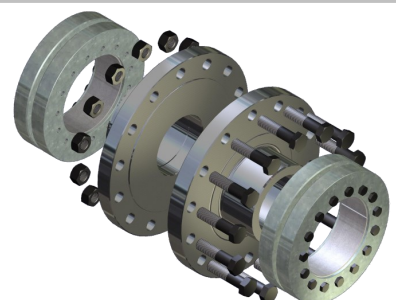
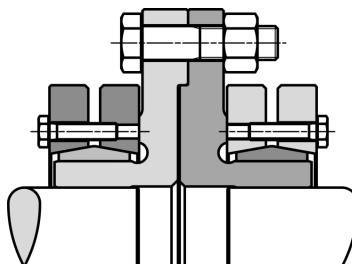
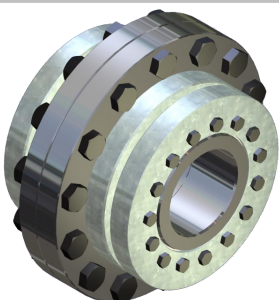




LOCKING ASSEMBLIES | SHRINK DISCS | RIGID COUPLINGS | FLANGES | SPECIAL LOCKING DEVICES

SHRINK DISC STYLE FLANGE COUPLINGS

ENGINEERING CAPABILITY GUIDE





LOCKING ASSEMBLIES | SHRINK DISCS | RIGID COUPLINGS | FLANGES | SPECIAL LOCKING DEVICES

INTRODUCTION

Climax Metal Products Company & MAV S.p.A.—A Unique Partnership

In June 2011, Climax entered into an exclusive agreement with MAV S.p.A. of Bosentino, Italy to market and sell MAV-produced 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 KLD's and their applications.



Via Venezia, 12-38049 Bosentino (TN) | Italy

Phone: +39-0461-845151 | Fax: +39-0461-845150

Email: info@mav.it | www.mav.it



ENGINEERED SHAFT LOCKING SOLUTIONS™

8141 Tyler Boulevard | Mentor, Ohio 44060 | USA

Phone: 800-542-6552 | Fax: 800-860-5553

KLDsales@climaxmetal.com | www.climaxmetal.com



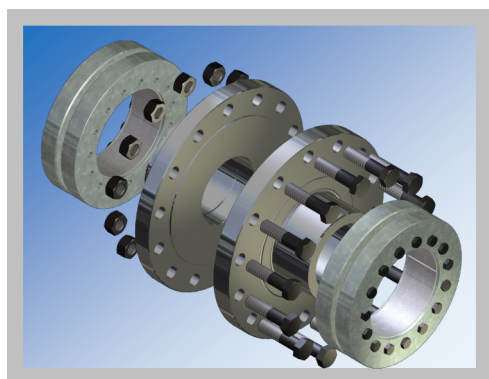


MAV FLANGED COUPLINGS

SERIES FC2008

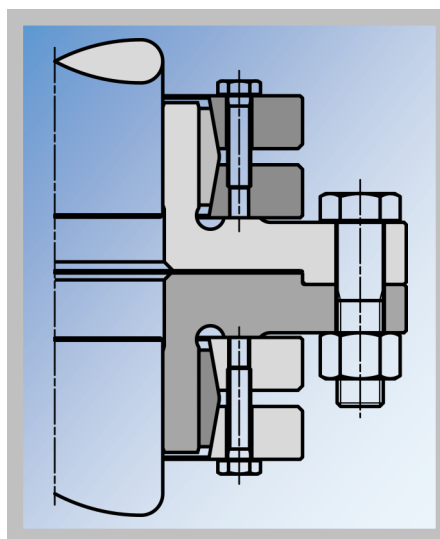
COMPOSITION

- Two shrink discs MAV Series 2008
- Male coupling flange
- Female coupling flange
- Set of hex head cap screws and nuts, grade 10.9



