

CATALOGUE OF PRODUCTS

SELECTED RANGE



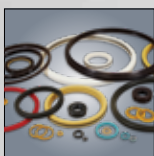
Equipment Monitoring



Mechanical Seals



Packing and Gaskets



Polymer Seals



**Industrial Lubricants
and MRO Products**



Industrial Coatings

PROVIDING VALUE TO INDUSTRY SINCE 1884

A.W. Chesterton Company is a leading international manufacturer and distributor of five distinct product lines. Each product line is positioned to provide value-driven solutions to meet industry needs.

Since 1884 we have worked closely with our customers to provide solutions that help them operate more reliably, efficiently, and economically.

A.W. Chesterton Company is ISO 9001:2008 and ISO 14001:2004.

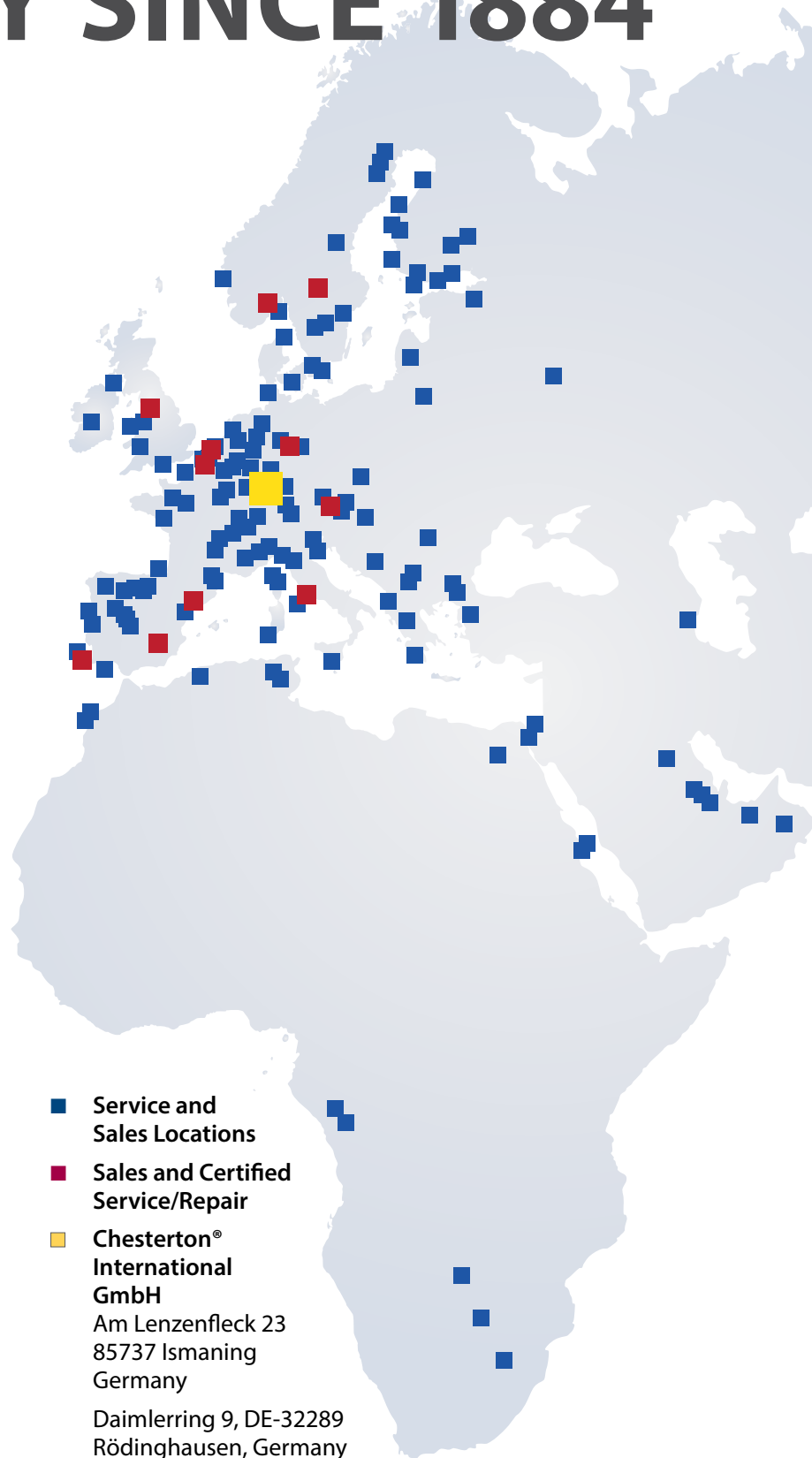
Chesterton® in Europe, the Middle East, and Africa

Chesterton has been using high performance materials, formulations, and designs to solve your toughest industrial applications. We provide value-driven solutions with documented success and recognition across Europe, the Middle East, and Africa.

Local Service

The expertise of your local Chesterton Technical Specialist combined with the support of our engineering staff will enable you to enjoy significantly reduced operating costs, increased reliability, and years of trouble-free service.

*This catalogue provides you with an overview of the products and services that Chesterton offers in Europe, the Middle East, and Africa. For more information about our full range of products and services, visit our web site at **chesterton.com**.*



MEET ENVIRONMENTAL AND BUSINESS GOALS

Chesterton mechanical packing and gaskets enable our customers to meet their goals by offering the right product fit for every application on static equipment.

Value and Performance Programs

There are many different applications in a process plant and across industries. Critical applications need a top-quality performance packing, while a standard packing might be fully adequate for less demanding applications.

- High quality performance packing
- Standard packing range
- Solutions for every plant and industry
- Total cost focus

Reliability and Environmental Protection

Live loading for flanges and valves increases reliability and performance while reducing emissions and leakage by adjusting for system issues that affect packing performance.

Application-Specific Solutions

For some applications a plant-wide packing just won't do and some applications have requirements that need a unique solution. Chesterton has developed distinct products that allow the best performance for specific pieces of equipment and particular service conditions in a variety of industries. Examples are:

- Sootblower solutions for the power industries
- Solutions for solvent dewaxing units in the oil refining industry





Pump and Valve Packing and Gaskets Application Guide

Please contact your local Chesterton representative to help you select the best product for your application.

Family	Product	Media				Duty			Key Benefit			Equipment						
		Water	Steam	Chemicals	Food and Beverage	High-Temperatures	High-Pressures	High-Speeds	Reliability	Economy Solution	Emissions	Control Valves	Block Valves	Motor Operated Valves	Pipe Flanges	Heat Exchangers	Housings	Rotating Equipment
Flange Sealing	455EU	√++	√	√+		√+	√+		√+	√++	√+				√++		√++	
	553	√++	√+	√+		√+	√+		√++	√+	√++				√++		√++	
	Duragraf F	√++	√++	√++		√++	√+		√+	√++	√+				√++		√++	
	Duragraf T	√++	√++	√++		√++	√+		√+	√++	√+				√++	√+	√++	
	459	√++	√++	√++		√++	√++		√+	√+	√+				√+	√+	√++	
	ECS-T	√++	√+	√++		√+	√+		√++		√++				√++		√++	
	Camprofile Gasket KG1/KR	√++	√++	√++		√++	√++		√++		√++				√++	√++	√++	
	Flange Live Loading		√++	√++		√++	√++		√++		√++				√++	√++	√++	
Pump Packing	1730	√++		√+		√+	√++	√	√++	√+								√++
	1760	√++		√++		√+	√++	√++	√++	√+								√++
	1765	√++		√++		√+	√+	√+	√++	√+								√++
	1830	√++		√++		√+	√+	√++	√+	√++								√++
	1830-SSP	√++		√++		√+	√+	√++	√+	√+								√++
	1935	√++		√+	√++	√			√+	√+								√++
	1400R	√++	√+	√++		√++	√+	√++	√++	√+	√+							√++
	DualPac 2211	√++		√		√+	√+	√+	√+	√++								√++
	DualPac 2212	√++		√	√++		√+	√++	√+	√++								√++
	CMS 2000 White	√++		√+						√++								√++
	CMS 2000 Food Grade	√++		√++	√++					√++								√++
Valve Packing	1600	√++	√++	√++		√++	√++		√++		√+		√++					
	1622		√+	√++		√++	√++		√++		√++		√++					
	1724	√++		√++			√+		√++		√++	√++	√++	√+				
	1724 low E			√++		√+	√+		√++		√++	√++						
	5800	√++	√++	√++		√++	√+		√++			√++						
	5800E	√++	√+	√++		√++	√+		√++		√+	√++						
	5800T	√++	√+	√++		√+	√		√++		√+	√++						
	5300 Valve Live Loading	√++	√++	√++		√++	√++		√++		√+	√+	√++	√++				

√++ = Best Choice

√+ = Better Choice

√ = Good Choice

DUALPAC® PACKING

Longer Packing Life, Reduced Maintenance

DualPac® 2211 Packing

Severe Slurry Packing

By inventing a new braiding process, Chesterton has successfully combined ePTFE and aramid fibres in a unique configuration, allowing low-friction fibres to seal the shaft and resilient fibres to provide strength and anti-extrusion benefits. Combined in this way DualPac 2211 packing provides all of the performance advantages of ePTFE and aramid without the compromises of traditional mixed fibre packing.

Operating Conditions		Materials
Sizes	6,4 mm – 25 mm (1/4" – 1")	Graphited ePTFE
Pressure Limit	20 bar g (300 psig)	
Temperature Limit	Max 260°C (500°F)	
pH	3 – 11	
Speed	10 m/s (2 000 fpm)	
Applications	For use in ore slurries, mineral handling, dewatering tailing pumps, and other slurry processing applications	



- Achieves significantly longer packing life using patented DualPac packing technology
- Multiple configurations to eliminate the need for end rings
- Exclusive design using DualPac packing technology

DualPac® 2212 Packing

High-Performance, Non-Staining, Multi-Purpose Packing

Chesterton DualPac 2212 packing is created using our patented DualPac technology which combines a burn-resistant material on the packing's shaft side with a highly resilient outer fibre.

Operating Conditions		Materials
Sizes	6,4 mm – 25 mm (1/4" – 1")	Meta and para-aramid fibres
Pressure Limit	35 bar g (500 psig)	
Temperature Limit	Max 260°C (500°F)	
pH	3 – 11	
Speed	10 m/s (2 000 fpm)	
Applications	Water pumps, paper stock pumps, slurries, agitators, mixers	



- Glaze-resistant packing fibres
- High-pressure capability
- Exclusive design using non-staining DualPac packing technology

Standards and approvals available on page 91.

DUALPAC[®] TECHNOLOGY



A New Level of Packing Reliability

Chesterton's new DualPac technology combines the best qualities and benefits of two different fibres to create an entirely new level of packing reliability. Individually these fibres have unique properties, but together they offer advanced levels of performance.



Packing and Gaskets



- Multiple configurations to eliminate the need for end rings
- Exclusive design using the patented DualPac technology
- Innovative braided packing: try it and adopt it!



Reduced Leakage



Fewer Adjustments



Less Power

PACKING AND GASKETS

PUMP PACKING

1935

Food-Grade Compression Packing

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

Technical Data

Materials	Virgin PTFE yarn, with lubricant that is food-compliant		
Applications	Pumps, valves, cookers, blenders, agitators, mixers		
Available Sizes	4,7 mm – 22,2 mm (3/16" – 7/8")		
Pressure Limit	14 bar g (200 psig) in rotating equipment	Temperature Limit	230°C (450°F)
	55 bar g (800 psig) in valves		
pH	0 – 14		



- Suitable for use in virtually all food media below 230°C
- Made with a virgin PTFE and white oil lubricant
- Independently certified EC 1935 compliant

1730

General Service Packing

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

Technical Data

Materials	Thermoset fibres with lubricants and blocking agents		
Applications	Water pumps, paper stock pumps, slurries, agitators, mixers		
Available Sizes	6 mm – 25,4 mm (1/4" – 1")		
Pressure Limit	28 bar g (400 psig)	Temperature Limit	290°C (550°F)
Speed	10 m/s (2 000 fpm)	pH	1 – 13

See page 81 for available sizes.



- Easy and fast break-in
- Abrasion-resistant, while non-scoring
- Good chemical resistance
- Good temperature resistance

1760

Chemical Packing

Strong and dense PTFE fibre 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, agitators		
Available Sizes	3,2 mm – 25,4 mm (1/8" – 1")		
Pressure Limit	17 bar g (250 psig)	Temperature Limit	260°C (500°F)
Speed	18 m/s (3 600 fpm)	pH	0 – 14



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

Standards and approvals available on page 91.

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		
Available Sizes	6,4 mm – 25,4 mm (1/4" – 1")		
Pressure Limit	20 bar g (300 psig)	Temperature Limit	Min -40°C – 260°C (-40°F – 500°F)
Speed	10 m/s (2 000 fpm)	pH	0 – 14 except for Fluorine (F ₂), ClF ₃ and related compounds, and molten alkali metals



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

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 Limit	22 bar g (320 psig)
Available Sizes	4,8 mm – 25,4 mm (3/16" – 1")	Temperature Limit	260°C (500°F)
Speed	18 m/s (3 600 fpm)	pH	0 – 14 except for strong oxidizers in the 0 – 2 pH range



- Excellent chemical resistance
- Low friction, less heat generation and non-abrasiveness saves shafts and shaft sleeves
- Easy installation and removal
- Low leakage and long life

1400R

Carbon-Reinforced Graphite Packing

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

Technical Data

Materials	Carbon fibre-reinforced flexible graphite packing		
Applications	Process pumps, boiler feed pumps, block valves, refiners, agitators, mixers		
Available Sizes	3,2 mm – 25,4 mm (1/8" – 1")		
Pressure Limit	14 bar g (200 psig) rotating applications 275 bar g (4 000 psig) valves	Temperature Limit	Min -40°C – 260°C (-40°F – 500°F) Max 650°C (1 200°F) steam Max 455°C (850°F) oxidizing atmosphere
Speed	20 m/s (4 000 fpm)	pH	0 – 14 except oleum, fuming nitric acid, and aqua regia



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

Standards and approvals available on page 91.

