

Guardian Couplings I DELTA Series



ABOUT GUARDIAN COUPLINGS

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.



ALTRA COUPLINGS

Altra Couplings offers the largest selection of industrial couplings available from a single source...worldwide. For over 150 years, TB Wood's, Ameridrives, Bibby Turboflex, Lamiflex, Ameridrives Power Transmission, Guardian and Huco, the industry-leading brands of Altra Couplings have been providing innovative coupling solutions to meet the requirements for a broad variety of drivetrain applications spanning many industries including energy, metals, mining, oil & gas, and food processing. Highly-engineered Altra coupling products represent the latest in coupling technology, featuring superior design and exceptional quality to ensure long-lasting performance in all types of environments.

www.guardiancouplings.com P-7719-GC 1/16



APPLICATIONS

Guardian Industries has introduced the DELTA Series flexible coupling line for use on diesel-driven hydrostatic machinery and construction equipment. The cost effective DELTA single-piece design incorporates a splined and hardened steel hub that is pre-assembled into the glass-fiber reinforced flange. The DELTA coupling attaches to the engine flywheel, taking advantage of elastomeric grommets that provide a steady dampening effect to normal engine vibrations. Although the coupling incorporates rubber bushings for dampening, it is relatively stiff which allows equipment with low inertia to operate below the critical speed range.

This coupling is suited for accurately aligned drives that minimize misalignments. The DELTA Series is able to accommodate small angular, parallel, and axial misalignments that are typical to piloted flange connections. The DELTA series couplings can achieve torque capacities of up to 6,130 IN-LBS nominally. These high performance couplings are designed for demanding applications on the latest tier engines.

FEATURES & ADVANTAGES

Accepts Straight & Splined Shafts

The DELTA series steel hub can be manufactured with a straight bore and keyway with set screw retention for the straight pump shaft demands. A spline shaft connection is also acceptable and incorporates a "plugin" design.

Single Piece Design

The DELTA's single piece design eliminates extra fasteners and reduces installation costs for blind splined-shaft set-ups. (Straight shaft connections consist of a two piece design).

Environment

This lightweight coupling is oil resistant and will provide a long service life in temperatures of -40 to 212 degrees Fahrenheit.

Reduced Spline Fretting

Elastomeric grommets absorb shock loading and reduce transmitted vibration – two major factors that contribute to pump spline fretting.

Minimum Maintenance Required

The splined and hardened alloy steel hub is greased at assembly with lithium based grease that enables extended service intervals in service conditions up to 212 degrees Fahrenheit.

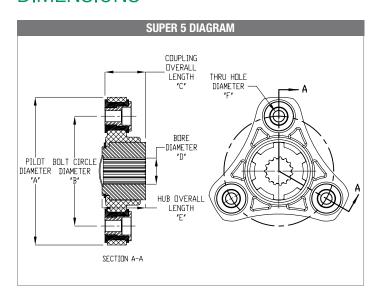
Economical Solution

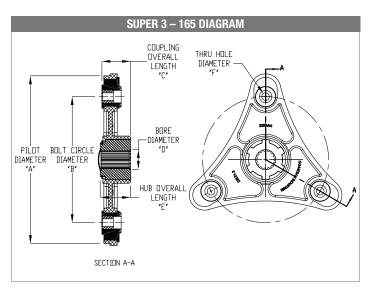
The DELTA series by Guardian is an affordable way to provide higher torque ratings from our traditional designs, while benefiting from its dampening capabilities.

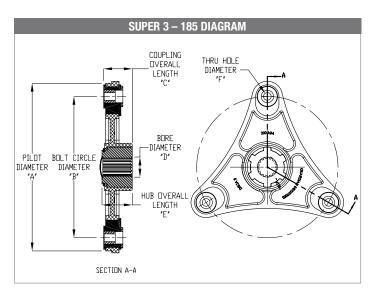
Limited configurations are currently available. Guardian is currently expanding the DELTA Series to service our customer's requests. Please give us a call today to discuss your application.

