welding to test alignment.

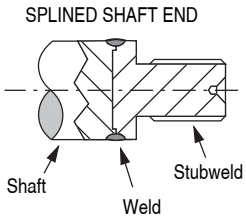


WARNING

Above information is a guide only. Correct welding and machining operations are entirely the responsibility of the user. **Federal or State Occupational Safety Regulations relating to circumferential shaft welding should be observed where applicable.**

EXAMPLE APPLICATIONS





SAE	Spline Type	A	B	C	D	E	E Nom.	F	Part Number
A	9T 16/32 DP	58mm	34.92mm	22mm	28mm	0.608”	5/8”	12mm	**76/70001**
B	13T 16/32 DP	64mm	44.45mm	27mm	34mm	0.858”	7/8”	18mm	**76/70003**
BB	15T 16/32 DP	68mm	44.45mm	31mm	38mm	0.983”	1”	21mm	**76/70004**
C	14T 12/24 DP	77mm	53.97mm	40mm	47mm	1.229”	1 1/4”	27mm	**76/70006**
D	13T 8/16 DP	96mm	76.20mm	58mm	66mm	1.721”	1 3/4”	37mm	**76/70008**

P.T.O. PUMP SHAFT ADAPTORS FOR WATER PUMPS OR HYDRAULIC PUMPS

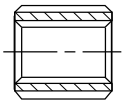
Used for driving Water pumps, Spray pumps or Hyd pumps from a Tractor PTO.

Tractor Spline	Pump Shaft Details	O.A. Length	Part Number
1 3/8” 21	1 1/4” 14 Spline SAE C	4 3/8”	**56/01/01191**

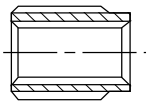
For Direct Tractor Hyd Pump Drive On Cotton Module Makers.

SPLINED BUSHES, SLIP SLEEVES, ADAPTORS FOR HYDRAULIC PUMP AND MOTOR DRIVES

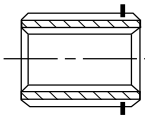
SPLINED BUSHES, SLIP SLEEVES & ADAPTORS



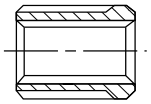
TYPE 1
PLAIN DYNAGEAR



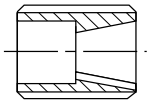
TYPE 2
EXTENDED DYNAGEAR



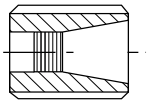
TYPE 3
SNAP RING (EUROPE)



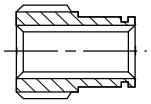
TYPE 4
FUNK GEARBOX



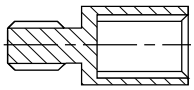
TYPE 5
DIN 1:8 TAPER WITH KEY
Has recess for nut



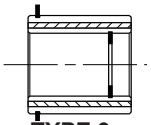
TYPE 6
DIN TAPER THREADED
CW pumps only



TYPE 7
CONQUIP FRONT PTO



TYPE 8
MALE/FEMALE



TYPE 9
TERREL DURST GEARBOX

Type	Male Spline	Female Spline Or Round Bore	Overall Length	Part Number
1	15T 1” 16/32	Round 5/8” keyed	0.79”	**58/03/03988**
1	15T 1” 16/32	9T 5/8” 16/32	0.79”	**58/03/03987**
1	14T 1 1/4” 12/24	9T 5/8” 16/32	1.125”	**58/03/10001**
1	14T 1 1/4” 12/24	13T 7/8” 16/32	1.125”	**58/03/10003**
1	13T 1 3/4” 8/16	13T 7/8” 16/32	3.000”	**58/03/01899**
1	13T 1 3/4” 8/16	14T 1 1/4” 12/24	1.200”	**58/03/20006**
1	13T 1 3/4” 8/16	14T 1 1/4” 12/24	3.000”	**58/03/01694**
1	13T 1 3/4” 8/16	21T 1 3/8” 16/32	1.200”	**58/03/20007**
1	13T 1 3/4” 8/16	16T 35mm DIN	1.200”	**58/03/20011**
2	6T 1 3/4” Straight	6T 1.0” Straight	2.400”	**58/03/01589**
2	13T 1 3/4” 8/16	9T 5/8” 16/32	1.375”	**58/03/20001**
2	13T 1 3/4” 8/16	11T 3/4” 16/32	1.200”	**58/03/20002**
2	13T 1 3/4” 8/16	13T 7/8” 16/32	1.375”	**58/03/20003**
2	13T 1 3/4” 8/16	18T 25mm DIN	1.375”	**58/03/20020**
2	13T 1 3/4” 8/16	6T 1.0” Straight	1.200”	**58/03/20005**
2	13T 1 3/4” 8/16	15T 1.0” 16/32	1.375”	**58/03/20004**
2	13T 1 3/4” 8/16	14T 30mm DIN	1.560”	**58/03/20010**
2	13T 1 3/4” 8/16	Round 5/8” Keyed	1.375”	**58/03/20012**
2	13T 1 3/4” 8/16	Round 7/8” Keyed	1.375”	**58/03/20014**
2	13T 1 3/4” 8/16	Round 1.0” Keyed	1.375”	**58/03/20015**
3	23T 48mm DIN	12mm pilot bore	35mm	**32/03/30000**
3	13T 7/8” 16/32	9T 5/8” 16/32	1.312”	**58/03/01369**
3	15T 1” 16/32	9T 5/8” 16/32	1.500”	**58/03/01666**
3	14T 1 1/4” 12/24	11T 3/4” 16/32	45mm	**58/03/10002L**
3	14T 1 1/4” 12/24	13T 7/8” 16/32	1.500”	**58/03/01698**
3	14T 1 1/4” 12/24	13T 7/8” 16/32	2.000”	**58/03/01698L**
3	14T 1 1/4” 12/24	15T 1.0” 16/32	1.500”	**58/03/00714**
3	14T 1 1/4” 12/24	Round 16mm Keyed	45mm	**58/03/10072**
3	18T 35mm DIN	9T 5/8” 16/32	1.065”	**T2060038**
3	23T 48mm DIN	11T 3/4” 16/32	45mm	**32/03/30002**
3	23T 48mm DIN	13T 7/8” 16/32	45mm	**32/03/30003**
3#	23T 48mm DIN	13T 7/8” 16/32	45mm	**32/03/30003C**
3	23T 48mm DIN	Taper DIN 2 1:8	45mm	**32/03/30016**
3	23T 48mm DIN	18T 25mm DIN	45mm	**32/03/30020**
3	23T 48mm DIN	15T 1.0” 16/32	45mm	**32/03/30004**
3	23T 48mm DIN	15T 1.0” 16/32	29mm	**32/03/30004S**
3	23T 48mm DIN	14T 30mm DIN	45mm	**32/03/30010**
3	23T 48mm DIN	14T 1 1/4” 12/24	45mm	**32/03/30006**
3	23T 48mm DIN	14T 1 ¼” 12/24	60mm	**32/03/30006L**
3	23T 48mm DIN	21T 1 3/8” 16/32	45mm	**32/03/30007**
3	23T 48mm DIN	16T 35mm DIN	45mm	**32/03/30011**
3	23T 48mm DIN	16T 35mm DIN	61mm	**32/03/30011L**
3	23T 48mm DIN	17T 1 1/2” 12/24	45mm	**32/03/30032**
3	23T 48mm DIN	17T 1 1/2” 12/24	55mm	**32/03/30032L**
3	23T 48mm DIN	23T 1 1/2” 16/32	1 3/4”	**32/03/30043**
3	29T 62mm DIN	14T 1 1/4” 12/24	55mm	**32/03/40006**
3	29T 62mm DIN	13T 1 3/4” 8/16	55mm	**32/03/40008**
3	29T 62mm DIN	23T 48mm DIN	49mm	**T2062004**
3	36T 80mm DIN	13T 1 3/4” 8/16	75mm	**32/03/50008**
4	13T 1 3/4” 8/16	13T 7/8” 16/32	2.000”	**028055**
4	13T 1 3/4” 8/16	15T 1” 16/32	2.000”	**028584**
4	13T 1 3/4” 8/16	14T 1 1/4” 12/24	2.000”	**028056**
4	13T 1 3/4” 8/16	21T 1 3/8” 16/32	2.000”	**028271**
5	15T 1” 16/32	Taper DIN 2 1:8	0.79”	**58/03/03985**
5	13T 1 3/4” 8/16	Taper DIN 2	40mm	**58/03/20016**
5	13T 1 3/4” 8/16	Taper DIN 3	40mm	**58/03/20017**
6	13T 7/8” 16/32	Taper DIN 2 1:8	1.750”	**54/03/00164**
7	6T 1 3/4” Straight	6T 1.0” Straight	1.700”	**58/03/00965**
8	23T 48mm DIN	13T 1 3/4” 8/16	90mm	**32/03/30008**
9	13T 1 3/4” 8/16	9T 5/8” 16/32	2.000”	**TS20900244**
9	13T 1 3/4” 8/16	13T 7/8” 16/32	1.938”	**TS20900245**
9	13T 1 3/4” 8/16	15T 1.0” 16/32	1.750”	**TS20900246**
9	13T 1 3/4” 8/16	19T 1 1/4” 16/32	2.375”	**TO12160131**
9	13T 1 3/4” 8/16	14T 1 1/4” 12/24	1.750”	**TS20900247**
9	13T 1 3/4” 8/16	21T 1 3/8” 16/32	1.850”	**TS12160120**

32/03/30003C Has extra circlip and is counterbored on one end.

Most items are manufactured from alloy steel. Actual materials, finish and treatment may vary according to the origin of the part. Overall lengths may vary from that indicated depending on origin of the part. If length important check with our sales office. Other sizes may be available - consult sales office

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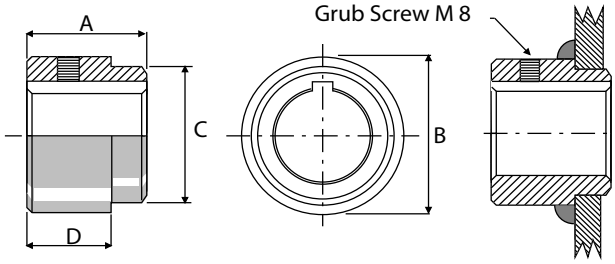
ROUND BORE HUBS & COUPLINGS

ROUND BORE WELD-IN HUBS

Bore	Keyway	A	B	C	D	Part Number
1/2”	None	58.5	63.5	58	49	**91/80067**
0.750”	0.187”	58.5	63.5	58	49	**91/80013**
19 mm	6 mm	58.5	63.5	58	49	**91/80073**
0.875”	#	58.5	63.5	58	49	**91/80014**
25 mm	8 mm	58.5	63.5	58	49	**91/80026**
1.000”	0.250”	58.5	63.5	58	49	**91/80015**
1.250”	0.312”	58.5	63.5	58	49	**91/80024**
24 mm	8 mm	58.5	63.5	58	49	**91/80074**
28 mm	8 mm	58.5	63.5	58	49	**91/80075**
30 mm	8 mm	58.5	63.5	58	49	**91/80079**
32 mm	10 mm	58.5	63.5	58	49	**91/80080**
1.375”	0.3125”	58.5	63.5	58	49	**91/80065**
35 mm	10 mm	58.5	63.5	58	49	**91/80050**
38 mm	10 mm	58.5	63.5	58	49	**91/80051**
1.500”	0.375”	58.5	63.5	58	49	**91/80060**
40 mm	12 mm	58.5	63.5	58	49	**91/80052**
42 mm	12 mm	58.5	63.5	58	49	**91/80053**
1.750”	0.437”	58.5	76.2	65	49	**92/80061**
45 mm	14 mm	58.5	76.2	65	49	**92/80054**
48 mm	14 mm	58.5	76.2	65	49	**92/80055**
50 mm	14 mm	58.5	76.2	65	49	**92/80056**
2.000”	0.500”	58.5	76	65	49	**92/80062**
55 mm	16 mm	58.5	90	75	49	**92/80057**
DIN 3 Taper	4 mm	58.5	63	58	49	**91/80017**

Combination 3/16” and 1/4” keyway

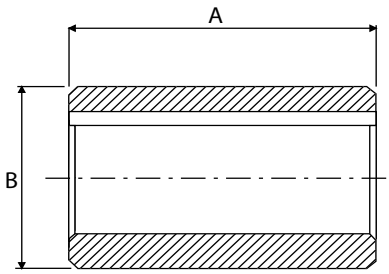
For connecting Hydraulic Orbit Motors to fabricated Winch Drums and Mixer Paddles, Electric Motor Sprocket Hubs and Machine Bosses.
Manufactured from K1045 mild steel.
Bore tolerance + 0.03 mm to + 0.06 mm.
Machined spigot dim. “C” tolerance +0.02 mm to + 0.05 mm.
Finish is black Colorsal.



Other sizes may be manufactured to order if in sufficient quantity.
Contact our sales office for a quote.

ROUND BORE MUFF COUPLINGS

Used for joining of shafts on pumps, electric motors, special machines or any application where a keyed round bore sleeve is required. The outside diameter is not necessarily held true with bore. Finish is black oxide rust preventative. Not threaded for set screw.



Bore	Keyway	A	B	Part Number
19 mm	6 mm	70 mm	38.1 mm	**95/60073**
0.750”	0.187”	2.75”	1.50”	**95/60013**
20 mm	6 mm	70 mm	38.1 mm	**95/60028**
0.875”	0.250”	2.75”	1.50”	**95/60084**
25 mm	8 mm	2.75”	44.45 mm	**95/60026**
1.000”	0.250”	2.75”	1.75”	**95/60015**
1.062”	0.250”	2.75”	1.75”	**95/60085**
28 mm	8 mm	76 mm	50.8 mm	**95/60075**
30 mm	8 mm	76 mm	50.8 mm	**95/60030**
1.250”	#	3.00”	2.00”	**95/60087**
32 mm	10 mm	76 mm	50.8 mm	**95/60080**
1.312”	0.312”	3.00”	2.00”	**95/60088**
1.375”	0.312”	3.00”	2.25”	**95/60065**
1.437”	0.375”	3.00”	2.12”	**95/60089**
1.500”	0.375”	3.00”	2.25”	**95/60060**

Combination 1/4” and 5/16” keyway for p/n 95/60087.
Specials made to order. Min batch quantity - 10 off.

SPLINED ADAPTOR COUPLINGS

Female spline to spline adaptor couplings made from EN36A. Order under OEM p/n# for unhardened condition. Order under Vickers p/n* for case hardened condition.

OEM Part Number #	Vickers part Number *	Description	Part Size
56/01004	526682	9T 16/32DP - 15T 16/32DP	41.7OD X 68 Long
56/03004	526694	13T 16/32DP - 15T 16/32DP	41.7OD X 93 Long
56/04006	526696	15T 16/32DP - 14T 12/24DP	41.7OD X 93 Long
56/03027	864457	13T 16/32DP - 17T 16/32DP	41.7OD X 95.3 Long
56/06027	864458	14T 12/24DP - 17T 16/32DP	41.7OD X 95.3 Long
56/01027	864460	9T 16/32DP - 17T 16/32DP	41.7OD X 70.3 Long
56/01006	877039	9T 16/32DP - 14T 12/24DP	41.7OD X 63.7 Long
56/03006	877040	13T 16/32DP - 14T 12/24DP	41.7OD X 88.9 Long
56/00006	844045	14T 12/24DP	41.7OD X 88.9 Long
56/06032	877046	14T 12/24DP - 17T 12/24DP	47.6OD X 78.8 Long

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FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

A STANDARD OFF THE SHELF SHAFT COUPLING SYSTEM DEVELOPED SPECIALLY FOR HEAVY DUTY FLUID POWER APPLICATIONS

101 Series Complete coupling.

127 Series round bore.
101 Series round bore.
63 Series round bore.
127 Series CLC.
101 Series CLB.
63 Series CLA.

SPLINED SHAFT CONNECTIONS.

The FLEXILOCK range includes most of the splined shaft connections currently utilized on hydraulic pumps and motors including imperial and metric sizes. All splined coupling hubs feature our popular CLAMPLOCK lateral or axial positive locking mechanisms which secure the coupling hub solidly on to the pump shaft and eliminate the spline wear associated with unlocked spline connections.

ROUND BORE KEYED SHAFT CONNECTIONS.

Most standard bore sizes available in imperial and metric sizes to fit standard hydraulic pumps and motors and IEC electric motor shaft standards. Stock availability of standard sizes enables immediate use of the couplings without having to undertake expensive machining of bores and keyways.

POWER RATINGS MATCHED TO APPLICATION.

The coupling design features a large gear teeth form with wide tooth face contact between the steel gear and the polymer element ensuring maximum power capacity in a small package over a long life cycle. Both splined and keyed hub designs are matched to effectively accommodate shaft sizes without excess weight penalty.

BROAD APPLICATION VERSATILITY.

The steel hub design permits ease of modification to suit special applications. Hub gear plates are available for attachment to customer supplied components. Long or short hub versions can be manufactured to special order. SLC and SLD type hubs can be arranged to incorporate sprockets or pulleys for auxiliary drives.

FLEXILOCK SIZING PROGRAM - Consult your distributor to have your FLEXILOCK kit sized by our computer selection program.

PERFORMANCE SPECIFICATIONS.

SERIES	Continuous Power/Rev*	Continuous Torque	Intermittent Power/Rev*	Intermittent Torque
63	0.0118 kW	113 Nm	0.0165 kW	157 Nm
(Code 90)	0.0158 hp	83 ft lbs	0.0221 hp	116 ft lbs
101	0.0354 kW	339 Nm	0.0469 kW	475 Nm
(Code 91)	0.0475 hp	250 ft lbs	0.0665 hp	350 ft lbs
127	0.0661 kW	632 Nm	0.0915 kW	884 Nm
(Code 92)	0.0887 hp	466 ft lbs	0.1242 hp	652 ft lbs

MAXIMUM MISALIGNMENT TOLERANCES.

Axial Displacement. The element total axial clearance to hubs should be no less than 2 mm or no greater than 4 mm total.
Parallel Offset. Hub parallel offset to each other should not exceed 0.5mm.
Angular Misalignment. 1° per hub or total included angle of 2°.

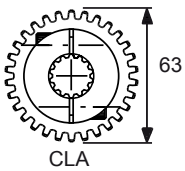
SPEED.

Consult factory for speeds exceeding 3000 RPM.

*Brief peak starting torque not to exceed 200% of continuous Torque. Consult factory for heavy shock loading or stop/ start loading. **Refer also to page 37 for applicable service factors.** Continuous Power Ratings are for fluid power service, 10 hours per day with hubs within max. misalignment tolerance and temp not exceeding 100°C.
Intermittent Power Ratings are for fluid power service up to 4 hours per day with hubs in true alignment and where the temperature does not exceed 80°C.

63 SERIES CLA

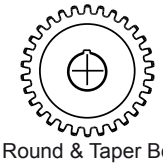
No of Teeth	Origin Standard	Nom Spline OD	Specifications of Spline	Pt Number	Weight(kg)
9	IMP ANSI	0.625”	16/32 INV CL5	90/CLA01	0.5
11	IMP ANSI	0.750”	16/32 INV CL5	90/CLA02	0.5
13	IMP ANSI	0.875”	16/32 INV CL5	90/CLA03	0.5
15	IMP ANSI	1.000”	16/32 INV CL5	90/CLA04	0.5



CLA

63 SERIES RND BORE

Bore	Keyway	Hub OD	Pt Number	Bore	Keyway	Hub OD	Pt Number
0.625”	0.156”	45	**90/90012**	24mm	8mm	45	**90/90074**
19mm	6mm	45	**90/90073**	1.000”	0.250”	45	**90/90015**
0.750”	0.187”	45	**90/90013**	Din 2 taper	3mm	45	**90/90016**
0.875”	0.250”	45	**90/90014**	Din 3 taper	4mm	45	**90/90017**



Round & Taper Bore

ELEMENT PART NUMBER (White) 63 Series **90/03/05741** No of teeth - 29

FOR SHAFT SIZES SEE HYDRAULIC MOTOR & PUMP STANDARDS-PAGE 49 & ELECTRIC MOTOR SIZES PAGE 50.

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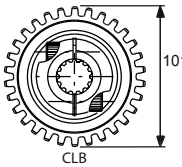
FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

101 SERIES HUBS
LATERAL CLAMPLOCK
CLB
CLC/CLD
RND BORE

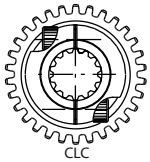
No of Teeth	Origin Standard	Nom Spline OD	Specifications of Spline	Pt Number	Weight(kg)
9	IMP ANSI	0.625”	16/32 INV CL5	**91/CLB01**	1.1
13	IMP ANSI	0.875”	16/32 INV CL5	**91/CLB03**	1.1
15	IMP ANSI	1.000”	16/32 INV CL5	**91/CLB04**	1.1
18	DIN 5480	25mm	1.25 Module INV	**91/CLB20**	1.1
6	IMP	1.375”	6B Straight	**91/CLC33**	1.1
13	IMP ANSI	1.750”	8/16 INV CL5	**91/CLD08**	1.3
14	DIN 5480	30mm	2 Module INV	**91/CLC10**	1.3
14	IMP ANSI	1.250”	12/24 INV CL5	**91/CLC06**	1.3
21	IMP ANSI	1.375”	16/32 INV CL5	**91/CLC07**	1.3
16	DIN 5480	35mm	2 Module INV	**91/CLC11**	1.3
8	DIN 5462	36mm	8T Straight 32x36	**91/CLC115**	1.3
17	IMP ANSI	1.500”	12/24 INV CL5	**91/CLC32**	1.3
23	IMP ANSI	1.500”	16/32 INV CL5	**91/CLC43**	1.3

Bore	Keyway	Hub OD	Pt Number	Bore	Keyway	Hub OD	Pt Number
0.500”	None	63	**91/90067**	35mm	10mm	63.5	**91/90050**
19mm	6mm	63	**91/90073**	38mm	10mm	63.5	**91/90051**
0.750”	0.187”	63.5	**91/90013**	1.500”	0.375”	63	**91/90060**
0.875”	0.250”	63.5	**91/90014**	40mm	12mm	63.5	**91/90052**
24mm	8mm	63	**91/90074**	42mm	12mm	63.5	**91/90053**
25mm	8mm	63.5	**91/90026**	1.750”	0.437”	69.5	**91/90061**
1.000”	0.250”	63	**91/90015**	48mm	14mm	76.2	**91/90055**
28mm	8mm	63	**91/90075**	55mm	16mm	80	**91/90057**
1.250”	0.312”	63	**91/90024**	60mm	18mm	90	**91/90058**
32mm	10mm	63.5	**91/90080**	Din 3 taper	4mm	63	**91/90017**

ELEMENT PART NUMBER (Orange) 101 Series **91/03/03691** No of teeth - 30



CLB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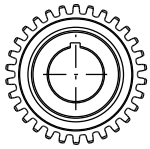

Round & Taper Bore

127 SERIES HUBS
LATERAL CLAMPLOCK
CLB
CLC
CLD
RND BORE

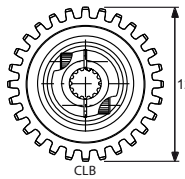
No of Teeth	Origin Standard	Nom Spline OD	Specifications of Spline	Pt Number	Weight(kg)
13	IMP ANSI	0.875”	16/32 INV CL5	**92/CLB03**	1.1
15	IMP ANSI	1.000”	16/32 INV CL5	**92/CLB04**	1.1
14	IMP ANSI	1.250”	12/24 INV CL5	**92/CLC06**	1.5
6	IMP	1.375”	6B Straight	**92/CLC33**	1.5
21	IMP ANSI	1.375”	16/32 INV CL5	**92/CLC07**	1.5
16	DIN 5480	35mm	2 Module INV	**92/CLC11**	1.5
17	IMP ANSI	1.500”	12/24 INV CL5	**92/CLC32**	1.5
23	IMP ANSI	1.500”	16/32 INV CL5	**92/CLC43**	1.5
14	IMP ANSI	1.500”	10/20 INV CL5	**92/CLDA36**	1.8
18	DIN 5480	40mm	2 Module INV	**92/CLDA41**	1.8
13	IMP ANSI	1.750”	8/16 INV CL5	**92/CLDA08**	1.8
27	IMP ANSI	1.750”	16/32 INV CL5	**92/CLDA09**	1.8
21	DIN 5480	45mm	2 Module INV	**92/CLDA42**	1.8

Bore	Keyway	Hub OD	Pt Number	Bore	Keyway	Hub OD	Pt Number
0.500”	None	63	**92/90067**	45mm	14mm	75	**92/90054**
0.875”	0.250”	63.5	**92/90014**	48mm	14mm	75	**92/90055**
1.000”	0.250”	63	**92/90015**	50mm	14mm	75	**92/90056**
1.250”	0.312”	63	**92/90024**	2.000”	0.500”	80	**92/90062**
38mm	10mm	63.5	**92/90051**	55mm	16mm	80	**92/90057**
1.500”	0.375”	63	**92/90060**	60mm	18mm	106	**92/90058**
40mm	12mm	63.5	**92/90052**	65mm	18mm	90	**92/90059**
42mm	12mm	63.5	**92/90053**	Din 3 taper	4mm	63	**92/90017**
1.750”	0.437”	69.5	**92/90061**				

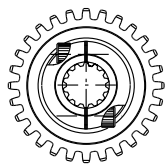
AXIAL CLAMPLOCK
SLD, SLE

No of Teeth	Origin Standard	Nom Spline OD	Specifications of Spline	Pt Number	Weight(kg)
18	DIN 5480	40mm	2 Module INV	**92/SLDA41**	2.8
21	DIN 5480	45mm	2 Module INV	**92/SLDA42**	2.8
13	IMP ANSI	1.750”	8/16 INV CL5	**92/SLEA08**	2.8
27	IMP ANSI	1.750”	16/32 INV CL5	**92/SLEA09**	2.8
23	DIN 5482	48mm	2 Module INV	**92/SLEA44**	2.8
24	DIN 5480	50mm	2 Module INV	**92/SLEA45**	2.8
15	IMP ANSI	2.000”	8/16 INV CL5	**92/SLEA37**	2.8

ELEMENT PART NUMBER (White) 127 Series **92/03/03244** No of teeth - 28



CLB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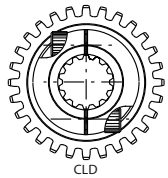
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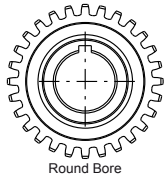
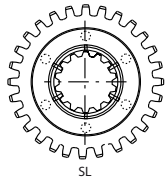
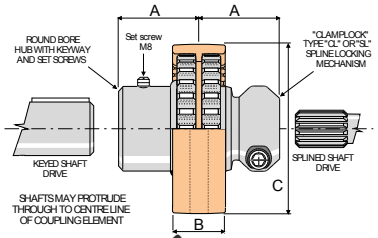

Round Bore


SL

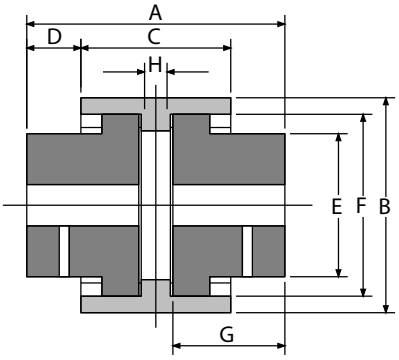


Series	A	B	C
63	37 (1.457”)	53 (2.087”)	80 (3.149”)
101	68 (2.677”)	40 (1.575”)	116 (4.567”)
127	68 (2.677”)	40 (1.575”)	146 (5.748”)

FLEXIBLE MINI SHAFT COUPLINGS

Double Crowned Tooth Gear Type With Nylon Element
And Sintered Steel Hubs.

