



## **Engineered Shaft Locking Solutions™**

Since 1946, Climax Metal Products Company has grown into the leading source for engineered shaft locking solutions by providing outstanding customer service.

Climax shaft collars and rigid couplings have been used in a variety of applications in all major industries. In June 2011, Climax entered into an exclusive agreement with MAV S.p.A. of Bosentino, Italy to market and sell MAV's keyless locking devices in the North American market. MAV has been a worldwide leader in the design and manufacture of keyless locking devices and related products for over 30 years.

Climax shaft collars, rigid couplings and keyless locking devices are manufactured with unsurpassed quality and stocked by distributors throughout North America. Our manufacturing capabilities allow us to ensure timely deliveries for both cataloged items and specials that meet your specifications. We appreciate your interest.

**CLIMAX**  
METAL PRODUCTS COMPANY

**IBT**  
INDUSTRIAL SOLUTIONS™

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# SHAFT COLLARS

Shaft Collars are used to position or locate a component on a shaft. In addition, collars can be used to limit the travel of a shaft in reciprocating applications, or used as a spacer between components. Climax Metal Products Company provides a broad assortment of shaft collars to suit many customer applications. Climax collars fit imperial shaft sizes from 1/16" through 6". Metric shaft collars fit shaft sizes ranging from 2mm to 80mm. Shaft collars are made from mild steel, type 303 or 316 stainless steel, aluminum, or acetal. Steel collars are available in multiple finishes – black oxide, clear zinc, or yellow zinc dichromate



Set Screw	One-Piece	Two-Piece
Most economical collar design	Additional holding power over set screw collars	Additional holding power over one-piece collars
Single cup point set screw impinges on the shaft	Single recessed or non-recessed tangential screw does not mar the shaft	Two recessed or non-recessed tangential screws do not mar the shaft
Requires disassembly of shaft components upon replacement	Requires disassembly of shaft components upon replacement	Replace without major disassembly of other components

# RIGID COUPLINGS

Shaft couplings serve as components to time, join, or align shafts at lower speeds and torque, especially when zero backlash is desired. Climax Metal Products provides a broad assortment of rigid shaft couplings to suit many customer applications. Climax rigid couplings fit imperial shaft sizes from 1/4" to 2 1/4" and metric shaft sizes from 6mm to 50mm. Rigid couplings are made from mild steel with a black oxide finish or type 303 stainless steel. A limited selection of shaft couplings is offered using aluminum material. Couplings are manufactured with and without keyways. Step-bore couplings are also available to attach two shafts of differing sizes.



Shaft Adaptors allow for repairing, altering, extending, increasing or decreasing the current shaft. Step-Down Adaptors provide a step from a larger current shaft to a smaller one. Step-Up Adaptors couple a smaller shaft and extend to a larger one. They are easily installed and compatible with all standard round shafts.

Set Screw	One-Piece	Two-Piece
The most economical rigid coupling design	4 socket head cap screws provide holding power	8 socket head cap screws provide the holding power
Cup point set screws impinge the shaft provides the holding power	Additional holding power over set screw couplings	Additional holding power over one-piece
Available with 4 set screws for extra holding power	Requires disassembly of shaft components upon replacement	Install/Replace without disassembly of other shaft components
Requires disassembly of shaft components upon replacement		Re-machinable couplings available for economical custom bores

# KEYLESS LOCKING DEVICES

Keyless Locking Devices (KLDs) are mechanical bushings used to connect power transmission components onto rotating shafts. Without the use of keyways, KLDs eliminate the problems associated with backlash including fretting, corroding, and wallowing.

KLDs work with straight bores and generous tolerances, reducing component machining and complexity cost. In addition, KLDs are installed and removed using simple hand tools; no heat or high forces are required.

In June 2011, Climax entered an exclusive agreement with MAV S.p.A. of Bosentino, Italy to market and sell MAV's Keyless Locking Devices in the North American market. Perched on a hillside in the breathtaking Dolomites, the foothills of the Alps, MAV has been a worldwide leader in the design and manufacture of Keyless Locking Devices and related products for over 30 years.

By joining forces, Climax and MAV offer the North American OEM and industrial distribution markets an unparalleled combination of product quality, extensive inventory, design and application acumen, and flexible manufacturing with attractive lead times. Together we have unsurpassed knowledge about KLDs and their applications.



