

CATALOGUE OF PRODUCTS

SELECTED RANGE



Sealing Solutions for
Rotating Equipment



Sealing Solutions for
Stationary Equipment



Sealing Solutions for
Fluid Power



Industrial Lubricants
and MRO Products



ARC Efficiency &
Protective 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 9001/14001 and MRP II Class-A certified.

Chesterton® in Europe, the Middle East, and Africa

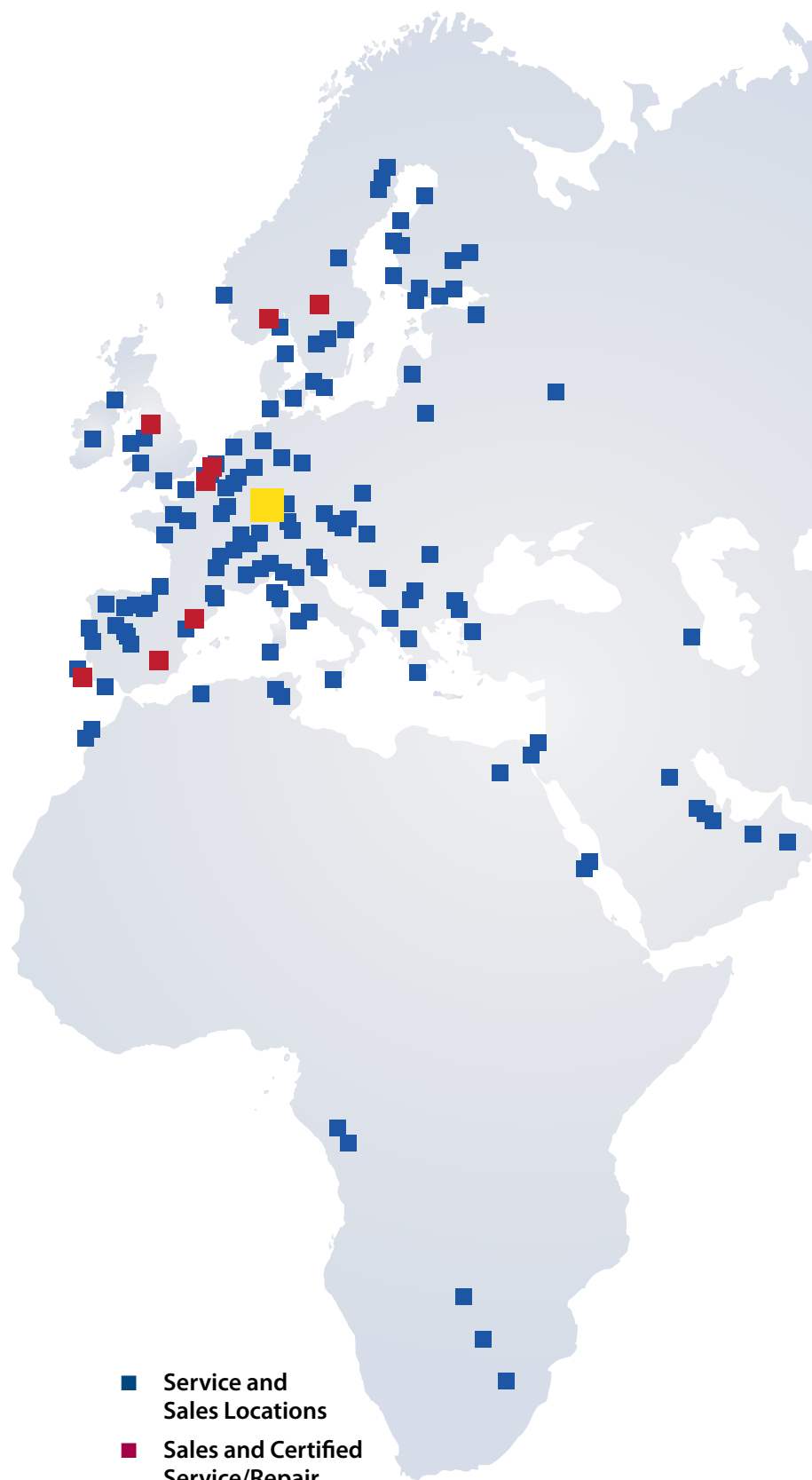
Chesterton has been using high performance materials, formulations, and designs to solve your toughest industrial applications. We provide value-driven solutions with documented success and recognition across Europe, the Middle East, and Africa.

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 www.chesterton.com.





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Solving tough equipment sealing challenges through innovation.



chesterton.com

Chesterton® reduces complexity with innovative sealing solutions for the most demanding environments



SERVICE AND PERFORMANCE

Unparalleled in Industry

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

Reliability through Innovation

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

- Split Seals
- Cartridge Seals
- Gas Seals
- Component Seals
- Pump Packing
- Bearing and Gearbox Protection
- Rotary Seals
- SpiralTrac™

Improving Productivity with High Impact Programs

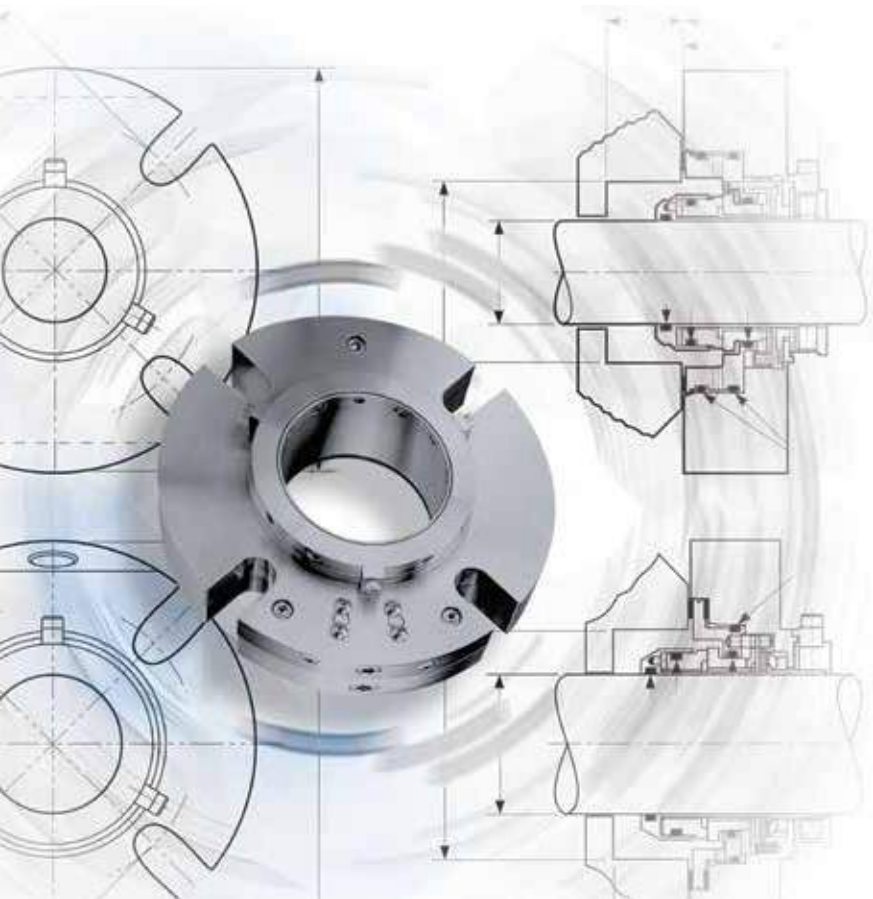
In today's global economy, our clients are faced with increased profitability pressures. Chesterton can assist users in achieving their productivity goals by improving asset reliability and lowering the total cost of ownership. Our programs are easily customized for each plant to:

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

Delivering Results for Industry

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

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



SEALING SOLUTIONS FOR ROTATING EQUIPMENT

Mechanical Seals Application Guide

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

Family	Model	Equipment Types	Fit			Duty						
			ISO-3069-S	ISO-3069-C	EN-12756	Light Duty	Large Equipment	Solids	Crystallizing Media	Emissions Control	Corrosive Media	High Temperature
Split Seals Why disassemble the equipment? Chesterton's split mechanical seals offer a reliable sealing solution —reducing maintenance costs for larger equipment that is difficult and time-consuming to disassemble.	442C	Pumps	✓									
		Agitators				✓+	✓++	✓+*	✓		✓	✓
		Mixers										
	442M	Agitators Mixers					✓++	✓+*	✓		✓	
	442PR	Boiler Feed Pumps	✓				✓++	✓			✓	✓+
Cassette Seals All the wearing parts are contained in a single, replaceable cassette unit. Single and dual cassettes share a common universal gland. Repair becomes a matter of exchanging cassettes, making it faster and easier while significantly reducing costs associated with repair.	S10	Pumps	✓	✓		✓+	✓	✓	✓+	✓+	✓+++	✓
	S20	Pumps	✓	✓			✓	✓+	✓+	✓+++	✓+	✓+++
Cartridge Seals Cartridge Seals have been designed to be rugged performers in sealing applications across industry segments. They are proven performers for plant-wide standardization, providing maximum reliability.	150	Pumps	✓	✓		✓+++	✓	✓	✓		✓	
	250	Pumps	✓	✓			✓	✓	✓+	✓	✓	
	280	Pumps Reactors	✓	✓			✓+	✓+	✓+++	✓	✓+	✓+++
	170	Pumps		✓			✓+	✓+++	✓+		✓+	
	180H	Pumps	✓	✓			✓+	✓+	✓+++		✓	✓+++
Gas Seals Chesterton gas seal technology overcomes performance limitations common to dual liquid cartridge seals. Reach your plant reliability goals with the addition of simple gas seal technology.	4400	Pumps		✓				✓+	✓	✓+++	✓+	✓+++
Component Seals Fits all DIN, ISO, ANSI, and other popular pumps, no shaft sleeve wear, self-aligning stationary compatible. All wearing parts, seal faces, O-Rings, screws, and springs are replaceable at low cost.	491	Pumps	✓		✓		✓+++	✓	✓+	✓+		✓
		Agitators										
	RBS	Pumps	✓		✓		✓+		✓			

*Solids handling capability enhanced by use of SpiralTrac split environmental controller

✓++ = Best Choice

✓+ = Better Choice

✓ = Good Choice










Pump Packing Application Guide

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

Family	Product	Media					Duty			Key Benefit		
		Water	Steam	Chemicals	Slurries	Food and Beverage	High Temperatures	High Pressures	High Speeds	Reliability	Economy Solution	Emissions
Pump Packing	1730	√++		√+	√++		√+	√++	√	√++	√+	
	1760	√++		√++	√+		√+	√++	√++	√++	√+	
	1765	√++		√++	√		√+	√+	√+	√++	√+	
	1830	√++		√++	√+		√+	√+	√++	√+	√++	
	1830-SSP	√++		√++	√++		√+	√+	√++	√+	√+	
	1935	√++		√+	√	√++	√			√+	√+	
	1400R	√++	√++	√++	√		√++	√+	√++	√++	√+	√+
	2211	√++		√	√++		√+	√+	√+	√+	√++	
Environmental Enhancers	SuperSet™	√		√	√++		√			√++	√	

√++ = Best Choice √+ = Better Choice √ = Good Choice

Bearing and Gearbox Protection and Rotary Seal Application Guide

Speed	Types	Product	Profile Series	Description	Attributes			Friction			Wear Resistance		
					mould	**mach	split	Low	Mid	High	Low	Mid	High
Rotary Applications													
to 20 m/s (4 000 ft/min)	Restriction Bushing	14K		Restriction bushing for rotary equipment		•	•	•				•	
	Continuous Rotary Lip Seals	30K		Single-acting, low-pressure seal for bearing and gearbox protection		•			•			•	
Bearing and Gearbox Protection													
to 5 m/s (984 ft/min)	Cartridge Polymer Seal	30KC		Seal for viscous fluids and powders		•			•			•	
to 12,5 m/s (2 500 ft/min)	Split Rotary Lip Seals	33K		Single-acting, non-pressure split seal for bearing and gearbox protection		•	•	•				•	
to 20 m/s (4 000 ft/min)	Continuous Rotary Excluder	50K		Single-acting rotary face excluder	•				•			•	
to 25 m/s (5 000 ft/min)	Continuous/Split Rotary Lip Seal	51K		Single-acting, low-pressure seal for bearing and gearbox protection	•		•		•			•	
	Continuous Rotary Lip Seal	52K		Single-acting, low-pressure seal for bearing and gearbox protection	•				•			•	
to 35 m/s (7 000 ft/min)	Continuous Rotary Lip Seal	53K		Single-acting, low-pressure seal for bearing and gearbox protection	•				•			•	
to 1 m/s (200 ft/min)	Wipers	W21K		Positive-angled profile with flange, slow rotary	•	•	•	•				•	
	Rod and Piston Seals	R22KN5		Single-acting, positive-angled profile, slow rotary	•	•	•			•		•	

**Machined product does not require tooling.

DUALPAC™ 2211



Severe Slurry Packing

Longer Packing Life, Reduced Maintenance

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 provides all of the performance advantages of ePTFE and aramid without the compromises of traditional mixed fibre packing.

Operating Conditions		Materials
Sizes	9,5 mm to 25 mm (3/8" to 1")	ePTFE and Aramid
Pressure	20 bar g (300 psig)	
Temperature	Max 260°C (500°F)	
pH	4 to 11	
Speed	10 m/s (2 000 ft/min)	
Applications	For use in ore slurries, mineral handling, dewatering tailing pumps and other slurry processing applications	



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

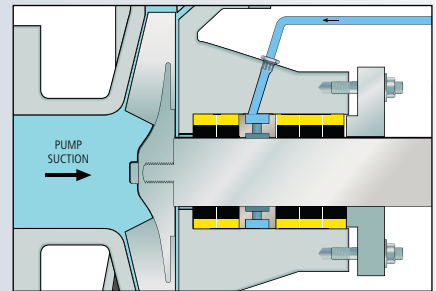


Figure 1 – All rings oriented for sealing

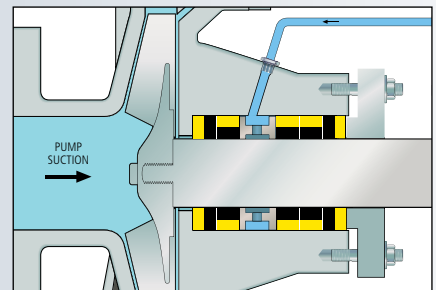


Figure 2 – Solids resistance and anti-extrusion

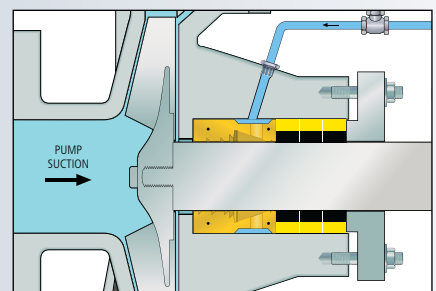
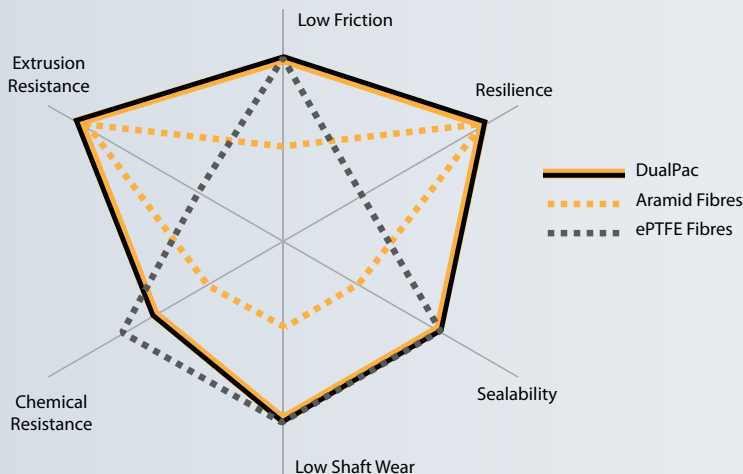


Figure 3 – Chesterton DualPac SuperSet™

DualPac 2211 packing: all the benefits of both fibres



442™ C

Cartridge Split Mechanical Seal



Sealing Solutions
for Rotating Equipment

Innovation on the inside!

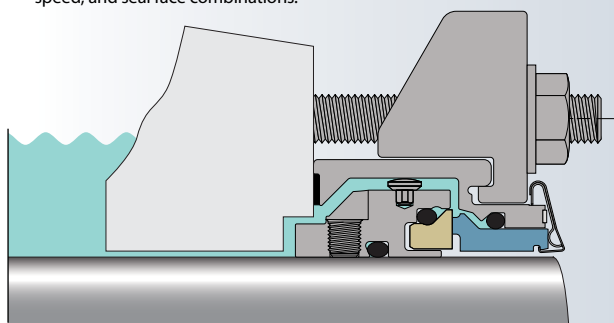
The 442™ C Cartridge Split Mechanical Seal is the latest innovation in split seal technology combining superior performance with the ease of installation of a cartridge split seal.

Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1.000" to 4.750")	Faces	CB, CER, RSC
Pressure*	710 mm (28") Hg Vacuum to 30 bar g (450 psi)	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature Limit	120°C (250°F)	Metals	1.4401 (316SS)
Speed	up to 20 m/s (4 000 ft/min)	Springs	Elgiloy®

Fits ISO-3069

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

- Simplified split seal installation – without equipment disassembly
- Innovative design with superior performance
- Fits majority of rotating equipment
- Easy field repair



442 Split Seal Specialty Variants



442M

Split Mixer Seal

The mixer version of the 442 split seal accommodates large radial shaft motion associated with mixers, agitators, reactors, and blenders.



442PR

Split Pumping Ring Seal

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

Standards and approvals available on page 90.

4400 Dual Concentric Gas Seal

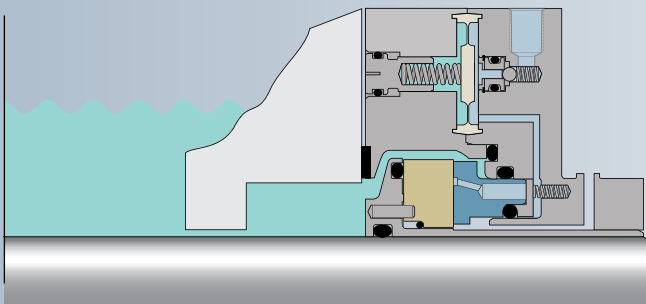
Advanced technology made simple in a gas seal design. The 4400 is a seal for all purposes and provides for an easy gas seal upgrade option. It is an ideal choice for upgrading under-performing, liquid lubricated seals to high performance, non-contacting operation.



Operating Conditions		Materials	
Sizes	25 mm to 90 mm (1.00" to 3.625")	Faces	CB, SSC
Pressure	711 mm (28") Hg Vacuum to 20 bar g (300 psig)	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	25 m/s (5 000 ft/min)	Springs	2.4819 (Alloy C-276)

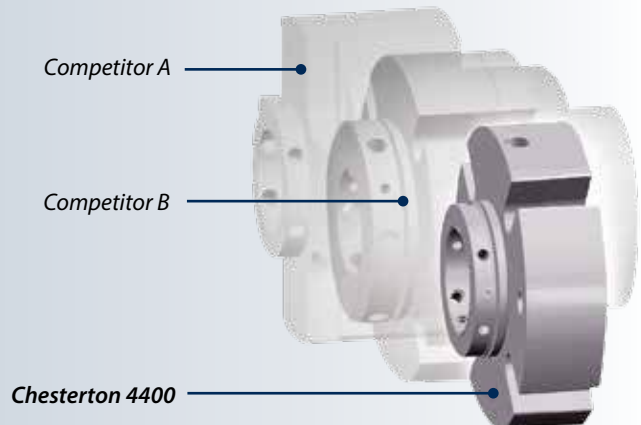
Fits ISO-3069-C

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



Compact Design for Greater Equipment Fit

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



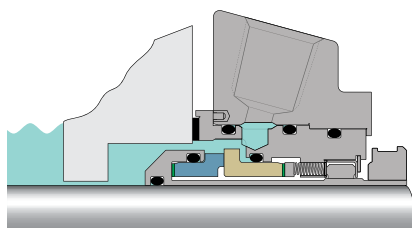
Standards and approvals available on page 90.

