

MANUFACTURING CAPABILITIES

SEPCO[®]

Sealing Equipment Products Co., Inc.



**DEDICATED TO MANUFACTURING
QUALITY FLUID SEALING PRODUCTS
CERTIFIED TO ISO 9001:2000 Standards**

Sealing Equipment Products Company, Inc.



is a manufacturer with a proven tradition of providing the highest quality fluid sealing products available in the market place. We are totally committed to delivering excellent customer service. The dedicated associates that work here have forged our success. We operate one of the largest and most advanced state-of-the-art fluid sealing facili-

ties in the industry and are driven to satisfy you. We continue to grow and expand our product line to better serve our customers. In 1998, we moved into our new manufacturing facility located in Alabaster, Alabama. This 117,000 plus square foot plant allowed us to double our manufacturing capability. In 2001, we purchased certain assets of a Charleston, South Carolina based company and further



expanded our line with products such as Pyrosleeve[®] (fire sleeving) and many other offerings. We are very proud to be certified to **ISO Standards** and we are committed to the concept of total quality management. While we are a manufacturer of quality fluid sealing products, our only objective is to provide you with QUALITY SOLUTIONS. So in this complex world of fluid sealing you will find it very simple and easy to do business with Sealing Equipment Products Company, Inc..



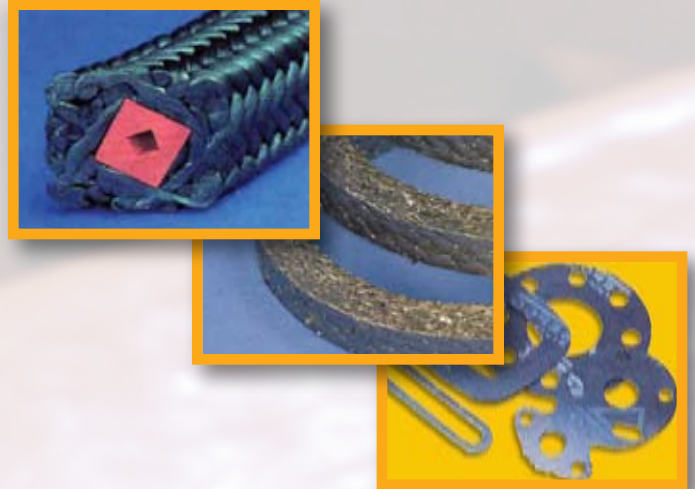


COMPRESSION PACKING

Our compression packing is manufactured on the most modern braiding equipment in the industry. We use superior fiber, yarn, and lubricants which results in the highest quality packing available. We keep a large inventory of braided packing so customer orders can be filled promptly and in most cases shipped the same day.

DIE-FORMED BRAIDED PACKING RINGS

are a large part of Sealing Equipment's compression packing business because of their outstanding performance record. Die-formed rings are easier to install because the size is exact. Also, because die-formed rings are densified, "run-in" time is greatly reduced and sealability is increased resulting in longer packing and sleeve life.



MECHANICAL SEALS

Our line of mechanical seals has become one of the fastest growing segments of the fluid sealing industry because of the strict emission requirements faced by companies in today's environment. We have the latest computer-aided design capabilities and state-of-the-art CNC lathes and End Mills, which enables us to produce the highest quality mechanical seals available anywhere. Each and every seal is meticulously assembled, inspected and then tested prior to shipment.

FLEXIBLE GRAPHITE

Flexible graphite has proven to be an excellent solution for many complex applications because of its ability to handle extremely high temperatures. We offer a full line of flexible graphite products including our patented G-2 Eliminator valve stem cartridge, die-formed rings, cut gaskets, crinkle ribbon, and style 500 sheet.



FIBERGLASS

Sealing Equipment is a leader in fiberglass braided packing, sheet material, tape, and insulation material including our fire sleeve product.



SEPCO®

Sealing Equipment Products Co., Inc.



Quality Fluid Sealing Solutions for Industry.





SEALING EQUIPMENT PRODUCTS Co., Inc.

QUALITY FLUID SEALING SOLUTIONS FOR INDUSTRY.

SEALING EQUIPMENT PRODUCTS COMPANY, HEADQUARTERED IN ALABASTER, ALABAMA, IS A MANUFACTURER WITH A LONG STANDING TRADITION OF PROVIDING THE HIGHEST QUALITY FLUID SEALING SOLUTIONS AVAILABLE IN THE MARKET PLACE. OUR PRIMARY FOCUS IS TO DELIVER EXCELLENT CUSTOMER SERVICE. WITH OVER 145,000 SQUARE FEET OF MANUFACTURING SPACE IN OUR STATE OF THE ART FACILITY WE ARE ONE OF THE LARGEST FEMALE OWNED BUSINESSES IN THE SOUTHEAST.

MAJOR PRODUCT AND SERVICES

OUR PRODUCTS ARE USED IN A WIDE VARIETY OF PROBLEM SOLVING APPLICATIONS WORLD WIDE. THE PRODUCT LINE INCLUDES: COMPRESSION PUMP PACKING, DIE-FORMED AND CUT RINGS, GASKETS, GASKETING MATERIAL, FLEXIBLE GRAPHITE AND FIBERGLASS PRODUCTS INCLUDING FIRESLEEVEING. ONE OF THE COMPANIES FASTEST GROWING PRODUCT LINES IS MECHANICAL SEALS. WE ARE LEADING THE WAY IN INNOVATIVE DESIGNS THAT MAKE MECHANICAL SEAL REPAIR PROGRAMS OBSOLETE.

MARKETS

SEALING EQUIPMENT PRODUCTS COMPANY HAS AN EXTENSIVE NETWORK OF INDUSTRIAL DISTRIBUTORS WHO PROVIDE FLUID SEALING PRODUCTS TO ELECTRICAL UTILITIES, PULP AND PAPER MILLS, REFINERIES, WASTE WATER TREATMENT PLANTS, MINING OPERATIONS, CHEMICAL PROCESSING PLANTS AND OTHER PROCESS INDUSTRIES. IN ADDITION, THE COMPANY IS A CERTIFIED SUPPLIER TO PUMP AND VALVE MANUFACTURERS.

QUALITY

SEALING EQUIPMENT PRODUCTS COMPANY IS CERTIFIED TO ISO 9001: 2000 STANDARDS.

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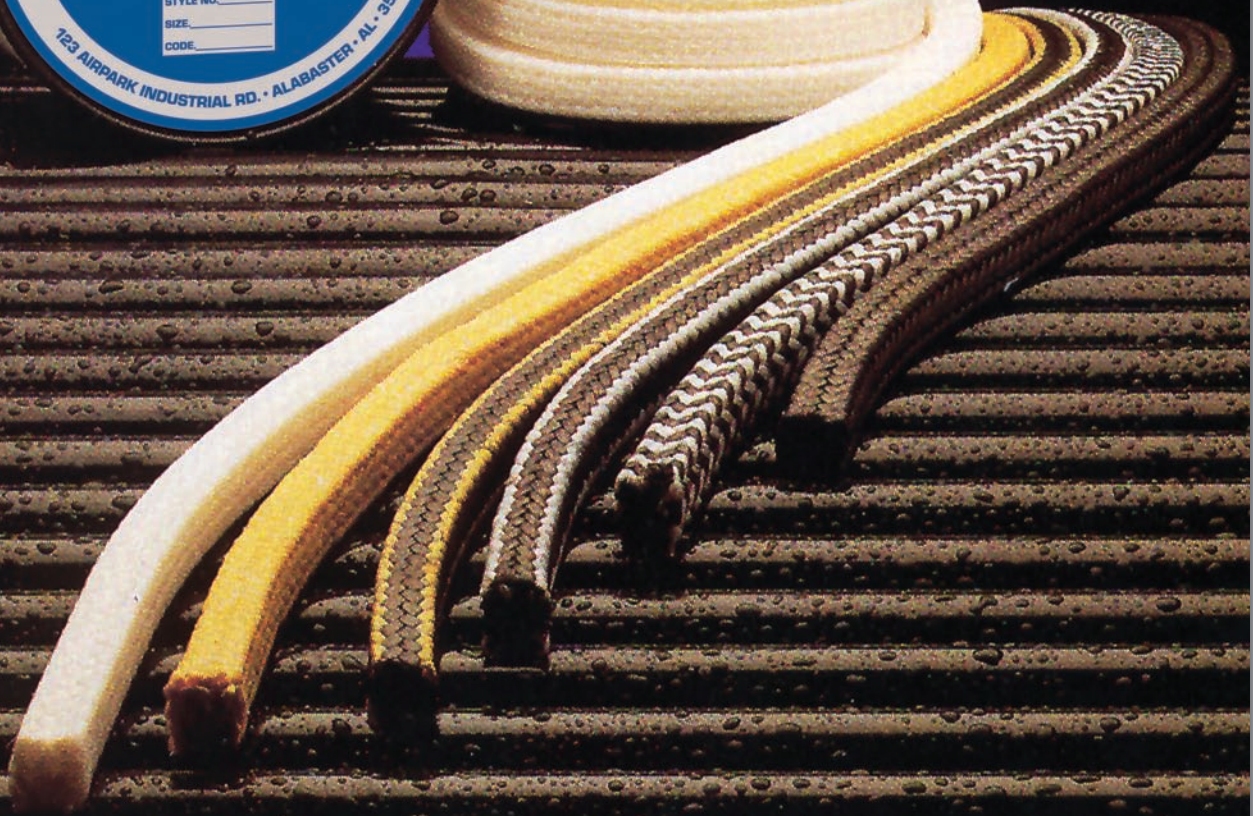
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PUMP PACKING



