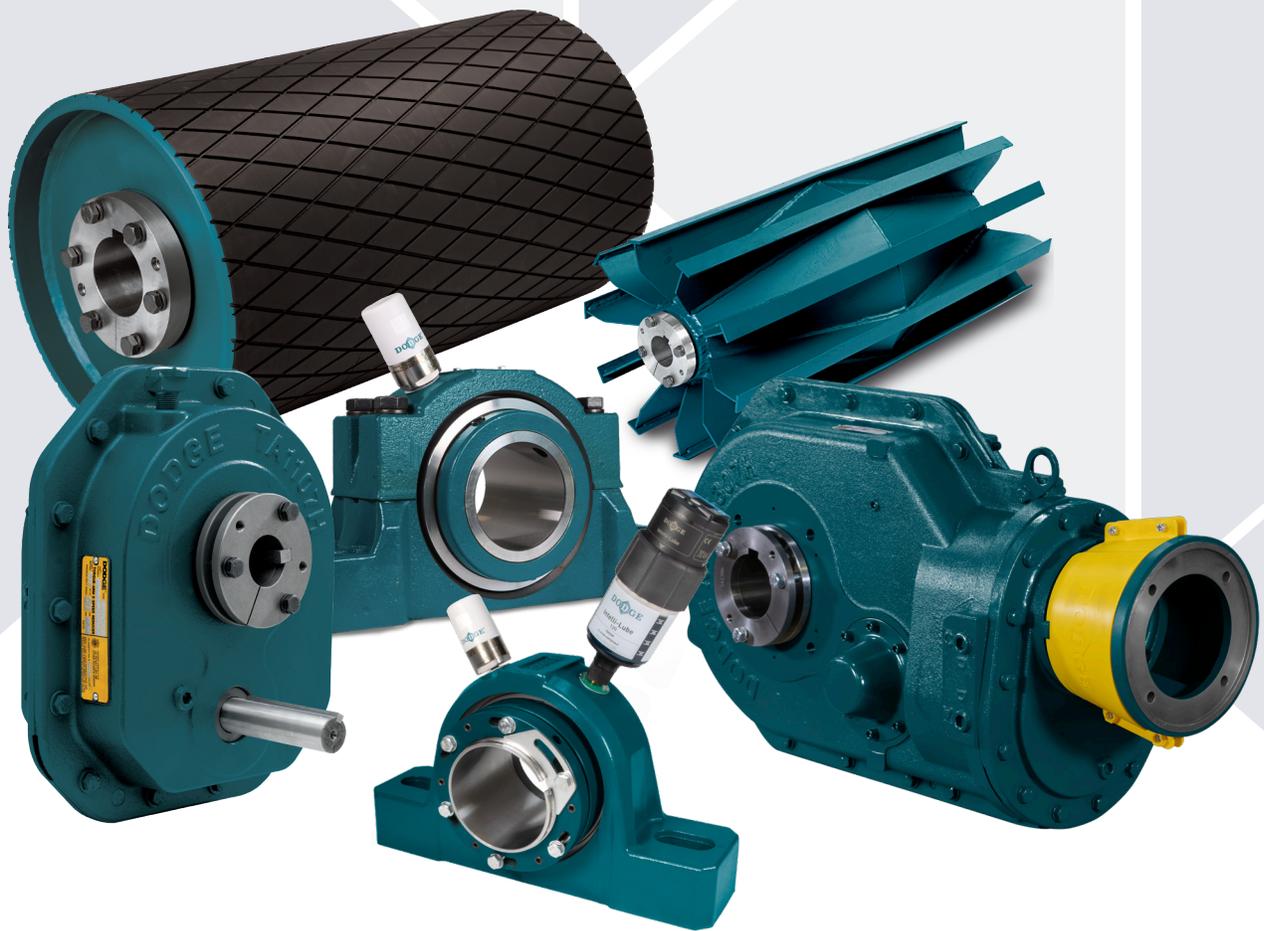


INDUSTRY

# Aggregate

Proven solutions to maximize productivity and safety



## Your trusted partner

Since 1878, the rich Dodge® legacy of innovation, safety, and quality has been unmatched in the industry. From inventing the concept of shaft mounting a gearbox to over a century of mounted bearing leadership, our mechanical power transmission products have been meticulously engineered to thrive in the harshest environments—enabling them to tackle the most demanding operations.

The increasing demand for crushed stone, sand, gravel, and other aggregate materials due to continuous population expansion and infrastructure investment necessitates aggregate operations to focus on boosting productivity and profitability to meet the needs of a growing world.