1830-SSP

Slurry Packing

Designed with a hybrid yarn, combining advanced, expanded graphite PTFE yarn with carbon yarn reinforcement.

Technical Data

Materials	Carbon-reinforced, expanded graphite PTFE		
Applications	Slurry pumps, mineral handling slurries, tailing pumps		
Available Sizes	9,5 mm – 25,4 mm (3/8" – 1")		
Pressure Limit	28 bar g (400 psig)	Temperature Limit	260°C (500°F)
Speed	18 m/s (3 600 fpm)	pH	0 – 14 except for strong oxidizers in the 0 – 2 pH range

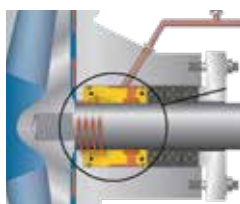


- Developed to meet rigid demands of slurry sealing applications
- Excellent chemical resistance
- Low friction, less heat generation, non-abrasive, saves shafts and shaft sleeves

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.



Versions

Applications

1730 SuperSet	General service in slurries and clean fluids
1400R SuperSet	Worn equipment, high-speed and high-temperature applications
1760 SuperSet	Highly aggressive chemical environments oxidizers in the 0–2 pH range



- Reduces flush water consumption
- Increases equipment MTBR
- Reduces shaft sleeve wear

PUMP, MIXER, AND AGITATOR PACKING

CMS 2000

Injectable Packing System

Chesterton CMS 2000 Injectable Packing System is an advanced, flushless, stuffing box leakage control sealant made of high-purity, reinforced fibre.

Technical Data

Applications	Stock pumps, white water pumps, river water pumps, condensate pumps, water treatment pumps, and also rotating equipment applications in the food processing and handling industry
Pressure Limit	14 bar g (200 psig)
Temperature Limit	205°C (400°F)
pH	1 – 13 White not recommended for oxidizers, fluorine, chlorine trifluoride and related compounds, and molten alkali metals 0 – 14 FP



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

Standards and approvals available on page 91.

EMISSIONS CONTROL

1622™ Low E Valve Packing

Emission Control Packing for Block Valves

Chesterton 1622 Emissions Packing is designed to minimize valve emissions and exceeds current emissions requirements for the refinery, petrochemical, and chemical industries.

Guaranteed to seal less than 100 ppm for 5 years per EPA method 21.

Technical Data	
Materials	Nickel alloy wire-reinforced flexible graphite packing with special blocking agents
Available Sizes	3,2 mm – 17,5 mm (1/8" – 1")
Pressure Limit	355 bar g (5 000 psig)
Temperature Limit	Max 650°C (1 200°F) steam Max 455°C (850°F) oxidizing atmosphere
pH	0 – 14 except in strong oxidizers
Applications	Block valves with emission requirements in the refining, petrochemical, and chemical industries



- Extremely low emissions
- Fire safe
- Single spool packing
- High-pressure capability

1724 Low E Control Valve System

Emission Control Sealing System for Control Valves

Chesterton 1724 Low E is specially designed for control valves that require a minimal level of fugitive emissions. Kits can be designed to upgrade existing control valves to Low E performance. Special pre-engineering kits are designed to fit Fisher®, Valtek®, and Masoneilan® Valves.

Guaranteed to seal less than 100 ppm for 5 years per EPA method 21.

Technical Data	
Materials	Die-formed braided PTFE packing, split carbon spacer, cartridge live loading assemblies, new gland studs and nuts (for special pre-engineering kits for Fisher®, Valtek®, and Masoneilan® valves only)
Temperature Limit	205°C (400°F)
pH	0 – 14 except for molten alkali metals, elemental fluorine, and strong oxidizers
Applications	Control valves with emissions requirements in the refining, petrochemical, and chemical industry



- Reduce emissions without valve replacement
- Visual torque inspection minimizes "hot" retorques, reducing safety risks
- Easy to install

Standards and approvals available on page 91.

Sealing Solutions for Rotating

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



Advanced Lubrication Technology

Chesterton's QBT™ technology: extends bearing life; resists wear, load, and corrosion.

Other ARC Industrial Coatings Products



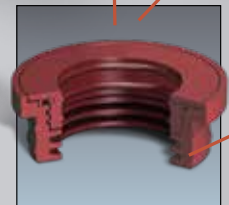
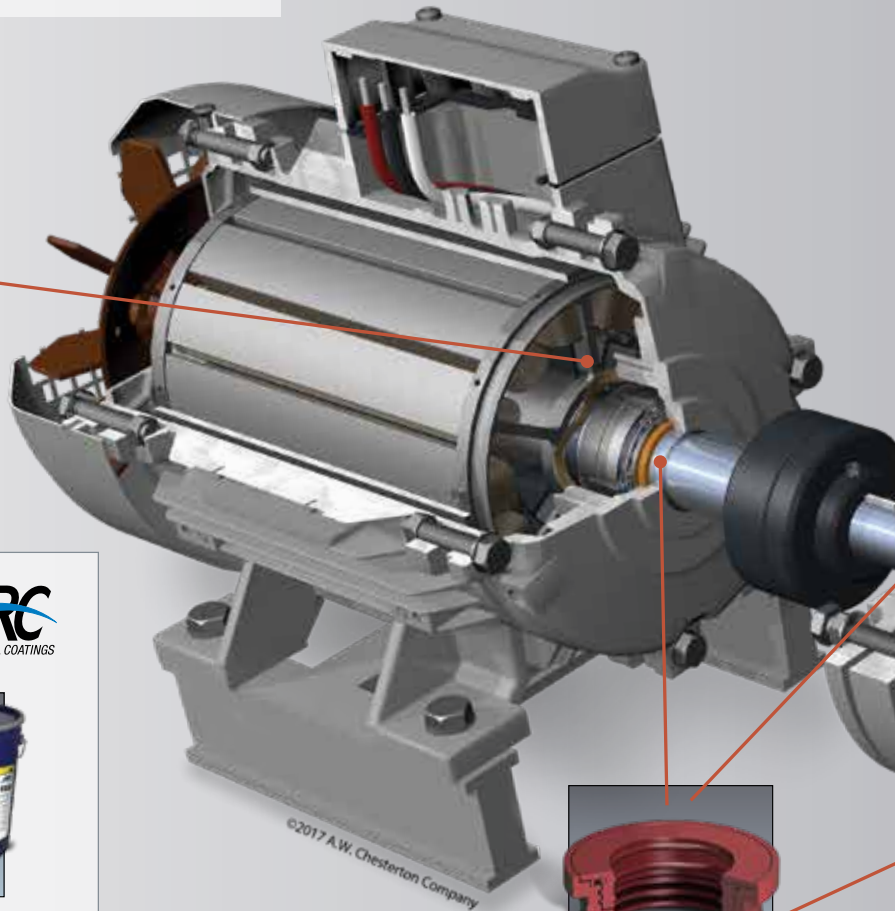
Machinable Composite

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



Cold Galvanizing Compound

Micronized particles of pure zinc protect against galvanic corrosion. Use on bolting, weld seams, and supports.



Anti-seize

Prevent rust and seizure bolts and prevent fretting and corrosion while securing bearings.



Thread Sealing

High performance PTFE tapes and paste.



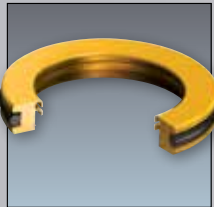
Gasketing

Make any size gasket with Moldable Polymer Gasketing.

Equipment

Bearing Protection

Protect the bearing housing with a high-performance bearing seal

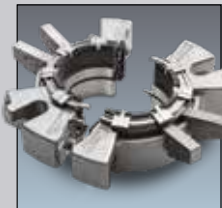


Equipment Monitoring
Track performance trends and get remote alerts



Split Seals

Superior performance with easy installation



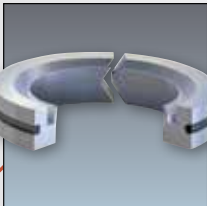
Cartridge Seals

Upgrade seal performance with single or double cartridge seals



Pump Packing

Reduce maintenance costs and sleeve wear



Restriction Bushings

Protect the stuffing box and reduce the flush rate



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

LIVE LOADING

Flanges and Heat Exchangers

Increase reliability, lower emissions, and reduce total costs by using tailored sealing solutions for critical flanges.

Technical Data	5500	5505L	5505H
Materials	Specialised stainless steel alloy	High-strength, high-temperature-resistant and corrosion-resistant stainless steel alloy	Chromium steel with oxide coating
Temperature	-200°C – 300°C (-328°F – 575°F)	-100°C – 350°C (-148°F – 662°F)	0°C – 600°C (32°F – 1100°F)
Corrosion Resistance	good	good	average
Applications	Use in combination with Chesterton Camprofile or Steel Trap™ gaskets on process flanges, heat exchangers, vessels, reactors, valve bonnets, housings, sight glasses		
Warranty	3-year warranty (see flange live loading warranty for conditions)		



Chesterton Live Loading System

Chesterton Flange Live Loading increases flange reliability by increasing the elastic energy in the flange assembly. This ensures that a pre-calculated gasket stress is maintained at all times, regardless of pressure fluctuations, gasket thickness loss, or thermal cycles. Chesterton Flange Discs are specially designed for flange applications and maintain their flexibility under extreme mechanical and thermal conditions.



- Shutdown-to-shutdown reliability
- Significantly reduces downtime on critical equipment
- Lowers emissions and meets environmental regulations
- Reduces leakage and product loss
- Reduces safety and housekeeping concerns
- Improves plant efficiency and reduces total cost

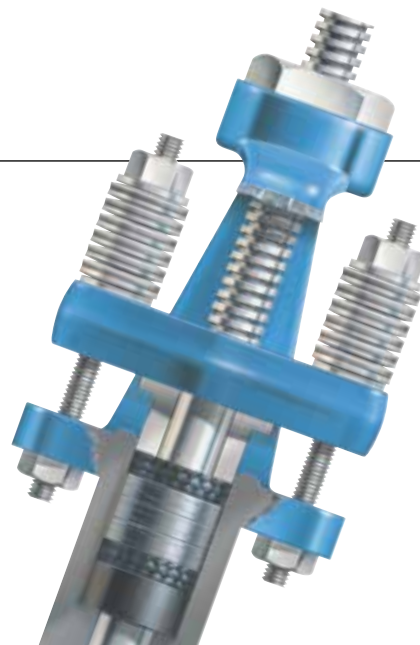
Standards and approvals available on page 91.

Valves

An engineered sealing system that maintains operability and improves reliability—from shutdown to shutdown—in compliance with environmental regulations.

Technical Data	
Materials	5300 die-formed graphite packing with style 1600 nickel alloy-reinforced braided graphite packing, carbon bushing, live loading spring sets.
Pressure Limit	317 bar g (4 600 psig)
Temperature Limit	
Maximum	2 760°C (5 000°F) in a non-oxidizing atmosphere 430°C (800°F) in an oxidizing atmosphere
Minimum	-240°C (-400°F)
pH	0 – 14 with the exception of oleum, fuming nitric acid, aqua regia, fluorine, hydrochloric acid, and hydrofluoric acid
Applications	Block valves and air/motor-operated valves in the Power, Petrochemical, Oil Refining, Chemical, and other industries
Warranty	5-year warranty (see valve emissions warranty for conditions)

Chesterton 5300 and 1600 sealing solutions pass API 589 Fire Test



Packing and Gaskets

- Improves reliability in critical valves
- Compensates for system pressure upsets, vibrations, and thermal cycling
- Prevents leakage by gland force retention
- Extends MTBR
- Reduces maintenance costs
- Reduced stem friction ensures operability

Components



Other Versions



Chesterton 5800 Control Valve Live Loading Kits

5800 Graphite Wedge Packing reduces valve stem friction by 30% compared to square cross section, die-formed graphite.

Standards and approvals available on page 91.

PACKING AND GASKETS

VALVE PACKING

1600

Advanced Valve Stem Packing

Off-the-shelf performance with emission guarantee.

Technical Data

Materials	Nickel alloy wire-reinforced flexible graphite packing		
Applications	Block valves, as an end ring on control valves, motor-operated valves and sootblowers		
Available Sizes	3,2 mm – 25,4 mm (1/8" – 1")		
Pressure Limit	580 bar g (8 400 psig)	Temperature Limit	Max 650°C (1200°F) steam Max 455°C (850°F) oxidizing atmosphere
pH	0 – 14 except strong oxidizers		



- Fire safe
- Excellent emission control
- High-pressure capability
- Guaranteed performance
- Easily cut to size on site

1724

PTFE Valve Packing

Excellent emission control and chemical resistance.

Technical Data

Materials	PTFE yarn with protective lubricants		
Applications	Block valves, motor-operated valves, control valves		
Available Sizes	3,2 mm – 25,4 mm (1/8" – 1")		
Pressure Limit	210 bar g (3 000 psig)	Temperature Limit	260°C (500°F)
pH	0 – 14		



- Excellent chemical resistance
- Excellent emission control
- Remains flexible

5800/5800E/5800T

Graphite Wedge Packing

Patented control valve sealing solution designed to lower valve stem friction and improve sealability.

Technical Data

Materials	Die-formed high-purity graphite		
Applications	Control valves		
Pressure Limit	210 bar g (3 000 psig) no end rings 310 bar g (4 500 psig) 1600 end ring	Temperature Limit	2 760°C (5000°F) non-oxidizing atmosphere 430°C (800°F) oxidizing atmosphere
pH	0 – 14		



- Dramatically improves valve stem response
- Low emissions guarantee
- Excellent chemical and temperature resistance

Standards and approvals available on page 91.