EZ 123 EASY PACK

Construction: Multi-Lok Braid

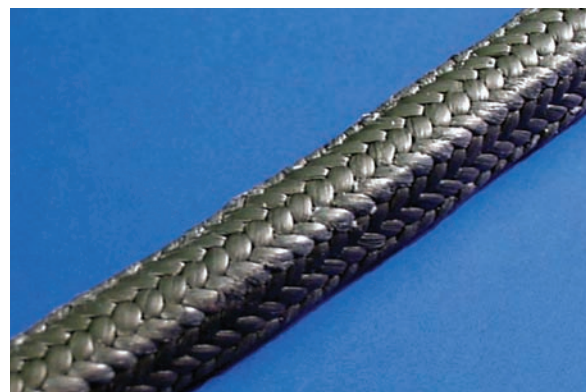
Features: PTFE / Graphite composition allows for high shaft speeds. Reinforced corners reduce extrusion associated with worn equipment. Construction allows easy installation and removal.

Equipment: General service on rotary and reciprocating equipment.

Recommended For: All applications suitable for PTFE and Graphite.

Service Conditions: Shaft speeds to 4400 FPM; temperatures to 500°F/260°C; pH range 0-14.

Remarks: The braiding construction makes installation easier and quicker without sacrificing volume. As the gland pressure is applied EZ 123 radially expands and returns to the square dimension necessary to affect a seal.



EZ 123

ML 402 GENERAL SERVICE PACKING

Construction: Multi-Lok Braid

Features: Non-asbestos fibers treated with a specially formulated blend of lubricants having a saxoline base.

Treatment: Each strand is individually coated with graphite and the braid is surface coated with graphite.

Equipment: General service on rotary and reciprocating equipment.

Recommended For: Mild acids, alkalis, steam, brine, oil.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 450°F/232°C; pH range 4-10.

Remarks: Good general service packing. The lubrication formulation makes the extra difference. The ductile nature of the lubricant prevents wicking and provides superior sealability.

Style 402 - Same as ML402 except square braided.



ML 402

ML 560 HIGH PERFORMANCE PACKING

Construction: Multi-Lok Braid

Features: High strength yarns with high thermal conductivity and lubricity.

Equipment: General service on rotary and reciprocating equipment including high speed pumps and slurry service.

Recommended For: Pumps and agitators in pulp and paper, mining and other process industries.

Service Conditions: Shaft speeds to 4000 FPM; temperatures to 650°F/345°C; pH range 0-14 except in strong oxidizers.

Remarks: Style ML560's high thermal conductivity and lubricity allow it to operate without flush water in some applications.



ML 560



ML 2225

ML 2225 GENERAL SERVICE, PTFE/SYNTHETIC PACKING

Construction: Multi-Lok Braid

Features: Yarns are coated in PTFE suspenoid. This system of impregnation assures even distribution of the PTFE. The fibers are saturated and sealed with the PTFE particles, protecting the fibers from chemical action.

Surface Treatment: A surface coating of PTFE is applied after braiding. To assure good break-in characteristics, a special high temperature synthetic lubricant is added.

Equipment: General service on rotary and reciprocating pumps, agitators.

Recommended For: Caustics, mild acids, difficult chemicals, air, gases, solvents, oils, general chemical plant applications.

Service Conditions: Shaft speeds to 1885; temperatures to 500°F/260°C; pH 3-11.

Style 2225 - Same as ML2225 except square braided.



ML 2225A

ML 2225A ARAMID REINFORCED PACKING

Construction: Multi-Lok Braid

Features: Yarns are dipped in PTFE suspenoid insuring even distribution of the PTFE. The fibers are saturated and sealed with the PTFE particles, protecting the fibers from chemical action. The PTFE provides the packing with a greater degree of chemical inertness, lower coefficient of friction and prevents penetration of chemical fluids. The corner tracks are made from an Aramid filament yarn to reduce extrusion and increase pressure and strength characteristics.

Surface Treatment: A surface coating of PTFE is applied after braiding. To assure good break-in characteristics, a special high temperature synthetic lubricant is added.

Equipment: General service, rotating and reciprocating pumps, agitators.

Recommended For: Caustics, mild acids, difficult chemicals, air, gases, solvents, oils, general plant applications.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 500°F/260°C; pH 3-11.



ML 2400

ML 2400 HIGH PERFORMANCE SERVICE PACKING

Construction: Multi-Lok Braid

Features: A Multi-Lok braided with Sealing Equipment's unique lubrication process that transforms each individual fiber into a reservoir of lubrication for longer packing life. An excellent high performance alternative.

Treatment: Proprietary non-petroleum lubricant containing no sulphur, silicone or wax.

Equipment: Rotating and reciprocating pumps, washer journals, liquor pumps, refiners, digesters and many other uses.

Recommended For: General service applications where graphite may not be acceptable: steam, water, acid, chemical and solvent applications, multi-use in chemical plants and pulp and paper mills.

Service Conditions: Shaft speeds to 1800 FPM; temperatures to 500°F/260°C; pH range 1-13 (except concentrated or hot sulfuric or nitric acid).

ML 3600 PACKING

Construction: Multi-Lok Braid

Features: PTFE/Graphite composite yarn for wide ranging plant applications including aggressive fluids and high temperatures.

Equipment: Pumps, agitators and mixers

Recommended For: All corrosive applications suitable for PTFE and graphite.

Service Conditions: Shaft speeds to 3600 FPM; temperatures to 550°F/287°C; pH range 0-14.



ML 4002 GFO® PACKING

Construction: Multi-Lok Braid

Features: Finely ground particles of the highest quality graphite in a PTFE matrix to control graphite migration. 100% GFO® Yarn.

Equipment: All reciprocating and rotating shafts.

Recommended For: All corrosive applications suitable for PTFE and graphite.

Service Conditions: Shaft speeds to 4400 FPM; temperatures to 550°F/287°C; pH range 0-14.

GFO® is a registered trademark of W.L. Gore and Associates.



ML 4002M MARINE PACKING

Construction: Multi-Lok Braid

Features: Finely ground particles of the highest quality graphite in a PTFE matrix to control graphite migration. 100% GFO® Yarn.

Equipment: All reciprocating and rotating shafts.

Recommended For: Marine applications including stern tube packing. Low leakage rates for cleaner bilges.

Service Conditions: Shaft speeds to 4400 FPM; temperatures to 550°F/287°C; pH range 0-14.

GFO® is a registered trademark of W.L. Gore and Associates.





ML 4004

ML 4004 YELLOW JACKET PACKING

Construction: Multi-Lok Braid

Features: A combination braid of PTFE/Graphite composite yarn and aramid fibers. This construction provides the strength of aramid fibers and the heat dissipating and lubricating qualities of the PTFE and graphite matrix.

Treatment: Light coat of an inert break-in oil.

Equipment: Paper mill stock pumps, agitators, or any service where strength and good lubricating qualities are needed.

Recommended For: All type paper mill applications where graphite is suitable.

Service Conditions: Shaft speeds to 2500 FPM; temperatures to 500°F/260°C; pH range 3-11.



ML 4800

ML 4800 ARAMID FILAMENT PACKING

Construction: Multi-Lok Braid

Features: Non-asbestos aramid fiber.

Treatment: Each strand is individually treated with a PTFE coating and a light, inert oil.

Equipment: Rotating and reciprocating shafts. All equipment handling tough abrasive products.

Recommended For: General service, caustics, mild acids, chemicals, air, oil gases, solvents, general chemical plant applications.

Service Conditions: Shaft speeds to 1900 FPM; temperatures to 500°F/260 °C; pH range 3-11.



ML 6225

ML 6225 TEK-PRO PACKING

Construction: Multi-Lok Braid

Features: A proprietary blend of non-asbestos TEK-PRO yarns treated with PTFE throughout the packing. The PTFE suspenoid thoroughly seals and fills all voids providing better resistance to chemical attack. A light lubricant is applied under pressure to improve run-in properties.

