

















# TIMKEN






## PRODUCTS & SERVICES GUIDE




Timken® Roller Bearings		Size Range/Capabilities	Advantages
<b>TAPERED ROLLER BEARINGS</b>		<b>8 mm - 3000 mm</b> <b>0.31 in. - 118.11 in.</b> Single, double and multi-row configurations available	<ul style="list-style-type: none"> <li>Proprietary internal geometries and premium materials for superior durability in demanding applications</li> <li>Various angles and roller lengths provide the most extensive range of radial and thrust ratings for optimizing envelope size, minimizing weight, and improving system efficiency</li> </ul>
<b>SPHERICAL ROLLER BEARINGS</b>		<b>25 mm - 2500 mm</b> <b>0.98 in. - 98.43 in.</b> Steel or brass cage	<ul style="list-style-type: none"> <li>Longer rollers lead to higher capacity, resulting in longer bearing life</li> <li>Optimized cage design lowers operating temperatures, resulting in longer lubrication life</li> </ul>
<b>CYLINDRICAL ROLLER BEARINGS</b>		<b>65 mm - 1200 mm</b> <b>2.56 in. - 47.24 in.</b> Single, double and four-row configurations available	<ul style="list-style-type: none"> <li>Available with steel or brass cages and in full complement designs</li> <li>EMA high-performance series features brass land-riding cages that help decrease operating temperatures</li> </ul>
<b>THRUST BEARINGS</b>		<b>16.129 mm - 1352.55 mm</b> <b>0.6350 in. - 53.25 in.</b> Tapered, spherical, cylindrical and ball thrust bearings available in many row and cage configurations	<ul style="list-style-type: none"> <li>Optimal performance achieved in heavily loaded axial applications</li> <li>Comprehensive range of thrust ball, cylindrical, spherical and tapered bearings</li> </ul>
<b>ADAPT™ BEARINGS</b>		<b>100 mm - 170 mm</b> <b>3.94 in. - 6.70 in.</b>	<ul style="list-style-type: none"> <li>Combines cylindrical and spherical roller bearing designs into one easy-to-assemble, high-capacity configuration</li> <li>The only toroidal bearings in the industry that come standard with lubrication groove holes in the outer ring</li> </ul>
Timken® Ball Bearings			
<b>DEEP GROOVE BALL BEARINGS</b>		<b>3 mm - 160 mm</b> <b>0.12 in. - 6.30 in.</b>	<ul style="list-style-type: none"> <li>Tolerates relatively high-speed operation under light radial load conditions</li> </ul>
<b>ANGULAR CONTACT BALL BEARINGS</b>		<b>Single row: 10 mm - 150 mm</b> <b>0.39 in. - 5.91 in.</b> <b>Double row: 12 mm - 150 mm</b> <b>0.47 in. - 5.91 in.</b>	<ul style="list-style-type: none"> <li>Available in single-row and double-row design with steel, brass, and polymer cage options</li> </ul>
<b>WIDE INNER RING BEARINGS</b>		<b>15 mm - 75 mm</b> <b>0.59 in. - 2.96 in.</b>	<ul style="list-style-type: none"> <li>Set-screw and eccentric locking collar options</li> </ul>
Timken® Precision Bearings			
<b>MACHINE TOOL BEARINGS</b>		<b>10 mm - 200 mm</b> <b>0.39 in. - 7.87 in.</b>	<ul style="list-style-type: none"> <li>Highest speed capability with high precision for best-in-class accuracy</li> <li>Super precision ball bearings are available in a multitude of configurations including multiple contact angles, preload levels, and the possibility of ceramic balls</li> </ul>
<b>PRECISION MINIATURE AND THIN SECTION BEARINGS</b>		<b>10 mm - 200 mm</b> <b>0.39 in. - 7.87 in.</b> Stainless steel or chrome steel	<ul style="list-style-type: none"> <li>High accuracy with precision tolerances and superfinished raceways</li> <li>Fully customizable designs offering a wide range of configurations, including various cage types, ball materials, radial play options, lubrication choices, and integrated designs tailored to your specifications</li> </ul>
<b>PRECISION CROSSED ROLLER BEARINGS</b>		<b>203 mm - 2463 mm</b> <b>8 in. - 97 in.</b> Two-row bearings in single-row space	<ul style="list-style-type: none"> <li>Designed to offer the highest levels of rotational accuracy and rigidity while conserving space</li> <li>Withstand high overturning moments</li> </ul>
<b>PRECISION AEROSPACE BEARINGS</b>		<b>10 mm - 600 mm</b> <b>0.39 in. - 23.62 in.</b>	<ul style="list-style-type: none"> <li>Superior rotational accuracy, consistency and rigidity for a wide variety of aerospace applications</li> <li>Ball bearings, cylindrical and tapered roller bearings with high-strength machined cages to meet industry requirements</li> </ul>
Plain and Rod End Bearings			
<b>TIMKEN® SPHERICAL PLAIN BEARINGS</b>		<b>12.7 mm - 600 mm</b> <b>0.500 in. - 23.622 in.</b>	<ul style="list-style-type: none"> <li>Through-hardened steel construction to deliver consistent, reliable performance</li> <li>Supports high-capacity radial and axial loads</li> </ul>
<b>GGB® PLAIN BEARINGS</b>		<b>2 mm - 600 mm</b> <b>0.125 in. - 24 in.</b>	<ul style="list-style-type: none"> <li>Variety of self-lubricating, high-strength materials designed for managing friction across a variety of applications</li> </ul>

