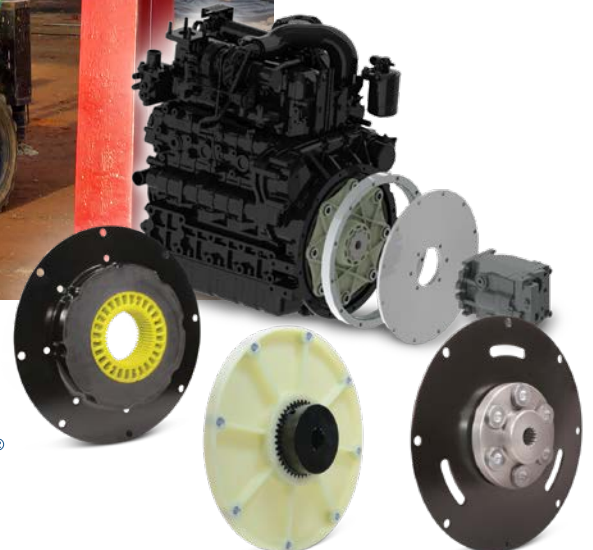




**Flywheel  
Drive  
Couplings  
& Engine  
Pump  
Mounts**



## Why Choose Guardian?

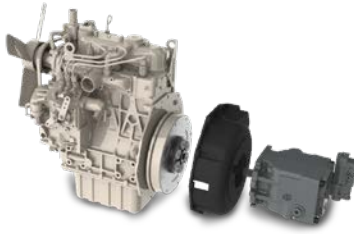
For more than 70 years, Guardian has been designing and manufacturing world-class couplings and other power transmission components. Utilizing advanced manufacturing technologies and processes, Guardian provides highly-reliable coupling and component solutions to meet the most challenging industrial application requirements.

Guardian provides a wide range of standard and custom products including flywheel couplings, hydraulic pump mounts, bearing supported stub shafts, flexible shaft-to-shaft couplings, motion control couplings as well as compression pipe couplings.

Durable Guardian products are utilized in key industries including mobile hydraulics, farm & ag, tree care, concrete, food & beverage, material handling, automation, power generation, and oil & gas on applications such as skid steers, aerial lifts, harvesters, wood chippers, concrete pumps, dewatering pumps, baggage handlers, conveyors, robotics, compressors, and generator sets.



# GUARDIAN FLYWHEEL COUPLINGS & PUMP MOUNTS



## Engine Housing Pump Mounts

Guardian's engine housings are designed for both gas and diesel engine applications including, but not limited to, generators, compressors, small gear boxes, and bearing supports.

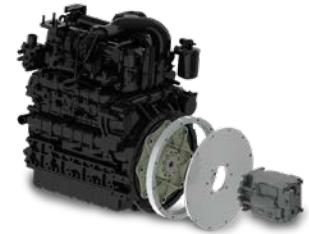
- Allow a direct connection to the hydraulic pump
- Castings are manufactured from aluminum, gray iron and ductile iron
- Castings are precision machined to strict tolerances on state of the art CNC equipment
- Provide an accurate alignment between the engine and the pump
- Reduce premature failure of the drive coupling
- Can be used on engines such as: Cummins, Deutz, Ford, FPT, GM, Hatz, Hyundai, Isuzu, JCB, Kubota, Lombardini, Nissan, Perkins, Wisconsin, and Yanmar



## Bearing Supported Stub Shafts

Guardian offers a full line of bearing supported stub shafts. These set-ups can minimize the side load generated by the pulley belt, and transferred back into the engine.

- Can be fitted with one of Guardian's pump mounting plates or engine housings to connect to a variety of engine housings and back plates
- Selection of output shafts include straight, threaded, tapered, and splined
- Can be customized for special lengths and diameters if required by the application
- Various shafting and stub shafts can be produced if no side loads are present



## Pump Mounting Plates, Spacers & Adaptors

The pump mounting plates are designed to mount SAE and metric pumps, but they can also be customized to fit a variety of other mounting requirements. All pump mounting plates come standard with a rust protective coating and are available in a variety of thicknesses.

