



Product Brochure

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

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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 TA1107H

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

TAIL 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

Taper Bushed Reducer	Maximum Bore with Std Shaft Metric Bushing	Maximum Bore with Short Shaft Metric Bushing	Straight Bore Bushing Size (mm)	Mech Input Power at 35 RPM Output 40:1		Mech Input Power at 55 RPM Output 25:1		Mech Input Power at 95 RPM Output 15:1		Inch Standard Shaft Bushing Available	Inch Short Shaft Bushing Available	Motor Mount Available	Backstop Available
	(mm)	(mm)		kW	HP	kW	HP	kW	HP				
TA0107L	35	30	35	1,6	2.15	2,4	3.22	3,9	5.23	Yes	Yes	Yes	Yes
TA1107H	40	35	40	2,9	3.89	4,4	5.90	7,1	9.52	Yes	Yes	Yes	Yes
TA2115H	55	50	50	5,0	6.71	7,4	9.92	11,4	15.29	Yes	Yes	Yes	Yes
TA3203H	60	55	60	8,7	11.67	11,4	15.29	17,9	24.0	Yes	Yes	Yes	Yes
TA4207H	70	65	70	11,9	15.96	17,7	23.74	28,0	37.5	Yes	Yes	Yes	Yes
TA5215H	80	75	80	20,0	26.82	30,2	40.50	46,6	62.5	Yes	Yes	Yes	Yes
TA6307H	90	85	90 & 95	27,1	36.34	40,7	54.58	65,8	88.2	Yes	Yes	Yes	Yes
TA7315H	110	100	110	40,3	54.04	61,0	81.80	98,8	132	Yes	Yes	Yes	Yes
TA8407H	120	110	—	57,7	77.38	87,3	117	142,5	191	Yes	Yes	Yes	Yes
TA9415H	130	125	—	81,5	109.29	123,1	165	193,2	259	Yes	Yes	Yes	Yes
TA10507H	150	130	—	111,9	150	157,4	211	245,1	329	Yes	Yes	Yes	Yes
TA12608H	160	160	—	149,2	200	233,5	313	368,5	494	Yes	Yes	Yes	Yes



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



CEMA bolt-on adapter

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



Screw conveyor drive shafts

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



Torque-Arm II belt guards

Harsh duty bushing covers

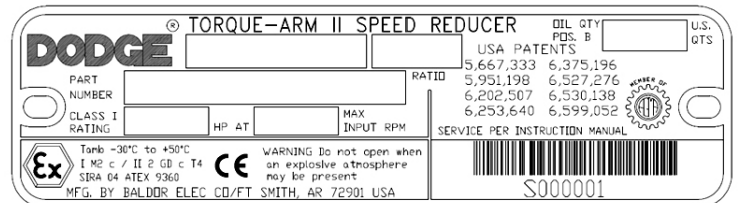
- Covers rotating bushing bolts
- Protects seals from contaminants
- Corrosion resistant
- Available in metal and heavy duty ABS polymer
- Available in totally closed and split /shaft through design



Harsh duty bushing covers

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

- ATEX is a European Union **AT**mosphere **EX**plosive 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)



ATEX Certified

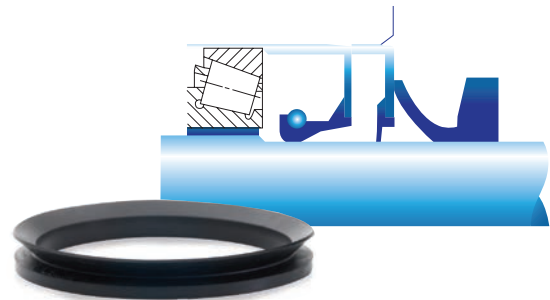
Dodge® Torque-Arm® II Harsh Duty accessories

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 dissiccant 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

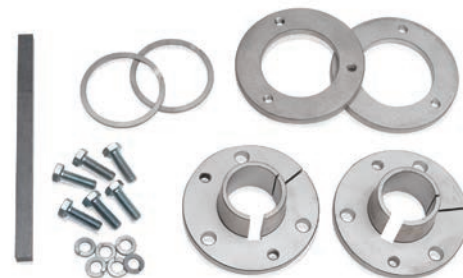
More information on flyer FL1627



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

More Information, contact Dodge marketing



Metric Torque-Arm II Engineering Catalog

www.abb.com/mechanicalpowertransmission

Contact:

www.abb.com/mechanicalpowertransmission

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