

# **Mechanical Power Transmission Solutions**

Global product offering



#### Who we are

Since 1878, Dodge® mechanical power transmission products have handled the toughest applications, providing the lowest total cost of ownership to our customers. Dodge offers a complete line of mounted bearings, enclosed gearing, mechanical drives, couplings, conveyor components, and connected condition monitoring solutions—all engineered and manufactured to perform reliably, with less maintenance.

Over a century of experience applying mechanical products throughout a wide range of industries means we understand issues that impact productivity and can offer expertise to improve output and efficiency.

Dodge is your partner for total mechanical power transmission solutions:

- · Innovative and globally compatible
- Designed for safety and reliability
- Easy installation, maintenance, and removal
- · Feature-rich, high-quality, and long-lasting
- · Lowest total cost of ownership

# **Our mission**

Reliably equip our customers with the safest, highest-quality mechanical power transmission solutions to achieve their strategic goals.



# **Mounted bearings**

Fully assembled bearings, ready for industrial use

Mounted bearings offer innovative designs, patented features, and consistent performance with a wide range of shaft attachment methods, rolling elements, housings, and seal choices. Our US-manufactured mounted bearings are designed to improve safety, maximize production, and lower operating costs.

# **Market leader**

in North America for mounted bearings







|                       | Ball bearings   | Roller bearings  | Plain bearings  |
|-----------------------|---|--|---|
| Description           | <ul> <li>Cast-iron, stainless-steel, or polymer housings</li> <li>Set screw, concentric collar, eccentric collar, and adapter mount</li> </ul>  | <ul> <li>Tapered and spherical<br/>rolling elements</li> <li>Cast iron, ductile iron, or<br/>steel housings</li> <li>Set screw, clamp collar,<br/>adapter mount</li> </ul> | <ul> <li>Hydrodynamic and sleeve<br/>bearings</li> <li>Tin, carbon, polymer,<br/>and bronze inserts</li> <li>Cast-iron or polymer housings</li> </ul>   |
| Recommended use       | <ul> <li>Light to moderate loads</li> <li>Low to high speeds</li> <li>Clean, corrosive environments</li> <li>Shaft sizes 1/2—3-1/2 inches (17—85 mm)</li> </ul>                         | <ul> <li>Light to heavy loads</li> <li>Low to moderate speeds</li> <li>Clean, harsh environments</li> <li>Shaft sizes 1-1/2—15-3/4 inches (35—200 mm)</li> </ul>           | <ul> <li>Constant rotating rotors</li> <li>Low- to high-temperature applications</li> <li>Sleevoil®: Shaft sizes 1-7/16—14 inches (40—75 mm)</li> </ul> |
| Applications          | Unit handling, commercial<br>air handling, food<br>processing, beverage,<br>pharmaceutical, forest<br>products, baggage<br>handling   | Bulk material handling,<br>industrial air handling, food<br>processing, grain, roll-out<br>tables, forest products, pulp<br>and paper                                      | <ul> <li>Fans for the power, oil and gas, pulp and paper, cement, and metal industries</li> <li>High-temperature fans</li> </ul>                        |
| Features and benefits | <ul> <li>High-performance sealing arrangements</li> <li>Numerous shaft-locking solutions that optimize performance</li> <li>Multiple seal configurations improve reliability</li> </ul> | <ul> <li>High-performance sealing arrangements</li> <li>Numerous shaft-locking solutions</li> <li>Ease of installation and removal</li> <li>Sensor-ready</li> </ul>        | <ul> <li>High-load handling capability</li> <li>Sleevoil: Water-cooled liner</li> <li>Long lifecycle due to limited<br/>moving parts</li> </ul>         |

# **Enclosed gearing**

#### **Engineered for reliability**

Gearbox products deliver industry-leading performance in some of the most demanding applications, featuring innovations that provide you with maximum uptime with less maintenance.











|                       | Tigear®-2   | Quantis®  | Torque-Arm<br>family   | Maxum® XTR/<br>MagnaGear XTR®   | Controlled Start<br>Transmission (CST)   |
|-----------------------|---|---|--|---|--|
| Horsepower            | Up to 25 hp<br>(18 kW)  | Up to 75 hp<br>(55 kW)  | Up to 400 hp<br>(300 kW)   | Up to 2,700 hp (2,000 kW)   | Up to 2,500 hp<br>(1,865 kW)   |
| Torque capacity       | Up to 6,800<br>lb-in (773 Nm)   | Up to 110,000<br>lb-in (12,500 Nm)  | Up to 110,000<br>lb-in (12,500 Nm)   | Up to 3,500,000<br>lb-in (395,000 Nm)   | Up to 2,500,000<br>Ib-in (282,500 Nm)  |
| Description           | Worm-style<br>gearing   | <ul> <li>Helical or<br/>helical-bevel<br/>style gearing</li> <li>Three styles<br/>in a modular<br/>configuration for<br/>use in almost any<br/>application</li> </ul>   | <ul> <li>Helical or<br/>helical-bevel<br/>gearing styles</li> <li>Easy to install,<br/>patented<br/>industry-proven<br/>twin-tapered<br/>bushing system</li> </ul>   | <ul> <li>Maxum XTR:         Concentric         gearing</li> <li>MagnaGear         XTR: Helical,         helical-bevel, or         planetary gear         options</li> <li>Harsh-duty         features standard</li> </ul> | <ul> <li>Helical,<br/>helical-bevel, or<br/>planetary gear<br/>options</li> <li>Hydro-viscous<br/>clutch system</li> <li>Harsh-duty<br/>features are<br/>standard</li> </ul>                                       |
| Features and benefits | <ul> <li>Most robust and longest-lasting worm gear design in the market</li> <li>Available from stock</li> <li>Maintenance-free and ready to install</li> <li>E-Z Kleen® and FoodSafe™ options available for harsh washdown applications</li> <li>Sensor-ready</li> </ul> | 98.5 percent efficient per stage     Available with c-face inputs for end user convenience or as an integral gearmotor to minimize cost and footprint     E-Z Kleen and FoodSafe options available for harsh washdown applications     Sensor-ready | <ul> <li>Lowest total cost of ownership of any shaft-mount reducer in the world</li> <li>Available from stock</li> <li>Multiple mounting options</li> <li>Flexible modular design</li> <li>Sensor-ready</li> </ul> | <ul> <li>Rugged AGMA design provides reliability in the toughest applications</li> <li>Compact powerdense design</li> <li>Flexible mounting options</li> <li>Sensor-ready</li> </ul>                                      | <ul> <li>Consistent,<br/>controlled, and<br/>adjustable starts<br/>and stops</li> <li>Smooth start of<br/>high-inertia loads<br/>on long conveyors</li> <li>Excellent<br/>load-sharing<br/>capabilities</li> </ul> |

