



Fluid Drives

for Diesel Engines and AC Motors

Direct Drive ♦ Sheave/Belt ♦ Geared Drive

Provides

Torsional shock protection
Torque overload protection
Repeated start-stop control
No adjustments
Soft starts

Designed For

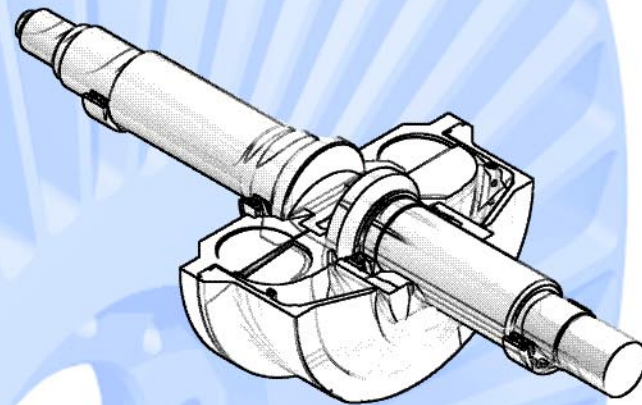
Crushers/chippers
Conveyors
Material handling
Marine drives
Portable Equipment

Minimize

Capital costs
Operating costs
Down time
Maintenance
Starting torque
Driver size
Noise

Improve

Reliability
Efficiency
Process control
Space requirements
Start up / warm up
Equipment life



***TRI Catalog: Model EFD
and MFD Fluid Drives***

- ♦ *Power to 4,000 HP (3 MW)*
- ♦ *Speeds to 2,400 RPM*



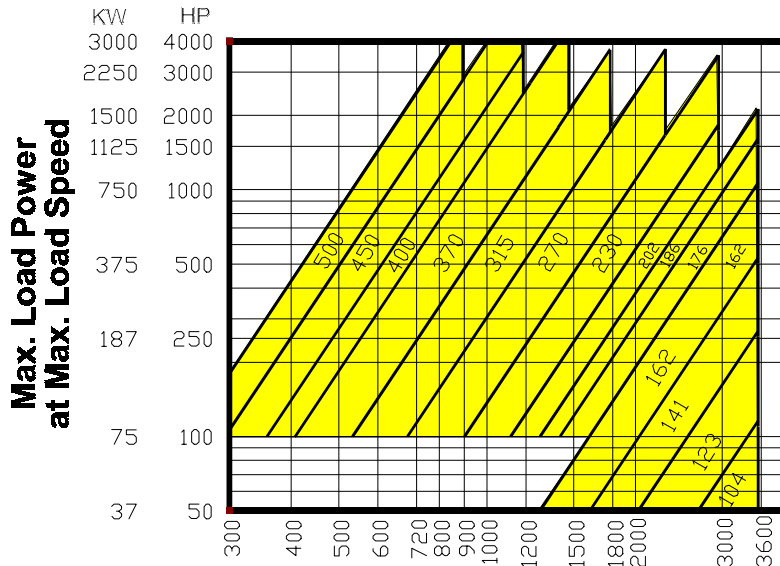
**Transmission
& Bearing Corp.**

A Division of Turbo Research, Inc.

Fluid Drive Sizing Chart for Diesel Engines and AC Motors

Typical Limits: 4000 HP (3000 KW) or 2400 rpm

Based on Advanced Rolling Element Bearing Technology



Max. Speed of Diesel Engine or Motor (rpm)

Example:

For driven equipment with a power requirement of 800 HP at 900 RPM, find the proper size engine, Fluid Drive and speed reduction type.

1) Choose an engine with a maximum net continuous rating above the power requirements of the driven equipment, say 850 HP at 2100 RPM.

2) To size the Fluid Drive, follow the horizontal line corresponding to the power demand of the load until it intersects the vertical RPM line for the engine. The intersection of these two lines will be found within the capacity envelope of the Size 230 Fluid Drive.

3) The next requirement is to reduce the engine speed from 2100 RPM to 900 RPM. Depending on equipment configuration, this can be accomplished with a Size 230 Fluid Drive with either a speed reducing gearbox output group or, if belt drive is required, with a high capacity sheave drive output group.

This sizing chart is to be used as an approximate guide in selecting the proper size Fluid Drive. To optimize the efficiency and installation of the TRI Fluid Drive, please contact TRI for a detailed analysis of your requirements.

Standard Features

Heavy duty fluid circuit construction

Rolling Element Bearing designed for extended life.

Oil Pump is driven internally by gear or by an external motor

Overload protection with external reset and restart

All oil contained in the housing - No "Fuse Plugs" to replace

No oil to clean up from blown Fuse Plug

For Diesel Engine Drives

Standard Input Configurations

Housing	Flywheel pilot
SAE #1	18.375" (SAE 14")
SAE #0	22.500" (SAE 18")
SAE#00	26.500" (SAE 21")

Standard Output Configurations

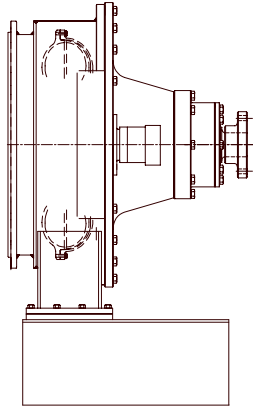
High capacity sheave drive
Straight shaft for direct drive
Speed Reducer Gear
Speed Increaser Gear

Flywheel driving rings are provided, designed for blind assembly

Many Arrangements and Options Available

Construction details and oil system arrangements designed to suit specific application requirements.

