G-Flex
The Original Bibby Grid Coupling

TB Wood’s
Altra Industrial Motion
TB Wood's

TB Wood’s is an industry leading designer and manufacturer of mechanical power transmission equipment for industrial control. Our mechanical product lines include: clutch and brake, synchronous and belted variable speed drives; grid, disc, jaw, gear coupling and elastomeric coupling products; sheaves and bushings. Registered trademarks include Sure-Flex Plus®, Dura-Flex®, G-Flex®, and Sure-Grip®.

TB Wood’s was founded in 1857 and began as a foundry producing wood burning stoves. Our company’s tradition of product innovation started early. TB Wood’s entered the power transmission industry at the turn of the century with the introduction of flat belted drives and line shafting.

VISIT US ON THE WEB AT TBWOODS.COM

Altra Industrial Motion

Altra is a leading global designer and manufacturer of quality power transmission and motion control products utilized on a wide variety of industrial drivetrain applications. Altra clutches and brakes, couplings, gearing and PT component product lines are marketed under the industries most well known manufacturing brands. Each brand is committed to the guiding principles of operational excellence, continuous improvement and customer satisfaction. Highly-engineered Altra solutions are sold in over 70 countries and utilized in a variety of major industrial markets, including food processing, material handling, packaging machinery, mining, energy, automotive, primary metals, turf and garden and many others.

Altra’s leading brands include Ameridrives, Bauer Gear Motor, Bibby Turboflex, Boston Gear, Delroyd Worm Gear, Formsprag Clutch, Guardian Couplings, Huco, Industrial Clutch, Inertia Dynamics, Kilian, Lamiflex Couplings, Marland Clutch, Matrix, Nuttall Gear, Stieber, Stromag, Svendborg Brakes, TB Wood’s, Twiflex, Warner Electric, Warner Linear and Wichita Clutch.

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TB Wood’s Taper Grid Resilient Couplings

Series 1000T10 and Series 1000T20

Dr James Bibby originally invented the Resilient Coupling in 1917 and the 1000 Series is the latest level of this well accepted product. This Bibby Transmissions product has become universally accepted where reliable protection against shaft misalignment and vibration is desirable.

Since those early days refinements in design and material specifications have kept pace with advancing technology, achieving significant improvements in power/weight ratios.

TB Wood’s is proud to offer this proven product.

**1000T10**
- Horizontally Split Cover
- General purpose
- Easy access to grid minimizes downtime
- Ideal for limited space applications
- Stop lug in cover prevents spinning during reversing service

**1000T20**
- Vertically Split Cover
- General purpose
- Ideal for higher running speeds

**High Performance**
The TB Wood’s Taper Grid Coupling continues that tradition. The tapered grid is made from high tensile alloy steel which is carefully formed to the grid shape before hardening and tempering under controlled conditions. The grid surface is then shot-peened. This process leaves the grid spring with a residually stressed surface layer which is in compression and which impedes the propagation of cracks. Since nearly all fatigue and stress corrosion failures originate at the surface of a part, the layer of compressive stress induced by shot-peening produces a dramatic increase in the working life and fatigue strength of the grid. This technological improvement in manufacturing process coupled with precise monitoring of raw material specification and control of trapezoidal shape, permits TB Wood’s to offer state of the art grid springs of high performance and reliability.

**Scientific Design**
The hub is precision manufactured from high quality materials, with the hub tooth profile scientifically designed to permit progressive loading under torsional shock conditions. The combination of tapered grid and precision manufactured hub provides easy assembly. The excellent shock absorption characteristics, and the ability to accommodate misalignment protects the connected equipment.

**Long Life**
While the coupling is designed for long life under tough conditions, maintenance and taper grid replacement can be performed quickly and easily without the need to move and realign connected equipment. Two cover design options are available in the TB Wood’s range of couplings. Both designs have been carefully engineered to provide a shaft coupling which is highly reliable and easy to install.
**Principle of Operation**

Positive protection against the damaging effects of shock loads, impact loads and vibration.

The grid is torsionally flexible. The circumferential flexibility is progressive due to the curved profile of the grooves — “state-of-the-art” in resilient coupling design.