CASSETTE SEALS

S10

High Performance Single Cassette Seal

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



Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1" to 4.75")	Faces	CB, SSC, TC
Pressure	711 mm (28") Hg Vacuum to 31 bar g (450 psig)	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	25 m/s (5 000 ft/min)	Springs	2.4819 (Alloy C-276)

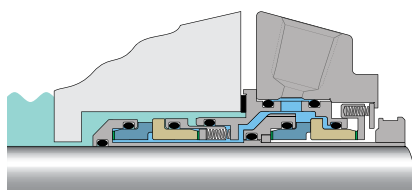
Fits ISO-3069, ASME B73.1, B73.2

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

S20

High Performance Dual Cassette Seal

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



Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1" to 4.75")	Faces	CB, SSC, TC
Pressure	711 mm (28") Hg Vacuum to 31 bar g (450 psig) 17 bar g (250 psig) inboard differential	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	25 m/s (5 000 ft/min)	Springs	2.4819 (Alloy C-276)

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

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

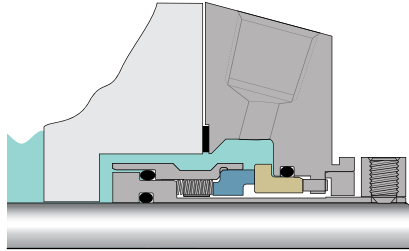
Standards and approvals available on page 90.

CARTRIDGE SEALS

150

General Purpose Cartridge Single Seal

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



Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1" to 4.75")	Faces	CB, SSC
Pressure	711 mm (28") Hg Vacuum to 20 bar g (300 psig)	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	20 m/s (4 000 ft/min)	Springs	2.4819 (Alloy C-276)

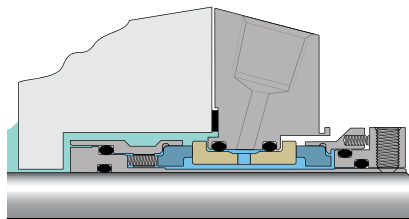
Fits ISO-3069, ASME B73.1, B73.2

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

250

General Purpose Cartridge Dual Seal

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



Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1" to 4.75")	Faces	CB, SSC
Pressure	711 mm (28") Hg Vacuum to 20 bar g (300 psig) 10 bar g (150 psig) inboard differential	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	20 m/s (4 000 ft/min)	Springs	2.4819 (Alloy C-276)

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

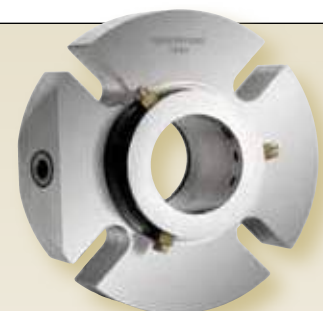
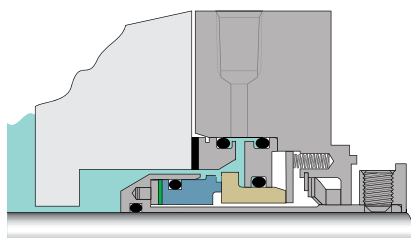
- Provides sealing security that conventional single seals cannot match
- Reliable cartridge design that increases seal life

Standards and approvals available on page 90.

180H

Cartridge Single Seal

Built-in Hydropad technology for improved reliability in high-temperature and pressure applications.



Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	Premium Antimony Carbon, SC
Pressure	711 mm (28") Hg Vacuum to 40 bar g (600 psig)	Elastomers	EPDM E962-90
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	25 m/s (5 000 ft/min)	Springs	2.4819 (Alloy C-276)

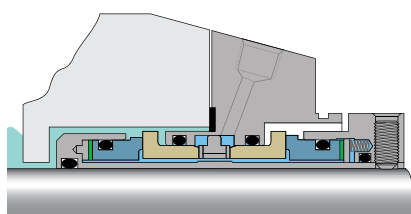
Fits ISO-3069-C

- Increased sealing reliability for high-temperature, speed, and pressure applications
- Eliminates the need for external environmental controls in most applications
- Advanced Hydropad geometry minimizes seal face wear and distortion
- Compact cartridge design for easy and reliable installation

280™

Heavy-Duty Cartridge Dual Seal

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



Operating Conditions		Materials	
Sizes	25 mm to 120 mm (1.00" to 4.75")	Faces	CB, SSC, TC
Pressure	711 mm (28") Hg Vacuum to 40 bar g (600 psig) 17 bar g (250 psig) inboard differential	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	25 m/s (5 000 ft/min)	Springs	2.4819 (Alloy C-276)

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

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

*Extended motion capability available in 280M version

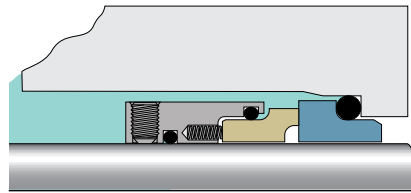
Standards and approvals available on page 90.

COMPONENT SEALS

491

DIN Component Seal

Designed for the replacement of low-technology component seals, resulting in increased overall reliability increase and maintenance efficiency.



Operating Conditions		Materials	
Sizes	16 mm to 110 mm	Faces	CB, SSC
Pressure	711 mm (28") Hg Vacuum to 10 bar g (150 psig)	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)
Speed	20 m/s (4 000 ft/min)	Springs	2.4819 (Alloy C-276)

Fits EN12756, ISO-3069-S

- Reliable upgrade from original equipment seals
- Designed not to fret shaft or sleeves
- Fits EN12756 L1K with standard supplied DIN stationary

RBS

Single Component Seal for General Purpose Sealing

With proven Chesterton® quality, the RBS seal is the ideal choice for sealing small pumps where axial space is limited. Designed with a robust friction drive and large spring format, the RBS provides reliable sealing for a large range of fluids.

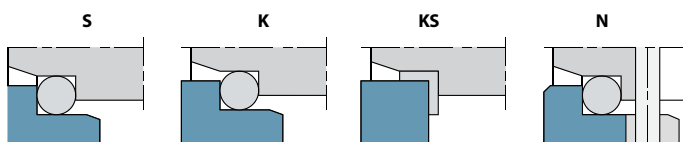


Operating Conditions		Materials	
Sizes	10 mm to 60 mm	Faces	CB, SSC
Pressure Limit	12 bar g (174 psig)	O-Rings	FKM, EPDM
Temperature	-15°C to 200°C (5°F to 392°F)	Springs	1.4301 (304SS)
Speed	10 m/s (2 000 ft/min)	Bellows	EPDM, FKM

Fits EN12756, ISO-3069-S

- Bidirectional seal with short axial length—fits most small pumps
- Robust frictional drive makes seal tolerant to unfavourable conditions
- Versatile enough to meet the needs of many applications
- Features a large spring that does not clog—suitable for media containing solids

Compatible Stationaries



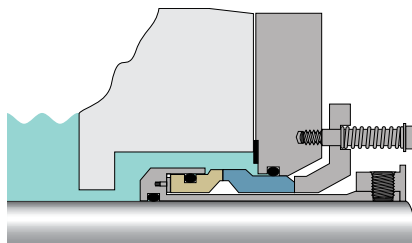
Standards and approvals available on page 90.

SLURRY SEALS

170 / 170 ISO

Slurry Cartridge Single Seal

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



Operating Conditions		Materials	
Sizes	25 mm to 228 mm (1.00" to 9.00") 170 Version 40 mm to 110 mm (1.57" to 4.33") 170 ISO Version	Faces	SSC, TC
Pressure	711 mm (28") Hg Vacuum to 17 bar g (246 psig)	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C to 300°C (-67°F to 570°F)	Metals	1.4401 (316SS)*
Speed	11 m/s (2 200 ft/min)	Springs	2.4819 (Alloy C-276)

*Duplex and Super Duplex stainless steel available as an option

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

SEAL SUPPORT SYSTEMS

Intelli-Flow™ HT

Water Saver

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

Operating Conditions	
Pressure	20 bar g (300 psig)
Temperature Limit	125°C (257°F)
Temperature set point	80°C (176°F)
Connections	1/4 NPT
Materials	1.4401 (316SS)



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

Standards and approvals available on page 90.

Flow Guardian™

Pressure and Flow Regulator

Specifically designed to supply uninterrupted, regulated seal flush water and deliver operational efficiency to the pump population.

Managing flow rates while regulating important pressure differentials is possible. Costly seal failures are reduced while assisting in-plant water conservation initiatives.

Operating Parameters		Materials of Construction	
Flow Rate	0,1 - 3 l/min/2 -50 US gph	Flowmeter tube	Polysulfone (PSU)
Pressure Limit	10 bar g (145 psig)	Body of unit	Polyoxymethylene (POM)
Temperature Limit	100°C (212°F)	O-Ring	Fluorocarbon (FKM)
		Pressure gage	Oil-filled with 316SS Stainless Case and Wetted
		Pressure and flow rate regulating valve	316 Stainless Steel/EN 1.4401
		Clean out plugs	320 - 3/8" Tube Fittings (for Compression Connections) 316 Optional Barb Fittings
		Mounting bracket	316 Stainless Steel/EN 1.4401



- Provide regulated seal flush water
- Maintenance-free—automatic level and pressure management
- Plan 54DM (DP50)
- Plan 32 and 33S (SP50)

WSS

Water Saving System

Easy to install, complete solution with minimal water consumption for reliable operation of dual mechanical seals.

Designed to maintain water barrier pressure and levels without maintenance. Containing all the equipment required, the WSS is easy to install.

Technical Data		Components	
Tank Capacity	12 l to 9 l operating (3.17 to 2.38 US gallons operating)	Water line connection	Rp 1/2" female
Operating Pressure	16 bar g (232 psig)	Pressure gauge	0 - 10 bar Brass (0 - 145 psig)
Tank Material	316	Pressure regulator	0 - 10 bar Brass (0 - 145 psig)
Cooling Capacity	400W	Flow indicator	Stainless Steel
Auxiliary Connection	1 x R 1" and 1 x R 1/2"	Drain valve	R 1/2" - NiCr Plated Brass
		Hoses	Kit: 1 m and 1.5 m (39" and 59") Polyamide 12 mm (0.47") OD
		Seal Connections	Kit: 2 x NPT 1/2"S - Straight Push-in - Connectors NiCr Plated Brass



- Preconfigured system and options
- Maintenance-free—automatic level and pressure management
- Minimize seal support water usage
- Plan 53P Automated Water Support Tank

PED (97/23/EC) - TÜV

BSS

Buffer Support System

Easy to install, complete, non-pressurized solution for reliable operation of dual mechanical seals.

Complete solution for the environmental support of dual mechanical seals where product contamination from support fluid cannot be tolerated.

Technical Data		Components	
Tank Capacity	12 l to 9 l operating (3.17 to 2.38 US gallons operating)	Fluid line connection	Rp 1/2" female
Operating Pressure	16 bar g (232 psig)	Pressure gauge	0 - 10 bar Brass (0 - 145 psig)
Tank Material	316 Ti/1.457	Pressure regulator	0 - 10 bar Brass (0 - 145 psig)
Cooling Capacity	400W tank only 1.5 KW with cooling coil 4 KW with cooling coil and circulation pump	Fill valve	R 1/2" - NiCr Plated Brass
Auxiliary Connection	1 x R 2" and 1 x R 1/8"	Drain valve	R 1/2" - NiCr Plated Brass
		Hoses	Kit: 1 m and 1.5 m (39" and 59") Polyamide 12 mm (0.47") OD
		Seal connections	Kit: 2 x NPT 1/2"S - Straight Push-in - Connectors NiCr Plated Brass

PED (97/23/EC) - TÜV



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

Sealing Solutions
for Rotating Equipment

PSS

Pressurized Support System

Easy to install, complete, pressurized solution, for reliable operation of dual mechanical seals.

Complete solution for the support of dual mechanical seals where product leakage cannot be tolerated.

Technical Data		Components	
Tank Capacity	12 l to 9 l operating (3.17 to 2.38 US gallons operating)	Fluid line connection	Rp 1/2" female
Operating Pressure	16 bar g (232 psig)	Pressure gauge	0 - 10 bar Brass (0 - 145 psig)
Tank Material	316 Ti/1.457	Pressure regulator	0 - 10 bar Brass (0 - 145 psig)
Cooling Capacity	400W tank only 1.5 KW with cooling coil 4 KW with cooling coil and circulation pump	Fill valve	R 1/2" - NiCr Plated Brass
Auxiliary Connection	1 x R 2" and 1 x R 1/8"	Drain valve	R 1/2" - NiCr Plated Brass
		Hoses	Kit: 1 m and 1.5 m (39" and 59") Polyamide 12 mm (0.47") OD
		Seal connections	Kit: 2 x NPT 1/2"S - Straight Push-in - Connectors NiCr Plated Brass

PED (97/23/EC) - TÜV



- Preconfigured system and options
- Maintenance-free—automatic level and pressure management
- Minimize seal support water usage
- Plan 53P Automated Water Support Tank

SpiralTrac™

Environmental Controllers

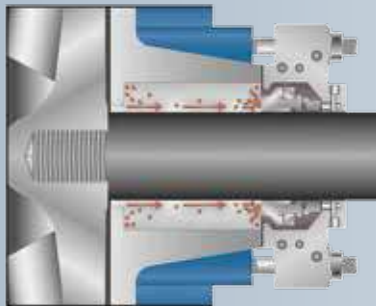
When used with Chesterton® mechanical seals, SpiralTrac Environmental Controllers greatly enhance seal reliability by effective removal of solids and improved cooling of the stuffing box.



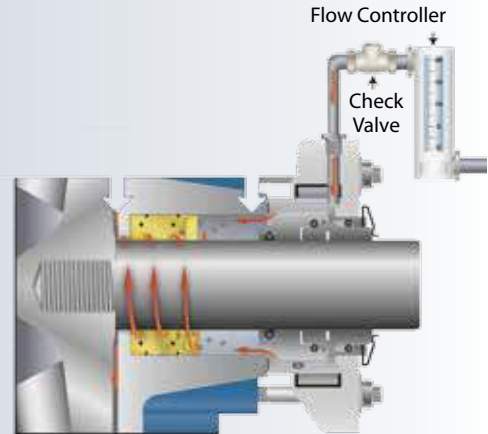
Versions	
F (Split)	Greatly reduced flush
N	Reduced/No flush in no fibrous fluids
D	Reduced/No flush in fibrous fluids
P (Split)	Packing version
C	With drain for crystallizing media

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

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

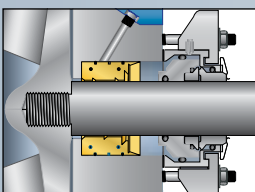


- 1 Air**
Vented from cavity when pump is stationary (eliminates crystallization, coking overheating due to air)
- 2 Circulation**
Driven around seal (excellent face cooling)
- 3 Exchange**
In and out of cavity (heat removed from cavity)
- 4 Particulate**
Immediately removed from cavity through the exit groove, flush or no flush

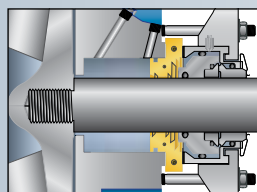


Configurations Available

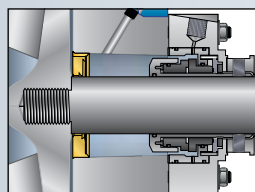
Split



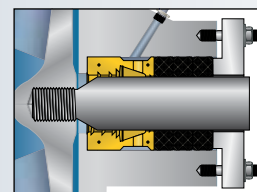
Adapter



Standard



Packing



PLANTWIDE 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 to 22,2 mm (3/16" to 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		
Chemical Resistance	pH Range: 0 to 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 to 25,4 mm (1/4" to 1")		
Pressure Limit	28 bar g (400 psig)	Temperature Limit	290°C (550°F)
Speed	10 m/s (2 000 ft/min)	pH	1 to 13

See page 81 for available sizes.



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

Standards and approvals available on page 90.

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 to 25,4 mm (1/8" to 1")		
Pressure Limit	17 bar g (250 psig)	Temperature Limit	260°C (500°F)
Speed	18 m/s (3 600 ft/min)	pH	0 to 14



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

1765

White Chemical Packing

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

Technical Data

Materials	White expanded PTFE yarn with a special filler		
Applications	Bleach pumps, chemical pumps, agitators		
Available Sizes	6,4 mm to 25,4 mm (1/4" to 1")		
Pressure Limit	20 bar g (300 psig)	Temperature	Min -40°C to 260°C (-40°F to 500°F)
Speed	10 m/s (2 000 ft/min)	pH	0 to 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

Standards and approvals available on page 90.

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	Temperature Limit	260°C (500°F)
Available Sizes	4,8 mm to 25,4 mm (3/16" to 1")		
Speed	18 m/s (3 600 ft/min)	pH	0 to 14 with exception of strong oxidizers in the 0 to 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 to 25,4 mm (1/8" to 1")		
Pressure Limit	14 bar g (200 psig) rotating applications 275 bar g (4 000 psig) valves	Temperature	Min -240°C (-400°F) Max 650°C (1200°F) steam Max 455°C (850°F) oxidizing atmosphere
Speed	20 m/s (4 000 ft/min)	pH	0 to 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 90.

SLURRY PACKING

1830-SSP

Slurry Packing

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



Technical Data

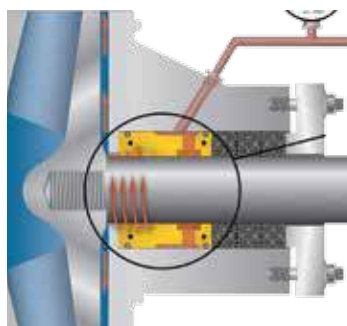
Materials	Carbon-reinforced, expanded graphite PTFE		
Applications	Slurry pumps, mineral handling slurries, tailing pumps		
Available Sizes	9,5 mm to 25,4 mm (3/8" to 1")		
Pressure Limit	28 bar g (400 psig)	Temperature Limit	260°C (500°F)
Speed	18 m/s (3 600 ft/min)	pH	0 to 14 with exception of strong 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.



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

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

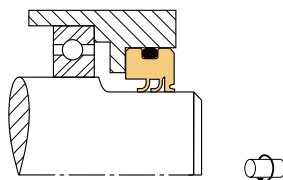
Standards and approvals available on page 90.

BEARING AND GEARBOX PROTECTION

30K

Bearing and Gearbox Protection

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



SPECIFICATIONS

Material (combination) (adapters/sealer rings)	Size Range* mm (inch)	Temperature °C (°F)	Speed m/s (ft/min)	Pressure MPa (psi)	Recommended use	Mating surface (Rockwell C)
AWC100 (PTFE) Polyimide					Excellent dry Excellent low viscosity No water and steam	≥45
AWC300 (PTFE) Molybdenum & glass	20 to 600	-20 to 149	Up to 20	0,07	Excellent high viscosity Good dry and good in water	≥55
AWC400 (PTFE) Carbon & graphite	(0,787 to 24)	(-30 to 300)	(4 000)	(10)	Excellent in water Good dry and low viscosity	≥55
AWC510 (PTFE) Mineral (FDA listed)					Excellent dry Good in water and steam No petroleum liquids	≥45

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

PRODUCT PROFILES:

Applicable standards: ISO3760/ISO3761



30K



30KW



30KSW



30KB



30KBW

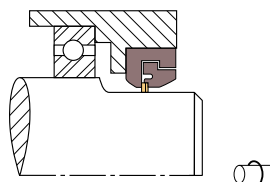


- New designs and materials to outperform conventional lip seals
- High performance PTFE compounds offers advanced wear and abrasion resistance
- Unique design provides lower friction and decreased shaft wear
- High performance lip seals prevent contaminants from entering housing

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)
AWC800 Adapters (EU)						
AWC100 (PTFE) Polyimide	25 to 610 (1 to 24)	85 (185)	12,7 (2 500)	0,07 (10)	Excellent dry Excellent low viscosity	≥45
AWC300 (PTFE) Molybdenum & glass	25 to 610 (1 to 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 to 610 (1 to 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 to 457 (1 to 18)	121 (250)	12,7 (2 500)	0,07 (10)	Excellent dry Excellent low viscosity	≥45
AWC300 (PTFE) Molybdenum & glass	25 to 457 (1 to 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 to 457 (1 to 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.

