



Flywheel Drive Couplings & Engine Pump Mounts

 **Guardian**[®]
Couplings
An Altra Industrial Motion Company



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.

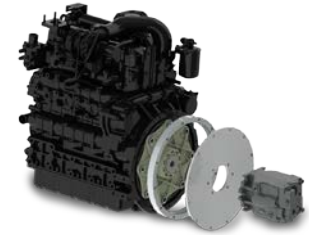
GUARDIAN FLYWHEEL COUPLINGS & PUMP MOUNTS



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



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



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



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.

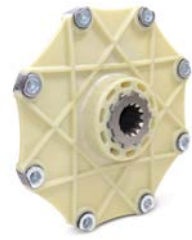
- Elastomeric grommets provide a steady dampening effect to normal engine vibrations, helping to minimize any side loading to the pump shaft
- Easy installation, no positioning of hubs
- Once the hydraulic pump is plugged into one of our mounting plates or housings, the pump assembly can be blind fitted 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 05 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

<p>Belted Drives and Sheaves</p> <p>TB Wood's <i>Belted Drives</i> Chambersburg, PA - USA 1-888-829-6637 – Press #5 <i>For application assistance:</i> 1-888-829-6637 – Press #7</p> <p>Couplings</p> <p>Ameridrives Couplings <i>Mill Spindles, Ameriflex, Ameridisc</i> Erie, PA - USA 1-814-480-5000 <i>Gear Couplings</i> San Marcos, TX - USA 1-800-458-0887</p> <p>Ameridrives Power Transmission <i>Universal Joints, Drive Shafts, Mill Gear Couplings</i> Green Bay, WI - USA 1-920-593-2444</p> <p>Bibby Turboflex <i>Disc, Gear, Grid Couplings, Overload Clutches</i> Dewsbury, England +44 (0) 1924 460801 Boksburg, South Africa +27(0) 11 918 4270</p> <p>Guardian Couplings <i>Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings</i> Michigan City, IN - USA 1-219-874-5248</p> <p>Huco Dynatork <i>Precision Couplings and Air Motors</i> Hertford, England +44 (0) 1992 501900 Chambersburg, PA - USA 1-888-829-6637</p>	<p>Couplings Cont.</p> <p>Lamiflex Couplings <i>Flexible Couplings, Bearing Isolators, and Coupling Guards</i> Cotia, SP - Brasil +55 (11) 4615-6300</p> <p>TB Wood's <i>Elastomeric Couplings</i> Chambersburg, PA - USA 1-888-829-6637 – Press #5 <i>For application assistance:</i> 1-888-829-6637 – Press #7 <i>General Purpose Disc Couplings</i> San Marcos, TX - USA 1-888-449-9439</p> <p>Electromagnetic Clutches and Brakes</p> <p>Inertia Dynamics <i>Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes</i> New Hartford, CT - USA 1-800-800-6445</p> <p>Matrix International <i>Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes</i> Brechin, Scotland +44 (0) 1356 602000 New Hartford, CT - USA 1-800-825-6544</p> <p>Warner Electric <i>Electromagnetic Clutches and Brakes</i> New Hartford, CT - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-825-9050 Saint Barthélemy d'Anjou, France +33 (0)2 41 21 24 24 <i>Precision Electric Coils and Electromagnetic Clutches and Brakes</i> Columbia City, IN - USA 1-260-244-6183</p>	<p>Engineered Bearing Assemblies</p> <p>Kilian Manufacturing <i>Engineered Bearing Assemblies</i> Syracuse, NY - USA 1-315-432-0700</p> <p>Gearing</p> <p>Bauer Gear Motor <i>Geared Motors</i> Esslingen, Germany +49 (711) 3518-0 Somerset, NJ - USA 1-732-469-8770</p> <p>Boston Gear <i>Enclosed and Open Gearing, Electrical and Mechanical P.T. Components</i> Charlotte, NC - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-816-5608</p> <p>Nuttall Gear and Delroyd Worm Gear <i>Worm Gear and Helical Speed Reducers</i> Niagara Falls, NY - USA 1-716-298-4100</p> <p>Heavy Duty Clutches and Brakes</p> <p>Industrial Clutch <i>Pneumatic and Oil Immersed Clutches and Brakes</i> Waukesha, WI - USA 1-262-547-3357</p> <p>Svendborg Brakes <i>Industrial Brakes and Brake Systems</i> Vejstrup, Denmark +45 63 255 255</p> <p>Twiflex Limited <i>Caliper Brakes and Thrusters</i> Wichita Falls, TX - USA 1-844-723-3483 Twickenham, England +44 (0) 20 8894 1161</p>	<p>Heavy Duty Clutches and Brakes Cont.</p> <p>Wichita Clutch <i>Pneumatic Clutches and Brakes</i> Wichita Falls, TX - USA 1-800-964-3262 Bedford, England +44 (0) 1234 350311</p> <p>Linear Products</p> <p>Warner Linear <i>Linear Actuators</i> Belvidere, IL - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-825-9050 Saint Barthélemy d'Anjou, France +33 (0)2 41 21 24 24</p> <p>Overrunning Clutches</p> <p>Formsprag Clutch <i>Overrunning Clutches and Holdbacks</i> Warren, MI - USA 1-800-348-0881 – Press #1 <i>For application assistance:</i> 1-800-348-0881 – Press #2</p> <p>Marland Clutch <i>Roller Ramp and Sprag Type Overrunning Clutches and Backstops</i> South Beloit, IL - USA 1-800-216-3515</p> <p>Stieber Clutch <i>Overrunning Clutches and Holdbacks</i> Heidelberg, Germany +49 (0) 6221-30470</p> <p><i>For information concerning our sales offices in Asia Pacific check our website www.altramotion.com.cn</i></p>
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While Guardian Industries makes every effort to ensure the accuracy of the information provided, we make no warranty as to the accuracy or completeness of said information.



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