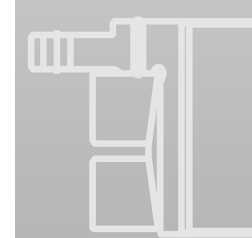
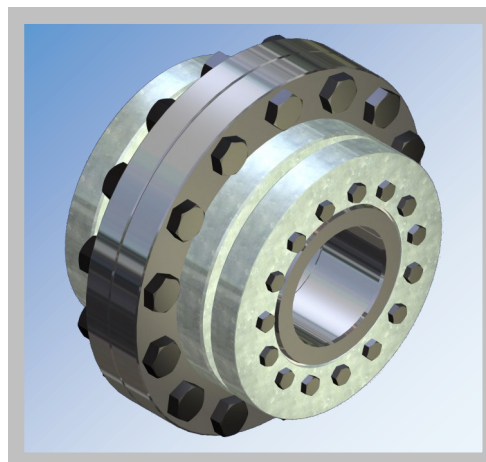
FEATURES

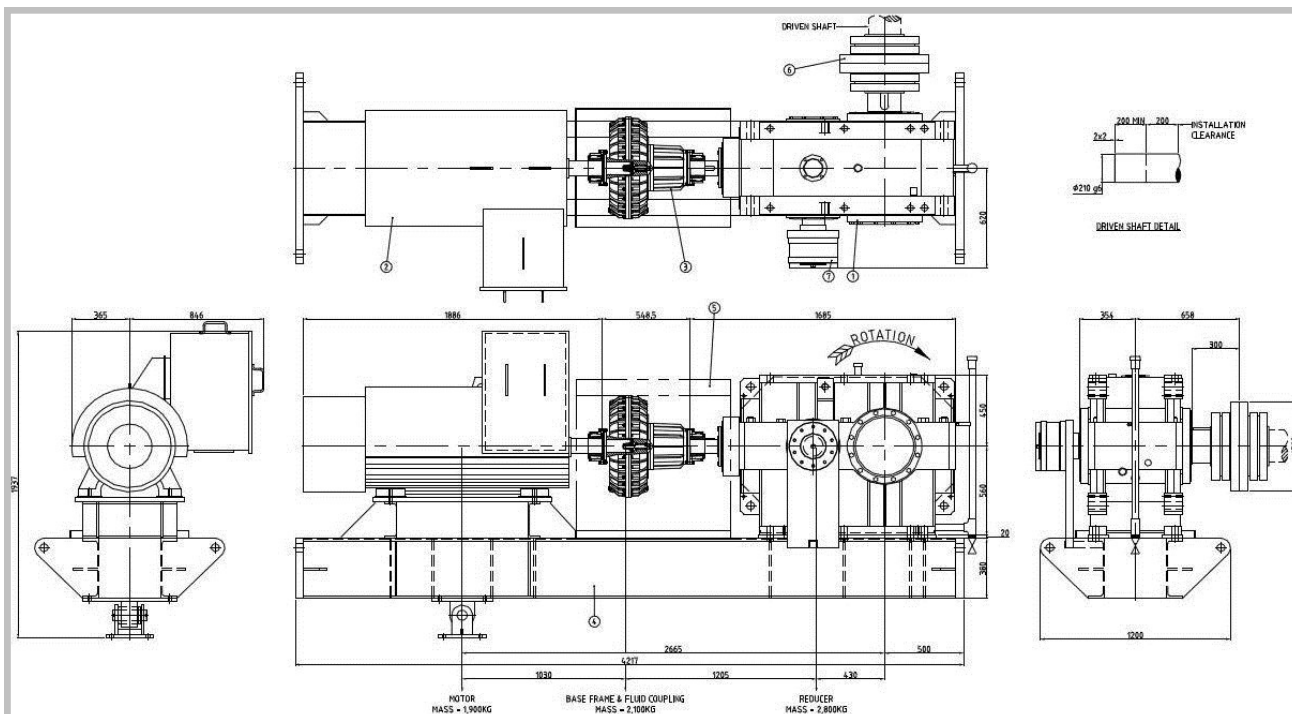
- Rigid flanged coupling with industry standard shrink discs (MAV Series 2008)
- High capacity interference fit for combined loads: torque, thrust, bending
- Shaft diameters starting at 70mm (Mating shaft diameters can be unequal; metric and/or imperial)
- Installation and removal with simple hand tools