# Mechanical drives, couplings, and conveyor components

A worldwide reputation for reliability and quality

The Dodge offering of power transmission components leads the industry with an extensive portfolio that improves overall system reliability. Whether you are looking for a mechanical drive system, coupling, or conveyor pulley assembly, each product is engineered to exceed expectations in the most rugged applications. For more than 145 years, quality designs have proven to maximize uptime in any application, allowing you to meet your growing demands.





# **OPTIFY**<sup>TM</sup>

#### Connected technologies to work smarter, not harder

OPTIFY, the Dodge portfolio of Industrial Internet of Things (IIoT) solutions, you can easily monitor the overall health of your power transmission equipment and gain powerful insights—letting you know when maintenance is needed before it's too late.



|             | Platform  | Performance<br>Sensor  | Intelli-Lube <sup>™</sup>  | Breather   | Gateway  |
|-------------|---|--|--|--|--|
| Description | Take the guesswork out of work with the free OPTIFY condition monitoring platform that empowers you with overall health indicators of your assets anytime, anywhere through its web portal or mobile app—providing you with a continuous flow of data for safe, hands-free gathering of measurements. | Built on the proven success of Dodge sensors, the specialized wireless sensor remotely captures temperature, vibration, and speed measurements in your mounted bearings, gear reducers, and motors for complete powertrain condition monitoring. | The premier automatic, connected lubricator that effortlessly extends the life of your bearings by replacing your manual lubrication process—streamlining maintenance, lowering costs, and improving safety with the right grease, volume, and interval every single time. | The connect breather solution is engineered to eliminate gearbox contamination and allows you to tap into the power of the OPTIFY platform for remotely monitoring breather health—enhancing gearbox reliability and simplifying onsite maintenance. | Our gateways enable routine, hands-off collection of sensor data, unlocking the true condition monitoring potential for your operations and maximizing on-site safety. |

# System1

#### Trusted conveyor design partner

For larger projects, our System1 team specializes in customized conveyor drive solutions. Equipped with unmatched design engineering and in-depth industry and product knowledge, the System1 team delivers packaged solutions in the mining, aggregate, cement, grain, wastewater, and other industries with bulk material handling applications. With capabilities from project optimization, to shipping preassembled drive packages and complete pulley assemblies, Dodge System1 is the one-stop shop to meet all of your needs.

#### **Field services**

### Your partner for the life of your products

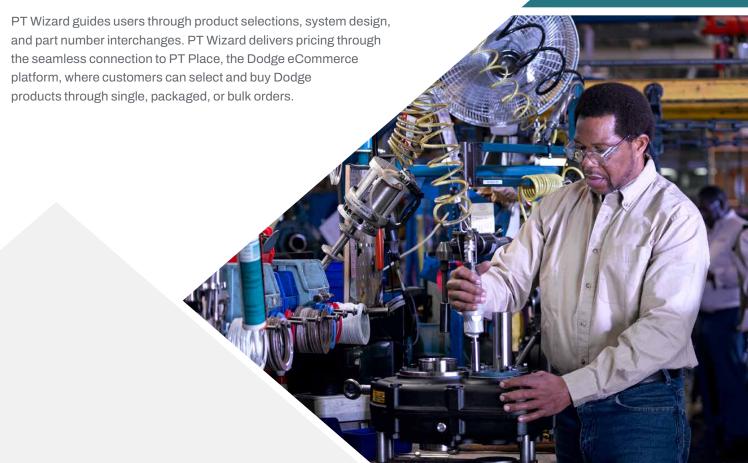
Factory-trained service technicians with proven experience in the field are Dodge product experts and are available for on-site assistance with installation, commissioning, maintenance, and more for your Dodge mechanical and digital solutions.

Backed by 145 years of industry leadership, our field services are the ideal solution to support increasing reliability and keeping your operations running smoothly to maximize uptime and minimize ongoing maintenance costs.

#### eCommerce and selection tools

#### Two elite platforms, one seamless experience

Dodge combines the power of PT Wizard and PT Place to create a seamless selection and ordering experience that helps you save time and stay within budget.





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