ROTATING EQUIPMENT SOLUTIONS

PRODUCT CATALOG



Sealing Solutions



Industrial Lubricants and MRO Chemicals



ARC Efficiency and Protective Coatings



Providing Complete Solutions Through Innovation and Superior Service

Unparalleled in the Industry

At Chesterton[®], we place strong emphasis on working together as partners to provide real solutions. Our high service levels are delivered by combining both industry and product knowledge with experience to implement Best Available Techniques. Our wide geographical reach and local service capabilities enable us to be responsive to your needs.

Reliability through Innovation

To be a full service provider takes a wide array of high quality, engineered sealing products that address your needs. Innovative, high performance products are the core of Chesterton's offerings as a premier sealing solution provider. Some of our standard offerings are:

- Split Seals
- Bearing and Gearbox Protection
- Cartridge Seals
- Gas Seals
- **Component Seals**
- Pump Packing
- Rotary Seals
- **Environmental Controls**

Improving Productivity with **High Impact Programs**

In today's global economy, our clients are faced with increased profitability pressures. Chesterton can assist users in achieving their productivity goals by improving asset reliability and lowering the total cost of ownership. Our programs are easily customized for each plant to:

- Improve equipment availability
- Increase process throughput
- Lower total cost of ownership

Delivering Results for Industry

Meeting industry needs requires a thorough knowledge and understanding of the key drivers specific to a plant. Chesterton's depth of experience allows us to deliver results such as:

- Increased equipment reliability
- Reduced water consumption
- **Reduced environmental emissions**
- Increased energy efficiency





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Chesterton[®] Solutions for Rotating Equipment

Whether advanced shaft sealing, gearbox protection or protective coatings, Chesterton provides the total solution for improved pump reliability.



Advance Lubrication Technology Chesterton's QBT technology. Extends bearing life. Resists wear, load and corrosion.

Other ARC Efficiency & Protective Coatings Products



Machinable Composite Rebuild and protect worn shafts



Protective Coating for Concrete & Metals Protect pump base plate, frame and pump base

Polymer Labyrinth Seal Labyrinth seal for pumps,

motors, and gearboxes

Other Maintenance and Repair Products



Best Penetrating Oil. Excellent for hard to reach areas where rust, tar, grease and dirt may prevent easy removal of nuts, bolts and fittings.



Anti-seize Prevent rust and seizure bolts and prevent fretting and corrosion while securing bearings



2014 A.W. C

Thread Sealing High performance PTFE tapes and paste



Gasketing Make any size gasket with Moldable Polymer Gasketing





Stuffing Box Sealing High reliability stuffing box sealing solutions for high viscosity fluids and powders



Protective Coatings for Metals Rebuild, restore and coat impeller vanes and volute





Environmental Controls Eliminate abrasive particles in the stuffing box and extend seal and packing life



SuperSet Upgrade to the enhanced packing system to extend equipment life

442C[™] Cartridge Split Mechanical Seal

The 442C[™] Cartridge Split Mechanical Seal is the latest innovation in split seal technology, combining superior performance with the ease-of-installation of a cartridge split seal.

Operating C	onditions	Materials	
Sizes	25 mm to 120 mm (1.000" to 4.750")	Faces	CB, CER, RSC
Pressure*	710 mm or 28" Hg Vacuum to 30 bar g (450 psig)	Elastomers	FKM, EPDM, FEPM
Temperature	120°C (250°F)	Metals	1.4401 (316SS)
Speed	20 m/s (4000 fpm)	Springs	Elgiloy®
ATEX Catagoriul Crown 2 Approved Fite ISO 2060 ACC Approved			

ATEX Category I, Group 2 Approved, Fits ISO-3069, ACS Approved

*Seal pressure capabilities are dependent on the fluid sealed, temperature, speed, and seal face combinations.



Support Products

442M



Split Mixer Seal

The mixer version of the standard split seal that accommodates large radial and axial shaft motion associated with mixers, agitators, reactors, and blenders.

Elgiloy® is a registered trademark of Elgiloy Specialty Metals.



- Simple cartridge installation—without equipment disassembly
- Innovative design with superior performance
- Fits the majority of rotating equipment
- Easy field repair



442PR

Split Pumping Ring Seal

The high-capacity pumping ring provides for maximum heat removal and reliability in hot water services such as heater drain and boiler feed pumps.



SpiralTrac[™] Environmental Controllers

When used with Chesterton mechanical seals, SpiralTrac[™] Environmental Controllers greatly enhance seal reliability by effective removal of solids and improved cooling of the stuffing box.

Versions	
F (Split)	Greatly reduced flush
Ν	Reduced/No flush in no fibrous fluids
D	Reduced/No flush in fibrous fluids
P (Split)	Packing version
с	With drain for crystallizing media

Available Materials

1.4401 (316SS) 416 SS PTFE – Glass Filled PTFE – Carbon Graphite Filled Bronze TI/EN 3.7035 AWC800 – Red Polymer Monel® K400 / EN 2.4360

- Extends seal reliability in most rotating equipment applications
- Reduces cost of flushing in abrasive applications
- Fits all rotating equipment



1 Air

Vented from cavity when pump is stationary (eliminates crystallization, coking overheating due to air)

2 Circulation

Driven around seal (excellent face cooling)

(3) Exchange In and out of cavity (heat removed from cavity)

(4) Particulate Immediately removed from cavity through the exit groove, flush or no flush

Configurations Available











Packing

SpiralTrac[™] is a trademark of EnviroSeal Engineering Products Ltd. Monel[®] is a registered trademark of Special Metals Corporation.



4400 Dual Concentric Gas Seal

Advanced technology made simple in a gas seal design. The 4400 is a seal for all purposes and provides for an easy gas seal upgrade option. It is an ideal choice for upgrading under-performing, liquid lubricated seals to high performance, non-contacting operation.

Operating C	Conditions	Materials	
Sizes	25 mm to 90 mm (1.00" to 3.625")	Faces	CB, SSC
Pressure	711 mm or 28" Hg Vacuum to 20 bar g (300 psig)	Elastomers	FKM, EPDM, FEPM, ChemLast™
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	25 m/s (5000 fpm)	Springs	2.4819 (Alloy C-276)

Fits ISO-3069-C





- Delivers low cost-of-ownership for a broad range of applications
- Advanced technology that is easy to install and operate
- Exclusive In-Gland Control System eliminates the need and expense of an external gas panel

Compact Design for Greater Equipment Fit

The 4400 has been designed to fit popular process equipment including ANSI and API process pumps, top entry mixers, blowers, and compressors without equipment modification. Besides the obvious fitting and installation benefits, this also makes Chesterton gas-sealing technology available for a wider range of applications. Costly equipment modification is avoided.





MECHANICAL SEALS

S10

High Performance Single Cassette Seal

A unique modular cassette that combines advanced seal technology with flexibility in maintenance and repair.



Operating Conditions		Materials		
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	CB, SSC, TC	
Pressure	711 mm or 28" Hg Vacuum to 31 bar g (450 psig)	Elastomers	FKM, EPDM, FEPM, ChemLast™	
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)	
Speed	25 m/s (5000 fpm)	Springs	2.4819 (Alloy C-276)	



- High performance sealing
- One optimized sealing concept for plant-wide standardization
- Easy to maintain

Fits ISO-3069, ASME B73.1, B73.2

S20

High Performance Dual Cassette Seal

A unique modular cassette that combines advanced seal technology with flexibility in maintenance and repair.

Operating Conditions		Materials		
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	CB, SSC, TC	
Pressure	711 mm or 28" Hg Vacuum to 31 bar g (450 psig), 17 bar g (250 psig) inboard differential	Elastomers	FKM, EPDM, FEPM, ChemLast™	
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)	
Speed	25 m/s (5000 fpm)	Springs	2.4819 (Alloy C-276)	

Fits ISO-3069, ASME B73.1, B73.2

150

General Purpose Cartridge Single Seal

Designed for baseline applications and for upgrading packed or component-sealed equipment—this seal is a value leader in its class.



Operating Conditions		Materials		
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	CB, SSC	
Pressure	711 mm or 28" Hg Vacuum to 20 bar g (300 psig)	Elastomers	FKM, EPDM, FEPM, ChemLast™	
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)	
Speed	20 m/s (4000 fpm)	Springs	2.4819 (Alloy C-276)	







- Advanced sealing performance
- One optimized sealing concept for plant-wide standardization
- Easy to maintain



- Simple upgrade to reduce plant maintenance costs
- Reliable cartridge design that increases seal life

250

General Purpose Cartridge Dual Seal

Designed for cost-effective upgrading from packing and under-performing single seals this seal is a value leader in its class, further increasing plant reliability.