Keyless Locking Assemblies	Shrink Discs
Internal bushings installed between the shaft and the component bore, capable of transmitting high torque, thrust and bending loads	External locking device mounted on the outside of an hub or hollow shaft, compressing it onto the driven shaft. Most typical application is hollow shaft gearbox
As the high-strength screws are tightened, tapers simultaneously apply radial force on the shaft and the component bore creating a high pressure mechanical Interference fit	As the screws are tightened, tapers create a radial force on the hollow shaft compressing it onto the driven shaft creating a high pressure mechanical interference fit
No key means infinite angular and axial positioning for precise alignment and timing	Keyless so infinite timing capability as well as easily mounted and removed with ordinary hand tools
Easily mounted and removed in the field with standard hand tools	Outer rings are supplied zinc plated for added corrosion protection

## IBT BRANCH LOCATIONS:

619 Strong Highway, El Dorado, AR 870-862-3443  
 5515 Jefferson Parkway, Pine Bluff, AR 870-247-5900  
 1802 South Park Avenue, Stuttgart, AR 870-672-7299  
 3218 Northbrook Drive, Ste. B, Sioux City, IA 712-255-5555  
 601 South Tenth Street, Mt. Vernon, IL 618-244-5353  
 4291 South Santa Fe, Chanute, KS 620-431-0900  
 2311 West Eighth Street, Coffeyville, KS 620-251-9300  
 6060 South 2nd Avenue, Dodge City, KS 620-227-2340  
 1923 West 6th Avenue, Emporia, KS 620-343-6161  
 3845 West Jones Avenue, Garden City, KS 620-277-2135  
 5101 8th Street, Lawrence, KS 785-841-5771  
 2503 East 14th Street, Hutchinson, KS 620-662-4446  
 516 East 8th Street, Lawrence, KS 785-841-5771  
 633 South Kansas Avenue, Liberal, KS 620-624-6558  
 9400 West 55th Street, Merriam, KS 913-677-3151  
 305 East Crane Street, Topeka, KS 785-233-1381  
 5819 West Harry Street, Wichita, KS 316-943-3434  
 2231-B Centennial Road, Salina, KS 785-825-6234

2401 Industrial Drive, Jefferson City, MO 573-635-1042  
 2701 West 13th Street, Joplin, MO 417-781-2112  
 1225 Tom Ginnever Avenue, O'Fallon, MO 636-614-3400  
 414 North State Fair Blvd., Sedalia, MO 660-827-4280  
 1358 East Chestnut Expressway, Springfield, MO 417-869-0722  
 1226 South 6th Street, St. Joseph, MO 816-233-0233  
 236 West Roberts Street, Ste. B, Grand Island, NE 308-384-9942  
 7029 South 107th Street, LaVista, NE 402-592-2626  
 5620 Fletcher Avenue, Lincoln, NE 402-466-1166  
 1903 North 11th Street, Muskogee, OK 918-683-0900  
 512 North Douglas Avenue, Oklahoma City, OK 405-236-2416  
 1265 2nd Street, Pryor, OK 918-825-8215  
 11221 East Pine Street, Tulsa, OK 918-438-8100  
 511 Henslee Drive, Dickson, TN 615-375-5100  
 210 North Taylor Street, Amarillo, TX 806-376-1466  
 6915 Industrial Avenue, El Paso, TX 915-781-2020  
 111 Slaton Road, Lubbock, TX 806-745-2430  
 3453 North I-35, Ste. 340, San Antonio, TX 210-225-0090

## INDUSTRIAL APPLICATIONS

- Packaging Machinery
- Conveyors and Conveying Equipment
- Industrial and Commercial Machinery and Equipment
- Steel Works, Blast Furnaces, and Rolling Mills
- General Industrial Machinery and Equipment
- Printing Trades Machinery and Equipment
- Food and Beverage Machinery
- Farm Machinery and Equipment
- Poultry Processing
- Sawmills and Planing Mills
- Saw Blades and Handsaws
- Paper Industries Machinery
- Meat Packing Plants
- Truck and Bus Bodies
- Material Handling
- Metalworking Machinery
- Lawn and Garden Equipment