Type	no. of teeth	A	B	C	D	E	F	G	H	Basic Torque Nm*	Basic kW Per 100 RPM*	Min/Max Bore	Weight Kg
M-19	24	50	48.3	37	6.5	32	38.86	21.5	7	15.5	0.1617	10-19	0.27
M-28	34	80	65.6	46	17	44	53.85	35.5	9	44	0.4592	10-28	0.82
M-38	44	80	83.6	49	15.5	58.5	68.58	35.5	9	78.5	0.8194	12-38	1.90



***Power And Torque Factors**
Basic Power and Torque value allows for continuous use on mechanical drive equipment with moderate shock loading at full misalignment tolerance.
For Hydraulic drive applications with uniform loading up to 8 hours per day with true alignment and temperature not above 82˚C, basic Power and Torque values may be increased by 1.75. Maximum starting and breaking torque should not exceed two times basic torque. Intermittent, transient peak loads should not exceed three times the basic torque. **Refer page 37 for service factors.**

Misalignment Tolerances
Axial Displacement +/- 1mm.
Parallel Offset 0.4 mm.
Angular Misalignment 1˚ Per Hub.
Axial Displacement (slip) 5 mm.

Temperature Range
Continuous 82°C.
Intermittent 120°C.

Part Number	M19 Series Description	Part Number	M28 Series Description	Part Number	M38 Series Description
GM19/00	Pilot bore (9.5mm)	**GM28/00**	Pilot bore (6.2mm)	**GM38/00**	Pilot bore (10.9mm)
GM19/70	11mm x 4mm key	**GM28/78**	1/2” x 1/8” key	**GM38/23**	5/8” x 5/32” & 3/16” key
GM19/78	1/2” x 1/8” key	**GM28/23**	5/8” x 5/32” & 3/16” key	**GM38/124**	22 mm x 6 mm key
GM19/71	14mm x 5mm key	**GM28/13**	3/4” x 3/16” key	**GM38/14**	7/8” x 3/16” key
GM19/23	5/8” x 5/32” & 3/16” key	**GM28/14**	7/8” x 3/16” key	**GM38/74**	24 mm x 8 mm key
GM19/13	3/4” x 3/16” key	**GM28/73**	19mm x 6mm key	**GM38/26**	25 mm x 8 mm key
GM19/25	18mm x 6mm key	**GM28/15**	1” x 1/4” key	**GM38/15**	1” x 1/4” key
GM19/73	19mm x 6mm key	**GM28/74**	24mm x 8mm key	**GM38/24**	1 1/4” x 5/16” key
GM19/E	Nylon element	**GM28/75**	28mm x 8mm key	**GM38/30**	30mm x 8mm key
		GM28/CLA01	Spline 9T 5/8” 16/32 clamp	**GM38/80**	32mm x 10mm key
		GM28/CLA03	Spline 13T 7/8” 16/32 clamp	**GM38/51**	38mm x 10mm key
		GM28/E	Nylon element	**GM38/75**	28mm x 8mm key
				GM38/CLA01	Spline 9T 5/8” 16/32 clamp
				GM38/CLA02	Spline 11T 3/4” 16/32 clamp
				GM38/CLA03	Spline 13T 7/8” 16/32 clamp
				GM38/CLA04	Spline 15T 1” 16/32 clamp
				GM38/E	Nylon element

Other sizes are available contact our sales office.

For larger size couplings refer Flexilock series on page 10 & 11.

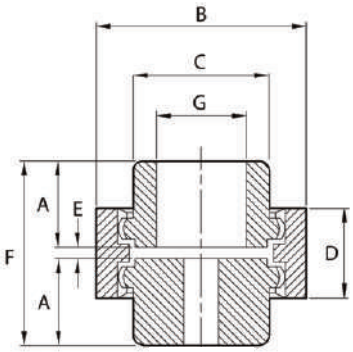
FLEXIBLE MINI SHAFT COUPLINGS

Drive Couplings are made from steel reinforced Nylon sleeve with two steel drive hubs. The crowned teeth formed gears permit axial and angular misalignment.

Interchanges with UCC DC-42 couplings.

Type	no. of teeth	A	B	C	D	E	F	G Max./Min.	Max Speed	Max kW RPM	Weight Kg
HOF42	44	40	88	60	50	4	84	42/10	5000	7.5	1.9

Maximum angular misalignment is ±2°. Maximum radial misalignment is ±0.4mm.



Bore Size Options

Part Number	HOF42 Series Description
HOF42/H	Pilot bore (10mm)
HOF42/14	7/8" x 3/16" key
HOF42/15	1" x 1/4" key
HOF42/24	1 1/4" x 5/16" key
HOF42/26	25 mm x 8 mm key
HOF42/51	38mm x 10mm key
HOF42/66	1 1/8" x 1/4" key
HOF42/74	24mm x 8mm key
HOF42/79	30mm x 8mm key
HOF42/80	32mm x 10mm key
HOF42/166	1 3/8" x 3/8" key
HOF42/178	1 1/8" x 5/16" key
HOF42/S	Nylon element

Other sizes and ranges are available contact our sales office.

For larger size couplings refer Flexilock series on page 10 & 11.

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DG COUPLING ELEMENTS

High quality elements to match original manufacturers couplings, commonly used in imported heavy construction & earthmoving plant eg, excavators, cranes, dozers, forklifts etc.
Komatsu, Kobelco, Hitachi, Kato, Tadano.

DG/4-30 DG/4-30CB

DG/40-140 DG/40-140CB

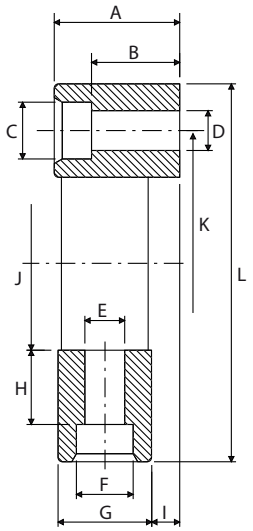
DG/30 - 110HAL OR H

ORDER CODE

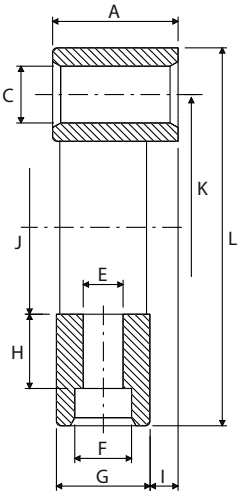
Rubber Element Type		Hytrel Element Type	
Std. (thru hole)	Counter Bore Hole	Element C/W insert	Element Only
DG/4	DG/4CB	DG/30HAL	
DG/8	DG/8CB	DG/40HAL	
DG/16	DG/16CB	DG/50HAL	
DG/25	DG/25CB	DG/110HAL	
DG/30	DG/30CB	DG/140HAL	DG/140H
DG/50	DG/50CB		
DG/140	DG/140CB		

STD., CB & HAL TYPE COUPLING ELEMENTS

TYPE CB / HAL



STANDARD TYPE



NOTE: Type Std. & CB = Black rubber type.
Type HAL = White Hytrel type.

All dimensions in mm.
All torques in Nm.

Type Std./CB/HAL	A	B	C	D	E	F	G	H	I	J	K Spacing	L	Nominal Torque	Max Torque
4	28	17	13.5	8.5	8.5	13.5	24	18.5	4	45	80/3 x 120°	100	50	125
8	32	20.5	16.5	10.5	10.5	16.5	28	20.5	4	60	100/3 x 120°	120	100	280
16	42	23.5	18.5	12.5	12.5	18.5	36	25.2	6	70	125/3 x 120°	150	200	560
25	46	26	21.5	14.5	14.5	21.5	40	27	6	85	140/3 x 120°	170	315	875
30	58	34.5	24.5	16.5	16.5	24.5	50	34.5	8	100	165/3 x 120°	200	500	1400
40	50	29.5	24.5	16.5	16.5	24.5	47.5	29	4	85	140/4 x 90°	170	600	1600
50	58	34.5	24.5	16.5	16.5	24.5	50	34.5	8	100	165/4 x 90°	200	700	2100
110	56	37	26	18.5	18.5	26	53	37	8	100	180/4 x 90°	230	1200	2500
140	70	45.5	30.5	20.5	20.5	30.5	62	47	8	125	215/4 x 90°	260	1700	4900

ADAPTIVE RUBBER ELEMENT COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

POWER RATINGS MATCHED TO APPLICATION.
The coupling design features a very flexible element for power transfer, ensuring maximal torque capacity, with dampening of shock loads and excellent misalignment capacity. The element works well in harsh environments resulting in long life cycles.

BROAD APPLICATION VERSATILITY.
The steel hub design permits ease of modification to suit specialized or challenging applications. The coupling range suits a large range of shaft sizes from 16mm (5/8") to 57mm (2 1/4") in popular splines and round bores. Specials can also be made to order.

STANDARD SPLINED OR ROUND BORE SHAFT CONNECTIONS.
The DG Coupling range suits most splined shaft connections for hydraulic pumps and motors including imperial and metric sizes. Splined hubs use our popular CLAMPLOCK lateral or axial positive locking mechanisms eliminating the spline wear associated with unlocked spline connections.

Standard bore sizes using taperlock bushes are available in imperial and metric sizes to suit hydraulic pumps and motors and IEC electric motor shaft standards.

DG8 Spline to spline coupling

MAXIMUM MISALIGNMENT TOLERANCES.
Axial Displacement.
The element locates the hubs on the shafts. However, up to +/- 2mm axial displacment is tolerated at 1000rpm.
Radial Misalignment.
Between 2mm @ 3000rpm and up to a total of 5mm at 1000 rpm.
SPEED:Consult factory for speeds exceeding 4000 RPM.
Angular Misalignment.
The total angular misalignment is 2˚ at 1400 rpm. This is speed dependent.

PERFORMANCE SPECIFICATIONS.

SERIES	Continuous Torque	Maximum Torque	Intermittent Torque
DG8	100 Nm 83 ft lbs	250 Nm 183 ft lbs	157 Nm 116 ft lbs
DG25	315 Nm 250 ft lbs	800 Nm 590 ft lbs	475 Nm 350 ft lbs
DG50	700 Nm 466 ft lbs	2000 Nm 1475 ft lbs	884 Nm 652 ft lbs

Ordering Information
To order a DG flexible coupling
1. Select the element size that will suit the torque output from the driving shaft. eg electric motor.
2. Select the flange and the hub sizes from the tables above. Ideally, the hub size will fit onto the smallest shaft.
3. The complete coupling will comprise of 3 ordered parts. The flange, the element and the hub.

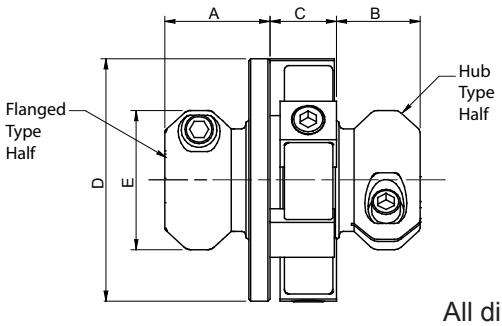
Example
To couple an electric motor to a hydraulic pump. The electric motor is 90L IEC frame 4 pole motor. Power rating is 1.5 kW at 1440 rpm. Shaft size is 24mm with a 8mm key.

The pump is an SAE B pump with input shaft of 13T 16/32DP spline, nom. OD 7/8"

1. From page 48, use the formula to convert kW into torque. ie T= (1.5*9549)/1440 = 10 Nm. The required element will therefore be a DG/8CB.
2. For the smallest shaft, being the 13T spline, use the hub part DG8HB03.
3. For the electric motor, shaft size 24mm, use the flange part DG8FL74.

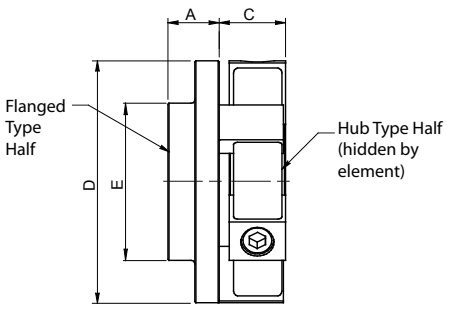
CLAMPLOCK STYLE SPLINED HALF DIMENSIONS.

SERIES	A	B	C	D	E
DG8	52	44.6	33	120	69
DG25	62	39	46	170	79
DG50	71	43	58	200	94



TAPERLOCK STYLE ROUND BORE DIMENSIONS.

SERIES	A	C	D	E
DG8	25.4	33	120	78
DG25	31.8	46	170	99
DG50	65.0	65	200	113



All dimensions in mm.

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ADAPTIVE RUBBER ELEMENT COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

DG8

Spline OD	No. of teeth	Spline Specification	Part Number Hub	Part Number Flange
5/8"	9	ANSI 16/32 INV CL5	DG8HB01	DG8FL01
7/8"	13	ANSI 16/32 INV CL5	DG8HB03	DG8FL03
1"	15	ANSI 16/32 INV CL5	DG8HB04	DG8FL04
1 1/4"	14	ANSI 12/24 INV CL5	DG8HB06	DG8FL06

Bore OD	Keyway	Part Number Hub TLB 1108 (max. bore #)	Part Number Flange TLB 1210 (max. bore #)
7/8"	1/4"	DG8HB14	DG8FL14
1"	1/4"	DG8HB15	DG8FL15
1 1/4"	5/16"	-	DG8FL24
24	8	DG8HB74	DG8FL74
25	8	DG8HB26	DG8FL26
30	8	-	DG8FL79

Rubber Element Part Number DG/8CB

DG25

Spline OD	No. of teeth	Spline Specification	Part Number Hub	Part Number Flange
7/8"	13	ANSI 16/32 INV CL5	DG25HB03	DG25FL03
1"	15	ANSI 16/32 INV CL5	DG25HB04	DG25FL04
1"	6	SAE B Straight	DG25HB05	DG25FL05
1 1/4"	14	ANSI 12/24 INV CL5	DG25HB06	DG25FL06
1 3/8"	6	SAE B Straight	DG25HB33	DG25FL33
1 3/8"	21	ANSI 16/32 INV CL5	DG25HB07	DG25FL07
1 1/2"	14	ANSI 10/20 INV CL5	-	DG25FL36
1 1/2"	17	ANSI 12/24 INV CL5	DG25HB32	-
1 1/2"	23	ANSI 16/32 INV CL5	DG25HB43	DG25FL43
1 3/4"	13	ANSI 8/16 INV CL5	DG25HB08	DG25FL08
1 3/4"	27	ANSI 16/32 INV CL5	-	DG25FL09

Spline OD	No. of teeth	Spline Specification	Part Number Hub	Part Number Flange
30	14	DIN 5480 2 MOD INV	DG25HB10	-
35	16	DIN 5480 2 MOD INV	DG25HB11	-
36	8	DIN 5462 INV	DG25HB115	-
40	18	DIN 5480 2 MOD INV	-	DG25FL41
45	21	DIN 5480 2 MOD INV	-	DG25FL42

Bore OD	Keyway	Part Number Hub TLB 1615 (max. bore #)	Part Number Flange TLB 2012 (max. bore #)
1 1/4"	5/16"	DG25HB24	DG25FL24
1 1/2"	3/8"	DG25HB60	DG25FL60

Bore OD	Keyway	Part Number Hub TLB 1615 (max. bore #)	Part Number Flange TLB 2012 (max. bore #)
32	10	DG25HB80	DG25FL80
35	10	DG25HB50	DG25FL50
38	10	DG25HB51	DG25FL51
42	12	-	DG25FL53
48	14	-	DG25FL55

Rubber Element Part Number DG/25CB

DG50

Spline OD	No. of teeth	Spline Specification	Part Number Hub	Part Number Flange
1 1/4"	14	ANSI 12/24 INV CL5	-	DG50FL06
1 3/8"	21	ANSI 16/32 INV CL5	-	DG50FL07
1 1/2"	14	ANSI 10/20 INV CL5	DG50HB36	-
1 3/4"	13	ANSI 8/16 INV CL5	DG50HB08	DG50FL08
1 3/4"	27	ANSI 16/32 INV CL5	DG50HB09	DG50FL09
2"	15	ANSI 8/16 INV CL5	DG50HB37	DG50FL37
2 1/4"	26	ANSI 12/24 INV CL5	DG50HB48	DG50FL48
2 1/4"	17	ANSI 8/16 INV CL5	DG50HB96	DG50FL96

Spline OD	No. of teeth	Spline Specification	Part Number Hub	Part Number Flange
40	18	DIN 5480 2 MOD INV	DG50HB41	DG50FL41
45	21	DIN 5480 2 MOD INV	DG50HB42	DG50FL42
55	26	DIN 5480 2 MOD INV	DG50HB47	DG50FL47
60	28	DIN 5480 2 MOD INV	DG50HB118	DG50FL118

Bore OD	Keyway	Part Number Hub TLB 2012 (max. bore #)	Part Number Flange TLB 3525 (max. bore #)
1 1/4"	5/16"	DG50HB24	-
1 1/2"	3/8"	DG50HB60	DG50FL60
1 3/4"	7/16"	DG50HB61	DG50FL61
2	1/2"	-	DG50FL62
2 1/4"	1/2"	-	DG50FL116

Bore OD	Keyway	Part Number Hub TLB 2012 (max. bore #)	Part Number Flange TLB 3525 (max. bore #)
32	10	DG50HB80	DG50FL80
38	10	DG50HB51	DG50FL51
42	12	DG50HB53	DG50FL53
48	14	DG50HB55	DG50FL55
50	14	DG50HB56	DG50FL56

Rubber Element Part Number DG/50CB

- Taperlock Bush Series - max. bore size (mm)

1108	25 **(28)**
1210	32
1615	40 **(42)**
2012	50
3525	95 **(100)**

- Taperlock Bush Series - max. bore size (inches)

1108	1" **(1 1/8")**
1210	1 1/4"
1615	1 1/2" **(1 5/8")**
2012	2"
3525	3 1/2" **(3 3/4" & 4")**

Keyways are British Standard Metric BS 4235: Part 1: 1972 DIN 6885 and conform to ISO recommendations with the exception of those marked **(bold)** which are shallower.

Keyways marked **(bold)** are shallower than standard.

***OTHER SIZES ARE AVAILABLE UPON REQUEST. CONTACT OUR SALES OFFICE.**
† FOR SHAFT SIZES SEE HYDRAULIC MOTOR & PUMP STANDARDS-PAGE 49 & ELECTRIC MOTOR SIZES PAGE 50.

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THOMPSON COUPLINGS
FOR WATER PUMPS, HYDRAULIC PUMPS & GENERAL USE.

MOTOR TO DRIVEN SHAFT ALIGNMENT ELIMINATING COUPLING

WIDER DEFLECTION ANGLES → **LARGER OFFSETS** → **MAINTENANCE FREE**

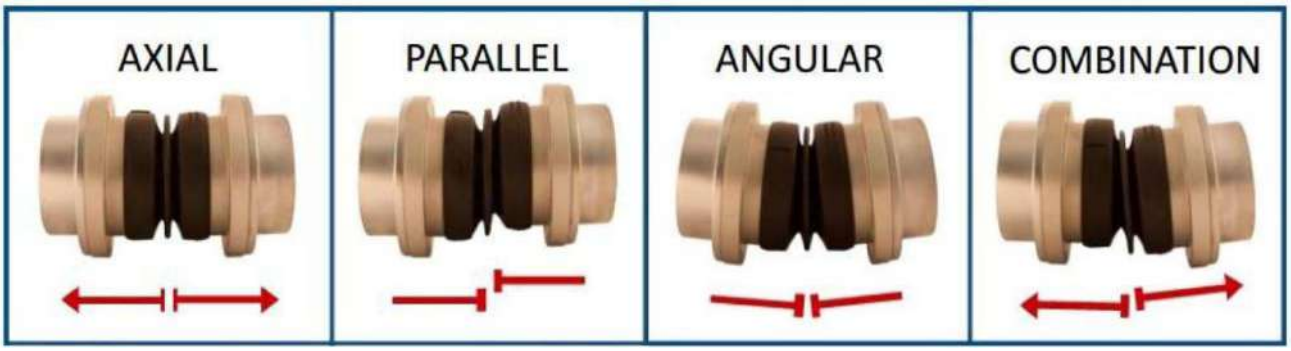
To relieve the problems and premature wear caused by thermal expansion, vibration and soft footing introducing misalignment at any time after installation. The Thompson Coupling will flex and accommodate misalignment and minimise the damaging forces that act on bearings, seals and bodies through side load, overhung and axial load.

Benefits

- Quick easy installation - eliminates need for laser alignment.
- Tolerates angular misalignment up to 10 degrees.
- Reduces operating costs - Long running life.
- Maintenance free - sealed for life.
- Reduces downtime breakdowns, operating temperatures and power losses.
- Relieves the misalignment problems and premature wear caused by thermal expansion, vibration and soft footing.
- Minimises the damaging forces that impact on bearings, seals and bodies through side load, overhung and axial load.

Capabilities

- Can articulate up to 10 degrees angular misalignment, in combination with parallel misalignment.
- Extends and compresses to accommodate axial movement between connected devices.



Specifications

Parameter	TCAE-0	TCAE-1	TCAE-2	TCAE-3	TCAE-4	TCAE-5
Max. Speed (rpm)	3600	3600	3600	3000	3000	3000
Max. Angular Deflection (deg)	5°	10°	10°	10°	10°	10°
Min Angular Deflection (deg)	0°	0°	0°	0°	0°	0°
Max. Parallel Offset (mm)	± 5	± 8	± 9	± 18	± 17	± 18
Max. Temperature (°C)	120°C	120°C	120°C	120°C	120°C	120°C
Shaft Gap Range (mm)	82-90	133-147	162-178	285-305	285-305	324-349
Shaft Gap - Recommended (mm)	86	140	168	295	295	315
Max Power @ 1440 rpm (kW/HP)	15/22	30/40	80/106	120/160	200/266	300/402
Weight (kg)	2	6	11	21	29	40

*** Larger sizes available upon request*

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THOMPSON COUPLINGS
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Design Guide & Sizing Instructions

- Determine normal torque (Nm) for application = T_{nom}
- Determine machine service factor from table = **MSF**
- Determine duty cycle factor from formula = **DCF**
- Determine angle factor for coupling from formula = **AF**
- Calculate design torque (Nm) from formula = T_{des}
- View graph using design torque **(T_{des})** and shaft speed **(rpm).**
- Select appropriate TCAE coupling above intersect point.

Duty Cycle Factor – DCF

From the required operation hours per day (HPD):

$$DCF=0.5 \times \sqrt[3]{HPD}$$

Service interval of the AE coupling is based on 3 years operation (8 hours pd, 25 days pm = 7,200 hours).

Machine Service Factor	MSF
Electric Motor	1
Petrol Engine (4 cyl. +)	1.25
Machinery with minor vibrations	1.5
Petrol Engine (3 cyl. -)	1.5
Diesel Engine (4 cyl. +)	2
Diesel Engine (3 cyl. -)	3
Machinery with large impact loads	3

Angle Factor - AF

Operating angle (A°) of the AE coupling is adjustable with the installation:

$$AF=1 - 0.035 \times A°$$

Design Torque –T_{des}

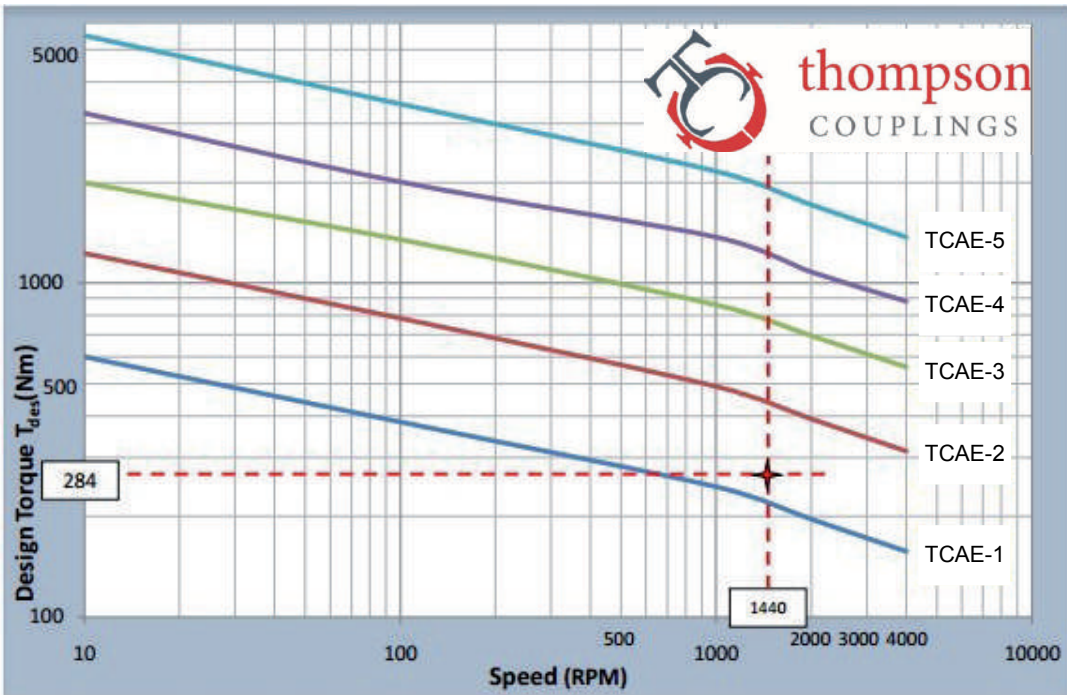
$$T_{des}(Nm)=\frac{T_{nom} \times DCF \times MSF}{AF}$$

Example

A 35kW electric motor driven centrifugal water pump operates at 1440rpm for 12 hours per day. Installation shows the maximum misalignment angle for the shafts will be 2 degrees.

T_{nom} = 9549 x 35(kW)/1440(rpm) = **232Nm.**
MSF = 1 (electric motor with no pulsations).
DCF = 1.14.
AF = 0.93.
T_{des} = 232 x 1.14 x 1/0.93 = **284Nm.**

From the graph - select an TCAE 2 coupling.



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THOMPSON COUPLINGS
FOR WATER PUMPS, HYDRAULIC PUMPS & GENERAL USE.

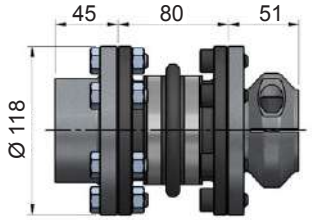
DIMENSION

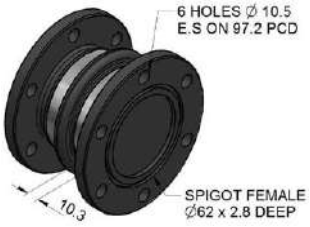
NB Coupling configuration can be round shaft to round shaft, round shaft to splined shaft, or, splined shaft to splined shaft.