Applicable standards: ISO3760/ISO3761



- 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

*Please contact your Chesterton representative for larger sizes.

Standards and approvals available on page 91.

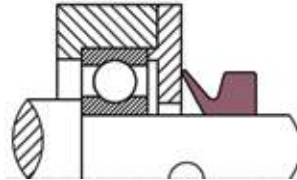
SEALING SOLUTIONS FOR ROTATING EQUIPMENT

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

Material	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 to 1 650 (8 to 65)	200 to 1 650 (8 to 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.

** Please contact your Chesterton representative for other sizes.

PRODUCT PROFILES:



- 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.

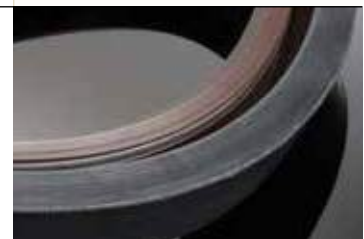
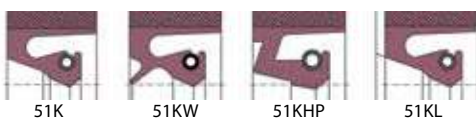


OPERATIONAL CONDITIONS

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 to 1 200 (12 to 47)	300 to 1 200 (12 to 47)	300 to 1 200 (12 to 47)

** Please contact your Chesterton representative for other sizes.

PRODUCT PROFILES:



- 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

Standards and approvals available on page 91.

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 to 1 200 (12 to 47)	300 to 1 200 (12 to 47)

PRODUCT PROFILES:



* 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 auto-lubricated compound to reduce friction
- Metallic flexible stiffening ring is used to allow mounting without end cover
- Direct retrofit, no equipment modifications required

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 to 35 (4 921 to 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 to 1 200 (12 to 47)	300 to 1 200 (12 to 47)

** Please contact your Chesterton representative for other sizes.

PRODUCT PROFILES:



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

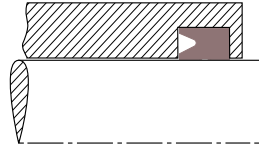
Standards and approvals available on page 91.

SEALING SOLUTIONS FOR ROTATING EQUIPMENT

R22KN5

Split Rotary Seal

High performance, proven design for slow rotating applications exposed to large shaft run-out.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 to 1 400 (1/4 to 55)	-50 to 85 (-60 to 185)	103,5 (15 000)	1 (200)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7 500)	0,9 (185)
AWC850 (EU)	6 to 254 (1/4 to 10)	-50 to 104 (-60 to 220)	103,5 (15 000)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15 000)	1,25 (250)

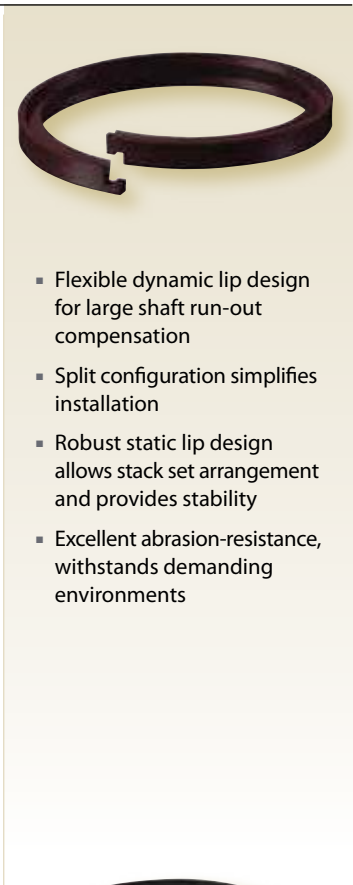
PRODUCT PROFILE:



R22KN5

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

*Please contact your Chesterton representative for larger sizes.

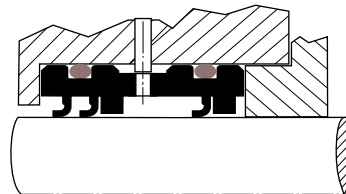


- Flexible dynamic lip design for large shaft run-out compensation
- Split configuration simplifies installation
- Robust static lip design allows stack set arrangement and provides stability
- Excellent abrasion-resistance, withstands demanding environments

30KC

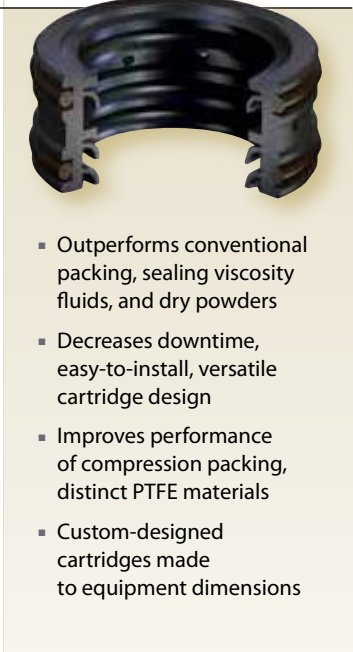
Seal for Viscous Fluids and Powders

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 to 200 (1 to 8)	-20 to 150 (-30 to 300)	Up to 5 (984)	to 1 (150)	45	Dynamic 0,2 to 0,4 (8 to 16)	Excellent dry Excellent low viscosity (<2 000 cp) Powders, oil, resins, glues, paints No water or steam
AWC300 (PTFE) Molybdenum & glass					55	Static 0,4 to 0,8 (16 to 32)	Excellent high viscosity (>2 000 cp) Good in dry, water, or steam
AWC400 (PTFE) Carbon & graphite					55	Excellent in water or steam Good dry and low viscosity Powders, asphalt, clay, slurries	
AWC510 Mineral (FDA listed)					45	Excellent dry Good in water or steam Chocolate and syrups No petroleum liquids	



- 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)

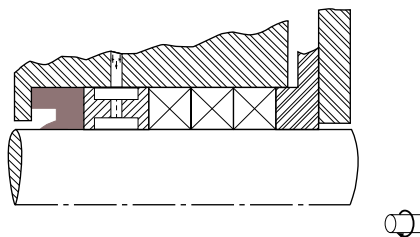
*** Runout to 0,15 mm (0,05")

Standards and approvals available on page 91.

14K

Restriction Bushing

A robust restriction bushing for rotating equipment.



SPECIFICATIONS

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

Applicable standards: ISO 3069

PRODUCT PROFILES:



R14K



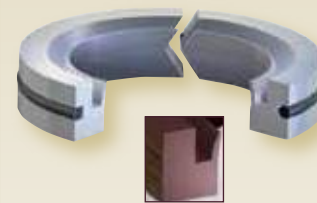
R14KRB2P



R14KRBS



R14KPF



- 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

Ancillary Products



800 GoldEnd® Tape

Heavy-duty, high-density PTFE sealing tape. Go to page 64.



785 & 785 FG

High performance, extreme pressure anti-seize compound. Go to page 62.



860 Moldable Polymer Gasketing

Two-part extrudable gasket material for flange and thread sealing. Go to page 64.



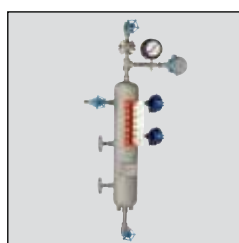
615 HTG

High performance grease for extreme operating conditions. Go to page 60.



Lubricant Dispensers

Automatic lubricant dispensers that apply Chesterton greases and oils. Go to page 61.



662FG Barrier Fluid

This is an ISO grade 22, high performance lubricant designed specifically as a barrier fluid for mechanical seal applications. Go to www.chesterton.com.

Standards and approvals available on page 91.

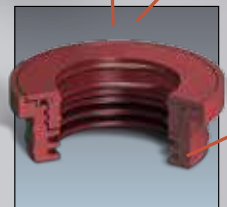
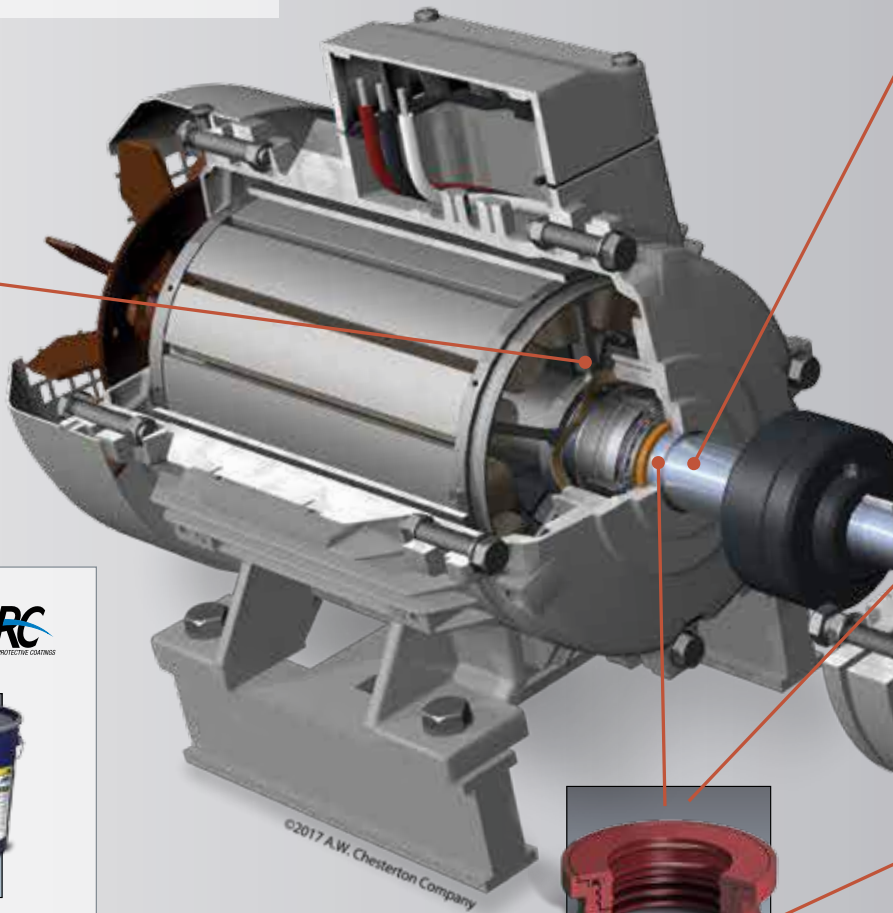
Sealing Solutions for Rotating

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.



Polymer Labyrinth Seal
Labyrinth seal for pumps, motors, and gearboxes

Other ARC Efficiency & Protective Coatings Products



Machinable Composite
Rebuild and protect worn shafts



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

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.



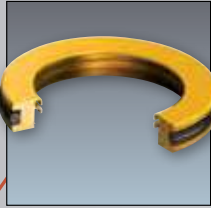
Gasketing
Make any size gasket with Moldable Polymer Gasketing.

Equipment



Automatic Microprocessor Controlled Dispensing System
Delivers precise volumes of lubricant; simple to use and install

Bearing Protection
Protect the bearing housing with a high-performance bearing seal



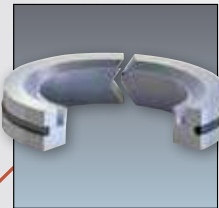
Split Seals
Superior performance with easy installation



Cartridge Seals
Upgrade seal performance with Single Cassette Seals or S20 Dual



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

MEET ENVIRONMENTAL AND BUSINESS GOALS

Chesterton® mechanical packings 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:

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





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	High Temperatures	High Pressures	Reliability	Economy Solution	Emissions	Control Valves	Block Valves	Motor Operated Valves	Pipe Flanges	Heat Exchangers	Housings
Valve Packings	1600	√++	√++	√++	√++	√++	√++		√+		√++				
	1622		√+	√++	√++	√++	√++		√++		√++				
	1724	√++		√++		√+	√++		√++	√++	√++	√++			
	1724 low E			√++	√+	√+	√++		√++	√++					
	5800	√++	√++	√++	√++	√+	√++			√++					
	5800E	√++	√+	√++	√++	√++	√++		√+	√++					
	5800T	√++	√+	√++	√+	√	√++		√+	√++					
	5300/5200 Valve Live Loading	√++	√++	√++	√++	√++	√++		√+	√+	√++	√++			
Flange Sealing	455EU	√++	√	√+	√+	√+	√+	√++	√+				√++		√++
	459	√++	√++	√++	√++	√++	√+	√+	√+				√+	√+	√++
	553	√++	√+	√+	√+	√+	√++	√+	√++				√++		√++
	Duragraf F	√++	√++	√++	√++	√+	√+	√++	√+				√++		√++
	Duragraf T	√++	√++	√++	√++	√+	√+	√++	√+				√++	√+	√++
	ECS-T	√++	√+	√++	√+	√+	√++		√++				√++		√++
	Spiral Wound Gasket SG/SGI/SR/SRIR	√++	√++	√++	√++	√++	√+	√++	√++				√++		
	Camprofile Gasket KG1/KR	√++	√++	√++	√++	√++	√++		√++				√++	√++	
	Steel Trap™ Gasket	√++	√++	√++	√++	√++	√++		√++				√++	√++	√++
	Flange Live Loading		√++	√++	√++	√++	√++		√++				√++	√++	√++

√++ = Best Choice

√+ = Better Choice

√ = Good Choice

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	Specialized stainless steel alloy	High-strength, high-temperature-resistant and corrosion-resistant stainless steel alloy	Chromium steel with oxide coating
Temperature	-200°C to 300°C (-328°F to 575°F)	-100°C to 350°C (-148°F to 662°F)	0°C to 600°C (32°F to 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)		

Sealing Solutions for Stationary Equipment

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 90.



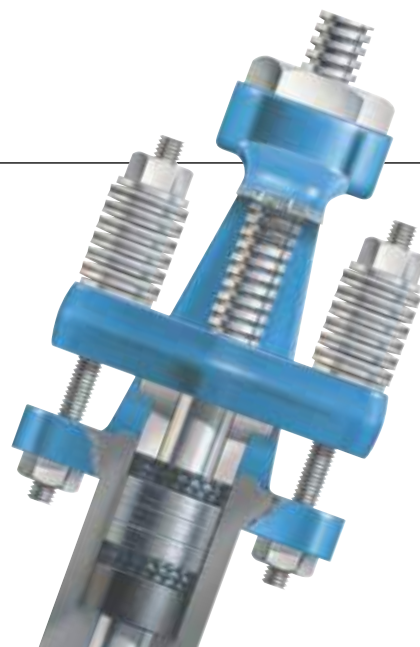
Valves

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

Technical Data

Materials	5300 die-formed graphite packing with style 1600 Inconel®-reinforced braided graphite packing, carbon bushing, live loading spring sets.
Pressure Limit	317 bar g (4 600 psig)
Temperature	
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 to 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



Sealing Solutions
for Stationary Equipment

- 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 90.

EMISSIONS CONTROL

1622 Low Emissions 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	Inconel wire-reinforced flexible graphite packing with special blocking agents
Available Sizes	3,2 mm to 17,5 mm (1/8" to 1")
Pressure	355 bar g (5 000 psig)
Temperature	Max 650°C (1 200°F) steam (850°F) oxidizing atmosphere
pH	0 to 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)
Chemical Resistance	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" re-torques reducing safety risks
- Easy to install

Standards and approvals available on page 90.

VALVE PACKING

1600

Advanced Valve Stem Packing

Off-the-shelf performance with emission guarantee.

Technical Data	
Materials	Inconel 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 to 25,4 mm (1/8" to 1")
Pressure Limit	580 bar g (8 400 psig)
Temperature	Max 650°C (1200°F) steam Max 455°C (850°F) oxidizing atmosphere
pH	0 to 14 except strong oxidizers



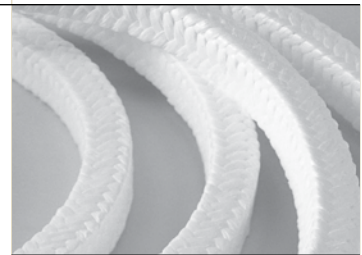
- Fire safe
- Excellent emission control
- High-pressure capability
- Guaranteed performance
- Easily cut to size on site

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 to 25,4 mm (1/8" to 1")
Pressure Limit	210 bar g (3 000 psig)
Temperature Limit	260°C (500°F)
pH	0 to 14



- Excellent chemical resistance
- Excellent emission control
- Remains flexible

5800

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	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 to 14



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

Standards and approvals available on page 90.

SEMI-METALLIC GASKETS

Camprofile

High Performance, Semi-Metallic 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	300 bar g (4 350 psig)	Temperature	graphite sealing layer 550°C (1 020°F) inert media -200°C to 900°C (-328°F to 1 650°F) PTFE sealing layer 300°C (572°F)
pH	0 to 14		



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

Spiral Wound

Economical, Semi-Metallic Gasketing

Excellent emission performance in an all-around general plant gasket.

Technical Data

Materials	Stainless steel windings with graphite or PTFE sealing layer, stainless steel inner ring, coated carbon steel outer ring (more materials available)		
Applications	Pipe flanges, vessels, reactors, valve bonnets, housings		
Pressure Limit	350 bar g (725 psig)	Temperature Limit	graphite sealing layer 450°C (840°F) PTFE sealing layer 300°C (570°F)
pH	0 to 14		



- Economical, semi-metallic solution
- Low emissions
- DIN and ANSI standard gaskets and custom shapes available
- Various configurations

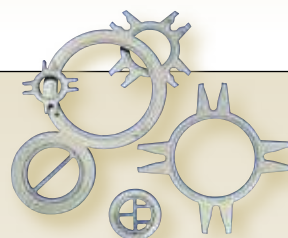
Steel Trap™ Gasket

High Performance, Semi-Metallic Gasket

An innovative flange sealing system for safe and permanent sealing of flanges in severe services.

Technical Data

Materials	Metal carrier from virtually any metal with graphite, PTFE, or ceramic sealing elements		
Applications	Pipe flanges, heat exchangers, vessels, reactors, valve bonnets, housings		
Pressure Limit	415 bar g (6 000 psig)	Temperature	Atmosphere -200°C to 500°C (-328°F to 932°F) Steam up to 650°C (1 200°F) Inert media -200°C to 900°C (-328°F to 1 650°F)
pH	0 to 14		



- Thin design and soft sealing material encapsulation provides increased blow-out safety
- Replaces sheet gasketing without equipment modification
- Can be manufactured in virtually any shape

Standards and approvals available on page 91.

Sealing Solutions for Stationary Equipment



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)
pH	0 to 14	



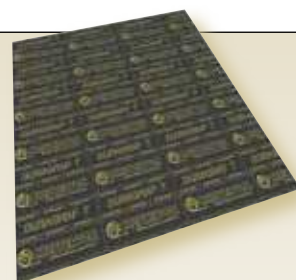
- Easy to cut by hand
- Excellent performance in steam and aggressive media
- Available as a pre-cut gasket in standard and custom sizes

Duragraf T

Expanded Graphite Sheet

High-purity graphite sheet with a tanged stainless steel insert.

Technical Data		
Materials	Flexible graphite with a 100 µm 316SS tanged stainless steel 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)
pH	0 to 14	



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

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
Chemical Resistance	pH 0-14



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

Standards and approvals available on page 91.

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)

BS 7531 Grade Y



- 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, glass 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 pressure capability

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)
pH	0 to 14		



- 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. Go to page 60.



