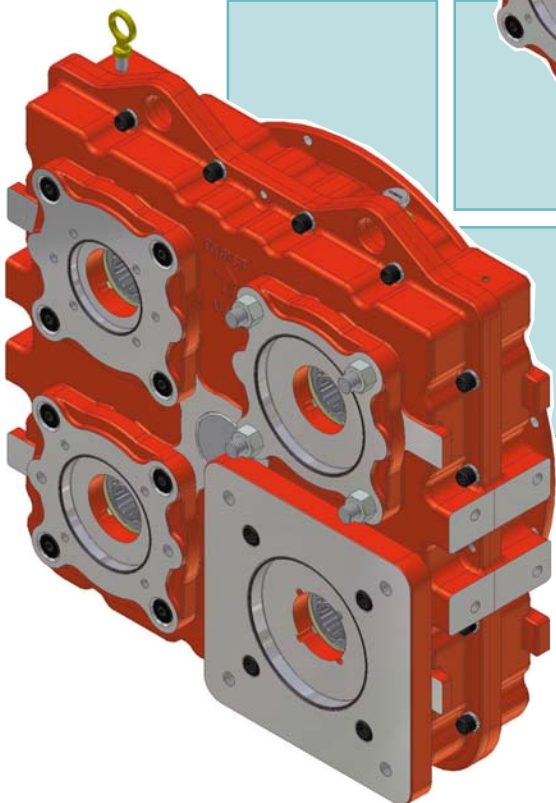
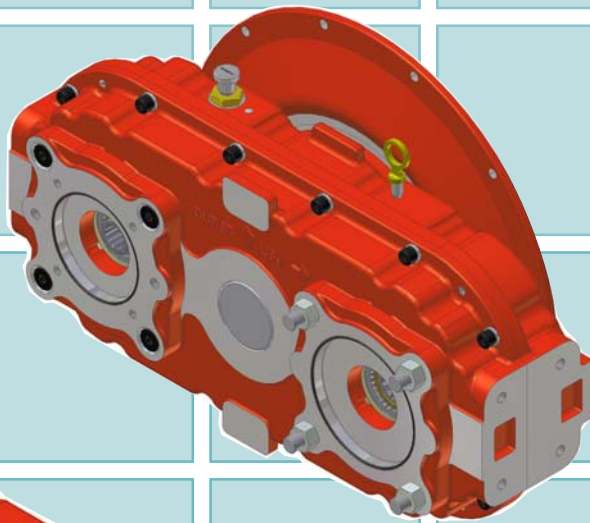
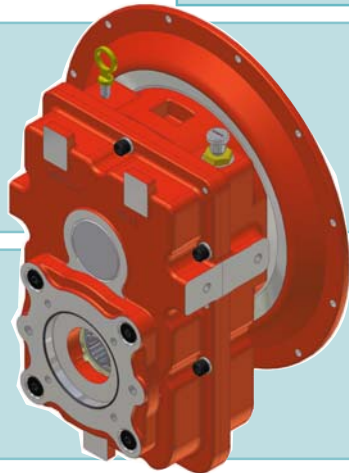
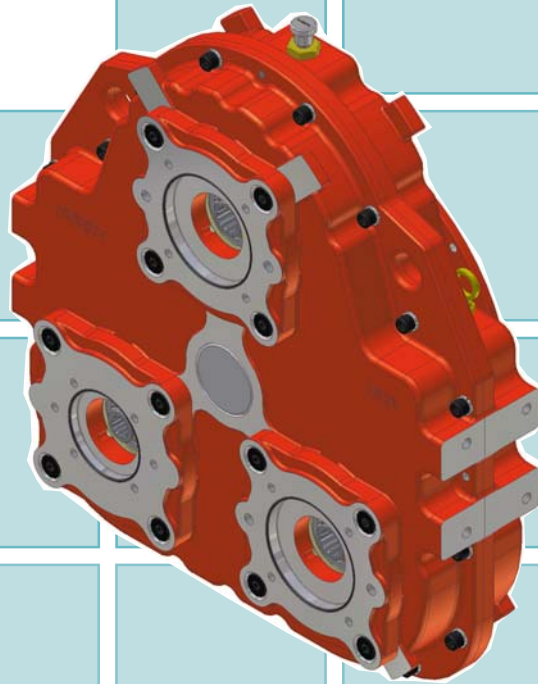