Product		Size Range/Capabilities	Advantages
<b>AURORA ROD END BEARINGS</b>		Broad product range to meet the needs of military/aerospace and commercial/ industrial markets	<ul style="list-style-type: none"> <li>Aircraft rod ends requiring and not requiring military approval</li> <li>Commercial/industrial rod ends are manufactured using two-piece (body and ball), or three-piece (body, ball, and race) construction</li> </ul>
<b>DURBAL® &amp; CHIAVETTE® ROLLING ROD ENDS</b>		<b>6 mm - 40 mm</b> Ball and roller Caged and full complement	<ul style="list-style-type: none"> <li>Ideal for high-stress and high-speed applications</li> </ul>
<b>DURBAL® &amp; CHIAVETTE® SLIDING ROD ENDS</b>		<b>5 mm - 80 mm</b> K, E series available	<ul style="list-style-type: none"> <li>Maintenance-free, heavy-duty rod ends with slicing execution, ideal for high-speed, high-temperature, and heavy load applications, including dynamic load peaks</li> </ul>




**Enhancements and Tools**

<b>TIMKEN® COATINGS AND ENGINEERED SURFACES</b>		PVD, Electrodeposited, Conversion and Spray Coatings	<ul style="list-style-type: none"> <li>Custom surface treatment technology solutions combat wear and improve component durability</li> </ul>
<b>GGB® TRIBOSHIELD POLYMER COATINGS</b>		Able to be applied to nearly any surface for a wide range of applications	<ul style="list-style-type: none"> <li>Offers geometric freedom for sliding surfaces, allowing them to coat virtually any shape or surface</li> <li>Improves performance by reducing friction, increasing wear life, reducing system noise, and improving corrosion resistance.</li> </ul>
<b>MAINTENANCE TOOLS</b>		Impact fitting tools, hydraulic/mechanical pullers and induction heaters	<ul style="list-style-type: none"> <li>Install, remove, and maintain bearings in the easiest, safest manner possible to maximize productivity and uptime</li> </ul>

**Timken® Corrosion-Resistant Solutions**



<b>CORROSION-RESISTANT DEEP GROOVE BALL BEARINGS</b>		<b>8 mm - 50 mm</b> <b>0.31 in. - 1.97 in.</b>	<ul style="list-style-type: none"> <li>Constructed with stainless steel rings, balls and cages</li> <li>NSF H1-registered water-resistant grease for shielded and sealed bearings</li> <li>FDA/EC compliant optically detectable blue seals</li> <li>Fully stainless steel with IP69K rated seals to prevent contaminant ingress</li> </ul>
<b>SOLID LUBE</b>		A micro-porous polymer structure combined with high-performance oils and additives	<ul style="list-style-type: none"> <li>Industrial, graphite, and food safe options</li> <li>Full-fill and large-oil reservoirs help guard against washdown and ingress of contaminants</li> </ul>
<b>RADIAL POLY-ROUND</b>		<b>10 mm - 40 mm</b> <b>0.39 in. - 1.57 in.</b> Stainless steel and engineered polymer design	<ul style="list-style-type: none"> <li>Has no rolling elements and does not require lubrication</li> <li>Ideal for low speeds and lightly-loaded applications subject to washdown chemicals</li> </ul>