Operating Conditions		Materials		
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	CB, SSC	
Pressure	711 mm or 28" Hg Vacuum to 20 bar g (300 psig), 10 bar g (150 psig) outboard	Elastomers	FKM, EPDM, FEPM, ChemLast™	
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)	
Speed	20 m/s (4000 fpm)	Springs	2.4819 (Alloy C-276)	



- Provides sealing security that conventional single seals cannot match
- Reliable cartridge design that increases seal life

Fits ISO-3069, ASME B73.1, B73.2

180[™]

Heavy Duty Single Seal

A compact chassis designed with ease of use and no modification. Advanced design features yielding "next step" single seal technology.





- Maximum performance for demanding, high-torque applications
- Reliable sealing of slurries
- Suited for the broadest range of applications

Fits ISO-3069, ASME B73.1, B73.2

280[™]

Heavy Duty Cartridge Dual Seal

A dual seal design for severe duty and greatest reliability in difficult applications—including mixers and agitators*.



Operating Conditions		Materials		
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	CB, SSC, TC	
Pressure	711 mm or 28" Hg Vacuum to 40 bar g (600 psig), 17 bar g (250 psig) outboard	Elastomers	FKM, EPDM, FEPM, ChemLast™	
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)	
Speed	25 m/s (5000 fpm)	Springs	2.4819 (Alloy C-276)	

Fits ISO-3069, ASME B73.1, B73.2, ATEX Category I, Group 2 approved

*Extended motion capability available in 280M version.



- High-reliability sealing
- Maximum solids handling capability
- Superior performance for demanding applications
- Motion tolerant for mixer applications*



170

Slurry Cartridge Single Seal

Engineered to operate in harsh, heavy consistency slurry environments and to eliminate costly external seal flushes in the majority of applications.



170 ISO is an off-the-shelf product that fits directly to ISO-3069-H and ISO-3069-C seal chambers.

Operating Conditions		Materials	
Sizes	25 mm to 228 mm (1.00" to 9.00")	Faces	SSC, TC
Pressure	711 mm or 28" Hg Vacuum to 17 bar g (250 psig)	Elastomers	FKM, EPDM, FEPM, ChemLast™
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)*
Speed	11 m/s (2200 fpm)	Springs	2.4819 (Alloy C-276)

*Duplex stainless steel available as an option.

Intelli-Flow^m HT

Water Saver

Features a thermally activated valve that automatically drains hot barrier fluid (only when necessary) to keep dual seals running cool and reliable. Valve opening temperature preset to work with S20 Seals.

Operating Conditions	
Pressure	20 bar g (300 psig)
Temperature	125°C (250°F)
Temperature set point	80°C (176°F)
Connections	1/4 NPT
Materials	1.4401 (316SS)



 Runs longer in heavy abrasive slurries without the need for flush or quench water
 Reliable design that deals with real life slurry pumping

conditions

Easy to maintain



- Clean in place
- Maintenance-free
- Easy to install
- 95% water savings compared to open barrier fluid supply



GENERAL SERVICE

1730

General Service Packing

Durable performance packing that is easy to install and will not score shafts.

Technical Data	
Materials	Thermoset fibers with lubricants and blocking agents
Applications	Water pumps, paper stock pumps, slurries, agitators, mixers
Pressure	28 bar g (400 psig)
Speed	10 m/s (2000 fpm)
Temperature	290°C (550°F)
Chemical Resistance	pH 1 to 13

1730SC

Withstands Radial Shaft Motion and Vibration

Durable, thermoset polymer that's easy to install and won't score shafts, with an elastic rubber core to maintain leakage control when faced with radial shaft motion and vibration.

Technical Data	
Materials	Thermoset fiber with resilient silicone rubber core
Applications	Agitators, mixers, blanders, washers and pulpers
Pressure	28 bar g (400 psig)
Speed	10 m/s (2000 fpm)
Temperature	230°C (450°F)
Chemical Resistance	pH 2 to 12

1727

Multi-Lon®

A synthetic packing designed to deliver performance equal to synthetics but with the pliability of asbestos.

Technical Data	
Materials	Continuous, synthetic thermoset fibers impregnated with PTFE and a silicone-free break-in lubricant
Applications	Water, steam, and chemical pump applications in pulp, paper, and chemical plants
Pressure	15 bar g (200 psig)
Speed	10 m/s (2000 fpm)
Temperature	255°C (488°F)
Chemical Resistance	pH 1 to 13 Virtually unaffected by non-oxidizing acids, dilute bases, organic solvents. Should not be used in concentrated or hot sulfuric (> 60%), nitric acids (>10%), or strong bases



- High chemical resistance
- Non-staining
- Non-hardening
- Non-abrasive





Easy and fast break-in

Easy and fast break-inAbrasion resistant, while

 Good chemical resistance
 Good temperature resistance

non-scoring

- Durable, yet non-scoring
- Withstands radial shaft motion and vibration



InnerLube™

Synthetic/PTFE

Combines Chesterton's synthetic coating yarn and patented InnerLube construction. Offers increased lubrication at start-up and continues to disperse lubrication during operation, resulting in lower operating temperatures and reduced shaft and sleeve wear.

Technical Data	
Materials	Synthetic fibers interbraided with specialized lubricant reservoirs, treated with PTFE and a break-in lubricant
Applications	General water and slurry service
Pressure	14 bar g (200 psig)
Speed	10 m/s (2000 fpm)
Temperature	260°C (500°F)
Chemical Resistance	pH 2 to 12

477-1T

Carbon/PTFE

A tough, yet pliable, continuous filament carbon yarn packing impregnated throughout with PTFE to provide a non-contaminating, non-staining carbon yarn packing.

Technical Data	
Materials	Carbon yarn coated with PTFE, blocking agent and corrosion inhibitor
Applications	Virtually all pumps and valves, especially tough pulp and paper applications
Pressure	14 bar g (200 psig)
Speed	10 m/s (2000 fpm) 15 m/sec (3000 fpm) when used as a bottom anti-extrusion ring with Chesterton 1400R
Temperature	260°C (500°F)
Chemical Resistance	pH 0 to 14 except strong oxidizers



- Increased lubrication
- Lower operating temperatures
- Non-staining, chemically resistant



- Non-contaminating, non-staining carbon yarn packing
- Unique inorganic blocking agent stops gas/liquid penetration
- Molybdenum-based corrosion inhibitor prevents stem pitting

412-W

Multi-Service

A synthetic coating yarn with a specially formulated break-in lubricant to prevent failure at start-up and maintain continuous lubrication throughout the break-in process.

Technical Data	
Materials	Synthetic composite yarn with PTFE and break-in lubricants
Applications	Water, brine, mild acids and alkalis, slurries, and knife gate valves
Pressure	17 bar g (250 psig)
Speed	10 m/s (2000 fpm)
Temperature	230°C (450°F)
Chemical Resistance	pH 4 to 10



- Pure white packing
- Superior tensile strength
- Holds twice the PTFE blocking agent of traditional fibers



SLURRY/ABRASIVE

1830

Advanced Expanded Graphite PTFE Packing

Economical packing developed to meet strict specifications in pumps, agitators, mixers, and other rotating equipment.

Technical Data

Materials	Expanded graphite PTFE filaments
Applications	Wide range of applications
Pressure	22 bar g (320 psig)
Speed	18 m/s (3600 fpm)
Temperature	260°C (500°F)
Chemical Resistance	pH 0 to 14 with exception of strong oxidizers in the 0 to 2 pH range

Applicable Standards and Approvals: BAM

1830-SSP

Slurry Packing

Designed with a hybrid yarn combining advanced, expanded graphite PTFE yarn with carbon yarn reinforcement that runs through the cross section of the packing for easy extraction.

Technical Data	
Materials	Carbon reinforced expanded graphite PTFE
Applications	Slurry pumps, mineral handling slurries, tailing pumps
Pressure	28 bar g (400 psig)
Speed	18 m/s (3600 fpm)
Temperature	260°C (500°F)
Chemical Resistance	pH 0 to 14 with exception of strong oxidizers in the 0 to 2 pH range

Excellent chemical resistance

CHESTERTO

- Low friction, less heat generation, non-abrasive,
- saves shafts and shaft sleeves Easy installation and removal
- Low leakage and long life



- Developed to meet rigid demands of slurry sealing applications
- Excellent chemical resistance
- Low friction, less heat generation, non-abrasive, saves shafts and shaft sleeves

1740

Anti Extrusion Aramid

An interbraid packing using Kevlar[®] yarn and lubricated with PTFE and other lubricants to offer combined resistance to pressure, temperature, chemicals, and wear.