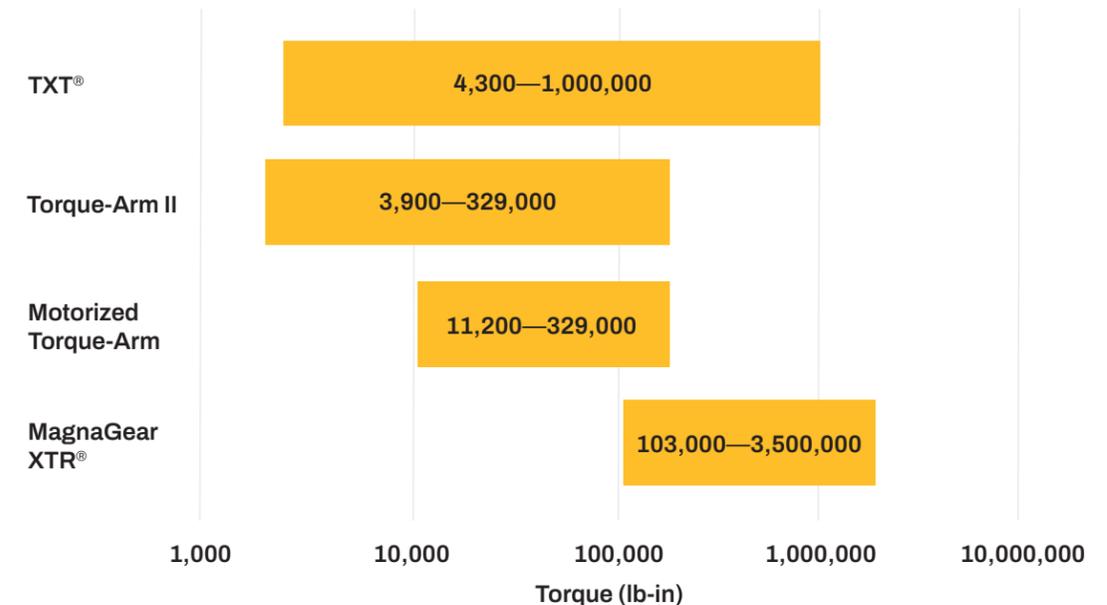
Whether you mine, crush, screen, blend, or convey it, you rely on equipment to move material throughout your facility—performing under rigorous conditions, including high shock loads and extreme weather, while keeping everyone safe.

With decades of experience in the aggregate industry and working with bulk material handling applications, we understand the challenges you face and are committed to providing you with reliable, tailored solutions for aggregate operations with built-in features for optimized performance, contamination ingress protection, and enhanced on-site safety.

## Gearing solutions for maximum performance

No matter the specific aggregate material you need to transport, crush, or screen, a reliable and efficient drive system is critical to the success of your conveyor applications. In combination with our conveyor engineering expertise and ability to build pre-assembled packaged solutions, our expansive offering of heavy-duty gearbox for drive packages supporting up to 3,500,000 pound-inches of torque is unmatched—providing you with multiple options to select the best fit for your exact application requirements.

### Gearbox torque ranges



### Twin-tapered bushing system

Our patented twin-tapered bushing system has been trusted for over 50 years in our gearboxes and is available for our TXT, Torque-Arm II (TA II), Motorized Torque-Arm (MTA), and MagnaGear XTR gearboxes.

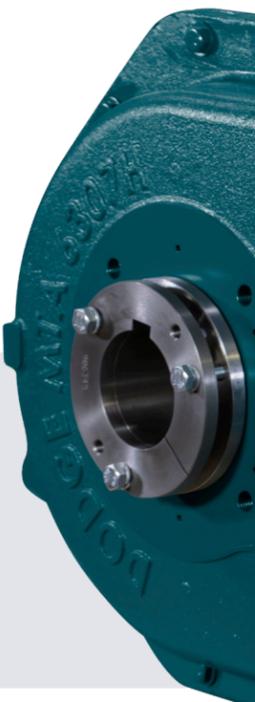
Designed with two fully split, eight-degree taper bushings, the system offers easy installation and guaranteed gearbox removal without requiring cutting the gearbox off the shaft—saving the gearbox and shaft, improving reliability, and maximizing uptime.

- Simplifies installation and removal
- Mitigates shaft-to-gearbox fretting
- Eliminates eccentricity and wobble
- Available in standard and short-shaft versions
- Available in inch and metric bores
- Increased bore capability in many sizes
- Shaft-ready out of the box
- Lowers total cost of ownership



#### Don't end up like this!

See how easy it is to remove a gearbox with twin-tapered bushings.



## Motorized Torque-Arm

Built for industry-leading performance in a compact design, MTA is a direct-drive gearbox offering the highest torque ratings per case size for reduced power consumption to optimize system efficiency.

The shaft-mount gearbox is easy to install, built with heavy-duty construction for superior reliability with less required maintenance, and is capable of tackling high-horsepower applications with ease—maximizing uptime and lowering your total cost of ownership.