KEYLESS RIGID FLANGED COUPLING APPLICATIONS

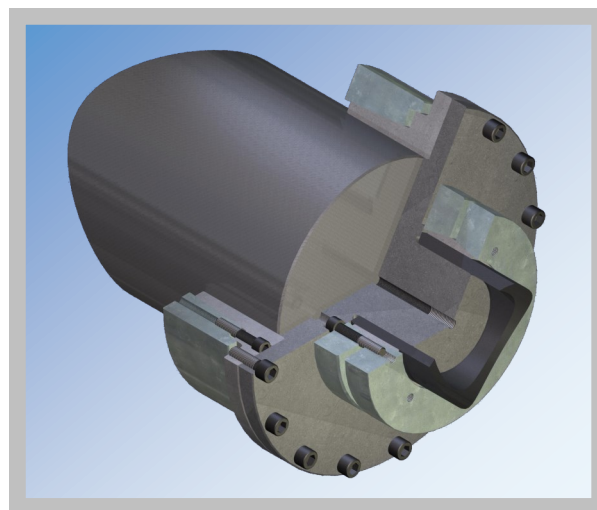
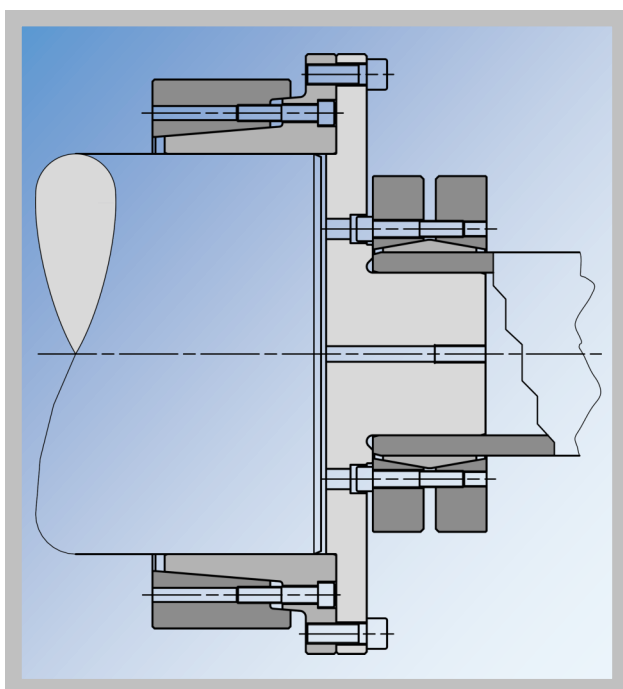
- Gearbox output shaft to solid driven shaft for:
 - Aggregate conveyor and material handling systems
 - Feeder breakers
 - Chippers, grinders, and shredders
- Brake disc connections
- Shaft-to-shaft rigid couplings for marine propulsion systems
- Vertical impeller drives for mixing vessels
- Cardan shaft companion flanges