- Manufactured from steel
- SAE sizes 1 thru 6 from stock
- SAE 0 & 00 available upon request

Guardian also offers SAE housing spacers and adaptors. With Guardian's in house machining capabilities, we can also produce an assortment of customized adaptors to suit a wide variety of mounting requirements.

- Manufactured in steel & aluminum
- SAE 0 thru 6 available
- Standard SAE spacers, single step adaptors, and double step adaptors are offered



## FLD

The FLD coupling enables a hydraulic pump to be driven from the pulley side of the engine.

- Features a retractable sleeve for easy belt replacement which allows you to service the equipment without removing the pump
- Fully customizable to suit a variety of engine manufacturers and designs



## FBA

The FBA coupling is a one piece, all steel drive coupling intended to be used with spline shafts only in hydraulic pump applications.

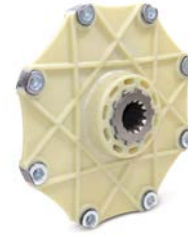
- Elastomeric grommets provide a steady dampening effect to normal engine vibrations, helping to minimize any side loading to the pump shaft
- Easy installation, no positioning of hubs
- Once the hydraulic pump is plugged into one of our mounting plates or housings, the pump assembly can be blind fitted into the coupling hub
- Pump spline lubrication is required
- Fits standard and non-standard SAE flywheel designs
- Can be used on applications up to 450HP



## FL

The FL is a two-piece flywheel coupling used on off-highway construction equipment such as skid steer loaders, aerial lifts, excavators, and many other mobile hydraulic applications. Not only is the FL our oldest product line, it is our most economical design with decades of proven success in the field.

- Consists of a glass reinforced nylon flywheel flange that will fit both SAE and metric flywheels
- Mating hub is produced from sintered steel and can be used on both splined and straight shafts
- Considered a torsionally stiff design and does not require lubrication
- Interchangeable to other popular coupling brands



## DELTA Series

The DELTA Series flexible coupling line is designed for use on diesel-driven hydrostatic machinery and construction equipment for demanding applications on the latest tier engines.

- Cost effective, single-piece design incorporates a splined and hardened steel hub pre-assembled into glass-fiber reinforced flange
- Elastomeric grommets provide a steady dampening effect to normal engine vibrations
- Design allows equipment with low inertia to operate below the critical speed range
- Suited for accurately aligned drives that minimize misalignments
- Accommodates small angular, parallel, and axial misalignments typical to piloted flange connections
- Can achieve torque capacities of up to 6,130 IN-LBS nominally



## NV Series

The NV Series flexible coupling line is for use on diesel-driven and hydrostatic machinery to provide maximum vibration dampening from a torsionally soft coupling.

- Single-piece design incorporates a cast iron hub and a steel back plate with molded rubber
- Acts as a mechanical fuse, providing protection and dampening for lower driven inertias
- Works specifically with the Kubota Super Mini Series and O5 Series engines, but also accommodates standard SAE size flywheels from SAE 6.5 through SAE 10
- Accommodates small angular, parallel, and axial misalignments typical to piloted flange connections
- Suited for accurately aligned drives that minimize misalignments
- Can achieve torque capacities of up to 1,524 IN-LBS nominally



## Guard-Flex®

The Guard-Flex is a torsionally soft, vibration dampening coupling with an in shear design that will offer protection to both our engine and driven equipment when higher inertias are present. Ideal applications include rotary screw compressors, centrifugal pumps, blowers, generators, and hydraulic pumps

- Acts as a mechanical fuse in the event of an overload condition
- Designed to fail through the rubber and shear
- Three elastomers are available from stock to provide the proper dampening and stiffness
- The Guard-Flex rubber is offered in 45, 55, and 65 shore A durometers
- Incorporates axial, radial, and angular misalignment to help reduce forces to the driven equipment
- Fits applications with a SAE 7.5 through SAE 11.5 flywheel, and is rated up to 82 HP



## FH

The FH is a coupling with progressive characteristics where the dynamic torsional stiffness is enhanced with increasing coupling load. This type of coupling gives a distinct advantage in installations where a wide speed range is required, and where the torque increases with speed.