### Sizes support drive packages up to 200 hp (150 kW)

- Multiple input adapter options to fit flanged and foot-mounted motors
- Severe-duty backstop designed to operate with extreme-pressure (EP) lubricant to minimize internal component wear

- Patented Hydrogenated Nitrile Butadiene Rubber (HNBR) sealing system with metal shield and excluder lip for extended wear in extreme environments with high contamination levels
- Reliability kits available to maximize critical equipment performance and operation uptime



AGMA-rated design



NOTE: Images not to scale

### Safety input adapter

- Features a wrap-style coupling
- Removable cover enables coupling access for streamlined maintenance and increased safety without requiring the removal of the motor
- Enables pairing with NEMA C-face motors in frame sizes 180T to 405T



Removable cover

## Torque-Arm II

The dependable shaft-mount gearbox is designed to optimize belt-driven applications with best-in-class efficiency and unparalleled torque ratings—increasing your productivity and uptime.

TA II includes patented, heavy-duty features to be an adaptable gearbox capable of withstanding heavy shock loads and harsh operating conditions.



### Sizes support drive packages up to 400 hp (300 kW)

- Flexible mounting options maximize versatility and optimize inventory: shaft mount, flange mount, vertical mount, and screw conveyor drive
- Severe-duty backstop designed to operate with EP lubricant to minimize internal component wear
- Patented HNBR sealing system with metal shield and excluder lip for extended wear in extreme environments with high contamination levels



ATEX-certified



AGMA-rated design



### Safety, more than an accessory

The safest product is one designed to operate reliably with little to no human interaction, and our solutions are safe by design.

When extra protection is needed, easy-to-install bushing covers, shaft guards, and belt guards are available to keep your employees safe from rotating equipment while accommodating OSHA and MSHA guidelines.



## TXT

Engineered to be a rugged, belt-driven solution for the most demanding applications, TXT continues to set the industry benchmark for performance and safety that other shaft-mount gearboxes strive to be.

Originally introduced as Torque-Arm in 1949 as the first shaft-mount gearbox, TXT leverages the decades of field-proven success Dodge gearboxes are known for—keeping your operations running smoothly.



### Sizes support drive packages up to 700 hp (525 kW)

- Flexible mounting options maximize versatility and optimize inventory: shaft mount, flange mount, vertical mount, hydraulic, and screw conveyor drive
- Premier sealing system with patented, durable oil seals with filter breather to protect against contamination ingress
- Severe-duty backstop designed to operate with EP lubricant to minimize internal component wear

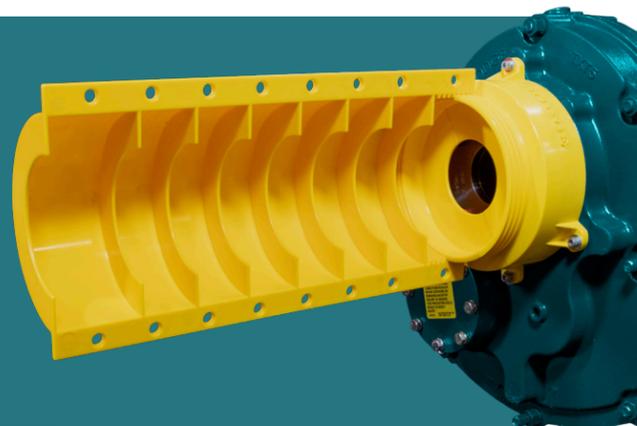


AGMA-rated design

### When extra protection is needed

Our solutions are intentionally designed for safe, reliable operation with little to no human interaction.

To minimize the risk of on-site injuries, easy-to-install bushing covers, tunnel access guards, and coupling guards are available—accommodating OSHA and MSHA guidelines while providing you with worry-free operation.



## MagnaGear XTR

Ideally suited for the most demanding bulk material handling applications, MagnaGear XTR is a power-dense gearbox that offers superior torque ratings with best-in-class reliability for long-term value.

Its planetary and helical gearing designs provide you with a compact solution that thrives in challenging environments—outlasting the competition to maximize your productivity.

### Sizes support drive packages

up to 2,500 hp (2 MW)

- Offered in offset-parallel and right-angle configurations to maximize application versatility and optimize inventory
- Tunnel-housing design is self-aligning between the motor, coupling, and gearbox to optimize performance, extending product life
- Patented HNBR sealing system with metal shield and excluder lip for extended wear in extreme environments with high contamination levels
- Heavy-duty bearings rated to last twice as long as the competition
- Reliability kits available to maximize critical equipment performance and operation uptime



AGMA-rated design



### Safe by design

At the core of our design philosophies, our products are engineered for simple and safe installation, operation, and removal.

Easy-to-install bushing covers, shaft guards, and belt guards are available to prevent the need for custom guarding and access to rotating equipment—improving employee safety and accommodating OSHA and MSHA guidelines.



## Mounted bearings for smooth operations

Our full portfolio of mounted bearings is the largest and most innovative in the industry with patented features for enhanced performance, improved safety, and maximum reliability—offering you solutions that combat common challenges, like shaft misalignment, with the lowest total cost of ownership.

