

Dodge® product solutions for bucket elevators



The mechanical power transmission equipment used on bucket elevators that lift material for storage, is exposed to a wide range of tough operating conditions, including high shock loads, numerous stops and starts, extreme weather and temperature ranges, and dusty and dirty environments. Typically located in hard to access areas, maintaining the equipment on bucket elevators is also challenging.

With decades of experience applying Dodge mechanical power transmission products in bulk material handling applications, we have a unique understanding of the issues that impact your productivity and have designed products that will operate reliably, with less maintenance.

Dodge gearing and bearing products feature rugged, heavy-duty designs that can absorb shock loads, superior sealing systems to prevent contamination, and exclusive bushing systems that make it easy to mount and dismount products with no corrosion or damage to the shaft.

Beyond individual products, our System-1™ packaging offers customers an integrated single source for both the mechanical and electrical needs for bucket elevators. Our capability to pre-assemble products means customers receive a complete packaged solution, with optimized product selection, one invoice and warranty, and a single point of contact.

Only Dodge products offer a total mechanical power transmission solution:

- Rugged and reliable
- Easy to install and remove
- Easy to maintain
- Last longer
- Maximize process up-time
- Lower total cost of ownership

For your bucket elevator needs, Dodge mechanical power transmission products are unmatched in the industry.

Gearing product solutions

MagnaGear XTR® reducers

- Compact, power dense reducer in a heavy-duty package
- Torque ratings from 11,300 to 395,000 Nm (100,000 to 3,500,000 lb-in) accommodating ratings of over 5,400 kW (7,200 Hp)

Torque-Arm II® shaft mount reducer

- 12 case sizes through 300 kW (400 Hp)
- ATEX certified

Motorized Torque-Arm II®

- Heavy-duty right angle beltless direct drive using stock motors - IEC B5 or NEMA C-Face
- Available in 1.5kW – 75 kW (3 Hp – 100 Hp)
- ATEX certified

Bearing product solutions

ISN spherical roller bearings

- Cast iron two-bolt plummer blocks, 30 – 140 mm
- Ductile iron four-bolt plummer blocks, 150 – 170 mm
- One piece, factory greased, out-of-the-box ready to install
- Dimensionally interchangeable with SN style housed units

ISNX hydraulic spherical roller bearings

- Built in hydraulic mount and dismount system
- Dimensionally interchangeable with SD 3100 style products

SNX/SDX spherical roller bearings

- Matches industry standard SN and SD mounting dimensions
- 22200, 22300, 23000, 23100 series

IP spherical roller bearings

- Two-bolt and four-bolt pillow blocks
- Inch product with metric bore sizes available

Power transmission product solutions

Para Flex® couplings

- Industry leading misalignment capabilities
- Easy installation and removal
- Accommodates up to 203 mm (8 in) bores and 51,180 Nm (453,000 in-lbs) of torque

Grid-Lign® couplings

- Flexible tapered grid isolates vibrations and cushions shock loads
- Accommodates up to 360 mm (13 in) bores, and 186,417 Nm (1,650,665 in-lbs) of torque

DM moment couplings

- Engineered to transmit torque and support the bending moment forces of gearbox drive packages
- Accommodates up to 385 mm (15 in) bores and 237,268 Nm (2,100,000 in-lbs) torque

HT500 synchronous drive

- 98% efficient drive system featuring the modified curvilinear tooth profile
- Compact, power dense, and reduces overhung load
- Reduced maintenance costs, belts run slip free

Elevator pulleys

- Single disc and double disc drum types
- Available with HE or XT hub styles
- Up to 1,825 mm in diameter; face widths as narrow as 250 mm



For more information:

www.abb.com/mechanicalpowertransmission

Power and productivity
for a better world™