Technical Data	
Materials	Kevlar [®] yarn coated with PTFE
Applications	Aggressive slurries and as an anti-extrusion ring
Pressure	20 bar g (300 psig)
Speed	10 m/s (2000 fpm)
Temperature	260°C (500°F)
Chemical Resistance	pH 4 to 11

Kevlar[®] is a registered trademark of E.I du Ponte de Nemours and Company



- Excellent extrusion resistance in abrasive applications
- Non-staining, non-contaminating
- Non-asbestos, multi-service packing



SuperSet™

Enhanced Packing Sets

Chesterton performance packing sets, in combination with the patented SpiralTrac™ Environmental Controller, reduce flush water consumption and increase equipment service life.

Common Versions	Applications
1730 SuperSet	General service in slurries and clean fluids
1400R / GraphMax™ SuperSet	Worn equipment, high-speed and high-temperature applications
1760 SuperSet	Highly aggressive chemical environments
1830SSP SuperSet	Bauxite slurries, bottom ash pumps, minerals handling pumps, tailings and other slurries

FOOD GRADE



Virgin PTFE Food Process Packing

Non-staining PTFE packing certified for use in the food handling industry.

Technical Data	
Materials	Virgin PTFE filament with white oil lubricant
Applications	All types of equipment in the food handling industry including valves, blenders, mixers, pumps, and agitators
Pressure	15 bar g (200 psig) rotating applications 55 bar g (800 psig) valves
Speed	6 m/s (1200 fpm)
Temperature	230°C (450°F)
Chemical Resistance	pH 0 to 14

1725A

High Performance Food Grade

A white, non-staining, ePTFE packing for use in food processing equipment including pumps, agitators, and mixers.

Technical Data	
Materials	Expanded PTFE with a food grade lubricant
Applications	Chemical and food grade rotating equipment except strong oxidizers and molten alkali metals
Pressure	22 bar g (325 psig)
Speed	9 m/s (1800 fpm)
Temperature	260°C (500°F)
Chemical Resistance	pH 0 to 14

SpiralTrac[™] is a trademark of EnviroSeal Engineering Products Ltd.





 Reduces flush water consumption

Chesterto SuperSet

iralTra

- Increases equipment MTBR
- Reduces shaft sleeve wear



- Complies with USDA requirements for minimal food contact
- Complies with FDA 21 CFR, 178.3620 and 177.1550



- Meets USDA Requirements for minimal food contact
- Meets FDA Requirements 21 CFR 178.3297, 21 CFR 177.2800, 21 CFR 177.1550
- Completely inert to most materials
- Handles high shaft speeds

INJECTABLE

CMS2000

Flushless Packing System

An advanced injectable stuffing box leakage control sealant made of high purity, reinforced fiber available in graphite, white, and food grade (FP) non-staining formulations.

Technical Data					
	Advanced, thermally stable fiber with lubricants and high temperature blocking agents, <i>White</i>				
Materials	A combination of fibers and non-settling graphite with high temperature lubricants and blocking agents, <i>Black</i>				
	FDA compliant fibers, lubric	ants, and blocking agents, FL	DA		
Applications	Stock pumps, white water pumps, river water pumps, condensate pumps, water treat- ment pumps, <i>Black and White</i>				
	Rotating equipment applications in the food processing and handling industry, FP				
Pressure	22 bar g (325 psig)				
Speed	10 m/s (2000 fpm), <i>White</i>	8 m/s (1600 fpm), Black	6 m/s (1200 fpm), FP		
Temperature	205°C (400°F), <i>White</i>	205°C (400°F), <i>Black</i>	205°C (400°F), <i>FP</i>		
Chemical Resistance	ce pH 1 to 13, White not recommended for oxidizers, fluorine, chlorine trifluoride and related compounds, and molten alkali metals.				
	pH 4 to 13, <i>Black</i> not recommended for oxidizing agents.				
pH 0 to 14, <i>FP</i>					



- Eliminates flush and reduces leakage to insignificant levels
- Will not score shaft sleeves
- Effective with worn, fretted sleeves
- Never disassemble to repack again

CHEMICAL

1760

Chemical Packing

Strong and dense PTFE fiber packing for chemical applications with the heat dissipating properties of graphite.

Technical Data	
Materials	Graphite coated PTFE yarn with break-in lubricants
Applications	Black liquor pumps, chemical pumps, and agitators
Pressure	17 bar g (250 psig)
Speed	18 m/s (3600 fpm)
Temperature	260°C (550°F)
Chemical Resistance	pH 0 to 14



- Dense braid ensures excellent leakage control and prevents solid embedment
- Excellent chemical resistance
- High shaft speed



1765

White Chemical Packing

Non-staining chemical packing ideally suited for bleach pumps and other rotary applications.

Technical Data	
Materials	White expanded PTFE yarn with a special filler
Applications	Bleach pumps, chemical pumps, agitators
Pressure	20 bar g (300 psig)
Speed	10 m/s (2000 fpm)
Temperature	Min -40°C (-40°F), Max 260°C (500°F)
Chemical Resistance	pH 0 to 14 except for Fluorine (F ²), CIF ³ and related compounds, and molten alkali metals



- Non-staining
- Superior chemical resistance
- Low friction for improved speed capability
- Longer packing life

MARINE

329

Stern-Lon Flax Packing

Flexible and formable high-quality flax packing that is the most recognized stern tube packing in the marine industry.

Technical Data	
Materials	PTFE-impregnated flax with break-in lubricants and fluorocarbon powder
Applications	Stern tubes, rudder posts, shaft bulkhead glands, cold water, jordans, claflins, hydro-finers
Pressure	20 bar g (300 psig)
Speed	5 m/s (1000 fpm)
Temperature	135°C (275°F)
Chemical Resistance	pH 6 to 8



- Suitable for marine and paper mill applications
- Graphite free to avoid galvanic corrosion
- Produces little or no shaft wear
- Large sizes need not be hammered into place



GRAPHITE

GraphMax™

Structurally Reinforced Graphite Packing

Dramatically improves the packing's resistance to extrusion and blow out one of the limitations with traditional flexible graphite tape packings.

Technical Data		
Materials	Graphite with carbon yarn reinforcement and a high-tem	perature blocking agent
Applications	Virtually all pumps and valves, including steam service	
Pressure	260 bar g (3800 psig)* valves	28 bar g (400 psig) pumps
Speed	17 m/s (3400 fpm)	
Temperature	Maximum 650°C (1200°F) steam service	Minimum –240°C (–400°F)
Chemical Resistance	pH 0 to 14 except oleum, fuming nitric acid, and aqua reg	jia

*For higher pressure limits consult Chesterton Engineering.

1400R

Carbon Reinforced Graphite Packing

Combines the unique sealing properties of flexible graphite with the high strength of carbon fiber.

Technical Data	
Materials	Carbon fiber reinforced flexible graphite packing
Applications	Process pumps, boiler feed pumps, block valves, refiners, agitators, and mixers
Pressure	14 bar g (200 psig) rotating applications 275 bar g (200 psig) valves
Speed	20 m/s (4000 fpm)
Temperature	Min -240°C (-400°F) Max 650°C (1200°F) steam May 455°C (950°F) ovidizing atmosphere
Chemical Resistance	pH 0 to 14 except oleum, fuming nitric acid, and aqua regia



 Exclusive construction for plant-wide use in pumps

and valves

 Maintains structural integrity for easy removal

 Carbon fiber reinforced graphite strands provide maximum extrusion resistance and highpressure capability

- Flushless packing
- High shaft speed capability
- Passive molybdate corrosion inhibitor
- For use in valves and pumps

Applicable Standards and Approvals: BAM



CARBON



Technical Data

Lubricated Carbon

Unique carbon and graphite construction provides plant-wide utility off a single spool.

MaterialsCarbon yarn with graphite and other high-temperature lubricantsApplicationsVirtually all pumpsPressure35 bar g (500 psig)Speed18 m/s (3600 fpm)Temperature315°C (600°F) steam

Chemical Resistance pH 0 to 14 except oleum, fuming nitric acid, aqua regia and fluorine

477-1

Carbon Fiber Packing

A new yarn formulation with superior blocking agents, provides the strength associated with continuous filament carbon fibers, plus greater flexibility.