Equipment: Rotating and reciprocating pump and valve equipment, mixers and agitators.

Recommended For: Pulp and paper mill applications, recovery pumps, chemical applications, caustic soda. An excellent all-around general service chemical packing.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 550°F/288°C; pH range 3-12.

Remarks: The TEK-PRO yarns retain a greater volume of PTFE dispersion and are more uniformly distributed to provide longer and better sealing.

ML 6225A ARAMID REINFORCED PACKING

Construction: Multi-Lok Braid

Features: A proprietary blend of non-asbestos TEK-PRO yarns treated with PTFE throughout the packing. The PTFE suspenoid thoroughly seals and fills all voids providing better resistance to chemical attack. A light lubricant is applied under pressure to improve run-in properties. The corner tracks are made from an Aramid filament yarn to reduce extrusion and increase pressure and strength characteristics.

Equipment: Rotating and reciprocating pump and valve equipment, mixers and agitators.

Recommended For: Pulp and paper mill applications, recovery pumps, chemical applications, caustic soda. A good all-around general service chemical packing.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 550°F/260°C; pH range 3-12.

Remarks: A superior general purpose packing. The TEK-PRO yarns retain a greater volume of PTFE dispersion and are more uniformly distributed to provide longer and better sealing.

ML 6402 TEK-PRO PACKING

Construction: Multi-Lok Braid

Features: This strong blend of proprietary fibers are stranded together, treated with a specially formulated blend of low-friction lubricants. An all-around excellent general service packing.

Treatment: Each strand is individually coated with a special grade flake graphite.

Equipment: For general service on rotary and reciprocating equipment.

Recommended For: Mild acids, alkalis, steam, brine, chemicals, oil.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 600°F/318 °C; pH range 3-11.

ML 8002 HIGH SPEED PACKING

Construction: Multi-Lok Braid

Features: PTFE fibers specially treated with finely ground particles of graphite to increase thermal conductivity and reduce thermal expansion resulting in higher shaft speeds.

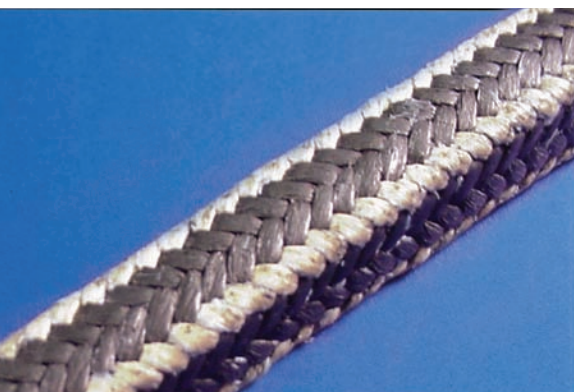
Treatment: Lubricated with a proprietary high speed lubricant.

Equipment: All reciprocating and rotating shafts.

Recommended For: All corrosive applications suitable for PTFE and graphite.

Service Conditions: Shaft speeds to 4900 FPM; temperatures to 550°F/287°C; pH range 0-14.





ML 8004

ML 8004 ARAMID REINFORCED PACKING

Construction: Multi-Lok Braid

Features: The PTFE fibers are specially treated with finely ground particles of graphite to increase thermal conductivity and reduce thermal expansion. The corners are made of an aramid filament yarn to reduce extrusion and increase pressure and strength characteristics.

Treatment: Light coat of inert break-in oil.

Equipment: Paper mill stock pumps, agitators or any service where strength and good lubricating qualities are needed.

Recommended For: All type paper mill applications where graphite is suitable.

Service Conditions: Shaft speeds to 2500 FPM; temperatures to 500°F/260°C; pH range 3-11.

GRAPHITE YARN PACKINGS



ML 2001

ML 2001 BRAIDED FLEXIBLE GRAPHITE PACKING

Construction: Multi-Lok Braid

Features: Pure homogenous graphite bonded to a fiberglass carrier for strength and thermal stability. It has no added lubricants or binders to cook out or become brittle.

Treatment: None.

Equipment: Pumps and valves, volatile organic chemical service.

Recommended For: Rotating shafts where high shaft speeds and thermal conductivity are required.

Service Conditions: Shaft speeds to 4000 FPM; temperatures to 850°F/454°C in oxidizing conditions; 1200°F/649°C in steam; pH range 0-14 except strong oxidizers.

Note: For valve service Styles ML2001Z with zinc corrosion inhibitor and ML2001P with a passivating corrosion inhibitor are available.



ML 2001CC

ML 2001CC CARBON REINFORCED PACKING

Construction: Multi-Lok Braid

Features: Pure homogenous graphite bonded to a fiberglass carrier for strength and thermal stability. The carbon corners make the packing even tougher and helps minimize packing extrusion.

Treatment: None.

Equipment: The carbon corners allow the packing to be used on worn equipment where packing extrusion could otherwise be a problem.

Recommended For: Rotating shafts where high shaft speeds and thermal conductivity are required.

Service Conditions: Shaft speeds to 4000 FPM; temperatures to 850°F/454°C in oxidizing conditions; 1200°F/649°C in steam; pH range 0-14 except strong oxidizers.

GRAPHITE YARN PACKINGS

ML 4444 GRAPHITE PACKING

Construction: Multi-Lok Braid

Features: The highest quality chemically resistant graphite yarns are twisted together and braided in a Multi-Lok fashion. This packing has an extremely low coefficient of friction. The light weight yarn provides more feet of length per pound than standard non-asbestos or PTFE packings. Graphite is a heat conductor and dissipates heat in the stuffing box, permitting higher shaft speeds and less leakage than other packings.

Equipment: All rotating and reciprocating shafts, valves and agitators.

Recommended For: Strong caustics, acids, chemicals and high pressure steam.

Service Conditions: Temperatures to 1200°F/649°C in steam; 800°F/427°C in oxidizing atmospheres; pH range 0-14; not recommended for fuming nitric acid, oleum and fluorine.



ML 4444

ML 4500 ULTRA-GRAPHITE PACKING

Construction: Multi-Lok Braid

Features: Manufactured from pure graphite yarns impregnated with a fine sub micron powder of inorganic graphite. A surface lubricant is applied to prevent wicking and to provide a bearing film between the shaft and the packing material.

Equipment: Valves (end rings only with flexible graphite center rings), high speed shafts, agitator shafts, reciprocating rods and plunger rods where minimum leakage is required under severe service conditions.

Recommended For: Strong acids and strong caustics throughout the full pH range. ML 4500 is virtually inert.

Service Conditions: Not recommended for oleum, fuming nitric acid and fluorine; temperatures to 6000°F/3316°C in non-oxidizing agents, 1200°F/649°C in steam; 800°F/427°C in oxidizers.

CAN BE NUCLEAR CERTIFIED



ML 4500

CARBON YARN PACKINGS

ML 4460 CAR-GRAF PACKING

Construction: Multi-Lok Braid

Features: Car-Graf is a unique combination of amorphous carbon yarns treated throughout with fine particles of graphite.

Treatment: Treated throughout with graphite.

Equipment: General service on rotary and reciprocating shafts, high temperature valves as end rings.

Recommended For: All chemical services in which carbon is suitable.

Service Conditions: Shaft speeds to 4000 FPM; temperatures to 650°F/345°C in oxidizing atmospheres; 1200°F/650°C in steam; pH range 0-14 except in strong oxidizers.



ML 4460



ML 4461

ML 4461 CARLON PACKING

Construction: Multi-Lok Braid

Features: ML 4461 Carlon is a carbon filament packing treated with PTFE to help prevent color contamination and carbon migration.

Treatment: Each strand of the carbon yarn is treated and impregnated with a PTFE suspensoid, totally encapsulating the packing to prevent carbon filaments migrating into the system.

Equipment: Pulp mill equipment, steaming vessels, top separators, refiners, outlet devices, blow pumps, stock pumps, agitators and valves.

Recommended For: Most chemical services, except strong oxidizers.

Service Conditions: Shaft speeds to 3000 FPM; temperatures to 600°F/345°C; pH range 0-14.

PTFE PACKINGS



ML 2235

ML 2235 PRE-LUBED PTFE YARN PACKING

Construction: Multi-Lok Braid

Features: Unlike other PTFE fluorocarbon filament packing, Sealing Equipment pre-lubricates the yarns to provide a softer, more flexible packing, with improved peripheral speed characteristics and exothermic properties.

Equipment: Any equipment where braided packing is commonly used.

Recommended For: The most severe services. All oxidizers and corrosives with one exception: molten alkali metals.

Service Conditions: Shaft speeds to 1200 FPM; pH range 0-14.

Remarks: No glazing at higher speed applications, inert, virtually indestructible lower coefficient of friction, thermal resistance to 500°F/260°C; and high compressive strength.