In combination with our world-class manufacturing based in the USA, our mounted roller bearings are sensor-ready from the factory and are unrivaled in quality with multiple attachment methods, rolling elements, and seal options—being the trusted choice for operations for more than a century.

### Ball options



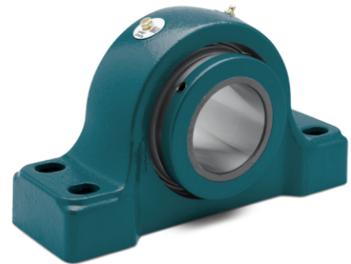
#### Extreme Duty

Extreme Duty mounted ball bearings are the proven solution to tackle the toughest industrial applications. Designed with our QuadGuard seal and patented Maxlife cage, the bearings efficiently retain clean grease—outperforming other manufacturer's products that unsuccessfully attempt to handle harsh, high-contamination environments.

**Attachment method**  
Set screw,  
eccentric collar,  
concentric collar

**Bore sizes**  
3/4 in—2-15/16 in  
(20 mm—75 mm)

### Spherical options



#### S-2000

Designed to be shaft-ready straight out of the box for quick and easy installation, S-2000 is the proven solution for various material-handling applications that provides long-lasting performance to lower your total cost of ownership.

**Attachment method**  
Set screw

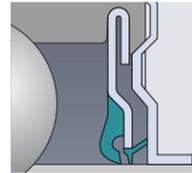
**Bore sizes**  
1-3/8 in—4-15/16 in  
(35 mm—125 mm)

#### Safety Mount® family

Known for its innovative design and patented lock plate technology, Safety Mount bearings feature a patented push-pull adapter mounting system for easy installation and removal without the use of feeler gauges or risk of shaft damage. Dimensionally interchangeable with competitive solutions, Safety Mount bearings offer consistent, high-quality performance in a wide range of configurations to be suitable for challenging bulk material handling applications.

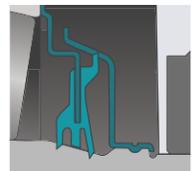
**Attachment method**  
Tapered adapter

**Bore sizes**  
1-7/16 in—7 in  
(35 mm—170 mm)



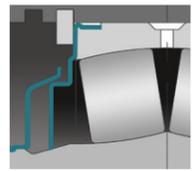
#### QuadGuard seal

Triple-lip seal with a rubberized flinger for added protection against contaminants in extremely harsh environments.



#### Trident™ seal

Triple-lip rubbing seal with tapered seal landing that maintains full contact even when misaligned, being extremely effective in dirty, low- to medium-speed applications.



#### Labyrinth seal (optional)

With corrosion-resistant flingers and steel clearance seals, the seal is ideal for high-speed and high-temperature applications.

### Tapered options



#### Type E

The high-capacity upgrade from mounted ball bearings, Type E features double-row tapered roller bearings for long-lasting, reliable performance in applications with moderate to heavy load requirements.

**Attachment method**  
Set screw

**Bore sizes**  
1-3/16 in—7 in  
(35 mm—170 mm)



#### TAF

Engineered to be a drop-in replacement for SAF pillow block mounted bearings with the extra strength needed for high radial- and thrust-load applications, TAF can be quickly installed while requiring up to 75 percent less grease to be a powerful, efficient option for conveyor applications moving bulk material.

**Attachment method**  
Set screw

**Bore sizes**  
1-7/16 in—7 in  
(35 mm—160 mm)

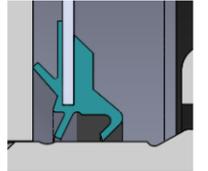


#### Defender Series

The Defender Series takes reliability to the next level by offering Type E and TAF with key upgrades out of the box, from the ArmorTect sealing system to 100 percent grease fill, for maximum protection in the harshest environments. Ideal for applications with heavy particulates, the Defender Series is the premier solution to keep your equipment moving no matter what your operations throw at it.

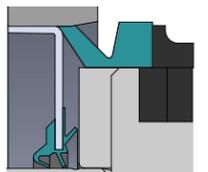
**Attachment method**  
Set screw

**Bore sizes**  
1-15/16 in—5-15/16 in  
(50 mm—150 mm)



#### XTS seal

Mechanically-retained, triple-lip seal maximizes protection from contamination and optimizes grease retention in harsh environments.



#### ArmorTect seal

A premium sealing system available only on the Defender Series of Type E and TAF, featuring four points of seal contact and two trash guards for maximum protection against contamination.

# Conveyor pulleys to keep product moving

From belt conveyors covering hundreds of feet to those spanning miles, pulleys are vital to moving valuable aggregate material to its next destination in your operations.

Available in a variety of styles, our full line of conveyor pulleys and pulley assemblies offer premier strength and endurance that meet and exceed CEMA design standards—providing reliable bulk material handling performance.