Technical Data	
Materials	A high quality carbon yarn pump and valve packing lubricated with PTFE.
Applications	Virtually all pumps and valves against most solvents, gases, and other liquids.
Pressure	14 bar g (200 psig)
Speed	10 m/s (2000 fpm) 15 m/s (3000 fpm) when used as anti-extrusion rings with 1400R
Temperature	260°C (500°F)
Chemical Resistance	pH 0 to 14 except with strong oxidizers



- High-temperature
- Fast break-in
- Controls leakage with minimal friction
- Reduced leakage and flushing



- Strong, yet pliable, continuous filament carbon yarn
- Unique inorganic blocking agent stops gas/liquid penetration
- Molybdenum-based corrosion inhibitor prevents stem pitting

Style Two

High-Speed Graphite Packing

High shaft speed, high temperature packing made with a pure quality graphite yarn and multi-temperature break-in lubricants.

Technical Data	
Materials	Graphite yarn with multi-temperature break-in lubricants
Applications	Virtually all pumps and valves
Pressure	21 bar g (300 psig)
Speed	23 m/s (4500 fpm)
Temperature	2760°C (5000°F) non-oxidizing 425°C (800°F) oxidizing
Chemical Resistance	0 to 14 except oleum, fuming nitric acid, aqua regia, and flourine



- Maximum performance universal pump packing
- Self-lubricating, virtually no shaft scoring
- Non-hardening, non-glazing





PLS Polymer Labyrinth Seal

Unitized, Non-Contacting Seal for Bearing Protection

The Chesterton patent-pending Polymer Labyrinth Seal (PLS) is a non-contact bearing seal designed to provide protection for pumps, motors, gearboxes, and other rotating equipment in splash applications. The unique design eliminates fretting caused by conventional lip seals and helps to increase bearing and gearbox life by extending the mean time between equipment repairs.

This unitized labyrinth seal uses Chesterton's exclusive polymer to create a non-contacting 3-piece seal design that includes a rotor, a stator, and a built-in valve with no wearing parts. While in operation, centrifugal force and gravity ensure lubricant is contained within the labyrinth and flows back into the bearing housing, while outside contaminants are excluded and redirected back to atmosphere.

The unique design also incorporates a built-in valve that is activated by shaft rotation which engages during shutdown periods to create a positive seal during idle time, blocking ingress of external contaminants from entering the housing.

Chesterton's Polymer Labyrinth Seal is manufactured from an advanced, durable, maintenance-friendly thermoset polymer compatible with common bearing and gear oils that offers a cost-effective alternative solution to other material options. Each seal is custom manufactured to the exact equipment size needed to maximize performance.

SPECIFICATIONS

Material	Size Range	Temperature	Speed*	Eccentricity
(designation)	mm (inch)	°C (°F)	m/s (ft/min)	mm (inch)
Polymer Labyrinth	25 to 152	-40 to 93	30.5	0.75
Seal (EU) AWC800	(1 to 6)	(-40 to 200)	(6000)	(0.030)

*Contact engineering for speeds beyond these limits



- High-performance, non-contact design, eliminates fretting caused by lip seals
- Keeps lubrication in and seals out external contamination
- Unitized design and durable non-sparking material provide easy, reliable installation
- Available in a variety of configurations to meet plant-wide equipment needs
- Same day shipment availability, minimizing downtime and associated costs
- Standard sizes available for popular equipment, custom sizes available upon request
- IP56 (third party certification) designed to be resistant to dust and water



BEARING AND GEARBOX PROTECTION

30K

Bearing and Gearbox Protection

Advanced sealing protection technology keeps the lubricant in and the dirt out for long-term sealing.

SPECIFICATIONS

Material (combination) (adapters/sealer rings)	Size Range mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)	Pressure MPa (psi)	Recommended use	Mating surface (Rockwell C)
AWC100 (PTFE) Polyimide					Excellent dry Excellent low viscosity No water and steam	≥45
AWC300 (PTFE) Molybdenum & glass	20 to 600	-20 to 149	Up to 20	0,07	Excellent high viscosity Good dry and good in water	≥55
AWC400 (PTFE) Carbon & graphite	(0.787 to 24)	(-30 to 300)	(4000)	(10)	Excellent in water Good dry and low viscosity	≥55
AWC510 (PTFE) Mineral (FDA listed)					Excellent dry Good in water and steam No petroleum liquids	≥45

Performance depends on concurrent conditions including shaft hardness, shaft surface roughness, material, lubrication, temperature, and pressure.

PRODUCT PROFILES:











33K

Split Bearing and Gearbox Protection

Unitized split seal for bearing and gearbox protection.

SPECIFICATIONS

Material (adapters/sealer rings)	Size Range* mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)	Pressure MPa (psi)	Recommended use	Mating surface (Rockwell C)	
AWC800 Adapters (EU)							
AWC100 (PTFE)	25 to 610	85	12,7	0,007	Excellent dry	≥45	
Polyimide	(1 to 24)	(185)	(2500)	(1)	Excellent low viscosity		
AWC300 (PTFE)	25 to 610	85	12,7	0,007	Excellent high viscosity	≥55	
Molybdenum & glass	(1 to 24)	(185)	(2500)	(1)	Good dry and good in water		
AWC400 (PTFE)	25 to 610	85	12,7	0,007	Excellent in water	≥55	
Carbon & graphite	(1 to 24)	(185)	(2500)	(1)	Good dry and low viscosity		
AWC860 Adapters (EU)							
AWC100 (PTFE)	25 to 457	121	12,7	0,07	Excellent dry	≥45	
Polyimide	(1 to 18)	(250)	(2500)	(1)	Excellent low viscosity		
AWC300 (PTFE)	25 to 457	121	12,7	0,07	Excellent high viscosity	≥55	
Molybdenum & glass	(1 to 18)	(250)	(2500)	(1)	Good dry and good in water		
AWC400 (PTFE)	25 to 457	121	12,7	0,07	Excellent in water	≥55	
Carbon & graphite	(1 to 18)	(250)	(2500)	(1)	Good dry and low viscosity		
Performance depends on concurrent conditions including shaft hardness, shaft surface roughness, material, lubrication, temperature, and pressure.							

Applicable standards: ISO3760/ISO3761



New designs and materials proven to outperform conventional lip seals

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Applicable standards: ISO3760/ISO3761

- High performance PTFE compounds offer advanced wear and abrasion resistance
- Unique design provides lower friction and decreased shaft wear
- High performance lip seals prevent contaminants from entering housing



- Split design eliminates the need for equipment disassembly
- New design and materials proven to outperform conventional lip seals
- Patented design combines high performance PTFE and polymer materials
- Filled PTFE materials provide high wear and abrasion resistance



R22KN5

Split Rotary Seal

High performance, durable wear resistant polymer material, proven design for slow rotating applications exposed to large shaft run-out.



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SPECIFICATIONS

SPECIFICATIONS			0_	→
Material (designation)	Size Range mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5000)	1,5 (300)
AWC800 (EU)	6 to 1400 (1/4 to 55)	-50 to 85 (-60 to 185)	103,5 (15000)	1 (200)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7500)	0,9 (185)
AWC850 (EU)	6 to 254 (1/4 to 10)	-50 to 104 (-60 to 220)	103,5 (15000)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15000)	1,25 (250)

PRODUCT PROFILE:



Depending on the seal height and cross section, the split joint can be interlock arrow cut or butt cut.

*Please contact your Chesterton representative for larger sizes.



- Flexible dynamic lip design for large shaft run-out compensation
- Split configuration simplifies installation
- Robust static lip design allows stack set arrangement and provides stability
- Excellent abrasion-resistance, withstands demanding environments

14K

Restriction Bushing

A robust restriction bushing for rotating equipment.



SPECIFICATIONS

SPECIFICATIONS			.
Material (designation)	Material Size Range (designation) mm (inch)		pH range
AWC520 (PTFE)	25 to 600 (1 to 24)	Up to 200 (400)	0 to 14
AWC800 (EU)	25 to 1400 (1 to 55)	Up to 100 (185)	4 to 10

Applicable standards: ISO 3069

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PRODUCT PROFILES:





- Split design simplifies installation
- Prevents particles from entering the stuffing box, extending packing and seal life
- Tapered lip design controls fluid bypass
- Designed for pumps and other rotating equipment such as agitators, mixers, and refiners



30KC

Seal for Viscous Fluids and Powders

High performance, proven cartridge design for sealing powders and viscous fluids.