**Nadella® Needle Roller Bearings**

<b>RADIAL NEEDLE BEARING</b>		<b>3 mm - 240 mm</b> <b>0.12 in. - 9.45 in.</b>	<ul style="list-style-type: none"> <li>Caged type for high-speed, full-complement for high load and stiffness</li> <li>Needle drawn cup bushes for compact design and solid race type</li> </ul>
<b>AXIAL BEARINGS</b>		<b>5 mm - 240 mm</b> <b>0.19 in. - 9.45 in.</b>	<ul style="list-style-type: none"> <li>Thin and thick version</li> <li>Cage and thrust plates assembled units</li> </ul>
<b>COMBINED BEARINGS</b>		<b>5 mm - 70 mm</b> <b>0.19 in. - 2.25 in.</b>	<ul style="list-style-type: none"> <li>For radial and axial load</li> <li>Drawn cup and solid-race type</li> </ul>

**Mounted Bearings**

**Timken® Mounted Roller Bearings**

<b>MOUNTED TAPERED ROLLER BEARINGS</b>		<b>30 mm - 180 mm</b> <b>1.18 in. - 7.09 in.</b>	<ul style="list-style-type: none"> <li>Manage high axial and radial loads and avoid contamination with a multi-point internal and external sealing solution to protect the bearing and improve grease retention</li> </ul>
<b>SOLID-BLOCK MOUNTED SPHERICAL ROLLER BEARINGS</b>		<b>35 mm - 380 mm</b> <b>1.38 in. - 14.96 in.</b>	<ul style="list-style-type: none"> <li>Multiple steel-housing and locking options with complete multi-point sealing solutions to optimize uptime</li> <li>Single and double set-screw, eccentric collar, and single or double nut adapter locking options</li> </ul>











Product		Size Range/Capabilities	Advantages
<b>SNT/SAF MOUNTED BEARINGS</b>		20 mm - 500 mm 0.18 in. - 20 in.	<ul style="list-style-type: none"> <li>Protected by a split-design cast iron or ductile iron housing with a Timken® high-performance spherical roller bearing inside</li> </ul>
<b>MOUNTED SPLIT CYLINDRICAL ROLLER BEARINGS</b>		35 mm - 600 mm 1.08 in. - 24 in.	<ul style="list-style-type: none"> <li>Completely split-to-the-shaft design makes installation and inspection easy</li> <li>Ancillary equipment does not need to be moved, resulting in time and cost savings</li> </ul>
<b>Timken® Mounted Ball Bearings</b>			
<b>FANIR® MOUNTED BALL BEARINGS</b>		15 mm - 75 mm 0.59 in. - 2.95 in.	<ul style="list-style-type: none"> <li>Multiple housing styles, shaft sizes, and sealing and locking solutions support a wide range of demanding applications and conditions</li> </ul>
<b>U SERIES MOUNTED BALL BEARINGS</b>		12 mm - 140 mm 0.47 in. - 5.51 in.	<ul style="list-style-type: none"> <li>Robust sealing performance in demanding environments which can result in extended bearing life</li> </ul>
<b>CORROSION-RESISTANT MOUNTED BALL BEARINGS</b>		20 mm - 50 mm 0.79 in. - 1.97 in.	<ul style="list-style-type: none"> <li>Designed with corrosion-resistant materials and food-grade lubricant to withstand aggressive washdowns and a variety of wet and dry contaminants</li> </ul>
<b>MOUNTED POLY-ROUND BEARINGS</b>		12 mm - 20 mm 0.47 in. - 0.79 in.	<ul style="list-style-type: none"> <li>USDA-accepted hygienic housing comply with NSF/ANSI/3-A SSI 14159-1 – 2014 requirements</li> <li>Engineered polymer and stainless steel sleeve design eliminates rolling elements and lubricant</li> </ul>