SEMI METAL GASKETS

Camprofile

High Performance, Semimetallic Gasketing

Highly reliable flange gasket with excellent emission control.

Technical Data

Materials	Stainless steel carrier with a graphite or PTFE sealing element (more materials available)		
Applications	Pipe flanges, heat exchangers, vessels, reactors, valve bonnets, housings		
Pressure Limit	400 bar g (5 800 psig)	Temperature Limit	graphite sealing layer 550°C (1 020°F) inert media -200°C – 900°C Max (-328°F – 1 650°F) PTFE sealing layer 300°C (572°F)
pH	0 – 14		



- Certified low emission performance
- High reliability
- DIN and ANSI standard gaskets
- Custom shapes available, including heat exchanger gaskets

SHEET GASKETS

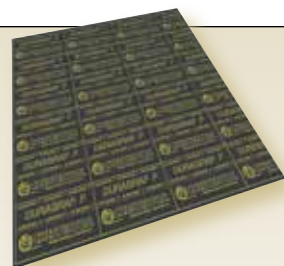
Duragraf F

Expanded Graphite Sheet

An easy-to-use, economical, general service graphite sheet with a flat, stainless steel insert.

Technical Data

Materials	Flexible graphite with a 50 µm 316SS stainless steel flat insert		
Applications	Pipe flanges, vessels, reactors, valve bonnets, housings		
Available Thicknesses	1 mm, 1,5 mm, 2 mm, 3 mm		
Sheet Size	1 000 mm x 1 000 mm (39" x 39")		
Pressure Limit	100 bar g (1 450 psig)	Temperature Limit	500°C (932°F)



- Easy to cut by hand
- Excellent performance in steam and aggressive media
- Available as a pre-cut gasket in standard and custom sizes

Duragraf T

Expanded Graphite Sheet

Flexible graphite sheet with a 100 µm 316SS stainless steel insert.

Technical Data

Materials	Flexible graphite with a 100 µm 316SS stainless steel flat insert		
Applications	Pipe flanges, vessels, reactors, valve bonnets, housings		
Available Thicknesses	1 mm, 1,5 mm, 2 mm, 3 mm		
Sheet Size	1 500 mm x 1 500 mm (59" x 59")		
Pressure Limit	120 bar g (1 740 psig)	Temperature Limit	500°C (932°F)



- Available in nuclear grade
- Mechanically bonding assures purity
- Available as a pre-cut gasket in standard and custom sizes

Standards and approvals available on page 91.

459

Graphite Sheet with Nickel Reinforcement

Technical Data

Materials	Flexible graphite with a 0,026 mm nickel flat insert
Applications	Pipe flanges, vessels, reactors, valve bonnets, housings
Available Thicknesses	1 mm, 1,6 mm (1/16"), 2 mm, 3,2 mm (1/8")
Sheet Size	1 000 x 1 000 mm (39" x 39")
Pressure Limit	140 bar (2 000 psi)
Temperature Limit	870°C (1 600°F) non-oxidizing, 454°C (850°F) oxidizing, minimal -200°C



- Easy to cut manually
- Excellent pressure capability
- High-temperature capability
- High chemical resistance

455EU

General Service Gasket Sheet

Multi-purpose gasket with excellent performance in low pressure steam and light chemicals.

Technical Data

Materials	Aramid fibres, special fillers, and an NBR binder		
Applications	Liquids and gaseous media, drinking water applications, general applications in industry		
Available Thicknesses	0,5 mm, 1 mm, 1,5 mm, 2 mm, 3 mm		
Sheet Size	1 500 mm x 1 500 mm (59" x 59")		
Pressure Limit	85 bar g (1 230 psig)	Temperature Limit	250°C (482°F)



- Economical gasket for general process applications
- Works in steam and light chemical applications
- Available as a pre-cut gasket in standard and custom sizes

553

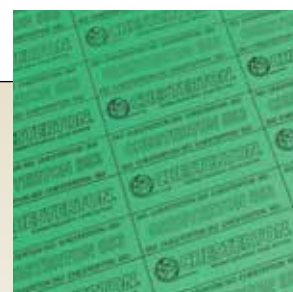
Environmental Gasket

Specifically designed to keep the environment free from hazardous substances by combining an ecological composition with excellent sealing properties.

Technical Data

Materials	Aramid fibres, special fillers, and an NBR binder		
Applications	Oils, gases, chemicals, refrigerants, steam, water in all industries		
Available Thicknesses	0,5 mm, 1 mm, 1,5 mm, 2 mm, 3 mm		
Sheet Size	1 500 mm x 1 500 mm (59" x 59")		
Pressure Limit	120 bar g (1 740 psig)	Temperature Limit	450°C (842°F)

BS 7531 Grade X



- Works in steam, chemicals, and a variety of hydrocarbons
- Excellent general service refinery gasket
- High-temperature and high-pressure capability

Standards and approvals available on page 91.



ECS-T

PTFE Sheet Gasket

Filled PTFE sheet with excellent mechanical properties and outstanding chemical resistance.

Technical Data	
Materials	PTFE with fillers
Applications	High-pressure and temperature services, especially in chemical and hydrocarbon plants in strong acids
Available Thicknesses	1 mm, 1,5 mm, 2 mm, 3 mm
Sheet Size	1 500 mm x 1 500 mm (59" x 59") except 1 mm thickness 1 200 mm x 1 200 mm (47" x 47")
Pressure Limit	83 bar g (1 200 psig)
Temperature Limit	260°C (500°F)



- High chemical resistance
- Excellent in strong acids
- Available as a pre-cut gasket in standard and custom sizes

Standards and approvals available on page 91.

Ancillary Products

Bolted flange connections rely on accurate tensioning to assure leak tightness. Accurate tensioning is impossible on unlubricated bolts. Chesterton anti-seize products provide a consistent coefficient of friction between the bolt and nut threads therefore assuring no leakage and low fugitive emissions.



785(E) and 785 FG

High-performance, extreme-pressure, anti-seize compound. Go to page 64.



783(E) ACR

Anti-seize with excellent corrosion protection for nuts and bolts and mechanical assemblies. Go to page 64.



615 HTG

High performance grease for severe operating conditions. Go to page 62.



185

Form-in-place spooled joint sealant. 100% virgin PTFE. Go to chesterton.com



800 GoldEnd® Tape

Heavy-duty, high-density PTFE sealing tape. Go to page 67.



860 MPG

Two-part, extrudable gasketing material allows for the creation of ultrathin gaskets. Go to page 67.

DEDICATED TO INNOVATION AND RELIABILITY

Engineered Polymer Solutions

Chesterton's Polymer Seals group is a worldwide manufacturer and distributor of the highest performing polymer seals. We combine our technical expertise with state-of-the-art material technologies to provide industry-leading solutions.

- Hydraulic and pneumatic seals
- Custom seals
- Rotary seals
- Spring-energized seals
- Service programs

Materials and Innovation

We utilize the full range of state-of-the-art polymer technologies to support a wide range of industrial applications.

Designs and Expertise

Our engineers draw on years of experience to design value-added products with a focus on continuously improving equipment performance.

SpeedSeal®

Chesterton offers regional service with fully integrated facilities that rely on advanced equipment, flexible tooling, and semi-finished materials. This allows us to provide you with a broad selection of product offerings—with *same-day delivery*.

Solutions and Service

Our distributors and specialists work closely with customers to provide the best service in the industry.



SpeedSeal® Service Centres

Fast and Flexible

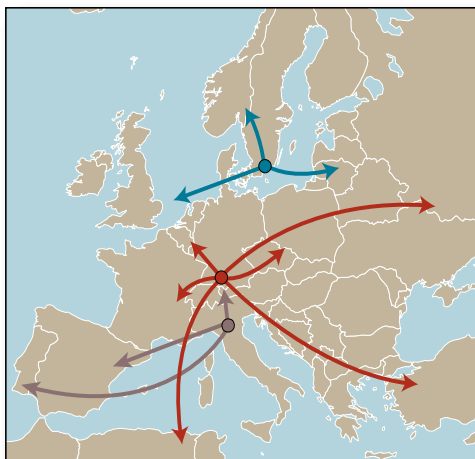
Chesterton SpeedSeal offers same-day delivery from its Service Centre network for Europe and the Middle East.

Our fully-integrated facility utilises advanced equipment and a wide range of materials and designs to provide you with a broad selection of product offerings.

- Same-day delivery*
- Sizes available up to 1400 mm*
- Engineered solutions
- CAD hydraulic engineering
- Prototypes available
- Cylinder and equipment upgrade and repair



SpeedSeal Service Centres




























- SpeedSeal Germany – Ismaning
- SpeedSeal Sweden – Karlshamn
- SpeedSeal Italy – Gallarate



**Conditions apply. Contact SpeedSeal for available service options.*

POLYMER SEALS – Product Selection Guide












	Types	Speed	Product	Profile Series	Description	Attributes					Friction			Wear Resistance			
						Mould	*Mach.	Hyd.	Pne.	Split	Low	Mid	High	Low	Mid	High	
Reciprocating Motion	Cap Seals (Rod and Piston)	to 15 m/s (3000 ft/min)	RCCS		Double acting, dual component seal		●	●	●		●				●		
			PCCS		Double acting, dual component seal		●	●	●		●				●		
	Wipers	to 1 m/s (200 ft/min)	WCCS		Cap seal wiper profile		●	●	●		●				●		
			W21K		Positive angled profile with flange		●	●	●	●	●					●	
	Rod Seals, U-Cups		R22KN		Single acting, positive angled profile		●	●	●	●	●						●
			R22K		Single acting, radiused sealing surface for hydraulic applications		●	●				●				●	
			R23K		Single acting, radiused sealing surface for pneumatic applications		●		●		●					●	
	Rod Seals, Stacked Sets		R8K		Single acting, positive angled profile, multiple stacked set	●		●		●		●				●	
			R27K		Single acting, positive angled profile, multiple stacked set		●	●		●		●				●	
			R11K		Single acting, negative angled profile, dual stacked set	●	●	●		●		●				●	
			R28K		Single acting, positive angled profile, multiple stacked set		●	●		●		●				●	
			R28K1		Single acting, positive angled profile, multiple stacked set		●	●				●				●	
	Piston Seals, U-Cups		P22KN		Single acting, positive angled profile		●	●	●		●						●
			P22K		Single acting, radiused sealing surface for hydraulic applications		●	●				●					●
			P23K		Single acting, radiused sealing surface for pneumatic applications		●		●		●						●
	Piston Seals, Stacked Sets		P8K		Single acting, positive angled profile, multiple stacked set	●		●		●		●				●	
			P27K		Single acting, positive angled profile, multiple stacked set		●	●		●		●				●	
			P28K		Single acting, positive angled profile, multiple stacked set		●	●		●		●				●	
			P28K1		Single acting, positive angled profile, multiple stacked set		●	●				●				●	
	Replaceable Bearings			16K, 17K, 18K, 19K		Metric and imperial English size bearing band and strips	●		●	●	●	●					●
				WR		Machined to size bearing bands		●	●	●	●	●				●	
	Anti-Extrusion Rings			9K		Backup rings or anti-extrusion rings		●	●	●	●	●				●	
	Compression Seals (Rod and Piston)		to 0.75 m/s (150 ft/min)	R20K		Double acting, negative angled profile, low speed hydraulic applications		●	●					●			●
				P20K		Double acting, negative angled profile, low speed hydraulic applications		●	●					●			●
Static	Valve Seals		M20K-OR		Static seal for O-Ring upgrades in hydraulic valves		●	●			●			●			

Ratings on this chart are for reference only. Values may be higher or lower depending upon the application details such as surface finish, hardness, lubrication, and concentricity. Jacket/Spring combinations will also affect these values.

*Machined product does not require tooling.

* Please contact your Chesterton representative for larger sizes



	Types	Speed	Product	Profile Series	Description	Attributes					Friction			Wear Resistance		
						Mould	*Mach.	Bearing Protect.	Stuffing Box	Split	Low	Mid	High	Low	Mid	High
Rotary Motion	Continuous Rotary Lip Seals	to 20 m/s (4000 ft/min)	30K		Single acting, low pressure seal for bearing & gearbox protection		●	●	●		●					●
	Split Rotary Lip Seals	to 12.5 m/s (2500 ft/min)	33K		Single acting, non-pressure split seal for bearing & gearbox protection		●	●		●	●					●
	Wipers	to 0.5 m/s (100 ft/min)	W21K		Positive angled profile with flange, slow rotary		●	●	●	●		●			●	
	Rod & Piston Seals		R22KN, P22KN		Single acting, positive angled profile, slow rotary		●	●	●	●		●			●	
	Rotary Face Seal	20 m/s (3937 ft/min)	50K		Face seal for dynamic rotary applications	●		●			●				●	
	Rotary Lip Seals	25 m/s (4921 ft/min)	51K		Single acting with helical garter spring, fabric reinforced back	●		●		●		●			●	
	Rotary Lip Seals		52K		Single acting with helical garter spring, metallic stiffener ring	●		●				●			●	
	Rotary Lip Seals	35 m/s (6889 ft/min)	53K		Single acting with garter/finger spring, metallic outer case	●		●			●				●	
	Cartridge Seals	5 m/s (984 ft/min)	30KC		Polymer cartridge with inboard, outboard sealing elements and built-in flushing port		●		●		●					●
	Restriction Bushings	—	14K		Split, single acting with tapered lip		●		●	●	●					●
	Rotary Shaft Seal	15 m/s 3000 ft/min	Matrix Seal		Non-pressure split seal for bearing and gearbox protection, for worn shafts and runout conditions		●	●		●	●				●	

Ratings on this chart are for reference only. Values may be higher or lower depending upon the application details such as surface finish, hardness, lubrication, and concentricity. Jacket/Spring combinations will also affect these values.