ROUND BORE
TAPERLOCK TYPE END
SHOWN

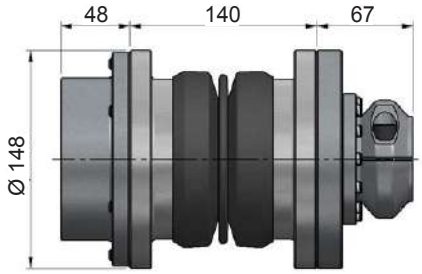
SPLINED BORE
CLAMPLOCK TYPE END
SHOWN

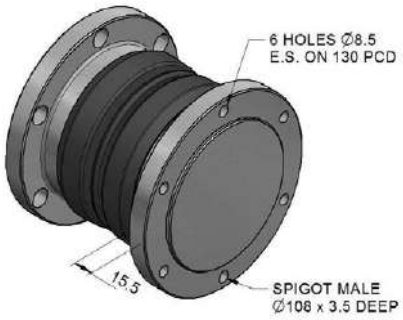
TCAE-0



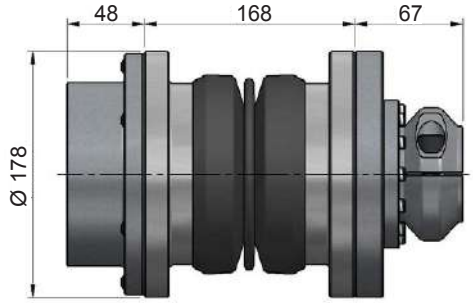


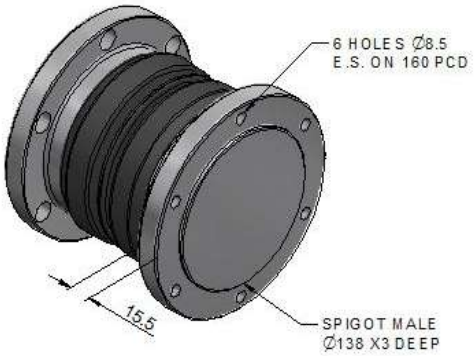
TCAE-1





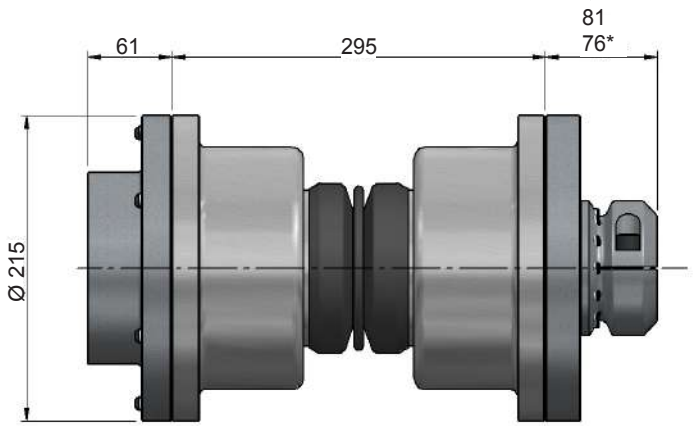
TCAE-2

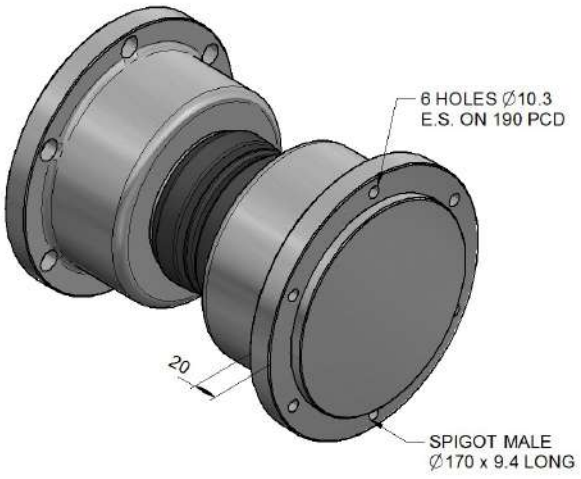




* Size for smaller splines

TCAE-3





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THOMPSON COUPLINGS
FOR WATER PUMPS, HYDRAULIC PUMPS & GENERAL USE.

Ordering Information, Part numbers & Shaft Options

SIZE 0

PART NO TCAE-0 — DESCRIPTION: THOMPSON COUPLING ALIGNMENT ELIMINATOR COUPLING SIZE 0

Bore OD	Keyway	Part Number 1615 Taperlock Bush	Wt (kg)
1 1/4"	5/16"	**TLB1615/24**	0.5
1 1/2"	3/8"	**TLB1615/60**	0.5
32 mm	10	**TLB1615/80**	0.5
35 mm	10	**TLB1615/50**	0.5
38 mm	10	**TLB1615/51**	0.5
Taperlock Bush Cplg End 1615 -**TCQR0**			1.4

Other 1615 series taperlock bushes in size 12mm - 42mm are available.

Spline OD	No. of teeth	Spline Specification	Part Number Clamplock Hub End	Wt (kg)
7/8"	13	ANSI 16/32 INV CL5	**TCCS0/03**	1.4
1"	15	ANSI 16/32 INV CL5	**TCCS0/04**	1.4
1 1/4"	14	ANSI 12/24 INV CL5	**TCCS0/06**	1.4

SIZE 1

PART NO TCAE-1 — DESCRIPTION: THOMPSON COUPLING ALIGNMENT ELIMINATOR COUPLING SIZE 1

Bore OD	Keyway	Part Number 2517 Taperlock Bush	Wt (kg)
1 1/2"	3/8"	**TLB2517/60**	1.5
1 3/4"	7/16"	**TLB2517/61**	1.5
2 1/4"	1/2"	**TLB2517/116**	1.5
32 mm	10	**TLB2517/80**	1.5
38 mm	10	**TLB2517/51**	1.5
42 mm	12	**TLB2517/53**	1.5
48 mm	14	**TLB2517/55**	1.5
55 mm	16	**TLB2517/57**	1.5
Taperlock Bush Cplg End 2517 -**TCQR1**			2.1

Other 2517 series taperlock bushes in size 18mm - 60mm are available.

Spline OD	No. of teeth	Spline Specification	Part Number Clamplock Hub End	Wt (kg)
7/8"	13	ANSI 16/32 INV CL5	**TCCS1/03**	2.8
1"	15	ANSI 16/32 INV CL5	**TCCS1/04**	2.8
1"	6	SAE 6B	**TCCS1/05**	2.8
1 1/4"	14	ANSI 12/24 INV CL5	**TCCS1/06**	2.8
1 3/8"	21	ANSI 16/32 INV CL5	**TCCS1/07**	2.8
1 3/8"	6	SAE 6B	**TCCS1/33**	2.8
1 1/2"	14	ANSI 10/20 INV CL5	**TCCS1/36**	2.8
1 1/2"	23	ANSI 16/32 INV CL5	**TCCS1/43**	2.8
1 3/4"	13	ANSI 8/16 INV CL5	**TCCS1/08**	2.8
1 3/4"	27	ANSI 16/32 INV CL5	**TCCS1/09**	2.8
40mm	18	DIN 5480 2 MOD	**TCCS1/41**	2.8
45mm	21	DIN 5480 2 MOD	**TCCS1/42**	2.8

SIZE 2

PART NO TCAE-2 — DESCRIPTION: THOMPSON COUPLING ALIGNMENT ELIMINATOR COUPLING SIZE 2

Bore OD	Keyway	Part Number 2517 Taperlock Bush	Wt (kg)
1 1/2"	3/8"	**TLB2517/60**	1.5
1 3/4"	7/16"	**TLB2517/61**	1.5
2 1/4"	1/2"	**TLB2517/116**	1.5
32 mm	10	**TLB2517/80**	1.5
38 mm	10	**TLB2517/51**	1.5
42 mm	12	**TLB2517/53**	1.5
48 mm	14	**TLB2517/55**	1.5
55 mm	16	**TLB2517/57**	1.5
Taperlock Bush Cplg End 2517 -**TCQR2**			2.1

Other 2517 series taperlock bushes in size 18mm - 60mm are available.

Spline OD	No. of teeth	Spline Specification	Part Number Clamplock Hub End	Wt (kg)
7/8"	13	ANSI 16/32 INV CL5	**TCCS2/03**	2.8
1"	15	ANSI 16/32 INV CL5	**TCCS2/04**	2.8
1"	6	SAE 6B	**TCCS2/05**	2.8
1 1/4"	14	ANSI 12/24 INV CL5	**TCCS2/06**	2.8
1 3/8"	21	ANSI 16/32 INV CL5	**TCCS2/07**	2.8
1 3/8"	6	SAE 6B	**TCCS2/33**	2.8
1 1/2"	14	ANSI 10/20 INV CL5	**TCCS2/36**	2.8
1 1/2"	23	ANSI 16/32 INV CL5	**TCCS2/43**	2.8
1 3/4"	13	ANSI 8/16 INV CL5	**TCCS2/08**	2.8
1 3/4"	27	ANSI 16/32 INV CL5	**TCCS2/09**	2.8
40mm	18	DIN 5480 2 MOD	**TCCS2/41**	2.8
45mm	21	DIN 5480 2 MOD	**TCCS2/42**	2.8

SIZE 3

PART NO TCAE-3 — DESCRIPTION: THOMPSON COUPLING ALIGNMENT ELIMINATOR COUPLING SIZE 3

Bore OD	Keyway	Part Number 3020 Taperlock Bush	Wt (kg)
2 1/4"	1/2"	**TLB3020/116**	2.7
Taperlock Bush Cplg End 3020 -**TCQR3**			5.3

Other 3020 series taperlock bushes in size 25mm - 75mm are available.

Spline OD	No. of teeth	Spline Specification	Part Number Clamplock Hub End	Wt (kg)
1 3/8"	6	SAE 6B	**TCCS3/33**	7
1 1/2"	14	ANSI 10/20 INV CL5	**TCCS3/36**	7
1 1/2"	23	ANSI 16/32 INV CL5	**TCCS3/43**	7
1 3/4"	13	ANSI 8/16 INV CL5	**TCCS3/08**	7
1 3/4"	27	ANSI 16/32 INV CL5	**TCCS3/09**	7
2"	15	ANSI 8/16 INV CL5	**TCCS3/37**	7
2 1/4"	26	ANSI 12/24 INV CL5	**TCCS3/48**	7
2 1/4"	17	ANSI 8/16 INV CL5	**TCCS3/96**	7
40mm	18	DIN 5480 2 MOD	**TCCS3/41**	7
45mm	21	DIN 5480 2 MOD	**TCCS3/42**	7
55mm	26	DIN 5480 2 MOD	**TCCS3/47**	7
60mm	28	DIN 5480 2 MOD	**TCCS3/118**	7

Ordering Example :- Size 2 with 38mm rnd to 48mm rnd.
Parts required are TCAE-2, 2 off x TCQR2, TLB2517/51 and TLB2517/55
Total weight, 5.7 + 2 x 2.1 + 1.5 + 1.5 = 12.9 kg

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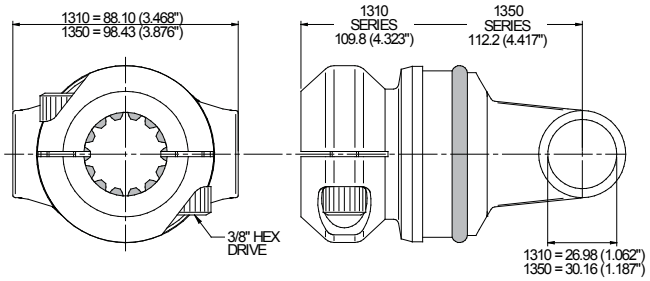
UNIVERSAL JOINT DRIVE TRAIN COMPONENTS
SPLINED YOKES AND COMPANION FLANGES

WARNING Contact with spinning driveshafts can result in serious injury. Safety guards should be fitted to protect personnel from contact with rotating shafts, or to contain the shaft in the event of failure.

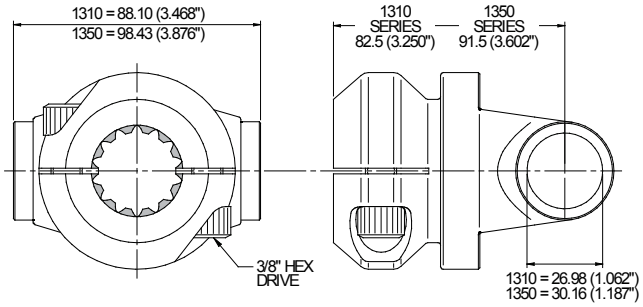
SPLINED CLAMPLOCK TYPE YOKES

Specially developed for positive connection of driveline to splined hydraulic pump shafts.
WIDE APPLICATION RANGE. CLAMPLOCK yokes are available to fit SAE or metric hydraulic pumps or motor spline types found on mobile equipment.
PREVENTS FRETTING OR FLOGGING. The double bolt split clamp design locks solid on to splines giving long trouble free life.
HIGH STRENGTH FOR LONG LIFE. CLAMPLOCK yokes are manufactured from steel to a high degree of precision, accuracy and strength.

CLAMPLOCK YOKES
2 piece welded type



CLAMPLOCK YOKE
1 piece fully machined type



SERIES 1310 CLAMPLOCK YOKES		
Pt Number	Spline	Application
84/02/13103	13T 7/8" 16/32	SAE B
84/02/13104	15T 1" 16/32	SAE BB
84/02/13105	6B 1" STRAIGHT	Orbit Motor
84/02/13110	14T 30mm 2MOD	Rexroth
84/02/13106	14T 1 1/4" 12/24	SAE C
84/02/131115	8T 32 X 36 DIN 5462	Truck PTO'S etc
84/02/13107	21T 1 3/8" 16/32	Sunstrand
84/02/13111	16T 35mm 2MOD	Rexroth
84/02/13132	17T 1 1/2" 12/24	SAE CC
84/02/13143	23T 1 1/2" 16/32	Sunstrand

SERIES 1350 CLAMPLOCK YOKES		
Pt Number	Spline	Application
84/02/13506	14T 1 1/4" 12/24	SAE C
84/02/13508	13T 1 3/4" 8/16	SAE D-E
84/02/13533	6T 1 3/8" 6B Straight	Ag Tractor
84/02/13507	21T 1 3/8" 16/32	Sunstrand
84/02/13511	16T 35mm 2MOD	Rexroth
84/02/13532	17T 1 1/2" 12/24	SAE CC
84/02/13543	23T 1 1/2" 16/32	Sunstrand

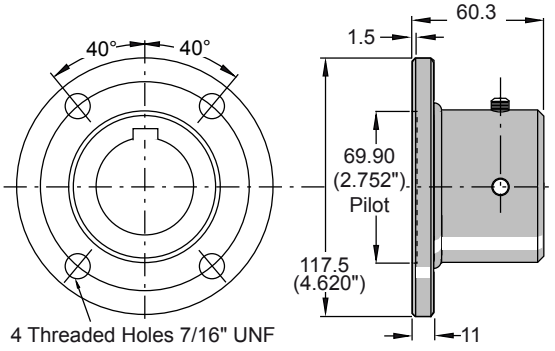
SERIES 1310 INTEGRAL CLAMPLOCK YOKES		
Pt Number	Bore	Application
84/13103	Spline 13T 7/8" 16/32	SAE B
84/13104	Spline 15T 1" 16/32	SAE BB
84/13106	Spline 14T 1 1/4" 12/24	SAE C
84/13107	Spline 21T 1 3/8" 16/32	Sunstrand
84/13124	Rnd 1 1/4" x 5/16' key	
84/13132	Spline17T 1 1/2" 12/24	SAE CC

SERIES 1350 INTEGRAL CLAMPLOCK YOKES		
Pt Number	Bore	Application
84/13506	14T 1 1/4" 12/24	SAE C
84/13507	21T 1 3/8" 16/32	Sunstrand
84/13532	17T 1 1/2" 12/24	SAE CC
84/13524	Rnd 1 1/4" x 5/16' key	

CLAMPLOCK YOKE BOLT TORQUE (Nm)		
Series	Min	Max
CLA	24	36
CLB	40	64
CLC	70	100

ROUND BORE KEYED SHAFT COMPANION FLANGES

ROUND BORE SERIES - 1350 & 1410 Spicer



All steel construction featuring keyway and 2 set screws. Types shown are standard stock lines for 1310, 1350 and 1410 drivelines. Four hole companion flange fits Spicer type flange yokes (refer to matching yoke table on next page). We can produce special sizes to order if quantities are sufficient for production requirements.

Bore	Keyway	Hub OD	Pt Number
1.000"	0.250"	63.5	**84/F390015**
1.250"	0.312"	63.5	**84/F390024**
1.500"	0.375"	63.5	**84/F390060**
1.750"	0.437"	69.5	**84/F390061**
0.5" pilot	-	63.0	**84/F390067**

To Suit Spicer flanges 1260- 2-2-479, 1310- 2-2-479, 1350- 3-2-119 and 1410- 3-2-159.

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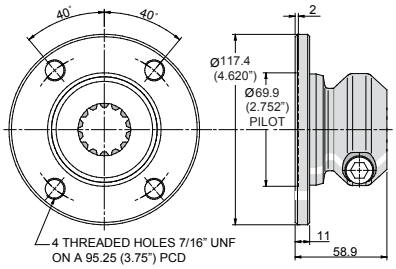
SPLINED CLAMPLOCK TYPE UNIVERSAL JOINT COMPANION FLANGES

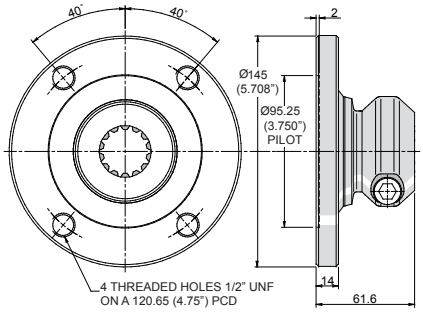
Four hole companion flanges fit Spicer type flange yokes (refer to matching yoke table at bottom of page). Positive locking and positioning of drivelines to splined shafts on hydraulic pumps for 1350, 1410, 1480 and 1550 driveline PTO drives on mobile equipment such as Concrete Transit Mixers, Cranes, Harvesters, Dump Trucks, Tractors etc. May be manufactured to fit other flange yokes if required. Available to suit most common hydraulic pumps. Also available with agricultural splines.



CLC & CLD SERIES - 1350 & 1410 Spicer*

Pt Number	Specifications Of Spline	Nom Spline OD	Origin Standard	No Of Teeth
84/F3CLB03	16/32 INV CL5	0.875"	IMP ANSI	13
84/F3CLC04	16/32 INV CL5	1.000"	IMP ANSI	15
84/F3CLC05	6B STRAIGHT	1.000"	Ag Tractor	6
84/F3CLC06	12/24 INV CL5	1.250"	IMP ANSI	14
84/F3CLC07	16/32 INV CL5	1.375"	IMP ANSI	21
84/F3CLC33	6B Straight	1.375"	Ag Tractor	6
84/F3CLC115	8T STRAIGHT 32x36	36mm	DIN. 5462	8
84/F3CLC32	12/24 INV CL5	1.500"	IMP ANSI	17
84/F3CLC43	16/32 INV CL5	1.500"	IMP ANSI	23
84/F3CLD08	8/16 INV CL5	1.750"	IMP ANSI	13

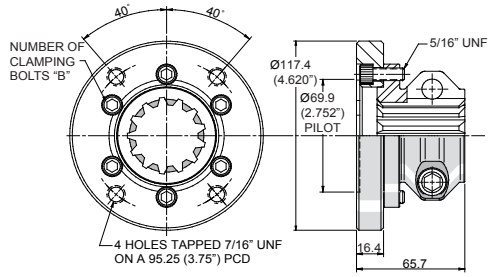
*To Suit Spicer flanges 1260 - 2.2.479, 1310 - 2.2.479, 1350 - 3.2.119 and 1410 - 3.2.159.



CLC & CLD SERIES - 1410, 1480 & 1550 Spicer*

Pt Number	Specifications Of Spline	Nom Spline OD	Origin Standard	No Of Teeth
84/F5CLC06	12/24 INV CL5	1.250"	IMP ANSI	14
84/F5CLC07	16/32 INV CL5	1.375"	IMP ANSI	21
84/F5CLC32	12/24 INV CL5	1.500"	IMP ANSI	17
84/F5CLD08	8/16 INV CL5	1.750"	IMP ANSI	13
84/F5CLD113	12/24 INV CL5	1.750"	IMP ANSI	20

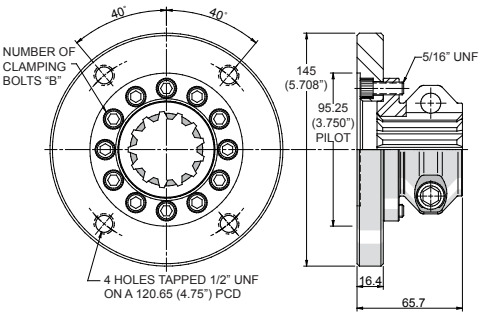
*To Suit Spicer flanges 1410- 3.2.429, 1480 - 3.2.479 and 1550 - 4.2.669.



CLDA SERIES - 1350 & 1410 Spicer*

Pt Number	Specifications Of Spline	Nom Spline OD	Origin Standard	No Of Teeth	"B"
84/F3CLDA36	10/20 INV CL5	1.500"	IMP ANSI	14	6
84/F3CLDA08	8/16 INV CL5	1.750"	IMP ANSI	13	6
84/F3CLDA09	16/32 INV CL5	1.750"	IMP ANSI	27	6
84/F3CLDA41	2 Module INV	40 mm	DIN 5480	18	6
84/F3CLDA42	2 Module INV	45 mm	DIN 5480	21	6

*To Suit Spicer flanges 1260 - 2.2.479, 1310 - 2.2.479, 1350 - 3.2.119 and 1410 - 3.2.159.

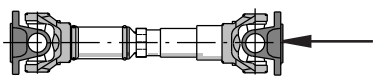


CLDA SERIES - 1410, 1480 & 1550 Spicer*.

Pt Number	Specifications Of Spline	Nom Spline OD	Origin Standard	No Of Teeth	"B"
84/F5CLDA36	10/20 INV CL5	1.500"	IMP ANSI	14	12
84/F5CLDA08	8/16 INV CL5	1.750"	IMP ANSI	13	12
84/F5CLDA09	16/32 INV CL5	1.750"	IMP ANSI	27	12
84/F5CLDA41	2 Module INV	40 mm	DIN 5480	18	12
84/F5CLDA42	2 Module INV	45 mm	DIN 5480	21	12

*To Suit Spicer flanges 1410- 3.2.429, 1480 - 3.2.479 and 1550 - 4.2.669.

MATCHING YOKES



Spicer Series	Spicer Flange Yoke Number	Clamplock Companion Flange Series
1260	2-2-479	84/F3 .....
1310	2-2-479	84/F3 .....
1350	3-2-119	84/F3 .....
1410	3-2-159	84/F3 .....
1410	3-2-429	84/F5 .....
1480	3-2-479	84/F5 .....
1550	4-2-669	84/F5 .....

Matching yokes listed here are included as a guide only. These are not in our product range. To purchase the matching yokes contact your driveline supplier.

Flanged adaptors to suit other Spicer sizes may be available. Contact our sales office.

FLEXILOCK DRIVE KIT

FLEXILOCK has torsional vibration control and spline locking security.

LARGEST RANGE AVAILABLE IN THE WORLD TODAY.
With over 300 combinations we offer by far the largest standard range of direct hydraulic pump drive kits for diesel engines in the world today. The application versatility of our system is unique, covering SAE & DIN configurations.

A COMPLETE ENGINEERED PRODUCT.
Using a FLEXILOCK kit permits the customer to make a reliable pre-engineered connection between the engine and hydraulic pump without the necessity of designing a special adaptation.

WIDE POWER RANGE, UP TO 300 HP.
63 Series with capacity to 47 HP (35 kW) at 2500 RPM.
101 Series with capacity to 142 HP (106 kW) at 2500 RPM.
127 Series with capacity to 209 HP (156 kW) at 2200 RPM.
195 Series with capacity to 300 HP (223 kW) at 2200 RPM.

WIDE RANGE OF ENGINE HOUSING ADAPTORS.
We have been manufacturing engine housing adaptors since 1977 and can provide a wide range of high quality adaptors from stock. Housing adaptors have UNC tapped holes for pump mounting.

LONG TROUBLE FREE LIFE.
Our special polymer flywheel driveplate elements are formulated for optimum elasticity at engine operating temperature and will continue to absorb engine torsional vibration over a very long life cycle. Unlike rubber drive connections, our elements do not harden and fret with continued engine heat exposure, but remain effective over long periods.

STEEL DRIVEPLATE.
Outer driveplate is steel with special polymer element riveted or bolted in place. The use of a steel drive plate eliminates dimensional instability often experienced with the full plastic style drives.

SUPERIOR SPLINE LOCKING SECURITY.
The CL and SL type CLAMPLOCK spline locking mechanisms in our all steel coupling hubs provide the highest level of spline locking security currently available from any source. Pump spline shaft wear or fretting is eliminated by simply tightening the screws provided. Material is high carbon steel not sintered metal as used by some competitors.

TABLE 1

ENGINE ADAPTOR INTERFACING AND PUMP COMPATIBILITY CHART
Series By Performance.