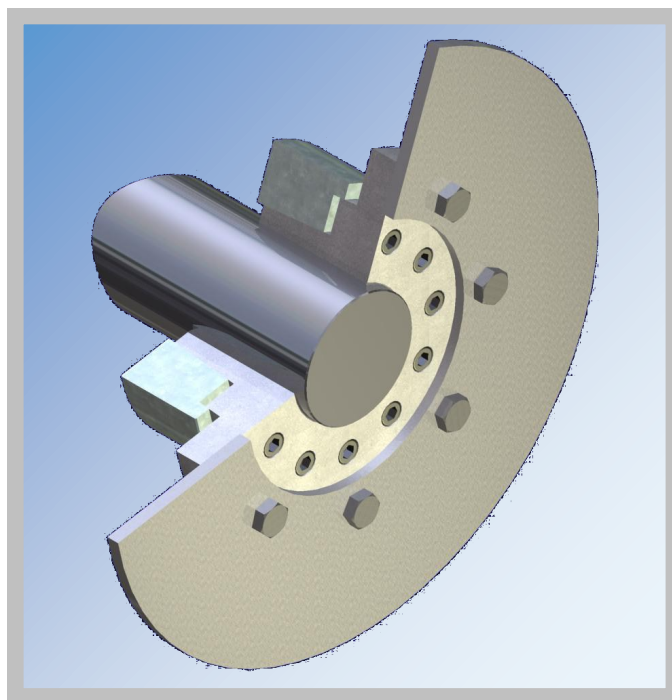
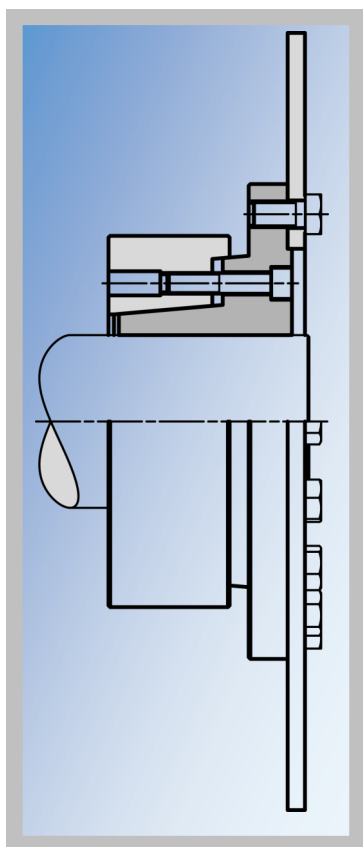
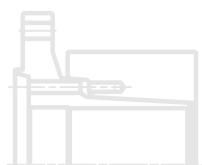


Typical arrangement: motor, fluid coupling, gearbox, MAV flanged coupling FC2008, conveyor pulley shaft. Mining industry, Australia.

MAV MADE-TO-ORDER (MTO) RIGID COUPLINGS



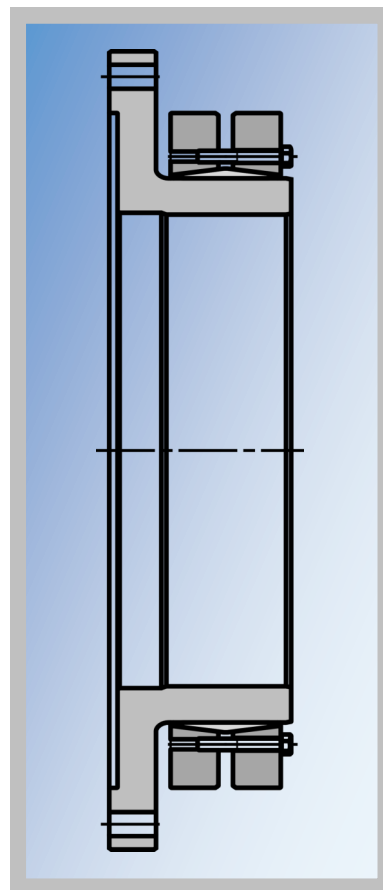
Hagglunds motor with $\varnothing 160/\varnothing 200$ hollow output shaft, connected with MTO flange 200x590 and heavy duty shrink disc MAV 2208 200x350 (motor side). Driven shaft $\varnothing 15.5''$ (393.7mm) connected with MTO integrated companion flange 393.7x540. Mining industry, USA.

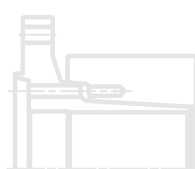


Special MTO keyless integrated coupling flange for brake disc using recessed socket head cap screws and separate hex head screws to bolt brake disc to flange.