SPECIFICATIONS							\mathcal{T}
Material* (combination) (adapters/sealer rings)	Shaft Size** mm (inch)	Tempera- ture °C (°F)	Speed m/s (ft/min)	Pressure MPa (psi)	Mating surface (Rock- well C)	Surface finish μm Ra (μ inch)	Recommended use***
AWC100 (PTFE) Polyimide	25 to 200 (1 to 8)	-20 to 150 (-30 to 300)	Up to 5 (984)	Up tow 1 (150)	45	Dynamic 0,2 to 0,4 (8 to 16) Static 0,4 to 0,8 (16 to 32)	Excellent dry Excellent low viscosity (<2 000 cp) Powders, oil, resins, glues, paints No water or steam
AWC300 (PTFE) Molybdenum & glass					55		Excellent high viscosity (>2 000 cp) Good in dry, water, or steam
AWC400 (PTFE) Carbon & graphite					55		Excellent in water or steam Good dry and low viscosity Powders, asphalt, clay, slurries
AWC510 Mineral (FDA listed)					45		Excellent dry Good in water or steam Chocolate and syrups No petroleum liquids

* Fluoroelastomer O-Rings provided (FDA listed with AWC510).

** Please contact your Chesterton representative for larger sizes.

*** Run-out to 0,15 mm (0,05").



- Outperforms conventional packing, sealing viscosity fluids, and dry powders
- Decreases downtime, easy-to-install, versatile cartridge design
- Improves performance of compression packing, distinct PTFE materials
- Custom-designed cartridges made to equipment dimensions

Sealing Solutions for Rotating Equipment



Asset Protection for Rotating and Associated Equipment

ARC Coatings are in use every day, around the world, in numerous industries protecting process equipment against abrasive wear and metal loss under corrosive and abrasive flow conditions. Your pumps, fans, screws, agitators, and associated structures are valuable assets and protecting them while maintaining their reliable operation, is critical to your plants overall operational efficiency. Our 100% solids, low VOC coatings utilize advanced high molecular weight polymers. We then blend in ceramic and glass reinforcements to handle temperature up to 150°C (350°F) with pH ranges of .1-12.5 in mild to severe abrasive flow conditions.

ARC Metal Coating Systems (MCS) repair rebuild and protect all types of rotating equipment. ARC Concrete Coating Systems (CCS) protect concrete equipment supports and base plates.

ARC Metal Coating Systems repair, rebuild, and protect all types of industrial process equipment and structures from abrasive, corrosive, and chemically aggressive environments.

- Provide long-term protection
- Extend equipment life
- Cut downtime
- Reduce the need for spare parts
- Simplify maintenance procedures

ARC Concrete Coating Systems repair, rebuild, and protect all concrete structures from abrasive, corrosive, and chemically aggressive environments.

- Provide long-term protection
- Avoid costly structural rebuild
- Reduce safety and environmental hazards
- Simplify maintenance procedures
- Cut downtime



EROSION RESISTANT COATINGS FOR METALS

ARC 855

Abrasion Resistant Surface Coating

An advanced liquid, ceramic coating that is formulated to protect equipment from aggressive chemical attack, corrosion, and erosion.

Product	Characteristics

Technical Data

Salt Fog

Available Sizes

Dry Temperature (Min/Max)

Wet Temperature (Min/Max)

Tensile Adhesion - kg/cm² - MPa (psi)

Two-coat system Easily applied by brush or roller Minimum thickness of 250 µm (10 mils) per coat

Applications Fans and housings Pump casings and impellers Screws

-29°C (-20°F) to 120°C (250°F)

-29°C (-20°F) to 65°C (150°F)

>10000 hrs

.75 l, 1.5 l, 5 l, 16 l

352.7 kg/cm² (34.6 MPa) 5,020 psi



- Improves fluid flow efficiency
- Extends equipment life
- Cuts downtime
- Reduces the need for spare parts
- Certified to WRAS (BS6920) drinking water standard up to 55°C (131°F)

Abrasion Resistant Faring Coating

An advanced, trowelable ceramic coating for the repair and resurfacing of all metal surfaces subjected to erosion, corrosion, and chemical attack.

Product Characteristics	Application
Applied by trowel or spatula	Pump casings
Normally applied at a thickness of 1,5 mm	Fans and hous
(60 mils) or more	Pipe elbows
	Screws

Applications
Pump casings and impellers
Fans and housings
Pipe elbows
Screws



- Rebuilds damaged equipment
- Repairs and smooths pitted surfaces
- Able to be top coated with other ARC Coatings

Technical Data	
Dry Temperature (Min/Max)	-29°C (-20°F) to 160°C (320°F)
Wet Temperature (Min/Max)	-29°C (-20°F) to 70°C (160°F)
Tensile Adhesion - kg/cm ² - MPa (psi)	478.5 kg/cm ² (47 MPa) 6810 psi
Available Sizes	250 g, 940 ml, 1.5 l, 5 l, 16 l



ARC HT-T, HT-S

HT-T—Spark-Testable, High-Temperature, Abrasion Control Compound.

HT-S—Spark-Testable, High-Temperature, Abrasion Control Liquid.

An advanced ceramic coating that is formulated to protect equipment from corrosion and erosion in elevated temperature immersion of aqueous solutions.

Product Characteristics	Applications		
 HT-T – Applied by trowel at a nominal thickness of 900 to 1150 μm (35 to 45 mils) by trowel or plastic applicator HT-S – Easily applied by spray, brush, or roller Minimum thickness of 250 μm (10 mils) per coat 	Hydrocyclones Pump volutes and impellers Condensate pumps Offshore equipment		



COATINGS FOR CORROSION, EROSION, AND CHEMICAL ATTACK FOR METALS

ARC S1 PW

General Purpose, Sprayable, Corrosion Protection Coating

An advanced, liquid coating formulated to protect metal surfaces from corrosion and chemical attack.

Product Characteristics	Applications		
ARC S1 PW	Pumps		
Low viscosity, brush, roll or spray applied barrier	Valves		
coatings	Fittings		
Certified to NSF 61 cold water service	Tanks		
Minimum thickness per coat is 250m (10 mil)	Structural steel		

Technical Data			
Dry Temperature (Min/Max)	-29°C (-20°F) to 62°C (144°F)		
Wet Temperature (Min/Max)	-29°C (-20°F) to 52°C (125°F)		
Tensile Adhesion (metal) - kg/cm ² - MPa (psi)	Greater than 140 - 14 (2000)		
Salt Fog	>10000 hrs		
Available Sizes	5 l, 16 l		



- Extends equipment life
- Spark testable for pinholefree verification
- Reduces downtime
- Cures in service



- Low permeability provides long-term protection
- Spark testable for pinhole-free verification
- Sprayable viscosity for rapid installation





ARC S2

Ceramic-Reinforced, Sprayable, Erosion-Resistant Coating

An advanced, liquid ceramic reinforced coating for the protection of all metal surfaces subject to erosive, corrosive, and severe fluid flow conditions.

Product Characteristics

Two-coat system Easily applied by spray, brush, or roller Minimum thickness of 250 μm (10 mils) per coat

Applications

Fans and housings Cooling water systems Base Plates Pump and valve assemblies Pipe coatings

Technical Data	
Dry Temperature (Min/Max)	-29°C (-20°F) to 80°C (175°F)
Wet Temperature (Min/Max)	-29°C (-20°F) to 52°C (125°F)
Tensile Adhesion - kg/cm ² - MPa (psi)	Greater than 140 - 14 (2000)
Salt Fog	>20000 hrs
Available Sizes	1125 ml (cartridge), 1.5 l, 5 l, 16 l



- Improves fluid flow efficiency
- Extends equipment life
- Sprayable viscosity for rapid installation
- Spark testable for pinholefree verification
- Certified to WRAS (BS6920) drinking water standard

ARC S4+

100% Solids, Mineral-Reinforced, Epoxy Novolac, Acid Resistant Coating

An advanced, liquid polymer coating formulated to protect equipment from extreme chemical attack and corrosion.

Product Characteristics	Applications	
Two-coat system	Fans and housings	
Easily applied by spray, brush, or roller	Acid Transfer Pump	
Minimum thickness of 375 μm (15 mils)	Base Plates	
per coat	Reactor Agitators	

Technical Data	
Dry Temperature (Min/Max)	-29°C (-20°F) to 150°C (300°F)
Wet Temperature (Min/Max)	-29°C (-20°F) to 60°C (140°F)
Tensile Adhesion - kg/cm ² - MPa (psi)	330 kg/cm ² (32.4 MPa)4700 psi
Salt Fog	>10000 hrs
Available Sizes	1125 ml (cartridge), 5 l, 16 l



- Provides long-term protection
- Low permeability for immersion conditions
- Sprayable viscosity for rapid installation
- Spark testable for pinholefree verification



THIN FILM COATINGS FOR CONCRETE

ARC CS2

(10 to 15 mils) per coat

Colors: Grey

General Purpose, Thin Film, Novolac Blend, Epoxy Coating

Thin film, advanced coatings that are formulated to protect concrete surfaces, CS2 is used for mild chemical attack.