63 Series Code 90

			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
			SAE 5 x 6 1/2"	**C**	A,B	0.24"(6mm)
Torque - 135 Nm	34hp (25kW)	@1800 RPM	SAE 5 x 7 1/2"	**E**	A,B	0.24"(6mm)
Torque - 100 ft.lbs.	38hp (28kW)	@2000RPM	SAE 5 x 8"	**G**	A,B	0.24"(6mm)
M=2.5" (63mm)	41hp (30kW)	@2200RPM	SAE 4 x 6 1/2"	**A**	A,B	0.31"(8mm)
N=1.46" (37mm)	47hp (35kW)	@2500RPM	SAE 4 x 7 1/2"	**H**	A,B	0.31"(8mm)
			SAE 4 x 8"	**J**	A,B	0.31"(8mm)

101 Series Code 91

			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
			SAE 5 x 6 1/2"	**D**	B,C	1.57"(40mm*)
			SAE 5 x 7 1/2"	**F**	B,C	1.57"(40mm*)
			SAE 5 x 8"	**G**	B,C	0.24"(6mm)
Torque - 406 Nm	102hp (76kW)	@1800RPM	SAE 5 x 8"	**R#**	B,C	0.24"(6mm)
Torque - 300 ft.lbs.	114hp (85kW)	@2000RPM	SAE 4 x 7 1/2"	**Z**	B,C	1.57"(40mm*)
M=4"(101.5)	125hp (93kW)	@2200RPM	SAE 4 x 8"	**J**	B,C	0.31"(8mm)
N=2.54" (64.5mm)	142hp (106kW)	@2500RPM	SAE 4 x 10"	**K**	B,C	0.31"(8mm)
			SAE 3 x 10"	**M**	B,C	0.31"(8mm)
			SAE 3 x 11 1/2"	**P**	B,C	0.31"(8mm)
			SAE 2 x 11 1/2"	**S**	C,D	0.43"(12mm)

127 Series Code 92

			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
			SAE 4 x 10"	**K**	B,C	0.31"(8mm)
Torque - 678 Nm	152hp (113kW)	@1600RPM	SAE 3 x 10"	**M**	B,C	0.31"(8mm)
Torque - 500 ft.lbs.	170hp (127kW)	@1800RPM	SAE 3 x 11 1/2"	**P**	B,C	0.31"(8mm)
M=5" (126.7mm)	190hp (142kW)	@2000RPM	SAE 2 x 11 1/2"	**S**	C,D	0.43"(12mm)
N=2.54" (64.5mm)	209hp (156kW)	@2200RPM	SAE 1 x 11 1/2"	**B**	C,D,E	0.43"(12mm)
			SAE 1 x 14"	**W**	D,E,F	2"(51mm)

195 Series Code 95

			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
Torque - 969 Nm	217hp (162kW)	@1600RPM	SAE 3 x 11 1/2"	**P**	C,D	0.31"(8mm)
Torque - 715 ft.lbs.	245hp (183kW)	@1800RPM	SAE 2 x 11 1/2"	**S**	C,D	0.43"(12mm)
M=7.66" (194.5mm)	272hp (202kW)	@2000RPM	SAE 1 x 11 1/2"	**B**	C,D,E	0.43"(12mm)
N=2.54" (64.5mm)	300hp (223kW)	@2200RPM	SAE 1 x 14"	**W**	D,E,F	2"(51mm)

TABLE 2

PUMP SIZES & FLANGE INTERFACING

Size	"P"	Pump Code
SAE A 2	3.25"	**01**
SAE B 2/4	4.00"	**02**
SAE C 2/4	5.00"	**03**
SAE D 4	6.00"	**04**
SAE E 4	6.50"	**05**
SAE F 4	7.00"	**06**
DIN Gp2	36.5mm	**07**
DIN Gp3	50.8mm	**08**
M100 4	100mm	**09**
M125 2/4	125mm	**10**
M140 4	140mm	**11**
M160 2/4	160mm	**12**
M180 4	180mm	**13**
M200 4	200mm	**14**
M224 4	224mm	**15**

$$P_{(HP)} = \frac{T_{(ft\ lbs)} \times RPM}{5252}$$

$$P_{(kW)} = \frac{T_{(Nm)} \times RPM}{9549}$$

lbf ft = Nm x 0.7376

Nm = lbf ft x 1.356

* Spacer used on this model - see drawing next page.
# EAI Code 'R' used on Hatz Diesel engines where the "G" dimension is 23mm. Refer to PT112 for full details.
For Diesel engine flywheel and engine housing industry standards refer to inside back cover.
Series 195- Number of teeth on element equals 44 teeth.

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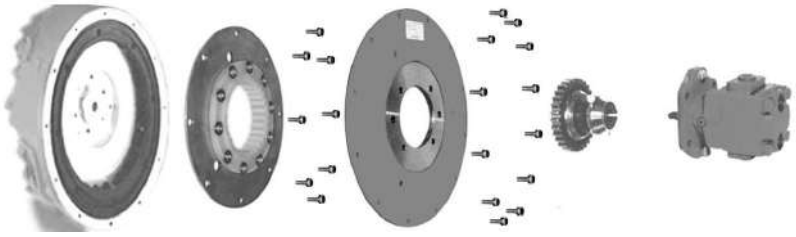
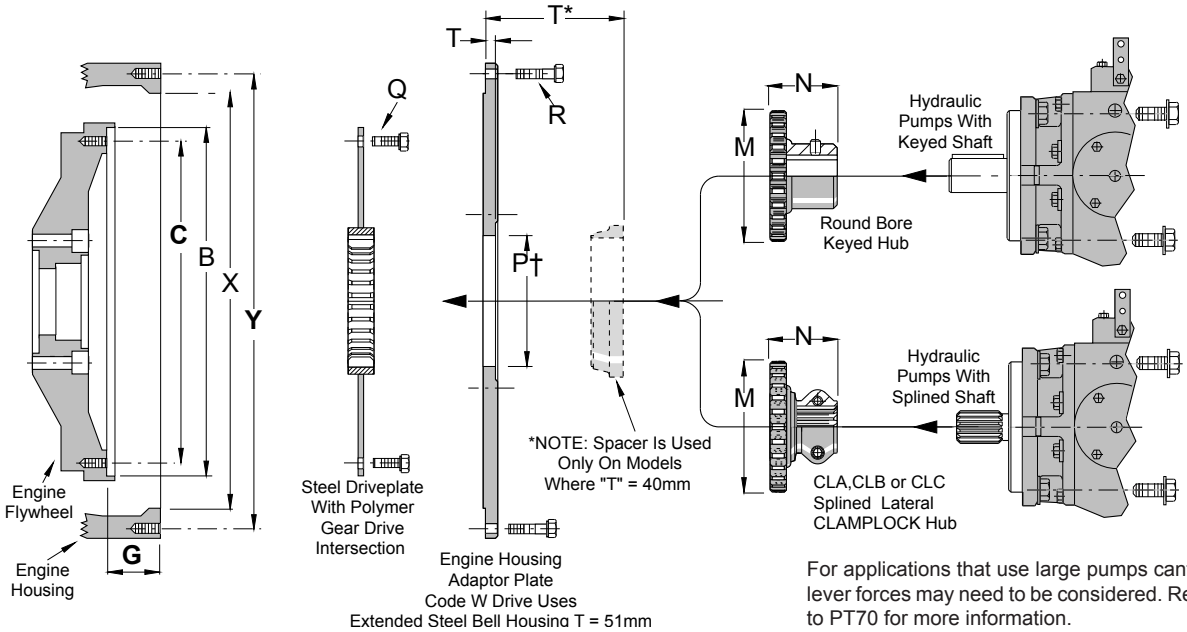
HYDRAULIC PUMP DRIVE KITS FOR DIESEL ENGINES





For applications that use large pumps canter-lever forces may need to be considered. Refer to PT70 for more information.

FOR OTHER DIMENSIONS SEE DIESEL ENGINE STANDARDS INSIDE BACK COVER & HYDRAULIC PUMP STANDARDS PAGE 49 TO CONFIRM YOUR APPLICATION SIZING.

TABLE 3

SPLINED PUMP SHAFT OPTIONS

No Of Teeth	Spline Type	Nominal Spline OD	Specifications of Spline	Shaft Code
9	SAE A	0.625”	16/32 INV CL5	**01**
11	SAE AH	0.750”	16/32 INV CL5	**02**
13	SAE B	0.875”	16/32 INV CL5	**03**
15	SAE BB	1.000”	16/32 INV CL5	**04**
18	DIN 5480	25mm	1.25 Module INV	**20**
14	DIN 5480	30mm	2 Module INV	**10**
14	SAE C	1.250”	12/24 INV CL5	**06**
21	SAE CS	1.375”	16/32 INV CL5	**07**
16	DIN 5480	35mm	2 Module INV	**11**
17	SAE CC	1.500”	12/24 INV CL5	**32**
23	IMP ANSI	1.500”	16/32 INV CL5	**43**
18	DIN 5480	40mm	2 Module INV	**41**
13	SAE D-E	1.750”	8/16 INV CL5	**08**
27	IMP ANSI	1.750”	16/32 INV CL5	**09**
21	DIN 5480	45mm	2 Module INV	**42**
24	DIN 5480	50mm	2 Module INV	**45**
15	SAE F	2.000”	8/16 INV CL5	**37**

ROUND BORE KEYED PUMP SHAFT OPTIONS

Bore	Keyway	Code	Bore	Keyway	Code
0.625”	0.156”	**12**	1.500”	0.375”	**60**
0.750”	0.187”	**13**	40mm	12mm	**52**
0.875”	0.187”*	**14**	1.750”	0.437”	**61**
1.000”	0.250”	**15**	45mm	14mm	**54**
1.250”	0.312”	**24**	50mm	14mm	**56**
35mm	10mm	**50**	55mm	16mm	**57**

* Also has 0.250” Keyway. Other sizes available contact sales.

DIN 1 IN 8 TAPER

18mm	DIN 2	**16**	24mm	DIN 3	**17**

FLYWHEEL IDENTIFICATION - SAEJ620D

FW No	“C”	“B”	“G”	Bolts	“Q”
6 1/2	7.875” (**200.02**)	8.500” (215.90)	1.187” (**30.2**)	6	5/16”
7 1/2	8.750” (**222.25**)	9.500”(241.30)	1.187” (**30.2**)	8	5/16”
8	9.625” (**244.48**)	10.375”(263.52)	2.441” (**62.0**)	6	3/8”
10	11.625” (**295.28**)	12.375”(314.32)	2.118” (**53.8**)	8	3/8”
11 1/2	13.125” (**333.38**)	13.875”(352.42)	1.559” (**39.6**)	8	3/8”
14	17.250” (**438.15**)	18.375”(466.72)	1.000” (**25.4**)	8	1/2”
16	19.250” (**488.95**)	20.375” (517.52)	0.62” (**15.7**)	8	1/2”
18	21.375”(**542.92**)	22.500” (571.5)	0.62” (**15.7**)	6	5/8”

ENGINE HOUSING IDENTIFICATION - SAE J607C

Hsg No	“X” (mm)	“Y” (mm)	Bolts	“R”
SAE 6	10.500” (266.70)	11.250” (**285.75**)	8	3/8”
SAE 5	12.375” (314.32)	13.125” (**333.38**)	8	3/8”
SAE 4	14.250” (361.95)	15.000” (**381.00**)	12	3/8”
SAE 3	16.125” (409.58)	16.875” (**428.62**)	12	3/8”
SAE 2	17.625” (447.68)	18.375” (**466.72**)	12	3/8”
SAE 1	20.125” (511.18)	20.875” (**530.22**)	12	7/16”
SAE 1/2	23.000” (584.20)	24.375” (**619.12**)	12	1/2”-13
SAE 0	25.500” (647.70)	26.750” (**679.45**)	16	1/2”-13

ORDERING CODE (Complete Kit)

Bolt kits are supplied with UNC threads unless otherwise advised when ordered.

92 / P 03 06

TABLE 1 SERIES CODE	TABLE 1 EAI CODE	TABLE 2 PUMP CODE	TABLE 3 SHAFT CODE

Example: 92/P0306 would be a 127 Series with Adaptor Plate to suit an SAE 3 Engine Housing and Driveplate to suit an 11 1/2” Flywheel. Adaptor Plate has a SAE C Pump mount and hub takes a 14 tooth Ø1.25” 12/24 DP shaft.

• NOTE :- NOT ALL SIZES AND COMBINATIONS ARE AVAILABLE OR POSSIBLE.

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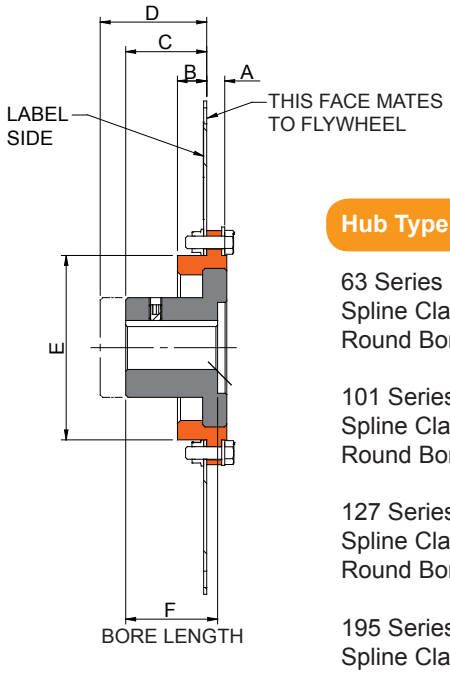
REPLACEMENT FLYWHEEL DRIVE PLATES FOR STANDARD SAE DIESEL ENGINES

A COMPLETE ENGINEERED PRODUCT.
Using a FLEXILOCK flywheel drive plate permits the customer to make a reliable pre-engineered connection between the engine and hydraulic pump. These drive plates, with our Flexilock hubs can be used as a drop in replacement or for a new installation where the customer has an emgine housing pump adaptor plate.

LONG TROUBLE FREE LIFE.
Our special polymer flywheel driveplate elements are formulated for optimum elasticity at engine operating temperature and will continue to absorb engine torsional vibration over a very long life cycle. Unlike rubber drive connections, our elements do not harden and fret with continued engine heat exposure, but remain effective over long periods.

STEEL DRIVEPLATE.
Outer driveplate is steel with special polymer element riveted or bolted in place. The use of a steel drive plate eliminates dimensional instability often experienced with the full plastic style drives.



Hub Type	Dim F
63 Series	
Spline Clamplock	21.3
Round Bore	20
101 Series	
Spline Clamplock	45.2
Round Bore	58.5
127 Series	
Spline Clamplock	45.2
Round Bore	58.5
195 Series	
Spline Clamplock	45.2
Round Bore	58.5

63 Series
No. of Teeth 29

101 Series
No. of Teeth 30

127 Series
No. of Teeth 28

195 Series
No. of Teeth 44

63 Series - Torque Continuous 135 Nm, 100 ft lbs

Engine Flywheel	OEM P/No.	A	B	C	D	E
6 1/2	90/05C00	12.4	11.6	24.6	-	100
6 1/2	90/05D00	0	46	37	60	76.2
7 1/2	90/01E00	12.4	11.6	24.6	-	100
7 1/2	90/01F00	0	46	37	60	76.2
8	90/06GJ0	0	46	37	60	76.2
10	90/02KM0	0	46	37	60	76.2

101 Series - Torque Continuous 406 Nm, 300 ft lbs

Engine Flywheel	OEM P/No.	A	B	C	D	E
6 1/2	91/05A00	1.2	30.3	63.3	79.5	117.5
6 1/2	91/05Y00	10.7	14.7	53.8	63.9	149.2
7 1/2	91/01A00	1.2	30.3	63.3	79.5	117.5
7 1/2	91/01FZ0	10.7	14.7	53.8	63.9	149.2
8	91/06A00	1.2	30.3	63.3	79.5	117.5
8	91/06B00	22.2	3.2	42.3	52.4	117.5
8	91/06GJ0	10.7	14.7	53.8	63.9	149.2
10	91/02KM0	12.7	18.8	51.8	68.0	117.5
10	91/02LN0	1.2	30.3	63.3	79.5	117.5
11 1/2	91/03PS0	28.3	3.2	36.2	52.4	117.5
11 1/2	91/03Q00	12.7	18.8	51.8	68.0	117.5

127 Series - Torque Continuous 678 Nm, 500 ft lbs

Engine Flywheel	OEM P/No.	A	B	C	D	E
7 1/2	92/01A00	1.2	30.2	63.3	79.4	142.6
8	92/06A00	1.2	24.2	63.3	73.4	142.6
8	92/06GJ0	10.7	14.7	53.8	63.9	175.0
10	92/02KM0	12.7	12.7	51.8	61.9	142.6
10	92/02LN0	1.2	24.2	63.3	73.4	142.6
11 1/2	92/03PS0	28.3	3.2	36.2	52.4	142.6
11 1/2	92/03Q00	10.7	14.7	53.8	63.9	175.0
14	92/04W00	10.7	14.7	53.8	63.9	175.0
14	92/04X00	1.2	24.2	63.3	73.4	142.6

195 Series - Torque Continuous 969 Nm, 715 ft lbs

Engine Flywheel	OEM P/No.	A	B	C	D	E
11 1/2	95/03A00	1.1	24.3	63.4	73.5	217.5
11 1/2	95/03B00	1.1	30.3	63.4	79.7	217.5
11 1/2	95/03B00S	1.1	24.3	63.4	73.5	217.5
14	95/04A00	10.7	14.7	53.8	63.9	217.5
14	95/04B00	10.7	14.7	53.8	63.9	217.5
14	95/04X00	28.3	3.1	36.2	52.4	217.5

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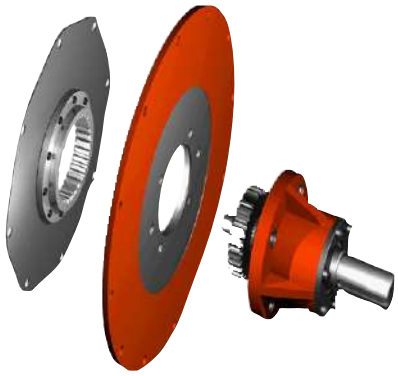
LIVE P.T.O. DRIVE KITS WITH FLEXILOCK ELEMENT FOR DIESEL ENGINES

APPLICATIONS

Pulley drives, Chain drives, other applications where a male output shaft from a diesel engine is required that does not add any side load on the engine crankshaft.



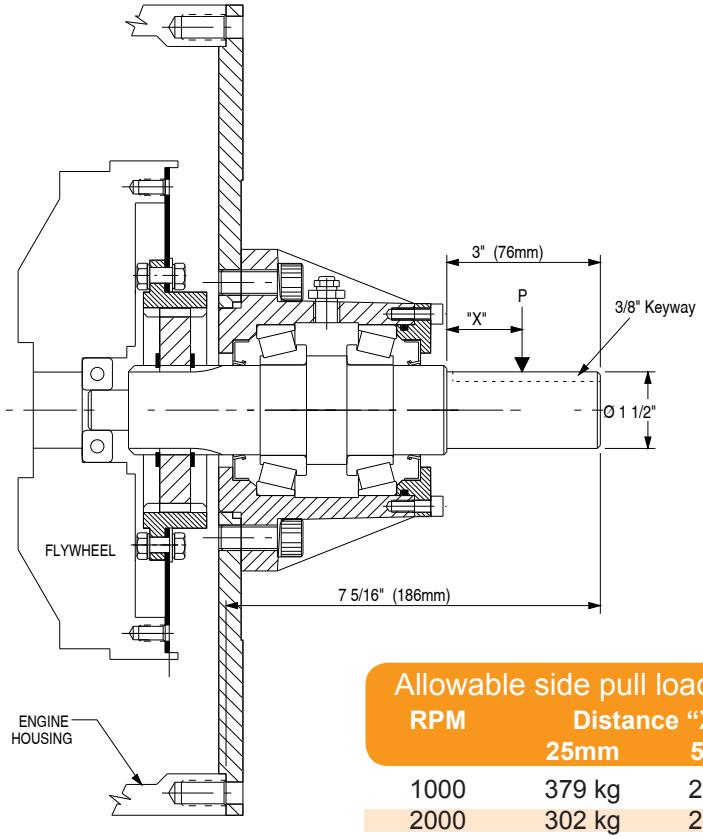
FEATURES

Taper roller bearings for high capacity and long life, spheroidal graphite cast iron housing. Flexilock drive for installation ease, reduces torsional vibration transmission and improves misalignment capacity. Protects engine bearings and crank from side load failures. Comes factory filled with ATF oil.

Kit includes : - Flexilock flywheel driveplate, Flexilock engine housing adaptor plate, bearing supported stub shaft.

LPTO ORDERING INFORMATION - COMMON TYPES

Warning - Do not use on water pumps with time clock shutdown, engine must be idled down before switching off, due to the possibility of water pressure inertia which may cause the coupling to fail.



Allowable side pull loads P

RPM	Distance "X" 25mm	Distance "X" 50mm
1000	379 kg	283 kg
2000	302 kg	270 kg
3000	265 kg	238 kg

Overhung load calculation (lbs)

$$\text{OHL (lbs)} = \frac{126000 \times HP}{RPM \times d} \times K$$

where
OHL(lbs) = load in pounds due to belt pull.
HP = diesel engine power in horse power.
RPM = speed.
d = pulley pitch diameter in inches.

Overhung load calculation (N)

$$\text{OHL (N)} = \frac{19100 \times kW}{RPM \times d} \times K$$

where
OHL(N) = load in Newtons due to belt pull.
kW = diesel engine power in kilowatts.
RPM = speed.
d = pulley pitch diameter in metres.

K = factor
1.0 for single chain drive.
1.1 for timing belt drive.
1.25 for double chain drive.
1.5 for V-belts.
2.5 for flat belts.

OHL (lbs) x 0.4536 = OHL(kg).
OHL (N) x 0.102 = OHL(kg).

Flexilock Series	Engine Housing	Engine Flywheel	Power.* Rating	Speed RPM	LPTO Part Number	Pilot Bearing Customer Supply
101	SAE 3	11 1/2	52 kW	2600	**91/P03L603**	6306-2RS
101	SAE 4	10	52 kW	2800	**91/K03L603**	6306-2RS
101	SAE 4	8	52 kW	2800	**91/J03L603**	6305-2RS
101	SAE 4	7 1/2	52 kW	2800	**91/H03L603**	6304-2RS
101	SAE 5	7 1/2	52 kW	3000	**91/E03L603**	6304-2RS
101	SAE 5	6 1/2	52 kW	3000	**91/D03L603**	6304-2RS

* Do not exceed allowable side pull load
* Do not exceed allowable drive plate element connection capacity of 406Nm
* The load on the 1 1/2" shaft connection must be considered. We recommend using a taper lock bush of appropriate torque capacity that exceeds the application conditions.

Above are standard combinations. Other combinations available. Consult our sales office.

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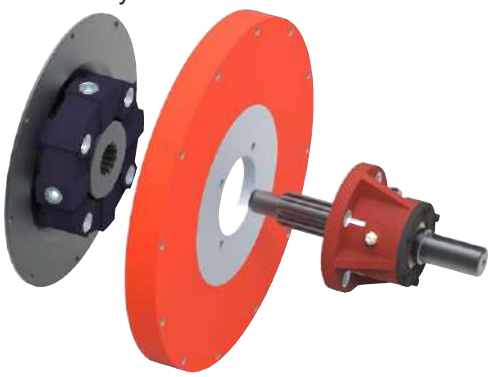
LIVE P.T.O. DRIVE KITS WITH DG COUPLING ELEMENT FOR DIESEL ENGINES.

APPLICATIONS

Pulley drives, Chain drives, other applications where a male output shaft from a diesel engine is required that does not add any side load on the engine crankshaft. DG coupling LPTO's are torsionally flexible and thus can be used in applications with some shock loading such as with water pumps and where torsional engine vibration is an issue.

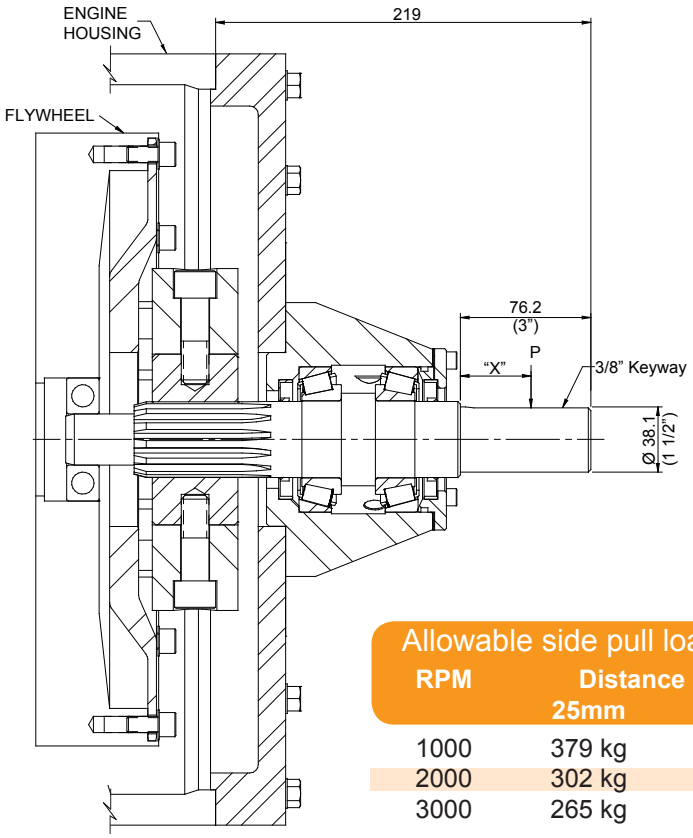


FEATURES

Taper roller bearings for high capacity and long life, spheroidal graphite cast iron housing. DG coupling element drive for installation ease, reduces torsional vibration transmission and improves misalignment capacity. Protects engine bearings and crank from side load failures. Comes factory filled with ATF oil

Kit includes : - Flywheel driveplate, Rubber element, Steel hub, Engine housing adaptor plate, bearing supported stub shaft.

LPTO ORDERING INFORMATION - COMMON TYPES



Allowable side pull loads P		
RPM	**Distance "X"**	
	25mm	**50mm**
1000	379 kg	283 kg
2000	302 kg	270 kg
3000	265 kg	238 kg

Overhung load calculation (lbs)

$$\text{OHL (lbs)} = \frac{126000 \times HP}{RPM \times d} \times K$$

where
OHL(lbs) = load in pounds due to belt pull.
HP = diesel engine power in horse power.
RPM = speed.
d = pulley pitch diameter in inches.

Overhung load calculation (N)

$$\text{OHL (N)} = \frac{19100 \times kW}{RPM \times d} \times K$$

where
OHL(N) = load in Newtons due to belt pull.
kW = diesel engine power in kilowatts.
RPM = speed.
d = pulley pitch diameter in metres.

K = factor
1.0 for single chain drive.
1.1 for timing belt drive.
1.25 for double chain drive.
1.5 for V-belts.
2.5 for flat belts.

OHL (lbs) x 0.4536 = OHL(kg).
OHL (N) x 0.102 = OHL(kg).

Flexilock Series	Engine Housing	Engine Flywheel	Power.* Rating	Speed RPM	LPTO Part Number	Pilot Bearing Customer Supply
DG50	SAE 3	11 1/2	100 kW	2600	**DG/P03L603**	6306-2RS
DG50	SAE 4	10	100 kW	2800	**DG/K03L603**	6306-2RS
DG16	SAE 4	7 1/2	100 kW	2800	**DG/H03L603**	6304-2RS
DG16	SAE 5	7 1/2	100 kW	2800	**DG/E03L603**	6304-2RS
DG16	SAE 5	6 1/2	100 kW	3000	**DG/D03L603**	6304-2RS

* Do not exceed allowable side pull load
* Do not exceed allowable spline shaft connection capacity of 450Nm
* The load on the 1 1/2" shaft connection must be considered. We recommend using a taper lock bush of appropriate torque capacity that exceeds the application conditions.

Above are standard combinations. Other combinations available. Consult our sales office.