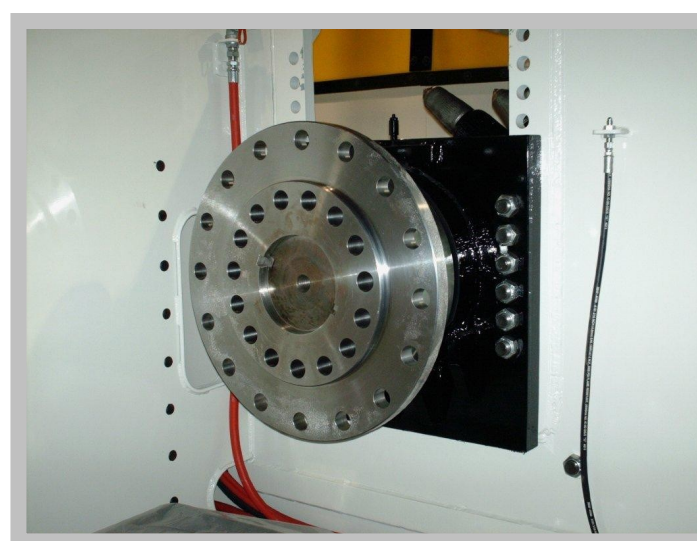
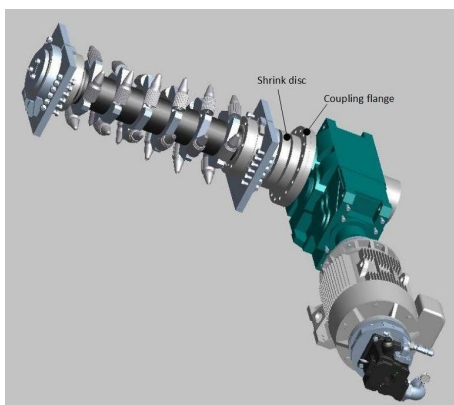
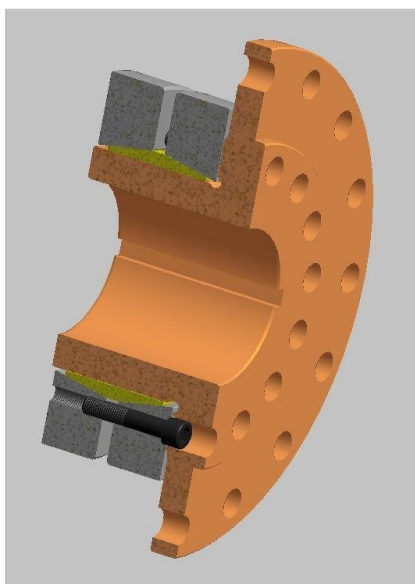
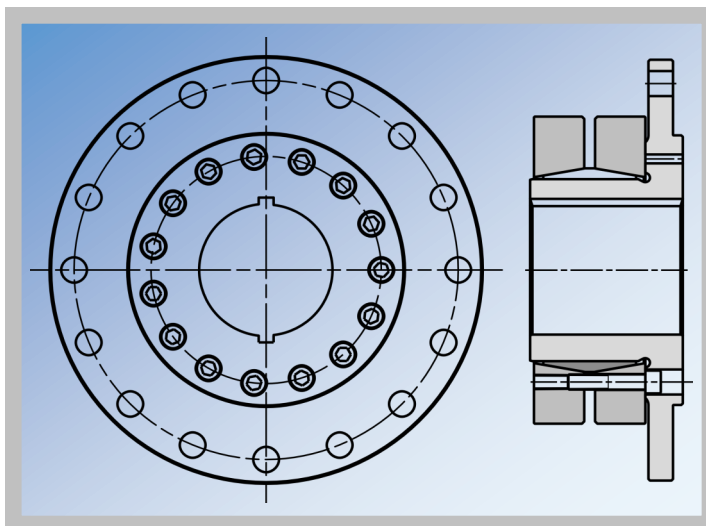
MTO flange with special light duty shrink disc
MAV 2118 750x930.