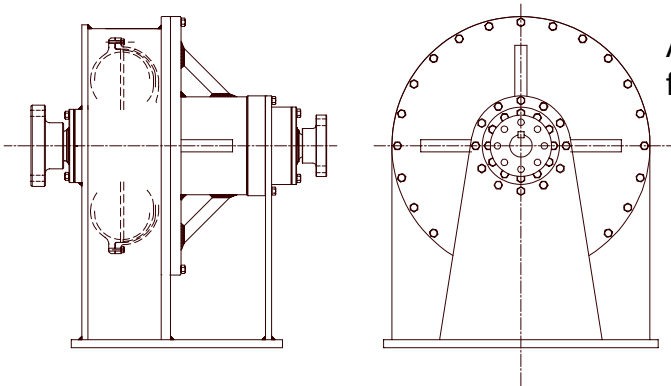
Model EFD-DD Fluid Drive for “Direct Drive”



Diesel Engine Driven. Specify:

- Application, maximum power at max. speed, and duty cycle
- Engine manufacturer and model, or specify flywheel housing size

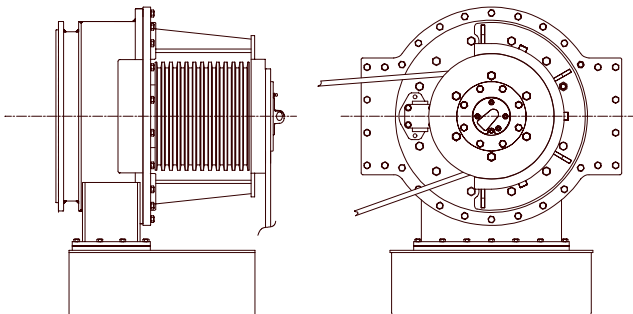
Model MFD-DD Fluid Drive for “Direct Drive”



AC Motor Driven, typically. Any power source remote from Fluid Drive. Specify:

- Application & motor
- Available motor, if any
- Speed, maximum power of load, and duty cycle

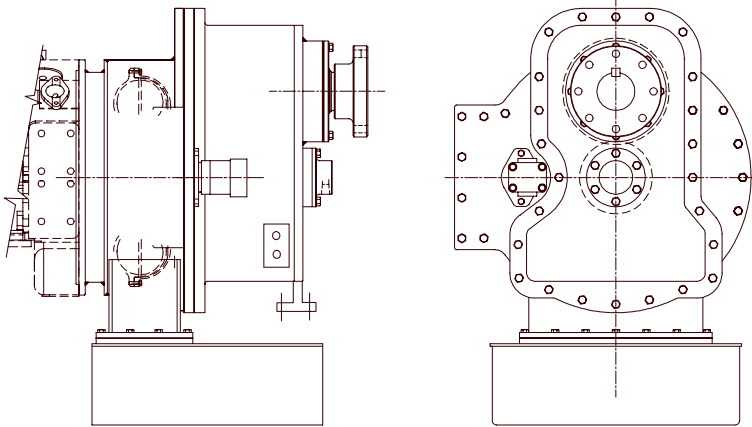
Model EFD-S Fluid Drive with Sheave



Diesel Engine Driven

- Space is available for 12 belt sheave
- Typical shaft size is 4 11/16 inch diameter
- Sheaves can be easily replaced.
- Drive to left or to right by rotating housing
- Specially designed to be extra short to help machinery users meet trailer width restrictions

Model EFD-GR (or EFD-GI) Fluid Drive with Gearbox



Diesel Engine Driven. Motor Driven
Versions Available. Specify:

- Application and duty cycle
- Engine manufacturer and model
- Maximum load power and maximum load speed
- Mounting arrangement preferred, foot or side

Note: Made with reducing speed gear (GR) or increasing speed gear (GI)

The Family of TRI Fluid Drive Products

Brochures for each Category are available

- ◆ **Model EFD or MFD Diesel Engine/Motor Driven Fluid Drives
to 4000 hp, to 3600 rpm**
- ◆ **Model RAH / RAV Variable Speed Fluid Drives
to 4000 hp, to 3600 rpm**
- ◆ **Model RBH / RBV Variable Speed Fluid Drives
to 8000 hp, to 1800 rpm**
- ◆ **Model FH / FV Geared Variable Speed Fluid Drives
to 40,000 hp, to 20,000 rpm**

**E=Engine M=Motor F=Oil Film Bearings R=Rolling Element Bearings
H=Horizontal Shaft V=Vertical Shaft**

**Contact TRI for more information and for name of sales representative
serving your product or geographical area**

America's leader in the technological advancement of high powered fluid drives since 1973