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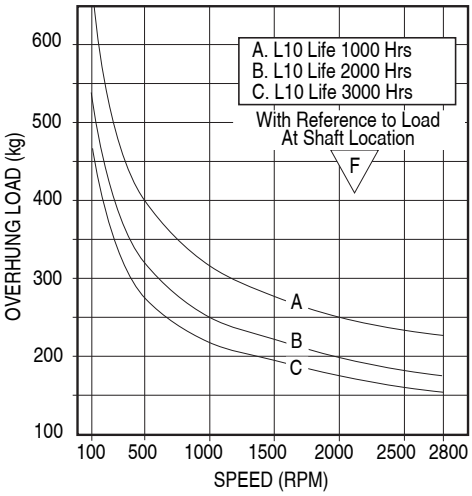
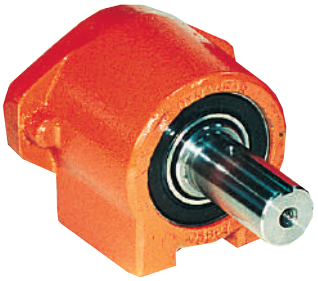
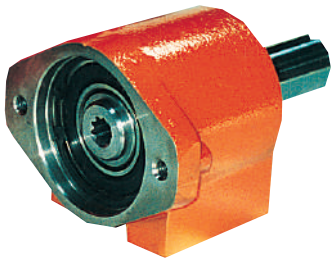
LDA OVERHUNG LOAD CAPACITY







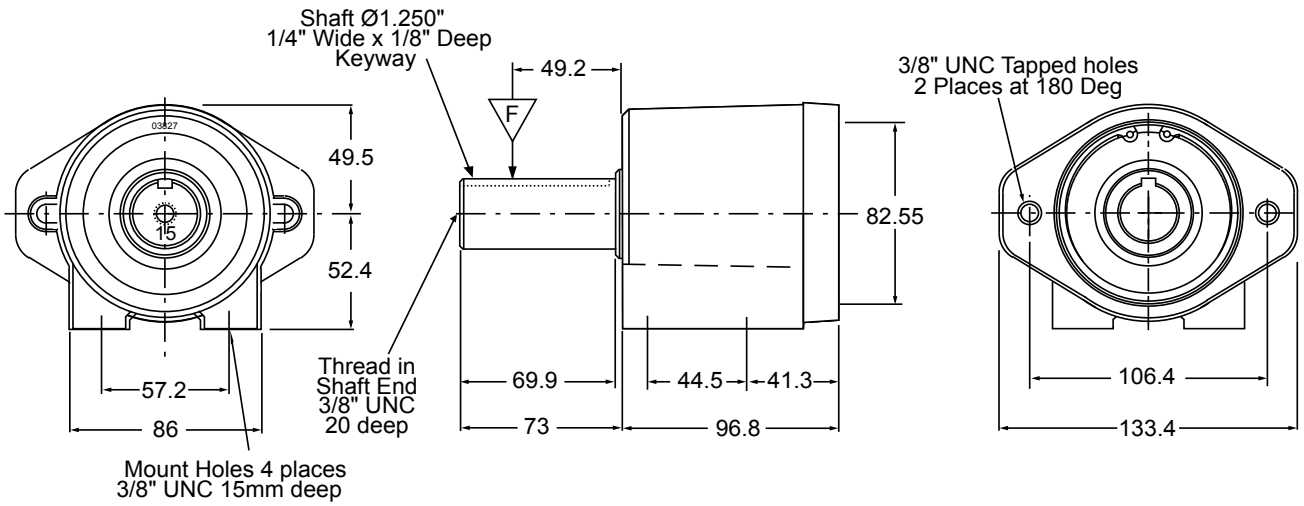
MODEL LDA

This is a low cost model with a fixed SAE "A" motor adaptor and 6 shaft size options. Bearings are sealed Ball Bearing type greased for life. OHLA can be mounted in any plane.

Shaft options include most of those required for high speed hydraulic motors. Also included is the 1" shaft option for Charlyn, Ross TRW and Danfoss 0rbit motors and 25 mm shaft to suit the SAMHYDRAULIK BG orbit motor.

MODEL LDA DIMENSIONS

MODEL LDA
Weight Unpacked 4.3 kgs.



LDA Ordering information

Part Number	Hyd Motor Shaft Type	Sleeve P No.
64/125101 ^	Spline 9T 5/8" OD 16/32 DP	64/03/20001
64/125102 ^	Spline 11T 3/4" OD 16/32 DP	64/03/20002
64/125112	Round 0.625" OD 0.156" Keyway	
64/125113 ^	Round 0.750" OD 0.187" Keyway	64/03/20013
64/125114	Round 0.875" OD 0.250" Keyway	
64/125115 *	Round 1.000" OD 0.25" Keyway	
64/125126 #	Round 25mm OD 8mm Keyway	

^ Basic model 64/125115 fitted with sleeve.
# For SAM HYDRAULIK BG with shaft type CL250.
* Directly replaces model 03-35-00043.

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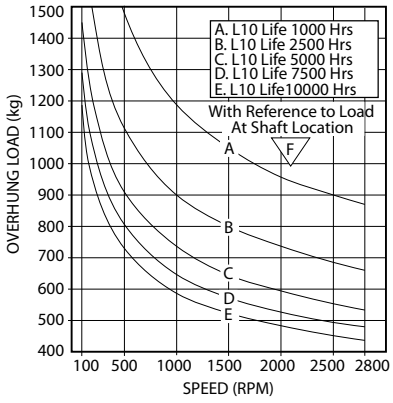
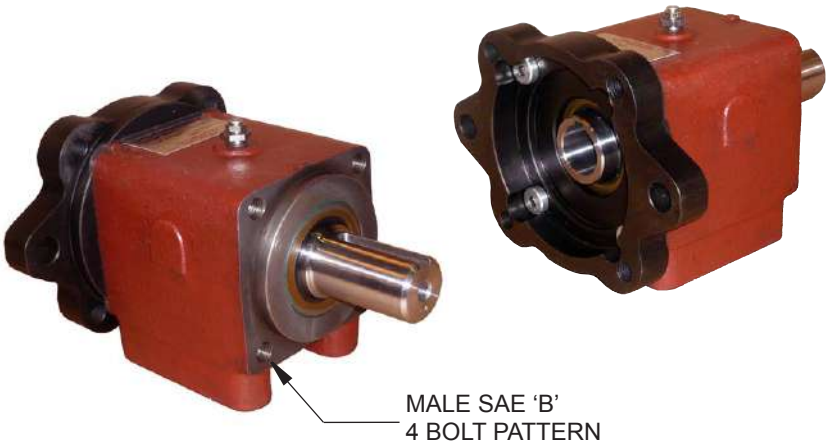
OVERHUNG LOAD ADAPTORS FOR HYDRAULIC MOTORS

HDC OVERHUNG LOAD CAPACITY





MALE SAE 'B'
4 BOLT PATTERN

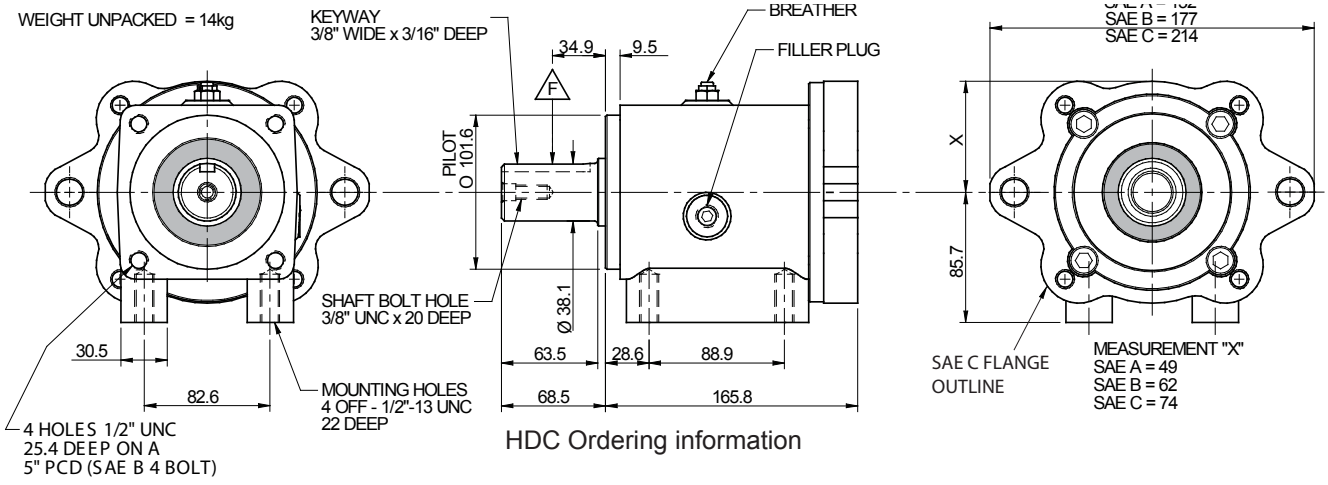
MODEL HDC

This model has removable SAE hydraulic motor adaptors and may be supplied with SAE "A", SAE "B" or SAE "C" motor interfacing and 10 shaft size options accommodating almost any SAE Hyd motor up to SAE "C". The HDC model may also be face mounted via a set of front mount holes and pilot. DIN 2 & 3 adaptors can be made to order, please consult with our Sales Office.

Bearings can be either Taper Roller or Cylindrical Roller types depending on the application. For applications with high axial load such as fan drives or mixer units, then Taper Roller bearings are recommended. For applications with little or no axial load such as chain or pulley drives, then Cylindrical Roller bearings can be used. The advantage of Cylindrical Roller bearings is that servicing and replacement is easier as no preloading of the new bearings is required, making field servicing of the unit more economical. External dimensions for both bearing model types are the same.

Units are usually supplied factory oil filled with ATF oil. For filling instructions, consult form PT08
Grease filling is required for vertical mount applications, consult with our Sales Office.

MODEL HDC DIMENSIONS



HDC Ordering information

Part Number Cylindrical Roller	Part Number Taper Roller	Hyd Motor Adaptor	Hyd Motor Shaft Type	Sleeve Part No.
93R/15101	**93/15101**	SAE "A"	Spline 9T 5/8" OD 16/32 DP	64/03/20001
93R/15102	**93/15102**	SAE "A"	Spline 11T 3/4" OD 16/32 DP	64/03/20002
93R/15112	**93/15112**	SAE "A"	Round 0.625" OD 0.156" Keyway	64/03/20012
93R/15113	**93/15113**	SAE "A"	Round 0.75" OD 0.187" Keyway	64/03/20013
93R/15115	**93/15115**	SAE "A"	Round 1.000" OD 0.25" Keyway	-
93R/15203	**93/15203**	SAE "B"	Spline 13T 7/8 OD 16/32 DP	58/03/01698
93R/15204	**93/15204A**	SAE "B"	Spline 15T 1" OD 16/32 DP	-
93R/15206	**93/15206**	SAE "B"	Spline 14T 1.250" OD 12/24 DP	-
93R/15214	**93/15214**	SAE "B"	Round 0.875" OD 0.25" Keyway	-
93R/15215	**93/15215**	SAE "B"	Round 1.000" OD 0.25" Keyway	-
93R/15306	**93/15306**	SAE "C"	Spline 14T 1.250" OD 12/24 DP	-
93R/15324	**93/15324**	SAE "C"	Round 1.250" OD 0.312" Keyway	-

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MODEL HH DOG CLUTCH FOR HYDRAULIC PUMPS AND MOTORS

APPLICATIONS.
Direct front crankshaft drive of hydraulic pumps from engine on cranes, transit mixers, special vehicles, fishing boats etc where pump requires disengaging when not in use. Use anticlockwise version for above applications.
Drives for hydraulic pumps from rear of engine or from flywheel PTO when engine has separate power delivery requirement where hydraulic pump needs disengaging when not in use. Use clockwise version for direct drive off rear of engine.

FEATURES.
The unit may be supplied to suit SAE 'A', SAE 'B' or SAE 'C' hydraulic pumps or motors or as a shaft to shaft version.
The standard manual version shown, features automatic spring loaded engagement on start-up and positive gate control in either the engaged or disengaged positions. The unit may be easily adapted for electric solenoid or cable control. The clutch casing is cast iron, bearings are deep groove ball type. The drive dogs are specially shaped to provide fast engagement and resistance to jump out even with reversing loads. The dogs are made from hardened high strength alloy steel. The unique actuating mechanism is designed for long trouble free life.

CAPACITY.
Maximum continuous input capacity is 0.04 kW (0.053 HP) per rev with a continuous torque rating of 382 Nm (282 lbf ft) Max brief peak torque is 560 Nm (413 lbs ft). Side loading is limited, contact our sales office. The unit is shipped dry, and must be filled before use. Fill to oil level plug depth with ATF automatic transmission fluid (approx.300ml). Ensure gasket or sealant is used between hyd. pump/motor and clutch as spline is open to lubricant.

Warning. Clutch may not be engaged while engine is running.

ORDERING CODE Part Number — 26/ | C | 24 | C | 06 | R | HD

HH DOG CLUTCH — 26/

ROTATION — Clockwise C; Anticlockwise A; Bidirectional B

INPUT SHAFT CODE
Round 1 1/4"OD x 5/16" key — 24

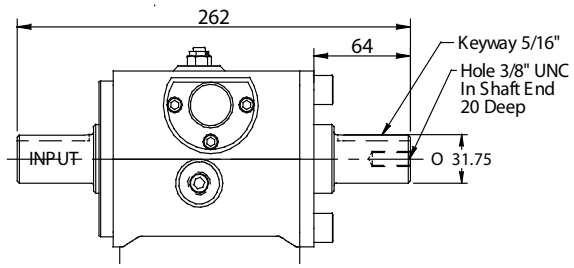
SAE HYD. INTERFACE — A | B | C
For Male Shaft Output Option see codes below.

SHAFT CODE
Female Spline 14T 1 1/4"OD 12/24DP — 06
Female Spline 13T 7/8" OD 16/32DP — 03
Female Spline 15T 1"OD 16/32DP — 04
Female Spline 9T 5/8"OD 16/32DP — 01

OPTIONS — HD
Heavy Duty - Extra bearing for overhung loads and internal needle/thrust bearing for longer life.
Dimensions marked * increase by 28mm for HD model.

Nominal Maximum Speed is 3000 RPM.

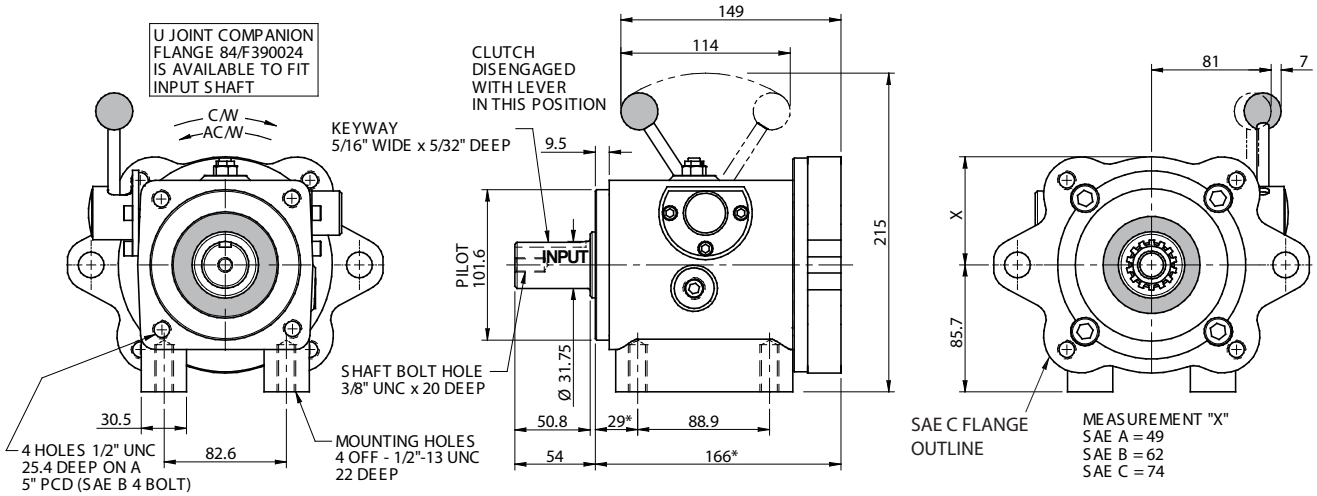
STRAIGHT SHAFT OPTION.



* Ordering Codes for Straight Shaft Option*	26/C24S24R	Clockwise.
	26/A24S24R	Anti-Clockwise.

MODEL HH DOG CLUTCH DIMENSIONS

Dimensions marked * increase by 28mm for HD model



Weight Unpacked 18 kg.

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MODEL T33

CAST IRON CASES Unlike our competitors, we utilise cast iron gear case construction. Cast iron expansion at the high temperatures encountered with this application is near equal to the expansion of the bearings and the outer bearing rings are retained in the case. Aluminium cases with high heat expansion often fail due to the outer bearing ring spinning and displacing particles of aluminium which destroy the bearings.

MODEL T33 APPLICATION These models embody over 20 years of engineering experience with PTO pump drives. They were developed for use as directly driven hydraulic pump speed increasers for 540 or 1000 RPM tractor PTO shafts. Models for 540 RPM PTO's are provided with a 1 3/8" 6T spline hollow shaft and for 1000 RPM PTO's, a 1 3/8" 21T spline hollow shaft. Shafts are splined internally for full length for through drive. Normal practice is to utilise a torque arm to restrain the drive from rotation.

Maximum power is 50 HP (37.5 kW) with the 1:3.31 ratio models at 540 RPM input and 65 HP (49 kW) in the 2.04 ratio models at 1000 RPM input. The T33 is available to accept most **SAE "A", SAE "B" or SAE "C"** hydraulic pumps. Pump adaptors on the T33 may be changed in the field. **DIN 2 & 3** adaptors can be made to order, please consult with our Sales Office.

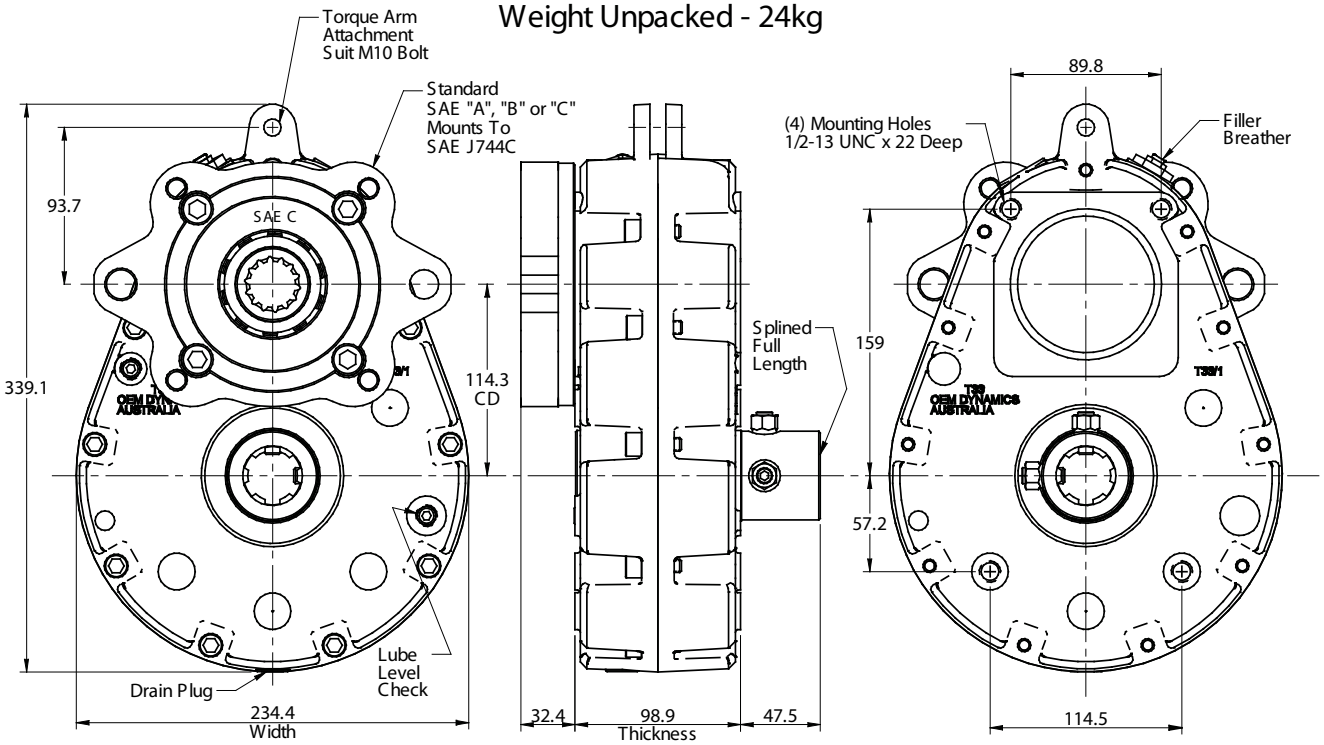
T33 Ordering Information

Hyd Pump Adaptor	Gear Ratio	Hyd Pump Shaft Type	Tractor PTO Shaft	Sleeve Part No.	T33 Part Number
SAE "A"	1:3.31	9 Spline 5/8"	1 3/8" 6 Spline	58/03/10001	**332/06101**
SAE "A"	1:3.31	11 Spline 3/4"	1 3/8" 6 Spline	58/03/10002L	**332/06102**
SAE "B"	1:3.31	13 Spline 7/8"	1 3/8" 6 Spline	58/03/01698	**332/06203**
SAE "B"	1:3.31	15 Spline 1"	1 3/8" 6 Spline	58/03/00714	**332/06204**
SAE "B"	1:3.31	14 Spline 1 1/4"	1 3/8" 6 Spline	-	**332/06206**
SAE "B"	1:2.04	13 Spline 7/8"	1 3/8" 21 Spline	58/03/01698	**331/21203**
SAE "B"	1:2.04	15 Spline 1"	1 3/8" 21 Spline	58/03/00714*	**331/21204**
SAE "C"	1:3.31	13 Spline 7/8"	1 3/8" 6 Spline	58/03/01698	**332/06303**
SAE "C"	1:3.31	14 Spline 1 1/4"	1 3/8" 6 Spline	-	**332/06306**
SAE "C"	1:2.04	14 Spline 1 1/4"	1 3/8" 21 Spline	-	**331/21306**

* Older Models only.
# Made to special order.
Other combinations available.
Output rotation is opposite to input rotation.

MODEL T33 Dimensions

Weight Unpacked - 24kg



Units are shipped dry. Fill to level hole with EP90 oil before start up.

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MODEL T33I

PARTS AVAILABILITY The drives have been designed in Australia and are manufactured at our facility in Ballina N.S.W. Customers can obtain parts and service without delay. Technical assistance is available from the people who designed the product.

MODEL T33I APPLICATION This model was developed for use as an implement mounted hydraulic pump speed increaser for 1000 or 540 rpm tractor PTOs where thrust loads from PTO shafts are encountered. Tapped mounting holes are provided.

Maximum power is 50 HP (37.5 kW) with the 1:3.31 ratio models at 540 RPM input and 65 HP (49 kW) with the 1:2.04 ratio models at 1000 rpm input. The T33I male shaft input model is available to accept most **SAE "A", SAE "B" or SAE "C"** hydraulic pumps. Pump adaptors on the T33I may be changed in the field. **DIN 2 & 3** adaptors can be made to order, please consult with our Sales Office.

The T33I male shaft input & output model is supplied with a Ø1 1/2" x 3/8" keyed output shaft.

T33I Ordering Information

Hyd Pump Adaptor	Gear Ratio	Hyd Pump Shaft Type	T33I Shaft	Sleeve Part No.	T33I Part Number
SAE "A"	1:3.31	9 Spline 5/8"	1 3/8" 6 Spline	58/03/10001	**332I/06101**
SAE "A"	1:3.31	11 Spline 3/4"	1 3/8" 6 Spline	58/03/10002L	**332I/06102**
SAE "B"	1:3.31	13 Spline 7/8"	1 3/8" 6 Spline	58/03/01698	**332I/06203**
# SAE "B"	1:3.31	15 Spline 1"	1 3/8" 6 Spline	58/03/00714	**332I/06204**
SAE "C"	1:3.31	14 Spline 1 1/4"	1 3/8" 6 Spline	-	**332I/06306**
SAE "B"	1:2.04	13 Spline 7/8"	1 3/8" 21 Spline	58/03/01698	**331I/21203**
# SAE "B"	1:2.04	15 Spline 1"	1 3/8" 21 Spline	58/03/00714*	**331I/21204**
SAE "C"	1:2.04	14 Spline 1 1/4"	1 3/8" 21 Spline	-	**331I/21306**

T33I Ordering Information - Male shaft input & output

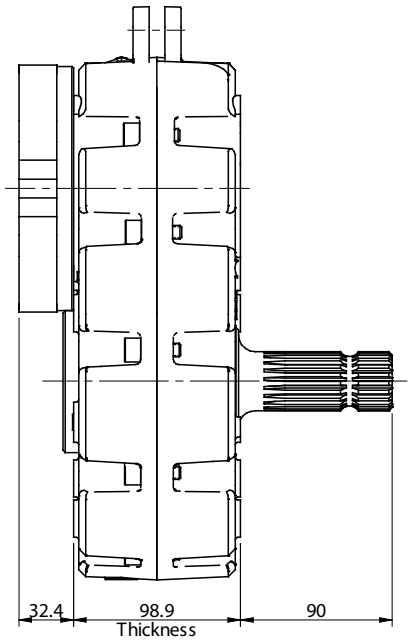
1:2.04	1 1/2" x 3/8" key	1 3/8" 21 Spline	-	**331I/21M60**
1:3.31	1 1/2" x 3/8" key	1 3/8" 6 Spline	-	**332I/06M60**

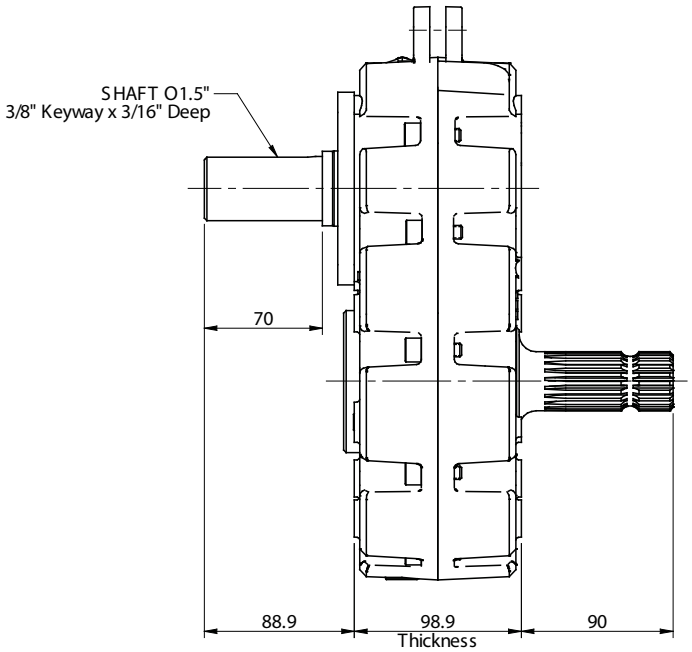
Made to special order.
Other combinations available.
Output rotation is opposite to input rotation.

MODEL T33I MALE SHAFT INPUT

MALE INPUT & OUTPUT DIMENSIONS

Optional male output shaft arrangement available on T33 & T33i models.





Units are shipped dry. Fill to level hole with EP90 oil before start up.

MODEL T55i

MODEL T55i APPLICATION The new model T55i builds on the years of engineering experience with PTO pump drives. They were developed for use as directly driven hydraulic pump speed increasers for 1000 RPM tractor PTO shafts. The T55i Model is provided with three shaft options. Internally, oil direction vanes are fitted for improved bearing lubrication. Four mounting holes are provided. The unit is designed for mounting on an implement and driven by a PTO shaft. Hollow shaft T55 models for shaft mounting on tractor PTO outputs are available upon inquiry. Contact our Sales Dept. for details.