## Industrial Motion












<b>Linear Motion</b>			
<b>ROLLON® LINEAR RAILS</b>		18 mm - 63 mm 0.7 in. - 2.4 in.	<ul style="list-style-type: none"> <li>Robust, versatile linear guide rails with high load capacities and self-alignment capabilities, suitable for various industrial applications, including dirty environments</li> </ul>
<b>NADELLA® HEAVY-DUTY LINEAR GUIDES</b>		<b>Rail section: 26 mm - 80 mm</b> <b>Roller diameter: 52 mm - 115 mm</b> <b>Load capacity: 11900 N - 55600 N</b>	<ul style="list-style-type: none"> <li>Easy-to-install, cost-effective linear guides that support high loads and speeds in harsh environments</li> <li>Robust rail designs and versatile guide rollers, with Rolbloc carriages ensuring smooth, high-performance motion under heavy loads</li> </ul>
<b>NADELLA® CIRCULAR SYSTEMS</b>		<b>Rail section: 16.5 mm - 76 mm</b> <b>Roller diameter: 22 mm - 52 mm</b> <b>Load capacity: up to 70 kg</b>	<ul style="list-style-type: none"> <li>Composed of aluminum basement, guide rails, and carriages; transmission by gearbox and toothed belt; lubrication units and carriage indexing for precise carriage location</li> <li>Reduce working areas compared to traditional lines, increase efficiency and reliability, and are available in oval or ring configurations</li> </ul>
<b>ROSA® SISTEMI MG RAIL LINEAR GUIDES</b>		<b>Size 25, 35, 45, 55, 65</b> Short and standard carriage length	<ul style="list-style-type: none"> <li>Recirculating rollers for high loads, high stiffness, and reliability</li> <li>Lubrication system ensures optimal lubricant distribution regardless of mounting configuration</li> </ul>
<b>ROSA® SISTEMI ROLLER CAGE RAILS</b>		Wide range of crossed roller cage and V roller cage linear guides	<ul style="list-style-type: none"> <li>Through-hardened special alloyed steel have precision parallelism variations based on quality selection and undergo thorough individual inspections, including non-destructive checks to ensure the absence of heat treatment-induced micro-cracks</li> </ul>
<b>ROLLON® TELESCOPIC RAILS</b>		22 mm - 240 mm 0.8 in. - 9.4 in.	<ul style="list-style-type: none"> <li>Telescopic slide rails, with hardened and non-hardened raceways, support linear loads with precision ball or roller guides, offering high load capacities, low bending, and shock resistance for partial, total, or extended extraction up to 200%</li> </ul>
<b>ROLLON® ACTUATORS &amp; SYSTEMS</b>		<b>Actuators: 30 mm - 220 mm</b> <b>Rack &amp; Pinion: 90 mm x 90 mm</b> <b>360 mm x 200 mm</b> Steel RTU: Carries robots as large as the Fanuc M-2000	<ul style="list-style-type: none"> <li>Linear actuators with belt, ball screw, or rack and pinion drives, and guides for various load capacities</li> <li>Rack-and-pinion actuators balance payload, precision, and durability - ideal for industrial automation and material handling</li> <li>The steel shuttle system is designed for moving large robots and heavy loads with adaptable guiding systems</li> </ul>
<b>BALL SCREWS</b>		Diameter from 16 mm - 160 mm, lead from 5 mm - 120 mm, and shaft length up to 15 m in a single piece	<ul style="list-style-type: none"> <li>Manufactured according to tolerance grades ISO 1-3-5-7</li> <li>Different types of preloaded and non-preloaded nuts, and different types of ball recirculation systems are available</li> </ul>