ML 2236 FDA

ML 2236 FDA: PRE-LUBED PTFE YARN PACKING

Construction: Multi-Lok Braid

Features: Pure PTFE filament lubricated with a proprietary lubricant that complies FDA requirements.

Equipment: Any equipment where braided packing is commonly used.

Recommended For: Applications in the food processing industry or where an FDA material is required.

Service Conditions: Shaft speeds to 1200 FPM; temperatures to 500°F/260°C; pH range 0-14.

PTFE PACKINGS

ML 2238 HIGH SPEED PTFE PACKING

Construction: Multi-Lok Braid

Features: A new improved PTFE yarn for high speed applications.

Equipment: Rotating pumps and agitators with peripheral shaft speeds too fast for other PTFE packing.

Recommended For: All chemicals and corrosives.

Service Conditions: Addition of new lubricants reduces the inertness slightly. Shaft speeds to 1885 FPM; temperatures to 500°F/260 °C; pH range 0-14.

Remarks: This specially treated PTFE packing operates where other PTFE filament glazes or hardens because of frictional heat from high speeds and thermal expansion.



VEGETABLE FIBER PACKINGS

2 VEGETABLE FIBER

Construction: Square Braid

Features: Vegetable fibers.

Treatment: Lubricated with a pure edible tallow and wax compound, ungraphited.

Equipment: Reciprocating and rotary shafts, plungers, hydraulic rams and stern tubes.

Recommended For: Brine, cold water and cold oil. High shaft speeds. High pressure rams and accumulators.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 220°F/104 °C; pH range 5-9.

Style 2GR - Same as STYLE 2 except graphited.



219 VEGETABLE FIBER/PTFE PACKING

Construction: Square Braid

Features: Highest quality vegetable fiber. All bark, coarse and short fibers have been removed.

Treatment: Impregnated with PTFE dispersion and a special break-in oil.

Equipment: Reciprocating and rotary shafts. Stern tube packing.

Recommended For: Brine, cold water and cold oil.

Service Conditions: Shaft speeds to 1885 FPM; temperatures to 220°F/104°C; pH range 5-9.

Remarks: PTFE impregnate acts as: (1) a surface leveler filling any surface voids. (2) a saturant to prevent wicking. (3) a lubricant to reduce friction and heat. (4) a protective shield around the flax fibers, preventing fluid penetration and fiber break down.





180

180 ALL METALLIC PACKING

Construction: Thin ribbons of low friction special alloy foil, spirally wrapped layer over-layer around a small core.

Features: Each layer of foil is lubricated with oil and graphite.

Treatment: Graphited throughout.

Equipment: Centrifugal and reciprocating pump rods and valve stems.

Recommended For: Steam oils, gasoline, air, ammonia, water.

Service Conditions: Shaft speeds to 3600 FPM; temperatures to 450°F/232°C.

Remarks: Do not use on brass, bronze rods, or plungers.



184

184 ALUMINUM PACKING

Construction: Aluminum alloy foil treated, lubricated, crinkled and wrapped upon itself.

Features: Each layer of foil is lubricated with oil and graphite.

Treatment: Graphited throughout.

Equipment: Centrifugal and reciprocating pumps, rods, valve stems, agitator shafts, heat exchangers and expansion joints.

Recommended For: Hot oil, hot tar, hot asphalt and paraffin.

Service Conditions: Shaft speeds to 3600 FPM; temperatures to 1000°F/538°C.



VALVE SEALING SOLUTIONS

- **PROCESS VALVES**
- **STEAM VALVES**
- **NUCLEAR SERVICE**
- **FUGITIVE EMISSIONS**
- **FIRE SAFE PACKING**
- **LOW FRICTION**
- **CARTRIDGE DESIGNS**



310

310 HIGH TEMPERATURE VALVE PACKING

Construction: Braided Inconel wire-injected carbon yarn over mastic core.

Features: Inconel wire-injected carbon yarn jacket over a core of high temperature fibers and graphite. A corrosion inhibitor is added to protect the valve.

Surface Treatment: Moly coated.

Recommended For: Steam, super heated steam, air petroleum products, hot gases.

Service Conditions: Recommended for valve service; maximum line temperature 1200°F/649°C; pressure to 2500 p.s.i.



ML 2250

ML 2250 PTFE/SYNTHETIC PACKING

Construction: Multi-Lok Braid

Features: Yarns are coated in PTFE suspension. This system of impregnation assures even distribution of the PTFE. The fibers are saturated and sealed with the PTFE particles, protecting the fibers from chemical action.

Surface Treatment: A surface coating of PTFE is applied after braiding. No oil or lubricant is added.

Equipment: Valves, flanges, expansion joints.

Recommended For: Valve service and static gasket applications, caustics and mild acids.

Remarks: Use wherever break-in oil is undesirable.

STYLE 2250 - Same as ML2250 except square braided.

KNIFE GATE PACKING



DS 6225

DS 6225 KNIFE GATE VALVE PACKING

Construction: Special longer braid gives flexibility to the packing required in knife gate valve applications.

Features: A blend of TEK-PRO yarn treated with PTFE throughout.

Equipment: Knife gate valves.

Recommended For: Valve service in slurry and fly ash sluice service.

Service Conditions: Temperature 550°F/288°C; pH range 2-12.

Remarks: The method of construction makes DS 6225 easier to install and provides a much tighter fit than other valve packing used in knife gate valves.

KNIFE GATE PACKING

RV 2225 PTFE/SYNTHETIC KNIFE GATE VALVE PACKING

Construction: Square Braid.

Features: Special braid design to ease installation in knife gate valves. Yarns are coated in PTFE suspensoid. This system of impregnation assures even distribution of the PTFE. The fibers are saturated and sealed with the PTFE particles, protecting the fibers from chemical action.

Equipment: Knife gate valves

Recommended For: Caustics, mild acids, difficult chemicals, gases, solvents, oils, general chemical plant applications.

Service Conditions: Temperatures to 500°F/260°C; pH 3-11.



RV 2225

GRAPHITE VALVE PACKING

ML911W

Construction: Multi-Lok Braid

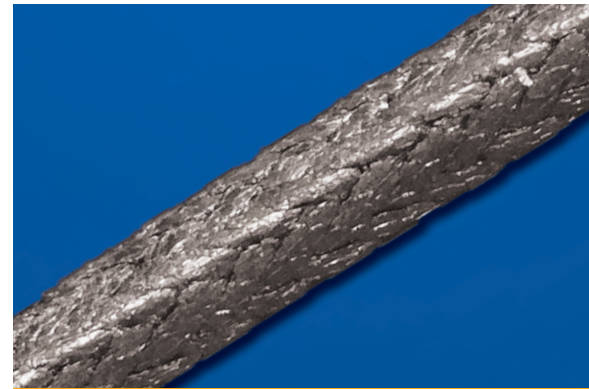
Features: This is ultra high purity flexible graphite packing has no resins or binders to bake out. Each strand of yarn is covered with a shield of Inconel wire.

Equipment: Valves

Recommended For: Excellent for high-pressure steam applications and where fugitive emissions are a concern.

Service Conditions: pH range 0-14; 1250°F/677°C in steam and pressures to 5000 psi.

Remarks: Available in 5 and 10 pound bulk spools, die formed rings, Spiral Pak 3/16 to 1 inch standard



ML 911W

GRAPHITE RIBBON PACK

Construction: Flexible graphite Tape

Features: Graphite ribbon tape is self-lubricating and corrosion resistant. It is free from resins, fillers and binders. It is available in nuclear grade, which is 99.9% pure graphite, and industrial grade, which is 95% minimum graphite content. It is flexible and resilient and will not soften, carbonize, chalk, shrink, harden or cold flow. It dissipates heat, withstands high pressure and will operate leak-free.

Equipment: Valves.

Recommended For: Form in place valve stem packing.

Service Conditions: Temperature -400 to 3,000°F/1650°C in non-oxidizing atmospheres, -400 to 850°F/454°C in oxidizing atmospheres, 1200°F/649°C in steam, pH 0-14 except strong oxidizers.

Remarks: Available in crinkle form for gasketing. Comes with or without adhesive backing.



Ribbon Pack



ML 2001

ML2001 BRAIDED FLEXIBLE GRAPHITE

Construction: Multi-lok braid

Features: Pure homogenous graphite bonded to a fiberglass carrier for strength and thermal stability. It has no added lubricants or binders to cook out or become brittle. Passes API 607 Fire Test. Excellent fugitive emission packing.

Equipment: Pumps and valves.

Recommended For: Rotating shafts where high shaft speeds and thermal conductivity are required.

Service Conditions: pH range 0-14, temperatures 850°F/455°C in oxidizing atmospheres; 1200°F/649°C in steam.

