

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.



Sealing Solutions for Fluid Power

| 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



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% |

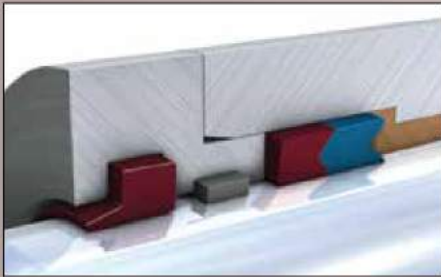
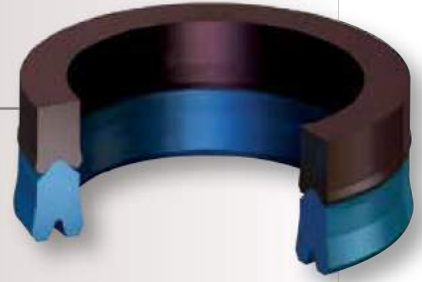
For additional information about product compatibility please visit chestertonfluidpower.com.

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.

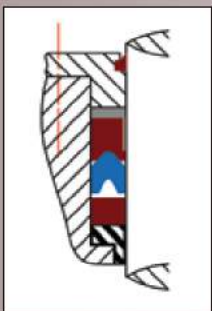


- Replaces the stack set assembly
- Split design eliminates the need to disassemble equipment
- One optimized seal concept for different press applications
- Dual material combination works in both new and worn equipment
- Design eliminates shimming and future adjustments
- Fusion program

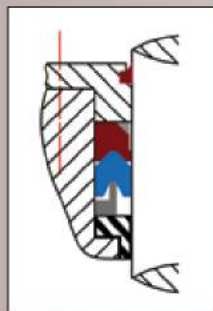
SPECIFICATIONS

| 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) |

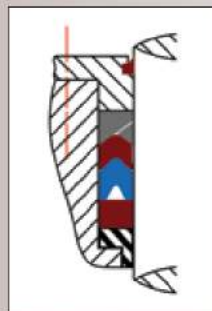
Application tailored seal systems can be built on base of 11K in combination with CHESTERTON® 9K Anti-Extrusion rings and Spacers/Stand-Off rings up. This module system allows creating the most suitable seal kit for all kind of heavy-duty and demanding hydraulic cylinder applications and operating conditions.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



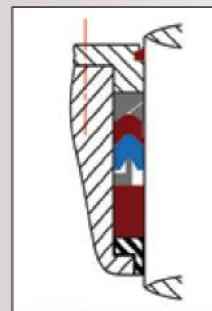
Large stuffing box depth. Back-up ring (9K) protects seal (11K) against extrusion, while spacer fills up the axial space in front of the seal set.



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).



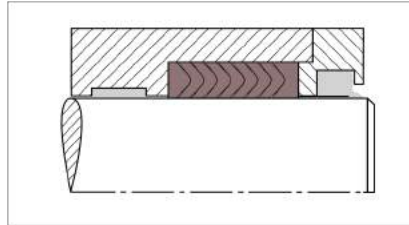
Multi-component system for replacement of traditional packing set with extra large stuffing box depth. Spacer is in combination with stand-off ring keeping the seal in position, while self-aligning gland ring protects seal against extrusion in case of large extrusion gap. (Typical applications are: worn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

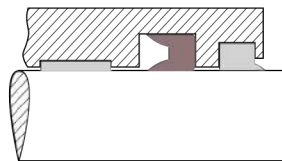


- Split components for ease of installation
- Light gland offers greater speed capability than conventional sets
- Pressure sensitive lip design minimizes friction and extends service life
- Material combinations designed for use in both new and worn equipment

10K™ & 22KN

Single Acting U-Cup Design for Rod and Piston Applications

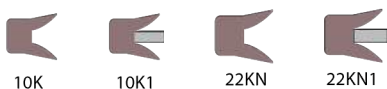
High performance U-cup design hydraulic and pneumatic applications. The 10K Super Monoseal® is made from a custom moulding process that utilizes existing tooling. The 22KN design is manufactured using a machining process which allows the flexibility to create any size based on equipment dimensions.



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:



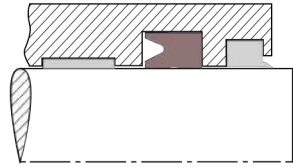
- Automatic sealing for optimal sealing force with minimal frictional resistance
- Flexible lip design compensates for excessive radial space in worn equipment
- Advanced material technology withstands scored, damaged surfaces
- Positive rake lip profile wipes away contamination from mating surface
-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

- 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

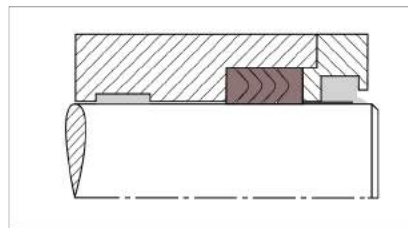
PRODUCT PROFILES:



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:



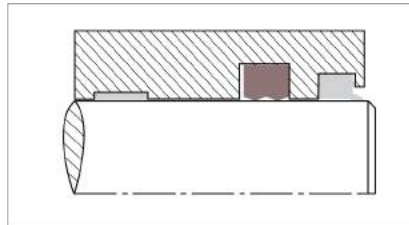
- Split components for ease of installation
- Symmetrical lip design for use in rod and piston applications
- Flexible lips for reduced frictional load of metal components
- Manufacturing process allows flexibility to create any size

*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:

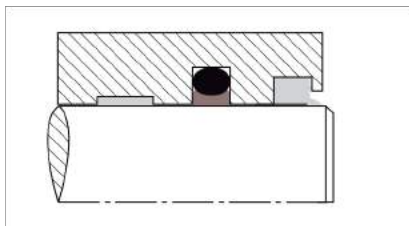


- Ideal replacement for 2-, 3-, or 4-piece cap seal assemblies
- Excellent extrusion resistance
- Abrasion-resistant design withstands demanding environments
- Outstanding resistance to shock loading and pressure spikes

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:



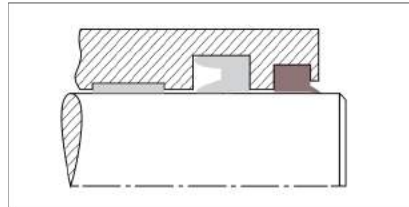
- Second generation PTFE and high performance polymers offer improved performance
- Compression seal design increases sealing force with system pressure
- Dramatically reduced friction and eliminated "Stick-Slip" effect
- Excellent chemical- and heat-resistant characteristics

*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.

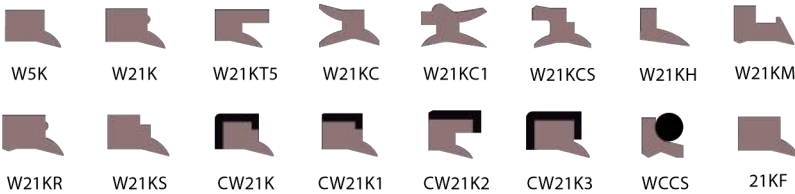


SPECIFICATIONS

| 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:



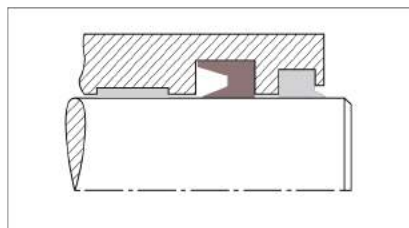
- Positive rake lip design effectively wipes contaminants away from surface
- Prevents scoring and system contamination
- Abrasion-resistant design withstands demanding environments
- Prolongs lifetime of equipment and components

Sealing Solutions for Fluid Power

23K

Pneumatic Seals for Rod and Piston Applications

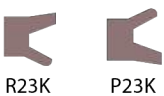
Unique seal design incorporated with high performance, polymer technology for low friction sealing in pneumatic applications.



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:



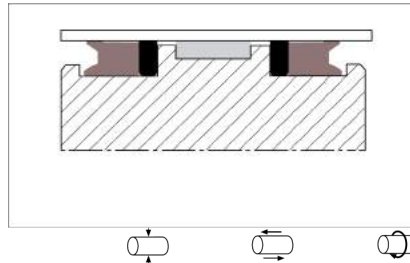
- Unique lip geometry provides optimal sealing force for pneumatic applications
- Radiused lip design ensures a continuous lubricating film, minimizing wear
- Unique design minimizes frictional heat and energy consumption
- Eliminates “Stick-Slip” effect

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

9K

Anti-Extrusion Rings for Hydraulic Applications

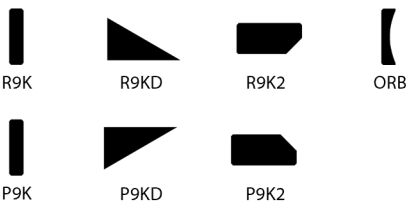
Designed to prevent seals from extruding into equipment clearances for heavy-duty, high-pressure applications.



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" |



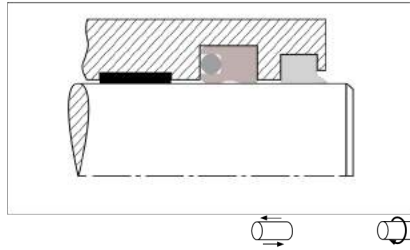
- Prevents metal-to-metal scoring, helps prolong equipment life
- Reduces radial movement, extends seal life
- Built-in lubricant for lower coefficient of friction between mating surfaces
- Split continuous coil accommodates large diameter equipment

*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:



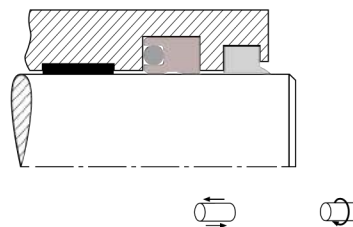
- Heat-stabilized nylon—the same carrying load as bronze
- Replaceable bearings prevent metal-to-metal contact and prolong equipment life
- Reduces radial movement, therefore extending seal life
- Split design minimizes downtime

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.

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.

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