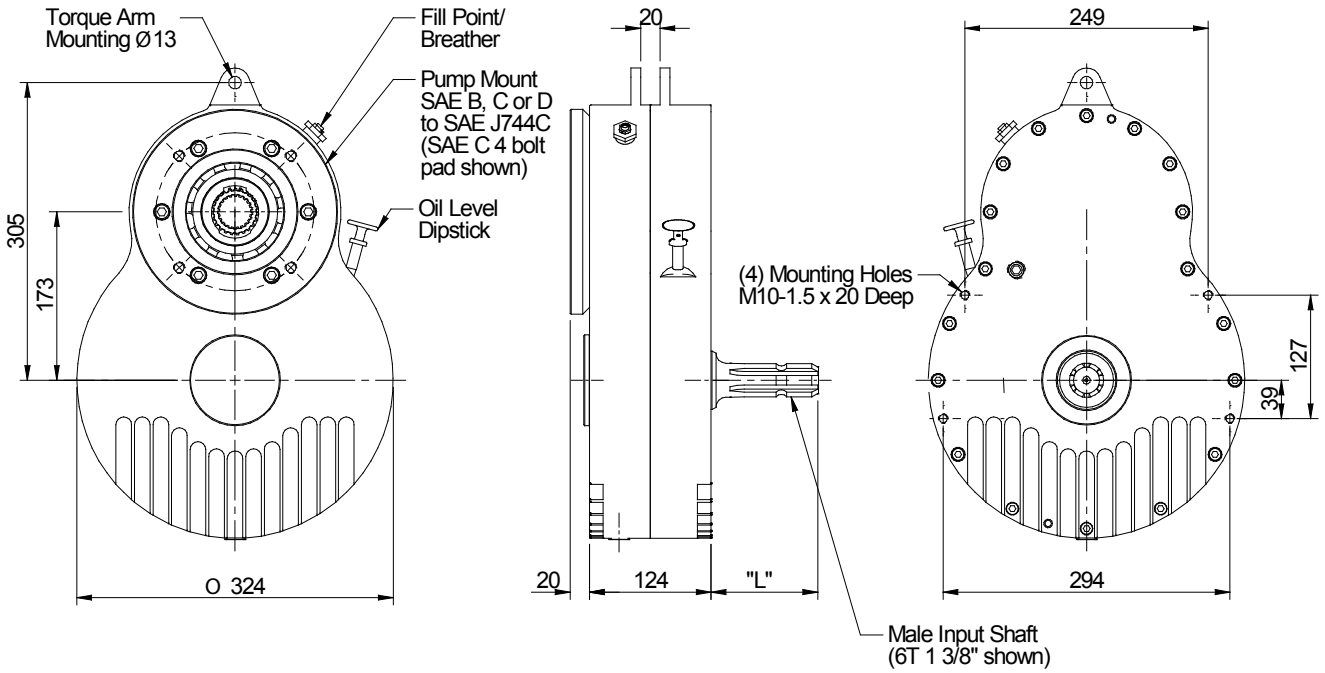
Maximum power is 75kW (100HP) at 1000 RPM input. The T55i is available to accept most SAE “B”, SAE “C” or SAE “D” hydraulic pumps. Pump adaptors on the T55i may be changed in the field.

T55i Ordering Information

Hyd Pump Adaptor	Gear Ratio	Hyd Pump Shaft Type	Tractor PTO Shaft	Sleeve Part No.	Dim “L”	T55i Part Number
SAE “B” 2/4	1:2	13 Spline 7/8”	1 3/8” 6 Spline	32/03/30003	109	**551i/06203**
SAE “C” 4	1:2	14 Spline 1 1/4”	1 3/8” 6 Spline	32/03/30006	109	**551i/06306**
SAE “D” 4	1:2	13 Spline 1 3/4”	1 3/8” 6 Spline	32/03/30008	109	**551i/06408**
SAE “B” 2/4	1:2	13 Spline 7/8”	1 3/8” 21 Spline	32/03/30003	95	**551i/21203**
SAE “C” 4	1:2	14 Spline 1 1/4”	1 3/8” 21 Spline	32/03/30006	95	**551i/21306**
SAE “D” 4	1:2	13 Spline 1 3/4”	1 3/8” 21 Spline	32/03/30008	95	**551i/21408**
SAE “B” 2/4	1:2	13 Spline 7/8”	1 3/4” 20 Spline	32/03/30003	119	**551i/20203**
SAE “C” 4	1:2	14 Spline 1 1/4”	1 3/4” 20 Spline	32/03/30006	119	**551i/20306**
SAE “D” 4	1:2	13 Spline 1 3/4”	1 3/4” 20 Spline	32/03/30008	119	**551i/20408**

Other combinations available.
Contact our Sales Office.
Output rotation is opposite to input rotation.

MODEL T55i Dimensions



Weight : 60 kg approx.
Oil Volume : 1.4 L approx. Units are shipped dry. Refer to Form PT159 for oil type and filling instructions

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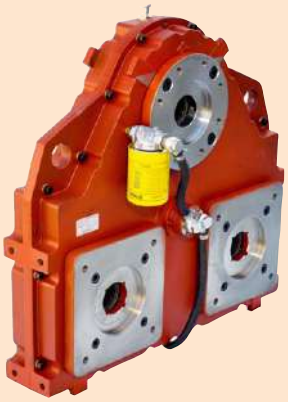
FEATURES & BENEFITS

- MODULAR DESIGN – bearings and gears are self-contained within the housings. Input and output adaptors are not required to retain the bearings. Input and output adaptors can be added or changed anytime prior to unit installation.
- SOS SPUR GEARS – (solid-on-shaft) one-piece gear/shaft design provides consistent and uniform alignment. Reduces the total number of parts. Bearings pressed on gears simplify assembly.
- SIMPLER TO SERVICE – does not require pressing shafts into bearings and gears through the housings. Ball bearings do not require shimming or special adjustment of pump pads and input adapters.
- FEWER PARTS – adapter groups are reduced to a single set of input housings and output pads for the entire product line. Gears (31 total) are interchangeable across different models.



- WET SPLINE – oil passages built into the housings, along with the bearing design, create constant oil flow across splines and through bearings, resulting in longer, trouble-free operation.
- DROP-IN REPLACEMENT – footprint is interchangeable with present pump drives and with the competition.
- HIGHER RATING – gear geometry and large ball bearings result in a higher horsepower rating over the present product line.
- SHORT LEAD TIME – large inventory range held in Australia allows quick turn around of orders.

HYDRAULIC PUMP DRIVES

Durst has developed a family of gear drive products for use with hydraulic pumps and motors. These drives are available for mounting SAE standard hydraulic flanges and pump or motor shaft configurations directly to the gear drive unit. Models are available to mount directly to SAE flywheel housings, with or without clutches or can be driven through independent mounting arrangements.

THERMAL CAPACITY

The thermal capacity is defined as the power a gear drive will transmit continuously without overheating. Durst pump drives are used in such a wide variety of operating conditions that only mechanical ratings are shown. Under conditions such as restricted air circulation, high speeds and high loads, the thermal capacity may be less than the mechanical rating. Checking the thermal capacity is extremely important during the first few hours of operation. If the heat is being generated faster than it can be dissipated, severe damage may result and provisions for additional cooling should be provided. This may be accomplished by air circulation around the unit or by a recirculating oil system (see below). If additional cooling is not possible a larger capacity unit should be used.

OPTIONAL LUBE PUMP AND OIL COOLER.

Most models can be supplied with a centrally mounted gear pump for passing lube oil to a water or air cooled heat exchanger. We stock heat exchanger kits for most models.

RATINGS

The power ratings in this brochure are based upon the following operating conditions:

- Continuous service (8 hours/day).
- Uniform operating loads.
- Maximum oil sump temperature of 93°C (200°F).

Ratings are based upon component life using a 1:1 ratio @ 2500 rpm for a 2000 hour L-10 life. The full unit rating can be loaded through one pump pad provided the total loading does not exceed unit rating. Durst pump drives are engineered for an optimum balance between mechanical and thermal capacities. Durst drives are designed to accept 100 percent starting overloads or momentary peaks from electric motor driven applications.

RPM LIMITATIONS

For shaft speeds in excess of 3000 rpm consult factory.

ENGINE HOUSING ADAPTORS

Housing adaptors SAE 1, 2, 3 & 4 are available for all models.

HYDRAULIC PUMP ADAPTORS

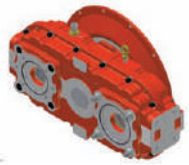
Pump rotation is anti-enginewise. Standard available pump adaptors and sleeves include SAE A, B, C, D & E.

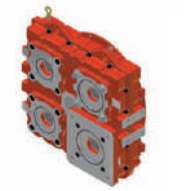
REDUCED PUMP SPLINE WEAR

All Durst models now feature a new lubrication system where the lubricant is directed through the centre of the gear to the gear shafts across the pump spline intersections. This feature ensures that premature spline wear caused by fretting will not occur.

DURST

PUMP DRIVE SELECTION GUIDE



Model	Max. HP* (kW)	Max Input Torque Lb.ft (nm)	Input Style#	Flywheel Housing Size	Ratio Inc. OR Dec.	Pump Adaptors	Pump Centre Distance	Approx. Weight kg
1PD06	495 (370)	1040 (1410)	P,S	1,2,3,4	1:1, 1.06:1, 1.18:1, 1.25:1, 1.32:1, 1.40:1, 1.48:1, 1.57:1, 1.67:1, 1.88:1^	A,B,C,D,E,F	6.00”	100
1PD09	815 608	1710 2319	P,S	1,2,3,4	1:1, 1.12:1, 1.20:1, 1.30:1, 1.40:1, 1.70:1, 2:1	A,B,C,D,E,F	9.00”	148
2PD05	370 276	700 949	P,S	2,3,4	1:1, 1.14:1, 1.40: 1, 1.61:1, 2:1	A,B,C,D	5.00”	91
2PD06	495 (370)	1040 (1410)	P,S	1,2,3,4	1:1, 1.06:1, 1.18:1, 1.25:1, 1.32:1, 1.40:1, 1.48:1, 1.57:1, 1.67:1, 1.88:1^	A,B,C,D,E,F	12.00”	135
2PD08	725 (540)	1523 (2065)	P,S	1,2,3,4	1:1, 1.13:1, 1.23:1, 1.34:1, 1.40:1,1.53:1^	A,B,C,D,E,F	16.00”	160
2PD10	950 (708)	1995 (2705)	P,S	1,2,3,4	1:1, 1.14:1, 1.21:1, 1.29:1, 1.33:1, 1.38:1	A,B,C,D,E,F	21.00”	230
3PD06	495 (370)	1040 (1410)	P,S	1,2,3,4	1:1, 1.17:1, 1.29:1, 1.36:1, 1.52:1^	A,B,C,D	8.49” x 12.38”	175
3PD08	725 (540)	1523 (2065)	P,S	1,2,3,4	1:1, 1.13:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1^	A,B,C,D,E,F	13.29” x 12.00”	200
3PD10	950 (708)	1995 (2705)	P,S	1,2,3,4	1:1, 1.14:1, 1.21:1, 1.29:1, 1.33:1, 1.38:1, 1.47:1^	A,B,C,D,E,F	15.91” x 18.00”	295
4PD08	725 (540)	1523 (2065)	P,S	1,2,3,4	1:1, 1.13:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1^	A,B,C,D,E,F	11.08” x 11.54”	240
4PD09	815 (608)	1710 (2320)	P,S	1,2,3,4	1:1, 1.12:1, 1.20:1, 1.30:1, 1.40:1, 1.70:1^	A,B,C,D,E,F	12.18” x 13.26”	270
4PD11	1025 (765)	2153 (2920)	P,S	1,2,3,4	1:1, 1.16:1, 1.31:1,1.39:1 1.57:1^	A,B,C,D,E,F	16.05” x 16.00”	375

* HP rating @ 2500RPM # P = Plate Driven S = Shaft Driven ^ Increaser only

SERVICE FACTOR

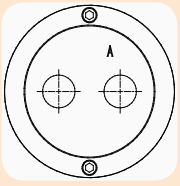
Prime Mover	Duration of Service	Driven Machine Load Classification Multiplier Uniform	Moderate Shock	Heavy Shock
Electric Motor, Steam Turbine, or Hydraulic Motor	Occasional _ hr. per day	0.50	0.80	1.25
	Intermittent 3 hr. per day	0.80	1.00	1.50
	Over 3 hr. per day and incl. 10 hr. per day	1.00	1.25	1.75
	Over 10 hr. per day	1.25	1.50	2.00
Multi-Cylinder Internal Combustion Engine	Occasional _ hr. per day	0.80	1.00	1.50
	Intermittent 3 hr. per day	1.00	1.25	1.75
	Over 3 hr. per day and incl. 10 hr. per day	1.25	1.50	2.00
	Over 10 hr. per day	1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	Occasional _ hr. per day	1.00	1.25	1.75
	Intermittent 3 hr. per day	1.25	1.50	2.00
	Over 3 hr. per day 10 hr. per day	1.50	1.75	2.25
	Over 10 hr. per day	1.75	2.00	2.50

Input Torque Calculation. Maximum Rated Input Torque Max Application Torque X Service Factor.

Caution: Always insure your powertrain is free of torsional vibrations. DURST is not responsible for damage or failure due to unaddressed torsional vibrations.

OPTIONAL LUBE PUMP

OIL OUT
- BACK TO GEARBOX THROUGH COOLER



OIL IN
FROM GEARBOX

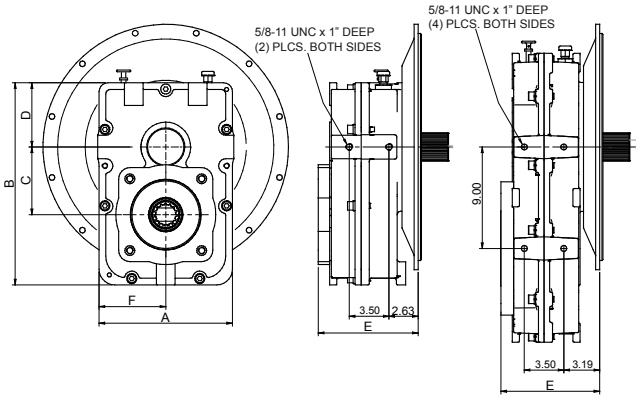
PUMP DRIVES DURST

DIMENSIONAL DRAWINGS

MODEL 1PD

	1PD06	1PD09
A	11.75”	16.63”
B	17.81”	25.63”
C	6.00”	9.00”
D	5.69”	8.32”
E*	8.75”	8.75”
F	5.88”	8.31”

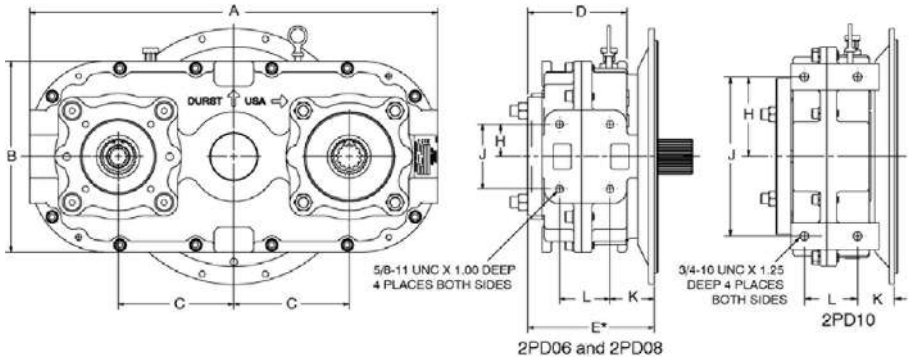
* Pads SAE D2 and E = 8.88” F = 9.25”



MODEL 2PD

	2PD05	2PD06	2PD08	2PD10
A	21.00”	23.00”	28.24”	37.00”
B	11.00”	11.50”	13.25”	16.50”
C	5.00”	6.00”	8.00”	10.50”
D	6.88”	6.88”	6.88”	6.88”
E*	8.75”	8.75”	8.75”	8.75”
H	2.25”	2.25”	2.25”	6.00”
J	4.50”	4.50”	4.50”	12.00”
K	2.62”	2.62”	3.06”	2.75”
L	3.50”	3.50”	3.50”	4.00”

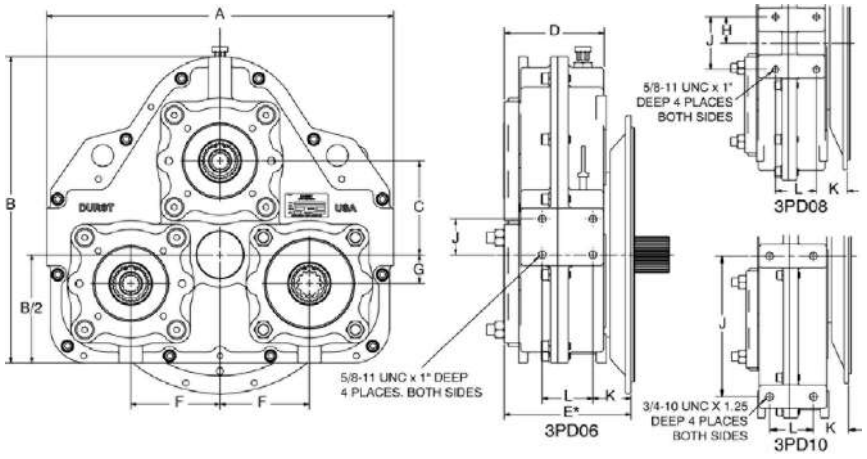
* Pads SAE D2 and E = 8.88” F = 9.25”



MODEL 3PD

	3PD06	3PD08	3PD10
A	24.00”	25.00”	33.50”
B	21.25”	26.75”	32.60”
B/2	7.50”	11.79”	13.18”
C	6.50”	8.00”	10.50”
D	6.88”	6.88”	6.88”
E*	8.75”	8.75”	8.75”
F	6.19”	6.00”	9.00”
G	1.99”	5.29”	5.41”
H	0	2.25”	0
J	2.50”	4.50”	12.00”
K	2.62”	2.63”	3.00”
L	3.50”	3.50”	3.75”

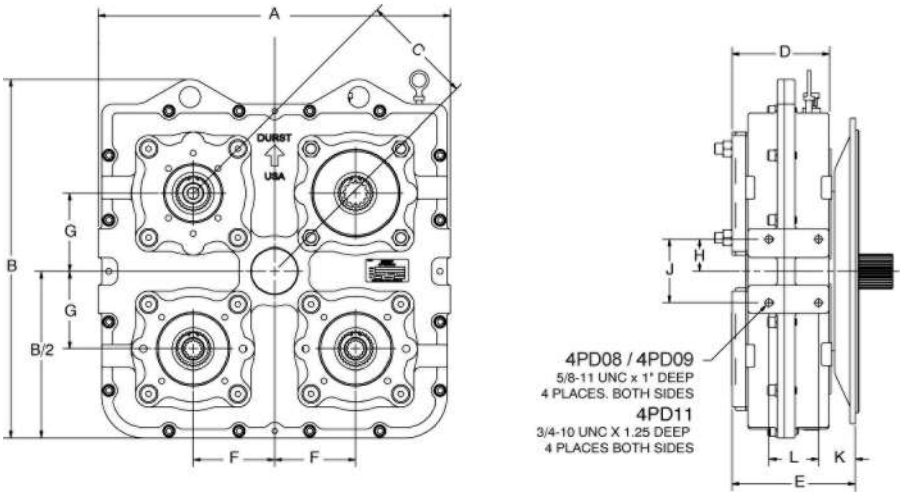
* Pads SAE D2 and E = 8.88” F = 9.25”



MODEL 4PD

	4PD08	4PD09	4PD11
A	25.00”	28.00”	33.25”
B	25.52”	28.02”	33.00”
B/2	11.88”	13.13”	16.50”
C	8.00”	9.00”	11.33”
D	6.88”	7.63”	6.88”
E*	8.75”	8.75”	8.75”
F	5.77”	6.63”	8.00”
G	5.54”	6.09”	8.03”
H	2.25”	4.75”	4.00”
J	4.50”	9.50”	8.00”
K	2.62”	3.13”	3.06”
L	3.50”	3.75”	4.00”

* Pads SAE D2 and E = 8.88” F = 9.25”



PUMP DRIVES DURST

FLYWHEEL AND HOUSING ADAPTORS

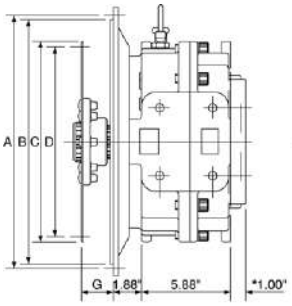
SAE Flywheel Housing Options

SAE No.	A	B
1	20.875”	20.125”
2	18.375”	17.625”
3	16.875”	16.125”
4	15.000”	14.250”

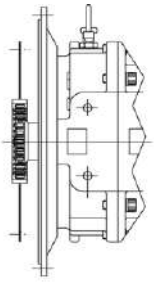
SAE Drive Plate Options

SAE No.	C	D	G
8	10.375”	9.625”	2.438”
10	12.375”	11.625”	2.125”
11 ½	13.875”	13.125”	1.562”
14	18.375”	17.250”	1.000”

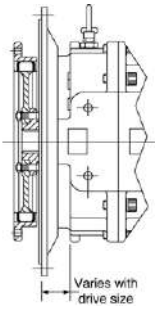
* D2, E and F Pads are thicker.



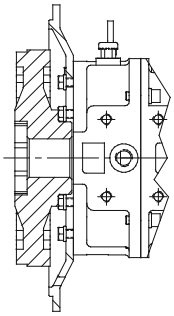
Fixed Driveplate



Flexilock drive



Rubber Block drive



Torsionally Elastic Drive

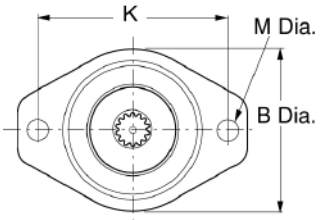
SAE PUMP AND SHAFT ADAPTORS

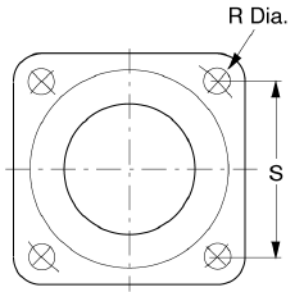
SAE Pump Adaptor Plates

Mounting Flange	2 Bolt type		4 Bolt Type	
Shaft Size	K	M	B	S	R
A	4.188”	0.438”	3.750”	-	-
B	5.750”	0.562”	4.750”	3.536”	0.562”
C	7.125”	0.688”	5.810”	4.508”	0.562”
D	9.00”	0.812”	7.880”	6.364”	0.812”
E	12.500”	1.062”	10.620”	8.839”	0.812”
F	13.781”	1.062”	11.750”	9.745”	1.062”

SAE Shaft Adaptors

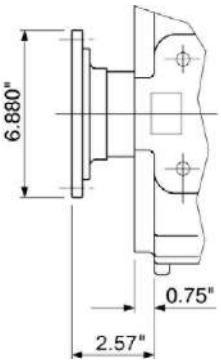
SAE	Spline Teeth & Pitch
A	9T - 16/32
B	13T - 16/32
BB	15T - 16/32
C	14T - 12/24
CC	17T - 12/24
D	13T - 8/16
E	13T - 8/16
F	15T - 8/16
CS	21T - 16/32



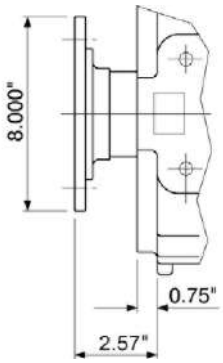


NOTE: PUMP ROTATION IS OPPOSITE TO INPUT ROTATION.

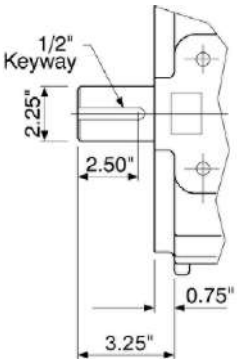
INPUT SHAFT / FLANGE OPTIONS



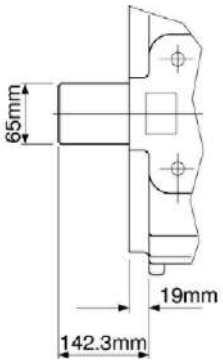
Companion Flange Spicer 1610 series



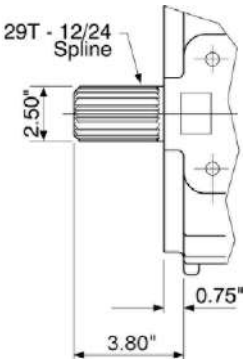
Companion Flange Spicer 1810 series



Ø2.25” Straight Shaft with 1/2” key



Ø65mm Straight Shaft with no key



29 Tooth 12/24 Splined Shaft

Other Shaft Option Available. Specials Made To Order.

SPECIAL GEARBOXES

OEM Dynamics stock an extensive range of Durst Next Generation Hydraulic Pump Drives, while also offering Custom Engineered Solutions to compliment standard Durst Pump Drive unit configurations. Whether you need to mount a non-SAE standard hydraulic pump, fit special input/output shafts or couplings, fit hydraulic pumps or shafts on either side of the Pump Drive Unit or install a recirculating lubrication pump, filter and oil cooler, we can help. From the smallest modification to a complete system, we can analyse, improve, and design it using the latest computer-assisted design hardware. Our experienced in-house mechanical engineering, design and manufacturing team utilize CAD, 3D Engineering Modelling and Finite Element Analysis (FEA) programs.

Some examples of the custom designed and built Durst Hydraulic Pump Drive projects that have been carried out at our Ballina NSW facility include:

FIVE PUMP GEARBOX with through drive shaft

The unit below (shown from both sides) is a custom designed and built Durst Model 5PD10 (Special) Five Pump Drive unit that OEM Dynamics designed and re-engineered using a standard Durst Model 3PD10 Triple Drive unit for a Dredging Machine application. It is fitted with a total of 5 x Hydraulic Pump Mounting Pads (1 x SAE-D and 2 x SAE-C Mounting Pads) while 2 x additional Output Ports have been blanked off for possible future use. There is also an Oil Recirculating Lubrication Pump, Oil Filter and Water Cooled Oil Cooler fitted. To complete this very unique unit, OEM Dynamics have also designed and fitted a Through Drive Shaft to drive a 75kW (100Hp) Centrifugal Water Pump.

ENGINE INPUT SIDE

PUMP OUTPUT SIDE

TWO PUMP GEARBOX WITH DOG CLUTCHES

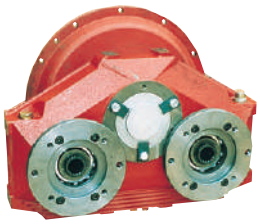
This drive is a custom designed and built Durst Model 2PD06 Double Pump Drive unit that OEM Dynamics re-engineered to allow the fitting of 2 x OEM Dynamics Model HH Dog Clutches with SAE-C Hydraulic Pump Mounting pads, which will allow each pump to be individually engaged and disengaged, while the unit has also been fitted with a Torsionally Resistant Input Drive Coupling for a Vehicle River Crossing Ferry application.

