

# Mechanical Power Transmission Solutions

**Global Product Offering** 

### Who We Are

Since 1878, Dodge<sup>®</sup> 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 IIoT technologies–all engineered and manufactured to perform reliably, with less maintenance.

Decades 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, increase production, and lower operating costs.







	Ball Bearings	<b>Roller Bearings</b>	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 rolling elements</li> <li>Cast iron, ductile iron, or steel housings</li> <li>Set screw, clamp collar, adapter mount</li> </ul>	<ul> <li>Hydrodynamic and sleeve bearings</li> <li>Tin, carbon, polymer, 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>Shafts from 1/2 in to 3-1/2 in (17 mm– 85 mm)</li> </ul>	<ul> <li>Light to heavy loads</li> <li>Low to moderate speeds</li> <li>Clean, harsh environments</li> <li>Shafts from 1-3/6 in to 15-3/4 in (35 mm– 200 mm)</li> </ul>	<ul> <li>Constant rotating rotors</li> <li>Low to high-temperature applications</li> <li>Sleevoil<sup>®</sup> shafts 1-7/16 in to 14 in (40 mm–75 mm)</li> </ul>
Applications	<ul> <li>Unit handling, commercial air handling, food processing, beverage, pharmaceutical, forest products, baggage handling</li> </ul>	<ul> <li>Bulk material handling, industrial air handling, food/ grain, roll-out tables, forest pulp and paper</li> </ul>	<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>Water-cooled liner</li> <li>Long lifecycle due to limited moving parts</li> </ul>

# **Market Leader**

in North America for mounted bearings

## **Enclosed Gearing**

#### Engineered for reliability

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



	Tigear-2®	Quantis®	Torque-Arm <sup>®</sup> Family	MagnaGear®/ Maxum®	CST®
Horsepower	Up to 25 hp (18 kW)	Up to 75 hp (55 kW)	Up to 400 hp (300 kW)	Up to 2,700 hp (2,000 kW)	Up to 2,500 hp (1,865 kW)
Torque	• Up to 6,800 lb-in (773 Nm)	<ul> <li>Up to 110,000</li> <li>lb-in (12,500</li> <li>Nm)</li> </ul>	<ul> <li>Up to 110,000</li> <li>lb-in (12,500</li> <li>Nm)</li> </ul>	<ul> <li>Up to 3,500,000</li> <li>lb-in (395,000</li> <li>Nm)</li> </ul>	<ul> <li>Up to 2,500,000 lb-in (282,500 Nm)</li> </ul>
Description	• Worm-style gearing	<ul> <li>Helical or helical-bevel style gearing</li> <li>Three styles in a modular configuration for use in almost any application</li> </ul>	<ul> <li>Helical or helical-bevel gearing styles</li> <li>Easy to install, #1 industry- proven bushing system</li> </ul>	<ul> <li>Maxum - Concentric gearing</li> <li>MagnaGear- Helical, helical- bevel, and planetary gear options</li> <li>Harsh-duty features standard</li> </ul>	<ul> <li>Helical, helical-bevel, or planetary gear options</li> <li>Hydro-viscous clutch system</li> <li>Harsh-duty features are 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>EZ Kleen and Food Safe options available for harsh washdown applications</li> </ul>	<ul> <li>98.5 percent efficient per stage</li> <li>Available with c-face inputs for end user convenience or as an integral gearmotor to minimize cost and footprint</li> <li>EZ Kleen and Food Safe options available for harsh washdown applications</li> <li>Sensor ready</li> </ul>	<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 power- dense design</li> <li>Flexible mounting options</li> <li>Sensor ready</li> </ul>	<ul> <li>Consistent, controlled, and adjustable starts and stops</li> <li>Smooth start of high-inertia loads on long conveyors</li> <li>Excellent load-sharing capabilities</li> </ul>

### Mechanical Drives, Couplings, and Conveyor Components

#### A worldwide reputation for reliability and quality

Dodge's 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 140 years, quality designs have proven to maximize uptime in any application, allowing customers to meet their growing demands.