Remarks: Available in bulk spool, spiral pack, cut and die-formed ring sets. Standard sizes 1/8 inch to 1 inch.

ML2001W has an Inconel wire insertion.

ML2001Z has an active (zinc) corrosion inhibitor.

ML2001P has a passive corrosion inhibitor.



ML 2003

STYLE 2003 GRAPHASEAL

Construction: Braided carbon with flexible graphite jacket.

Features: Its compressibility and excellent radial expansion enable sealing worn valve stems with minimum stem friction. Graphaseal passes API 589 and API 607 fire tests.

Equipment: Pumps & valves

Recommended for: Critical valves; rising stem applications; compliance valves in volatile organic and inorganic chemical service and high speed pumps.

Service Conditions: Temperature 1200°F/635°C in steam, 5000°F/2760°C in non-oxidizing atmospheres, pH range 0-14, service pressure 4000 psi.

Remarks: Available in 5 foot spiral or die formed rings. 1/8 inch and up cross sections in 1/16 increments.



G2

G2 Cartridge 'The Eliminator'

Construction: A flexible graphite cartridge with built in end rings.

Features: The unique, patented* cartridge design reduces the costly labor to pack valves. It reduces the need to stock a variety of die formed rings since G2 has the complete seal in one easy to install cartridge.

Equipment: Valves

Recommended For: High temperature and high-pressure applications.

Service Conditions: pH range 0-14, temperature 3000°F in neutral or reducing atmosphere 850°F in oxidizing atmosphere.

Remarks: The G2 has passed fugitive emission testing and the American Petroleum Institute 607 fire test.

* US Patent Numbers 5050298, 5135240

ML 2254 TREATED PTFE YARN PACKING

Construction: Multi-Lok Braid

Features: Style ML 2254 PTFE fibers are treated with a PTFE dispersion which fills and seals all interstices in the packing fibers. After braiding, a PTFE coating is applied and the packing is forced air dried. This packing will not wick.

Equipment: Valves, expansion joints, and static applications.

Recommended For: All severe chemical and corrosive services where an inert packing material is essential.

Service Conditions: Temperatures to 500°F/260°C, pH range 0-14. For static applications.

Remarks: Excellent valve stem packing for all chemicals and corrosives; inert to all fluids except for molten alkali metals.



ML 2254 OX-TREATED PTFE YARN PACKING

Construction: Multi-Lok Braid

Features: PTFE fibers with PTFE suspension. Contains no organic lubricant and is approved for oxygen service.

Recommended For: All services where an organic lubricant cannot be used.

Service Conditions: Temperatures to 550°F/260°C, pH range 0-14.



SPECIAL PURPOSE PACKING



HOLLOW CORE PACKING

Sealing Equipment's Hollow Core packings are specifically designed to seal large rotating equipment like mixers and agitators. Testing has proven that a high quality braided packing with a rubber core will outlast conventional packing in applications associated with excessive shaft deflection on large shafts. We guarantee it!

Styles: All packing styles are available in Hollow Core design.

Sizes Available: 1/2" and up.

Core Material: Silicone; standard (others upon request).

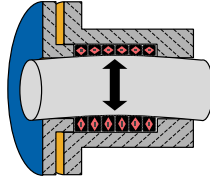
Hollow Core: For rotating equipment.

Solid Core: For static applications.

Braid-Over-Braid: For severe run-out.

Multi-Lok: For abrasive applications.

Hollow Core's *memory* keeps packing in constant contact with shaft and stuffing box.



HOLLOW CORE

SPIRAL PAK PACKING

Sealing Equipment's Spiral Pak is the most innovative die-formed ring concept in the fluid sealing industry today. Spiral Pak offers all the benefits of a successful die-formed ring program without the expense of maintaining costly dies and die-forming equipment. Distributors and end users alike can cut a broad range of ring sizes from the same coil of Spiral Pak. Simply wrap Spiral Pak around a mandrel the same size as the shaft and cut the desired number of rings. Each ring cut from Spiral Pak has the same density as individually die-formed rings.



SPIRAL PAK

WASHER PAK PACKING

Washer Pak replaces the conventional multiple ring packing found in most washer journals. The unique wide packing requires only one ring as opposed to several. This innovative product was developed at the request of a pulp mill mechanical superintendent who wanted to eliminate the problems associated with packing rings "snaking up" in washer journals. Washer Pak is available in a variety of yarns, from 100% GFO to pure non-contaminating PTFE. It comes in either precut lengths or as bulk packing. The Multi-lok construction is available where the width of the packing does not exceed twice the thickness. Braid-over-braid construction is used for wider applications. Washer Pak, the time saving alternative to multiple ring installation and removable.



WASHER PAK



FG 4

FG 4 BRAIDED FIBERGLASS ROPE

Construction: Square plaited from texturized filament, inorganic flexible glass fibers. Untreated.

Features: Will not shrink or swell in service and is completely incombustible.

Equipment: Gasketing material on covers of processing kettles, tanks, etc.

Recommended For: Static applications. Extremely high temperatures up to 1000°F/538°C. For sealing molten metals, acids, solvents, etc.

Style 4 - Same as FG 4 except braided from continuous filament yarn.



FG 800

FG 800 TWISTED FIBERGLASS ROPE

Construction: Fiberglass rovings tightly twisted to desired diameter.

Features: A dry flexible rope packing.

Equipment: Furnace doors, manhole covers, etc.

Recommended For: Air, hot gases, dry steam.

Service Conditions: Temperatures to 1000°F/538°C.



FG 801

FG 801 SINGLE JACKETED FIBERGLASS ROPE

Construction: Braided jacket of fiberglass yarns over a core of twisted fiberglass rope.

Features: More stable than FG 800.

Equipment: As a seal on furnace and gas generated doors.

Recommended For: Hot air and gases.

Service Conditions: Temperatures to 1000°F/538°C.

FG 802 DOUBLE JACKETED FIBERGLASS ROPE

Construction: Twisted fiberglass core with a double braid-over-braid jacket.

Features: More rugged and slightly firmer than FG 801.

Equipment: Hot air and gases.

Recommended For: Mild acids, alkalis, steam, brine, oil.

Service Conditions: Temperatures to 1000°F/538°C.

Remarks: Able to stand more mechanical abuse than FG 801.



FG 802

FG 805 SOLID BRAIDED FIBERGLASS ROPE-ROUND

Construction: Braid-over-braid.

Features: Stronger and more dense than FG 801 and FG 802.

Equipment: As a seal on furnace and gas generator doors wherever the firmest, strongest construction is required.

Recommended For: Hot air and gases.

Service Conditions: Temperatures to 1000°F/538°C.

Remarks: Stronger and firmer packing than either FG 801 or FG 802. A much denser packing, capable of withstanding greater mechanical abuse.



FG 805

FG 805 SQ BRAIDED FIBERGLASS ROPE-SQUARE

Construction: Square Braid.

Features: Stronger and more dense than FG 801 and FG 802.

Equipment: As a seal on furnace and gas generator doors wherever the firmest, strongest construction is required.

Recommended For: Hot air and gases.

Service Conditions: Temperatures to 1000°F/538°C.

Remarks: Stronger and firmer packing than either FG 801 or FG 802. A much denser packing, capable of withstanding greater mechanical abuse.



FG 805-SQ



SS 490

SS 490 LID AND DOOR PACKING

Construction: Braid over core

Features: This packing is braided from unique Inconel wire inserted high temperature yarn. A high temperature polymer core construction is incorporated into the design to give the packing memory to recover its size after door/lid is opened and closed.

Equipment: Oven doors, kilns, crucible lids and tanks

Recommended For: Static Applications. Problem areas where packing is needed to seal uneven or rough surfaces and that must seal and reseal from frequent openings and closings.

Service Conditions: Temperatures up to 1000 degrees F

Remarks: The finished packing is coated with a high temperature polymer which allows for clean handling and good clean cuts without unraveling.



BWFP

BOILER WATER FEED PUMP PACKING

Construction: Die formed flexible graphite with soft metallic end rings

Features: These packing sets are designed to overcome the high temperatures, shaft speed and pressures associated with boiler water feed pumps. The graphite is self-lubricating and conducts heat for longer life.

Recommended For: It is specifically designed for the difficult task of sealing boiler water feed pumps.

Service Conditions: Shaft speeds to 4000 fpm; temperatures to 1000°F/538°C.



SOOT BLOWER SETS

SOOT BLOWER SETS

Construction: Braided, die formed and molded in a conical or 'V' configuration in sizes to fit all soot blower equipment.

Styles: **Fluororay Blue** Ceramic filled PTFE

Fluororay Black Carbon filled PTFE

SS 452 High Purity Carbon/Graphite

SS 583 Carbon Reinforced Flexible Graphite

Features: Formed to size sets aid installation and removal. The density and lubricity increase packing life and reduce wear on the lance tube. SS 583 is recommended for the harshest conditions.