Product Characteristics	Applications
Easily applied by notched squeegee, brush roller, or spray equipment Can be applied to damp concrete High gloss surface	Base plates Pump bases Equipment bases
Minimum thickness of 250 to 375 µm	

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- Provides long term protection
- Avoids costly structural rebuild
- Reduces safety hazard caused by damaged concrete

Technical Data	
Dry Temperature (Min/Max)	-29°C (-20°F) to 80°C (175°F)
Wet Temperature (Min/Max)	-29°C (-20°F) to 52°C (125°F)
Compression Strength - kg/cm ² - MPa (psi)	680 - (9650)
Tensile Adhesion to Concrete - kg/cm ² - MPa (psi)	>28 kg/cm ² (2.8 MPa) 400 psi
Available Sizes	161

ARC CS4

Dry Temperature (Min/Max)

Wet Temperature (Min/Max)

Available Sizes

Compression Strength - kg/cm² - MPa (psi)

Tensile Adhesion to Concrete - kg/cm² - MPa (psi)

Highly Chemically Resistant, 100% Novolac Resin, Epoxy Coating

Thin film, advanced coatings that are formulated to protect concrete surfaces, CS4 is used for harsh chemical attack.

Product Characteristics	Applications
Easily applied by notched squeegee, brush roller, or spray equipment Can be applied to damp concrete High gloss surface Non-Shrinking, no solvents, 100% solids Minimum thickness of 250 to 375 μm (10 to 15 mils) per coat Colors: Red	Base plates Pump bases Equipment bases
Technical Data	

-29°C (-20°F) to 80°C (175°F)

-29°C (-20°F) to 40°C (105°F)

>28 kg/cm² (2.8 MPa) 400 psi

970 - (13750)

5 I, 16 I



- Provides long term protection
- Avoids costly structural rebuild
- Reduces safety hazard caused by damaged concrete



ARC 890/897

890— Severe Slurry Wear Coating 897—Moderate Slurry Wear Coating

Advanced, ceramic-reinforced coating for the repair and protection of all metal surfaces subjected to moderate to severe abrasion.

Product Characteristics High volumetric ceramic particle loading

- Applied by trowel or plastic applicator tool 890 - Applied at a nominal thickness of 6 mm (240 mil) or more
- 897 Applied at a nominal thickness of 3 mm (120 mil) or more

Technical Data

Dry Temperature (Min/Max) Wet Temperature (Min/Max) Tensile Adhesion - kg/cm² - MPa (psi) Available Sizes

Applications Separators and cyclones Hoppers/chutes

-29°C (-20°F) to 205°C (400°F)

-29°C (-20°F) to 95°C (205°F)

ARC 890: 1.5 l, 5 l, 16 l ARC 897: 1.5 l, 5 l, 16 l

238 kg/cm²² (23 MPa) 3390 psi

Agitators

Coal pulverizers Hydro pulpers

Slurry pumps Pipe elbows ID/FD fans Screws



- Reduces the need for spare parts
- Simplifies maintenance procedures
- Extends equipment life
- Improves safety by reducing hotwork

ARC	IBX1

Impact and Wear Resistant Epoxy Coating

IBX1 is a urethane modified amine cured epoxy coating, highly reinforced with ceramic beads and flakes for resistance to severe sliding abrasion where impact forces or rapid vibration is a concern.

Product Characteristics	Applications
High volumetric ceramic particle loading	Slurry pumps
Applied by trowel or plastic applicator tool	Pipes and pipe elbows
Applied at a nominal thickness of	Agitators
6 mm (240 mil)w or more	ID/FD format
Technical Data	
lechnical Data	
Dry Temperature (Min/Max)	-29 C (-20 F) to 205 C (400 F)
Wet Temperature (Min/Max)	-29°C (-20°F) to 95°C (205°F)
Tensile Adhesion - kg/cm ² - MPa (psi)	238 kg/cm ² (23 MPa) 3390 psi
Available Sizes	20 kg, 12 x 20 kg



- High impact resistance
- Reduces the need for spare parts
- Simplifies maintenance procedures
- Extends equipment life
- Improves safety by reducing hotwork



Performance and Productivity

Chesterton offers products and total system solutions for production process, facility, and maintenance needs.

- Lubricants and greases
- Maintenance specialties

State-of-the-art technologies, environmentally acceptable alternatives and strict quality processes contribute to fulfilling the customers' expectations:

- Increased productivity
- Lowered costs
- Reduced disposal and labor costs

In partnership with our worldwide distribution channels and factory-trained local specialists, Chesterton offers superior value, outstanding customer service, technical support, and delivery.

In these pages, you will find an overview of our products. For in-depth, individual product information, ask your local Chesterton Specialist.

- Cleaners and degreasers
- Metalworking fluids and corrosion control



LIOUID LUBRICANTS

610/610MT Plus/610HT

Synthetic Lubricating Fluid—High-Temperature Service

Premium quality, 100% synthetic fluid that cleans as it lubricates over a wide temperature range of -25°C to 270°C (-13°F to 518°F).

Product Characteristics

Applications Equipment operating at elevated temperatures

Bearings

Gearboxes

Refrigerated areas

Severe environments

Oven and high-temperature chains

Low evaporation Low carbonizing High detergency—self-cleaning E.P. additives increase load carrying ability Available Container Sizes: Aerosol (610 only), 3,8 l (610/610HT only), 20 l, 208 l

NSF Registered 636FG is a Food Grade version of 610MT Plus.

610 Primary Viscosities - ISO VG 68 - 610, ISO VG 220 - 610MT Plus, ISO VG 460+ - 610HT

GREASES 615

HTG NLGI #1, HTG NLGI #2

High-performance, corrosion-inhibited grease with outstanding extreme pressure capabilities and excellent water washout resistance. Temperature limit -40°C (-40°F) to 204°C (400°F)

Product Characteristics

Superior water resistance Excellent corrosion protection Compatible with most popular greases Exceptional shear resistance Anti-oxidants prevent hardening QBT[™] Quiet Bearing Technology Available Container Sizes: 400 g, 18 kg, 55 kg, 181 kg

NSF Registered

635 SXC

Applications

High water, temperature environment plants including: Pulp and paper mills Mining operations Steel, aluminum, and metal processing Marine Power Water and wastewater



- Reduces lubricant consumption
- Reduced equipment cleaning and downtime
- Reduces energy consumption
- Increases equipment life

- Extends bearing life
- Reduces downtimes
- Increases productivity
- Reduces grease consumption

High-performance, corrosion-inhibited grease with outstanding extreme pressure capabilities and excellent water washout resistance. 635 is synthetic based and offers superior high-temperature stability and resistance to steam and corrosive chemicals. Temperature limit -40°C (-40°F) to 240°C (464°F)

Product Characteristics

High load carrying capability High-temperature stability Superior water washout resistance Excellent corrosion protection Available Container Sizes: 400 g, 18 kg, 55 kg, 180 kg

Applications

High water, temperature environment plants including: Pulp and paper mills Mining operations Steel, aluminum, and metal processing Marine Power Water and wastewater



- Extends bearing life
- Reduces downtimes
- Increases productivity
- Reduces grease consumption



Industrial Lubricants and MRO Chemicals

LUBRICANT DISPENSERS

Lubri-Cup™ EM

Automatic single-point lubricator dispenses Chesterton grease to critical areas, eliminating over-and under-greasing.

Product Characteristics

Microprocessor-controlled, "pulse" delivery system Programmable—operates up to 12 months Replaceable service packs Lubricates up to 8 bearings—up to 6 m (19 ft) away Sealed microprocessor

Applications

All Industries Including: Pulp and paper mills Mining operations Metal fabrication Steel mills Marine



- Reliable lubrication system
- User-friendly
- Cost-effective

Versions Available

Lubri-Cup EM Lubri-Cup EM SP Lubri-Cup EM Service Pack Battery operated Machine synchronized and externally powered (DC power and AC power) Grease fluid service pack for Lubri-Cup EM units (need to purchase with dispenser)

Lubri-Cup™ OL 500 Oiler

Automatic lubricator dispenses Chesterton oils to chains and other critical areas.