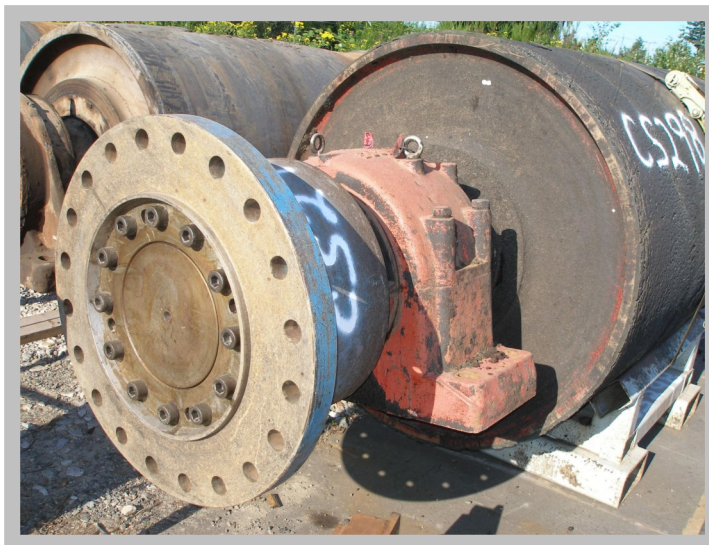
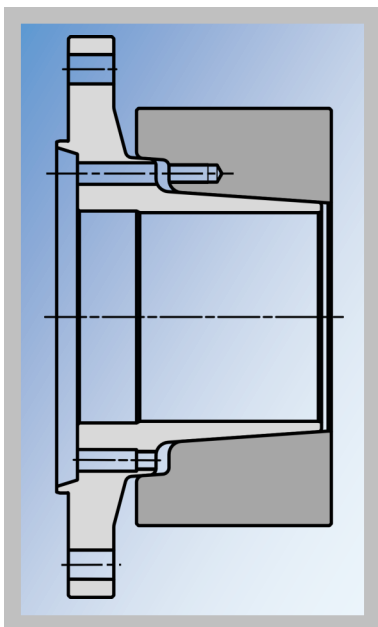
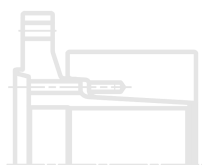
Connection of conveyor brake disc, Canada.





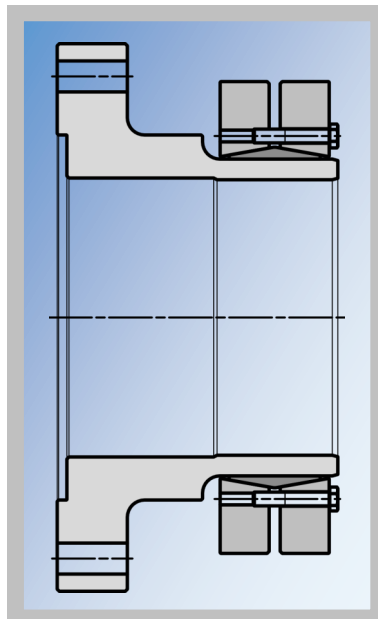
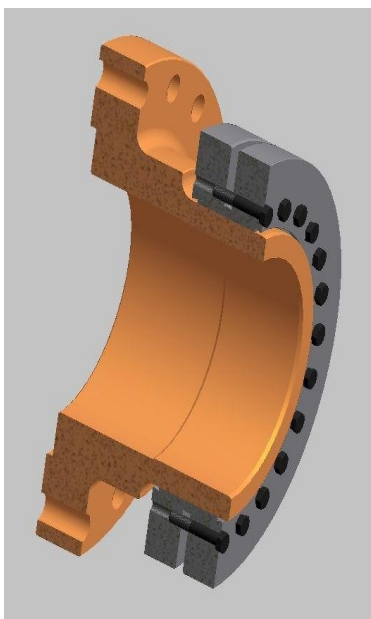
Flanged coupling on coal crusher.
Gearbox with flanged output shaft,
O.D. = $\varnothing 555\text{mm}$. Rotor shaft
 $\varnothing 170\text{mm}$ connected with special
heavy duty shrink disc MAV 2218
240x405. Mining industry, USA.





MTO Integrated Flanged Coupling with MAV Shrink Disc 320x640

- Flange O.D. = $\varnothing 860\text{mm}$
- Transmissible torque = 792 kNm
- Transmissible continuous bending moment = 250 kNm
- Engineered class conveyor drive, Canada