Equipment: Soot blowers.

Service Conditions: Fluororay Styles temperatures to 550°F/288°C. SS 452 and SS 583 temperatures to 1250°F/677°C.

DIE-FORMED RINGS

Because of the friction along the shaft and bore of the stuffing box, the mechanical pressure exerted by the gland is not transmitted uniformly across all the rings. In conventional packing methods, the first two rings absorb most of the mechanical pressure; therefore they receive the most wear and in turn exert the most wear on the shaft. In fact, 70% of the wear takes place here. But, with Die-Formed Rings, the mechanical pressure is exerted over a larger area, greatly increasing shaft sleeve life. Die-Formed Rings are easier to install because the size is exact. Also Die-Formed Rings are densified, "run-in" time is greatly reduced and sealability is much better resulting in longer packing and sleeve life.



DIE-FORMED RINGS

FLEXIBLE LANTERN RING MATERIAL

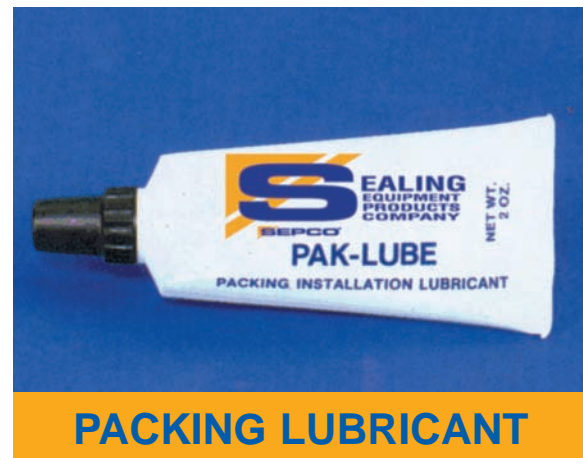
Made of 100% PTFE material, Flexible Lantern Material is an innovative approach to standard lantern rings. Designed to perform like lantern rings, flexible lantern material is easier to install and remove. Sold in roll form like bulk packing, flexible lantern ring material can be cut to the specific length needed, therefore eliminating the need to stock many different size rings.



LANTERN RING MATERIAL

PAK-LUBE™

Pak-Lube™ is a water-based lubricant designed to make installation of packing rings fast and easy. Many other packing installation lubricants are metal-based and can damage sleeves and shafts. Pak-Lube™ dissipates completely, leaving no harmful residue.



PACKING LUBRICANT

PACKING THE PUMP CORRECTLY. *The importance of packing the pump correctly cannot be overemphasized.* Many packing failures are due to incorrect installation of the packing. The following steps have been devised to ensure effective installation of packings on pumps:

INSTALLATION OF PACKING

1. REMOVE ALL THE OLD PACKING FROM THE STUFFING BOX. Clean box and shaft thoroughly and examine shaft or sleeve for wear and scoring. Replace shaft or sleeve if wear is excessive.

2. CHOOSING THE CORRECT CROSS-SECTION OF PACKING.

To determine the correct ring size:

- A. Measure the diameter of the shaft (inside the stuffing box area, if possible).
- B. Measure the diameter of the stuffing box (to give the O.D. of the ring).
- C. Subtract the I.D. measurement from the O.D. measure and divide by two. The result is the required cross section.

3. CUTTING PACKING INTO RINGS.

See Figure 1. Hold the packing tightly on the mandrel, but do not stretch excessively and cut the ring(s).

See Figure 2. Multiple rings can be Butt Cut / 90°(square).

See Figure 3. Individual rings can be Skive Cut 45°(diagonally).

The best way to cut packing rings is to cut them on a mandrel with the same diameter as the shaft in the stuffing box. If there is no shaft wear, rings can be cut on the shaft outside the stuffing box.

Insert one ring at a time into the stuffing box, making certain it fits the packing space properly. Each additional ring can be cut in the same manner, or the first ring can be used as a master from which the balance of the rings are cut.

If the butt cut rings are cut on flat surface, be certain that the side of the master rings, and not the O.D. or I.D. surface, is laid on the rings to be cut. This is necessary so that the end of the rings can be reproduced.

When cutting skive joints, use a miter board so that each successive ring can be cut at the correct angle.

It is necessary that the rings be cut to the correct size. Otherwise, service life is reduced.

4. INSTALL ONE RING AT A TIME. Make sure the packing ring is clean, and has not picked any dirt in handling. If needed, lubricate the shaft and inside of the stuffing box. Packing rings should be firmly seated in the stuffing box one at a time using a tamping tool.

See Figure 4. Joints of successive packing should be staggered at 90°. When enough rings have been installed so that the nose of the gland will reach them, individual tamping should be supplemented by using the gland.

5. AFTER THE LAST RING IS INSTALLED. Put the gland in place and take up bolts finger tight or very slightly snugged up. Do not jam packing into place with excessive gland loading. Start up the pump, and take up bolts until leakage is decreased to a tolerable minimum. Make sure gland bolts are adjusted evenly. **STOPPING LEAKAGE ENTIRELY AT THIS POINT WILL CAUSE THE PACKING TO BURN UP.**

6. ALLOW PACKING TO LEAK FREELY WHEN STARTING UP A NEWLY PACKED PUMP. Excessive leakage during the first hour of operation will result in a better packing job over a longer period of time. Take up gland bolts gradually as the packing seats to a tolerable level of 10 to 12 drops per minute per inch of shaft diameter. **NEVER TRY TO STOP LEAKAGE ENTIRELY, UNLESS PACKING MANUFACTURER INDICATES THAT IT IS SAFE TO DO SO.**

7. WHEN SPECIFIED BY THE PUMP MANUFACTURER, PROVIDE MEANS OF LUBRICATING THE SHAFT AND PACKING THROUGH THE LANTERN RING BY SUPPLYING WATER, OIL, GREASE OR LIQUID HANDLED IN THE PUMP. Fittings for this purpose are standard on many pumps.

8. IF THE STUFFING BOX HAS A LANTERN RING, make sure that the lantern ring, as installed, is slightly behind the fluid inlet so that it will move under the inlet as the follower pressure is applied. **See Figure 5.**

9. ON BOTH CENTRIFUGAL AND RECIPROCATING PUMPS, about 70% of wear is on the outer two packing rings nearest the gland. However, each additional ring does throttle some fluid pressure. On most equipment, there must be enough rings so if one fails, another does the sealing, and the machine need not be shut down.

INSTALLATION OF SEPCO® SPIRAL PAK PACKING: CUT THE PACKING INTO SEPARATE RINGS BEFORE INSTALLATION. **WARNING: NEVER WIND BULK OR COILED PACKING INTO THE STUFFING BOX.** Use the same procedure of installing rings outlined in Steps 1-9.

INSTALLATION OF PTFE & GRAPHITE YARN PACKING: **WARNING: SEAT RINGS GENTLY, THEN GRADUALLY TIGHTEN BOLTS AFTER THE PUMP IS ON STREAM.** Use the same procedure of installing rings outlined in Steps 1-9.

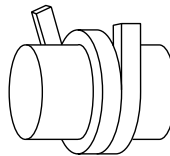


Figure 1

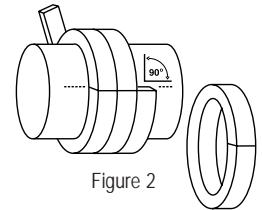


Figure 2

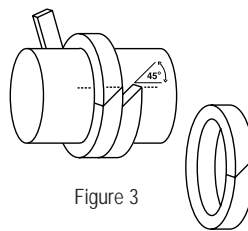


Figure 3

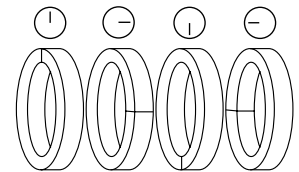


Figure 4

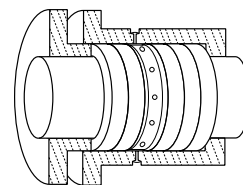


Figure 5

RPM/FPM CONVERSION TABLE

RPM	DIAMETERS																
	1/2	3/4	1	1-1/4	1-1/2	1-3/4	2	2-1/2	3	3-1/2	4	5	6	7	8	9	10
100	13	19	26	32	39	45	52	65	78	91	104	131	157	183	209	235	261
300	39	58	78	98	118	137	157	196	235	275	314	393	471	549	628	706	785
500	65	98	131	163	195	229	261	327	392	458	523	654	785	916	1047	1178	1309
1000	131	196	262	327	393	458	524	655	785	916	1047	1309	1570	1832	2094	2356	2618
1500	196	294	392	490	589	687	785	982	1178	1374	1570	1963	2356	2748	3141	3533	3925
1750	229	344	458	573	687	821	916	1145	1374	1604	1833	2291	2749	3207	3665	4114	4582
2000	262	392	524	654	785	916	1057	1309	1571	1833	2094	1618	3141	3663	4187	4710	5233
2500	327	490	655	817	976	1145	1309	1636	1962	2290	2618	3272	2925	4579	5233	5887	
3000	393	588	785	981	1178	1374	1571	1963	2355	2749	3141	3925	4710	5945			
3600	471	707	942	1178	1414	1649	1885	2356	2827	3299	3770	4712	5655				
4000	524	784	1047	1309	1570	1832	2094	2618	3141	3663	4186	5233	6280				
4500	590	882	1178	1472	1717	2061	2356	2945	3533	4121	4710	5890	7070				
5000	655	980	1309	1636	1953	2290	2618	3271	3925	4579	5233	6545	7850				