DURST

NEXT GENERATION HYDRAULIC PUMP DRIVES

FEATURING

- MODULAR DESIGN
- SIMPLER TO SERVICE
- WET SPLINE
- DROP-IN REPLACEMENT WITH OTHER BRANDS
- QUIETER OPERATION
- COMPETITIVE PRICING
- CLASS 10 GEARS



DYNAGEAR

FEATURES and 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.
- **QUIETER OPERATION** – AGMA class10 gears provide smoother operation.
- **COMPETITIVE PRICING** – due to economy of scale; commonality of parts results in higher volume of fewer parts. Gear and housing designs result in less assembly time.
- **SHORT LEAD TIME** – large inventory range held in Australia allows quick turn around of orders.

HYDRAULIC PUMP DRIVES

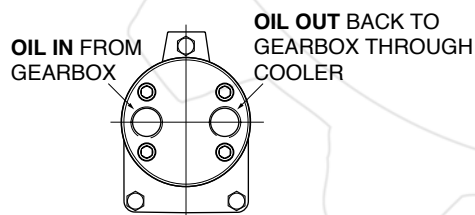
Durst has developed a family of gear drive products for use with hydraulic pumps and motors. These drives are available for mounting SAE standard hydraulic flanges and pump or motor shaft configurations directly to the gear drive unit. Models are available to mount directly to SAE flywheel housings, 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.



OPTIONAL LUBE PUMP

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

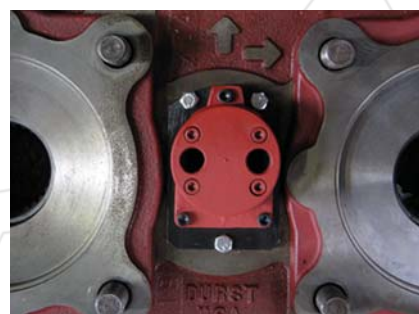
Housing adaptors SAE 1, 2, 3 & 4 are available for all models.

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.



HYDRAULIC PUMP DRIVES

PUMP DRIVE QUICK 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, 1.18:1, 1.25:1, 1.32:1, 1.40:1, 1.48:1, 1.57:1, 1.67:1	A,B,C,D,E,F	6.00"	100
	2PD06	495 (370)	P,S	1,2,3,4	1:1, 1.18:1, 1.32:1, 1.40:1, 1.48:1, 1.57:1, 1.67:1	A,B,C,D,E,F	12.00"	135
	2PD08	725 (540)	P,S	1,2,3,4	1:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1 [^]	A,B,C,D,E,F	16.00"	160
	2PD10	950 (708)	P,S	1,2,3,4	1:1, 1.21:1, 1.29:1, 1.38:1	A,B,C,D,E,F	21.00"	230
	3PD06	495 (370)	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)	P,S	1,2,3,4	1:1, 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)	P,S	1,2,3,4	1:1, 1.21:1, 1.29:1, 1.38:1	A,B,C,D,E,F	15.91" x 18.00"	295
	4PD08	725 (540)	P,S	1,2,3,4	1:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1 [^]	A,B,C,D,E,F	11.08" x 11.54"	240
	4PD11	1025 (765)	P,S	1,2,3,4	1:1, 1.16:1, 1.31:1, 1.39:1	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

