# **Ameriflex® Diaphragm Couplings** High Speed, High Performance Design





An Altra Industrial Motion Company

## **Diaphragm Couplings**

Since its introduction in 1971, the Ameriflex multiple convoluted diaphragm coupling has continued to set new standards for life and reliability in high performance machinery applications. Today, by using the latest design and manufacturing technology, Ameridrives Couplings is able to offer increased diaphragm coupling performance without compromising this outstanding reliability.

Advanced analysis and manufacturing processes have produced increased ratings without reducing safety factors. The use of the latest finite element analysis methods verified by strain gage and dynamic testing has allowed for a more precise calculation of the Ameriflex diaphragm stresses.

Using state-of-the-art manufacturing processes, we have developed our new INTEGRAL FILLER diaphragm pack The INTEGRAL FILLER diaphragm allows for greater design flexibility. The number and thickness of diaphragms and the diaphragm stress distribution are optimized while maintaining the traditional benefits of thin, separated, multiple convoluted diaphragms. Combining and optimizing the ratio of the steady state and dynamic stresses of the diaphragm allows for increased continuous torque capacity while maintaining infinite life design.

Ameridrives International Coupling Products









In addition, the Ameriflex coupling is now provided with 15-5 PH stainless steel as standard diaphragm material. This is the same material used in our most critical military marine propulsion and aircraft applications.

These technologies allow for increased versatility in Ameriflex coupling design. Users may now choose the coupling best suited for their application. Direct interchangeability is maintained with previously supplied Ameriflex couplings.

The INTEGRAL FILLER diaphragms permit increased torque capacity without compromising Ameridrives Couplings' standard conservative design practices. Safety factors are consistent and are not changed based on service or application factor, such as those specified by API-671.

Ameriflex Couplings have infinite life at catalog ratings without the use of a minimum application factor.

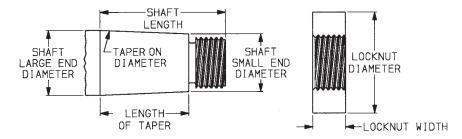
The design of the Ameriflex coupling enables the user to reliably compensate for the increased demands of high performance turbomachinery. The inherent low axial and bending stiffness of the multiple convoluted diaphragm reduces bearing loads, which can increase equipment life.

Ameridrives Couplings is committed to customer satisfaction. Let our team provide a flexible coupling for your important application.

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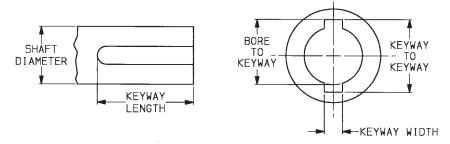
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## **Tapered Shaft Applications**



Shaft Data	Drive End	Driven End
Shaft Large End Diameter		
Shaft Small End Diameter		
Length of Taper		
Shaft Length		
Taper (in/ft) on Diameter		
Locknut Diameter		
Locknut Width		

### **Straight Shaft Applications**



Shaft Data	Drive End	Driven End
Shaft Diameter		
Keyway Length		
Keyway Width		
Bore to Keyway		
Keyway to Keyway		

This product will be selected based on the information supplied to Ameridrives Couplings by the Purchaser. Complete and accurate information will help to minimize errors and misapplications. Further, it is the responsibility of the Purchaser to assure the interface connection between couplings and connected equipment (flanges, bolting, keys, hydraulic fits, etc.), are capable of handling anticipated loads. Ameridrives Couplings will not be responsible for errors due to inaccurate or incomplete information supplied to Ameridrives Couplings nor does Ameridrives Couplings assume responsibility of the interface connection.

For further information and installation procedures, contact Ameridrives Couplings.

All Customer Service phone numbers shown in bold

Electromagnetic Clutches and Brakes

#### **Warner Electric**

Electromagnetic Clutches and Brakes

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

For application assistance: 1-800-825-9050

St Barthelemy 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

#### **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

#### **Inertia Dynamics**

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

1-800-800-6445

#### 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

Burr Ridge, IL - USA 1-800-216-3515

#### Stieber Clutch

Overrunning Clutches and Holdbacks

Heidelberg, Germany +49 (0) 6221 30 47 0

#### **Engineered Couplings**

#### **Ameridrives Couplings**

Mill Spindles, Ameriflex, Ameridisc

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

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

#### **Bibby Transmissions**

Disc, Gear, Grid Couplings, Overload Clutches

Dewsbury, England +44 (0) 1924 460801 Boksburg, South Africa +27 11 918 4270

#### 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

#### Ameridrives Power Transmission

Universal Joints, Drive Shafts, Mill Gear Couplings Green Bay, WI - USA 1-920-593-2444

#### **Huco Dynatork**

Precision Couplings and Air Motors

Hertford, England +44 (0) 1992 501900

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

#### Linear Products

#### **Warner Linear**

Linear Actuators

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

For application assistance: 1-800-825-9050

St Barthelemy d'Anjou, France +33 (0) 2 41 21 24 24

#### Heavy Duty Clutches and Brakes

#### **Wichita Clutch**

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

#### **Twiflex Limited**

Caliper Brakes and Thrusters Twickenham, England +44 (0) 20 8894 1161

#### **Industrial Clutch**

Pneumatic and Oil Immersed Clutches and Brakes

Waukesha, WI - USA 1-262-547-3357

#### Gearing

#### **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

#### **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

#### Engineered Bearing Assemblies

#### **Kilian Manufacturing**

Engineered Bearing Assemblies
Syracuse, NY - USA
1-315-432-0700

#### Asia Pacific Sales Offices

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For more information, or to contact authorized agents in Japan, Korea, India, or elsewhere in Asia Pacific, send an email to: ap@altramotion.com



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