## Drum options



### Heavy-Duty\*

**Diameter**  
6 in—80+ in  
(152 mm—2,032+ mm)

**Face width**  
Up to 100 in (2,540 mm)

\*In-stock availability for common sizes

**Hub style**  
XT



### Mine-Duty Extra

**Diameter**  
6 in—80+ in  
(152 mm—2,032+ mm)

**Face width**  
Up to 100 in (2,540 mm)

**Hub style**  
HE, XT



### Engineered

**Diameter**  
6 in—80+ in  
(152 mm—2,032+ mm)

**Face width**  
Up to 100 in (2,540 mm)

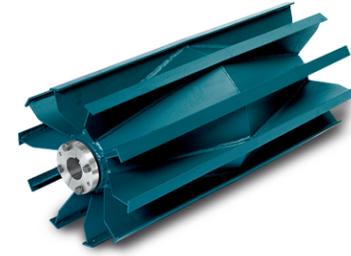
**Hub style**  
HE, XT  
keyless locking



## D-Lag

Our proprietary D-Lag features maximum resistance to abrasions, cuts, and gouges with an improved coefficient of friction and low-temperature flexibility—delivering up to two times greater life than standard Styrene-Butadiene Rubber (SBR) lagging.

## Wing options



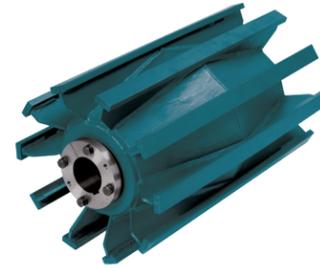
### Heavy-Duty\*

**Diameter**  
6 in—60+ in  
(152 mm—1,524+ mm)

**Face width**  
Up to 100 in (2,550 mm)

\*In-stock availability for common sizes

**Hub style**  
HE, XT



### Mine-Duty

**Diameter**  
8 in—60+ in  
(203 mm—1,524+ mm)

**Face width**  
Up to 100 in (2,540 mm)

**Hub style**  
HE, XT



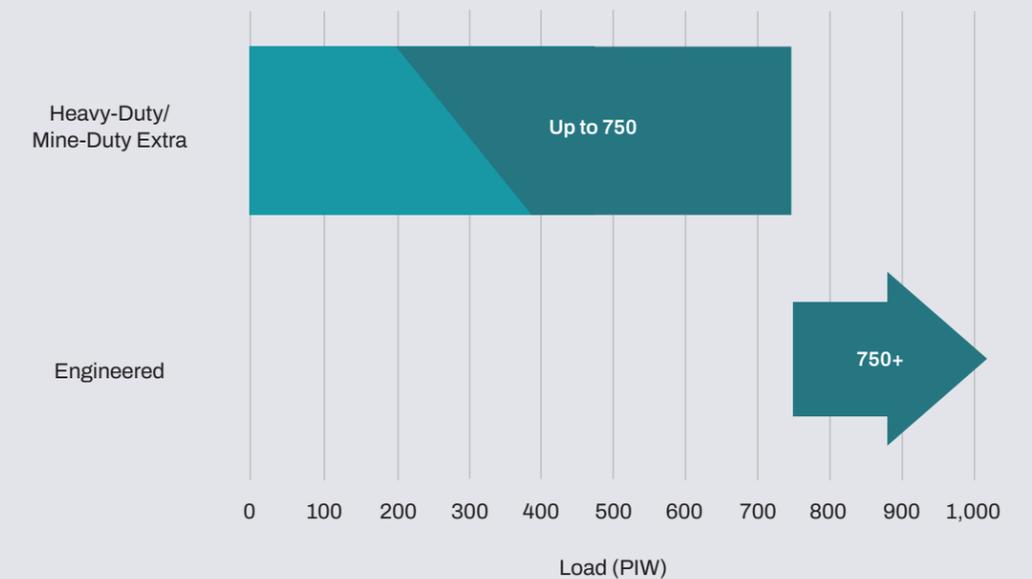
### Herringbone

**Diameter**  
10 in—60+ in  
(254 mm—1,524+ mm)

**Face width**  
Up to 100 in (2,540 mm)

**Hub style**  
XT

## Drum pulley ratings for belt use



## Expedited, made-to-order shafts

When you have unplanned downtime or demanding turnaround requirements, our in-house capability to create a variety of shaft options with quick lead times enables you to get your operations up and running as soon as possible.

### Parameters

- Material: 1045 or 4140 steel
- Length: 36 in—120 in (914 mm—3,048 mm)
- Diameter: 2-1/8 in—12 in (51 mm—305 mm)

### Qualifiers for shipping within 24 to 48 hours

- Material must be in stock
- Must have at least one turndown or keyway
- Drawing approval quickly signed by the customer



## Take-up frames

With eight standard-stock types, take-up frames provide structure to install mounted bearings, promote belt tracking, prevent belt slippage, and maintain shaft centers for manual take-up belt conveyor systems.