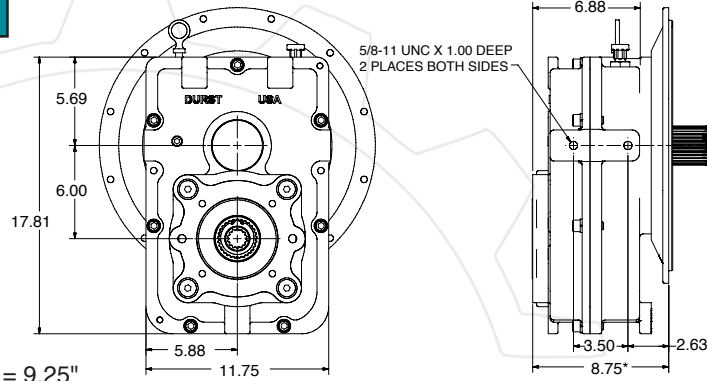
Input Torque Calculation Maximum Rated Input Torque ≥ Max Application Torque X Service Factor

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

CONVERSIONS AND USEFUL FORMULA

TORQUE			POWER		
Nm x 0.7376 = lbf ft			kW x 1.341 = HP		
lbf ft x 1.356 = Nm			HP x 0.7457 = kW		
POWER TORQUE AND SPEED RELATIONSHIPS US UNITS			POWER TORQUE AND SPEED RELATIONSHIPS ISO UNITS		
$T = \frac{HP \times 5252}{RPM}$	$HP = \frac{T \times RPM}{5252}$	$RPM = \frac{HP \times 5252}{T}$	$T = \frac{kW \times 9549}{RPM}$	$kW = \frac{T \times RPM}{9549}$	$RPM = \frac{kW \times 9549}{T}$
Where T = Torque Ft Lbs HP = Horsepower RPM = Revs Per Minute			Where T = Torque Newton Metres kW = Kilowatts RPM = Revs Per Minute		