785 & 785 FG
High performance, extreme pressure anti-seize compound. Go to page 62.



783 ACR
Anti-seize with excellent corrosion protection for nuts and bolts and mechanical assemblies. Go to page 62.



615 HTG
High performance grease for severe operating conditions. Go to page 60.



652 Pneumatic Lubricant and Conditioner
Cleans, protects, and prolongs the life of pneumatic equipment and air-operated valves. Go to page 60.



800 GoldEnd Tape
Heavy-duty, high-density PTFE sealing tape. Go to page 64.

Valve Solutions

With continuous research and state-of-the-art advancement, Chesterton offers a full-line of packing and gasketing technology. Our proven expertise delivers the highest performing sealing systems for a wide range of applications.



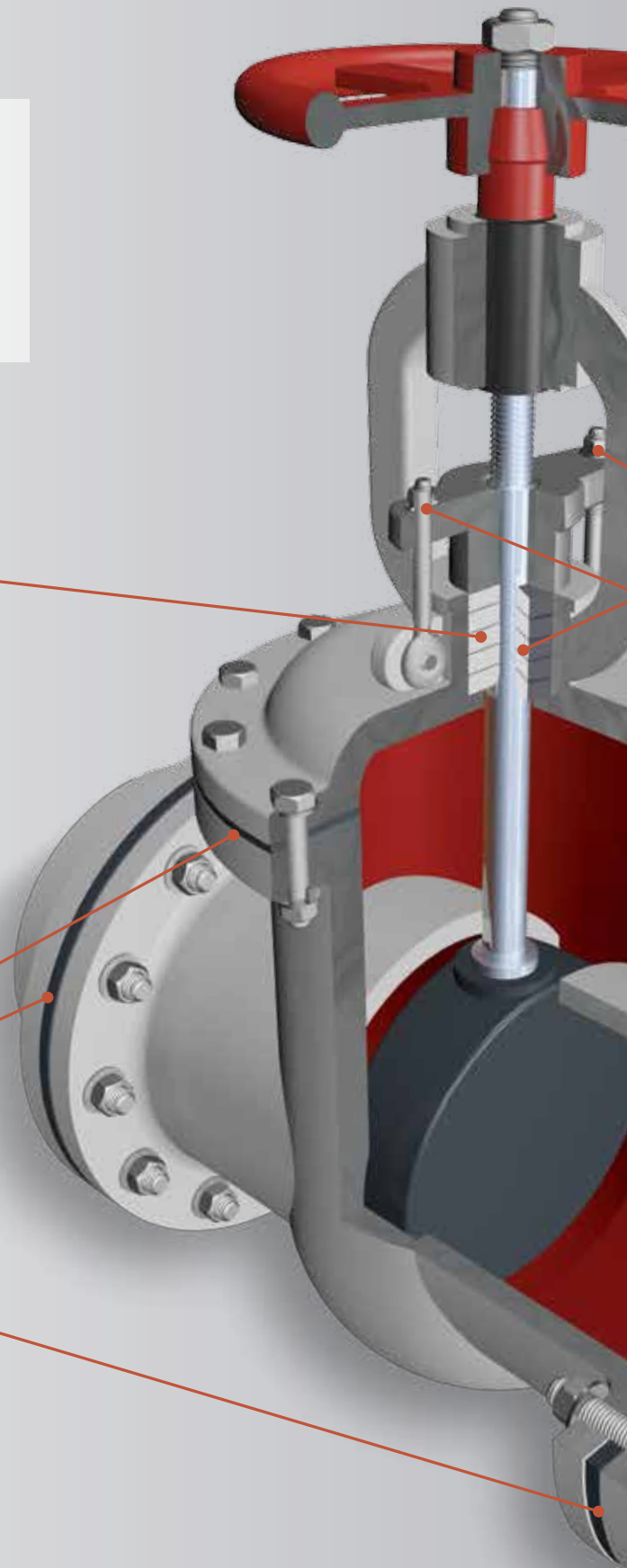
Tools

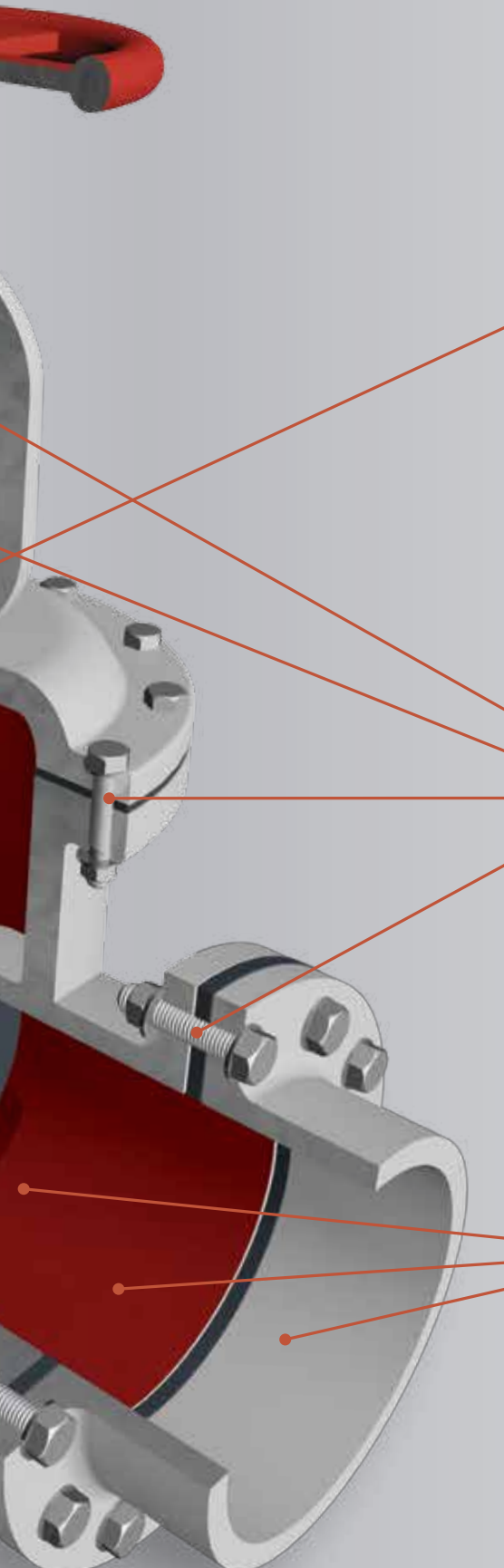
For proper installation and removal of stem packing, use **tamping tools**, **packing cutters**, and **packing extractors** to minimize errors and equipment damage during valve repacks.



Joint Sealing

Chesterton offers a variety of **joint sealing solutions** where we apply the best available technology to your critical flanged joints, resulting in the best recommendation for your specific applications. **Form-in-place**, **compression**, and **semi-metallic gaskets** address most process flanges.





Valve Stem Sealing

Improve equipment reliability, meet EPA VOC emissions requirements, and lower the total cost of valve ownership with **Chesterton valve stem sealing solutions**. Low emissions, steam, and chemically resistant packings are designed to provide years of operation to reduce valve maintenance.

After market OEM valve packing kits are available for popular valve manufacturers, making for easy upgrade and repair.



Thread Lubrication

Ensure proper bolt torque and prevent bolt/nut seizing for easy adjustment and disassembly on flanges, bonnets, and packing followers with **Chesterton Anti-Seize compounds**. Specifically engineered to achieve consistent and correct bolt tensioning.



ARC Protective Coatings

Rebuild, restore, and coat pipe linings, flanges, valve bodies, and discs with **ARC Efficiency and Protective Coatings** to resist corrosion and/or abrasion from process media and from the effects of cavitation on valve internals.

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DEDICATED TO INNOVATION AND RELIABILITY

Engineered Polymer Solutions

Chesterton's Engineered Polymer Solutions 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*
- *Spring-energized seals*
- *Custom 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.



Fluid Power Application Guide

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

RECIPROCATING MOTION																
Speed	Types	Product	Profile Series	Description	Attributes					Friction			Wear Resistance			
					mould	**mach.	hyd.	pne.	split	Low	Mid	High	Low	Mid	High	
to 15 m/s (3 000 ft/ min)	Cap Seals (Rod and Piston)	RCCS		Double acting, dual component seal		•	•	•		•				•		
		PCCS		Double acting, dual component seal		•	•	•		•					•	
to 1 m/s (200 ft/ min)	Wipers	W5K, W21K		Positive angled profile with flange	• ¹	•	•	•	•	•					•	
	Rod Seals, U-cups	R10K, R22KN		Single acting, positive angled profile	• ¹	•	•	•		•						•
		R23K		Single acting, radiused sealing surface for pneumatic applications		•		•		•				•		
	Rod Seals, Stacked Sets	R8K, R27K		Single acting, positive angled profile, multiple stacked set	• ¹	•	•		•		•				•	
		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	P10K, P22KN		Single acting, positive angled profile	• ¹		•	•		•					•	
		P23K		Single acting, radiused sealing surface for pneumatic applications		•		•		•				•		
	Piston Seals, Stacked Sets	P8K, P27K		Single acting, positive angled profile, multiple stacked set	• ¹	•	•		•			•				•
		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		Custom bearing bands		•	•	•	•	•	•				•	
	Anti-Extrusion Rings	9K		Backup rings or anti-extrusion rings		•	•	•	•	•					•	
to 0,75 m/s (150 ft/ min)	Compression Seals, (Rod and Piston)	R20K, P20K		Double acting, negative angled profile, low speed hydraulic applications		•	•				•			•		
Static	Valve Seals	M20K- OR		Static seal for O-Ring upgrades in hydraulic valves		•	•			•			•			

**Machined product does not require tooling.

¹ W21K-R27K, P27K, R22KN, P22KN are machined seals.

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 to 85°C (-60°F to 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 to 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

Sealing Solutions for Fluid Power



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.



AWC805

Blue Polymer

The AWC805 polymer is a softer material that conforms to uneven contact surfaces in worn or damaged equipment, delaying the need for costly repairs.

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

	AWC805 Blue Polymer	AWC825 Blue Dark Polymer	AWC860 Cherry Polymer
Description and benefits	<ul style="list-style-type: none"> Highly elastic Extends efficient operation in slightly worn equipment Conforms to uneven surfaces 	<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"> Mining equipment Dusty environment Presses Old, worn hydraulic equipment cylinders 	<ul style="list-style-type: none"> Mining equipment Dusty environment Steel Industry Hydraulic and mechanical presses 	<ul style="list-style-type: none"> Mining equipment Forging machines Steel industry Heavy-duty applications
Temperature	-50°C to 85°C (-60°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-50°C to 120°C (-60°F to 250°F)
Pressure	Max 103,5 MPa (15 000 psi)	Max 52 MPa (7 200 psi)	Max 103,5 MPa (15 000 psi)
Fluid compatibility	Mineral oil-based fluids, HFA-E, HFB (ISO 6743-4)	HF, HFL, HFA, HFB	Mineral oil-based fluids, HF, HFL, HFA, HFB (ISO 6743-4)
Coefficient of friction	0,35 dry running	Not available	0,18 to 0,22 dry running
Elongation at break	580%	230%	540%

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

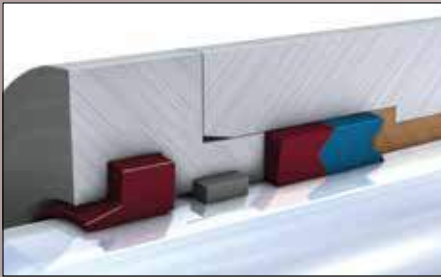
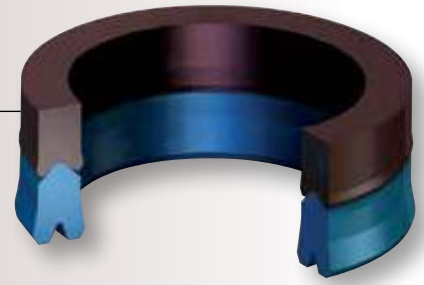
SEALING SOLUTIONS FOR FLUID POWER – HYDRAULIC AND PNEUMATIC SEALS

HYDRAULIC AND PNEUMATIC SEALS

11K

Split, Dual Component Hydraulic Rod Seal

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

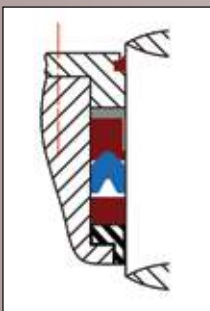


- Replaces the stack set assembly
- Split design eliminates the need to disassemble equipment
- One optimized seal concept for different press applications
- Dual material combination works in both new and worn equipment
- Design eliminates shimming and future adjustments
- Fusion program

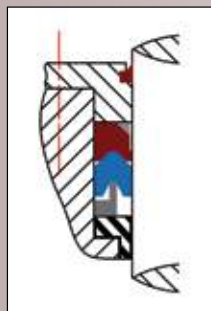
SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 to 1 320 (1/4 to 52)	-50 to 85 (-60 to 185)	103,5 (15 000)	1 (200)
AWC805 (EU)	6 to 1 320 (1/4 to 52)	-50 to 85 (-60 to 185)	103,5 (15 000)	0,5 (100)
AWC825 (EU)	6 to 1 400 (1/4 to 55)	-40 to 85 (-40 to 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15 000)	1,25 (250)

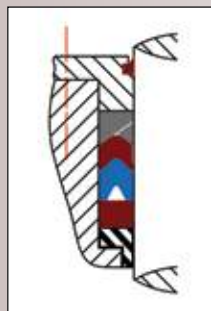
Application tailored seal systems can be built on base of 11K in combination with CHESTERTON® 9K Anti-Extrusion rings and Spacers/Stand-Off rings up. This module system allows creating the most suitable seal kit for all kind of heavy-duty and demanding hydraulic cylinder applications and operating conditions. Flexible, modular and custom tailored, what gives optimum solution for replacement of conventional stacked sets.



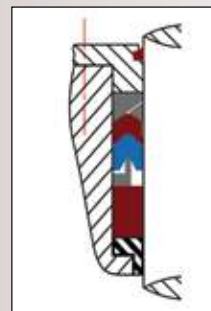
Large stuffing box depth. Back-up ring (9K) protects seal (11K) against extrusion, while spacer fills up the axial space in front of the seal set.



Multi-component system for short stuffing boxes, where integrated back-up 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).



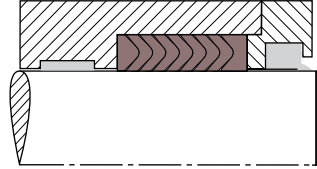
Multi-component system for replacement of traditional packing set with extra large stuffing box depth. Spacer is in combination with stand-off ring keeping the seal in position, while self-aligning gland ring protects seal against extrusion in case of large extrusion gap. (Typical applications are: worn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

Standards and approvals available on page 91.

8K™ & 27K

Split, Stack Set for Hydraulic Rod Applications

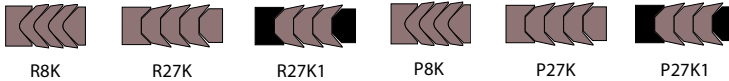
Advanced stack set technology for high-speed hydraulic applications and for scored, mechanically damaged rod and ram surfaces.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 to 1 320 (1/4 to 52)	-50 to 85 (-60 to 185)	103,5 (15 000)	1 (200)
AWC805 (EU)	6 to 1 320 (1/4 to 52)	-50 to 85 (-60 to 185)	103,5 (15 000)	0,5 (100)
AWC825 (EU)	6 to 1 400 (1/4 to 55)	-40 to 85 (-40 to 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILE:

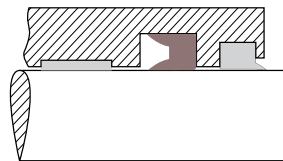


- Split components for ease of installation
- Light gland offers greater speed capability than conventional sets
- Pressure sensitive lip design minimizes friction and extends service life
- Material combinations designed for use in both new and worn equipment

10K™ & 22KN

Single Acting U-Cup Design for Rod and Piston Applications

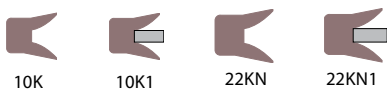
High performance U-cup design hydraulic and pneumatic applications. The 10K Super Monoseal® is made from a custom moulding process that utilizes existing tooling. The 22KN design is manufactured using a machining process which allows the flexibility to create any size based on equipment dimensions.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 to 1 320 (1/4 to 55)	-50 to 85 (-60 to 185)	103,5 (15 000)	0,9 (185)
AWC805 (EU)	6 to 1 400 (1/4 to 55)	-40 to 85 (-40 to 185)	103,5 (15 000)	0,5 (100)
AWC825 (EU)	6 to 1 400 (1/4 to 55)	-40 to 85 (-40 to 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15 000)	1,25 (250)

PRODUCT PROFILES:



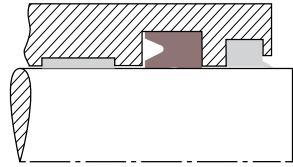
- Automatic sealing for optimal sealing force with minimal frictional resistance
- Flexible lip design compensates for excessive radial space in worn equipment
- Advanced material technology withstands scored, damaged surfaces
- Positive rake lip profile wipes away contamination from mating surface
-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

*Please contact your Chesterton representative for larger sizes. Standards and approvals available on page 91.

22K

Single Acting, U-Cup for Rod and 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 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5 000)	1,5 (300)
AWC800 (EU)	6 to 1 320 (1/4 to 52)	-50 to 85 (-60 to 185)	103,5 (15 000)	1 (200)
AWC825 (EU)	6 to 1 400 (1/4 to 55)	-40 to 85 (-40 to 185)	51,7 (7 500)	0,5 (100)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7 500)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15 000)	1,25 (250)

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

PRODUCT PROFILES:



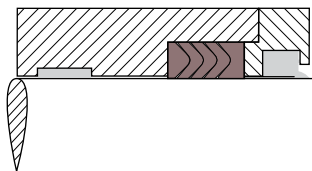
- Single acting, U-cup design, zero leakage throughout the entire operating range
- Abrasion-resistant design, excellent performance in hydraulic applications
- Lip geometry stabilizes seal to prevent twisting and eases installation
- Application-specific solutions, including anti-extrusion ring, energizer,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

Sealing Solutions for Fluid Power

28K/28K1

Stack Set for Piston and Rod Applications in Hydraulics

Flexible family of high performance, proven stack sets for heavy-duty, hydraulic applications.



SPECIFICATIONS

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

PRODUCT PROFILES:



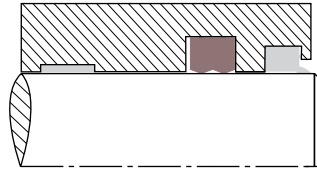
- Split components for ease of installation
- Symmetrical lip design for use in rod and piston applications
- Flexible lips for reduced frictional load of metal components
- Manufacturing process allows flexibility to create any size

*Please contact your Chesterton representative for larger sizes. Standards and approvals available on page 91.

