

WOOD BASED PANEL

INDUSTRY SOLUTIONS





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Today's environment has created many new and unique challenges for the wood based panel industry:

- Equipment reliability
- Plant productivity
- Cost reductions
- Energy savings
- Environmental regulations



SOLUTIONS

INCREASE RELIABILITY AND REDUCE COSTS

CHESTERTON® has worked with wood based panel plants around the world to gain a sound understanding of the industry's requirements. Whether it's particleboard, plywood, chipboard, OSB, MDF, HDF, OSL, THDF or bio-composite boards, we have experienced personnel to service your needs. Our local Specialists have the ability to analyze applications and implement programs as a single point solutions provider—*solutions that drive significant improvements in equipment reliability and reductions in overall costs.*



Total Solutions Approach

Chesterton Specialists incorporate a solutions approach by using an array of products, services and programs to help you manage your plant's critical assets. Our offerings include:

- Specialty **lubrication programs** for chains and bearings
- Custom **polymer seals** engineered for presses, cylinders and rotating equipment
- **Advanced composites** for concrete and metal surfaces
- Superior **sealing systems** and technologies for rotating equipment

TOTAL SOLUTIONS APPROACH

Plant-wide solutions to improve productivity and lower costs

Chesterton's solutions approach applies to many aspects of the manufacturing process. Our offerings are specifically designed to improve reliability, ensuring your plant continues to operate smoothly and efficiently for years.



Wood Handling

Cleaning, sizing, debarking, chip and veneer formation, and transportation all take their toll on your equipment. Our advanced composite linings, lubricants, and polymer seals have been proven to protect equipment and extend MTBR in demanding applications.

- Hydraulic equipment
- Chip and de-barking screws
- Drums and distributors
- Conveyers, hoods, and feeders
- Chains and bearings
- Decks and platforms
- Trash pumps and lifter valves

Preparation and Mat Forming

Washing, refining, blending, and drying equipment require robust solutions to maximize performance. Our sealing devices, advanced composites, and specialty lubricants extend equipment life and optimize process reliability.

- Screw feeders and chip screens
- Water, boiler, booster, and chip pumps
- Discharge, moistening, and refiner screws
- Agitators, bins, vessels, and secondary containment
- Refiners, silos, hoppers, cyclones, and piping
- Veneer dryer chains and bearings



Pressing is widely recognized as the most critical operation in the mill.

Pressing

Leak-free hydraulic sealing is crucial to product quality, synchronization, and plant throughput. Our polymer sealing and lubrication technologies ease performance, safety, and environmental concerns by improving the overall reliability of your single, multi-daylight, and continuous presses.

- Main press and pull back cylinders
- Synchronization cylinders
- Jack ram cylinders
- Plunger and double-acting cylinders
- Chains, pins, rods, belts, and bearings



Lamination and Post-Forming

High speeds, excessive loads, and extreme temperatures are difficult challenges. That is why we apply a system approach towards sealing hydraulic presses and cylinders with reliable, leak-free, polymer seals.

- Main press cylinders
- Pull back cylinders

Energy Plant

Utilities provide energy plant-wide to maximize overall operational efficiency. Utilizing our industrial power plant experience, we offer proven sealing technologies for pump, valve, and heat exchanger applications to maximize up-time and lower total operating costs.

- Water and condensate pumps
- Vacuum and screen wash pumps
- Slurry and fuel oil pumps
- Valves and heat exchangers



MAINTENANCE PROGRAMS



Programs that improve reliability and lower costs

Chesterton offers a full range of value-driven, maintenance programs that improve reliability and lower operating costs. Our custom polymer seals, specialty lubricants, advanced composites and fluid sealing devices are engineered to optimize process reliability, extend equipment life, and lower total operating costs.

Hydraulic Equipment Upgrade

Chesterton offers a systematic approach for improving hydraulic bearing and seal performance during the repair and overhaul of your cylinders and presses. In some cases our solutions can be applied in damaged and worn equipment, thus eliminating the need for a major overhaul. Our high performance hydraulic seals and wipers are used in combination with replaceable precision bearing bands to offer leak-free and maintenance-free operation of your equipment for years.