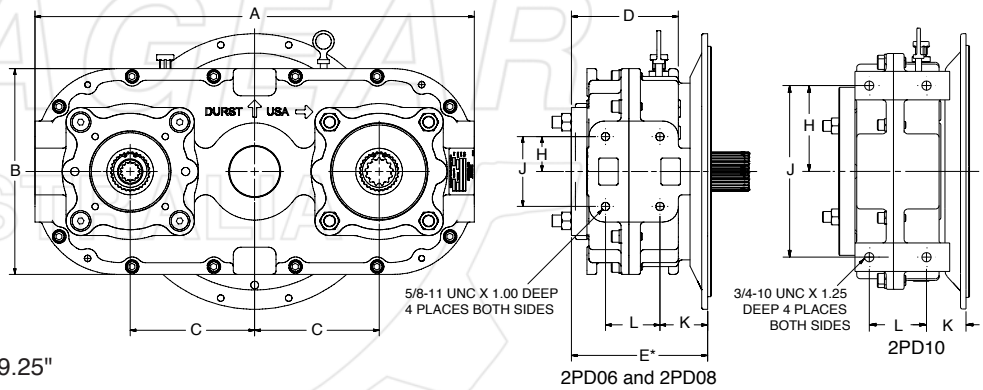
MODEL 1PD



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

MODEL 2PD

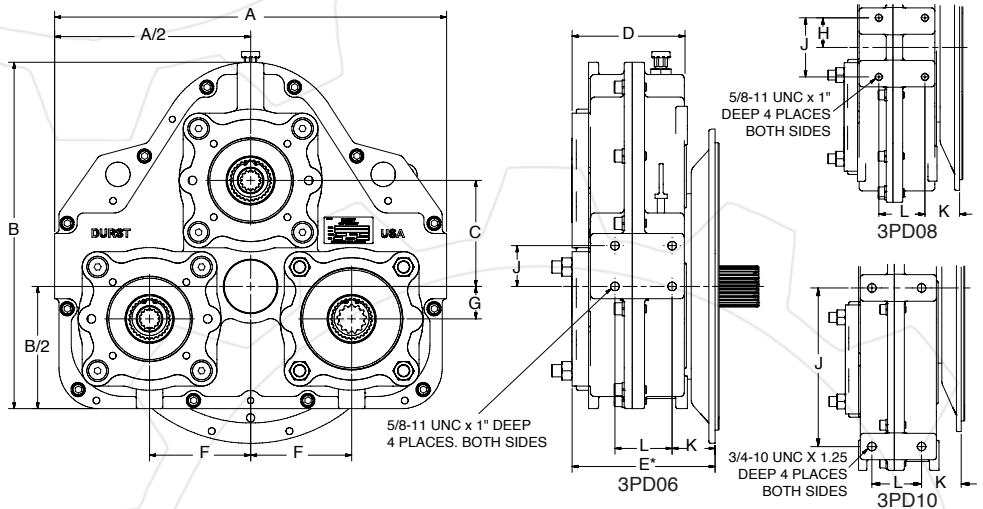
	2PD06	2PD08	2PD10
A	23.00"	28.24"	37.00"
B	11.50"	13.25"	16.50"
C	6.00"	8.00"	10.50"
D	6.88"	6.88"	6.88"
E*	8.75"	8.75"	8.75"
H	2.25"	2.25"	6.00"
J	4.50"	4.50"	12.00"
K	2.62"	3.06"	2.75"
L	3.50"	3.50"	4.00"



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

MODEL 3PD

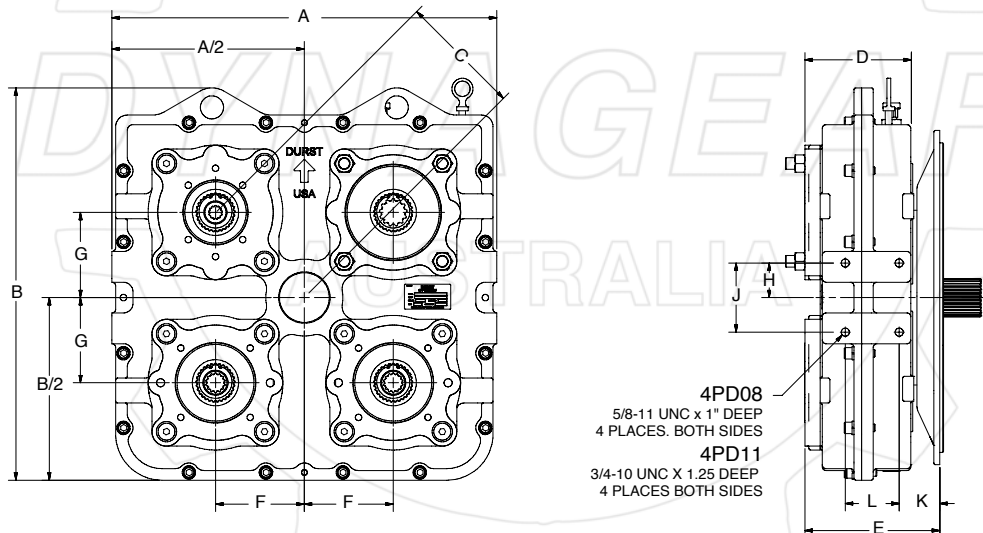
	3PD06	3PD08	3PD10
A	24.00"	25.00"	33.50"
B	21.25"	26.75"	32.60"
C	6.50"	8.00"	10.50"
D	6.88"	6.88"	6.88"
E*	8.75"	8.75"	8.75"
F	6.19"	6.00"	9.00"
G	1.99"	5.29"	5.41"
H	0	2.25"	0
J	2.50"	4.50"	12.00"
K	2.62"	2.63"	3.00"
L	3.50"	3.50"	3.75"



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

MODEL 4PD

	4PD08	4PD11
A	25.00"	33.25"
B	25.52"	33.00"
C	8.00"	11.33"
D	6.88"	6.88"
E*	8.75"	8.75"
F	5.77"	8.00"
G	5.54"	8.03"
H	2.25"	4.00"
J	4.50"	8.00"
K	2.62"	3.06"
L	3.50"	4.00"