20K™

Heavy-Duty Bi-Directional Hydraulic Seal

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

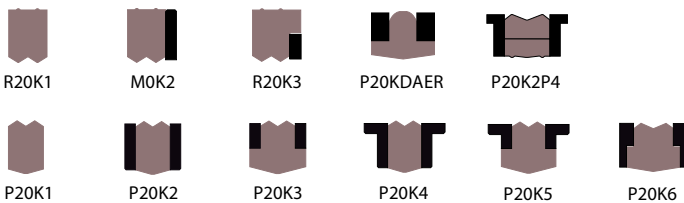


SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	34,5 (5 000)	0,75 (150)
AWC800 (EU)	6 to 1 400 (1/4 to 55)	-50 to 85 (-60 to 185)	103,5 (15 000)	0,5 (100)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	52,0 (7 500)	0,5 (100)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	103,5 (15 000)	0,62 (125)

Applicable standards: DIN/ISO 4725-1, DIN/ISO 4725-2, DIN/ISO 6547

PRODUCT PROFILES:

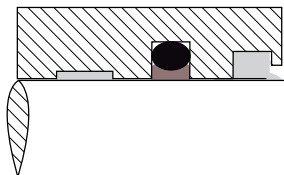


- Ideal replacement for 2-, 3-, or 4-piece cap seal assemblies
- Excellent extrusion resistance
- Abrasion-resistant design withstands demanding environments
- Outstanding resistance to shock loading and pressure spikes

CCS

Rod and Piston Seals

High performance, dual component system for bi-directional 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 to 85 (-30 to 185)	34,5 (5 000)	0,85 (185)/0,5 (100)
**AWC850 (EU)	6 to 254 (1/4 to 10)	-50 to 104 (-60 to 220)	34,5 (5 000)	0,9 (185)/0,5 (100)
**AWC860 (EU)	up to 508 (20)	-35 to 120 (-30 to 250)	34,5 (5 000)	1,25 (250)/0,75 (150)
***AWC300 (glass filled PTFE)	up to 600 (24)	-35 to 120 (-30 to 250)	34,5 (5 000)	15 (3 000)/5,0 (960)
***AWC400 (carbon filled PTFE)	up to 600 (24)	-35 to 120 (-30 to 250)	34,5 (5 000)	15 (3 000)/5,0 (960)
**AWC500 (bronze filled PTFE)	up to 600 (24)	-35 to 120 (-30 to 250)	34,5 (5 000)	15 (3 000)/5,0 (960)

Applicable standards: DIN/ISO 4725-1 and 4725-2

**Buna energizer
***FKM energizer

PRODUCT PROFILES:



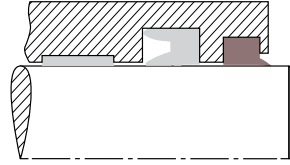
- Second generation PTFE and high performance polymers offer improved performance
- Compression seal design increases sealing force with system pressure
- Dramatically reduced friction and eliminated "Stick-Slip" effect
- Excellent chemical- and heat-resistant characteristics

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 91.

W21K

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)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	1,5 (300)
AWC800 (EU)	6 to 1 400 (1/4 to 55)	-50 to 85 (-60 to 185)	1 (200)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)	1,25 (250)

Applicable standards: DIN/ISO 6195, ISO 3320

PRODUCT PROFILES:



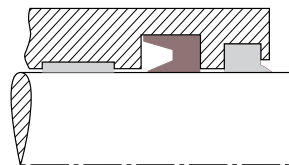
- Positive rake lip design effectively wipes contaminants away from surface
- Prevents scoring and system contamination
- Abrasion-resistant design withstands demanding environments
- Prolongs lifetime of equipment and components

Sealing Solutions for Fluid Power

23K

Pneumatic Seals for Rod and Piston Applications

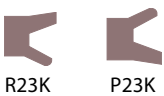
Unique seal design incorporated with high performance, polymer technology for low friction sealing in pneumatic applications.



SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Pressure MPa (psi)	Speed m/s (ft/min)
AWC700 (FKM)	6 to 152 (1/4 to 6)	-30 to 200 (-20 to 400)	0,9 (125)	1,5 (300)
AWC800 (EU)	6 to 1 400 (1/4 to 55)	-50 to 85 (-60 to 185)		1 (200)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)		0,9 (185)
AWC860 (EU)	6 to 508 (1/4 to 20)	-50 to 120 (-60 to 250)		1,25 (250)

PRODUCT PROFILES:



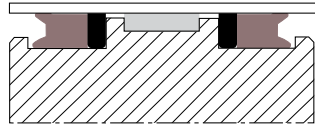
- Unique lip geometry provides optimal sealing force for pneumatic applications
- Radiused lip design ensures a continuous lubricating film, minimizing wear
- Unique design minimizes frictional heat and energy consumption
- Eliminates “Stick-Slip” effect

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 91.

9K

Anti-Extrusion Rings for Hydraulic Applications

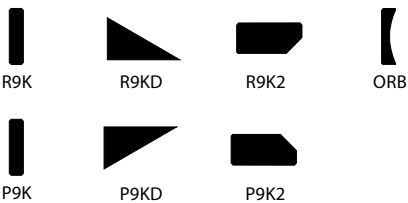
Designed to prevent seals from extruding into equipment clearances for heavy-duty, high-pressure applications.



SPECIFICATIONS

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

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 it suitable for use on rams or pistons on most of reciprocating applications.

SPECIFICATIONS

Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	Compressive Strength MPa (psi) ASTM D695	Speed m/s (ft/min)
AWC640 thermoset polyester resin	300 mm to 1575 mm	-40°C to 121°C (-40°F to 250°F)	345 Mpa (50,000 psi)	1,0 m/sec (200 ft/min)

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

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



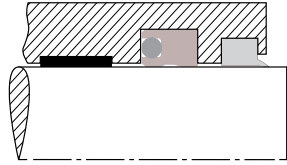
- Prevents metal-to-metal scoring, helps prolong equipment life
- Reduces radial movement, extends seal life
- Built-in lubricant for lower coefficient of friction between mating surfaces
- Split continuous coil accommodates large diameter equipment

*Please contact your Chesterton representative for larger sizes.
Standards and approvals available on page 91.

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 to 121 (-40 to 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 to 140
	9	55 to 220
	14	70 to 400
	24	315 to 400

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

PRODUCT PROFILES:



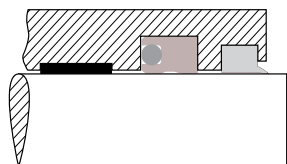
- Heat-stabilized nylon—the same carrying load as bronze
- Replaceable bearings prevent metal-to-metal contact and prolong equipment life
- Reduces radial movement, therefore extending seal life
- Split design minimizes downtime

Sealing Solutions for Fluid Power

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 to 152 (1 to 6)	-45 to 175 (-50 to 350)	138,1 (20 000) ASTM D695	1 (200)
AWC635 Glass-filled PEEK	25 to 152 (1 to 6)	-45 to 175 (-50 to 350)	179,5 (26 000) ASTM D695	1 (200)
AWC650 Acetal (POM)	25 to 381 (1 to 15)	-31 to 73 (-25 to 165)	55,2 (8 000) ASTM D695	1 (200)
AWC665 Nylon with MoS ₂	381 to 1 450 (15 to 57)	-40 to 105 (-40 to 212)	96,7 (14 000) ISO 604	1 (200)

Applicable standards: IDIN/ISO 10776

PRODUCT PROFILES:



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

*Please contact your Chesterton representative for larger sizes.

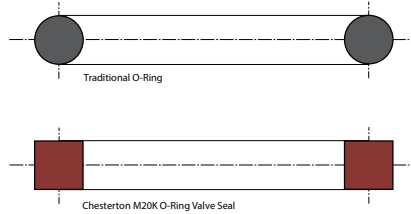
**Other materials are available upon request

Standards and approvals available on page 91.

M20K

O-Ring Replacement Kits for Hydraulic Valves

Made from advanced AWC800 polymer, this Chesterton® valve seal outlasts traditional O-Rings, reducing maintenance and leakage.



STANDARD AVAILABLE KITS

Valve Size and Port	Replaced O-Ring	Quantity (pcs)	Small Kit Reorder# CLK0104	Standard Kit Reorder# CLK0105	Large Kit Reorder# CLK0155
NG6 (A,B,P,T)	OR9,25x1,78	25	✓	✓	✓
NG10 (A,B,P,T)	OR12X2	25	✓	✓	✓
NG10 (X,Y)	OR10,82X1,78	25	✓	✓	✓
NG16 (A,B,P,T)	OR22X2,5	25	✓	✓	✓
NG16 (X,Y)	OR10X2	25	✓	✓	✓
NG25 (A,B,P,T)	OR27X3	25		✓	✓
NG25 (X,Y)	OR19X3	25		✓	✓
NG32 (A,B,P,T)	OR42X3	25			✓
NG32 (X,Y)	OR19X3	25			✓

Applicable standards: DIN24340, ISO 5781, ISO 4401, ISO 5263, ISO 6264, ISO 6263 & CETOP RP:121H

- High performance Chesterton polymer material AWC800 (EU)
- High resistance to compression setting and extrusion
- Long elastic memory and no aging
- Direct retrofit, no equipment modifications required

Ancillary Products



652 Pneumatic Lubricant and Conditioner

Cleans, protects and prolongs the life of pneumatic equipment and air-operated valves. Go to page 60.



785 & 785 FG

High performance, extreme pressure anti-seize compound. Go to page 62.



860 Moldable Polymer Gasketing

Two-part extrudable gasket material for flange and thread sealing. Go to page 64.

Standards and approvals available on page 91.

Engineered Solutions

High performance custom seals

We leverage our engineering experience in design and materials to develop custom seals that solve today's most difficult sealing challenges. Our custom designs provide leading edge technology that has been used around the world with documented success and recognition.

- Pumps and compressors
- Dispensing equipment
- Metering instruments
- Swivel joints
- Actuators
- Analyzers
- Semiconductor units
- Propulsion units
- Motors and gearboxes
- Valves

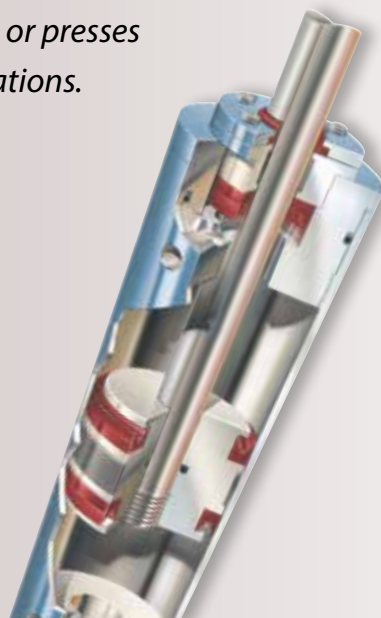


Equipment Upgrade

Systematic approach to improve MTBR

Chesterton's equipment upgrade program applies a simplistic, systematic approach for improving seal performance during repair and overhaul of equipment. This includes seals, bearing bands, and custom kits for cylinders or presses used in light, medium, or heavy-duty applications.

- Cylinder re-designing
- Cylinder modernization/upgrade
- CAD engineering
- Consultation
- On-site survey
- Failure analysis



SpeedSeal® Service Centres

Fast and Flexible

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

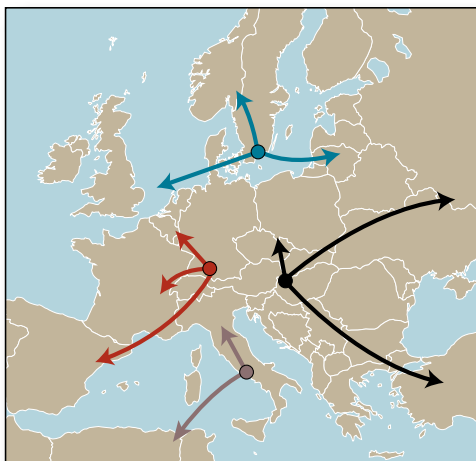
Our fully-integrated facility utilizes advanced equipment and a wide range of materials and designs to provide you with a broad selection of product offerings.

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

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



SpeedSeal Service Centres



- SpeedSeal Germany – Ismaning
- SpeedSeal Sweden – Karlshamn
- SpeedSeal Hungary – Mogyorod
- SpeedSeal Italy – Roma



EFFICIENCY, PERFORMANCE, AND PRODUCTIVITY

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

- *Lubricants and greases*
- *Maintenance specialities*
- *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	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® Category
601	√++			√	√++		√+	√+	√++			H2
610 +/-/610MT +/-/610HT	√++	√			√+		√++					H2
607	√++	√		√	√+		√++					H2
690FG	√++			√				√	√			H1
715/715G	√+		√++		√++						√++	H2
652	√+			√++	√+	√	√+	√+	√++			H2
GREASES												
615	√	√+	√		√	√+	√	√+	√	√+	√++	H2
635		√++				√++	√+	√+	√++	√++	√++	H2
625		√+				√+	√	√	√	√+	√++	H1
630	√+	√++	√			√++	√+	√+	√	√	√++	H1

H1—Product may be used in areas where there is incidental exposure of the lubricated part to edible product.
H2—Used on equipment where there is no chance of the lubricant or lubricated part contacting edible products

Cleaners and Degreasers

Soil/Deposit	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 Phosphate-Free Cleaner	235 SSC	803 IMS II	820 KPC	218 HDP Pressure Wash	338 Super Rust Remover	346 Descaler and Chemical Cleaner	274 Industrial Degreaser	276 Electronic Component Cleaner
Soil/Deposit	Heavy Oil, Adhesives, Glues		√		√			√	
	Grease, Petroleum Oil, Dirt	√	√+	√++	√++	√+		√+	√+
	Natural Oils—Animal Fat, Vegetable Oil	√	√	√+	√	√			√+
	Scale, Hard Water Deposits						√	√++	
	Rust and Oxidation						√++	√	
Application	Parts Degreasing Shop	Manual Brush or Wipe	√+	√+	√++	√++	√		√+
		Parts Degreasing Station	√		√+	√+			√++
		Dip Tank	√	√	√++	√+			√++
		Steam Cleaning		√++	√+	√	√+		
		Pre-Cleaning Parts/Machinery	√+	√+	√++	√+	√+		
	Parts Degreasing Production	Agitated Tank				√	√++		√+
		Dip Tank	√+	√+	√++	√+	√		√
		Pressure Washing		√+			√++		
		Ultrasonic				√++			√+
	Machinery/Plant Cleaning	Spray Booth/Spray Tunnel					√++		
Closed Circulation, Pipe Line		√	√	√+	√+	√+			
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

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.

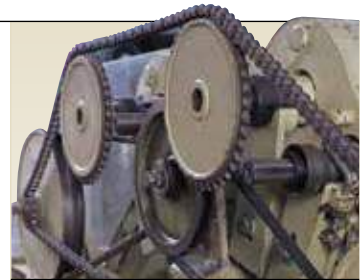
Product Characteristics

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

Available Container Sizes: Aerosol, 3,8 l, 20 l, 208 l

Applications

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



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

607 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 temperatures range where petroleum lubricants are unable to function. Temperature range -30°C to 250°C (-22°F to 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 88-89.

610 Plus/610MT Plus/610HT

Synthetic Lubricating Fluid—High-Temperature Service

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

Product Characteristics

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

Applications

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

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



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

690

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
 -9°C to 120°C (15°F to 250°F)
Available Container Sizes: Aerosol, 3,8 l, 20 l, 208 l

Applications

Food, beverage, and pharmaceutical processing equipment, including:
 chain drives
 pistons
 valves
 rollers
 pneumatics



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

715

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 Spraflex Gold where a clean, non-staining film is needed



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

Standards and approvals available on pages 88-89.

652

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, 181 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

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 to 240°C (-40°F to 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

Standards and approvals available on pages 88-89.

625 CXF, 630 SXCF

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

625 CXF—Temperature limit -30°C to 204°C (-22°F to 400°F).

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

Product Characteristics

Superior water washout resistance
 Excellent corrosion protection
 Compatible with most popular greases
 Exceptional shear resistance
 Antioxidants prevent hardening or crystallization

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



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

Versions Available

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

Lubri-Cup™ 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

Standards and approvals available on pages 88-89.

THREAD LUBRICANTS/ANTI-SEIZE

785 & 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: 200 g, 250 g, 500 g, Aerosol, 20 l
 785FG: 200 g, 500 g

Applications

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



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

783

ACR

783 combines high-performance, industrial anti-seize performance with extreme corrosion protection and water washout resistance. 783 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

725

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

Ultra-fine 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

Covers all industries
 Mechanical assembly of:
 bolts, studs, flanges, press fits
 valve stems, pump sleeves, screws,
 bushings, gaskets, bearings
 772 Premium Anti-Seize—Nuclear certifiable



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

Standards and approvals available on pages 88-89.

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

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

Applications

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



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

723 & 723 FG

Sprasolvo®

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

Product Characteristics

Pinpoint spray
 Safe on plastic and painted surfaces
 Contains no acids or chlorinated solvents
 Creeps into microscopic spaces
Available Container Sizes: Aerosol
 Use on all corroded or seized threaded assemblies

Applications

in the harshest industrial environments
Note: FG designates a Food-Grade Product



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

723FG—Conforms to FDA standard

Standards and approvals available on pages 88-89.

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 to 260°C (-400°F to 500°F)
Seals tightly and opens easily
Non-aging, non-hardening
Chemically resistant
Requires fewer wraps
Resists tearing and breakage
Won't clog lines

Liquids: Steam, water, salt water, air, fuels,

Applications

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

FLANGE SEALING

860

Moldable Polymer Gasketing

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

Product Characteristics

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
Gear boxes, 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

Industrial and Marine Solvent II

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

Product Characteristics

Cleaning dust, dirt, carbon black, petroleum-based oils
Phosphate-free, no EDTA or toxic solvents
No irritating fumes
Compatible with pressure washers and steam cleaners
Available Container Sizes: 3,8 l, 20 l, 208 l, 1 000 l
Covers all industries

Applications

Cleaning production equipment, facilities, floors, walls and steel structures

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 88-89.

360

Phosphate-Free Cleaner

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

Product Characteristics

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

820

KPC

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

Product Characteristics

Effective on:
Oil deposits
Soot and exhaust residue
Lubricants and 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

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 can be used up to 82°C (180°F)



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

Available from European warehouse only

Standards and approvals available on pages 88-89.

235

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

Applications

General
 Concrete
 Masonry
 Equipment (all types)

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
- Improves worker safety by removing slippery surfaces
- Biodegradable

WATER-BASED ACID CLEANERS

338

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

General

Applications

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

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 88-89.

SOLVENT-BASED CLEANERS

274

Industrial Degreaser

A hard surface degreaser for industrial and marine environments.

Product Characteristics

Dissolves petroleum oil, grease, tar, and other inorganic soils
Low 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
- Improve worker safety
- High flash point

CONTACT CLEANERS

276

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

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 88-89.

RECIRCULATING METALWORKING FLUIDS

372

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 effects
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
 Tapping

Applications

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 88-89.



CORROSION CONTROL

775

Moisture Shield

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

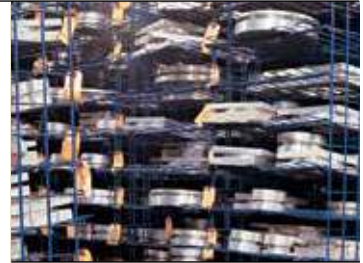
Product Characteristics

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

Parts in process, transit, or storage

Applications

Electrical systems
Marine industry
Drying out of wet electrical parts
Note: Where long-term protection is desired use Chesterton's 740 Heavy-Duty Rust Guard



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

740

Heavy-Duty Rust Guard

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

Product Characteristics

Self-healing, if scratched
Transparent brown
Available Container Sizes: Aerosol, 3,8 l, 20 l, 208 l

Applications

Metal tools
Parts in process
Parts in storage
Pumps
Indoor structural steel
Note: Product can be easily removed with Chesterton's 276 Electronic Component Cleaner or 274 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 88-89.

A WORLD OF PROTECTION

Industry faces adverse environmental conditions that attack components and structures which can result in compromised plant reliability, safety, and lost profits. Chesterton's ARC efficiency coatings provide superior performance against erosion, corrosion, abrasion, and chemical attack to both metal and concrete surfaces. You can rely on Chesterton's low VOC, 100% solids ARC protective linings to protect these surfaces in your industrial environment.

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

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

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

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



ARC Efficiency & Protective Coatings Application Guide

These tables provide general guidelines for ARC EPC product selection. Detailed product performance data can be found on product-specific data sheets and ARC chemical resistance guides.