Product Characteristics

Microprocessor-controlled, "pulse" delivery system Programmable—operates up to 12 months Refillable Lubricates up to 4 points Sealed microprocessor

Applications

All Industries Including: Pulp and paper mills Saw mills Mining operations Steel mills Food, pharmaceutical, beverage industries General industry

Versions Available

Lubri-Cup 500cc oiler	Battery operated
Lubri-Cup 500cc oiler	Machine synchronized and externally powered (DC power)
Lubri-Cup 500cc oiler	Machine synchronized and externally powered (AC power)

Lubri-Cup™ 250cc/VG Mini

Automatic single-point lubricator dispenses Chesterton grease to critical areas, eliminating over- and under-greasing.

Product	Characteristics

A compact, convenient and sturdy design that is simple to install and operate Preset dispensing rates—1, 3, 6, 9, 12 months Remote operation—up to 0,3 m (1 ft) Electrochemical operation (Nitrogen gas) Sealed microprocessor Ability to turn on and off

All Industries Including:	
Mining and ore processing	
Power	
Pulp and paper	
Water and wastewater	
Steel and metal processing	

Applications



Environmentally-friendly,

refillable container

User-friendly with a large LCD
 Cost-effective

- Transparent container for lubricant inspection
- Reliable lubrication system



785 & 785 FG

Parting Lubricant

The "new generation" anti-seize compound contains a blend of ultra fine, inorganic solid lubricants in a non-carbonizing, ashless synthetic carrier. Withstands severe temperature and pressure conditions.

Product Characteristics

Eases disassembly up to 1204°C (2200°F) Fills in microscopic voids No toxic-heavy metals For extreme pressures up to 4730 kg/cm² (67570 psi) **Available Container Sizes:** 785: 250 g, 500 g, Aerosol, 24 kg 785FG: 200 g, 500 g *NSF Registered*

Applications

Covers all industries Bolts Screws Studs Pipe threads Press fits Pump sleeves Note: FG designates a Food Grade Product



- Lubricates for assembly and disassembly
- Protects against corrosion
- No need for torque tension recalculation



ACR

783 combines high performance industrial anti-seize performance with extreme corrosion protection and water washout resistance. 783 is ideal where the primary cause of bolt seizure is corrosion.

Product Characteristics

Eases disassembly up to 900°C (1652°F) Fills in microscopic voids No toxic heavy metals For extreme pressure up to 8928 kg/cm² (127000 psi) Safer than traditional metallic based anti-seizes *Available Container Sizes:* 250 g, 500 g, 20 l

Applications

Covers all industries Bolts Screws Studs Pipe threads Press fits Pump sleeves



- Extreme corrosion protection and water washout resistance
- Lubricates for assembly and disassembly

725

Nickel Anti-Seize Compound

A high-performance, nickel based anti-seize. Combines the extreme pressure, corrosion resistant anti-seize abilities of colloidal nickel in an oil suspension that can withstand temperatures up to 1425° C (2597°F).

Product Characteristics

Ultra fine particles Guards against galling and corrosion Protects against self-welding Withstands extreme pressure Up to 1425°C (2 597°F) **Available Container Sizes:** 725: 250 g, 500 g, Aerosol, 20 l 772: 500g

Applications

Covers all industries Mechanical assembly of: bolts, studs, flanges, press fits, valve stems, pump sleeves, screws, bushings, gaskets, bearings

Meets MIL-A-907D NSF Registered 772 Premium Anti-Seize—Nuclear certifiable



- Lubricates for assembly and disassembly
- Protects against corrosion
- No need for torque tension recalculation



PENETRATING OILS

706

Rustsolvo®

High-quality, fast acting, penetrating oil that reaches inaccessible areas and frees frozen nuts, bolts, and fittings without damaging the base metal.

Product Characteristics

Applications

Safe on plastic and painted surfaces Contains no glycols, alcohols, DMSO (dimethyl sulfoxide) or chlorinated solvents Pleasant odor Creeps into microscopic spaces *Available Container Sizes:* 1 I, 20 I, 208 I

NSF Registered

Use on all corroded or seized threaded assemblies in the harshest industrial environments



- Single function—optimizes performance
- Fast acting
- Safe to use

723 & 723 FG

Sprasolvo®

Fast acting, penetrating oil in a convenient, non-flammable propellant aerosol can. Excellent for hard to reach areas where rust, tar, grease, and dirt may prevent easy removal of nuts, bolts, and fittings.

Product Characteristics

Pinpoint spray Safe on plastic and painted surfaces Contains no acids or chlorinated solvents Creeps into microscopic spaces *Available Container Sizes:* Aerosol

NSF Registered 723FG—Conforms to FDA standard 21CFR 172.884, 178.3620, 178.3650

Applications

Use on all corroded or seized threaded assemblies in the harshest industrial environments **Note:** FG designates a Food Grade Product



- Single function—optimizes performance
- Fast acting
- Safe to use

THREAD SEALING

800

GoldEnd® Tape

Heavy-duty, high density, tear resistant, moldable, dry PTFE sealant tape for use on metal or plastic threads, pipes, or bolts.

Product Characteristics -240°C (-400°F) to 260°C (500°F)

Seals tightly and opens easily Non-aging, non-hardening Chemically resistant Requires fewer wraps Resists tearing and breakage Won't clog lines

Applications

Liquids: Steam, water, salt water, air, fuels, refrigerants, acids, alkalis, all solvents *Gases:* Hydrogen, ammonia, oxygen, propane, butane, nitrogen *Other:* Pneumatic and hydraulic fittings up to 690 bar (10 000 psi)

UL listed. Meets MIL-T-27730A. NSF Registered. DVGW approval No. 96.01e907. Acceptable for oxygen use



- Seals with 1 ½ to 2 wraps virtually all chemicals
- Adjustable by 90°, no leakage
- No waste



860

Moldable Polymer Gasketing

Two-part, extrudable gasketing material allows for the creation of ultra-thin gaskets in any size, any shape. Never sticks to surfaces.

Product Characteristics

Applications

Resistance to oils, water, chemicals, and solvents Never sticks to surfaces Fills voids and scratches, up to 6 mm (1/4 inch) deep **Remains elastic** Temperatures up to 260°C (500°F) Steam to 6,8 kg/cm² (100 psi) and 170°C (338°F)

For sealing complex mechanical assemblies Gear boxes, inspection covers, bearing housings, fittings, oil sumps and reservoirs, turbine casings, electrical boxes, vacuum systems NSF Registered. Conforms to FDA standard 21CFR 175.300 and 177.2600. Caution: Not for use in contact with concentrated acids or hot concentrated caustics

WATER-BASED ALKALINE CLEANERS



Industrial and Marine Solvent II

A powerful, non-solvent based degreaser. Its advanced surfactant technology offers maximum efficiency in soil removal, especially applications where solvent use is required.

Product Characteristics

Cleaning dust, dirt, carbon black, petroleum based oils Phosphate-free, no EDTA or toxic solvents No irritating fumes Compatible with pressure washers and steam cleaners Available Container Sizes: 3,8 |, 20 |, 208 |, 1000 |

Applications

Floors, walls, tiles, concrete

Machines

Covers all industries Cleaning production equipment, facilities, floors, walls and steel structures

NSF Registered Caution: Should not be used on aluminum or metals sensitive to high alkalinity. When using on painted surfaces, test small area for compatibility.

beverage industry



- Economical
- Creates gaskets any size and shape
- Ease of application speeds up maintenance



- Cost-effective—highly concentrated—dilute with water to use
- Strong, fast acting
- Improves worker safety
- Biodegradable

360

Phosphate-Free Cleaner

Especially effective on animal fats and vegetable oils for the food industry. A versatile, industrial cleaner for environmentally sensitive areas.

Product Characteristics	Applications		
Highly effective on animal fat and vegetable oil	Food, pharmaceutical, and beverage in		
High stable foam	Meat and poultry plants		
Solvent-free	Bottling, canning, packaging machines		
Available Container Sizes: 20 l, 208 l, 1000 l	Wastewater treatment		
	Floors, pump stations		
	Sludge and fungi removal		
	Marine		
NSF Registered	Decks, hulls, bilges		
Caution: Do not use on aluminum	Industrial		



- Cost-effective—highly concentrated—dilute with water to use
- Strong, fast acting
- Improves worker safety Environmentally friendly biodegradable



820

KPC

Balances powerful performance with environmental compliance and worker safety—the ideal choice for process degreasing.