**Lubrication and Seals**      **Size Range/Capabilities**      **Advantages**

<p><b>TIMKEN® GREASE/ LUBRICATION</b></p> 	<p>27 formulations of grease for Industrial, Automotive and Rail Grease</p>	<ul style="list-style-type: none"> <li>• High-temperature, anti-wear, and water-resistant additives optimize operations in the toughest environments</li> </ul>
<p><b>GROENEVELD® &amp; BEKA® AUTOMATIC LUBRICATION SYSTEMS</b></p> 	<p>Wide range of automatic lubrication systems, fluid control systems and lubricants</p>	<ul style="list-style-type: none"> <li>• Improved uptime leads to higher productivity</li> <li>• Extended service life of critical components means lower repair and maintenance costs</li> <li>• Improved safety for workers; decreased environmental burden</li> </ul>
<p><b>DES-CASE® BREATHERS</b></p> 	<p>Broad range of desiccant and non-desiccant breathers, with filter efficiencies as low as 0.3 micron</p>	<ul style="list-style-type: none"> <li>• Protect against even the smallest particulates and water ingestion that destroy the effectiveness of your machinery, cause downtime and costly repairs</li> </ul>
<p><b>DES-CASE® FILTRATION SYSTEMS/ELEMENTS</b></p> 	<p>Range of portable, dedicated and by-pass filtration options and array of high dirt-holding/high-efficiency filter elements</p>	<ul style="list-style-type: none"> <li>• Actively filtering lubricants to acceptable cleanliness levels can dramatically improve industrial equipment performance and lubricant life, preventing production downtime and high machinery repair costs</li> </ul>
<p><b>DES-CASE® MONITORING</b></p> 	<p>Visual oil analysis products are available in various volumes and lengths to fit any application. Range of connected solutions, including sensors and particle counters</p>	<ul style="list-style-type: none"> <li>• Monitor the health and level of your lubricants with Des-Case visual oil analysis and oil condition monitoring products</li> <li>• Provides data for early failure prediction or prevention, allowing time to avoid a catastrophic equipment failure, ensuring longevity and smooth operation of the equipment</li> </ul>
<p><b>DES-CASE® STORAGE &amp; HANDLING</b></p> 	<p>A range of simple, stackable, and easy-to-store units and oil transfer containers, from 1 gal to 225 gal</p>	<ul style="list-style-type: none"> <li>• Combine filtration, storage, and breather technologies to keep your lubricants clean and dry before they enter your equipment</li> </ul>
<p><b>TIMKEN® SEALS</b></p> 	<p>Commercial vehicle, light vehicle, oil, and V seals available</p>	<ul style="list-style-type: none"> <li>• Designed to retain lubrication and block contaminants for optimal bearing and system performance</li> </ul>
<p><b>LAGERSMIT® SEALS</b></p> 	<p>Marine sealing solutions for stern tubes and thrusters</p>	<ul style="list-style-type: none"> <li>• Effective separation of water and lubricants</li> <li>• Suitable for both new-build and retrofit applications</li> <li>• Modular, made-to-measure options</li> </ul>







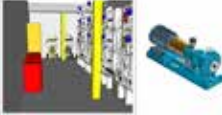
**Drives & Gears**

<p><b>CONE DRIVE® WORM DRIVEN GEARING</b></p> 	<p><b>39 mm - 711 mm</b> <b>1.5 in. - 28 in.</b></p>	<ul style="list-style-type: none"> <li>• Double enveloping worm gearing to provide greater torque in a space-saving design</li> <li>• Available with standard, low, or zero backlash</li> <li>• Customizations available</li> <li>• IP69k available (sizes 39 - 76 mm)</li> <li>• Industry-leading warranty and lead times</li> </ul>
<p><b>CONE DRIVE® HARMONIC GEARING</b></p> 	<p><b>11 mm - 32 mm</b></p>	<ul style="list-style-type: none"> <li>• Ring, cup, and hat styles available</li> <li>• Zero to low backlash</li> <li>• High transmission accuracy</li> <li>• Customizations available</li> <li>• Competitive lead times</li> </ul>
<p><b>SPINEA® CYCLOIDAL GEARING</b></p> 	<p><b>50 mm - 285 mm</b></p>	<ul style="list-style-type: none"> <li>• Available with integrated drive</li> <li>• Designed for high precision, torque-dense applications</li> <li>• Zero to low backlash</li> <li>• High moment capacity and tilting stiffness</li> <li>• Low friction</li> </ul>