Metal EPC Systems

✓+ = Best Choice ✓ = Good Choice

Wet Service Temperature	Specialty Coatings		Erosion Resistant			Corrosion, Erosion, and Chemical Attack							Abrasion Resistant				
	Patching/Repair/Rebuild	Machinable	Erosion/Corrosion Aqueous Solution	Erosion/Corrosion Mild Chemical	Erosion/Corrosion Elevated Temperature	Corrosion/Moderate Chemical	Corrosion/Harsh Chemical (Acid) Inorganic	Corrosion/Harsh Chemical (Acid) Organic and Bleaching Chemicals	Corrosion/Harsh Chemical (Alkalines)	Corrosion Flue Gasses	Potable Water Low Flow	Potable Water High Flow	Mild Sliding Abrasion	Moderate Sliding Abrasion	Severe Sliding Abrasion	Severe Sliding Abrasion/ Harsh Chemical	Impact Abrasion
<50°C (<120°F)																	
50 to 70°C (120 to 160°F)																	
70 to 90°C (160 to 195°F)																	
90 to 110°C (195 to 230°F)																	
110 to 130°C (230 to 265°F)																	
130 to 150°C (265 to 302°F)																	
855			✓+	✓+	✓+	✓+					✓+	✓+	✓				
858	✓+	✓	✓+	✓+	✓+								✓				
HT-T			✓+	✓	✓+								✓				
HT-S			✓+	✓	✓+								✓				
S1PW			✓	✓		✓+	✓				✓+		✓				
S2			✓+	✓+	✓	✓+	✓				✓	✓+	✓				
S4+						✓+	✓+		✓	✓							
S7						✓+	✓+	✓+									
BX1													✓	✓+	✓		✓
IBX1													✓	✓+	✓		✓+
BX2													✓+	✓	✓		✓
T7AR													✓	✓	✓	✓	

Concrete EPC Systems

	Pitching Grout	Grading Grout	Chemical Process Spill Areas	Machine/Mechanical Room Floors	Clean Room Floors	Plating Rooms	Traffic Aisles	Food Processing/Packaging	Interior Chemical Containment	Exterior Chemical Containment	Floor Drains	Battery Charger Rooms	Locker/Shower Rooms	Broadcastable, Non-Slip Surfaces	Bottling Lines	Pump Bases	Fabrication/Manufacturing Floors	Manholes/Septic Systems
791*	✓+	✓+	✓+	✓		✓+	✓	✓	✓+	✓+	✓+	✓+			✓+	✓+	✓+	✓+
988*			✓+	✓+		✓+	✓	✓	✓+	✓+	✓+	✓+				✓+	✓+	
NVE*			✓+	✓+		✓+	✓	✓	✓+	✓+	✓+	✓+				✓+	✓+	
CS2**			✓+	✓+	✓	✓+	✓	✓	✓+	✓	✓+	✓+	✓	✓	✓	✓+	✓	✓
CS4**			✓+	✓+	✓+	✓+		✓+	✓+	✓+	✓+	✓+	✓+	✓+	✓+	✓+	✓+	
NVE VC**			✓+	✓+	✓+	✓+		✓+	✓+	✓+	✓+	✓+	✓+	✓+	✓+	✓+	✓+	

*Are resurfacing EPC for mechanical and chemical exposures
 **Are thin film EPC for chemical protection

Moderate Chemical Severe Chemical

EROSION-RESISTANT COATINGS FOR METALS

ARC 855

Abrasion Control Liquid

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

Product Characteristics

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

Applications

Fans and housings
Heat exchangers
Water boxes
Pump casings and impellers
Screws
Condensers
Tanks and vessels
Valves

Technical Data

Dry Temperature (Max)	120°C (250°F)
Wet Temperature (Max)	65°C (150°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	352,7 - 34,6 (5 020)
Salt Fog	>10 000 hrs
Available Sizes	0,75 l; 1,5 l; 5 l; 16 l



- Improves fluid flow efficiency
- Extends equipment life
- Cuts downtime
- Reduces the need for spare parts

ARC 858

Abrasion Control Compound

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

Product Characteristics

Applied by trowel or spatula
Normally applied at a thickness of 1,5 mm (60 mils) or more

Applications

Pump casings and impellers
Fans and housings
Pipe elbows
Screws
Pitted tanks and pipes
Heat exchangers
Valves

Technical Data

Dry Temperature (Max)	160°C (320°F)
Wet Temperature (Max)	70°C (160°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	478,5 - 47 (6 810)
Available Sizes	0,25 kg; 0,94 l; 1,5 l; 5 l; 16 l

Approvals: US Navy



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

Standards and approvals available on page 92.

ARC HT-T, HT-S

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

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

Advanced ceramic composites that are formulated to protect equipment from corrosion and erosion in elevated temperature immersion of aqueous solutions.

Product Characteristics

HT-T – Applied at a nominal thickness of 900 to 1150 µm (35 to 45 mils) by trowel or plastic applicator

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

Applications

Hydrocyclones
Heat exchangers
Pump volutes and impellers
Condensate pumps
Tanks
Valves
Offshore equipment



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

Technical Data

Dry Temperature HT-T (Max)	150°C (302°F)
Wet Temperature HT-T (Max)	110°C (230°F)
Dry Temperature HT-S (Max)	175°C (347°F)
Wet Temperature HT-S (Max)	150°C (302°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	>140 - 14 (2 000)
Available Sizes	5 l, 16 l (only HT-S)

COATINGS FOR CORROSION, EROSION, AND CHEMICAL ATTACK FOR METALS

ARC S1PW

General Purpose, Sprayable, Corrosion Protection Coating

An advanced, ceramic-reinforced liquid composite formulated to protect metal surfaces from corrosion and MILD chemical attack.

Product Characteristics

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

Applications

Structural steel
Cooling water systems
Pipeline coatings
Service water systems
Wastewater structures
Tanks



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

Technical Data

Dry Temperature Service (Max)	62°C (144°F)
Wet Temperature Service (Max)	52°C (126°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	477 - 46,8 (6 790)
Salt Fog	>10 000 hrs
Available Sizes	5 l, 16 l

Standards and approvals available on page 92.

ARC S2

Ceramic-Reinforced, Sprayable, Erosion-Resistant Coating

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

Product Characteristics

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

Applications

Fans and housings
Heat exchangers
Cooling water systems
Hoppers
Tank linings
Scrubber systems
Pump and valve assemblies
Pipeline coatings

Technical Data

Dry Temperature (Max)	80°C (175°F)
Wet Temperature (Max)	52°C (125°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	463 - 45,5 (6 590)
Salt Fog	>20 000 hrs
Available Sizes	1125 ml (cartridge), 1,5 l; 5l; 16 l



- Improves fluid flow efficiency
- Extends equipment life
- Sprayable viscosity for rapid installation
- Spark testable for pinhole-free verification

ARC S4+

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

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

Product Characteristics

Two-coat system
Easily applied by spray, brush, or roller
Minimum thickness of 375 µm (15 mils) per coat

Applications

Chemical storage tanks
Chimneys and stacks
Exhaust gas ductwork
Fans and housings
Heat exchangers
Tank linings
Structural steel

Technical Data

Dry Temperature (Max)	150°C (300°F)
Wet Temperature (Max)	60°C (140°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	330 - 32,4(4 700)
Salt Fog	>10 000 hrs
Available Sizes	1125 ml (cartridge), 5 l, 16 l



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

Standards and approvals available on page 92.

ARC S7

High-Temperature and Chemical-Resistant, Epoxy Novolac Vinyl Ester Coating

A low-VOC, epoxy novolac vinyl ester-based coating intended for high-temperature exposures in chemically aggressive applications where the risk for thermal cycling may be present.

Product Characteristics

Two-coat system
Applied via conventional airless spray systems, brush, or roller
Wet film thickness of 0,25 to 0,5 mm (10 to 20 mils) per coat

Applications

Flue gas ducts
Heat exchangers
Quench zones
Flue gas particulate filters
Chemical reactors
Chemical storage and process tanks

Technical Data

Dry Temperature (Max)	180°C (355°F)
Wet Temperature (Max)	135°C (275°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	166 - 16,3 (2 370)
Available Sizes	14 l



- Extends asset life
- Provides long-term protection
- Easily applied for rapid installation
- Spark testable for pinhole-free verification

ABRASION-RESISTANT COATINGS FOR METALS

ARC BX1/BX2

ARC BX1—Coarse Grade, Sliding Wear Compound

ARC BX2—Fine Grade, Sliding Wear Compound

Advanced, ceramic-reinforced composites for the repair and protection of all metal surfaces subjected to severe abrasion and erosion/corrosion.

Product Characteristics

High volumetric ceramic particle loading
Applied by trowel or plastic applicator tool
BX1 - Applied at a minimum thickness of 6 mm (1/4") or more
BX2 - Applied at a minimum thickness of 3 mm (1/8") or more

Applications-

Separators and cyclones
Hoppers/chutes
Coal pulverisers
Hydro pulpers
Wear plates
Slurry pumps
Pipe elbows
Pulverized fuel lines
Screws

Technical Data

Dry Temperature (Max)	205°C (400°F)
Wet Temperature (Max)	95°C (205°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	>123 - 12 (1 750)
Available Sizes	1.5 l, 5 l, 20 kg, 12 x 20 kg



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

Standards and approvals available on page 92.

ARC I BX1

Impact- and Wear-Resistant Epoxy Composite

I BX1 is a urethane modified amine cured epoxy coating highly reinforced with ceramic beads and flakes for resistance to severe sliding abrasion where impact forces or rapid vibration is a concern.

Product Characteristics

High volumetric ceramic particle loading
Applied by trowel or plastic applicator tool
Applied at minimum thickness of 6 mm (1/4") or more

Applications

Hoppers and chutes
Slurry pumps
Pipes and pipe elbows
Pneumatic conveyors
Pulverizers and impact zones

Technical Data

Dry Temperature (Max)	205°C (400°F)
Wet Temperature (Max)	95°C (205°F)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	222,7 - 21,9 (3170)
Available Sizes	20 kg, 12 x 20 kg



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

ARC T7AR

Abrasion-Resistant Ceramic-Reinforced Coating for High-Temperature and Chemical Exposures

A novolac epoxy/vinyl ester-based, protective barrier coating for high-temperature, chemical exposures where aggressive chemicals and highly abrasive conditions may be present.

Product Characteristics

One coat system
Applied by trowel
Minimum thickness of 3 mm to 4 mm (120 – 160 mils)
Kit also includes ARC T7 AR VC (veil coat) for final coat smoothing
Colour: red

Applications

Flue gas ducts
Process tanks
Agitator blenders
Valves
Slurry pumps
Pipes
Quench zones

Technical Data

Dry Temperature - Continuous (Max)	180°C (355°F)
Wet Temperature - Water (Max)	135°C (275°C)
Tensile Adhesion (ASTM D4541) – kg/cm ² - MPa (psi)	158 kg/cm ² - 15,5 MPa (2 249)
Available Sizes	20.4 kg

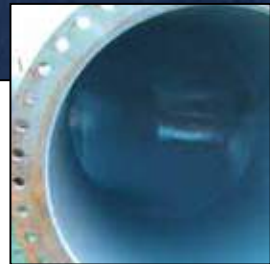


- Resists a wide range of inorganic as well as organic acids and hydrocarbon-based chemical compounds
- Resists abrasion
- Easily apply by trowel

Standards and approvals available on page 92.



WE'VE GOT YOU COVERED



When your critical equipment and structures are subject to abrasion, erosion, corrosion, and chemical attack, Chesterton® ARC® Efficiency & Protective Coatings are there to protect them



Equipment and structures in today's industrial plants have to operate in environmental conditions that aggressively attack metallic and cementitious surfaces, resulting in compromised performance, run time, and safety. When your power plant's operation is at stake, you need to rely on the company that understands the strength of a great product line is only as good as the knowledge and capability of the sales and service organization behind it.

For more information visit www.chesterton.com/arc.



RESURFACING COATINGS FOR CONCRETE

ARC 791

100% Solids, Novolac Resin Blend, Trowel-Applied, Quartz-Reinforced Concrete, High-Build Concrete Coating

A quartz-reinforced composite that is designed to resurface and restore concrete surfaces, to protect new concrete, and to repair concrete damaged by chemical and physical abuse.

Product Characteristics

Trowelable overlayment
 Applied at minimum thickness of 6 mm (1/4")
 Can be applied to damp concrete
 Non-shrinking, no solvents, 100% solids
 Colour: Grey

Applications

Chemical containment
 Floor drains and sumps
 Process floor
 Equipment bedding
 Pump bases/grouting
 Structural support columns

Technical Data

Dry Temperature (Max)	93°C (200°F)
Wet Temperature (Max)	65°C (150°F)
Compressive Strength (ASTM 579) - kg/cm ² - MPa (psi)	655 - 64,2 (9 320)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	>35.1 - 3.4 (500) Concrete failure
Available Sizes	System Kit, Bulk Kit



- Low maintenance overlayment
- Provides long-term protection
- Avoids costly structural rebuild
- Easily applied to vertical surfaces/non-sagging

ARC 988

Highly Chemically Resistant, 100% Solids, Pure Novolac Resin- Based, Trowel Applied, Quartz-Reinforced Concrete, High-Build Concrete Coating

A high performance, quartz-reinforced composite that is designed to resurface and restore concrete surfaces, to protect new concrete, and to repair concrete damaged by severe chemical and physical abuse.

Product Characteristics

Trowelable overlayment
 Applied at minimum thickness of 6 mm (1/4")
 Can be applied to damp concrete
 Non-shrinking, no solvents, 100% solids
 Colours: Grey, Red

Applications

Chemical containments
 Equipment bases
 Secondary containment areas
 Sumps, trenches, and neutralization tanks

Technical Data

Dry Temperature (Max)	93°C (200°F)
Wet Temperature (Max)	65°C (150°F)
Compressive Strength (ASTM 579) - kg/cm ² - MPa (psi)	1000 - 97,9 (14 200)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	Greater than 35,1 - 3.4 (500) Concrete failure
Available Sizes	System Kit, Bulk Kit



- Low maintenance overlayment
- Provides long-term protection
- Avoids costly structural rebuild
- Reduces safety hazard caused by damaged concrete
- Easily applied to vertical surfaces/non-sagging

Standards and approvals available on page 92.



THIN FILM COATINGS FOR CONCRETE

ARC CS2/CS4

CS2—General Purpose, Thin Film, Novolac Blend, Epoxy Coating

CS4—Highly Chemically Resistant, 100% Novolac Resin, Epoxy Coating

Thin film, advanced composites that are formulated to protect concrete surfaces.

CS2 is used for mild chemical attack and CS4 for harsh chemical attack.

Product Characteristics

Easily applied by notched squeegee, brush, roller, or spray equipment
 Can be applied to damp concrete
 High-gloss surface
 Non-shrinking, no solvents, 100% solids
 Minimum thickness of 250 to 375 µm (10 to 15 mils) per coat
 Colours: CS2 grey, CS4 red

Applications

Concrete tanks, Chemical tanks
 Water intakes and dams
 Secondary containment
 Process floor areas
 Cooling towers
 Chemical plant floors
 Floor drains, sumps
 Drainage troughs
 Equipment bases



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

Technical Data

Dry Temperature (Max)	80°C (175°F)
Wet Temperature (Max)	CS2: 52°C (125°F) CS4: 40°C (105°F)
Compressive Strength (ASTM 579) - kg/cm ² - MPa (psi)	CS2: 680 - (9 650), CS4: 970 - (13 750)
Tensile Adhesion (ASTM D4541) - kg/cm ² - MPa (psi)	CS2: >5.1 - 3.4 (500) Concrete failure CS4: >35.1 - 3.4 (500) Concrete failure
Available Sizes	5 l (only CS4); 16 l

ARC NVE System

High-Temperature and Chemical-Resistant, Epoxy Novolac Vinyl Ester Coating

A modified, novolac vinyl ester lining system intended for high-temperature exposures in chemically aggressive applications. The product may be applied as a high-build system or thin-film system.

Product Characteristics

Thin film - NVE VC (Veil Coat)
 Applied at minimum thickness of 250-375 µm
 Colours: Red
 High-build - NVE TC (Top Coat)
 Applied at minimum thickness of 6 mm (1/4")
 Colour: Grey

Applications

Process floors
 Secondary containments
 Trenches, drains, and sumps
 Tanks
 Pipelines



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

Technical Data

Dry Temperature (Max)	200°C (392°F)
Wet Temperature (Max)	135°C (275°F)
Compressive Strength (ASTM 579) - kg/cm ² - MPa (psi)	NVE TC (High-Build System): 446 - 44 (6 360)
Tensile Adhesion to Concrete - kg/cm ² - MPa (psi)	>28 - 2,8 (400)
Available Sizes	System Kit

Standards and approvals available on page 92.

Ancillary Products



803 Industrial or Marine Solvent

Powerful water-based alkaline cleaner to remove oil and grease from metal and concrete surfaces.
Go to page 64.



277 Metal Surface Degreaser

A fast-acting, low residue, non-chlorinated industrial strength solvent degreaser designed to remove oils, greases, dirt, and dust.
Go to www.chesterton.com.



ARC High Solids Spray System

Simple and efficient way to reliably spray selected ARC composites.
Go to www.chesterton.com.

MECHANICAL SEAL ORDERING INFORMATION

To place an order, please fill in the white boxes with the appropriate information and supply the type code to your Chesterton representative. Use the chart on the right for reference.