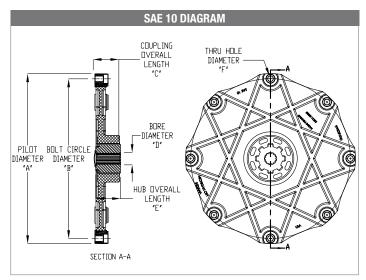


DIMENSIONS









| | A | В | С | D | | E | F | | |
|--------------|-----------------------|-------------------------|-------------------|---------------|--------|-------------|-------------------|----------------|--|
| Series | Outer Diameter | Bolt Circle Diameter | Overall Length | Bore Diameter | | Hub Overall | # of Bolt Holes/ | # of Hub Teeth | |
| | | | | Min | Max | Length | Diameter | | |
| SUPER 5 | 5.315" (135 MM) | 3.937" (100 MM) | 1.457" | .50" | 1.250" | 1.562" | 3X / .394" (10MM) | 6 | |
| SUPER 3 -165 | 8.661" (220 MM) | 6.496" (165 MM) | 1.475" | .50" | 1.250" | 1.562" | 3X / .472" (12MM) | 6 | |
| SUPER 3 -185 | 8.661" (220 MM) | 7.283" (185 MM) | 1.475" | .50" | 1.250" | 1.562" | 3X / .394" (10MM) | 6 | |
| SAE 10 - SD | 12.375" (314. 3MM) | 11.625" (295 MM) | 1.868" | .754" | 1.250" | 1.813" | 8X / .394" (10MM) | 8 | |
| SAE 10 - HD | 12.375" (314.3 MM) | 11.625" (295 MM) | 1.970" | .877" | 1.750" | 2.125" | 8X / .394" (10MM) | 10 | |

www.guardiancouplings.com P-7719-GC 1/16

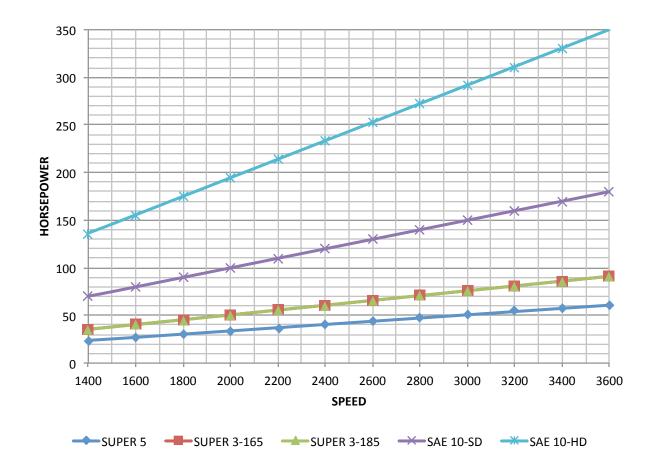
TECHNICAL DATA

| | Nominal | Maximum | | Misaliç | Temperature | |
|---------------|----------|----------|---------------|----------|-------------|------------------|
| Series | Torque** | Torque** | HP @ 1800 RPM | Parallel | Axial | Range |
| | IN-LBS | IN-LBS | | INCHES | INCHES | DEGREES |
| SUPER 5 | 1,065 | 2,663 | 30 | .008 | +/030 | |
| SUPER 3 - 165 | 1,595 | 3,987 | 45 | .008 | +/030 | |
| SUPER 3 - 185 | 1,595 | 3,987 | 45 | .008 | +/030 | -40° F TO 212° F |
| SAE 10 - SD | 3,150 | 7,875 | 90 | .008 | +/030 | |
| SAE 10 - HD | 6,130 | 15,325 | 175 | .008 | +/030 | |

^{*} The DELTA Series is able to accommodate small angular, parallel, and axial misalignments that are typical to piloted flange connections only. The Delta Series is not recommended for applications that have excessive angular misalignment.