*Machined product does not require tooling.

* Please contact your Chesterton representative for larger sizes

Sealing Technology

Fluid Power Sealing Technology

Cylinder Upgrade—Solutions Approach

The Chesterton cylinder upgrade program applies a systematic solutions approach for improving seal performance during the repair and overhaul of equipment. Working in partnership with you, we offer a unique approach to total cylinder refitting that saves money and delivers a better, more reliable cylinder back to your plant.

- Minimize downtime and maintenance costs
- Improve equipment reliability
- Extend leak-free service life
- Reduce hydraulic fluid consumption and support fluid management efforts

Gland

Pressure Port

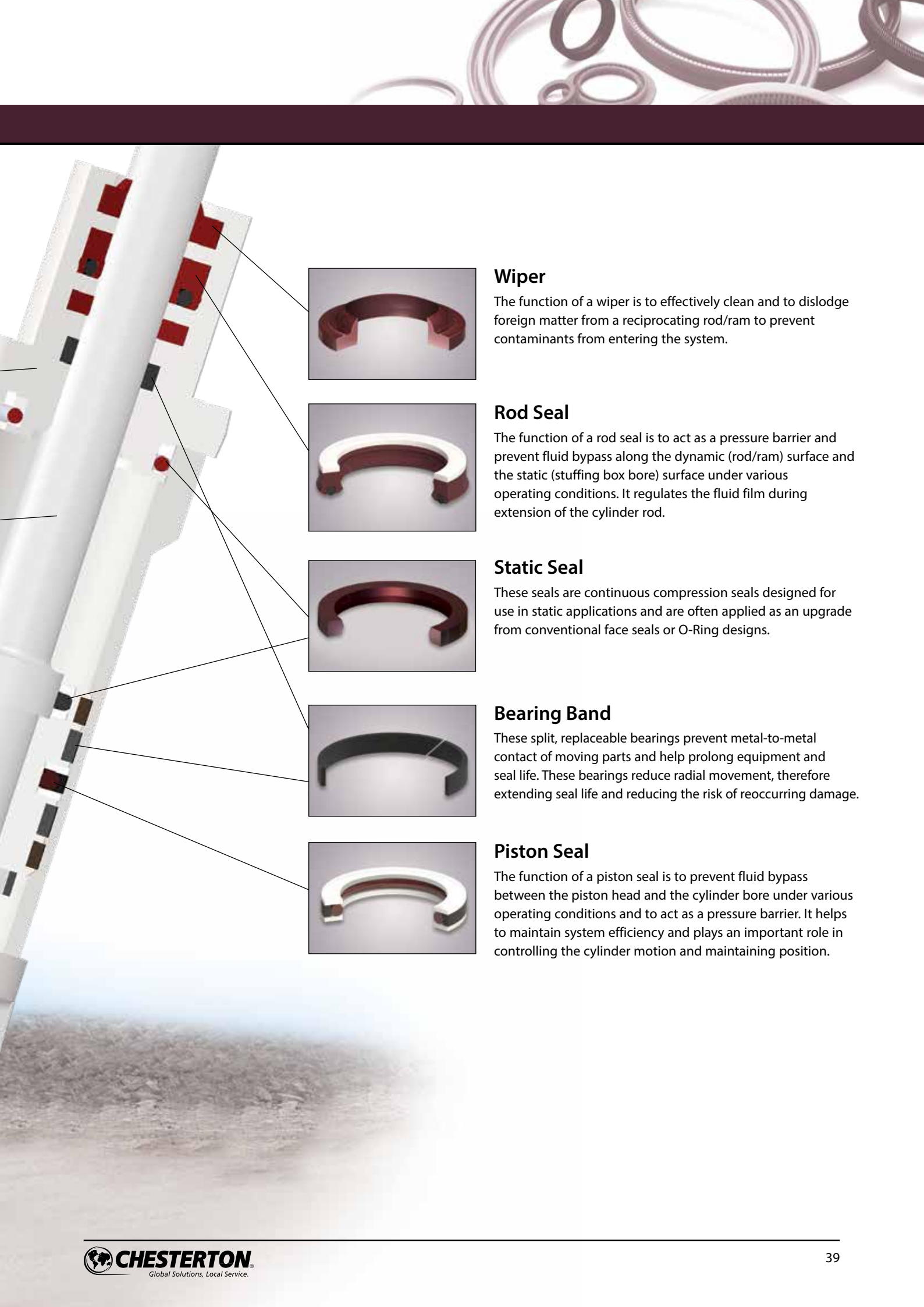
Piston Rod

Cylinder Bore/Jacket/Tube

Piston Head

End Cap Head





Wiper

The function of a wiper is to effectively clean and to dislodge foreign matter from a reciprocating rod/ram to prevent contaminants from entering the system.



Rod Seal

The function of a rod seal is to act as a pressure barrier and prevent fluid bypass along the dynamic (rod/ram) surface and the static (stuffing box bore) surface under various operating conditions. It regulates the fluid film during extension of the cylinder rod.



Static Seal

These seals are continuous compression seals designed for use in static applications and are often applied as an upgrade from conventional face seals or O-Ring designs.



Bearing Band

These split, replaceable bearings prevent metal-to-metal contact of moving parts and help prolong equipment and seal life. These bearings reduce radial movement, therefore extending seal life and reducing the risk of reoccurring damage.



Piston Seal

The function of a piston seal is to prevent fluid bypass between the piston head and the cylinder bore under various operating conditions and to act as a pressure barrier. It helps to maintain system efficiency and plays an important role in controlling the cylinder motion and maintaining position.



POLYMER MATERIALS

Chesterton's exclusive thermoset polyurethanes (EU) are the most advanced seal materials that provide superior performance in hydraulic, pneumatic, and rotary equipment. This state-of-the-art polymer technology has been field-tested and proven in the most demanding applications around the world.

AWC800

Red Polymer

AWC800, the base of Chesterton's polymer seal program, is available in the majority of profiles.



Operating Conditions

Temperature	50°C – 85°C (-60°F – 185°F)
Pressure	Maximum 103,5 MPa (15 000 psig)
Fluid Compatibility	Mineral oil-based fluids, HFA-E, HFB (ISO 6743-4)
Surface Speed (continuous)	Reciprocating 1,0 m/s (200 ft/min), rotating 0,5 m/s (100 ft/min)
Coefficient of Friction	Dry running 0,18 – 0,22
Shelf Life	>25 years

AWC800 is an EU polyether PU class material

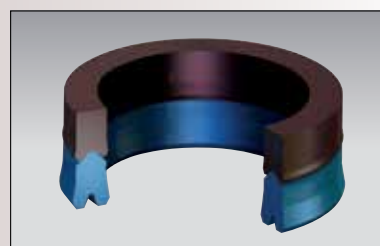
- High sealing performance and leak-free operation
- Excellent wear- and abrasion-resistance for hostile environments
- Long elastic memory enables a longer service life
- Plant-wide usage



AWC800 is available for moulded seals



AWC800 semi-finished tubes are in stock at all Chesterton SpeedSeal centres for rapid delivery of machined seals.



AWC800 and AWC805 Fusion Program for flexible and fast delivery of extra large sized seals.

Standards and approvals available on page 92.

AWC808

Standard Polymer Material

Chesterton's AWC808 is a thermoplastic polyester polyurethane (AU) material designed to provide optimum sealing durability for light- and medium-duty fluid power equipment and industry-standard hydraulic pneumatic cylinders.



AWC825

Low Durometer Machinable Seal Material

AWC825 is a differentiated, machinable thermoset material specifically designed to improve seal performance associated with worn, scored, aged, or pitted heavy-duty industrial cylinders and presses.

AWC860

Cherry Polymer

Thanks to its mechanical properties, the AWC860 is best suited for highly demanding, heavy-duty applications where it helps extend equipment's mean time between repairs (MTBR).

Operating Conditions

	AWC808 Standard Polymer Material	AWC825 Dark Blue Polymer	AWC860 Cherry Polymer
Description and benefits	<ul style="list-style-type: none">• Excellent chemical compatibility• Hydrolysis resistance• Cost-effective solution for light- and medium-duty applications	<ul style="list-style-type: none">• Highly elastic• Extends efficient operation in slightly worn equipment• Superior wear, tear, and abrasion resistance• Long-term elastic memory	<ul style="list-style-type: none">• Suitable for higher temperatures• Robust polymer structure• Longer service life due to excellent abrasion resistance• Very low friction
Typical use	<ul style="list-style-type: none">• Industry standard fluid power equipment• Light and medium-duty hydraulic and pneumatic cylinders• Hydraulic and mechanical presses	<ul style="list-style-type: none">• Mining equipment• Dusty environments• Steel Industry• Hydraulic and mechanical presses	<ul style="list-style-type: none">• Mining equipment• Forging machines• Steel industry• Heavy-duty applications
Temperature	-20°C – 85°C (-4 °F – 185°F)	-40°C – 85°C (-40°F – 185°F)	-50°C – 120°C (-60°F – 250°F)
Pressure	Max 40 MPa (5 800 psi)	Max 52 MPa (7 200 psi)	Max 103,5 MPa (15 000 psi)
Fluid compatibility	Mineral oil-based fluids, HF, HFL, HFA, HFB, HFD-U, HTEG, HEES, hydraulic fluids (ISO 6743-4)	HF, HFL, HFA, HFB	Mineral oil-based fluids, HF, HFL, HFA, HFB (ISO 6743-4)
Coefficient of friction	Not available	Not available	0,18 – 0,22 dry running
Elongation at break	350%	230%	540%

For additional information about product compatibility please visit chestertonfluidpower.com.

Standards and approvals available on page 92.

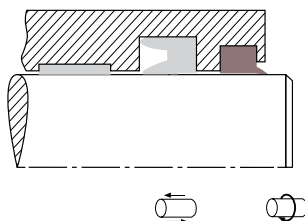
POLYMER SEALS – HYDRAULIC AND PNEUMATIC SEALS

WIPER SEALS

W21K / CW21K

Wipers for Hydraulic and Pneumatic Applications

High performance protection of hydraulic and pneumatic actuators/systems.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	1,25 (250)

PRODUCT PROFILES:

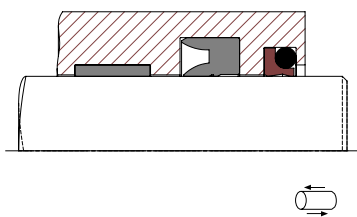


- Positive rake lip design effectively wipes contaminants away from surface
- Prevents scoring and system contamination
- Abrasion-resistant design withstands demanding environments
- Prolongs lifetime of equipment and components

WCCS

Double Acting Wiper Seals

High performance, dual component system for bidirectional sealing in hydraulic and pneumatic applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)
**AWC800 (EU)	6 – 1320 (1/4 – 52)	-50 – 85 (-60 – 185)	1 (200)
**AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	0,5 (100)
**AWC860 (EU)	6 – 508,0 (1/4 – 20)	-50 – 120 (-60 – 250)	1,25 (250)
***AWC300 (Glass-Filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	15 (3000)
***AWC400 (Carbon-Filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	15 (3000)
***AWC500 (Bronze-Filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	15 (3000)

PRODUCT PROFILES:



* Please contact your Chesterton representative for larger sizes.
 **Buna energizer
 ***FKM energizer



- Second generation PTFE and high performance polymers offer improved operation
- Compression seal design increases sealing force with system pressure
- Dramatically reduces friction and eliminates "Stick-Slip" effect
- Excellent chemical- and heat-resistant characteristics

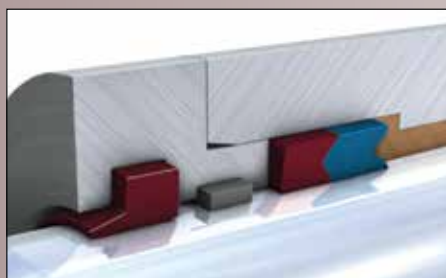
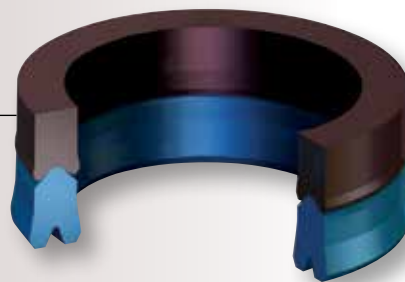
Standards and approvals available on page 92.

ROD SEALS

R11K

Split, Dual Component Hydraulic Rod Seal

Adaptive solution for heavy-duty hydraulic cylinders. Eliminates the equipment disassembly during seal installation, and provides sealing on worn, scored surfaces.

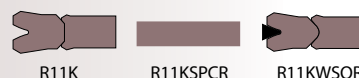


- Replaces the stacked set assembly
- Split design eliminates the need to disassemble equipment
- One optimized seal concept for different press applications
- Dual material combination works in both new and worn equipment
- Design eliminates shimming and future adjustments
- Fusion Program

SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 152 (1/4 – 12)	-30 – 200 (-20 – 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC805 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	0,5 (100)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-40 – 85 (-40 – 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-35 – 75 (-30 – 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:

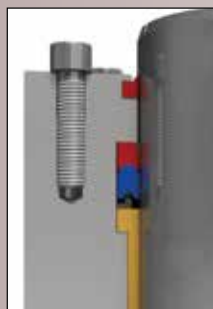


APPLICATIONS

Tailored seal systems can be built on the base of the 11K in combination with Chesterton 9K anti-extrusion rings and spacers/stand-off rings up. This module system allows for creating the most suitable seal kit for all kinds of heavy-duty and demanding hydraulic cylinder applications and operating conditions. Flexible, modular and custom tailored, seal systems give an optimum solution for replacement of conventional stacked sets.



