

# GEARING

## Dodge Motorized 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 belt driven speed reducers are the standard of the industry and the benchmark to which others are compared. Responding to overwhelming customer demand, we have now introduced a line of heavy duty right angle beltless Torque-Arm reducers for customers who need the power and performance of a truly rugged gearbox for more demanding applications.

### Heavy Duty Solution

- American Gear Manufacturers Association rated design offers approximately twice the bearing design life vs. the competition's design practices
- Patented sealing system
- Straddle mount input pinion gives maximum torque throughput, no press-fit pinion
- Available in 3hp-100hp based on output speeds
- ALL tapered roller bearing design, no light duty ball bearings

### Installed Cost Savings

- Reduced assembly time & guarding costs
- Reduced maintenance requirements

### Compact, Flexible Drive Design

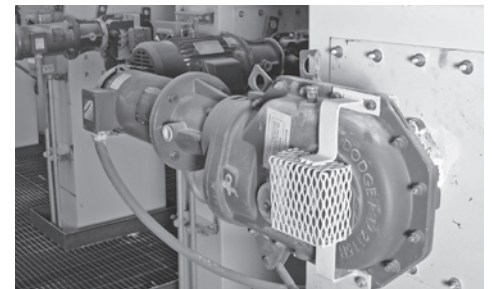
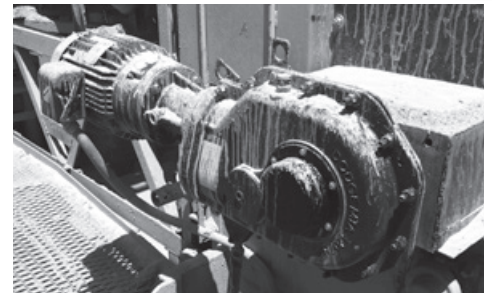
- Reducer mounts in multiple positions
- Two motor speeds and multiple gear ratios provide a wide range of output speeds

### Uses Standard Stocked Torque-Arm II Accessories

- Standard and short shaft twin tapered bushings
- Industry leading backstop design
- Standard screw conveyor accessories
- Three-piece coupled design
- Optional metal or ABS polymer bushing covers

### 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



### Easy Selection

- Part numbered product concept
- Easy Class I & II selection tables

### Proven Performance

- Rugged, high efficiency, case carburized helical/bevel gearing
- Used in Aggregates, Grain, Mining, Mixing, Milling, Ethanol



# Dodge Motorized Torque-Arm II Shaft Mount Features

## Advanced Sealing Features

- New advanced heavy duty sealing system improves sealing performance
- -40°F to +300°F temperature range
- Excellent low temperature seal operation
- Extends seal service life up to 6 times over standard rubber seals

More information on flyer [FL1617](#)

## TA II Superior Backstop Design

- Reduced Wear and Friction, Lift-Off style, No Rubbing Parts in Free Direction.
- Operates with Standard and Extreme Pressure (EP) Lubricant (**Only one on the market**)
- Direction of rotation is field reversible
- No external lubrication required



# Dodge Motorized Torque-Arm II Screw Conveyor Drive Features

All MTA 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 Kit**, proven sealing option for harsh environments

## Screw Conveyor Drive Shafts

- Made from high alloy steel to CEMA dimensions
- Standard three-bolt drilled
- Tapered fit ensures simple installation
- Patent pending locking plate provides mechanical shaft removal



# Dodge Motorized Torque-Arm II Safety Features

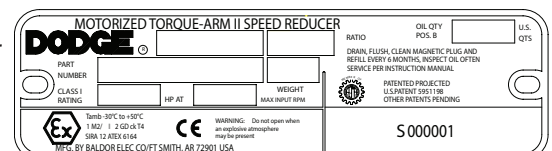
## Harsh Duty Bushing Covers

- 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 designs
- MTA drilled and tapped for ABS cover installation, metal covers require end user to drill screw holes



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

- ATEX is a European Union **AT**mosphere **EX**plosive Directive
- Insures 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=135°C (275°F)
- Tamb: Ambient Temperature Between -30°C to +50°C



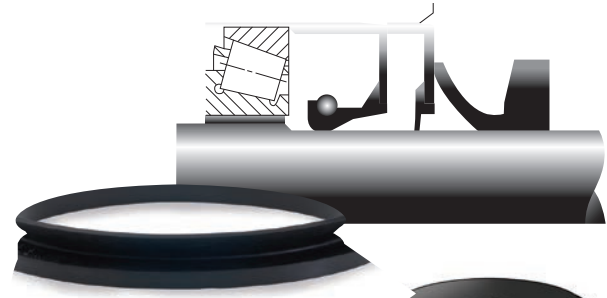
# Dodge Motorized Torque-Arm II Harsh Duty Accessories

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 on flyer FL1624](#)



## Hydra-Lock Dessiccant 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

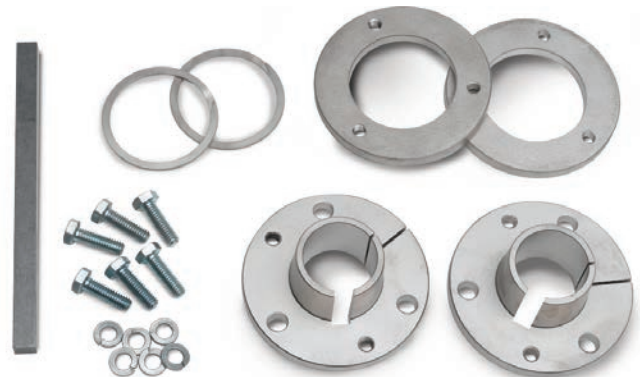
[More information on flyer FL1627](#)



## 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

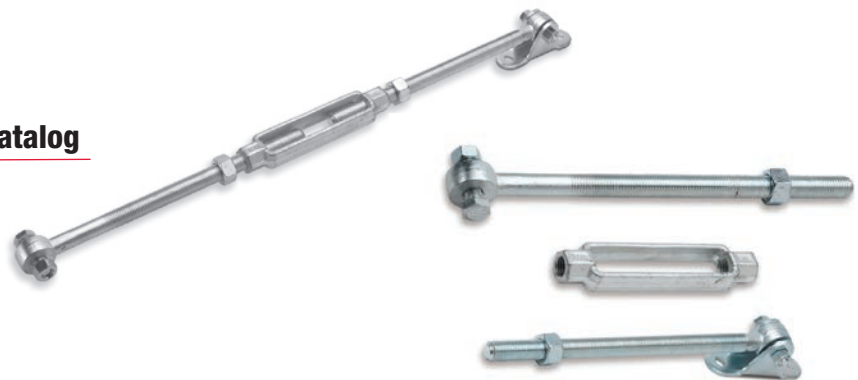
[More information on flyer FL1624](#)



## 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 on flyer FL1630](#)



## Motorized Torque-Arm II Engineering Catalog



[http://www.baldor.com/support/literature\\_load.asp?LitNumber=FL1629](http://www.baldor.com/support/literature_load.asp?LitNumber=FL1629)

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