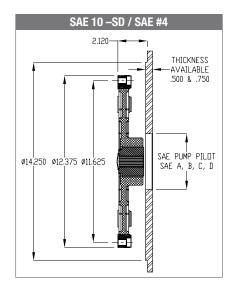
TEMPERATURE SERVICE FACTORS

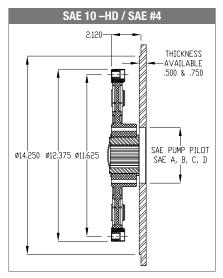
| -40° F | 0° F | 73° F | 125° F | 160° F | 212° F |
|--------|------|-------|--------|--------|--------|
| 1.50 | 1.30 | 1.00 | 1.30 | 1.50 | 1.95 |

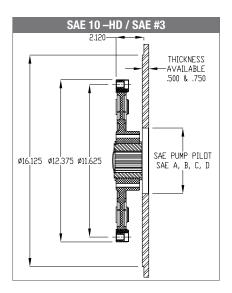


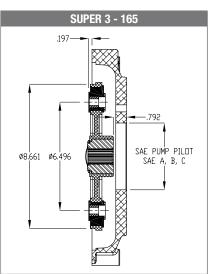
^{**}The torque values listed are for ambient temperatures. Torque capacities may be reduced at lower and higher temperatures within the -40° F to 212° F temperature range listed. Please review temperature service factors.

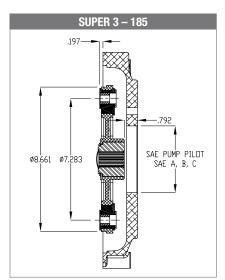
ASSEMBLY CONFIGURATIONS

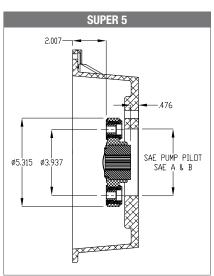












Note: Super Kubota Super 3 & Super 5 configurations are available in both aluminum and cast iron pump mount

designs.







www.guardiancouplings.com P-7719-GC

Altra Couplings

Offers the Largest Selection of Industrial Couplings Available from a Single Source...Worldwide

The industry-leading brands of Altra Couplings, TB Wood's, Huco Dynatork, Bibby Turboflex, Ameridrives Power Transmission, Ameridrives Couplings, Guardian Couplings and Lamiflex Couplings, have been providing innovative coupling solutions to meet the requirements for a broad variety of applications spanning many industries. Highly engineered Altra coupling products represent the latest in coupling technology, featuring superior design and exceptional quality to ensure long-lasting performance in all types of environments.