Component	Chesterton	EN12756	Description
Faces	CB	B	Carbon Graphite, Resin Impregnated
	SSC	Q1	Silicon Carbide, Sintered Pressureless
	RSC	Q2	Silicon Carbide, Reaction Bonded
	TC	U2	Tungsten Carbide, Ni-Binder
	CR	V	Aluminium Oxide, 99.5%
Metals	316	G	CrNiMo Steel (1.4401)
	Alloy-20	M3	20 Cb3 (2.4660)
	Ti	T2	Titanium (3.7035)
	HC	M5	Hastelloy® C-276 (2.4819)
	HB	M1	Hastelloy B-2 (2.4617)
	Monel	M4	Alloy K500 (2.4375)
Elastomers	FKM	V	Fluorocarbon
	EPDM	E	Ethylene Propylene Rubber
	FEPM	X	Tetra-ethylene Propylene Rubber
	FFKM	K	Perfluoroelastomer
	C550	K1	FFKM 550
	C250	K2	FFKM 250

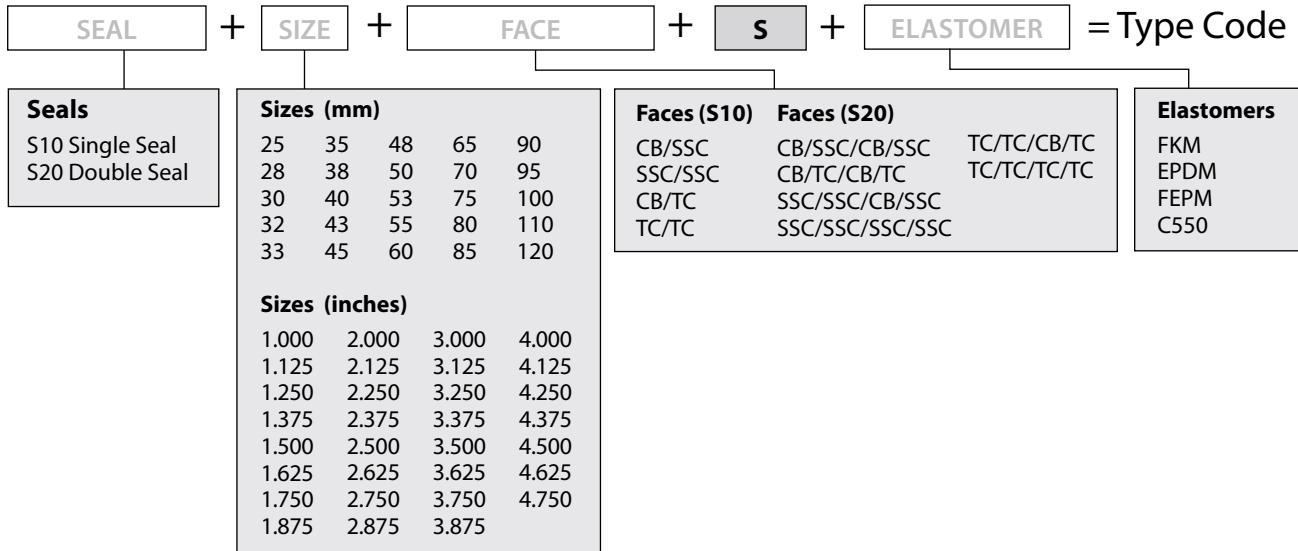
Cartridge Single Seal

SEAL + SIZE + FACE + S + ELASTOMER = Type Code

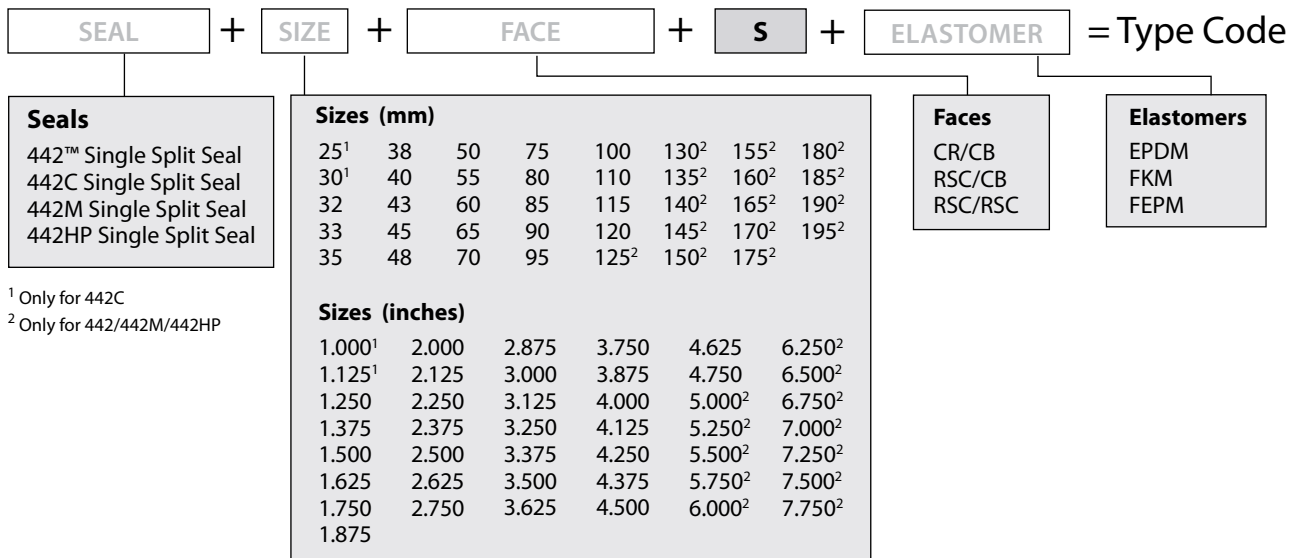
<p>Seals</p> <ul style="list-style-type: none"> 150 Single Seal 180H Single Seal 250 Double Seal 280™ Double Seal 	<p>Sizes (mm)</p> <table border="1"> <tr><td>25</td><td>40</td><td>55</td><td>75</td><td>110</td></tr> <tr><td>28</td><td>42³</td><td>58^{1,3}</td><td>80</td><td>115¹</td></tr> <tr><td>30</td><td>43</td><td>60</td><td>85</td><td>120</td></tr> <tr><td>32</td><td>45</td><td>63¹</td><td>90</td><td></td></tr> <tr><td>33</td><td>48</td><td>65</td><td>95</td><td></td></tr> <tr><td>35</td><td>50</td><td>68</td><td>100</td><td></td></tr> <tr><td>38</td><td>53</td><td>70</td><td>105¹</td><td></td></tr> </table> <p>Sizes (inches)</p> <table border="1"> <tr><td>1.000</td><td>2.000</td><td>3.000</td><td>4.125</td></tr> <tr><td>1.125</td><td>2.125</td><td>3.125</td><td>4.25</td></tr> <tr><td>1.250</td><td>2.25</td><td>3.250</td><td>4.375</td></tr> <tr><td>1.375</td><td>2.375</td><td>3.375</td><td>4.500</td></tr> <tr><td>1.500</td><td>2.500</td><td>3.500</td><td>4.750</td></tr> <tr><td>1.625</td><td>2.625</td><td>3.625</td><td>3.875¹</td></tr> <tr><td>1.75</td><td>2.750</td><td>3.75</td><td>4.625¹</td></tr> <tr><td>1.875</td><td>2.875</td><td>4.000</td><td></td></tr> </table>	25	40	55	75	110	28	42 ³	58 ^{1,3}	80	115 ¹	30	43	60	85	120	32	45	63 ¹	90		33	48	65	95		35	50	68	100		38	53	70	105 ¹		1.000	2.000	3.000	4.125	1.125	2.125	3.125	4.25	1.250	2.25	3.250	4.375	1.375	2.375	3.375	4.500	1.500	2.500	3.500	4.750	1.625	2.625	3.625	3.875 ¹	1.75	2.750	3.75	4.625 ¹	1.875	2.875	4.000		<table border="1"> <tr> <td> <p>Faces (150)</p> <ul style="list-style-type: none"> CB/SSC SSC/SSC <p>Faces (180H)</p> <ul style="list-style-type: none"> CB/SSC <p>Faces (250)</p> <ul style="list-style-type: none"> CB/SSC/SSC/CB SSC/SSC/SSC/CB SSC/SSC/SSC/SSC </td> <td> <p>Faces (280)</p> <ul style="list-style-type: none"> CB/SSC/CB/SSC CB/TC/CB/TC SSC/SSC/CB/SSC TC/TC/CB/TC </td> </tr> </table>	<p>Faces (150)</p> <ul style="list-style-type: none"> CB/SSC SSC/SSC <p>Faces (180H)</p> <ul style="list-style-type: none"> CB/SSC <p>Faces (250)</p> <ul style="list-style-type: none"> CB/SSC/SSC/CB SSC/SSC/SSC/CB SSC/SSC/SSC/SSC 	<p>Faces (280)</p> <ul style="list-style-type: none"> CB/SSC/CB/SSC CB/TC/CB/TC SSC/SSC/CB/SSC TC/TC/CB/TC 	<p>Elastomers</p> <ul style="list-style-type: none"> EPDM^{1,3} FKM^{1,3} FEPM FFKM² C550³ C250³
25	40	55	75	110																																																																				
28	42 ³	58 ^{1,3}	80	115 ¹																																																																				
30	43	60	85	120																																																																				
32	45	63 ¹	90																																																																					
33	48	65	95																																																																					
35	50	68	100																																																																					
38	53	70	105 ¹																																																																					
1.000	2.000	3.000	4.125																																																																					
1.125	2.125	3.125	4.25																																																																					
1.250	2.25	3.250	4.375																																																																					
1.375	2.375	3.375	4.500																																																																					
1.500	2.500	3.500	4.750																																																																					
1.625	2.625	3.625	3.875 ¹																																																																					
1.75	2.750	3.75	4.625 ¹																																																																					
1.875	2.875	4.000																																																																						
<p>Faces (150)</p> <ul style="list-style-type: none"> CB/SSC SSC/SSC <p>Faces (180H)</p> <ul style="list-style-type: none"> CB/SSC <p>Faces (250)</p> <ul style="list-style-type: none"> CB/SSC/SSC/CB SSC/SSC/SSC/CB SSC/SSC/SSC/SSC 	<p>Faces (280)</p> <ul style="list-style-type: none"> CB/SSC/CB/SSC CB/TC/CB/TC SSC/SSC/CB/SSC TC/TC/CB/TC 																																																																							

¹ Only for 150/250
² Only for 180H/280
³ Only for 180H

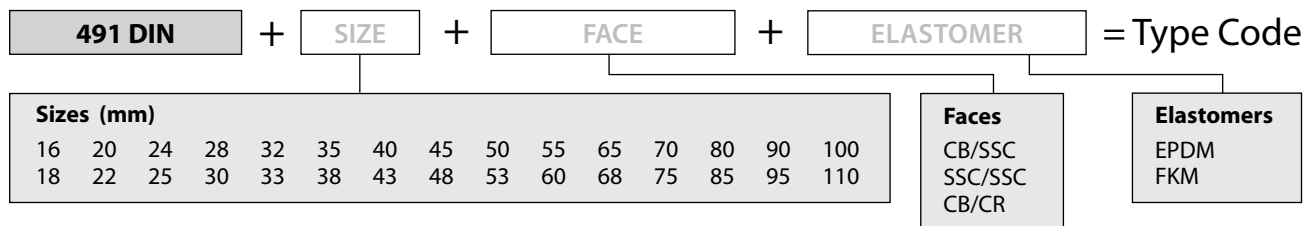
Cassette Seal



Single Split Seal



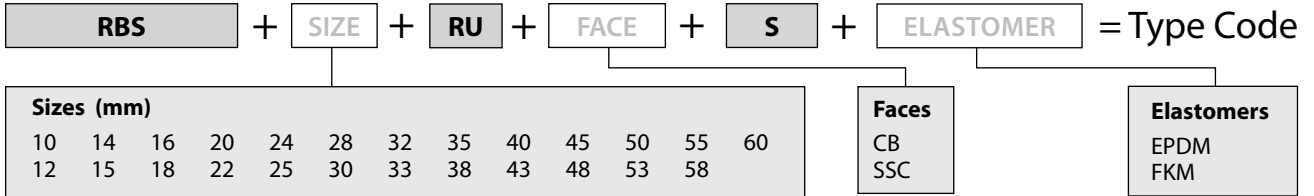
491 DIN Component Seal



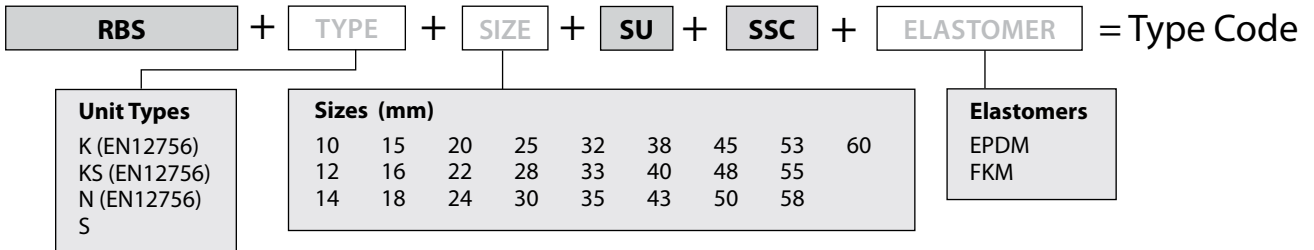
MECHANICAL SEAL ORDERING INFORMATION

RBS Seal

Rotary Unit¹

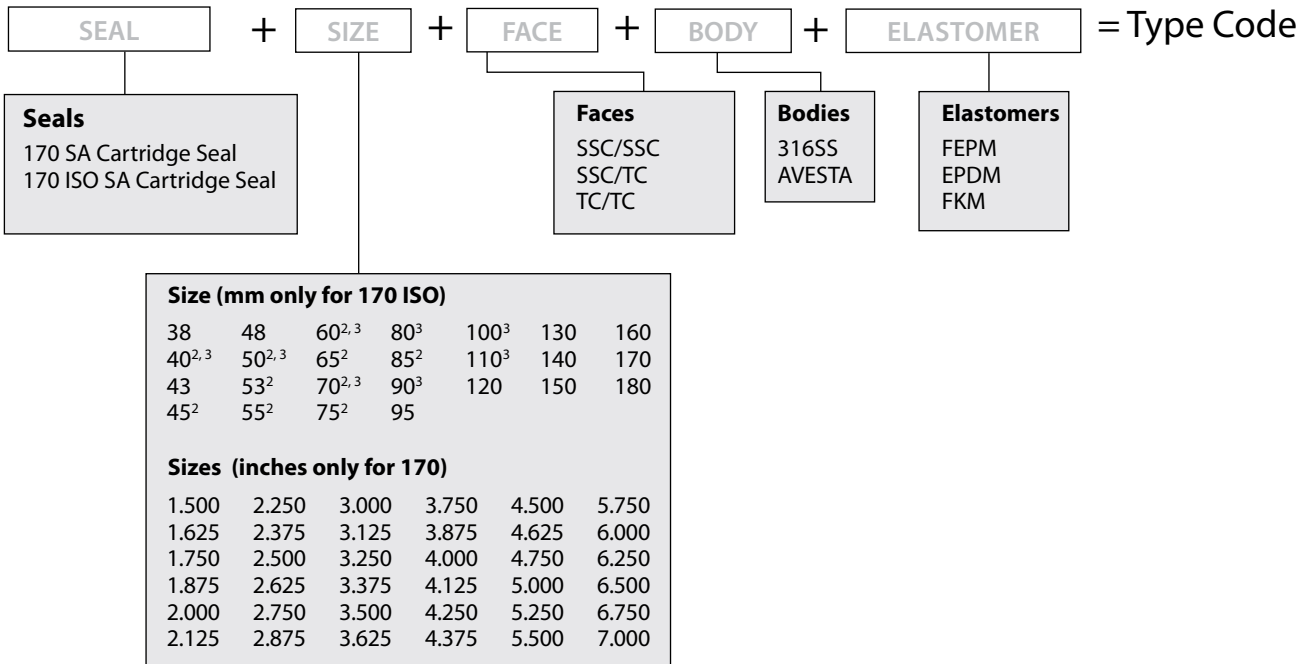


Stationary Unit³



¹ To order a complete RBS Seal, please order both rotary and stationary units.

170/170 ISO SA Cartridge Seal



² For 170 ISO seal that fits with ISO 3069-C Seal Chambers

³ For 170 ISO seal that fits with ISO 3069-H Seal Chambers

4400 Gas Seal

SEAL + SIZE + SA + SSC/SS + S + ELASTOMER = Type Code

Seals
4400-CW
4400-CCW

Sizes (mm)						
25	32	40	48	60	75	90
28	35	43	50	65	80	
30	38	45	55	70	85	
Sizes (inches)						
1.000	1.625	2.250	2.750	3.250		
1.125	1.750	2.375	2.875	3.375		
1.250	1.875	2.500	3.000	3.500		
1.375	2.000	2.625	3.125	3.625		
1.500	2.125					

Elastomers	
FPM	C505
EPDM	K4079
FKM	

INDUSTRIAL LUBRICANTS AND MRO PRODUCTS ORDERING INFORMATION

218 HDP			
20 l	083001EU		
208 l	083002EU		
235 SSC			
20 l	080032EU		
208 l	080033EU		
274 Industrial Degreaser			
20 l	081006EU		
208 l	081013EU		
Aerosol 350g - EUR	087848		
276 Electronic Component Cleaner			
20 l	081623		
208 l	081624		
Aerosol 250g - EUR	087851		
338 Super Rust Remover			
20 l	085904		
208 l	085907		
346 Descaler and Chemical Cleaner			
20 l	088403		
208 l	088407		
360 Phosphate-Free Cleaner			
20 l	083603		
208 l	083607		
1 000 l	086562		
388 Synthetic Tapping Fluid			
475 ml	081491		
20 l	081492		
208 l	081194		
390 Cutting Oil			
Aerosol 411g - EUR	087860		
601 Chain Drive Pin and Bushing Lubricant			
3,8 l (1 gal)	081904		
20 l	081910EU		
208 l	081907EU		
Aerosol 350g - EUR	087864		
607 HTS - 68 Lubricating Fluid			
20 l	085331EU		
208 l	085332EU		
607 HTS - 220 Lubricating Fluid			
20 l	085333EU		
208 l	085334EU		
610 Plus Synthetic Lubricating Fluid			
3,8 l (1 gal)	084296		
20 l	084297		
208 l	084295		
Aerosol 350g - EUR	087865		
610HT Synthetic Lubricating Fluid			
3,8 l (1 gal)	083765		
20 l	080418		
208 l	080419		
610MT Plus Synthetic Lubricating Fluid			
20 l	082852		
208 l	082853		
615 HTG #1 High-Temperature Grease			
400 g	086935		
18 kg	086936		
55 kg	086007		
180 kg	080725		
615 HTG #2 High-Temperature Grease			
400 g	080042		
18 kg	080043		
55 kg	080045		
181 kg	080728		
615 HTG #2 - 460 High-Temperature Grease			
400g	084204		
18 kg	084205		
181 kg	084190		
625 CXF Grease			
400 g	080707		
18 kg	080705		
55 kg	080706		
181 kg	080337		
630 SXCF Grease			
400 g	082713		
18 kg	082711		
55 kg	082714		
Synthetic, Aerosol, 350g, EUR	082865		
635 SXC Grease, Corrosion Resistant, Extreme Pressure			
400 g	088556		
18 kg	088557		
55 kg	088558		
181 kg	088559		
652 Pneumatic Lubricant and Conditioner			
475 ml	086888		
20 l	086000EU		
208 l	083018EU		
690FG Lubricant, Food Grade			
3,8 l (1 gal)	082703		
20 l	082710		
208 l	082705		
Aerosol 397g - EUR	087870		
706 - Rustsolvo®			
1 l	081310		
20 l	081312		
208 l	081307		
715 Spraflex®			
20 l	081709		
208 l	081707		
Aerosol 350g - EUR	087872		
715 Spraflex® Gold			
1 gal/3,8 l	081896		
20 l	081897		
208 l	081898		
Aerosol 300g - EUR	087871		
723 Sprasolvo®, Aerosol 350g - EUR			
	087874		
723FG Sprasolvo®, Aerosol 350g - EUR			
	087873		
725 Nickel Anti-Seize Compound			
250 g Brush Top	081266		
500 g Brush Top	082359		
20 l	082349		
Aerosol 350g - EUR	087875		
740 Heavy Duty Rust Guard			
3,8 l (1 gal)	087705		
20 l	087704		
208 l	087707		
Aerosol 300g - EUR	087877		
775 Moisture Shield			
20 l	082110		
208 l	082107		
Aerosol 350g - EUR	087880		
783 ACR			
250 g Brush Top	082805		
500 g Brush Top	088653		
20 l, 24kg	088654		
785 Parting Lubricant			
200 g EN/GER	086907		
200 g SW/NW	086908		
250 g Brush Top	082016		
500 g Brush Top	080747		
20 l	080748		
Aerosol 350g - EUR	087881		
785FG Parting Lubricant, Food Grade			
20 l	080748		
200 g - FWNGDA	088502		
200 g - IRSEUDU	088503		
500 g Brush Top	080788		
800 GoldEnd Tape			
6,4 mm x 13,72 m (1/4 x 540 in)	000805		
7 mm x 4,57 m (1/2 x 180 in/12)	000801		
12,7 mm x 13,72 m (1/2 x 540 in)	000802		
12,7 mm x 32,92 m (1/2 x 1 296 in)	000803		
1 mm x 13,72 m (3/4 x 540 in/19)	000804		
4 mm x 13,72 m (1 x 540 in/25)	000806		
803 Industrial and Marine Solvent II			
3,8 l (1 gal)	086774		
20 l	090379EU		
208 l	090388EU		
1 000 l	086768EU		
860 Moldable Polymer Gasketing Kit			
2 aerosol and 2 cartridges	086310		
820 KPC			
20 l	082260EU		
208 l	082264EU		
1 000 l	083555EU		
Lubri-Cup™ VG Mini			
With 630 SXCF Grease	084473		
372 Opticool™ Emulsified Oils			
20 l	082315		
208 l	082316		
1 000 l	082317		
Lubri-Cup™ 500cc Oiler			
Lubri-Cup™ 500cc Oiler			
.....Battery Operated	084319		
Lubri-Cup™ 500cc Oiler with			
AC Power Supply	084457		
Lubri-Cup™ 500cc Oiler with			
DC Power Supply	084464		