THREE PUMP GEARBOX

This drive is a custom designed and built Durst Model 3PD10 Triple Pump Drive unit OEM Dynamics re-engineered to fit a Bosch Rexroth A4CSG500 Hydraulic Pump for a Dredging Machine application. It has a 405mm diameter, 8 Bolt mounting pad and 80mm diameter splined drive shaft, while the unit is also fitted with 1 x SAE-D Hydraulic Pump Pad with the 3rd Pump Pad being blanked off for possible future use. An Oil Recirculating Lubrication System comprising of a Pump, Oil Filter and Water Cooled Oil Cooler has also been fitted.

To find out more about OEM Dynamics Custom Engineering Solutions for Durst Hydraulic Pump Drives, contact our Customer Support Department located at our Ballina NSW office.

TECHNODRIVE PUMP DRIVES



Model AM220

Model AM330

Model AM480

APPLICATION

These gearboxes permit a number of hydraulic pumps to be driven from the one power source, usually, a diesel engine. However, they may be driven from most power sources directly as a shaft to shaft drive through a flexible coupling or via a universal joint drive train. Two, three and four pump models are available. In some instance, pumps can be mounted on both front and back of gearbox. Eg:- Up to 9 pumps have been fitted to the model AM450.

TECHNICAL DETAILS

- Cases, housings and adaptors are grey iron.
- Gears: Shaved spur on AM 216/320.
- Ground teeth on larger models.
- Standard gear ratio 1:1. Other ratios on application.
- Bearings are deep groove ball with L10 life of 5000 hours.

POWER , TORQUE AND THERMAL RATINGS

The mechanical strength capability of all hydraulic pump drive gearboxes far exceeds their thermal capacity. These gearboxes can transmit high torque loads, however their service life is more often limited by the thermal capacity. For maximum life the lube oil temperature should not exceed 95 °C. Selection of the gearbox must take into account actual operating conditions, this includes considering the input power, speed, type of load and duty experienced. During operation lubricant oil temperature should be closely monitored, it is therefore important to ensure easy access to drain, fill and oil level plugs when designing the installation. It is strongly recommended that all applications are reviewed by our factory sales engineers. All selections must be approved prior to unit shipment to validate warranty.

Model	Input Torque Max. (Nm)	Output Torque Max.per Pump (Nm)	Input Speed Max. (RPM)
TWO PUMP DRIVES			
AM216	630	315	3200
AM220	1080	540	3200
AM230	1620	810	2600
AM232	2300	1150	2400
THREE PUMP DRIVES			
AM320	630	315	3200
AM330	1080	540	3200
AM345	1620	810	2600
AM365	2900	1450	2200
FOUR PUMP DRIVES			
AM450	2600	1300	2400
AM480	3800	1900	1800

Above figures are based on gearboxes with 1:1 gear ratios.
For figures for other ratio's, please consult our Sales Office.

SERVICE CATEGORIES AND FACTORS

The service factor for your application must be applied to the power rating for each model. Mobile & off road equipment , stationary industrial appliances and appliances with cooling systems all have different service factors. For an application to be considered intermittent periods of operation at maximum power must be followed by periods of shutdown sufficient to allow lube oil to cool to near ambient temperature. Where systems cycle with full power on and off for short periods only, 6 minutes should be considered as max continuous duty cycle time.
Contact our sale office for a service factor for your application.

GEARBOX LIFE CONSIDERATIONS

On diesel engine applications, the life of the gearbox may be significantly reduced if torsional vibration (TV) is not considered. This is most relevant where the hydraulic pump elements have large rotating masses (moments of inertia). The life of the gearbox and hyd pumps will be increased if TV can be reduced or eliminated. All of our pump drives are available with a range of flywheel mounted couplings for most applications. These include flywheel mounted Flexilock 195 polymer gear type couplings and RBD type couplings. The flywheel mounted fixed driveplate type couplings will not absorb TV and are recommended only for use in mobile light duty service.

HYDRAULIC PUMP ADAPTORS.

Pump rotation is anti-engine wise. Standard available pump adaptors and shaft sleeves include SAE: A, B, C, D and E. We also stock most metric (DIN) type adaptors and shaft sleeves. The design of Technodrive pump drives also permits to fitting of nonstandard pumps with keyed or splined shafts.

ENGINE INTERFACING. See diesel engine standards J620D for flywheels and J617C for engine housings on the inside back cover of this catalogue.

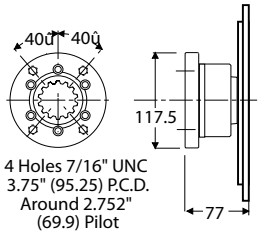
LONG LIFE EXPECTANCY. Technodrive are highly experienced and recognise the specific problems associated with this high speed gearbox application. Gear design and manufacture is arranged to provide low noise levels and high efficiency. Special attention has been given to case design to take into account the lubrication requirements for the gears, bearings and internal splines.

TECHNICAL SERVICE AND SPARES READILY AVAILABLE. OEM Dynamics are the largest stockists of Technodrive outside of Europe and maintain a large inventory of service parts for pump drives. OEM Dynamics have been associated with hydraulic pump drive applications for 20 years and we are proud to be able to offer the best advice available in the industry.

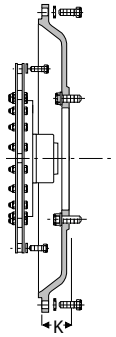
OPTIONAL LUBE PUMP AND OIL COOLER.

Most models can be supplied with a centrally mounted gear pump for passing lube oil to a water or air cooled heat exchanger. We stock heat exchanger kits for most models.

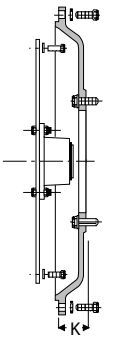
INPUT OPTIONS



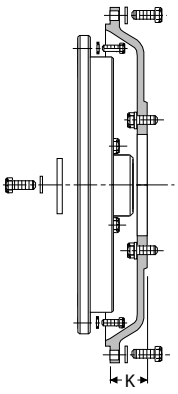
U-joint companion flange.



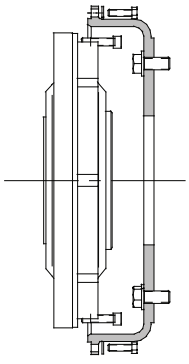
Diesel Input
195 Flexilock
Max torque 969 Nm



Fixed driveplate not rated

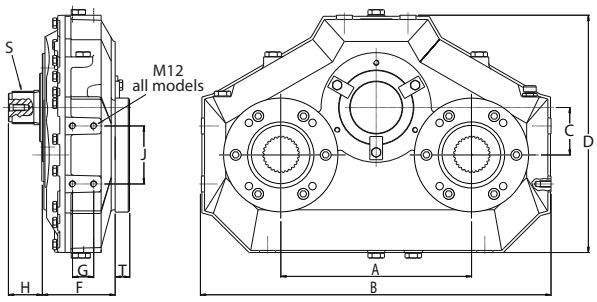


Rubber block type
Torques 860 to 3490 Nm



Torsionally Elastic Coupling

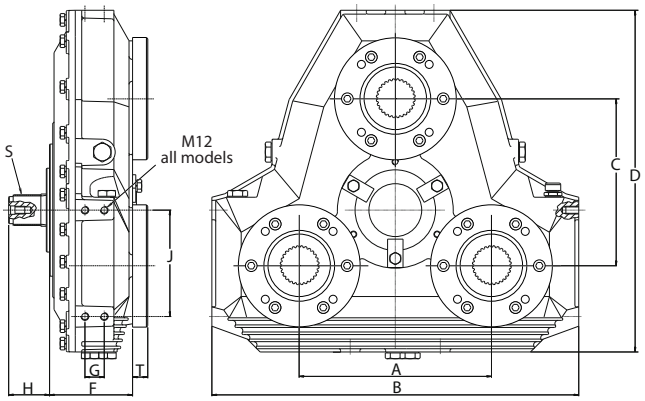
MODELS AM216, AM220, AM230 & AM232



MODEL	A	B	C	D	F	G	H	J	K	S	Wt kg
AM216	254	450	-	253	110	0	63.5	100	50	B48x44 DIN5482	40
AM220	299	570	86	360	129	30	63.5	165	50	B48x44 DIN5482	76
AM230	360	660	90	450	137.5	40	64	110	50	B62x57 DIN5482	103
AM232	460	800	-	430	137	40	64	110	50	B62x57 DIN5482	132

T - varies from 15 to 75. Depends on pump

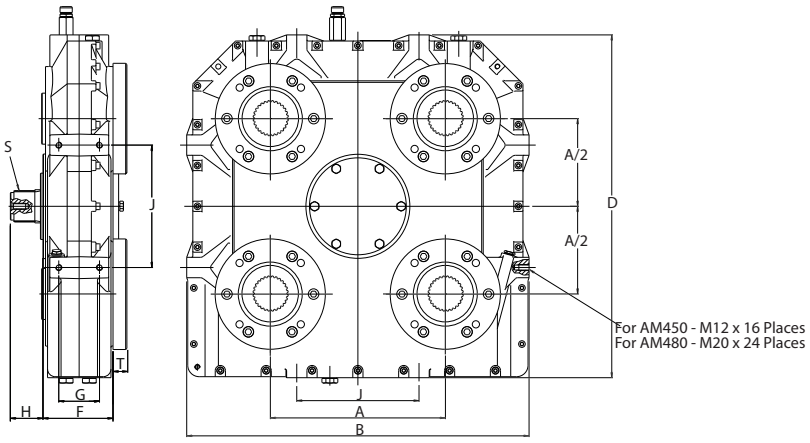
MODELS AM320, AM330, AM345 & AM365



MODEL	A	B	C	D	F	G	H	J	K	S	Wt kg
AM320	220	450	190	447	110	0	63	100	50	B48x44 DIN5482	48
AM330	299	570	259	530	129	30	63.5	165	50	B48x44 DIN5482	139
AM345	360	660	291	630	137.5	40	64	110	50	B62x57 DIN5482	131
AM365	420	850	371	845	156	96	108	230	100	B62x57 DIN5482	215

T - varies from 15 to 75. Depends on pump

MODELS AM450 & AM480



MODEL	A	B	C	D	F	G	H	J	K	S	Wt kg
AM450	343.6	672	343.6	672	137.5	80	64	240	50	B62x57 DIN5482	205
AM480	437	900	437	900	156	96	108	400	100	B62x57 DIN5482	350

T - varies from 15 to 75. Depends on pump. Weight - 217kg.

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HEAVY DUTY CAST IRON CASE MODELS WITH TAPER ROLLER BEARINGS

Model 1000

Model 88

Model 66

Model 150

INTRODUCTION.
HUB CITY bevel drives have been available in Australia since 1976. The range shown here are the basic models in straight and spiral bevel which we stock in this country. Numerous other variations are available on an indent basis.

APPLICATION.
Bevel Gear Drives transfer power at 90°. Generally this power is transferred at a 1:1 ratio with relation to speed. However these gear drives are capable of increasing or reducing speed depending upon the gear ratio used.

SHAFT ROTATION.
Shaft rotation is determined by the relative location of the gears. Right hand (clockwise) or left hand (counter clockwise) rotations are determined by viewing the end of the shaft. Pinion shaft can be rotated in either direction. Refer figures below right.

BASIC SELECTION.
Bevel gear drives are selected on the basis of speed, ratio, power and torque. FOR quick selection refer to the "POPULAR MODELS" box below. Select the ratio, power in kW and input speed required. Power is shown as kW per 100 RPM. To convert to this scale divide the power (kW) required by the input speed to be used and them multiply answer by 100. Then pick a model which meets or exceeds the power per 100 RPM you have calculated while having suitable ratio and RPM range to meet your requirements.

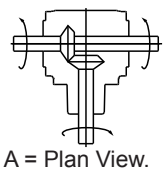
STRAIGHT OR SPIRAL BEVEL.
Both Straight and Spiral bevel drives are available. Straight bevel drives are suitable for lower input speeds while spiral bevel drives are suitable for higher input speeds due to their quietness and smoother gear meshing action. They are also generally able to handle higher power but are more expensive than straight bevels.

POPULAR MODELS

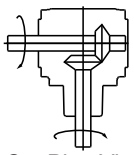
MODEL	GEAR TYPE	RATIO	SHAFT SIZE	kW per 100 RPM*	MAX IN RPM	DRY WT kg	ORDERING CODE
M 3	ST	1:1	0.625"	0.093	2400	4.6	**02/20/21101**
M 3	ST	1.5:1	0.625"	0.065	3000	4.6	**02/20/21106**
44	ST	1:1	0.750"	0.850	1750	6.9	**02/20/75460**
44	ST	2:1	0.750"	0.254	1750	6.9	**02/20/75463**
150	ST	1:1	1.000"	0.778	1150	11	**02/20/00802**
150	SP	1:1	1.000"	0.666	3000	11	**02/20/00813**
150	ST	1.5:1	1.000"	0.393	1750	11	**02/20/00826**
150	ST	2:1	1.000"	0.280	2400	11	**02/20/00818**
150	SP	2:1	1.000"	0.381	2400	11	**02/20/00849**
165	ST	1:1	1.000"	1.102	1150	12	**02/20/00901**
165	SP	1:1	1.000"	0.667	3000	12	**02/20/00906**
165	ST	1.5:1	1.000"	0.393	1750	12	**02/20/00918**
165	ST	2:1	1.000"	0.280	2400	12	**02/20/00911**
66	ST	1:1	1.250"	1.569	1150	22	**02/20/03513**
66	SP	1:1	1.250"	1.833	2400	22	**02/20/03519**
66	SP	1.53:1	1.250"	1.392	3000	22	**02/20/03552**
66	ST	2:1	1.250"	0.311	1750	22	**02/20/03525**
66	SP	2:1	1.250"	0.634	3000	22	**02/20/03606**
66	SP	3:1	1.250"	0.382	3000	22	**02/20/03601**
600	ST	1:1	1.375"	2.205	1150	24	**02/20/03401**
600	SP	1:1	1.375"	1.833	2400	24	**02/20/03406**
600	SP	1.29:1	1.375"	1.439	2400	24	**02/20/03431**
88	ST	1:1	1.375"	3.860	850	40	**02/20/04404**
88	SP	1:1	1.375"	3.835	1750	40	**02/20/04010**
88	ST	1.5:1	1.375"	2.528	1150	40	**02/20/04041**
88	ST	2:1	1.375"	1.427	1150	40	**02/20/04015**
88	SP	2:1	1.375"	2.386	1750	40	**02/20/04079**
88	ST	3:1	1.375"	0.639	1750	40	**02/20/04026**
800	ST	1:1	1.500"	6.074	690	53	**02/20/59301**
800	SP	1:1	1.500"	5.625	1750	53	**02/20/59346**
800	SP	1.5:1	1.500"	2.940	1750	53	**02/20/59341**
1000	ST	1:1	1.750"	8.646	690	62	**02/20/04601**
1010	SP	1:1	2.000"	10.695	1750	80	**02/20/06301**
1010	SP	1.5:1	2.000"	7.372	1750	80	**02/20/06306**
1010	SP	2:1	2.000"	5.280	1750	80	**02/20/06311**

SERVICE FACTORS.
The ratings for bevel drives are based on a service factor of 1.00, assuming uniform loads and uniform power source for up to 10 hours operation per day. For other operating conditions, the power or torque must be multiplied by the appropriate service factor, to determine the equivalent rating. AGMA Service factor tables are available upon request.

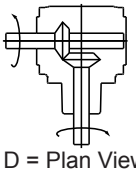
DRIVE STYLES.
Bevel drives have pinion shafts and cross shafts. Normally the input is at the pinion shaft. The type of cross shaft determines the style as can be seen below.



A = Plan View. B = Inverted View
So this unit is known as Style A B



C = Plan View. F = Inverted View
So this unit is known as Style C F

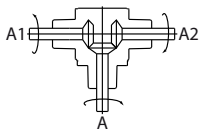


D = Plan View. E = Inverted View
So this unit is known as Style D E

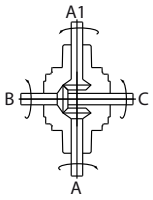
Ordering.
Use the ordering codes as shown on the previous page and add the required style code AB or CF or DE to the end of the ordering code. Eg:- 02/20/00802AB.
For configurations or models not shown, factory numbers will be provided at time of order.

Other Styles.
To the right are shown two types of directional differential styles which are available in most models to special order.

Hollow Cross Shafts.
Some models are available with hollow cross shafts to special order. Consult us for details.

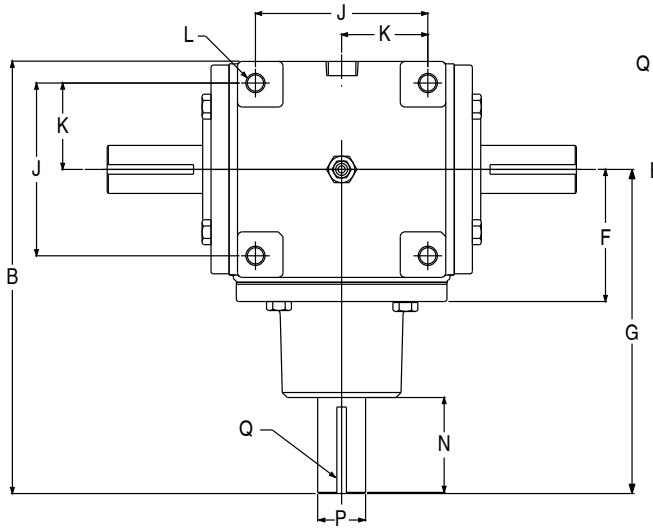


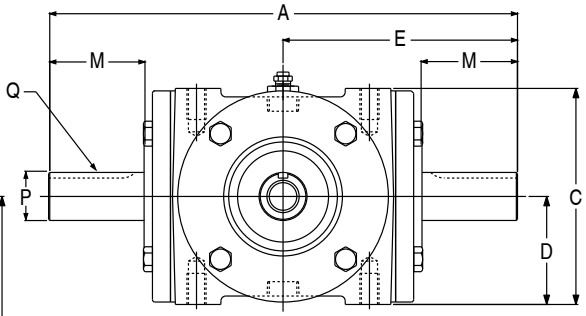
Style G



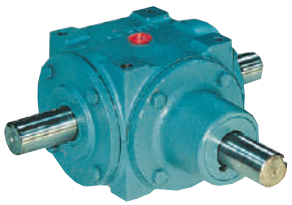
Style GG

BEVEL GEAR DRIVE DIMENSIONS





Drawing is typical. Appearance will vary for each model. Dimensions shown are for reference only. Detailed Technical sheets are available for all models.



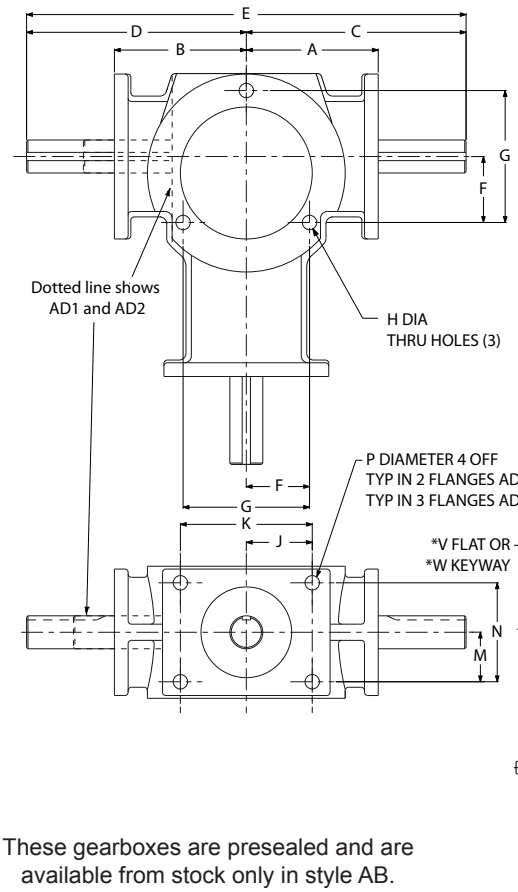
MODEL	A	B	C	D	E	F	G	J	K	L	M	N	ØP	Q
M3	164.3	157.2	81	40.5	82.2	44.5	115.9	57.2	28.6	5/16”	38.1	38.9	15.87	4.76 x 2.38
44	201.6	181.0	92.1	46.0	100.8	58.7	131.8	79.4	39.7	5/16”	38.1	38.1	19.05	4.76 x 2.38
150	258.8	210.3	104.8	52.4	129.4	72.2	145.3	107.9	54	3/8”	50.8	50.8	25.40	6.35 x 3.17
165	258.8	246.9	104.8	52.4	129.4	73.0	181.7	107.9	54	3/8”	50.8	51.6	25.40	6.35 x 3.17
66	311.2	285.8	142.9	71.4	155.6	87.3	214.3	114.3	57.2	1/2”	63.5	65.1	31.75	6.35 x 3.17
600	311.2	285.0	142.9	71.4	155.6	87.3	213.5	114.3	57.2	1/2”	63.5	63.5	34.92	7.93 x 3.97
88	401.6	373.9	208.0	104.0	200.8	116.7	276.2	165.1	82.6	1/2”	76.2	77.8	34.92	7.93 x 3.97
800	408.8	397.7	208.0	104.0	204.4	115.9	292.1	165.1	82.6	1/2”	78.6	77.8	38.10	9.52 x 4.76
1000	464.3	450.9	241.3	120.7	232.2	133.4	330.2	203.2	101.6	1/2”	76.2	76.2	44.45	9.52 x 4.76
1010	546.1	501.7	241.3	120.7	273.1	133.4	381	203.2	101.6	1/2”	101.6	101.6	50.80	12.7 x 6.35

Dimensions are converted to metric from imperial sizes. Overall dimensions are to one decimal place. Shaft and key dimensions are two decimal places. Mounting bolt holes are in imperial size and are UNC.

OTHER HUB CITY PRODUCTS

Parallel Shaft Drives
These speed reducers provide you with nearly unlimited degree of flexibility. With up to 3 input modes to provide integration with hydraulic, electric or externally coupled drives. Reduction ratio’s up to 70:1.

ALUMINIUM CASE, STAINLESS SHAFTS, SPIRAL BEVEL AND BALL BEARINGS

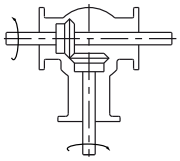


Models AD1 and AD2.

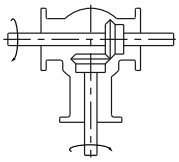
Models AD3 AD4 and AD5

Drawing is typical. Appearance will vary for each model. Dimensions shown are for reference only. Detailed Technical sheets are available for all models.
*Dimensions typical all shaft extensions.

These gearboxes are presealed and are available from stock only in style AB.



A = Plan View.



B = Inverted View

So this unit is known as Style A B.

MODEL	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	ØT	V	W	X
AD1	34.9	24.6	50.0	39.7	89.7	16.7	33.3	5.2	15.1	30.2	11.1	22.2	4.4	54.8	15.1	69.8	9.52	0.8 Deep	15.2 Eff flat	31.7
AD2	54.0	32.5	92.1	70.6	162.7	23.8	47.6	6.7	23.8	47.6	17.5	34.9	6.7	82.6	38.1	120.7	15.87	-	4.76 x 2.38	50.8
AD3	76.2	76.2	127.0	127.0	254.0	38.1	76.2	8.3	38.1	76.2	28.6	57.2	8.3	127	50.8	76.2	19.05	-	4.76 x 2.38	76.2
AD4	34.9	34.9	50.4	50.4	100.4	16.7	33.3	6.7	15.1	30.2	11.1	22.2	4.4	54.8	15.1	69.8	9.52	0.8 Deep	15.2 Eff flat	31.7
AD5	54.0	54.0	92.1	92.1	184.2	23.8	47.6	6.7	23.8	47.6	17.5	34.9	6.7	82.6	38.1	50.81	5.87	-	4.76 x 2.38	50.8

Dimensions are converted to metric from imperial sizes. Overall dimensions are to one decimal place. Shaft and key dimensions are two decimal places.

SPIRAL BEVEL GEAR DRIVES

INPUT RPM	RATIO	OUTPUT RPM	AD1 & AD4 INPUT	AD1 & AD4 OUTPUT	AD2 & AD5 INPUT	AD2 & AD5 OUTPUT	AD3 INPUT	AD3 OUTPUT
			kW	TORQUE	kW	TORQUE	kW	TORQUE
3600	1:1	3600	1.35	3.58	3.21	8.53	7.64	20.29
	2:1	1800	0.40	2.07	1.58	8.38	2.84	15.12
2400	1:1	2400	0.92	3.67	2.20	8.74	5.29	21.06
	2:1	1200	0.27	2.11	1.08	8.60	1.95	15.55
1750	1:1	1750	0.68	3.72	1.63	8.89	3.93	21.43
	2:1	875	0.19	2.13	0.80	8.72	1.46	15.93
1150	1:1	1150	0.45	3.77	1.10	9.07	2.65	22.01
	2:1	575	0.13	2.18	0.54	8.88	0.98	16.32
690	1:1	690	0.28	3.83	0.67	9.25	1.63	22.61
	2:1	345	0.08	2.20	0.33	9.04	0.60	16.74
100	1:1	100	0.04	4.02	0.10	9.69	0.25	24.05
	2:1	50	0.01	2.32	0.05	9.40	0.10	17.70

Allowable Shaft Loads All Ratios and Shafts

Model No	Overhung Load**	Thrust Load
AD3	45 kgs	90 kgs
AD1 & AD4	11 kgs	22 kgs
AD2 & AD5	22 kgs	45 kgs

** Assumes load at midpoint of shaft extension.

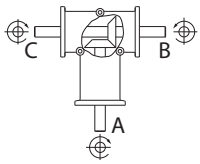
Model No	Ratio	Dry Wt Kg	Ordering Code
AD1	1:1	0.3	**02/20/00201/003**
	2:1	0.3	**02/20/00203/003**
AD2	1:1	0.9	**02/20/00301/004**
	2:1	0.9	**02/20/00304/004**
AD3	1:1	3.8	**02/20/00403/005**
	2:1	3.8	**02/20/00404/005**
AD4	1:1	0.3	**02/20/05301/006**
	2:1	0.3	**02/20/05304/006**
AD5	1:1	0.9	**02/20/05401/007**
	2:1	0.9	**02/20/05404/007**

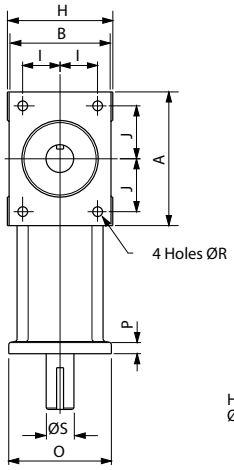
MODEL DZ1, DZ2 & DZ3

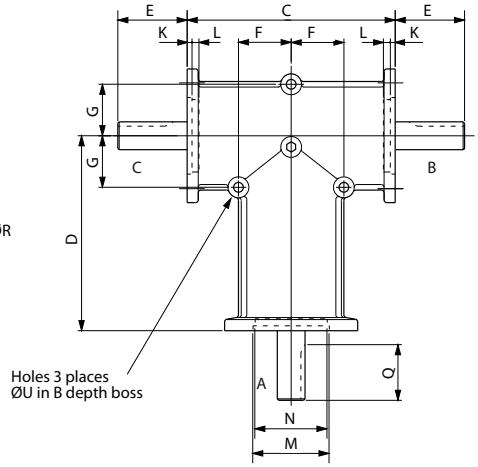
DZ1
Ratio - 1:1
Housing - Aluminium
Part No. **DZ11-3FABC**

DZ2
Ratio - 1:1
Housing - Aluminium
Part No. **DZ21-3FABC**

DZ3
Ratio - 1:1
Housing - Aluminium
Part No. **DZ31-3FABC**







Speed RPM	DZ I Ratio 1:1 Output torque Nm	DZ I Ratio 1:1 Input power kW	DZ 2 Ratio 1:1 Output torque Nm	DZ 2 Ratio 1:1 Input power kW	DZ 3 Ratio 1:1 Output torque Nm	DZ 3 Ratio 1:1 Input power kW
50	4.7	0.026	16.5	0.093	50.5	0.28
100	4.2	0.047	14.5	0.162	44.0	0.49
200	3.7	0.082	12.6	0.280	38.0	0.85
300	3.4	0.113	11.6	0.386	34.7	1.15
400	3.2	0.142	10.6	0.470	32.5	1.44
600	2.9	0.195	10.0	0.665	29.7	1.98
800	2.7	0.242	9.6	0.847	28.4	2.5
1000	2.6	0.287	9.2	1.014	27.1	3.0
1200	2.5	0.331	8.9	1.177	26.2	3.47
1400	2.4	0.368	8.6	1.320	25.2	3.87
1600	2.3	0.407	8.3	1.455	24.3	4.26
1800	2.3	0.442	8.0	1.571	23.5	4.61
2000	2.2	0.476	7.9	I.723	22.8	4.98
2500	2.1	0.556	7.8	2.105	21.3	5.75
3000	2.0	0.632	7.7	2.494	20.2	6.54

Rating are based on 12 hours/day operation with uniform loading. For other service factor consult our sales office

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	ØU	Shaft	Key	Weight
DZ1	40	32	68	60	15	16	16	33	11	15	2.5	-	22	-	32	5	-	4.2	5.2	Ø 8	-	0.3
DZ2	66	50	104	90	35	24	24	52	18	26	5	-	35	-	50	7	27	6.2	8.3	Ø 15	5	1.1
DZ3	96	74	150	140	50	38	38	76	27	38	3.5	5	55	52	74	8	40	8.3	8.3	Ø 20	6	3.4

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COMPLEX MACHINING OPERATIONS

Our machining capacity includes the Okuma Multus multifunction CNC machine shown at right. This machine is equipped with double ended spindles for complete machining of parts in one set up. This five axis machine; C, X, Y Z and B; allows operations such as turning, milling, drilling and tapping to be performed at any angle. The machine tool capacity is 80 stations and automatic bar feed up to 100mm diameter. Single work pieces up to 710mm diameter or 1500 mm in length can be accommodated in the machine. The capacity and versatility of our CNC machines enable work pieces of considerable complexity to be produced with a minimum number of operations. Such versatility permits considerable reduction in cost whilst maintaining a high degree of quality and accuracy.