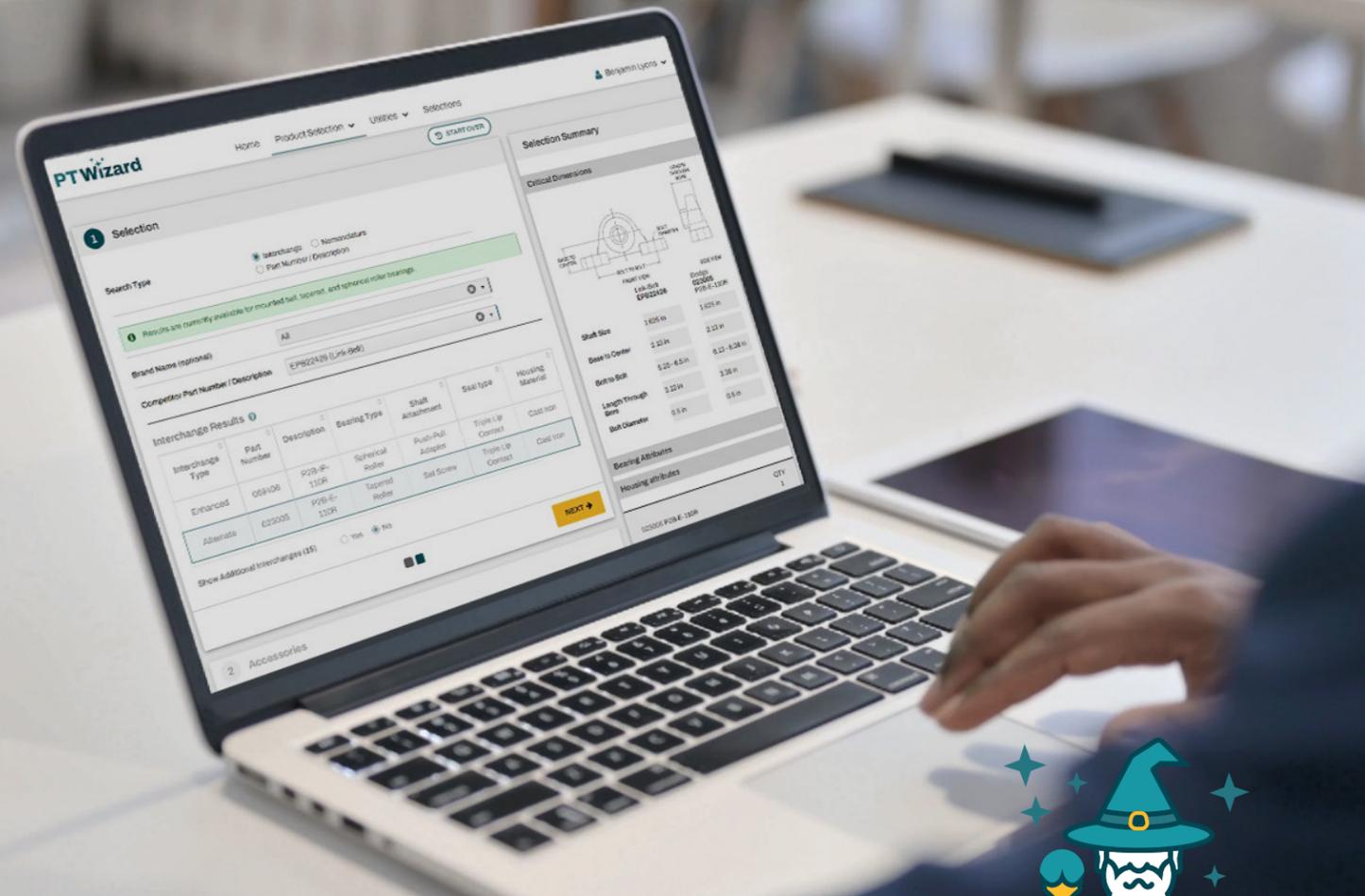
- Center-pull (CP)
- Heavy-duty (HD)
- Light-duty (LD)
- Narrow-slot (NS)
- Telescoping (TS)
- Top-angle (TP)
- Top-angle heavy-duty universal (TPHU)
- Wide-slot (WS)



## Conveyor design made easy, like magic

Backed by over 145 years of engineering excellence, PT Wizard is the easy-to-use program that provides a guided experience with built-in tools at your fingertips to ensure you can find the exact solution you need while saving you time and money.

- Product selection
- Competitive interchange
- Belt conveyor design tool
- Bearing grease calculator



Start designing your belt conveyor system at [ptwizard.com](http://ptwizard.com)



## Your one-stop-shop for packaged solutions

System1™ offers you an integrated, single-source solution for all your mechanical power transmission needs in bulk material handling applications.

At Dodge, we have the expertise and tools to assist with system design and optimized product selection to provide you with a customized, packaged solution for your exact requirements—making your aggregate project a success.



