

# MOTION

## MILL SERVICES

MECHANICAL DRIVELINE SOLUTIONS & CAPABILITIES

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**MOTION**  
Motion.com

# MOTION MILL SERVICES

## CAPABILITIES

Mi Mill Services meets your industrial application needs for the build, repair and supply of a variety of universal joints, shaft assemblies and all coupling-related products. Our U.S. rebuild center, staffed by qualified, trained technicians, offers the following:

- Stock and representation of all world-class manufacturers of industrial cardan shafts
- Complete rebuild center for all manufacturers
- Documented failure analysis reports
- Floating shaft gear and spacer coupling assembly and rebuild center
- Complete stock companion flanges and din fasteners
- Mechanical engineering and technical center
- Custom design and modifications to customer specifications
- Machining capabilities
- Various paints and coatings including epoxies, enamels, zinc phosphate, nickel plating, powder coating, galvanized coating
- Special, high-precision, double-plane balance equipment for all shaft assemblies
- Field service available (limited areas)
- Engineering and sales assistance for all Mi branches
- Joint customer survey and sales assistance for all Mi branches

### BALANCING (SCHENK 5)

#### Schenck H5B

- Capacity = 10,000 lbs x 32' long x 60" diameter
- Maximum of 1,800 rpm (possibly higher in special conditions)
- Upgraded software allows balance at whatever speed necessary while still physically running the subject piece below 1,800 rpm
- Up to 3,200 RPM at ISO G1.0 Level
- Balance reports on all balanced shafts

#### Coetz SE400

- Capacity = 1,000 lbs x 14.4' long x 14" diameter
- Maximum of 1,800 rpm (possibly higher in special conditions)

### CARDAN DRIVESHAFTS

- Heavy-duty repair and new build center
- Stocks and specializes in GWB series 390, 393, 492, 498, 587, 687 and 932



### DISC COUPLINGS

- Official build center for KOP-FLEX disc couplings
- Stocks and distributes the KD series and can modify and customize according to the customer's needs
- Fully capable of servicing and providing all manufacturers

### DRIVESHAFT MANUFACTURING

#### Stocks and represents the following manufacturers:

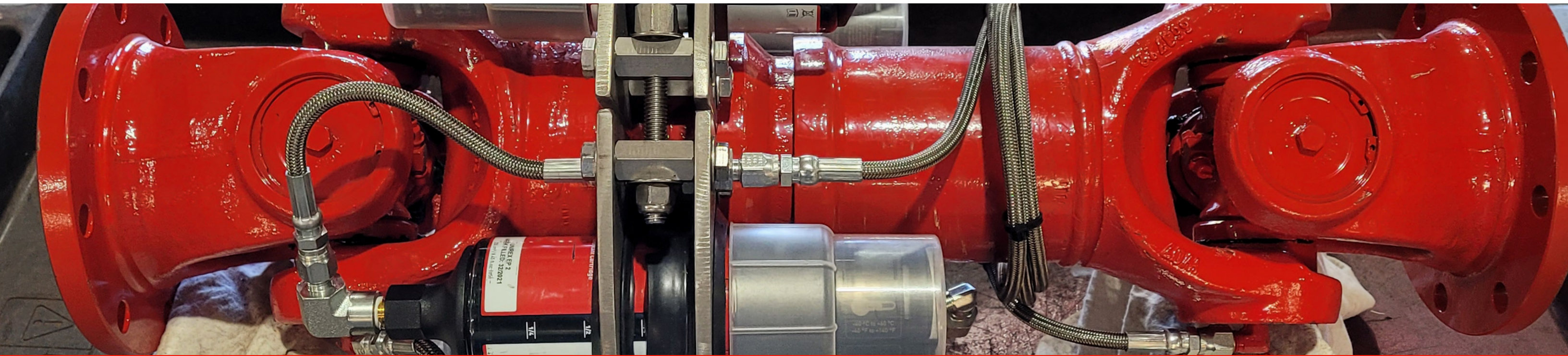
- CONVEL—CV joints
- DANA (GWB and SPICER)—Universal
- ELBE (standard and HD series)—Universal
- GEWES (German GWB supplier)—Universal
- KOP-FLEX—Gear and disc couplings
- MAINA (Italian)—Universal and gear couplings

### ENGINEERING ANALYSIS

- 2D and 3D drawings available
- Application design
- B10 life
- Critical speed and resonance calculations
- On-site surveys
- Reliability improvement
- Reverse engineering
- Root cause failure analysis
- Technical support