PRODUCTION OF SPLINED COMPONENTS IS OUR SPECIALITY
These products are Australian made and produced at our factory in Ballina NSW. They include a wide range of splined accessories, couplings, diesel drives, agricultural gearboxes, driveline components and overhung load adaptors

Internal splines are produced either by broaching or by gear shaping. We have a very extensive range of broaches and internal shaper cutters for imperial and metric involute splines as well as a large range of tools for the production of straight sided splines.

PRODUCTION OF GEARS
We manufacture external and internal spur and helical gear components for a wide range of applications and have available a large range of hobs for gears and sprockets. External and internal gear shaper cutters are also available for the generation of gears by the gear shaping method. Gear tooth rounding is also carried out at our facility.

RECONDITIONING SERVICE

OEM Dynamics offers a reconditioning service on all OEM power transmission components as well as other manufacturer's pump drives, transfer boxes and right angle drives.

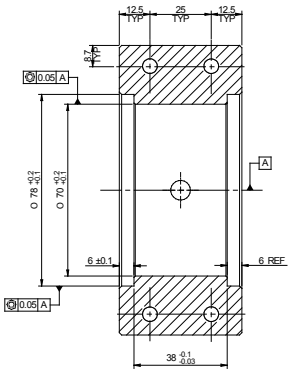
We stock a large range of Durst & Technodrive pump drive spare parts.

CAD MODELLING

Using the latest *Solid Edge* CAD modelling programme from Siemens PLM, OEM Dynamics can offer fast, efficient and accurate modelling of parts & assemblies. OEM can provide customized solutions for all requirements. From projects costing $100 to $1M, we can provide a solution to your requirements.

We can import/ export most common formats including DXF, DWG, STP & IGES.

We can also export drawings in pdf format and 3d models in 3d pdf format.



SECTION A-A
THRU PART LINE

CONVERSIONS AND USEFUL FORMULA

CONVERSIONS

TORQUE
Nm x 0.7376 = lbf ft
lbf ft x 1.356 = Nm
lb in x 0.1130 = Nm
kgm x 9.807 = Nm
kgm x 7.232 = lbf ft

POWER
kW x 1.341 = HP
HP x 0.7457 = kW
Met HP x 0.7355 = kW
Ton of Rfg x 3.517 = kW

PRESSURE
PSI x 6.89 = kPa
PSI x 0.0689 = Bar
Bar x 14.5 = PSI
inH_2O x 0.249 = kPa

VOLUME
Gal (UK) x 4.546 = Litres
Gal (US) x 3.785 = Litres
Cu Ft x 28.32 = Litres

LENGTH
Inch x 25.4 = mm
Feet x 0.3048 = metre

AREA
Sq Inch x 6.452 = Sq cm
Sq Ft x 0.0929 = Sq mtr

VELOCITY
Ft/s x 0.3048 = m/s
mph x 1.609344 = km/h
Knot UK x 1.853 = km/h

TEMPERATURE
°C x 1.8 + 32 = °F

MASS
Oz x 28.3495 = gram
lb x 0.4536 = kg
Ton UK x 1.016 = Tonne

VISCOSITY
SSU x4.6 = cSt

OTHER
BTU/hr x 0.293 = W
Kilocalorie x 4.1868 = kJ
CFM x 0.000472 = m^3/s

POWER TORQUE AND SPEED RELATIONSHIPS US UNITS

$T = \frac{HP \times 5252}{RPM}$ $HP = \frac{T \times RPM}{5252}$ $RPM = \frac{HP \times 5252}{T}$

Where T = Torque Ft Lbs
HP = Horsepower
RPM = Revs Per Minute

POWER TORQUE AND SPEED RELATIONSHIPS ISO UNITS

$T = \frac{kW \times 9549}{RPM}$ $kW = \frac{T \times RPM}{9549}$ $RPM = \frac{kW \times 9549}{T}$

Where T = Torque Newton Metres
kW = Kilowatts
RPM = Revs Per Minute

HYDRAULIC (FLUID POWER) POWER US UNITS

$HP = \frac{PSI \times US\ GPM}{1714}$ PSI = Lbs per Sq Inch Pressure
US GPM = Gallons Per Minute US
Above is theoretical power. Add inefficiency.

HYDRAULIC (FLUID POWER) POWER ISO UNITS

$kW = \frac{Bar \times L/min}{600}$ Bar = Pressure Bar
L/min = Litres Per Minute
Above is theoretical power. Add inefficiency.

Power, Heat and Flow Relationships. ISO UNITS

$\Delta T\ °C = \frac{kW \times K}{L/min}$ $kW = \frac{L/min \times \Delta T\ °C}{K}$ $L/min = \frac{kW \times K}{\Delta T\ °C}$

Where L/min = Oil flow in Litres per minute
ΔT °C = Entering temp of oil minus exit temp of oil.
kW = Heat to be removed
K = 34.5 for Oil
K = 14.3 for Water

K factors above are typical only and will vary with density and temperature of fluid.

Heat Load Based on Temperature Rise Over Time ISO UNITS

$\text{Heat Load} = \frac{V \times Cp \times (t2-t1)}{T} = kW$

Where t1 = Initial oil temp (°C)
t2 = Final oil temp (°C)
T = Time for temp rise (seconds)
V = System oil volume (litres)
Cp = Oil heat capacity (kJ/L°C) Cp=1.72 Typ for oil.

HYDRAULIC PUMP & MOTOR MOUNT FLANGE & SHAFT INDUSTRY STANDARDS

PUMP STANDARDS

EXTRACTS FROM SAE J744C ANSI STANDARD FOR FLUID POWER PUMPS AND MOTORS.

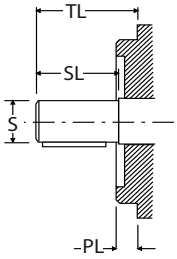
The SAE standard J744C was originally developed for off road vehicle use in USA. Not all pumps and motors are built to this standard.

STRAIGHT SHAFT TYPES

S	Torque in-lbs	HP at 1000	SL#	TL#	Key Width	OEM Code
0.500”	260	4.25	0.750”	1.062”	0.125”	78
0.625”	517	8.25	0.937”	1.250”	0.156”	12
0.750”	1,129	17.9	0.937”	1.250”	0.187”	13
0.875”	1,852	29.3	1.312”	1.625”	0.250”	14
1.000”	2,987	47.5	1.500”	1.812”	0.250”	15
1.250”	5,677	90	1.875”	2.187”	0.312”	24
1.500”	10,777	171	2.125”	2.437”	0.375”	60
1.750”	15,057	239	2.625”	2.937”	0.437”	61

#Lengths shown are for the common short shaft types for long shaft series see Standard SAE J744C.

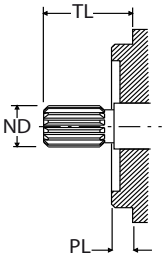
HP at 1000 RPM. Torque and HP requirements noted are typical (based on shaft St of 25000 PSI) and should be considered as a guide only.



30 Deg INVOLUTE SPLINE TYPES

Spline Details	Torque in-lbs	HP at 1000	ND	TL	SAE Code	OEM Code*
9T 20/40 DP	260	4.25	1/2”	1.062”	AA	91
9T 16/32 DP	517	8.25	5/8”	1.250”	A	01
11T 16/32 DP	1,129	17.9	3/4”	1.500”	AH	02
13T 16/32 DP	1,852	29.3	7/8”	1.625”	B	03
15T 16/32 DP	2,987	47.5	1”	1.812”	BB	04
14T 12/24 DP	5,677	90	1 1/4”	2.187”	C	06
21T 16/32 DP	6,839	108	1 3/8”	2.187”	CS	07
17T 12/24 DP	10,777	171	1 1/2”	2.437”	CC	32
13T 8/16 DP	15,057	239	1 3/4”	2.937”	D	08
13T 8/16 DP	15,057	239	1 3/4”	2.937”	E	08
15T 8/16 DP	24,245	285	2”	3.437”	F	37

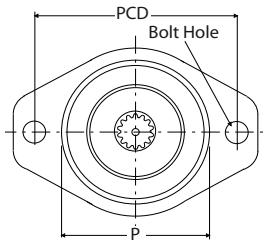
HP at 1000 RPM. Torque and HP requirements noted are typical (based on shaft St of 25000 PSI) and should be considered as a guide only. Torsional stress is calculated at spline undercut.



*** OEM Code. Unique code for ID of shaft or bore sizes. Appears as last two numbers in all Part Numbers for Splined Hubs, Splined Couplings, Splined Shafts, Flexilock Hubs, Clamplock Components, Over Hung Load Adaptors or Gearboxes shown in this catalogue.**

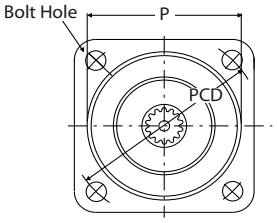
TWO BOLT MOUNTING FLANGE

SAE Code	Bolt PCD	Bolt Hole	P	PL
AA	3.250”	0.406”	2.00”	0.250”
A	4.187”	0.437”	3.25”	0.250”
B	5.750”	0.562”	4.00”	0.375”
C	7.125”	0.687”	5.00”	0.500”
D	9.000”	0.812”	6.00”	0.500”
E	12.500”	1.062”	6.50”	0.625”
F	13.781”	1.062”	7.00”	0.625”



FOUR BOLT MOUNTING FLANGE

SAE Code	PCD	Bolt Hole	P	PL
B	5.000”	0.562”	4.00”	0.375”
C	6.375”	0.562”	5.00”	0.500”
D	9.000”	0.812”	6.00”	0.500”
E	12.500”	0.812”	6.50”	0.625”
F	13.781”	1.062”	7.00”	0.625”

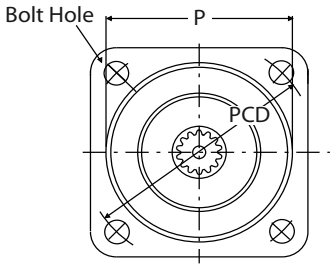


METRIC ISO FLANGES

FOUR BOLT MOUNTING FLANGE

ISO Code	P	PCD	Bolt Hole
M80	80	100	9
M100	100	125	11
M125	125	160	14
M140	140	180	16
M160	160	200	18
M180	180	224	22
M200	200	250	22
M224	224	280	24

Dim’s in mm

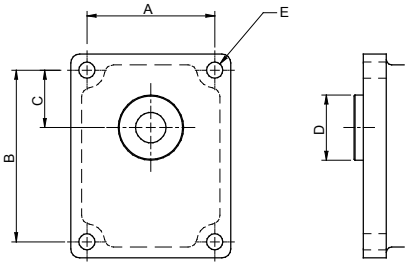


DIN FLANGES

DIN MOUNTING FLANGE

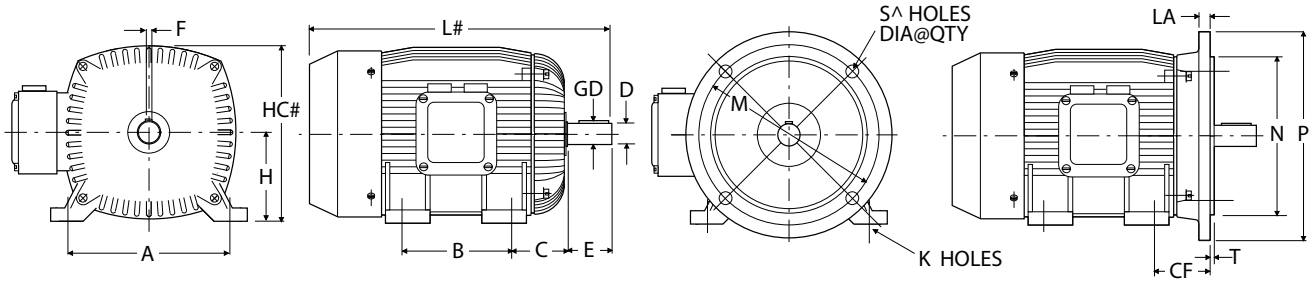
Group	A	B	C	D	E Bolt Hole
2	71.5	96.2	32.5	36.5	9
3	98	128	42	50.8	11

Dim’s in mm



NO RESPONSIBILITY IS ACCEPTED FOR OMISSIONS VARIATIONS OR ERRORS.

ELECTRIC MOTOR SIZES



Dimensions so marked are subject to variation depending on the brand of motor being used and may not be shown.
S^ Frames 63 through 200L have 4 holes on 45 deg. The remainder 8 holes on 22 deg 30 min. Relationship of power output verses frame may vary with manufacturer.

DIMENSIONS (mm)																		
FRAME	A	B	C	CF	D	E	F	GD	H	HC#	K	L#	LA	M	N	P	S^	T
63	100	80	40	40	11	23	4	12.5	63	124	7	213	6	115	95	140	10	3
71	112	90	45	45	14	30	5	16	71	140	7	235	9	130	110	160	10	3.5
80	125	100	50	50	19	40	6	21.5	80	158	10	272	10	165	130	200	12	3.5
90S	140	100	56	56	24	50	8	27	90	178	10	300	10	165	130	200	12	3.5
90L	140	125	56	56	24	50	8	27	90	178	10	320	10	165	130	200	12	3.5
100L	160	140	63	63	28	60	8	31	100	198	12	362	11	215	180	250	15	4
112M	190	140	70	70	28	60	8	31	112	222	12	391	11	215	180	250	15	4
132S	216	140	89	89	38	80	10	41	132	260	12	475	12	265	230	300	15	4
132M	216	178	89	89	38	80	10	41	132	260	12	515	12	265	230	300	15	4
160M	254	210	108	108	42	110	12	45	160	314	15	600	18	300	250	350	19	5
160L	254	254	108	108	42	110	12	45	160	314	15	645	18	300	250	350	19	5
180M	279	241	121	121	48	110	14	51.5	180	354	15	670	18	300	250	350	19	5
180L	318	279	121	121	48	110	14	51.5	180	354	15	710	18	300	250	350	19	5
200M	318	267	133	133	55	110	16	59	200	392	19	775	18	350	300	400	19	5
200L	356	305	133	133	55	110	16	59	200	392	19	775	18	350	300	400	19	5
225S	356	286	149	149	55/60	110	16/18	#	225	455	19	820	18	400	350	450	19	5
225M	356	311	149	149	55/60	110	16/18	#	225	455	19	845	18	400	350	450	19	5
250S	406	311	168	168	60/70	140	18/20	#	250	480	24	930	18	500	450	550	19	5
250M	406	349	168	168	60/70	140	18/20	#	250	480	24	930	18	500	450	550	19	5

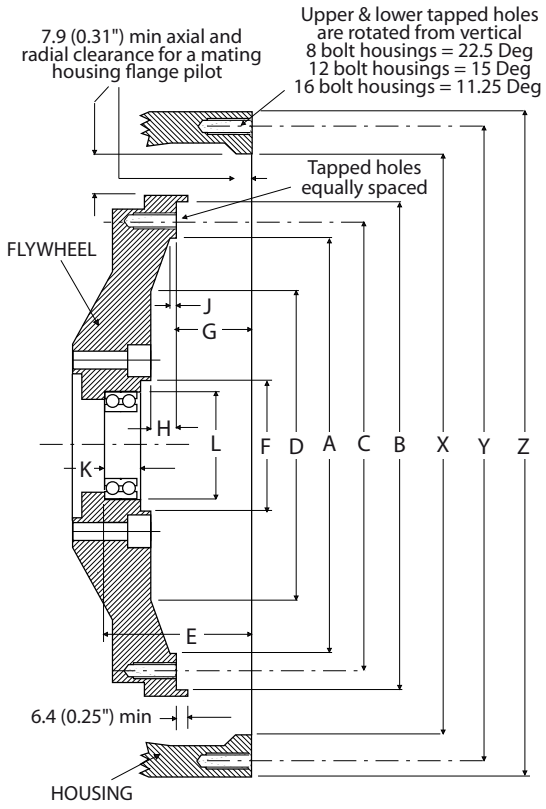
POWER RANGE kW @ MOTOR RPM			
3000	1500	1000	750
0.12-0.25	0.12-0.18		
0.37-0.55	0.25-0.37	0.18	0.12
0.75-1.10	0.55-0.75	0.37-0.55	0.18
1.50	1.10	0.75	0.37
2.20	1.50	1.10	0.55
3.0	2.2-3.0	1.5	0.75-1.1
4.0	4.0	2.2	1.5
5.5-7.5	5.5	3.0	2.2
9.2	7.5	4.0-5.0	3.0
11.0-16.0	9.2-11.0	7.5	4.0-5.5
18.5	15.0	9.2-11.0	7.5
22.0	18.5		9.2
22.0	22.0	15.0	11.0
	22.0	15.0	11.0
30.0-37.0	30.0	18.5-22.0	15.0
45	37.0-45.0	30	18.5-22.0
45	37.0-45.0	30	18.5-22.0
55.0-75.0	55.0-75.0	37.0-45.0	30.0-37.0
55.0-75.0	55.0-75.0	37.0-45.0	30.0-37.0

HOUSING AND FLYWHEEL STANDARDS FOR DIESEL ENGINES

ENGINE & FLYWHEEL STANDARDS

EXTRACTS FROM SAE J620D FOR ENGINE FLYWHEELS AND SAE J617C FOR ENGINE FLYWHEEL HOUSINGS

Flywheels to J620D are in common use on diesel engines supplied for industrial and marine applications. Engines supplied for the truck market are usually fitted with automotive type flywheels which do not conform to standard J620D. Also some engines from Europe and Japan have variations away from standard such as metric threads in flywheel or housing or non standard machining.



The appropriate standards list tolerances for machined surfaces, threads bore eccentricity and face deviation. Should any of this detail be required please consult our sales staff for a copy of the complete SAE standard. Flywheel shown with pilot bearing installed for reference only. Pilot bearing is required only when using over centre clutches or torque converters. If fitting a flywheel drive plate for hydraulic pump drives, the bearing should be removed.

Flywheel No.	A mm	A inch	B mm	B inch	C mm	C inch	D mm	D inch
6 1/2	184.2	7.25	215.90	8.500	200.02	7.875	127.0	5.00
7 1/2	206.2	8.12	241.30	9.500	222.25	8.750	——	——
8	225.6	8.88	263.52	10.375	244.48	9.625	——	——
10	276.4	10.88	314.32	12.375	295.28	11.625	196.8	7.75
11 1/2	314.5	12.38	352.42	13.875	333.38	13.125	203.2	8.00
14	409.4	16.12	466.72	18.375	438.15	17.250	222.2	8.75
16	460.2	18.12	517.52	20.375	488.95	19.250	254.0	10.00
18	498.3	19.62	571.5	22.500	542.92	21.375	——	——

Flywheel No.	E mm	E inch	F mm	F inch	G mm	G inch	H mm	H inch
6 1/2	71.4	2.81	63.5	2.50	30.2	1.19	12.7	0.50
7 1/2	71.4	2.81	63.5	2.50	30.2	1.19	12.7	0.50
8	100.1	3.94	76.2	3.00	62.0	2.44	12.7	0.50
10	100.1	3.94	76.2	3.00	53.8	2.12	15.7	0.62
11 1/2	100.1	3.94	——	——	39.6	1.56	28.4	1.12
14	100.1	3.94	101.6	4.00	25.4	1.00	28.4	1.12
16	100.1	3.94	104.6	4.12	15.7	0.62	28.4	1.12
18	100.1	3.94	104.6	4.12	15.7	0.62	31.8	1.25

Flywheel No.	J mm	J inch	K mm	K inch	L mm	L inch	Q - Tapped holes No	Q - Tapped holes Size
6 1/2	9.7	0.38	17.5	0.69	52.0	2.047	6	5/16"-18
7 1/2	12.7	0.50	17.5	0.69	52.0	2.047	8	5/16"-18
8	12.7	0.50	19.0	0.75	62.0	2.441	6	3/8"-16
10	12.7	0.50	28.4	1.12	72.0	2.834	8	3/8"-16
11 1/2	22.4	0.88	31.8	1.25	72.0	2.834	8	3/8"-16
14	22.4	0.88	38.1	1.50	80.0	3.149	8	1/2"-13
16	22.4	0.88	44.4	1.75	100.0	3.937	8	1/2"-13
18	31.8	1.25	44.4	1.75	100.0	3.937	6	5/8"-11

Housing SAE-No.	X mm	X inch	Y mm	Y inch	Z mm	Z inch	R - Tapped holes No	R - Tapped holes Size
6	266.70	10.500	285.75	11.250	307.8	12.12	8	3/8"-16
5	314.32	12.375	333.38	13.125	355.6	14.00	8	3/8"-16
4	361.95	14.250	381.00	15.000	403.4	15.88	12	3/8"-16
3	409.58	16.125	428.62	16.875	450.8	17.75	12	3/8"-16
2	447.68	17.625	466.72	18.375	489.0	19.25	12	3/8"-16
1	511.18	20.125	530.22	20.875	552.4	21.75	12	7/16"-14
1/2	584.20	23.000	619.12	24.375	647.7	25.50	12	1/2"-13
0	647.70	25.500	679.45	26.750	711.2	28.00	16	1/2"-13

DYNACOOL
HEAT EXCHANGER

Heat Transfer Solutions

Air Cooled Versacool

DC Electric Drive - Available in 6 Basic models with 20 different electric motor variants in 12 or 24 Volt. New long life water resistant fan motors in high performance types. Three types of cooling elements with operating pressure to 14 Bar.

Rated to 0.5 kW/°C ETD, flows to 150 l/min.

AC Electric Drive - Available in 6 basic models with 22 different motor variants in 50 or 60 Hz options. Voltages from 240 through to 450. The design of AC electric models delivers more air flow resulting in greater performance.

Rated to 0.8 kW/°C ETD, flows to 200 l/min.

Shell & Tube Heat Exchangers

Large range of standard and extended surface models for cooling fluids with water.
EKM - Rated to 200 kW. Oil flows to 200 l/min
ECM - Rated to 400 kW. Oil flows to 700 l/min.
B - Rated to 370 kW. Oil flows to 960 l/min.

Air Cooled Series A2000P with Co-Axial Oil Pump

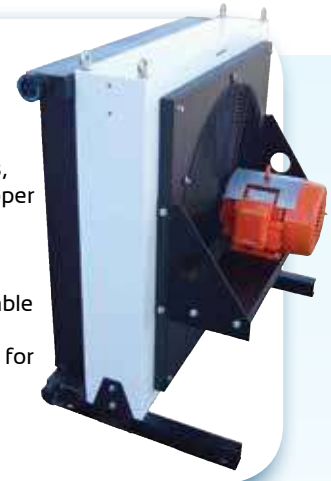
Developed for cooling gear drives. The pumps provided are high suction types intended for use with gear or hydraulic oils. A common application in hydraulics is cylinder circuits where it is not usually appropriate to pass the on line circuit through the cooler due to possibility of spikes.

Rated to 1.4 kW/°C ETD
Flows to 125 L/min.

Air Cooled ST Special Application

Currently available in 4 models. ST series feature heavy duty cooling elements with steel fins, rectangular steel tanks and copper tubes for high pressure low air side clogging applications or for the special requirements of underground coal mines. Available with standard or antistatic fans and flame proof electric motors for intrinsically safe applications.

Rated to 2 kW/°C ETD, flows to 540 L/min.



Air Cooled Series A 2000 CLASSIC Aluminium High Performance

25 years in the field with over 30 standard model variants. Corrosion resistant high performance Albraze cooling element. Heavy duty zinc seal powder coated casings for excellent appearance and durability. Available in most voltages in 50 and 60 cycles as well as 12 and 24 volt DC or with hydraulic motor drive. Also available for air intercooling applications.
Core skirts on all models. Core guards on larger models.

Rated to 9.0 kW/°C ETD, flows to 800 L/min.

Mobile Equipment Oil Coolers

These unit are for use on mobile equipment in rough off road applications and in high pressure situations.

Light duty - with aluminium or steel fins and copper tanks. Heavy duty - with steel fins & square section steel tanks. Optional full flow relief valves for improved safety.

Dynacool Computer Selection Program

The latest version of our Dynacool heat exchanger selection program now provides quick and accurate selection of most of our standard models of air cooled package exchangers, mobile air cooled and water cooled models. A new easy find instruction manual is now also available.

VERSA-COOL

TTP
AN API HEAT TRANSFER COMPANY

HAIGHT
Pumps That Perform

LLOYD'S REGISTER QUALITY ASSURANCE · ISO9001