PACKING STYLES FT/LB

PACKING STYLE	CROSS SECTION												
	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	
2	87.5	45.0	28.0	18.6	13.3	10.0	7.7	6.1	4.9	3.5	2.6	1.9	
180			5.1	3.4	2.6		1.4		1.0	.7	.4	.3	
219			22	15.5	10.5	7.6	6	5.1	4.4	3.1	2.3	1.8	
310	76.7	46.7	22.6	14.0	10.2	7.2	5.6	4.7	4.0	2.7	2.0	1.6	
402	105	47	31	18.9	14	10.5	8	6.5	5	3.6	3	2	
ML 402			31	18.9	14	10.5	8	6.5	5	3.6	3	2	
ML 560	100	48.3	33.3	20	14.3	12.5	8.3	6.8	5.9	4.3	3.2	2.4	
ML 911W			30	19	14	11	8	6.7	5.6	4	3	2.2	
ML 2001	100	50	33.1	20	14.2	11.1	8.4	6	4.7	3.1	2.5	2.1	
2225	85	37	24	16	11	7.6	6.3	5.3	4.5	3	2	1.5	
ML 2225	85		24	16	11	7.6	6.3	4.9	4.7	3.1	2	1.5	
ML 2225A	85		24	16	11	7.6	6.3	4.9	4.7	3.1	2	1.5	
ML 2235	72	31.5	19.4	12.5	9	7	5.1	4.1	3.3	2.3	1.7	1.2	
ML 2236 FDA	72	31.5	19.4	12.5	9	7	5.1	4.1	3.3	2.3	1.7	1.2	
ML 2238	72	31.5	19.4	12.5	9	7	5.1	4.1	3.3	2.3	1.7	1.2	
2250	93	40	26	17.6	12.1	8	6.9	5.3	5.1	3.4	2.2	1.6	
ML 2250	90	42	26	17.6	12.1	8	6.9	5.3	5.1	3.4	2.2	1.6	
ML 2254	74	32	20.6	13.5	9.5	7	5.5	4.1	3.3	2.5	2	1.6	
ML 2400			20	14.3	11.1	9.1	6.3	5.6	4	2.9	2.2	1.8	
ML 3600	73	33	19.4	13.1	9	7.6	5.8	4.6	3.7	2.6	1.9	1.5	
ML 4002	73	33	19.4	13.1	9	7.6	5.8	4.6	3.7	2.6	1.9	1.5	
ML 4004	73	33	19.4	13.1	9	7.6	5.8	4.6	3.7	2.6	1.9	1.5	
ML 4444	140	69	44.3	27	19.1	14	10.3	9	7.3	5.1	4	3	
ML 4460	126	58	35.2	27	17.5	15	10.2	8.2	6.6	4.8	3.6	2.8	
ML 4461			22.1	14.9	10.9	7.8	6.2	4.8	3.9	2.9	2.2	1.7	
ML 4500	116	65	42.5	24	16.6	12.5	10	8.6	6.7	4.5	3.4	2.7	
ML 4800	71.7	34	22.1	14.2	11.1	7.6	5.5	4.5	3.6	2.6	2.0	1.5	
ML 6225	78	37	24.3	15.2	11	8.3	6.1	4.9	4	2.8	2	1.6	
ML 6225A	73	37	24	15.5	11.1	8	6.5	4.9	4.2	3	2.3	1.8	
ML 6402	86.8	38.8	25	17.5	12.4	9.2	7.3	5.8	4.7	3.3	2.5	1.9	
ML 8002	76	33	19.4	13.1	9.5	7.6	5.8	4.6	3.7	2.6	1.9	1.5	
ML 8004			19.4	13.1	9.5	7.6	5.8	4.6	3.7	2.6	1.9	1.5	

SEPCO®

Sealing Equipment Products Co., Inc.



Quality Fluid Sealing Solutions for Industry.

Sealing Equipment Products Co., Inc.



SEALING EQUIPMENT PRODUCTS Co., Inc.

QUALITY FLUID SEALING SOLUTIONS FOR INDUSTRY.

SEALING EQUIPMENT PRODUCTS COMPANY, HEADQUARTERED IN ALABASTER, AL, IS A MANUFACTURER WITH A LONG STANDING TRADITION OF PROVIDING THE HIGHEST QUALITY FLUID SEALING PRODUCTS AVAILABLE IN THE MARKET PLACE. OUR PRIMARY FOCUS IS TO DELIVER EXCELLENT CUSTOMER SERVICE. WITH OVER 100 ASSOCIATES AND 120,000 SQUARE FEET OF MANUFACTURING SPACE IT IS ONE OF THE LARGEST FEMALE OWNED BUSINESSES IN THE SOUTHEAST.

MAJOR PRODUCT AND SERVICES

OUR PRODUCTS ARE USED IN A WIDE VARIETY OF PROBLEM SOLVING APPLICATIONS WORLD WIDE. THE PRODUCT LINE INCLUDES: COMPRESSION PUMP PACKING, DIE-FORMED AND CUT RINGS, GASKETS, GASKETING MATERIAL, FLEXIBLE GRAPHITE AND FIBERGLASS PRODUCTS INCLUDING FIRESLEEVEING. ONE OF THE COMPANIES FASTEST GROWING PRODUCT LINES IS MECHANICAL SEALS. WE ARE LEADING THE WAY IN INNOVATIVE DESIGNS THAT MAKE MECHANICAL SEAL REPAIR PROGRAMS OBSOLETE.

MARKETS

SEALING EQUIPMENT PRODUCTS COMPANY HAS AN EXTENSIVE NETWORK OF INDUSTRIAL DISTRIBUTORS WHO PROVIDE FLUID SEALING PRODUCTS TO ELECTRICAL UTILITIES, PULP AND PAPER MILLS, REFINERIES, WASTE WATER TREATMENT PLANTS, MINING OPERATIONS, CHEMICAL PROCESSING PLANTS AND OTHER PROCESS INDUSTRIES. IN ADDITION, THE COMPANY IS A CERTIFIED SUPPLIER TO PUMP AND VALVE MANUFACTURERS.

QUALITY

SEALING EQUIPMENT PRODUCTS COMPANY IS CERTIFIED TO ISO 9001: 2000 STANDARDS.

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STANDARD COMPONENT SEALS

CSO - CORROSIVE SERVICE OUTSIDE SEAL

The SEPCO® CSO seal is a single rotating assembly designed for mounting externally. Since the metal components are isolated from the fluid, the seal can operate in highly corrosive applications without upgrading to expensive exotic alloys.

Hydraulically Balanced

The CSO is reverse-balanced to prevent catastrophic leakage from face separation caused by stuffing box pressure surges. Hydraulic load is reduced at elevated pressures resulting in cooler operation and long-term reliability.

Easily Installed and Maintained

Since the CSO mounts externally and has assembly clips to fix the axial setting, installation is easy with no installation measurements required. Inspection and adjustment are readily performed to insure correct spring loads are maintained.

Easily Serviced

Adjustments and cleaning are performed without removal and equipment disassembly.

Isolated Multiple Springs

Equally spaced multiple springs allow even loads and operate cooler than split collar designs. To prevent clogging and corrosion they are isolated from the process fluid and made from Hastelloy®

Field Repairable

Components subject to normal wear can be replaced in the field without the cost and inventory associated with factory repair while providing reliability consistent with new seals.



NOTES: 1. A clamp-in stationary seat must be specified and ordered separately. 2. A split ring option is available and should be used on fragile sleeve materials such as glass, fiberglass, ceramic, etc.