Product	Size Range/Capabilities	Advantages
<b>PHILADELPHIA GEAR® NEW AND REPLACEMENT GEARBOXES</b> 	Custom low- and high-speed gearboxes designed and manufactured to your specifications and application	<ul style="list-style-type: none"> <li>Backed by over 130 years of design engineering and manufacturing expertise</li> <li>Flexible gearbox configurations to fit your specific footprint</li> <li>We can create virtually any industrial gear arrangement, including parallel shaft, double helical, planetary/epicyclic, bevel helical, and more</li> </ul>
<b>LOVEJOY® UNIVERSAL JOINTS</b> 	Can accommodate misalignment up to 35° on single joints and 70° on double joints	<ul style="list-style-type: none"> <li>Strong, durable, and flexible joints, designed to be disassembled and reassembled without damaging components and can be readily taken apart without special tools</li> <li>Built-in system provides sustained lubrication</li> </ul>
<b>Belts &amp; Chain</b>		
<b>DRIVES® AUGERS</b> 	Helicoid and sectional augers available for industrial applications like conveyors, diggers, and combines	<ul style="list-style-type: none"> <li>Helicoid augers reduce friction, wear, and power requirements in screw conveyors moving bulk materials</li> <li>Sectional augers fit heavy-duty requirements in applications needing a thicker outside diameter flight edge – providing extended wear life</li> </ul>
<b>TIMKEN BELTS</b> 	Purpose-built and designed for optimal performance in a multitude of demanding applications	<ul style="list-style-type: none"> <li>Comprehensive line of premium-quality synchronous, heavy-duty v-belts, banded belts, fhp belts, and specialty belts</li> <li>Engineered and built to rigid specifications to provide superior performance and reliability</li> </ul>
<b>DIAMOND® AND DRIVES® PRECISION ROLLER CHAIN/ ENGINEERED CLASS ROLLER CHAIN</b> 	Built to optimize performance and increase uptime in industrial applications	<ul style="list-style-type: none"> <li>Precision roller chain is manufactured to ANSI or ISO standards using a multi-step process, including material selection, fabrication, heat treatment, shot-peening (where applicable), lubrication, and pre-loading</li> <li>Engineered class chain is built for unique applications that do not conform to ANSI or ISO standards, which are created using high quality steel, component and assembly tooling, and heat treatment processes</li> </ul>
<b>Couplings, Clutches, Brakes and Torque Limiters</b>		
<b>LOVEJOY® QUICK FLEX®</b> 	<b>Available in fifteen sizes with max bores up to 505 mm or 20 in.</b>	<ul style="list-style-type: none"> <li>Transmit the same or higher torque than a gear, grid, chain, or other elastomeric couplings with similar dimensions</li> <li>Easy to install and requires no lubrication; lifespan matches the rotating equipment</li> <li>Insert is easy to replace without moving hubs</li> </ul>
<b>LOVEJOY® JAW IN-SHEAR COUPLINGS</b> 	<b>Available in bore sizes of up to 229 mm or 9 in.</b> Accommodates nominal torque up to 183,000 in-lbs	<ul style="list-style-type: none"> <li>Easy-to-replace insert without tools or removing hubs</li> <li>Twice the misalignment capacity over standard jaw coupling</li> <li>Reduces downtime and maintenance cost</li> </ul>
<b>LOVEJOY® DISC COUPLINGS</b> 	Can accommodate angular misalignment of 0.5° to 1.5° Torque capacity up to 7,700,000 in-lbs	<ul style="list-style-type: none"> <li>Eliminates the need for lubrication and reduces maintenance</li> <li>Can be inspected without disassembly with a strobe light while the machine is running</li> <li>No wearing parts</li> </ul>
<b>LOVEJOY® HERCUFLEX® GEAR COUPLING</b> 	<b>Sizes from 7/16 in. to 44 in.</b> Torque capacity of up to 54,000,000 in-lbs	<ul style="list-style-type: none"> <li>Incorporating the latest advances in Finite Element Analysis (FEA) technology, with revolutionized HercuFlex Gear coupling</li> <li>Advanced seal design increases contamination resistance</li> <li>Interchangeable with standard AGMA and industry standards</li> </ul>
<b>TORSIONAL CONTROL PRODUCTS® SPRING COUPLINGS</b> 	Engineered spring couplings are designed specifically for demanding applications to isolate torsional vibration from the system	<ul style="list-style-type: none"> <li>Precise tuning for best isolation</li> <li>High-heat resistance</li> <li>Consistent stiffness over time and temperature</li> </ul>
<b>PT TECH® BRAKES</b> 	A wide variety of brake sizes and styles in demanding industrial applications	<ul style="list-style-type: none"> <li>Highly engineered, rigorously-tested designs for demanding applications</li> <li>Unrivalled energy capacity provides long life and reliable performance</li> </ul>