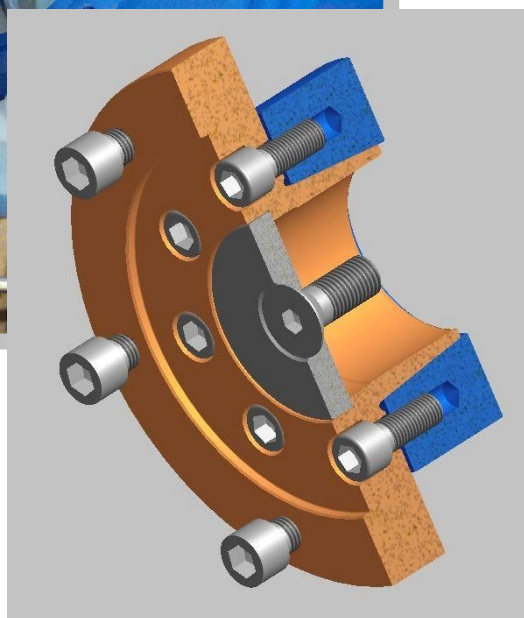
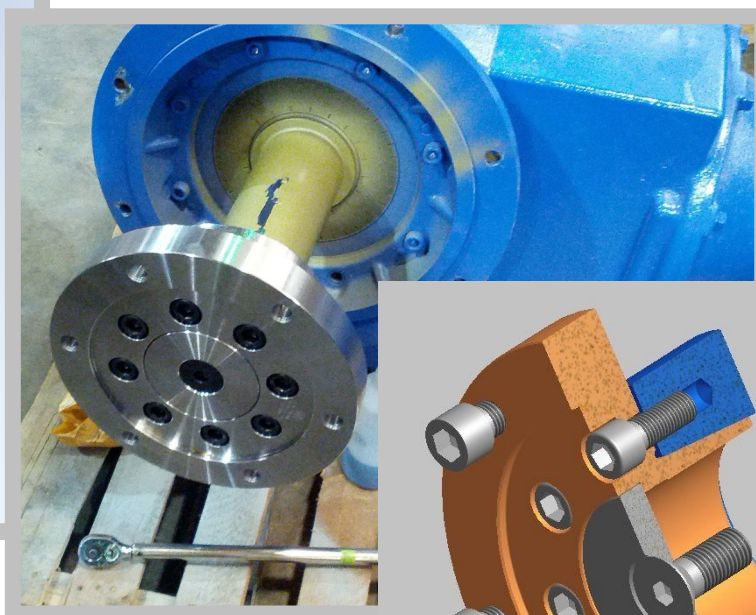
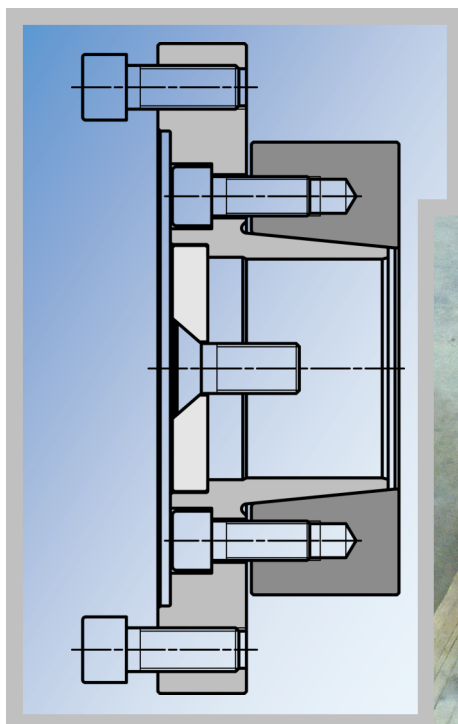


MTO Flange Coupling MAV 380x795 with Light Duty Shrink Disc MAV 2108 460x685

- Conveyor Shaft = $\varnothing 380\text{mm}$; Flange O.D. = $\varnothing 795\text{mm}$
- Transmissible torque = 821.5 kNm
- Transmissible continuous bending moment = 205.4 kNm
- Driven tail conveyor pulley, Canada



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MTO Integrated Flanged Coupling MAV 4-3/8" x 230mm

- Flange O.D. = $\varnothing 13"$
- Transmissible torque = 34.3 kNm
- Transmissible thrust = 618.1 kN
- Connection of vertical mud agitator impeller shaft to gearbox output shaft
- Mud agitator drive couplings for hydro fracturing; land based and offshore drilling operations.
Oil and gas industry, USA