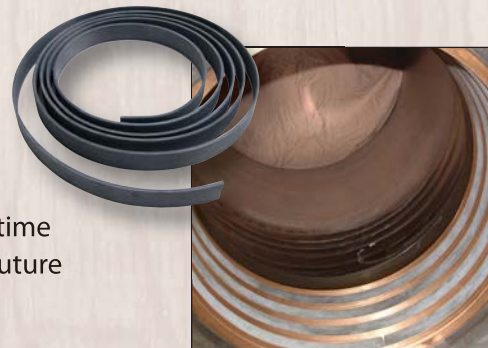
Engineered polymer seals and wipers

- Patented 11K split seal set provides superior sealing while simplifying installation and eliminates future adjustments
- Exclusive dual material combinations for use in new and worn equipment
- Advanced wiper designs prevent scoring and system contamination



High performance precision bearing bands

- Heat stabilized nylon offers high load capacity that withstands extreme side loading
- Split design simplifies installation and minimizes downtime
- Retrofits existing grooves and eliminates unnecessary future modifications



Chain Life Extension

Chesterton has a broad range of advanced lubricants specifically designed for chains that have proven to extend life and lower energy use while keeping the chain clean.

601 Chain Drive, Pin and Bushing Lubricant

Optimizes transport and power chains throughout the plant

- Penetrates to the pin and bushing while providing high-load film
- Prevents dust and wood fiber from building up
- Low coefficient of friction reduces energy consumption by up to 10%

610 Synthetic Lubricants

A range of synthetic lubricants optimized for high temperature, continuous press chains

- Extremely low evaporation, reducing lubricant usage by up to 50%
- Minimum residue formation, eliminating the need to mechanically clean equipment
- High lubricity and extreme pressure capabilities, reducing wear and equipment failure



Bearing Reliability

Bearing reliability requires a systems approach that couples both lubrication and bearing protection. Our high performance lubricant technologies combined with the right bearing protection provide the solutions you need.



615 High Temperature Grease

- Extended bearing life and improved productivity
- Reduced grease consumption, lower operational costs
- Exceptional water resistance and corrosion protection

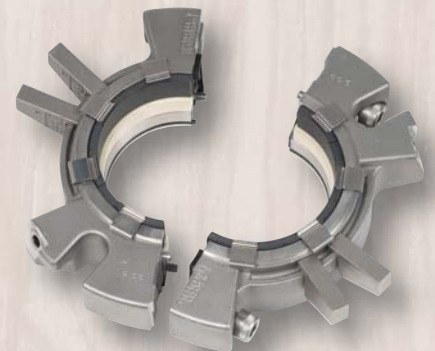
30K and 33K Seals

- High performance bearing protection extends MBTR
- Split design eliminates the cost and time of equipment teardown

Rotating Equipment

Chesterton offers a full range of innovative sealing solutions for rotary equipment. Our complete range of mechanical seals and packings is designed to simplify installation, improve reliability, provide standardization, and increase productivity.

- **442 Split Seals** eliminate costly equipment disassembly for large equipment
- **S10 Cartridge/Cassette Seals**, an option for standardization and rebuilds
- **SpiralTrac™** Environmental Controllers prolong the life of mechanical seals and packings
- Advanced **mechanical packings** offer superior leakage control, reduced power consumption, and long term sealing



Protective Coatings Solutions for Abrasion, Corrosion, and Chemical Attack

From log handling to forming and pressing, from the utilities plant to the wastewater treatment area, Chesterton's ARC composite coatings provide long-lasting protection to equipment and structures from abrasion, corrosion, and chemical attack. Utilizing advanced materials selection and formulating design, our protective coatings are protecting wood based panel mills around the world.



- Trowelable and brushable ceramic reinforced composite coatings for severe sliding abrasion and impact service typically associated with high wear zones in materials handling equipment and structures
- Quartz reinforced resurfacers and composite coatings for the rebuilding and protection of concrete exposed to chemical and abrasion attack
- Sprayable protective linings for vessels and structures exposed to severe chemical and corrosion attack



Let us introduce you to a new level of protection to keep your plant's equipment and structures operating at maximum efficiency and availability.

GLOBAL SOLUTIONS, LOCAL SERVICE

Since its founding in 1884, the A.W. Chesterton Company has successfully met the critical needs of its diverse customer base. Today, as always, customers count on Chesterton solutions to increase equipment reliability, optimize energy consumption, and provide local technical support and service wherever they are in the world.

Chesterton's global capabilities include:

- Servicing plants in over 100 countries
- Global manufacturing operations
- More than 500 Service Centers and Sales Offices worldwide
- Over 1200 trained local Service Specialists and Technicians

Visit our website at
www.chesterton.com



ISO certifications available at www.chesterton.com/corporate/iso

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DISTRIBUTED BY:

860 Salem Street
Groveland, MA 01834 USA
Telephone: 781-438-7000
Fax: 978-469-6528
www.chesterton.com

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