Product Characteristics

Effective on: Oil deposits Soot and exhaust residue Lubricants and metal working fluids Animal and vegetable fats Low residue No phosphates, harsh alkalis or EDTA Available Container Sizes: 20 I, 208 I, 1000 I

NSF Registered

Applications

Ideal for manual, dip tank, and ultrasonic cleaning Effective for dip tank cleaning when heated to 82°C (180°F)



- Cost-effective—highly concentrated—dilute with water to use
- Strong, fast acting, yet moderate pH
- Improves worker safety
- Environmentally friendly biodegradable

235

SSC

Powerful cleaner removes oily and greasy deposits, waxes, loose paint, and heavy soils. Specially formulated for steam cleaning equipment.

Applications

Equipment (all types)

General

Concrete

Masonry

Product Characteristics

Additives retard scale build-up and clogging of steam cleaning equipment Contains strong alkalis, emulsifiers, and surfactants No irritating fumes *Available Container Sizes:* 20 I, 208 I

NSF Registered

Caution: Should not be used on aluminum or metals sensitive to high alkalinity. When using on painted surfaces, test small area for compatibility.



- Cost-effective—highly concentrated—dilute with water to use
- Strong, fast acting
- Improves worker safety by removing slippery surfaces
- Biodegradable



WATER-BASED ACID CLEANERS

338

Super Rust Remover

Removes rust from ferrous metals, corrosion from aluminum, brightens copper, brass, stainless steel, and zinc—quickly and safely.

Product Characteristics

Removes metal oxide layer Brightens non-ferrous metals Leaves metal paint ready Rinses clean with water Short term corrosion protection *Available Container Sizes:* 20 I, 208 I

Applications

General Metal prefinishing of machined parts and metalwork Maintenance Restores rusted inventories, nuts/bolts Threaded assemblies, internal corrosion Shafts, cast housings

346

Descaler and Chemical Cleaner

Strong, acid based, multi-use liquid, formulated with metal protecting inhibitor for a wide range of applications.

Product Characteristics Dissolves rust and scale while protecting base surface

Concentrated hydrochloric base and additives Available Container Sizes: 20 |, 208 | Applications Steam boiler tubes Condenser water systems Water circulating equipment Etches concrete

NSF Registered

Caution: Not effective on grease, oil, and common soil. Not for use on aluminum, painted enamel, stainless steel, or decorative metals.

SOLVENT-BASED CLEANERS

274

Industrial Degreaser

A hard surface degreaser for industrial and marine environments.

Product Characteristics Dissolves petroleum oil, grease, tar and other inorganic soils Low odor, aromatic content Does not attack metal, most paints, and plastics Fast, penetrating action Available Container Sizes: Aerosol, 20 I, 208 I

Applications Maintenance shops Dip tanks Hard surfaces Machined parts Recirculating and agitated parts washers

NSF Registered





- Cost-effective—highly concentrated—dilute with water to use
- Saves on labor, maintenance costs, and fuel consumption in heat transfer equipment
- Inhibited to protect base metals
- Biodegradable



- Cost-effective
- Low evaporation, long lifetime, reduced consumption
- Improve worker safety
- High flash point



CORROSION CONTROL

775

Moisture Shield

An efficient, clear, moisture-displacing and anti-corrosion protective film that protects metal parts and equipment for months.

Product Characteristics

Transparent film Excellent corrosion protection Penetrates fine tolerances High dielectric strength Protects new metal from corrosion *Available Container Sizes:* Aerosol, 20 I, 208 I

Applications

Parts in process, transit, or storage Electrical systems Marine industry Drying out of wet electrical parts **Note:** Where long term protection is desired use Chesterton's 740 Heavy Duty Rust Guard

Conforms to MIL-C-16173D corrosion preventative, Grade 3

740

Heavy Duty Rust Guard

This long-term, corrosion preventative coating provides heavy-duty metal protection for all areas constantly exposed to humidity and corrosive fumes—without critical surface preparation.

Product Characteristics	Applications
Self-healing, if scratched	Metal tools
Transparent brown	Parts in process
Available Container Sizes: Aerosol, 3,8 I, 20 I, 208 I	Parts in storage
	Pumps
	Indoor structural steel
	Note : Product can be easily removed with Chesterton's 276 Electronic Component Cleaner or 274 Industrial Degreaser
Conforms to MIL-C-16173D, Grade 1 and 4	



 Short term corrosion protection

 Easily removable with Chesterton's water-based or solvent-based cleaners



- Provides up to two years corrosion protection under sheltered outdoor conditions
- Does not peel or flake
- Excellent resistance to acid, alkali, and salt air fumes



NSF Registered Products, A.W. Chesterton Company

This table provides general guidelines. For the most current listings and full descriptions of the category codes please visit **www.NSF.org/usda/psnclistings.asp**.

218 HDP	133943	A1	636 FG SLF220	147202	H1
235 SSC	133964	A4	651 Detergent Lubricating Oil (aerosol)	133928	H2
273 Electric Motor Cleaner	133975	K2	651 Detergent Lubricating Oil (bulk)	133946	H2
273 Electric Motor Cleaner (aerosol)	133976	K2	652 Pneumatic Lubricant and Conditioner	133944	H2
274 Industrial Degreaser	133955	C1, K1, K2	660 Silicone Lubricant (aerosol)	133970	H1
274 Industrial Degreaser (aerosol)	133949	C1, K1, K2	660 Silicone Lubricant (bulk)	133932	H1
276 Electronic Component Cleaner (aerosol)	133973	K2	662 FG Barrier Fluid 22	143837	H1
276 Electronic Component Cleaner (bulk)	133974	K2	690 FG Lubricant (aerosol)	133933	H1
277 Metal Surface Degreaser (aerosol)	134008	C1, K1	690 FG Lubricant (bulk)	133969	H1
277 Metal Surface Degreaser (bulk)	134007	C1, K1	706 Rustsolvo®	133942	H2
279 PCS	134012	K2	710 Anti-Seize Compound (bulk)	133958	H2
292 Precision Degreasing Solvent	134003	K1, K2, K3	715 Spraflex [®]	133938	H2
292 Precision Degreasing Solvent (aerosol)	134004	K1, K2, K3	715 Spraflex [®] (aerosol)	133934	H2
294 CSD	143867	C1, K1, K3	715 Spraflex [®] Gold	133930	H2
346 Descaler and Chemical Cleaner	133962	A3	715 Spraflex [®] Gold (aerosol)	133931	H2
3500 Valvelon®	134013	P1	723 FG Sprasolvo [®]	134006	H1
360 Phosphate-Free Cleaner	133961	A1, A4	723 Sprasolvo [®]	133939	H2
390 Cutting Oil (aerosol)	134947	H2, P1	725 Nickel Anti-Seize Compound	133959	H2
395 Tapping Lubricant	133935	H2	730 Spragrip [®]	133947	P1
438 PTFE Coating (aerosol)	133950	H2	775 Moisture Shield (aerosol)	134015	H2
601 Chain Drive Pin and Bushing	133927	H2	785 FG Parting Lubricant	132237	H1
Lubricant (aerosol)			785 Parting Lubricant	133960	H2
601 Chain Drive Pin and Bushing	133979	H2	787 Sliding Paste	133956	H2
Lubricant (bulk)			800 GoldEnd® Tape	134016	H1, P1
610 Synthetic Lubricating Fluid (aerosol)	133972	H2	801 Industrial and Marine Solvent	133965	A1, A4, A8
610 Synthetic Lubricating Fluid (bulk)	133971	H2	803 Industrial and Marine Solvent II	133966	A1
615 High Temperature Grease	133940	H2	860 Moldable Polymer Gasketing	134017	P1
615 HTG #1	133941	H2	(cartridge)		
622 White Grease	133929	H1	860 Moldable Polymer Gasketing	134018	P1
625 CXF Corrosion Resistant,	138414	H1	Curing Agent		
Extreme Pressure Food Grade Grease	122026		900 GoldEnd® Paste	133957	H2, P1
629 High Temperature White Grease	133936	HI	KPC 820	133963	A1
	142462	ні			
630 SXCF Synthetic Extreme Pressure Corrosion Resistant Food Grade Grease	138415	H1			

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A.W. Chesterton Company 860 Salem Street Groveland, MA 01834 USA Telephone: 781-438-7000 Fax: 978-469-6528 www.chesterton.com Form No. EN23537 Rotary Equipment Catalog – English 2/16

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