Product		Size Range/Capabilities	Advantages
<b>PT TECH® CLUTCHES</b>		<p>Microprocessor-controlled, hydraulically-applied clutch</p> <p>Wet and dry configurations available</p> <p>Designed for industrial diesel engines ranging from 80 - 1600 HP</p>	<ul style="list-style-type: none"> <li>• Provides "Push Button" engagement</li> <li>• Monitors and reports system status</li> <li>• Self-adjusting for wear</li> <li>• Designed to absorb shock loads</li> </ul>
<b>PT TECH® TORQUE LIMITERS</b>		<p>Continuously-engaged friction torque limiters provide consistent, reliable, maintenance-free torque protection in a wide variety of demanding industrial applications</p>	<ul style="list-style-type: none"> <li>• Unrivalled energy capacity provides long life and reliable performance</li> <li>• Patented design provides consistent torque throughout the wear life with no need for adjustment</li> <li>• Endlessly rebuildable with easy-to-use kits</li> </ul>

## Industrial Services

Service		Size Range/Capabilities	Advantages
<b>PHILADELPHIA GEAR® GEARBOX REPAIR, PARTS, AND ONSITE TECHNICAL SERVICES™</b>		<p>We can service virtually any size and brand of gearbox for heavy industry</p>	<ul style="list-style-type: none"> <li>• One-stop shop for gearbox repair, including reliable, responsive gear drive inspections, overhauls, and upgrades</li> <li>• OEM parts, open gearing, and 24/7 technical expertise at your location from our Onsite Technical Services team</li> </ul>
<b>ELECTRIC MOTOR, GENERATOR AND CONTROL SYSTEMS SERVICE</b>		<p>Electric motor repair facilities can service both generators and motors from fractional up to 50,000 horsepower</p>	<ul style="list-style-type: none"> <li>• Industrial electric motor and generator repairs from Smith Services™, Schulz Electric™, and H&amp;N Electric™</li> <li>• New electric motor sales</li> <li>• Preventative maintenance and diagnostic services</li> <li>• Control systems design and repair</li> </ul>
<b>TIMKEN® BEARING REPAIR SERVICES</b>		<p>Capacity to handle any brand, any type of bearing (between 12 in. to 84 in. product range)</p> <p>Capability to maintain Class 3 and C08 precision runout levels</p>	<ul style="list-style-type: none"> <li>• Any bearing type, any manufacturer</li> <li>• With each repair cycle, you can save 20 to 60 percent of the cost of replacing the bearing</li> </ul>
<b>OVERHEAD BRIDGE CRANE MANUFACTURER AND HOISTS</b>		<p>Up to 120-ton bridge cranes with more than 100-foot spans</p>	<ul style="list-style-type: none"> <li>• Wazee™ overhead bridge and pre-engineered cranes</li> <li>• Crane service and overhead crane/hoist parts</li> <li>• Manufacture spreader beams</li> <li>• Crane modernizations and upgrade service</li> </ul>
<b>WIND TURBINE REPAIR AND SERVICE</b>		<p>Capable of handling inspections, overhauls, and upgrades on virtually every generator found in the wind power generation industry</p>	<ul style="list-style-type: none"> <li>• Wind generator inspection, repair, and testing capabilities</li> <li>• Specialized wye ring repair from H&amp;N Wind™</li> <li>• Up-tower wind turbine generator service</li> <li>• Wind generator parts</li> </ul>
<b>DES-CASE® LUBRICATION &amp; OIL ANALYSIS TRAINING</b>		<p>In-person and live virtual training classes, taught by subject matter experts, as well as an interactive Learning Management System</p>	<ul style="list-style-type: none"> <li>• Designed to help companies develop and deploy an executable plan to achieve lubrication best practice</li> <li>• Comprehensive content and several courses to meet educational requirements</li> </ul>
<b>DES-CASE® ON-SITE LUBRICATION ASSESSMENT AND ENGINEERING</b>		<p>Seasoned professionals guide you through ways to lubricate your applications</p>	<ul style="list-style-type: none"> <li>• Unique services and a wide array of products and support help you increase uptime, reduce costs, and gain greater equipment efficiencies</li> </ul>

# TIMKEN VALUE PROPOSITION

With more than a century of knowledge and innovation, Timken is an industry-leader in designing, manufacturing and applying high performance engineered bearings into our customers' most challenging applications.

With one common global quality system across all manufacturing plants, we deliver consistent product performance and reliability anywhere in the world.

As a Timken customer, you are connected to a team of application, sales and on-site service engineers who help solve unique equipment challenges resulting in extended uptime, productivity and efficiency.



# TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

**Stronger. By Design.**

[www.timken.com](http://www.timken.com)