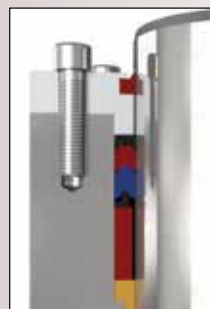
Large stuffing box depth. Backup ring (9K) protects seal (11K) against extrusion while spacer fills up the axial space in front of the seal set.



Multi-component system design for short stuffing boxes where integrated backup ring is against extrusion. Stand-off ring supports the seal and keeps it in position (in case of floating bushing, or in vacuum).



Large stuffing box depth. Customized Self-aligning gland ring provides superior resistance against extrusion in case of large extrusion gap (worn bushings, worn rams).



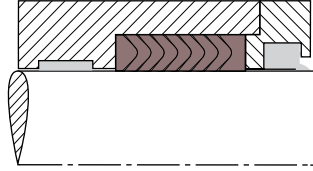
Multi-component system for replacement of traditional stuffing packing set with extra large stuffing box depth. Spacer is in combination with stand-off ring, keeping the seal in position, while self-aligning gland ring protects seal against extrusion in case of large extrusion gap. (Typical applications are worn horizontal press cylinders).

Standards and approvals available on page 92.

R8K™ / R27K / R28K

Split, Stacked Set for Hydraulic Rod Applications

Advanced stacked set technology for high-speed hydraulic applications and for scored, mechanically damaged rod and ram surfaces.

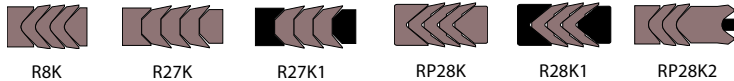


SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

R8K molded not available in AWC808 and AWC825 materials.

PRODUCT PROFILES:

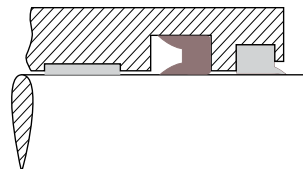


- Split components for ease of installation
- Light gland offers greater speed capability than conventional sets
- Pressure-sensitive lip design minimizes friction and extends service life
- Material combinations designed for use in both new and worn equipment

R22KN

Single Acting U-Cup Design for Rod and Piston Applications

High performance U-Cup design for hydraulic and pneumatic applications. The 22KN design is manufactured using a machining process which allows for the flexibility to create any size based on equipment dimensions.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



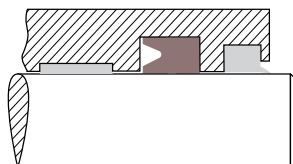
- Automatic sealing for optimal sealing force with minimal frictional resistance
- Flexible lip design compensates for excessive radial space in worn equipment
- Advanced material technology withstands scored, damaged surfaces
- Positive rake lip profile wipes away contamination from mating surfaces
- Fusion Program

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 92.

R22K

Single Acting U-Cup for Rod Applications in Hydraulics

Flexible family of high performance hydraulic seals for standard and high-pressure applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 to 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-40 – 85 (-40 – 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-35 – 75 (-30 – 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

Applicable standards: DIN/ISO 5597, DIN/ISO 5597-1, DIN/ISO 7425-2

PRODUCT PROFILES:

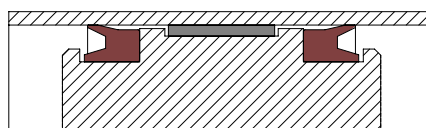


- Single acting, U-Cup design, zero leakage throughout the entire operating range
- Abrasion-resistant design, excellent performance in hydraulic applications
- Lip geometry stabilizes seal to prevent twisting and to ease installation
- Application-specific solutions, including anti-extrusion ring, energizer, and dynamic/static lip designs

R23K / P23K

Pneumatic Seals for Rod and Piston Applications

Unique seal design incorporated with high performance polymer technology for low friction sealing in pneumatic applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-40 – 85 (-40 – 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-35 – 75 (-30 – 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



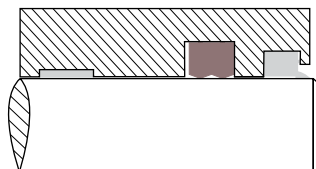
- Unique lip geometry provides optimal sealing force for pneumatic applications
- Radiused lip design ensures a continuous lubricating film, minimizing wear
- Unique design minimizes frictional heat and energy consumption
- Eliminates "Stick-Slip" effect

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 92.

R20K™

Heavy-Duty, Bidirectional Hydraulic Seal

Robust seal design combined with high performance polymer technology for most demanding heavy-duty, high-pressure applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



R20K1



M0K2



R20K3



R20KDAER

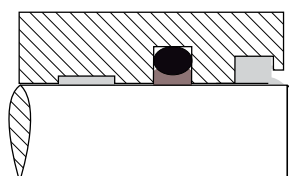


- Ideal replacement for 2-, 3-, or 4-piece cap seal assemblies
- Excellent extrusion resistance
- Abrasion-resistant design withstands demanding environments
- Outstanding resistance to shock loading and pressure spikes

RCCS

Cap Seals

High performance, dual component system for bidirectional sealing in hydraulic and pneumatic applications.



SPECIFICATIONS

Cap Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min) Reciprocating/Rotary
**AWC800 (EU)	up to 1 400 (55)	-35 – 85 (-30 – 185)	34,5 (5 000)	0,85 (185)/0,5 (100)
**AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)/0,25 (50)
**AWC860 (EU)	up to 508 (20)	-35 – 120 (-30 – 250)	34,5 (5 000)	1,25 (250)/0,75 (150)
***AWC300 (glass filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	34,5 (5 000)	15 (3 000)/5,0 (960)
***AWC400 (carbon filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	34,5 (5 000)	15 (3 000)/5,0 (960)
**AWC500 (bronze filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	34,5 (5 000)	15 (3 000)/5,0 (960)

PRODUCT PROFILES:



RCCS



RCCS1



RCCS2

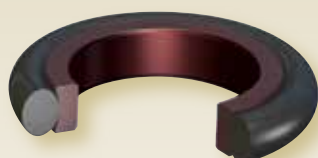


RCCS3



RCCS4

**NBR energizer
***FKM energizer



- Second-generation PTFE and high performance polymers offer improved operation
- Compression seal design increases sealing force with system pressure
- Dramatically reduces friction and eliminates "Stick-Slip" effect
- Excellent chemical- and heat-resistant characteristics

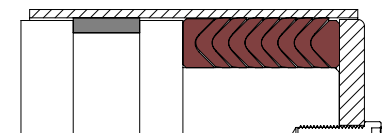
*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 92.

PISTON SEALS

P8K™ / P27K / P28K

Split, Stacked Set for Hydraulic Piston Applications

Advanced stacked set technology for high-speed hydraulic applications and for scored, mechanically damaged rod and ram surfaces.

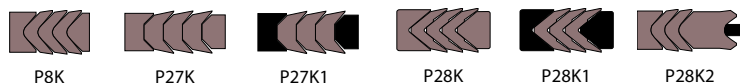


SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

P8K moulded not available in AWC808 and AWC825 materials.

PRODUCT PROFILES:

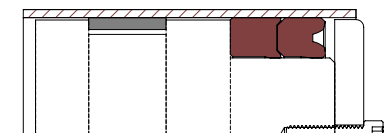


- Split components for ease of installation
- Light gland offers greater speed capability than conventional sets
- Pressure-sensitive lip design minimizes friction and extends service life
- Material combinations designed for use in both new and worn equipment

P11K

Split, Dual Component Hydraulic Piston Seal

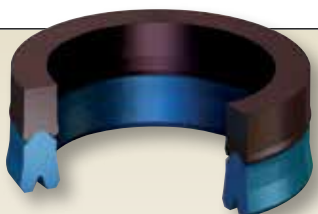
Adaptive solution for heavy-duty hydraulic cylinders. Eliminates the equipment disassembly during seal installation, wand provides sealing on worn, scored surfaces.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC805 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	0,5 (100)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-40 – 85 (-40 – 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-35 – 75 (-30 – 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



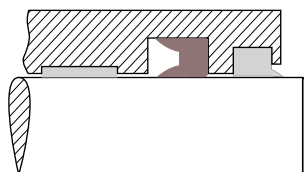
- Replaces the stacked set assembly
- Split design eliminates the need to disassemble equipment
- One optimized seal concept for different press applications
- Dual material combination works in both new and worn equipment
- Design eliminates shimming and future adjustments
- Fusion Program

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 92.

P22KN

Single Acting U-Cup Design for Piston Applications

High performance U-cup design for hydraulic and pneumatic applications. The 22KN design is manufactured using a machining process which allows for the flexibility to create any size based on equipment dimensions.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:

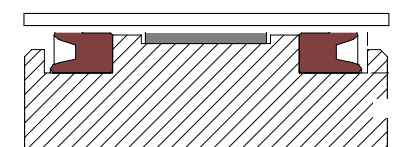


- Automatic sealing for optimal sealing force with minimal frictional resistance
- Flexible lip design compensates for excessive radial space in worn equipment
- Advanced material technology withstands scored, damaged surfaces
- Positive rake lip profile wipes away contamination from mating surfaces
- Fusion Program

P22K

Single Acting U-Cup for Piston Applications in Hydraulics

Flexible family of high performance hydraulic seals for standard and high-pressure applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 – 152 (1/4 – 6)	-30 – 200 (-20 – 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 – 1 320 (1/4 – 52)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-40 – 85 (-40 – 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-35 – 75 (-30 – 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



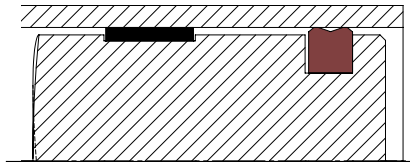
- Single acting, U-Cup design, zero leakage throughout the entire operating range
- Abrasion-resistant design, excellent performance in hydraulic applications
- Lip geometry stabilizes seal to prevent twisting and to ease installation
- Application-specific solutions, including anti-extrusion ring, energizer, and dynamic/static lip designs

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 92.

P20K™

Heavy-Duty Bidirectional Hydraulic Seal

Robust seal design combined with high performance polymer technology for most demanding heavy-duty, high-pressure applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:

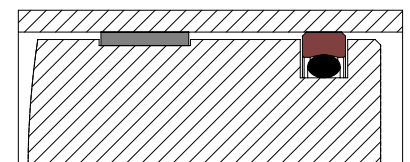


- Ideal replacement for 2-, 3-, or 4-piece cap seal assemblies
- Excellent extrusion resistance
- Abrasion-resistant design withstands demanding environments
- Outstanding resistance to shock loading and pressure spikes

PCCS

Cap Seals

High performance, dual component system for bidirectional sealing in hydraulic and pneumatic applications.



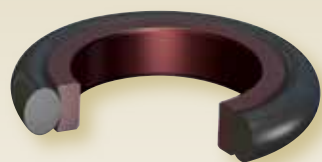
SPECIFICATIONS

Cap Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min) Reciprocating/Rotary
**AWC800 (EU)	up to 1 400 (55)	-35 – 85 (-30 – 185)	34,5 (5 000)	0,85 (185)/0,5 (100)
**AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)/0,25 (50)
**AWC860 (EU)	up to 508 (20)	-35 – 120 (-30 – 250)	34,5 (5 000)	1,25 (250)/0,75 (150)
***AWC300 (glass filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	34,5 (5 000)	15 (3 000)/5,0 (960)
***AWC400 (carbon filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	34,5 (5 000)	15 (3 000)/5,0 (960)
**AWC500 (bronze filled PTFE)	up to 600 (24)	-35 – 120 (-30 – 250)	34,5 (5 000)	15 (3 000)/5,0 (960)

PRODUCT PROFILES:



**NBR energizer
***FKM energizer



- Second-generation PTFE and high performance polymers offer improved operation
- Compression seal design increases sealing force with system pressure
- Dramatically reduces friction and eliminates "Stick-Slip" effect
- Excellent chemical- and heat-resistant characteristics

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 92.

POLYMER SEALS – HYDRAULIC AND PNEUMATIC SEALS

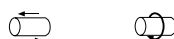
ANCILLARY DEVICES

16K / 17K

Bearing Bands Strips for Hydraulic and Pneumatic Applications

High performance, replaceable bearing strips for heavy-duty hydraulic cylinders and forming machines. The exceptional physical properties and built-in lubricants make them suitable for use on rams or pistons in most of reciprocating applications.

SPECIFICATIONS



Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Compression Strength MPa (psi) ASTM D695	Speed m/s (ft/min)
AWC640 and 640S** thermoset polyester resin	20 – 1575 (0.8 – 62)	-30 – 120 (-22 – 248)	345 (50.000)	1,0 (200)

16K Metric Designs		
Cross section (S), mm	Height (H ₁), mm	Diameter range (OD), mm
2,5 4,0	15	300 – 1575
	20	300 – 1575
	25	300 – 1575
	30	300 – 1575

17K Inch Designs		
Cross section (S), inch	Groove width (L), inch	Diameter range (d/D), inch
0.125	1	12 – 62
	1.5	12 – 62
	2	12 – 62

METRIC DESIGNS AWC 640

Coils in Meter Length	Groove Height mm	Cross Section	Diameter Range (OD), mm
	5,60	2,50	300 – 1575
	9,7		
	15,00		
	25,00		
	30,00		
	40,00		
	15,00	3,00	
	25,00		
	30,00		
	25,00	4,00	

METRIC DESIGNS AWC 640S (SPIRAL)

Spiral Coils Diameter (Ø Spiral) Cylinder Diameter Size	Groove Height mm	Cross Section mm
20, 40, 60, 80, 100	5,60	2,50
40, 60, 80, 100, 140	9,70	2,50
60, 80, 100, 120, 140	15,00	2,50
100, 120, 160, 200	20,00	2,50
80, 100, 120, 160, 200	25,00	2,50

*Please contact your Chesterton representative for larger sizes. Nonstandard sizes on request.