ARC EFFICIENCY & PROTECTIVE COATINGS ORDERING INFORMATION

ARC Metal Coating Systems

ARC 855 Abrasion Control Liquid (P; T; C)*

0,75 l; 750 µm (30 mils); 0,83m ² (8,9ft ²)	
Black.....	084676
Grey.....	084677
1,5 l (2,57 kg); 750 µm (30 mils); 2m ² (21,53ft ²)	
Black.....	085353
Grey.....	085354
5 l (8,56 kg); 750 µm (30 mils); 6,67m ² (71,76ft ²)	
Black.....	085363
Grey.....	085362
16 l (27,36 kg); 750 µm (30 mils); 21,33m ² (229,63ft ²)	
Black.....	085405
Grey.....	085406

ARC 858 Abrasion Control Compound (P; T; C)*

16 l (26,08 kg); 750 µm (30 mils); 21,33m ² (229,63ft ²)	
Grey.....	085404
250 g (QP); 750 µm (30 mils); 0,19m ² (2,15ft ²)	
Grey.....	086194
940 ml (1,53 kg); 750 µm (30 mils); 1,3m ² (13,5ft ²)	
Grey.....	0842921

ARC HT-S Sprayable Abrasion Control Liquid (P; T; C)*

5 l (8,31kg); 750 µm (30 mils); 6,62m ² (73,76ft ²)	
Blue.....	085373
Grey.....	085372
16 l (26,58 kg); 750 µm (30 mils); 21,33m ² (229,63ft ²)	
Blue.....	082736
Grey.....	082743

ARC HT-T Trowelable Abrasion Control Compound (P; T; C)*

5 l (11,2 kg); 750 µm (30 mils); 6,62m ² (73,76ft ²)	
Black.....	085370
Green.....	085371

ARC BX1 Coarse Grade, Sliding Wear Compound (P; T; C)*

1.5 l; 3,66 kg; 6 mm; (240 mils); 0,25m ² (2,69ft ²)	
Grey.....	085593
5 l; 12,19 kg; 6 mm; (240 mils); 0,83m ² (8,97ft ²)	
Grey.....	085596
12 x 20 kg; 6 mm (240 mils); 18m ² (180ft ²)	
Grey.....	082685
20 kg; 6 mm (240 mils); 1,5m ² (15ft ²)	
Grey.....	088931

ARC BX2 Fine Grade, Sliding Wear Compound (P; T; C)*

1.5 l; 3,55 kg; 3 mm; (120 mils); 0,50m ² (5,38ft ²)	
Grey.....	085435
5 l; 11,83 kg; 3 mm; (120 mils); 1,67m ² (17,94ft ²)	
Grey.....	085438
12 x 20 kg; 3 mm (120 mils); 36m ² (387,6ft ²)	
Grey.....	082686
20 kg; 3 mm (120 mils); 3m ² (32,3ft ²)	
Grey.....	088927

ARC I BX1 Impact- and Wear-Resistant

Epoxy Composite (P; T; C)*	
12 x 20 kg; 6 mm (240 mils); 18m ² (193,2ft ²)	
Grey.....	081946
20 kg; 6 mm (240 mils); 1,5m ² (16,1ft ²)	
Grey.....	081948

ARC S1PW General Purpose, Sprayable, Corrosion Protection Coating (P; T; C)*

5 l (7,9 kg); 375µm (15 mils); 13,33m ² (143,52ft ²)	
Blue.....	085375
White.....	085376
16 l (25,27 kg); 375µm (15 mils); 42,67m ² (459,26ft ²)	
Blue.....	084094
White.....	084096

ARC S2 Ceramic-Reinforced, Sprayable, Erosion-Resistant Coating (P; T; C)*

1125 ml (1,71 kg); 375µm (15 mils); 3m ² (32,3ft ²)	
Grey.....	084496
Green.....	084495
1,5L (2,28 kg); 375µm (15 mils); 4m ² (43,06ft ²)	
Grey.....	085386
Green.....	085387
5 l (7,60 kg); 375µm (15 mils); 13,33m ² (143,52ft ²)	
Grey.....	085377
Green.....	085378
16 l (24,33 kg); 375µm (15 mils); 42,67m ² (459,26ft ²)	
Grey.....	085407
Green.....	085408

ARC S4+ 100% Solids, Mineral-Reinforced, Epoxy Novolac, Acid-Resistant Coating (P; T; C)*

1125 ml (1,41 kg); 375µm (15 mils); 3m ² (32,3ft ²)	
Grey.....	084497
Red.....	084498
5 l (6,30 kg); 375µm (15 mils); 13,33m ² (143,52ft ²)	
Grey.....	085366
Red.....	085365
16 l (20,14 kg); 375µm (15 mils); 42,69m ² (459,26ft ²)	
Grey.....	084177
Red.....	084178

ARC S7 High-Temperature and Chemical-Resistant, Epoxy Novolac Vinyl Ester Coating (P; T; C)*

14 l (29,23 kg); 375µm (15 mils); 37,33m ² (401,86ft ²)	
Off White.....	082700EU
Red.....	082694EU

ARC T7AR Abrasion-Resistant, Ceramic-Reinforced Coating for High-Temperature and Chemical Exposures

20,4 kg; 3 mm (120 mils); 2,5m ² (27ft ²)	
Red.....	085320EU

ARC Concrete Coating Systems

ARC 791 100% Solids, Novolac Resin Blend, Trowel-Applied, Quartz Reinforced Concrete, High-Build Concrete Coating (P; T; C)*

Bulk Kit; 6 mm (240 mils); 16,7m ² (180ft ²)	
Grey.....	089537
System Kit; 6 mm (240 mils); 4,1m ² (44,13ft ²)	
Grey.....	082195

ARC 797 Primer 100% Solids, Low Viscosity, Fast Penetrating Modified Epoxy Primer Sealer (P; T; C)*

16 l (17,91 kg); 250µm (10 mils); 64m ² (688,9ft ²)	
Clear.....	085409

ARC 988 Highly Chemically Resistant, 100% Solids, Pure Novolac Resin-Based, Trowel Applied, Quartz-Reinforced Concrete, High-Build Concrete Coating (P; T; C)*

Bulk Kit; 6 mm (240 mils); 16,7m ² (180ft ²)	
Grey.....	089539
Red.....	089540
System Kit; 6 mm (240 mils); 4,1m ² (44,13ft ²)	
Grey.....	082197
Red.....	090452

ARC CS2 General Purpose, Thin Film, Novolac Blend, Epoxy Coating (P; T; C)*

16 l (20,73 kg); 500µm (20 mils); 32m ² (344,45ft ²)	
Grey.....	084186

ARC CS4 Highly Chemically Resistant, 100% Novolac Resin, Epoxy Coating (P; T; C)*

16 l (19,54 kg); 500µm (20 mils); 32m ² (344,45ft ²)	
Red.....	084187
5 l (6,12 kg); 500µm (20 mils); N/A	
Red.....	085369

ARC NVE System High-Temperature and Chemical Resistant, Epoxy Novolac Vinyl Ester Coating, (P; T; C)*

System Kit; 500µm (20 mils); 19,6m ² (103,33ft ²)	
Grey.....	084253EU
System Kit; 6 mm (240 mils); 9,7m ² (104ft ²)	
Grey.....	084250EU

* P: Pack Size; T: Thickness; C: Coverage
WFT: Wet Film Thickness

Technical data notes: 1) Coverage values are theoretical, based on no waste factor or surface profile effects. In practice, 10–20% extra product should be added for waste factor assuming brush, roller, or trowel application. 2) Waste factor for products applied by spray could vary significantly depending on spray equipment, substrate geometry, and environmental conditions. 3) All coverage values based on product temperature of 21°C (70°F).

PRODUCT APPROVALS & CERTIFICATION

Product	NSF	FDA	Military/Federal Specification	Other
218 HDP	A1 133943	-	-	-
235 SSC	A4 133964	-	-	-
273 Electric Motor Cleaner	K2 133975 K2 133976	-	-	UL Listed (Aerosol Only)
274 Industrial Degreaser	C1, K1, K2 133955 C1, K1, K2 133949 (aerosol)	178.3530	-	-
276 Electronic Component Cleaner	K2 133974 (bulk) K2 133973 (aerosol)	172.882 172.884 178.3530 178.3650	-	-
277 Metal Surface Degreaser	C1, K1 134007 (bulk) C1, K1 134008 (aerosol)	172.882 172.884 178.3530	-	-
279 PCS	K2 134012	-	-	German IGI250121/29
292 Precision Degreasing Solvent	K1, K2, K3 134003 K1, K2, K3 134004 (aerosol)	178.3530 178.3570	-	-
294 CSD	C1, K1, K3 143867	-	-	-
296 Electro Contact Cleaner	K2 134002	-	-	-
346 Descaler & Chemical Cleaner	A3 133962	-	-	-
360 Phosphate-Free Cleaner	A1, A4 133961	-	-	-
390 Cutting Oil	H2, P1 134014 H2, P1 134947 (aerosol)	-	-	-
395 Tapping Lubricant	H2 133935	-	-	-
438 PTFE Coating	H2 133950 (aerosol) H2 133951 (bulk)	-	-	-
601 Chain Drive Pin & Bushing Lubricant	H2 133927 (aerosol) H2 133979 (bulk)	-	-	-
601EU Chain Drive Pin & Bushing Lubricant	H2 153826 (bulk)	-	-	-
610 Plus Synthetic Lubricating Fluid	H2 153827 (bulk)	-	-	-
610 Synthetic Lubricating Fluid	H2 133972 (aerosol) H2 133971 (bulk)	-	-	-
615 HTG #1	H2 133941	-	-	-
615 HTG #2	H2 133940	-	-	-
622 White Grease	H1 133929	178.3570 177.1550	-	-
625 CXF	H1 138414	178.3620 178.3570	-	-
629 High-Temperature White Grease	H1 133936	178.3570 177.1550	-	-
630 SXCF	H1 138415 (bulk) H1 142462 (aerosol)	178.3570	-	-
651 Detergent Lubricating Oil	H2 133946 (bulk) H2 133928 (aerosol)	-	-	-
652 Pneumatic Lubricant & Conditioner	H2 133944	-	-	-
660 Silicone Lubricant	H1 133970 (aerosol) H1 133932 (bulk)	181.28 178.3910 178.3570 178.884 178.3650	-	-
662FG Barrier Fluid 22	H1 143837	-	-	-

Product	NSF	FDA	Military/Federal Specification	Other
690FG Lubricant	H1 133933 (aerosol) H1 133969 (bulk)	178.3620	-	
706 Rustsolvo®	H2 133942	-	-	-
710 Anti-Seize Compound	H2 133958	-	MIL-A-907	
715 Spraflex® Standard and Gold	H2 133938 H2 133934 (aerosol) H2 133930 (Gold) H2 133931 (Gold aerosol)	-	-	-
723 Sprasolvo® 723FG Sprasolvo®	H2 133939 H1 134006 (FG)	- 172.884 178.3620 178.3650 178.3570	-	-
725 Nickel Anti-Seize Compound	H2 133959	-	MIL-A-907	-
730 Spragrip®	P1 133947	-	-	-
740 Heavy-Duty Rust Guard	-	-	MIL-C-16173D Grade 1 & 4	-
752 Cold Galvanizing Compound	-	-	MIL-P-46105 MIL-P-26915 MIL-P-21035	-
775 Moisture Shield	H2 134015	-	MIL-C-81309D TYPE II MIL-C-16173D TYPE III	-
785 Parting Lubricant (Bulk)	H2 133960	-		-
785 FG Parting Lubricant	H1 132237	-	-	-
787 Sliding Paste	H2 133956	-	-	-
800 GoldEnd Tape	H1, P1 134016	177.1615 177.1550	MIL-T-27730A	UL® Listed, UL Listed to Canadian safety standards Oxygen tested per ISO 10297 and ISO 11114-3, Oxygen certified BAM Ref. No. 11.1/46 513 Certified Food Grade 1935-2004
801 Industrial & Marine Solvent	A1, A4, A8 133965	-	-	-
803 Industrial & Marine Solvent II	A1 133966	-	-	-
820 KPC	A1 133963	-	-	-
820N KPC	A1, A4 133977	-	-	-
860 Moldable Polymer Gasketing	P1 134017 (aerosol) P1 134018 (curing)	175.300 177.2600	-	-
900 GoldEnd Paste	H2, P1 133957	-	-	UL Listed
3500 Valvelon®	P1 134013	-	-	-

For the most current listings and full descriptions of the category codes please visit www.NSF.org/usda/psnclistings.asp.

PRODUCT APPROVALS & CERTIFICATION

Compression Packing

Application	Certification/Approvals	Product
Drinking Water	WRAS	1935
Drinking Water	ACS	1725A
Food Contact	EC1935- 2004 - FDA 21 CFR	1935
Food Contact	FDA 21 CFR	1725A
Food Contact	FDA 21 CFR	CMS2000-FP
Fugitive Emission Control	API-589 (Fire Safe) - API-607 (Fire Safe)	1600
Fugitive Emission Control	API-622 - API-607 (Fire Safe) - TA Luft/VDI 2440 -ISO 15848-1* - Total**- Chevron Texaco**	1622
Fugitive Emission Control	API-589 (Fire Safe)	5800
Fugitive Emission Control	API-589 (Fire Safe)	1400R
Fugitive Emission Control	TA Luft/VDI 2440	1600/477-1 LL
Fugitive Emission Control	TA Luft/VDI 2440	1724/477-1 LL
Fugitive Emission Control	TA Luft/VDI 2440	1724 Low E
Fugitive Emission Control	API-589 (Fire Safe)	5300GTP/ One
Fugitive Emission Control	API-589 (Fire Safe)	5300GTPG/ 1600
Fugitive Emission Control	API-589 (Fire Safe)	5800E
Fugitive Emission Control	API-589 (Fire Safe)	5800T
Military	MIL P-24790(SH)	1760
Military	MIL P-24503B	5200GTP
Military	MIL P-24583B	Style ONE
Nuclear	Nuclear 10CFR pt21	1601
Nuclear	Nuclear 10CFR pt21	5800
Nuclear	Nuclear 10CFR pt21	5300GTP/ One
Nuclear	Nuclear 10CFR pt21	5300GTPI/ 1601
Oxygen Compatible	BAM Oxygen	1730
Oxygen Compatible	BAM Oxygen	1830
Oxygen Compatible	BAM Oxygen	1400R
Oxygen Compatible	BAM Oxygen	1724-OX

* Valve Test Standard

** Customer Approval (special high purity version for total)

Mechanical Seals

Application	Certification/Approvals	Product
ATEX	ATEX Cat 1 (Group 2)	280™
ATEX	ATEX Cat 1 (Group 2)	280M
ATEX	ATEX Cat 1 (Group 2)	442™
ATEX	ATEX Cat 1 (Group 2)	491
ATEX	ATEX Cat 1 (Group 2)	442M™
Drinking Water	ACS	150
Drinking Water	ACS	442™
Drinking Water	ACS, KTW, WRAS	491
Drinking Water	ACS	442C™
Drinking Water	ACS	442M™
Food Approval	EC1935-2004	491
Food Contact	FDA - 21 CFR	280™
Food Contact	FDA - 21 CFR	442™
Food Contact	FDA - 21 CFR	442C™
Fugitive Emission Control	TA Luft/VDI 2440	280™
Fugitive Emission Control	TA Luft/VDI 2440	4400

Note: The above certifications and compliance are available on request.

Flange Gaskets

Application	Certification/Approvals	Product
Drinking Water	DVGW - KTW	553
Drinking Water	DVGW	557
Drinking Water	DVGW - KTW	455EU
Drinking Water	DVGW	Duragraf F
Drinking Water	DVGW - KTW	Duragraf T
Food Contact	EC1935 - 2004 - FDA 21 CFR	184
Food Contact	EC1935 - 2004 - FDA 21 CFR	185
Food Contact	FDA 21 CFR	ECS-B
Food Contact	EC1935 - 2004 - FDA 21 CFR	ECS-T
Food Contact	FDA 21 CFR	ECS-W
Fugitive Emission Control	API-607 (Fire Safe) - TA Luft/VDI 2440	553
Fugitive Emission Control	Shell Spec MESC SPE 85/203	Duragraf T
Fugitive Emission Control	TA Luft/VDI 2440	ECS-T
Fugitive Emission Control	TA Luft/VDI 2440	KG1
Fugitive Emission Control	TA Luft/VDI 2440	SGI
Fugitive Emission Control	TA Luft/VDI 2440	Steel Trap™
Marine	ABS Approval Shipping	ECS-T
Nuclear	Nuclear 10CFR pt21	199
Oxygen Compatible	BAM Oxygen	557
Oxygen Compatible	BAM Oxygen	Duragraf F
Oxygen Compatible	BAM Oxygen	Duragraf T
Oxygen Compatible	BAM Oxygen	ECS-W

Fluid Power

Application	Certification/Approvals	Product
Food Contact	EC1935 - 2004 - FDA 21 CFR	AWC510
Food Contact	FDA 21 CFR	AWC515 10% PEEK filled PTFE
Food Contact	FDA 21 CFR	AWC520
Food Contact	FDA 21 CFR	AWC600 FDA POLYESTER TPE
Food Contact	FDA 21 CFR	AWC610
Food Contact	EC1935 - 2004 - FDA 21 CFR	AWC615
Food Contact	FDA 21 CFR	AWC631 USP CL VI PEEK
Food Contact	FDA 21 CFR	AWC650
Food Contact	FDA 21 CFR	AWC664 OIL FILLED OFF WHITE NYLON
Food Contact	FDA 21 CFR	AWC703
Food Contact	FDA 21 CFR	AWC716 WHITE FKM
Food Contact	FDA 21 CFR	AWC741
Food Contact	FDA 21 CFR	AWC753
Food Contact	EC1935 - 2004 - FDA 21 CFR	AWC754
Food Contact	FDA 21 CFR	AWC762 WHITE SILICON
Food Contact	FDA 21 CFR	AWC772 FOOD GRADE KALREZ®
Food Contact	FDA 21 CFR	AWC830
Food Contact	FDA 21 CFR	AWC835 FDA HI-TEMP URETHANE

Note: The above certifications and compliance are available on request.

PRODUCT APPROVALS & CERTIFICATION

ARC

Application Area	Approval	Product
Drinking Water - Joining and Sealing material	NSF Standard 61 - US Potable water (Hot water)	ARC 5ES
Drinking Water - Protective (barrier) materials	NSF Standard 61 - US Potable water (Pipes, Pumps, Valves)	ARC S1PW
Metal Repair and Hull Smoothing Types I and II	Mil Spec Approval - MIL-PRF-24176 (QPL-24176)	ARC 10
Metal Repair and Hull Smoothing Types I and II	Mil Spec Approval - MIL-PRF-24176 (QPL-24176)	ARC 858
Deck Coatings, High Durability	Mil Spec Approval - (QPL-32171)	ARC 855N
Drinking Water	WRAS Approval to 55°C (131°F) (UK Potable Water)	ARC 855
Drinking Water	Israel Potable Water (Israel Standard SI 5452) up to 40°C (104°F)	ARC 855
Drinking Water	WRAS Approval Cold Water (UK Potable Water)	ARC S2
Drinking Water	Global Migration Test for water approval (Iren test Lab)	ARC S2
Drinking Water	Global Migration Test for water approval (Iren test Lab)	ARC CS2
Health and Safety certificate for use in underground mines	German Underground Mining	ARC 855
Internal coating of pressure vessels up to 110°C (230°F)	Total** Pressure Vessel Coating Spec GS EP COR 352	ARC HT-T
Internal coating of pressure vessels (with solids) System IC1 and IC2	Maersk Oil** and Gas MOTs-85** Approval	ARC HT-T
Internal coating of pressure vessels (no solids) System IC1 and IC2	Maersk Oil** and Gas MOTs-85** Approval	ARC HT-S
Food Contact	Tested to Regulation (EC) No. 1935/2004	ARC 791
Food Contact	Tested to Regulation (EC) No. 1935/2004	ARC S1PW

** Customer Approval

Note: The above certifications and compliance are available on request.

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NOTES

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