## One system, one source, one solution

System1 empowers you to save time and money by offering complete, factory-assembled packages ready to install on your equipment with a single invoice, warranty, and point of contact.

To streamline your on-site installation requirements, a package can include motors, couplings, gearbox, bases, guarding, drive components, shafting, bushings, conveyor pulleys, and mounted bearings.



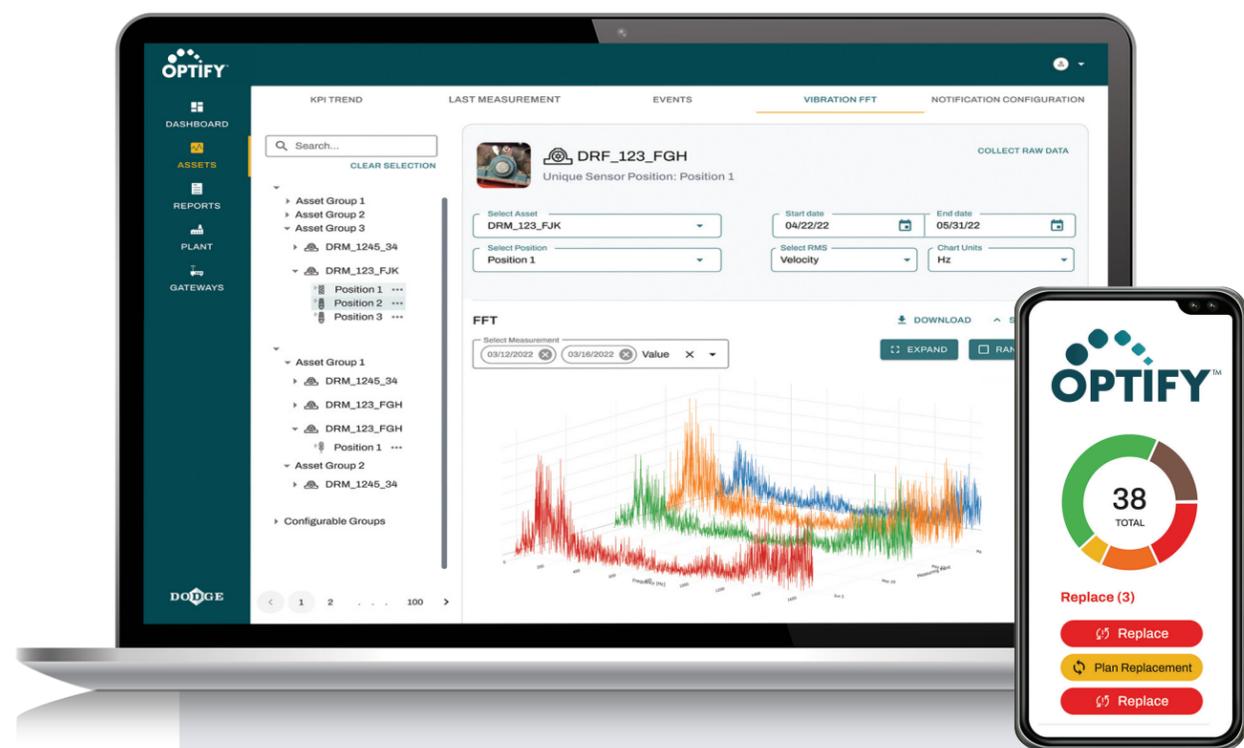
## Backed by a 3-year warranty

Packages with a Class II service factor or greater designed in PT Wizard or by a System1 engineer and purchased through the System1 team include an unmatched 3-year warranty on all products.



## Connected technologies to work smarter, not harder

OPTIFY™, our portfolio of Industrial Internet of Things (IIoT) solutions, allows you to 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

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.

### Performance Sensor

Built on the proven success of Dodge sensors, the specialized wireless sensor remotely captures temperature, vibration, and speed measurements in your mounted bearings, gearbox, and motors for complete powertrain condition monitoring.