** AWC640S – Spiral Coils tailored to cylinders diameter sizes.

Standards and approvals available on page 92.



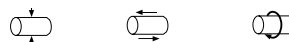
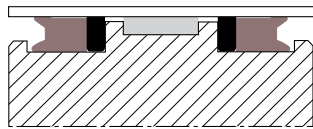
- Prevents metal-to-metal scoring, helps prolong equipment life
- Reduces radial movement, extends seal life
- Built-in lubricant for lower coefficient of friction between mating surfaces
- Split continuous coil accommodates large diameter equipment



9K

Anti-Extrusion Rings for Hydraulic Applications

Designed to prevent seals from extruding into equipment clearances for heavy-duty, high-pressure applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)
AWC520 (Virgin PTFE)	6 – 600 (1/4 – 24)	Cryogenic – 230 (Cryogenic – 450)
AWC650 (Acetal)	6 – 381 (1/4 – 15)	-30 – 90 (-20 – 200)
AWC665 (Nylon with MoS ₂)	>381 – 1 450 (>15 – 57)	-40 – 105 (-40 – 212)
AWC663 (PA-6)	6 – 600 (1/4 – 24)	-40 – 105 (-40 – 212)

PRODUCT PROFILES:

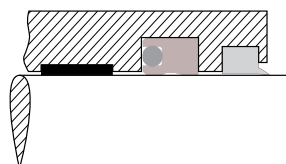


- Prevents extrusion of sealing element into equipment clearances: improves MTBR
- Machining process allows the flexibility to create any size
- Available in various profiles and materials
- Split design for ease of installation

18K / 19K

Bearing Bands for Hydraulic and Pneumatic Applications

High performance replaceable bearing bands for cylinders.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Compressive Strength MPa (psi) ASTM D695	Speed m/s (ft/min)
AWC660 40% glass-filled nylon	to 508 (to 20)	-40 – 121 (-40 – 250)	158,8 (23 000)	1,25 (250)

19K Metric Designs		
Cross section (S), mm	Height (H ₁), mm	Outer Diameter range (OD), mm
2,5	5	20 – 140
	9	55 – 220
	14	70 – 400
	24	315 – 400

18K Inch Designs		
Cross section (S), inch	Height (H ₁), inch	Outer Diameter range (OD), inches
0.125	0,375	1 – 4
	0,500	1,5 – 6
	0,750	3,5 – 8
	1,000	4 – 20

PRODUCT PROFILES:



- Heat-stabilized nylon—the same carrying load as bronze
- Replaceable bearings prevent metal-to-metal contact and prolong equipment life
- Reduces radial movement, therefore extending seal life
- Split design minimizes downtime

*Please contact your Chesterton representative for larger sizes.

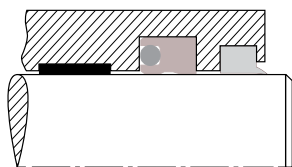
**Other materials are available upon request.

Standards and approvals available on page 92.

WR

Bearing Bands for Hydraulic and Pneumatic Applications

Custom bearing bands for hydraulic and pneumatic applications.



SPECIFICATIONS

Material** (designation)	Size Range* mm (inch)	Temperature °C (°F)	Compression Strength MPa (psi) ASTM/ISO Testing	Speed m/s (ft/min)
AWC630 Unfilled PEEK	25 – 152 (1 – 6)	-45 – 175 (-50 – 350)	138,1 (20 000) ASTM D695	1 (200)
AWC635 Glass-filled PEEK	25 – 152 (1 – 6)	-45 – 175 (-50 – 350)	179,5 (26 000) ASTM D695	1 (200)
AWC650 Acetal (POM)	25 – 381 (1 – 15)	-31 – 73 (-25 – 165)	55,2 (8 000) ASTM D695	1 (200)
AWC665 Nylon with MoS ₂	381 – 1 450 (15 – 57)	-40 – 105 (-40 – 212)	96,7 (14 000) ISO 604	1 (200)

Applicable standards: IDIN/ISO 10776

PRODUCT PROFILES:



*Please contact your Chesterton representative for larger sizes.

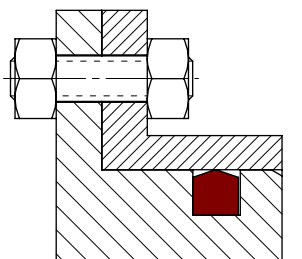
**Other materials are available upon request

STATIC SEALS

20KD

High Performance O-Ring, Quad-Ring, and D-ring Replacements

Chesterton 20K D-Ring is a continuous compression seal designed for use in static applications and is often applied as an upgrade from conventional face seals or O-Ring designs.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 – 305 (1/4 – 12)	-30 – 200 (-20 – 400)	16 (2 320)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	103,5 (15 000)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	40 (5 800)	0,5 (100)
AWC825 (EU)	6 – 1 400 (1/4 – 55)	-35 – 75 (-30 – 165)	52 (7 500)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-50 – 120 (-60 – 250)	52 (7 500)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



*Please contact your Chesterton representative for larger sizes.

Standards and approvals available on page 92.



- Replaceable bearings: a cost-effective method for improving equipment performance
- Reduces radial movement, prevents metal-to-metal contact, and extends seal life
- Custom wear rings eliminate unnecessary modifications
- Machining process allows the flexibility to create any size



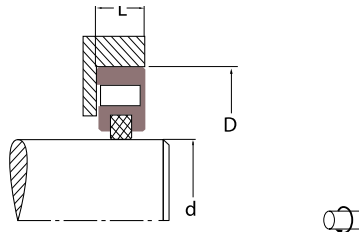
- Upgrade performance of conventional face seal and O-Ring designs
- Superior wear extrusion and resistance versus conventional methods
- Machining process allows the flexibility to create any size

BEARING AND GEARBOX PROTECTION

Matrix Rotary Seal

Split Bearing and Gearbox Protection

Easy-to-Install, Patented Split Rotary Seal for Worn Shaft Applications.



SPECIFICATIONS

Seal Housing	Sealing Element	Shaft Size Range mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)	Pressure bar (psi)	Eccentricity mm (inch)	Chemical Resistance
AWC800	1727NP	50 – 762 (2 – 30)	85 (185)	15 (3000)	0.3 (5)	up to 1,5 (0.060)	Compatible with all commonly used bearing and gearbox oils and greases
AWC860	1727NP	50 – 762 (2 – 30)	120 (250)	15 (3000)	0.3 (5)	up to 1,5 (0.060)	

PRODUCT PROFILE:



MATRIX

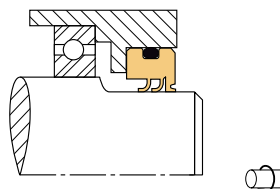


- Engineered for large runout and worn equipment
- Eliminates cumbersome equipment teardown and minimizes downtime
- Excludes external contamination, preserves internal lubrication
- Flexible design provides ease of installation
- Manufactured to custom equipment dimensions and requirements
- Covers all industries including steel, mining, paper, and agricultural

30K

Bearing and Gearbox Protection

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

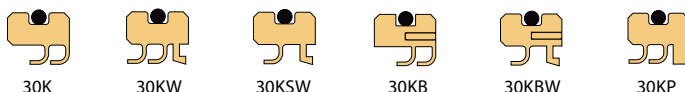


SPECIFICATIONS

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	20 – 600 (0,787 – 24)	-20 – 149 (-30 – 300)	Up to 20 (4 000)	0,07 (10)	Excellent dry Excellent low viscosity No water and steam	≥45
AWC300 (PTFE) Molybdenum & glass					Excellent high viscosity Good dry and good in water	≥55
AWC400 (PTFE) Carbon & graphite					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:



30K

30KW

30KSW

30KB

30KBW

30KP



- New designs and materials to outperform conventional lip seals
- 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

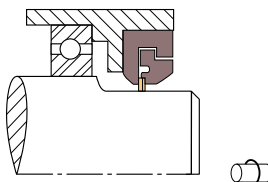
**Please contact your Chesterton representative for larger sizes.*

Standards and approvals available on page 92.

33K

Split Bearing and Gearbox Protection

Unitized split seal for bearing and gearbox protection.



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)
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AWC800 Adapters (EU)

AWC100 (PTFE) Polyimide	25 – 610 (1 – 24)	85 (185)	12,7 (2 500)	0,07 (10)	Excellent dry Excellent low viscosity	≥45
AWC300 (PTFE) Molybdenum & glass	25 – 610 (1 – 24)	85 (185)	12,7 (2 500)	0,07 (10)	Excellent high viscosity Good dry and good in water	≥55
AWC400 (PTFE) Carbon & graphite	25 – 610 (1 – 24)	85 (185)	12,7 (2 500)	0,07 (10)	Excellent in water Good dry and low viscosity	≥55

AWC860 Adapters (EU)

AWC100 (PTFE) Polyimide	25 – 457 (1 – 18)	121 (250)	12,7 (2 500)	0,07 (10)	Excellent dry Excellent low viscosity	≥45
AWC300 (PTFE) Molybdenum & glass	25 – 457 (1 – 18)	121 (250)	12,7 (2 500)	0,07 (10)	Excellent high viscosity Good dry and good in water	≥55
AWC400 (PTFE) Carbon & graphite	25 – 457 (1 – 18)	121 (250)	12,7 (2 500)	0,07 (10)	Excellent in water Good dry and low viscosity	≥55

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



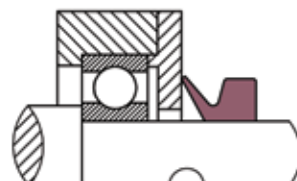
- Split design eliminates the need for equipment disassembly
- New design and materials proven to outperform conventional lip seals
- Patented design combines high performance PTFE and polymer materials
- Filled PTFE materials provide high wear and abrasion resistance

ROTARY SEALS

50K

Mill Rotary Face Seal

Designed to protect against ingress of solid particles, dust, and fluids while sealing lubricants in rotary applications.



OPERATIONAL CONDITIONS

Elastomers	NBR70	FKM 70
Lubricating greases	-20°C – 100°C (-4°F – 212°F)	-20°C – 150°C (-4°F – 302°F)
Water	5°C – 100°C (41°F – 212°F)	5°C – 80°C (41°F – 176°F)
Surface speed m/s (ft/min)	12 m/sec (2 362 ft/min)*	20 m/sec* (3 937 ft/min)
Technical pressure MPa (psi)	0,03 (4,35)	0,03 (4,35)
Size range mm (inch)** shaft dia	200 – 1 650 (8 – 65)	200 – 1 650 (8 – 65)

* At over 8 m/s (1574 ft/min) the seal has to be supported in axial direction while over 12 m/s radial (2362 ft/min) retention is needed.

PRODUCT PROFILES:



**Please contact your Chesterton representative for larger sizes.

Standards and approvals available on page 92.

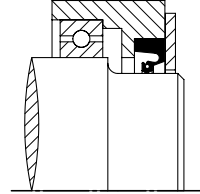


- High performance elastomer materials
- Long elastic memory and good resistance to aging
- Optimized lip interference with low friction
- Direct retrofit, no equipment modifications required

51K

Mill Rotary Seal

Designed to provide long-lasting sealing and superior protection for rotary applications, bearing houses, and gearboxes across the heavy industries.

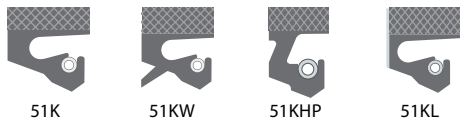


OPERATIONAL CONDITIONS

Elastomers	NBR80+PTFE	HNBR 70	FKM70+PTFE
OD fabric	Textile +NBR	Textile + HNBR	Textile + FKM
Materials of garter spring	AISI 302-316	AISI 302-316	AISI 302-316
Lubricating greases	-20°C – 100°C (-4°F – 212°F)	-30°C – 150°C (-22°F – 302°F)	-20°C – 200°C (-4°F – 392°F)
Mineral oils	-20°C – 100°C (-4°F – 212°F)	-30°C – 150°C (-22°F – 302°F)	-20°C – 200°C (-4°F – 392°F)
Water	5°C – 100°C (41°F – 212°F)	5°C – 150°C (41°F – 302°F)	5°C – 100°C (41°F – 212°F)
Surface speed m/s (ft/min)	15 (2 952 ft/min)	20 (3 937 ft/min)	25 (4 921 ft/min)
Technical pressure MPa (psi) 51K, 51KW, 51KL Solid	0,05 (7,25)	0,05 (7,25)	0,05 (7,25)
Technical pressure MPa (psi) 51K, 51KW, 51KL Split	No pressure can be applied	No pressure can be applied	No pressure can be applied
Technical pressure MPa (psi) 51HP Solid	0,4 (58)	0,4 (58)	0,4 (58)
Size range mm (inch)* Seal OD	300 – 1 200 (12 – 47)	300 – 1 200 (12 – 47)	300 – 1 200 (12 – 47)

* Please contact your Chesterton representative for other sizes.

PRODUCT PROFILES:



51K

51KW

51KHP

51KL

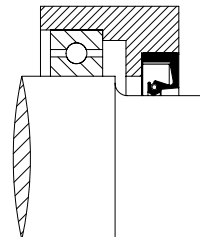


- High resistance to wear
- Specially designed seal lips combined with autolubricated elastomer to reduce friction
- Solid and split versions are available
- Direct retrofit, no equipment modifications required

52K

Mill Rotary Seal

Designed to provide long-lasting sealing and superior protection for rotary applications, bearing houses, and gearboxes across the heavy industries. The unique design with flexible stiffener ring ensures improved fitting in the seal cavity and allows installation in stuffing boxes without end covers.