### FIELD SERVICE

- On-site shaft and coupling inspection services
- In-depth customer surveys



**GEAR COUPLINGS**

**Official build and repair center for MAINA**

- Stocks and distributes many different sizes
- One of very few centers in the USA where this product can be purchased and technical resources are provided

**Official build center for KOP-FLEX couplings**

- Stocks and distributes both the Fast and H series

**INSPECTION REPORT**

- Provided for most large industrial driveshafts
- Detailed failure analysis
- Recommended for improved reliability

**INVENTORY**

- One of the largest driveshaft inventories in North America
- Large stock of all types of companion flanges including fastener sets
- One of the largest GWB stocking locations in North America
- Stock from size 2-1/2 to 7 KOP-FLEX gear coupling components (both Fast and H series)
- Complete line of Spicer components
- Large stock of ELBE product
- MAINA (Italian)—Universal and gear couplings
- WEASLER (PTO product)—Universal

**SHEAR PIN COUPLINGS AND REPAIR**

- Specializes in all size repairs

**SHIPPING/STORAGE CONTAINERS AND PRODUCT IDENTIFICATION**

We take pride in the handling of every repaired or new shaft. To ensure safe transport and storage, we build wood containers and skids to custom fit each shaft. All identification labels and safety stickers are clearly visible when the customer opens the box. Each shaft is tagged with the unique order number, which provides traceability and ease of reordering.

**SUPERBOLT NUTS**

- For large disc couplings that are hard to torque properly
- Recommendations for reliability improvements

**ULTIMATE GEAR COUPLINGS BY MOTION**

Motion has a proprietary line of gear couplings. No other coupling offers the combination of features shown below. The ultimate coupling gets its name from having all the features and benefits that complement performance and maintainability in the field.

**Nitro-oxidized coating**

Provides greater performance and corrosion resistance

**AGMA bolt pattern (or metric/custom if needed)**

We stock the sleeves blank so multiple patterns can be achieved

**Full-length teeth in sleeve (serves as medium slide standard)**

No problems with gear teeth disengaging during operation (block plate required on flex/flex arrangement)

**Removable split-back seal ring (hub can be mounted before sleeve)**

Perfect for paper mill refiners, the only solution for inspection on short motor or gearbox shafts

**Equivalent or larger max bore than competitors**

**Unique grease distribution porting**

Both sides of gear teeth contact grease

**Standard puller holes**

Provide multiple ways to remove flex elements

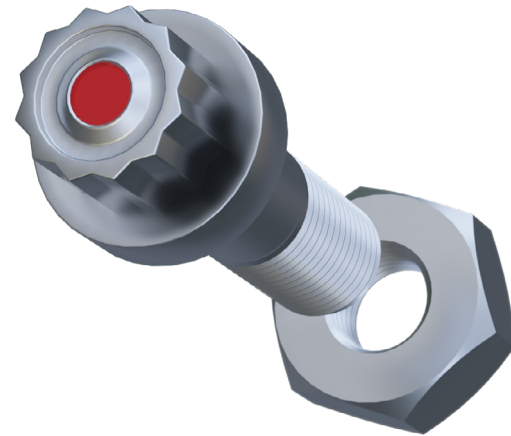


**ULTIMATE COUPLING BOLT KIT**

Standard gear coupling bolt kits are manufacturer specific. Problems persist where these critical components are not torqued appropriately due to either misinformation or improper tooling.

**User-friendly**

The tension indicator changes from red to black when torqued properly. Motion bolts can be installed to the proper torque value and can be periodically visually checked for tension. Final inspection can be easily visually verified. Bolts come standard with a 12-point reduced socket head for better socket-to-bolt engagement.