- Relatively low torsional stiffness that places the critical speed below the operational speed of the system
- Intended for higher inertia loads such as a compressor, centrifugal pump, blower, and generator
- Fit all SAE flywheels from SAE 7.5 through SAE 18
- Variable durometer inserts can provide torque capacities up to 88,500 IN-LBS

## Guardian Couplings Facilities

### North America

#### USA

300 Indiana Highway 212  
Michigan City, IN 46360  
219-874-5248

*Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings*

### Europe

#### United Kingdom

Merchant Drive, Hertford  
Hertfordshire SG13 7BL - England  
+44(0)1992 501900

*Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings*

## The Brands of Altra Motion

### Couplings

**Ameridrives**  
[www.ameridrives.com](http://www.ameridrives.com)

**Bibby Turboflex**  
[www.bibbyturboflex.com](http://www.bibbyturboflex.com)

**Guardian Couplings**  
[www.guardiancouplings.com](http://www.guardiancouplings.com)

**Huco**  
[www.huco.com](http://www.huco.com)

**Lamiflex Couplings**  
[www.lamiflexcouplings.com](http://www.lamiflexcouplings.com)

**Stromag**  
[www.stromag.com](http://www.stromag.com)

**TB Wood's**  
[www.tbwoods.com](http://www.tbwoods.com)

### Linear Systems

**Thomson**  
[www.thomsonlinear.com](http://www.thomsonlinear.com)

**Warner Linear**  
[www.warnerlinear.com](http://www.warnerlinear.com)

### Geared Cam Limit Switches

**Stromag**  
[www.stromag.com](http://www.stromag.com)

### Engineered Bearing Assemblies

**Kilian**  
[www.kilianbearings.com](http://www.kilianbearings.com)

### Electric Clutches & Brakes

**Matrix**  
[www.matrix-international.com](http://www.matrix-international.com)

**Stromag**  
[www.stromag.com](http://www.stromag.com)

**Warner Electric**  
[www.warnerelectric.com](http://www.warnerelectric.com)

**Deltran**  
[www.thomsonlinear.com](http://www.thomsonlinear.com)

### Belted Drives

**TB Wood's**  
[www.tbwoods.com](http://www.tbwoods.com)

### Heavy Duty Clutches & Brakes

**Twiflex**  
[www.twiflex.com](http://www.twiflex.com)

**Stromag**  
[www.stromag.com](http://www.stromag.com)

**Svendborg Brakes**  
[www.svendborg-brakes.com](http://www.svendborg-brakes.com)

**Wichita Clutch**  
[www.wichitaclutch.com](http://www.wichitaclutch.com)

### Gearing & Specialty Components

**Bauer Gear Motor**  
[www.bauergears.com](http://www.bauergears.com)

**Boston Gear**  
[www.bostongear.com](http://www.bostongear.com)

**Delevan**  
[www.delevan.com](http://www.delevan.com)

**Delroyd Worm Gear**  
[www.delroyd.com](http://www.delroyd.com)

**Nuttall Gear**  
[www.nuttallgear.com](http://www.nuttallgear.com)

### Engine Braking Systems

**Jacobs Vehicle Systems**  
[www.jacobsvehiclesystems.com](http://www.jacobsvehiclesystems.com)

### Precision Motors, Drives & Controls

**Kollmorgen**  
[www.kollmorgen.com](http://www.kollmorgen.com)

### Miniature Motors

**Portescap**  
[www.portescap.com](http://www.portescap.com)

### Overrunning Clutches

**Formsprag Clutch**  
[www.formsprag.com](http://www.formsprag.com)

**Marland Clutch**  
[www.marland.com](http://www.marland.com)

**Stieber**  
[www.stieberclutch.com](http://www.stieberclutch.com)

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