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

INPUT and OUTPUT OPTIONS

FLYWHEEL and HOUSING ADAPTORS

SAE Flywheel Housing Options

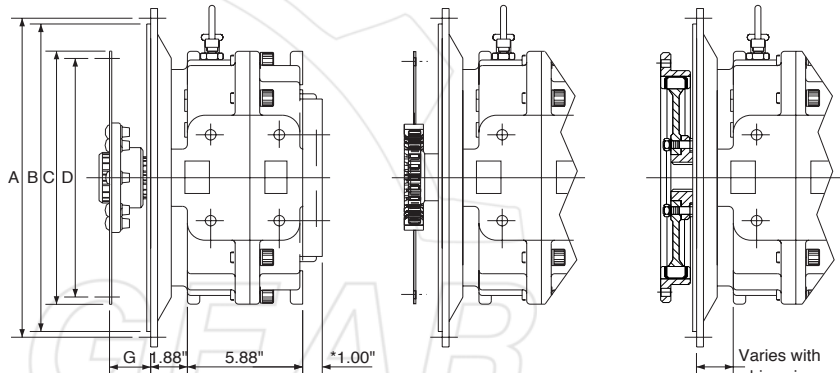
SAE No.	A	B
1	20.875"	20.125"
2	18.375"	17.625"
3	16.875"	16.125"
4	15.000"	14.250"

SAE Drive Plate Options

SAE No.	C	D	G
8	10.375"	9.625"	2.438"
10	12.375"	11.625"	2.125"
11 1/2	13.875"	13.125"	1.562"
14	18.375"	17.250"	1.000"

* D2, E and F Pads are thicker

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



Fixed Driveplate

Flexilock TV resistant drive

Rubber Block TV resistant drive

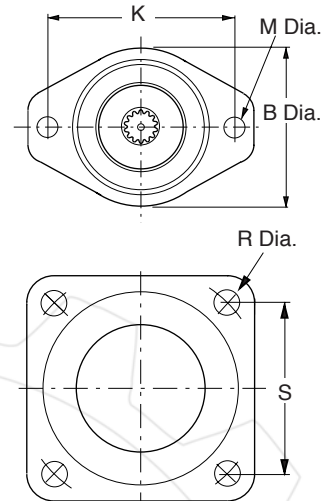
SAE PUMP and SHAFT ADAPTORS

SAE Pump Adapter Plates

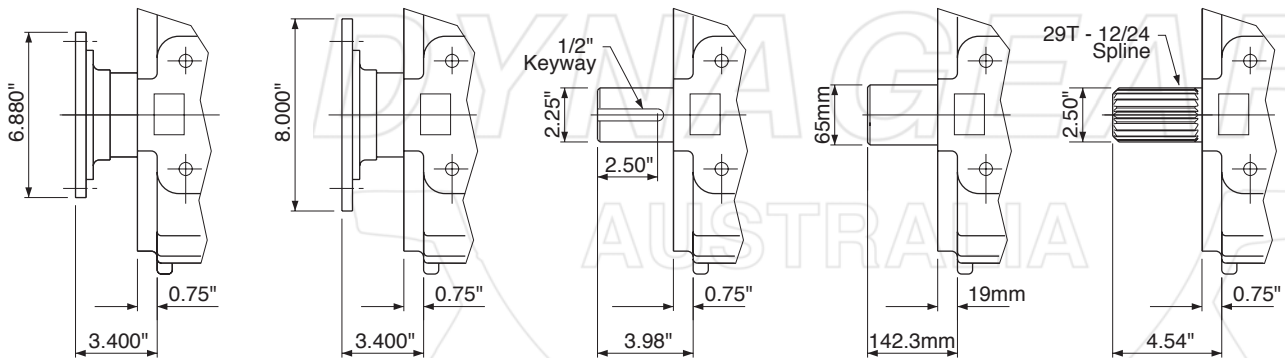
Mounting Flange Shaft Size	2 Bolt type			4 Bolt Type	
	K	M	B	S	R
A	4.188"	0.438"	3.750"	-	-
B	5.750"	0.562"	4.750"	3.536"	0.562"
C	7.125"	0.688"	5.810"	4.508"	0.562"
D	9.00"	0.812"	7.880"	6.364"	0.812"
E	12.500"	1.062"	10.620"	8.839"	0.812"
F	13.781"	1.062"	11.750"	9.745"	1.062"