OPERATIONAL CONDITIONS

Elastomers	NBR80+PTFE	FKM70+PTFE
Material of metal case	C72 tempered	C72 tempered
Materials of garter spring*	AISI 302-316	AISI 302-316
Lubricating greases	-30°C – 100°C (-22°F – 212°F)	-20°C – 200°C (-4°F – 392°F)
Mineral oils	-30°C – 100°C (-22°F – 212°F)	-20°C – 200°C (-4°F – 392°F)
Water	5°C – 100°C (41°F – 212°F)	5°C – 100°C (41°F – 212°F)
Surface speed m/s (ft/min)	15 (2 952)	25 (2 952)
Technical pressure MPa (psi)	0,05 (7,25)	0,05 (7,25)
Size range mm (inch)** Seal OD	300 – 1 200 (12 – 47)	300 – 1 200 (12 – 47)

PRODUCT PROFILES:



52K

52KW

52KHP

* On request, PVC cover to avoid dust entering garter spring

** Please contact your Chesterton representative for other sizes.



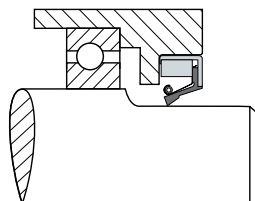
- Unique lip design
- Specially designed seal lips combined with autolubricated compound to reduce friction
- Metallic flexible stiffening ring is used to allow mounting without end cover
- Direct retrofit, no equipment modifications required

Standards and approvals available on page 92.

53K

Mill Rotary Seal

Designed to provide long-lasting sealing and protective solutions that withstand high speeds and misalignment of large rolls in heavy industries.



OPERATIONAL CONDITIONS

Elastomers	NBR70+PTFE	FKM 70+PTFE
Material of metal case	Fe-PO3	Fe-PO3
Material of steel filler ring	Fe37	Fe37
Material of spring carrier	AISI 301	AISI 301
Materials of garter spring	AISI 316	AISI 316
Lubricating greases	-20°C – 100°C (-4°F – 212°F)	-20°C – 200°C (-4°F – 392°F)
Mineral oils	-20°C – 100°C (-4°F – 212°F)	-20°C – 200°C (-4°F – 392°F)
Surface speed m/s (ft/min)	25 (4 921)	25 – 35 (4 921 – 6 889)
Technical pressure MPa (psi) 53K, 53KW, 53KL, 53KHS 53KLPT	0,05 (7,25)	0,05 (7,25)
Technical pressure MPa (psi) 53KHP	0,1 (14,5)	0,1 (14,5)
Size range mm (inch)* Seal OD	300 – 1 200 (12 – 47)	300 – 1 200 (12 – 47)

*Please contact your Chesterton representative for other sizes.

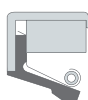
PRODUCT PROFILES:



53K



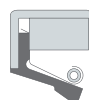
53KW



53KHP



53KL



53KLHS



53KLPT

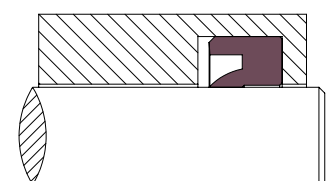


- Unique lip preloaded system with highly elastic garter-finger spring
- Specially designed seal lips combined with autolubricated compound to reduce friction
- Large shaft runoff compensation capability
- Maintains lube oil film underneath the lip for longer seal life

R22KN5

Split Rotary Seal

High performance, proven design for slow rotating applications exposed to large shaft runout.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)
AWC700 (FKM)	6 – 152 (1/4 – 6)	-30 – 200 (-20 – 400)	1,5 (300)
AWC800 (EU)	6 – 1 400 (1/4 – 55)	-50 – 85 (-60 – 185)	1 (200)
AWC808 (AU)	6 – 400 (1/4 – 15,75)	-20 – 85 (-4 – 185)	0,5 (100)
AWC830 (EU)	6 – 254 (1/4 – 10)	-35 – 75 (-30 – 165)	0,9 (185)
AWC850 (EU)	6 – 254 (1/4 – 10)	-50 – 104 (-60 – 220)	0,9 (185)
AWC860 (EU)	6 – 508 (1/4 – 20)	-50 – 120 (-60 – 250)	1,25 (250)

PRODUCT PROFILE:



R22KN5

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.



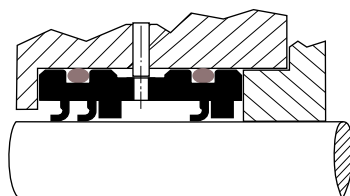
- Flexible dynamic lip design for large shaft runoff compensation
- Split configuration simplifies installation
- Robust static lip design allows stacked set arrangement and provides stability
- Excellent abrasion resistance, withstands demanding environments

Standards and approvals available on page 92.

30KC

Seal for Viscous Fluids and Powders

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



SPECIFICATIONS

Material** (combination) (adapters/sealer rings)	Shaft Size* mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)	Pressure MPa (psi)	Mating Surface (Rockwell C)	Surface Finish µm Ra (µ inch)	Recommended Use***
AWC100 (PTFE) Polyimide	25 – 200 (1 – 8)	-20 – 150 (-30 – 300)	Up to 5 (984)	to 1 (150)	45		Excellent dry Excellent low viscosity (<2 000 cp) Powders, oil, resins, glues, paints No water or steam
AWC300 (PTFE) Molybdenum & glass					55	Dynamic 0,2 – 0,4 (8 – 16)	Excellent high viscosity (>2 000 cp) Good in dry, water, or steam
AWC400 (PTFE) Carbon & graphite					55	Static 0,4 – 0,8 (16 – 32)	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



- 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

* Please contact your Chesterton representative for larger sizes

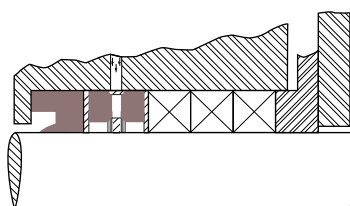
** Fluoroelastomer O-Rings provided (FDA listed with AWC510)

*** Runout to 0,15 mm (0,05")

14K and 14KL

Restriction Bushing

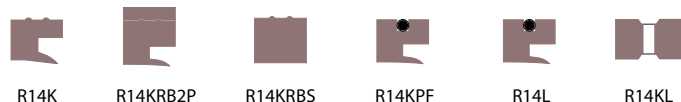
A robust restriction bushing for rotating equipment. Tremendously extend the life of mechanical packing and mechanical seals in cases of solid particles entering fluid.



SPECIFICATIONS

Material (designation)	Outer Diameter Size Range* mm (inch)	Temperature °C (°F)	pH Range
AWC800 (EU)	38,1 – 660,4 (1,5 – 26)	Up to 85 (185)	4 – 10
AWC808 (AU)	38,1 – 400 (1,5 – 15,75)	Up to 85 (185)	4 – 10
AWC860 (EU)	38,1 – 660,4 (1,5 – 26)	Up to 120 (250)	4 – 10
AWC300 PTFE (glass-filled)	38,1 – 381 (1,5 – 15)	Up to 200 (400)	0 – 14
AWC510 PTFE (polyimide-filled)	38,1 – 381 (1,5 – 15)	Up to 200 (400)	0 – 14
AWC520 PTFE (virgin)	38,1 – 381 (1,5 – 15)	Up to 200 (400)	0 – 14

PRODUCT PROFILES:



R14K

R14KRB2P

R14KRBS

R14KPF

R14L

R14KL

*Please contact your Chesterton representative for larger sizes.

Standards and approvals available on page 92.



- 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

EFFICIENCY, PERFORMANCE, AND PRODUCTIVITY

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

- *Lubricants and greases*
- *Maintenance specialties*
- *Cleaners and degreasers*
- *Metalworking fluids and corrosion control*

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 labour costs

In partnership with our worldwide distribution channels and factory-trained local specialists, Chesterton offers superior value and 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 for further information.



Industrial Lubricants and MRO Products Application Guide

Please contact your local Chesterton Representative to help you select the best product for your application.

Lubricants

LIQUID LUBRICANTS	Applications	Chains	Bearings	Open Gears	Pneumatics	Wire Rope and Cable	Control Valves	Relative Performance	High Temp.	Low Temp.	Load Carrying Ability	Water Resistance	Food Acceptance NSF, Halal, Kosher
		√++	√		√+	√++			√+	√+	√++		H2
601(E)		√++	√			√+			√++	√+	√+		H2
610 Plus, 610 MTPlus, 610HT(E)		√++	√			√+			√++	√+	√+		H2
607(E)		√++	√			√+			√++	√+	√+		H2
650		√++			√++	√++			√+	√+	√++		H1
690 FG(E)		√++			√					√	√+	√	H1, Halal, Kosher
715/715G(E)		√+		√++		√++						√++	H2
652(E)		√+			√++	√+	√		√+	√+	√++		H2
GREASES	Applications	Chains	Bearings	Open Gears	Pneumatics	Wire Rope and Cable	Control Valves	Relative Performance	High Temp.	Low Temp.	Load Carrying Ability	Water Resistance	Food Acceptance NSF, Halal, Kosher
		√	√+			√	√+		√	√+	√+	√++	H2
615		√	√+	√		√	√+		√	√+	√+	√++	H2
635			√++				√++		√+	√+	√++	√++	H2
625(E)			√+				√+		√	√	√+	√++	H1, Halal, Kosher
630		√+	√++	√			√++		√+	√+	√+	√++	H1

Cleaners and Degreasers

		Water-Based Alkali Cleans Petroleum Oil, Greases, Natural Oils, Dirt and Dust, Biodegradable					Water-Based Acid Cleans Rust, Hard Water Scale, Biodegradable		Solvent-Based	
		360(E) Phosphate-Free Cleaner	235(E) SSC	803(E) IMS II	KPC 820(E)	218 HDP(E) Pressure Wash	338(E) Super Rust Remover	346(E) Descaler and Chemical Cleaner	274(E) Industrial Degreaser	276(E) Electronic Component Cleaner
Application	Soil/Deposit	Heavy Oil, Adhesives, Glues	√			√			√	
		Grease, Petroleum Oil, Dirt	√	√+	√++	√+			√+	√+
		Natural Oils—Animal Fat, Vegetable Oil	√	√	√+	√				√+
		Scale, Hard Water Deposits					√	√++		
		Rust and Oxidation					√++	√		
	Parts Degreasing Shop	Manual Brush or Wipe	√+	√+	√++	√++	√		√+	
		Parts Degreasing Station	√		√+	√+			√++	
		Dip Tank	√	√	√++	√+			√++	
		Steam Cleaning		√++	√+	√+				
		Pre-Cleaning Parts/Machinery	√+	√+	√++	√+	√+			
	Parts Degreasing Production	Agitation Tank				√	√++		√+	
		Dip Tank	√+	√+	√++	√+	√		√	
		Pressure Washing		√+			√++			
		Ultrasonic				√++			√+	
		Spray Booth/Spray Tunnel				√++				
	Machinery/Plant Cleaning	Closed Circulation, Pipeline	√	√	√+	√+	√+			
		Tanks and Vessels	√+		√++	√+	√			
		Food Processing Equipment	√++	√	√+	√+	√		√	
		Building Structures, Floors, and Walls	√+	√++	√++	√++	√			
		Floor Scrubbers	√	√	√	√++	√++			
		Coolers, Condensers, Heat Exchangers					√++	√++		
		Electrical Motors—Non-energized		√++	√++	√+	√			√+

√++ = Best Choice

√+ = Better Choice

√ = Good Choice

Lubricants and Greases



Chesterton's lubrication program provides you with expertise and support for your entire production process and maintenance operations.

Chesterton lubrication programs will:

- Extend equipment life
- Reduce costs
- Increase profitability
- Improve reliability
- Increase productivity

Key applications include:

- Chains
- Bearings
- Wire rope and cable
- Pneumatics
- Open gears
- Thread lubrication/anti-seize
- Valves
- Extreme pressure applications

LIQUID LUBRICANTS

601(E)

Chain Drive Pin and Bushing Lubricant—General Service

Premium-quality, light oil that penetrates between the close clearance of chain drive bushings and pins to provide critical lubrication.

Product Characteristics

Rapid penetration
E.P. additives increase load carrying ability
No dirt and dust buildup
No sticky lubricant residues
Long-lasting, non-drying film
-23°C – 150°C (-10°F – 300°F)

Available Container Sizes: Aerosol, 5 l, 20 l, 208 l

Product Availability: 5 l Europe warehouse only (3,8 l is the equivalent size from USA)

Applications

Chain-driven machinery
Conveyors
Packaging equipment
Hoist chains
Forklift trucks
Chain saws



- Increases chain life
- Reduces lubricant consumption
- Reduces energy consumption

607(E) HTS

Lubricating Fluid—High Temperature Synthetic

High quality, synthetic lubricant designed to improve performance and increase the productivity of your equipment by reducing wear, varnish, and corrosion. It operates at a temperature range where petroleum lubricants are unable to function. Temperature range -30°C – 250°C (-22°F – 482°F).

Product Characteristics

Low evaporation
Low-carbonizing
High-detergency—self-cleaning
E.P. additives increase load carrying ability
Available Container Sizes: 20 l, 208 l
Available in two ISO VG Grades: 68 & 220
Product Availability: Europe, Middle East, and Africa ONLY

Applications

Equipment operating at elevated temperatures
Refrigerated areas
Severe environments
Oven and high-temperature chains
Bearings
Gearboxes



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

Standards and approvals available on pages 87 – 90.

