While a screw conveyor may be viewed as a simple mechanical device, grain operators rely heavily on this equipment to move dry bulk materials from one process to another. The mechanical power transmission equipment used on these conveyors is exposed to a wide range of tough operating conditions, including numerous stops and starts, extreme weather and temperature ranges, and dusty and dirty environments. Typically located in tight spaces, maintaining the equipment on screw conveyors is also challenging.

With decades of experience applying Dodge mechanical power transmission products in the grain industry, we have a unique understanding of the issues that impact productivity and have designed products that will operate more reliably, with less maintenance, and with a smaller footprint and fewer components. Dodge gearing and bearing solutions feature superior sealing systems to prevent contamination, and an exclusive bushing system that makes it easy to mount and dismount these products with no corrosion or shaft damage.

The Dodge Motorized Torque-Arm® II (MTA) gear reducer, a heavy-duty right angle beltless direct drive solution, is a compact space-saving design with reduced maintenance requirements. Requiring fewer parts for installation versus competitors units, the MTA is also a cost competitive choice. Furthermore, it uses industry standard, stock motors that have either IEC B5 or NEMA C-face construction.

Beyond individual products, our System-1™ packaging offers customers an integrated single source for both the mechanical and electrical needs for screw conveyors. 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 screw conveyor needs, Dodge mechanical power transmission products are unmatched in the industry.
**Power transmission components**
- **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

- **HT 500 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

**Gearing product solutions**
- **Motorized Torque-Arm® II**
  - Compact heavy-duty right angle beltless direct drive using stoc motors – IEC B5 or NEMA C-face space-saving
  - Screw conveyor adapter kits available from stock
  - Available in 1.5 kW – 75 kW (3 Hp – 100 Hp)
  - ATEX certified

- **Torque-Arm II® shaft mount reducer**
  - 12 case sizes through 300 kW (400 Hp)
  - Space-saving screw conveyor adapter kits available from stock
  - ATEX certified

- **Quantis® right angle helical bevel (RHB), and motorized shaft mount (MSM)**
  - Compact direct drive gear reducer that uses stock motors
  - IEC B5 or NEMA C-face
  - Available .18 kW -30 kW
  - Space-saving screw conveyor adapter kits available
  - ATEX certification available

**Bearing product solutions**
- **ISN spherical roller bearings**
  - Cast iron two-bolt plumer blocks, 30-140 mm
  - Ductile iron four-bolt plumer blocks, 150-170 mm
  - One piece, factory greased, out-of-the-box ready to install
  - Dimensionally interchangeable with SN style housed units

- **IP spherical roller bearings**
  - Two-bolt and four-bolt pillow blocks, flanges, and take-ups
  - Inch product with metric bore sizes

For more information:
[www.abb.com/mechanicalpowertransmission](http://www.abb.com/mechanicalpowertransmission)