	Mechanical drive components	Couplings	Conveyor components
Description	V-belt sheaves, synchronous sprockets, bushings, and belts are used to change the rotational speed between two pieces of equipment.	Couplings provide an easy solution to connect rotating equipment and safely transmit torque.	Conveyor pulleys support, train, and guide the belt while transferring the required driving power to move your conveyor system.
Features and Benefits	<ul> <li>Simple speed adjustment</li> <li>Acts as mechanical fuse to protect gearboxes and motors</li> <li>Synchronous belt drives deliver 98 percent energy efficiency with no maintenance after initial install</li> </ul>	<ul> <li>Extends rotating equipment life</li> <li>Dampens shock loading in aggressive applications</li> <li>Acts as mechanical fuse to protect gearboxes and motors</li> </ul>	<ul> <li>Pulleys available from stock as individual components or complete assemblies</li> <li>Standard and proprietary lagging options to extend the life of your pulley and conveyor belt</li> <li>Robust offering of different construction types</li> <li>Variety of bushing options for quick installation and removal</li> </ul>



### **IIoT Technologies**

Dodge provides monitoring solutions that give an overall health indication of products, letting you know when maintenance is needed before it's too late.

Industrial Internet of Things (IIoT) enables users to reduce downtime, improve reliability, and operate safely. The Dodge sensor gives warnings on decreasing health status, allowing you to schedule maintenance before there is a problem and the system goes down. The ability to monitor equipment remotely allows users to safely assess equipment health without removing guards or stopping equipment.



	Dodge products are IIoT ready	Sensors	Gateways
Description	Dodge mounted bearings and enclosed gearing are sensor- ready out of the box. These standard products include drilled and tapped holes to allow for quick sensor installation. When combined with the 3-minute sensor commissioning time, remote monitoring of your equipment has never been easier.	Easy-to-use wireless sensors monitor the health of your Dodge products, allowing users to operate safely, improve reliability, and reduce or eliminate unscheduled downtime.	<ul> <li>Our gateways enable routine and hands-off collection of sensor data, unlocking the true potential of our condition monitoring system. There are two user-friendly options:</li> <li>The cloud gateway uploads data to a cloud-based portal</li> <li>An on-premise gateway provides a wireless, cloud-free solution that communicates sensor data to existing industrial control systems such as PLCs and HMIs</li> </ul>
Features and Benefits	<ul> <li>Mounted bearings and gearing are sensor ready and include: drilled, threaded, and plugged installation holes</li> <li>Domain expertise in applying sensors across a wide variety of applications and industries</li> <li>Dodge Field Sales Engineers understand your applications and how sensors can move those applications to include all the advantages of IIoT</li> </ul>	<ul> <li>Improve safety</li> <li>Battery operated</li> <li>No wiring</li> <li>No special tools required</li> <li>Reduce downtime</li> <li>Enables predictive maintenance</li> </ul>	<ul> <li>Simple</li> <li>Safe</li> <li>Secure</li> <li>Cloud-based and cloud-free solutions available</li> </ul>

### **Bulk Material Handling Solutions**

#### Trusted conveyor design partner

For larger projects, the Bulk Material Handling (BMH) team specializes in customized conveyor drive solutions. Equipped with unmatched design engineering and in-depth industry and product knowledge, the BMH team delivers packaged solutions in the mining, aggregate, cement, grain, and water/wastewater industries. With capabilities from project optimization, to shipping preassembled drive packages and complete pulley assemblies, Dodge BMH is the one-stop-shop to meet all of your mechanical needs.

### **Lifecycle Solutions** Your partner for the life of your products

The Lifecycle Solutions team partners with you for the entire life of your products. Our dedicated service center offers remanufacturing of Dodge products using OEM parts built to factory specifications. On-hand stock of common replacement parts results in increased productivity and minimized downtime. The Lifecycle Solutions team also provides field service support to keep you up and running.

In addition, training programs can be customized to your needs and include instructor-led guidance with hands-on demos and specialty tools.

# 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.

PT Wizard guides users through product selections, system design, and competitive interchanges. PT Wizard delivers pricing through the seamless connection to PT Place, Dodge's eCommerce platform, where customers can select and buy Dodge products through single, packaged, or bulk orders.



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