www.AltraCouplings.com



Elastomeric Couplings

TB Wood's **Bibby Turboflex Guardian Couplings**



Grid & Gear Couplings

Bibby Turboflex Ameridrives Couplings



Coupling Guards & Bearing Isolators

Lamiflex Couplings



Gear Spindles

Ameridrives Couplings



Universal Joints

Ameridrives Power Transmission



Torque Limiters

Bibby Turboflex



Precision Couplings

Huco Dynatork Guardian Couplings



Locking Devices

Ameridrives Couplings



Flywheel Couplings, Engine Housings & Pump Mounts

Guardian Couplings TB Wood's



High Performance Disc & Diaphragm Couplings

Ameridrives Couplings Bibby Turboflex Lamiflex Couplings



General Purpose Disc Couplings

TB Wood's **Ameridrives Couplings Bibby Turboflex Lamiflex Couplings**

Altra Industrial Motion

All Customer Service phone numbers shown in bold

Belted Drives and Sheaves

TB Wood's

Belted Drives

Chambersburg, PA - USA 1-888-829-6637 – Press #5

For application assistance: 1-888-829-6637 — Press #7

Couplings

Ameridrives Couplings

Mill Spindles, Ameriflex, Ameridisc

Erie, PA - USA 1-814-480-5000

Gear Couplings

San Marcos, TX - USA 1-800-458-0887

Ameridrives Power Transmission

Universal Joints, Drive Shafts, Mill Gear Couplings

Green Bay, WI - USA 1-920-593-2444

Bibby Turboflex

Disc, Gear, Grid Couplings, Overload Clutches

Dewsbury, England +44 (0) 1924 460801

Boksburg, South Africa +27(0) 11 918 4270

Guardian Couplings

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

Michigan City, IN - USA 1-219-874-5248

Huco Dynatork

Precision Couplings and Air Motors

Hertford, England +44 (0) 1992 501900

Chambersburg, PA - USA **1-888-829-6637**

Couplings Cont.

Lamiflex Couplings

Flexible Couplings, Bearing Isolators, and Coupling Guards Cotia, SP - Brasil +55 (11) 4615-6300

TB Wood's

Elastomeric Couplings Chambersburg, PA - USA 1-888-829-6637—Press #5

For application assistance: 1-888-829-6637 — Press #7

General Purpose Disc Couplings

San Marcos, TX - USA 1-888-449-9439

Electromagnetic Clutches and Brakes

Inertia Dynamics

Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes New Hartford, CT - USA 1-800-800-6445

Matrix International

Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes

Brechin, Scotland +44 (0) 1356 602000

New Hartford, CT - USA 1-800-825-6544

Warner Electric

Electromagnetic Clutches and Brakes

New Hartford, CT - USA 1-800-825-6544

For application assistance: 1-800-825-9050

Saint Barthélémy d'Anjou, France +33 (0)2 41 21 24 24

Precision Electric Coils and Electromagnetic Clutches and Brakes

Columbia City, IN - USA 1-260-244-6183

Engineered Bearing Assemblies

Kilian Manufacturing

Engineered Bearing Assemblies

Syracuse, NY - USA 1-315-432-0700

Gearing

Bauer Gear Motor

Geared Motors
Esslingen, Germany
+49 (711) 3518-0

Somerset, NJ - USA 1-732-469-8770

Boston Gear

Enclosed and Open Gearing, Electrical and Mechanical P.T. Components

Charlotte, NC - USA 1-800-825-6544

For application assistance: 1-800-816-5608

Nuttall Gear and Delroyd Worm Gear

Worm Gear and Helical Speed Reducers Niagara Falls, NY - USA 1-716-298-4100

Heavy Duty Clutches and Brakes

Industrial Clutch

Pneumatic and Oil Immersed Clutches and Brakes Waukesha, WI - USA 1-262-547-3357

Svendborg Brakes

Industrial Brakes and Brake Systems

Vejstrup, Denmark +45 63 255 255

Twiflex Limited

Caliper Brakes and Thrusters
Wichita Falls, TX - USA
1-844-723-3483
Twickenham, England
+44 (0) 20 8894 1161

Heavy Duty Clutches and Brakes Cont.

Wichita Clutch

Pneumatic Clutches and Brakes

Wichita Falls, TX - USA 1-800-964-3262 Bedford, England +44 (0) 1234 350311

Linear Products

Warner Linear

Linear Actuators Belvidere, IL - USA 1-800-825-6544

For application assistance: 1-800-825-9050

Saint Barthélémy d'Anjou, France +33 (0)2 41 21 24 24

Overrunning Clutches

Formsprag Clutch

Overrunning Clutches and Holdbacks

Warren, MI - USA 1-800-348-0881- Press #1

For application assistance: 1-800-348-0881 — Press #2

Marland Clutch

Roller Ramp and Sprag Type Overrunning Clutches and Backstops

South Beloit, IL - USA 1-800-216-3515

Stieber Clutch

Overrunning Clutches and Holdbacks

Heidelberg, Germany +49 (0) 6221-30470

For information concerning our sales offices in Asia Pacific check our website www.altramotion.com.cn

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.



www.guardiancouplings.com