SAE Shaft Adapters

SAE	Splined
	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
-	21T - 16/32
-	23T - 16/32
-	27T - 16/32



INPUT SHAFT / FLANGE OPTIONS



Companion Flange Spicer 1610 series

Companion Flange Spicer 1810 series

Ø2.25" Straight shaft with 1/2" key

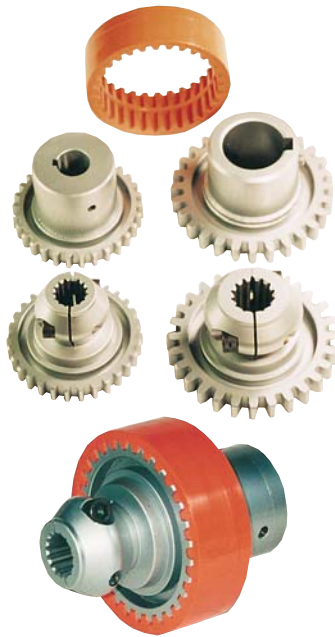
Ø65mm Straight shaft with no key

29 Tooth 12/24 Splined shaft

Other Shaft Option Available. Specials Made To Order.

OTHER POWER TRANSMISSION PRODUCTS

**Flexible Couplings for Hydraulics
With Clamplock Spline Locking**



FLEXILOCK

Right Angle Bevel Drives



**Splined Components for
Hydraulics and Mobile Equipment**

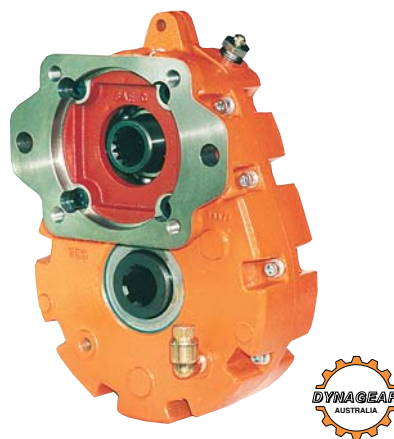


**Single Pump Drives for
Diesel Engines**



FLEXILOCK

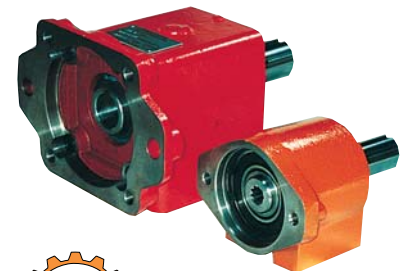
Tractor Hydraulic Pump PTO Drives



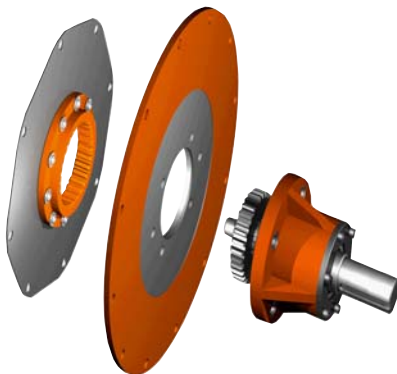
Hydraulic Motor Disconnect



**Hydraulic Motor
Overhung Load Adaptors**



Live PTO Kits for Diesel Engines



**Clamplock Driveline Companion
Flanges and Yokes**



FLEXILOCK

THE DYNAGEAR DIVISION
An Australian Company

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