Dodge® Torque-Arm® II gear reducer
The world’s leading belt driven Shaft mount available with optional harsh duty accessories
Dodge® Torque-Arm® II gear reducer

With 60 years of proven dependability and more than 1.8 million units in service throughout the world, Baldor® Dodge Torque-Arm speed reducers are the standard of the industry and the benchmark to which others are compared.

Industry proven design and patented features
- 12 case sizes through 400 hp (300 kW)
- Unparalleled torque ratings
- Industry leading backstop design
- Patented sealing system
- Modular steel motor mount system
- Totally modular reducer and accessory design
- Ratio range of 5:1 to 40:1
- Patented twin tapered bushing system.

Patented twin taper bushing systems
- Twin Tapered Bushing system eliminates fretting corrosion and reducer wobble and can be installed with regular hand tools
- Standard Twin Taper Bushing system for full length shafts
- Short shaft bushing system to replace straight bore or single bushing reducers

AGMA and ABMA rated
- Heavy Duty Tapered roller bearings throughout, no ball bearings
- Bearings are sized to conform to American Gear Manufacturers Association and American Bearing Manufacturers Association design of a minimum of 25,000 hrs average life (L-50) in Class I applications. This is usually twice the bearing life of many competitive reducers that are not designed to this standard.

Advanced sealing system
- Patented, premium sealing system
- Premium HNBR oil seal protected by a metal excluder seal with rubbing lip.
- Perfect fit for today's harsh duty industries such as aggregates, mining, cement, asphalt, grain, mixing & milling, and ethanol.
Dodge® Torque-Arm® II shaft mount features

Dodge twin tapered bushing system
- Provide sturdy, concentric grip of the driven shaft on both sides of the reducer
- Eliminates the wobble and fretting corrosion associated with straight bore and single bushed reducers
- Full length key guarantees maximum torque transmission
- Installation and removal methods require no special tools

Dodge short shaft bushing system
- Allows replacement of straight bore or single bushed reducers with the industry preferred Twin Tapered Bushing System
- Full length key guarantees maximum torque transmission
- Extended outboard bushing reaches in and grabs the shorter shaft

Advanced sealing features
- New advanced heavy duty sealing system improves sealing performance
- -40°F to 302°F (-40°C to +150°C) temperature range
- Excellent low temperature seal operation
- Extends seal service life up to 6 times over standard rubber seals

More information on flyer FL1617

TAII superior backstop design
- Reduced Wear and Friction, Lift-Off style, No Rubbing Parts in Free Direction
- Operates with Standard and Extreme Pressure (EP) Lubricant (The only one on the market)
- Direction of rotation is field reversible
- No external lubrication required
Dodge® Torque-Arm® II shaft mount features

**Dodge Torque-Arm II Product Line**

<table>
<thead>
<tr>
<th>Taper Bushed Reducer</th>
<th>Maximum Bore with Std Shaft Metric Bushing (mm)</th>
<th>Maximum Bore with Short Shaft Metric Bushing (mm)</th>
<th>Straight Bore Bushing Size (mm)</th>
<th>Mech Input Power at 35 RPM Output 40:1 kW</th>
<th>Mech Input Power at 55 RPM Output 25:1 kW</th>
<th>Mech Input Power at 95 RPM Output 15:1 kW</th>
<th>Inch Standard Shaft Bushing Available</th>
<th>Inch Short Shaft Bushing Available</th>
<th>Motor Mount Available</th>
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Dodge® Torque-Arm® II screw conveyor drive features
All TA II reducers can become screw conveyor drives with the following accessories

CEMA bolt-on adapter
- Double lip seals on both the reducer end and trough end
- Open center for contamination disposal
- Optional Adjustable Waste Packing Adapter Kit, proven sealing option for harsh environments

Screw conveyor drive shafts
- Made from high alloy steel to Conveyor Equipment Manufacturers Association dimensions
- Standard three-bolt drilled
- Tapered fit ensures simple installation
- Patent pending locking plate provides mechanical shaft removal
Dodge® Torque-Arm® II safety features

Torque-Arm II belt guards
- Engineered and guaranteed to fit all TA II reducers
- Light weight, lift-off design
- No drilling or straps required
- Allows multiple height adjustments
- Perforated construction, for V-belt inspection
- Positions against housing
- 2 designs per case size

Harsh duty bushing covers
- Covers rotating bushing bolts
- Protects seals from contaminants
- Corrosion resistant
- Available in metal and heavy duty ABS polymer
- Available in totally closed and split/shaft through design

ATEX Certified – TA II is the only USA shaft mount that is

ATEX Certified
- ATEX is a European Union ATmosphere EXplosive Directive
- Ensures Products Are Safe to Operate in a Hazardous Environment
- I M2: Group 1 Category 2, Safe in Mining Applications Where Dust is Likely to Occur
- II 2 GD c T4: Group II Category 2, Safe for Gas or Dust Environment Surface Temperature of Reducer Not To Exceed T4= 275°F (135°C)
- Tamb: Ambient Temperature Between -22°F to 122°F (-30°C to +50°C)
Dodge® Torque-Arm® II Harsh Duty accessories

Optional premium harsh duty accessories can significantly help extend the service life of the reducer

**Harsh duty v-ring seal kit**
- Rides on driven shaft and acts as a flinger
- Keeps contaminants from coming in contact with excluder seal
- Easy installation – no tools required
- More resistant to water spray, and mild wash-down applications

More Information, contact Dodge marketing

**Hydra-lock dissicant breathers**
- Internal check valve system creates a nearly sealed system
- Integrated nylon standpipe and clear Polycarbonate casing allow for greater chemical compatibility and vibration resistance
- Filter element captures particles at 3 micron absolute

Ideal for...
- Wash-down applications and other high humidity environments
- A higher level of contaminant protection
- Gearboxes in storage

More information on flyer FL1627

**TDNC twin taper bushing system**
- Thin Dense Nickel Composite coated for maximum corrosion resistance with minimum cost
- TDNC bushings, backing plates, & snap rings
- Corrosion resistant bolts and lock washers

More Information, contact Dodge marketing

**Zinc plated tie rods**
- ROHS compliant, environmentally friendly chromating process
- Zinc plated turnbuckle, Zinc plated fulcrum
- Two Zinc plated threaded rod extensions
- Zinc plated hardware kit
- Powder coated reducer adapter brackets

More Information, contact Dodge marketing

Metric Torque-Arm II Engineering Catalog
www.abb.com/mechanicalpowertransmission
www.abb.com/mechanicalpowertransmission

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