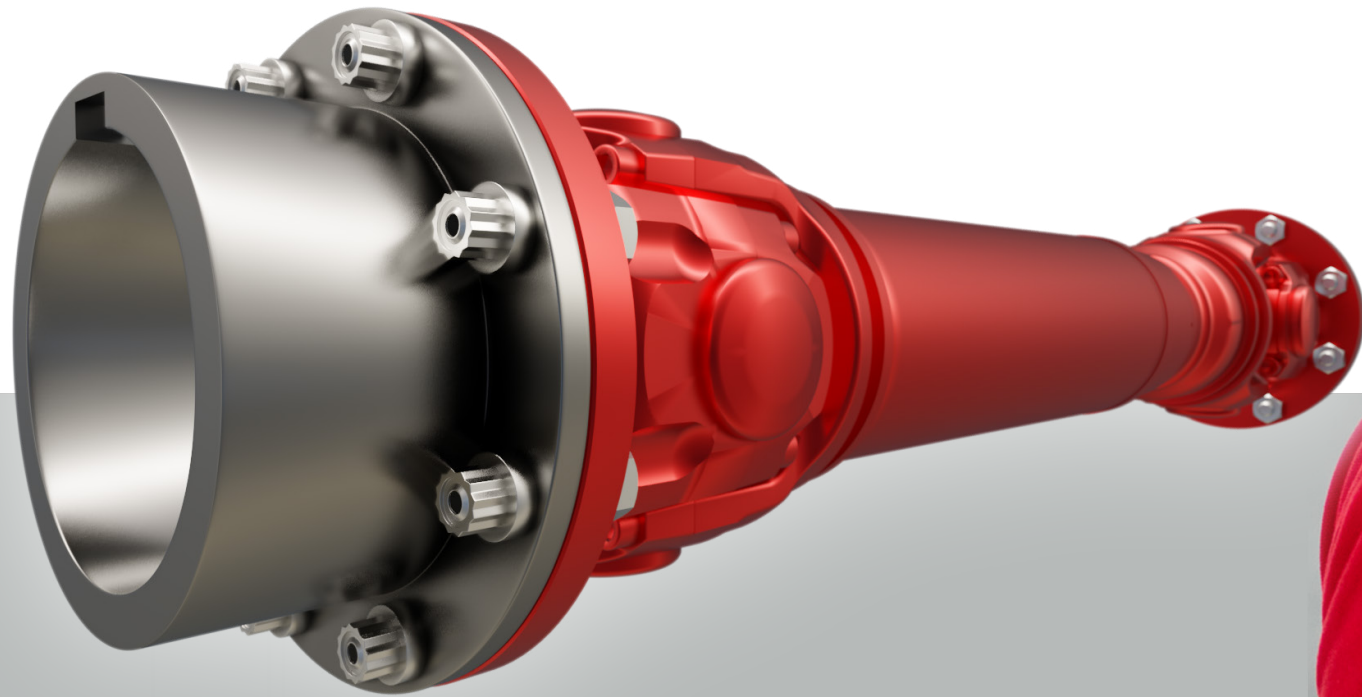
**Fully interchangeable**

Our AGMA gear coupling bolt kits will fit all manufacturers' couplings. This is the only AGMA bolt kit that can be used when bolting together sleeves made by different manufacturers.

**Long life cycle**

No longer are there questions regarding the reusability of the fastener. When the indicator does not return to red, it can then be discarded and replaced with new.

All standard bolt kits include metal locking nuts. Special kits are available for Beloit-style rigid hubs, consisting of fine thread bolts with spacers. This technology **CAN** be implemented in a wide range of product lines that require fasteners with indicator systems.



**CNC LATHES**

- Haas ST55
- Mazak QT 28N
- Mazak QT NEXUS 300

**CNC MILLS**

- Haas Mini Mill
- Haas TM 2P
- Haas VF 7
- Leadwell MCV 1300P

**KEYSEATING/SPLINE**

- D.C. Morrison Keymaker
- Morey 14" Vertical Slotter
- Rockford 36" Vertical Slotter

**MANUAL LATHES**

- Birmingham DL 26120
- F3 American Engine Lathe (welding primarily)
- JET Bench Lathe
- JFMT JMK530
- Lagun Liberty
- TOS Trencin

**MANUAL MILLS**

- (3) Acra Knee Mills
- HW Kearns Horizontal Boring Mill

**MISCELLANEOUS**

- (2) Hydraulic Presses
- Kao Ming Drill Press
- Nagase Surface Grinder



# Partners. The Best Part of All.®

**MOTION** is a leading distributor of maintenance, repair, and operation replacement parts, and a premier provider of industrial technology solutions. With the goal of increasing customers' productivity, **Motion offers many valued-added services, including engineering, fabrication, repair, and Industry 4.0 solutions.**

**PRODUCTS** - Bearings, Electrical & Automation, Hydraulic Hose, Hydraulics, Industrial & Safety Products, Industrial Hose, Linear, Material Handling, Mechanical, Pneumatics, Process Pumps, Seals & Accessories, **and MORE!**



Locations: Asia Pacific, Canada, Mexico, United States

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