**Accommodating Shaft Misalignment and End-Float**

The grid will accommodate combinations of misalignments present at set-up or occurring during machine displacement, settlement etc.

**Effectiveness of Torsional Damping**

As the grid coupling transmits torque, the flexing of the tapered grid spring dampens vibrations and cushions shock loads.

This unique characteristic is due to the torsional flexibility of the coupling being proportionate to the unsupported length of each flexible grid rung. The resultant reduction in peak loading protects and extends the life of the transmission equipment.

**Versatile Design**

Both 1000T10 and 1000T20 couplings feature identical hubs and grid springs, the different cover styles provide great versatility — one is horizontally split, the other is vertically split.

All coupling components are designed to be interchangeable with other taper grid couplings. The stock coupling can be used vertically or horizontally without modification.

**Easy Installation and Maintenance**

The grid springs are easily installed by hand or with a soft mallet. The cover fasteners can be tightened with standard wrenches. Every TB Wood’s coupling is delivered with detailed installation instructions. Periodic lubrication of the coupling is required and each cover half is supplied with standard plugs which can be easily removed for re-lubrication.

**Recommended Fits between Shafts and Hubs**

Coupling bore tolerances for sizes up to and including 1090T can be specified to suit a clearance fit with the shaft. In these instances the hub is provided with set screws. Relative positions are given in the following table.

For sizes above 1090T or where interference fits are preferred for smaller coupling sizes, bore tolerances will be consistent with AGMA standards.

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**Series 1000T10**

**Horizontally Split Cover Couplings**

**Dimensions**

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<th>MAX BORE (IN)</th>
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* Coupling weight and WR² with no bore
** Max. bore is for hub with keyway for rectangular key

*Other couplings available are spacer and half spacer models.*
### Series 1000T20
Vertically Split Cover Couplings

#### Dimensions

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* Coupling weight and WR² with no bore
** Max. bore is for hub with keyway for rectangular key
OTHER PRODUCT SOLUTIONS FROM
ALTRA INDUSTRIAL MOTION

Our comprehensive product offerings include various types of clutches and brakes, overrunning clutches, engineered bearing assemblies, gearing and gear motors along with linear products, belted drives, couplings and limit switches. With thousands of product solutions available, Altra provides true single source convenience while meeting specific customer requirements. Many major OEMs and end users prefer Altra products as their No. 1 choice for performance and reliability.

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Inertia Dynamics
Matrix
Stromag
Warner Electric

HEAVY DUTY CLUTCHES AND BRAKES
Industrial Clutch
Stromag
Svendborg Brakes
Twi-flex
Wichita Clutch

OVERRUNNING CLUTCHES
Formsprag Clutch
Marland Clutch
Stieber

ENGINEERED COUPLINGS AND UNIVERSAL JOINTS
Ameridrives
Bibby Turboflex
Guardian Couplings
Huco
Lami-flex Couplings
Stromag
TB Wood’s

GEAR DRIVES
Bauer Gear Motor
Boston Gear
Delroyd Worm Gear
Nuttall Gear

GEAR MOTORS
Bauer Gear Motor

POWER TRANSMISSION COMPONENTS
LINEAR ACTUATORS AND CONTROLS
Warner Linear

ENGINEERED BEARING ASSEMBLIES
Kilian

AIR MOTORS
Huco

BELTED DRIVES AND SHEAVES
TB Wood’s

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Stromag

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- Matrix www.matrix-international.com
- Stromag www.stromag.com
- Warner Electric www.warnerelectric.com

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- Kilian www.kilianbearings.com

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- Twiflex www.twiflex.com
- Stromag www.stromag.com
- Svendborg Brakes www.svendborg-brakes.com
- Wichita Clutch www.wichitACLutch.com

Belted Drives
- TB Wood’s www.tbwoods.com

Gearing
- Bauer Gear Motor www.bauergears.com
- Boston Gear www.bostongear.com
- Delroyd Worm Gear www.delroymotor.com
- Nuttall Gear www.nuttallgear.com

Overrunning Clutches
- Formsprag Clutch www.formsprag.com
- Marland Clutch www.marland.com
- Stieber www.stieberclutch.com

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