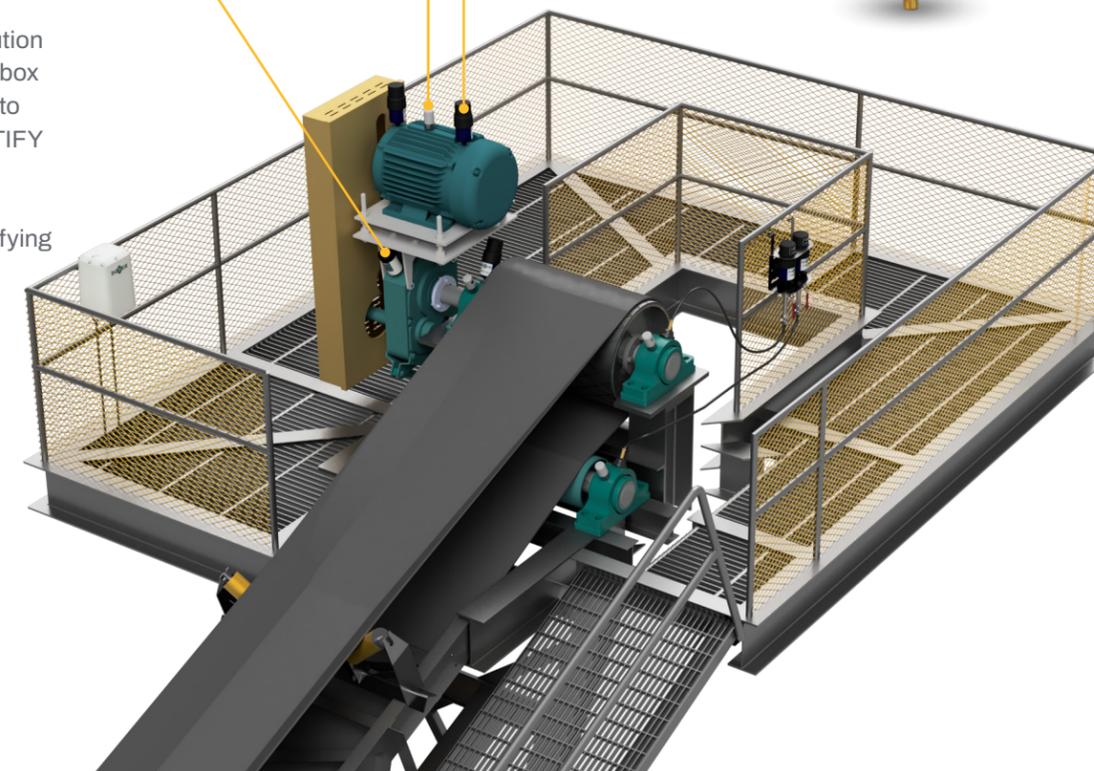
### Intelli-Lube™

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.



### Breather

The connected breather solution engineered to eliminate gearbox contamination, allowing you to tap into the power of the OPTIFY platform to remotely monitor breather health—enhancing gearbox reliability and simplifying on-site maintenance.



Scan to access OPTIFY or visit [dodgeoptify.com](https://dodgeoptify.com)

The OPTIFY mobile app is available at:



## Expert service and technical support

As industrial operations face shortages with personnel and skill sets in their workforce, external support can help overcome the labor challenges. Dodge expert service technicians with proven experience in the field are available for on-site assistance to ensure your Dodge mechanical and digital solutions are properly installed, commissioned, and maintained.

Backed by over 145 years of industry leadership, our field services are ideal to help you increase reliability and keeping your operations running smoothly—maximizing uptime and minimizing ongoing maintenance costs.

### Pre-installation

Our team is your partner to set your operations up for success, even before our expert technicians step foot on-site.

- Outline project scope and personnel requirements
- Customer site analysis and identification of installation locations
- Determine product solutions and calculate grease requirements for applications
- Establish OPTIFY platform plant, personnel, and asset data

### Installation and commissioning

Ensuring your products are installed and set up properly is a critical phase where our expertise is necessary to ensure long-term, trouble-free operations.

- Commissioning assistance for mechanical and digital solutions
- Guided on-site or Virtual Support maintenance training
- Hands-on OPTIFY platform training for asset condition monitoring
- Complete product installation services

### Post-installation

Once your products are installed, our technicians can establish ongoing support to empower your team with the tools and resources to avoid costly unplanned downtime, minimize maintenance costs, and maximize operation output.

- OPTIFY platform user training
- Verification of product performance
- Adjustment of asset alerts and alarms in the OPTIFY platform
- Detailed installation reports
- Ongoing service agreements for maintenance of OPTIFY solutions

[fieldservices@dodgeindustrial.com](mailto:fieldservices@dodgeindustrial.com)

+1 864 297 4800

### Dedicated engineering support

Access to award-winning customer service is available at your fingertips when you need it most. The industry-leading team of experts at Dodge is based in the United States and is committed to providing premier support to help you succeed.

[engineering@support.dodgeindustrial.com](mailto:engineering@support.dodgeindustrial.com)

+1 864 284 5700





**Dodge Industrial, Inc.**

1061 Holland Road, Simpsonville, SC 29681

+1 864 297 4800

**[dodgeindustrial.com](http://dodgeindustrial.com)**

Dodge Industrial, Inc. reserves all rights in this document and in the subject matter and illustrations contained therein. We reserve the right to modify contents without prior notice and do not accept responsibility for potential errors or possible lack of information in this document. Dodge Industrial, Inc. Terms and Conditions apply. Any reproduction, disclosure to third parties or utilization of its contents—in whole or in parts—is forbidden without prior written consent of Dodge Industrial, Inc.

© Copyright Dodge Industrial, Inc. All rights reserved. Specifications subject to change without notice.  
An RBC Bearings company.

BR8AG01-01.25