610 Plus/610MT Plus/610HT(E)

Synthetic Lubricating Fluid—High-Temperature Service

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

Product Characteristics

Low evaporation
Low-carbonizing
High-detergency—self-cleaning
E.P. additives increase load carrying ability

Available Container Sizes:

610 Plus: Aerosol, 5 l, 20 l, 208 l
610 MT Plus: 20 l, 208 l
610 HT: 5 l, 20 l, 208 l

Product Availability: 5 l Europe warehouse only
(3,8 l is the equivalent size from USA)

Applications

Equipment operating at elevated temperatures
Refrigerated areas
Severe environments
Oven and high-temperature chains
Bearings
Gearboxes



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

650 AML

Advanced Machinery Lubricant

Advanced environmentally and worker safe lubricant technology that outperforms the best petroleum-based lubricants on the market.

Product Characteristics

Synthetic-based, NSF H1 certified
Biodegradable, low environmental impact
High-detergency—self-cleaning
E.P. additives increase load carrying ability

Available Container Sizes: 475 ml, 20 L, 208 L

Applications

Air actuated valves
Pneumatic cylinders, solenoids and positioners
Conveyor chains, slideways, and wire ropes
Air mist or oil-injected lubricated bearings, and equipment
Assembly, packaging and filling machines



- Premium performance
- Reduced equipment cleaning and downtime
- Reduces energy consumption
- Increases equipment life

690 FG(E)

FG Lubricant—Food Grade

Cost-effective, high quality, multi-purpose, non-staining, penetrating lubricant; NSF authorized for incidental food contact and meets FDA standards.

Product Characteristics

Clear, colourless, odourless
Safe and easy to use in bulk or aerosol
-15°C – 120°C (15°F – 250°F)
Bulk – Halal and Kosher certified
Available Container Sizes: Aerosol, 5 l, 20 l, 208 l
690FG(E) Bulk: Halal/Kosher

Product Availability: 5 l Europe warehouse only
(3,8 l is the equivalent size from USA)

Applications

Food, beverage, and pharmaceutical processing equipment, including:
Chain drives
Pistons
Valves
Rollers
Pneumatics



- Safe to use
- Reduces energy consumption
- Increases equipment life

Standards and approvals available on pages 87 – 90.

715(E)

Spraflex®/Spraflex® Gold

A surface lubricant for chain drives, open gears, and wire rope. Provides a long-lasting, non-extruding "wear shield" to protect equipment operating under heavy loads.

Product Characteristics

No lubricant squeeze-out
Non-drip
Self-adhering, flexible lubricant
Resistant to acid fumes
Guards against rust and corrosion
Available Container Sizes: Aerosol, 20 l, 208 l

Applications

Chains
Open gears
Wire ropes and cables
Equipment in wet or underwater environment
Note: Use Chesterton's 715(E) Spraflex Gold where a clean, non-staining film is needed



- Reduces lubricant consumption
- Water-resistant
- Provides long-term equipment life

652(E)

Pneumatic Lubricant and Conditioner

High performance, low-viscosity formulation reduces up to 90% of pneumatic maintenance costs, decreases downtime and rejects. Cleans, protects, and prolongs the life of pneumatic equipment.

Product Characteristics

Will not cause sludge build-up
Prevents seals/O-Rings from drying out
Reduces power consumption
Cleans rust, sludge, and dirt from all air tools as it lubricates
Available Container Sizes: 475 ml, 20 l, 208 l

Applications

Air tools
Cylinders
Air line lubricators
Air impact wrenches, hammers, drills
Production air systems
CNC machines
Robotics
Assembly line tools



- Lowers friction and reduces air cost
- Cleans and lubricates
- Prevents corrosion

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
Antioxidants prevent hardening
QBT™ Quiet Bearing Technology
Available Container Sizes: 400 g, 18 kg, 55 kg, 180 kg
HTG NLGI #2 ISO 460 grade also available.

Applications

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



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

Standards and approvals available on pages 87 – 90.

635 SXC

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 – 240°C (-40°F – 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, aluminium, and metal processing
Marine
Power
Water and wastewater



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

625(E) CXF, 630 SXCF

High performance, food-grade, corrosion-inhibited grease with outstanding extreme-pressure capabilities and excellent water washout resistance.

625(E) CXF—Temperature limit -20°C – 204°C (-22°F – 400°F).

630 SXCF—Temperature limit -40°C – 240°C (-40°F – 464°F).

Product Characteristics

Superior water washout resistance
Excellent corrosion protection
Compatible with most popular greases
Exceptional shear resistance
Antioxidants prevent hardening or crystallisation
Available Container Sizes: Aerosol (630 SXCF only), 400 g, 18 kg, 55 kg

Applications

Food, pharmaceutical, beverage industries
Processing and packaging machines
Bottling equipment
Fruit feeders
Paste and sauce fillers
Canning machinery
Meat packaging equipment
Carton filling equipment



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

LUBRICANT DISPENSERS

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)

Standards and approvals available on pages 87 – 90.



- Environmentally friendly, refillable container
- User-friendly with a large LCD
- Cost-effective

Lubri-Cup™ 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

Applications

All industries including:
Mining and ore processing
Power
Pulp and paper
Water and wastewater
Steel and metal processing



- Cost-effective
- Transparent container for lubricant inspection
- Reliable lubrication system

THREAD LUBRICANTS/ANTI-SEIZES

785(E) / 785 FG

Parting Lubricant

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

Product Characteristics

Eases disassembly up to 1 204°C (2 200°F)
Fills in microscopic voids
No toxic heavy metals
For extreme pressures up to
4 730 kg/cm² (67 570 psi)
Available Container Sizes:
785(E): 200 g, 250 g, 500 g, Aerosol, 20 l
785FG: 200 g, 500 g

Applications

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

783(E)

ACR

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

Product Characteristics

Eases disassembly up to 900°C (1 652°F)
Fills in microscopic voids
No toxic heavy metals
For extreme pressure
up to 8 928 kg/cm² (127 000 psi)
Safer than traditional metallic-based anti-seizes
Available Container Sizes: 250 g, 500 g, 24 kg

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

Standards and approvals available on pages 87 – 90.

725(E)

Nickel Anti-Seize Compound

A high performance, nickel-based anti-seize that combines the extreme-pressure, corrosion-resistant, anti-seize abilities of colloidal nickel in an oil suspension that can withstand temperatures up to 1 425°C (2 597°F).

Product Characteristics

Ultrafine particles
Guards against galling and corrosion
Protects against self-welding
Withstands extreme pressure
Up to 1 425°C (2 597°F)
Available Container Sizes: 250 g, 500 g,
Aerosol, 20 l

Applications

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



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

Standards and approvals available on pages 87 – 90.

Maintenance Specialities



Our high performance technologies are chemical tools designed to:

- Reduce the non-value-added, repetitive maintenance functions
- Reduce the volume of chemicals used
- Reduce time for mechanical maintenance operations
- Improve the reliability of equipment
- Improve worker safety

Applications include:

- Thread sealing
- Rust penetrants
- Flange and casing sealing
- Cleaners and degreasers
- Metalworking fluids
- Corrosion control

PENETRATING OIL

706(E)

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

Safe on plastic and painted surfaces
Contains no glycols, alcohols, DMSO (dimethyl sulfoxide), or chlorinated solvents
Pleasant odour
Creeps into microscopic spaces
Available Container Sizes: 1 l, 20 l, 208 l, 200 l Europe warehouse only

Applications

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



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

723(E) / 723FG(E)

Sprасolvo®

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

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

Standards and approvals available on pages 87 – 90.

THREAD SEALING

800

GoldEnd® Tape

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

Product Characteristics

-240°C – 260°C (-400°F – 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)



- Seals, in many cases, with 1½ to 2 wraps—virtually all chemicals
- Adjustable by 90°, no leakage
- No waste

FLANGE SEALING

860

Mouldable Polymer Gasketing

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

Product Characteristics

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)

Applications

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



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

WATER-BASED ALKALINE CLEANERS

803(E)

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

Phosphate-free, no EDTA or toxic solvents
No irritating fumes
Compatible with pressure washers and steam cleaners

Available Container Sizes: 5 l, 20 l, 208 l, 1 000 l

Product Availability: 5 l Europe warehouse only
(3,8 l is the equivalent size from USA)

Applications

Cleaning production equipment, facilities, floors, walls, and steel structures
Cleaning dust, dirt, carbon black, petroleum-based oils

Caution: Should not be used on aluminium 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
- Biodegradable

Standards and approvals available on pages 87 – 90.

360(E)

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

Highly effective on animal fat and vegetable oil
High stable foam
Solvent-free

Available Container Sizes: 20 l, 208 l, 1 000 l

Caution: Do not use on aluminium

Applications

Food, pharmaceutical, and beverage industry

Meat and poultry plants
Bottling, canning, packaging machines

Wastewater treatment

Floors, pump stations
Sludge and fungi removal

Marine

Decks, hulls, bilges

Industrial

Floors, walls, tiles, concrete
Machines



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

KPC 820(E)

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 metalworking fluids
Animal and vegetable fats
Low residue

No phosphates, harsh alkalis, or EDTA

Available Container Sizes: 20 l, 208 l, 1 000 l

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
- Environmentally friendly—biodegradable

218(E)

HDP

Heavy-duty, concentrated, virtually non-foaming, liquid alkaline degreaser. Designed with the environment in mind, yet it handles tough degreasing applications.

Product Characteristics

Excellent rinsability
Corrosion-inhibited
No silicones, toxic solvents, phosphates, or EDTA
Dye and fragrance-free

Available Container Sizes: 20 l, 208 l

Applications

Spray booth washers
Floor scrubbers
High-pressure washers
Steam cleaning equipment
Can be used in food plants

Note: Chesterton's 218 HDP(E) can be used up to 82°C (180°F)

Available from Europe warehouse only



- Cost-effective—highly concentrated—dilute with water to use
- Long lifetime in washing equipment
- Improves worker safety—no hazardous powder dust
- Environmentally friendly—biodegradable

Standards and approvals available on pages 87 – 90.

235(E)

SSC

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

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 l, 208 l

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

Applications

Concrete
Masonry
Equipment (all types)



- 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(E)

Super Rust Remover

Removes rust from ferrous metal and corrosion from aluminium; 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 l, 208 l

Applications

General

Metal prefinishing of machined parts and metalwork

Maintenance

Restores rusted inventories, nuts/bolts
Threaded assemblies, internal corrosion
shafts, cast housings



- Cost-effective—highly concentrated—dilute with water to use
- Inhibited to protect base metals
- Biodegradable

346(E)

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 l, 208 l

Applications

Steam boiler tubes
Condenser water systems
Water circulating equipment
Concrete etching
Heat exchangers

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



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

Standards and approvals available on pages 87 – 90.

SOLVENT BASED CLEANERS

274(E)

Industrial Degreaser

A hard surface degreaser for industrial and marine environments.

Product Characteristics

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

Applications

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



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

CONTACT CLEANERS

276(E)

Electronic Component Cleaner

Fast evaporating, high performance, solvent based degreaser that does not contain ozone depleting solvents.

Product Characteristics

Low residue
Non-chlorinated
No ozone-depleting materials
Available Container Sizes: Aerosol, 20 l, 208 l
200 l Europe warehouse only

Applications

Spray cleaning
Switches, controllers, panel meters
Circuit boards, contacts, levers
Control panels
Hard surface degreasing
Equipment, motors
Non-energized electrical equipment
Parts in process



- Cleans quickly with a fast evaporation rate
- Does not attack plastic or metal

Standards and approvals available on pages 87 – 90.



RECIRCULATING METALWORKING FLUIDS

372(E)

Opticool Emulsified Oils

Opticool fluids are the newest line of emulsifiable machinery coolants. Emulsified coolants are ideal where lubrication is important and operations are severe.

Product Characteristics

Unique, base oil technology
Extreme-pressure capability
Minimizes rancidity and odours
Corrosion protection
Virtually eliminates adverse skin reactions
Available Container Sizes: 20 l, 208 l, 1 000 l

Applications

Broaching, drilling, reaming
Tapping, threading, milling
Turning, grinding, stamping



- Long sump life
- Reduced purchases, disposal, and downtime costs
- Improves part finish and tool life

NON-RECIRCULATING METALWORKING FLUIDS

388

Synthetic Tapping Fluid

Safe, pure synthetic formula for machining operations performed at high-speed and -feed rates as well as manual or automatic single-shot cutting tool applications.

Product Characteristics

Ready to use
Metal fines do not stick
Can be used with aluminium, and aluminium alloys
Does not smoke, fume, or mist
Essentially odourless
Excellent lubricity and heat dissipation
Available Container Sizes: 475 ml, 20 l, 208 l

Applications

Tapping
Boring
Reaming
Threading
Drilling
Milling
May be used in mist applications



- Fluid, penetrates tight tolerances
- Improves part finish and tool life
- Biodegradable, contains no oil or solvents

Standards and approvals available on pages 87 – 90.

INDUSTRIAL LUBRICANTS AND MRO PRODUCTS

CORROSION CONTROL

775(E)

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 l, 208 l

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(E) Heavy-Duty Rust Guard



- Short-term corrosion protection
- Easily removable with Chesterton's water-based or solvent based cleaners

740(E)

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

Self-healing, if scratched
Transparent brown
Available Container Sizes: Aerosol, 5 l, 20 l, 208 l,
Product Availability: 5 l Europe warehouse only
(3,8 l is the equivalent size from USA)

Applications

Metal tools
Parts in process
Parts in storage
Pumps
Indoor structural steel
Note: Product can be easily removed with Chesterton's 276(E) Electronic Component Cleaner or 274(E) Industrial Degreaser



- 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

Standards and approvals available on pages 87 – 90.