CSO - SPECIFICATIONS

Metal Parts:

Standard metal parts and set screws: 316 SS
Standard drive pins and springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite*
Optional: Glass filled PTFE, ceramic, siliconized carbon*
*Metal banded to prevent mechanical breakage due to high torque

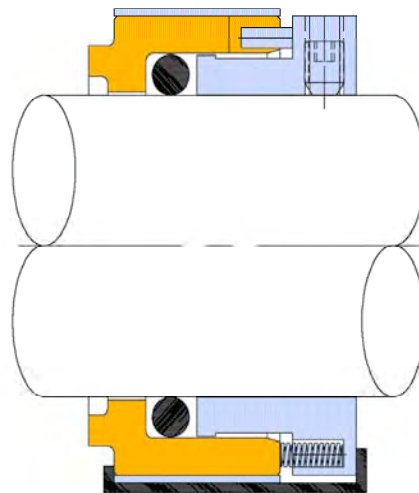
O-ring Materials:

Standard: Viton®, EPR, Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 150 psig (10 bar g)
Temperature: -20° to 250°F (-29° to 121°C)
Speeds: 2600 fpm (13 m/s)

Viton® is a registered trademark of E.I. duPont.
Aflas™ is a trademark of Asahi Glass Co., Ltd.
Hastelloy® is a registered trademark of Haynes International, Inc.



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

SRS - SHORT ROTARY SEAL

The SEPCO® SRS is a single rotary unit designed for mounting internally and for general service operation on lubricating process fluids where 316SS is compatible. Several mating ring configurations and materials are available for running in conjunction with the SRS and must be specified and ordered separately.

Compact Design

The small cross-section design and short operating height permit use in all types of seal chambers without modification. SRS rotary units are designed to operate at a common axial setting of 1.375".

Hydraulically Balanced

Positive hydraulic balancing permits use in higher pressures by reducing closing loads resulting in cooler operation and extended reliability. The balance feature also reduces power consumption.

Resists Clogging

The placement of the dynamic o-ring allows it to move toward a clean surface as the seal faces wear. This allows for use on process liquids that contain suspended solids.

Isolated Multiple Springs

The multiple spring design allows for even mechanical loads and cooler operation. To prevent clogging from suspended solids, the springs are isolated from the process fluid.

Static Shaft O-ring

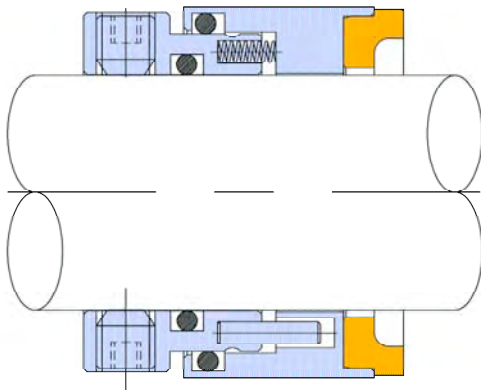
The o-ring that seals to the shaft / sleeve does not slide axially as the seal adjusts for misalignment. This prevents fretting and eliminates the need to replace expensive shafts and sleeves.

Inexpensive

The simple design reduces cost while maintaining the integrity required to provide long, trouble-free operation.



SRS - SPECIFICATIONS



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

Metal Parts:

Standard metal parts, set screws and drive pins: 316 SS
Standard springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite
Optional: Solid nickel bound tungsten carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)
Temperature: -20° to 400°F (-29° to 205°C)
Speeds: 5000 fpm (25 m/s)

HDN - HEAVY DUTY NARROW SEAL

The SEPCO® HDN is a single, component, rotary unit designed to mount internally. Rotaries equipped with carbon faces are for use on clean liquids and siliconized carbon faces are preferred for sealing slurries. Several mating ring configurations and materials are available for running in conjunction with the HDN and must be specified and ordered separately.

Narrow Design

The small cross-section permits installation in stuffing boxes with minimal radial clearance.

Hydraulically Balanced

Internal balancing reduces power consumption and permits use in higher pressures by reducing closing loads that result in cooler operation and extended reliability.

Isolated Multiple Springs

Multiple springs provide even mechanical loads for cooler operation. To prevent clogging and corrosion they are isolated from the process fluid and manufactured from Hastelloy®.

Static Shaft O-Ring

The o-ring that seals to the shaft/sleeve does not slide axially as the seal adjusts for misalignment preventing fretting and eliminating the need to replace expensive shafts and sleeves.

Field Repairable

Components that wear during normal operation can be easily replaced in-the-field for a fraction of the cost of a new seal. This reduces inventory while providing performance consistent with a new seal. The repair kit feature also makes the HDN attractive for applications that require the use of expensive alloys.



HDN - SPECIFICATIONS

Metal Parts:

Standard metal parts and set screws: 316 SS
Standard springs and drive pins: Hastelloy® C

Face Materials:

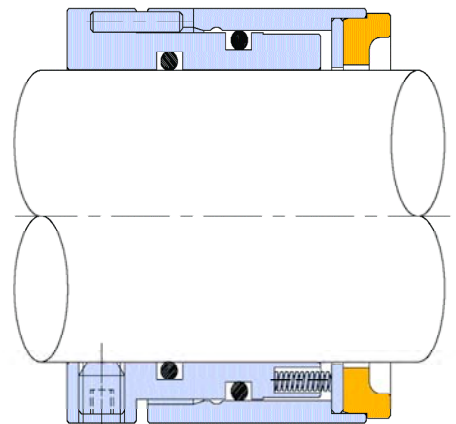
Standard: High quality chemical grade carbon-graphite and siliconized carbon
Optional: Solid nickel bound tungsten carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)
Temperature: -20° to 400°F (-29° to 205°C)
Speeds: 5000 fpm (25 m/s)



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

STANDARD SINGLE CARTRIDGE SEALS

SRC - SINGLE ROTARY CARTRIDGE SEAL

The SEPCO® SRC is a single internal cartridge-mounted rotary seal. The design is simple and loaded with design features found in more expensive seals. It is rugged and highly dependable yet cost less than most competitors' repaired units. It is designed for general service and for sealing lubricating liquids in pulp & paper, chemical processing, and wastewater treatment plants.

Cartridge Mounted

A completely self-contained unit pre-assembled and pre-set at the factory for ease of installation and maintenance on equipment where axial adjustments are required.

Compact

The small cross-section and short internal and external axial lengths allow for installation on equipment with small, shallow stuffing boxes as well as limited first obstruction space.

Versatile

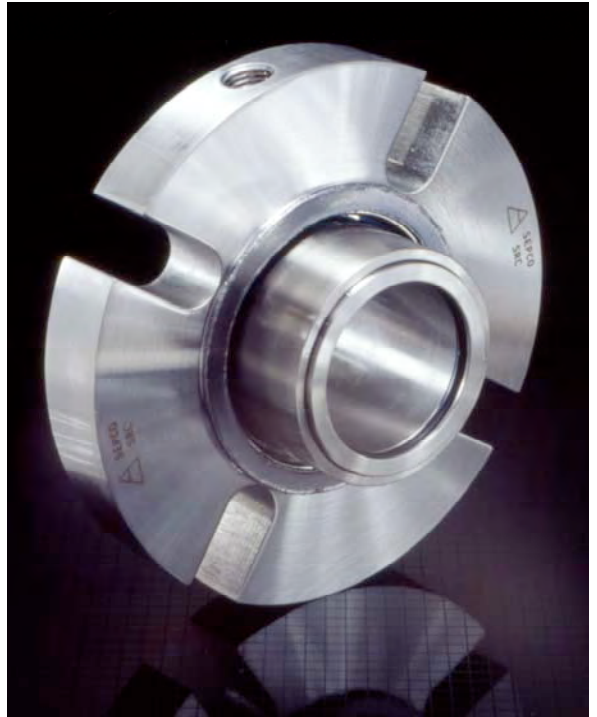
The slotted gland allows the seal to fit a variety of stud sizes and bolt circle diameters. It is machined for superior strength and corrosion resistance and can be easily modified for fitting restricted spaces where equipment modifications are usually required.

Hydraulically Balanced

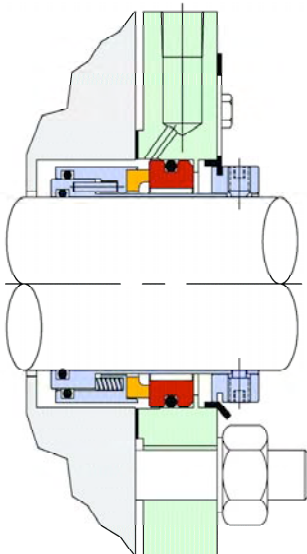
Hydraulic balancing is achieved internally and provides for operations at higher stuffing box pressures. The balance feature also allows the seal to load lighter and run cooler extending reliability and reducing power consumption.

Isolated Multiple Springs

The multiple springs provide even mechanical loads for cooler operation and are isolated to prevent clogging from process fluids containing suspended solids.



SRC- SPECIFICATIONS



Metal Parts:

Standard metal parts and set screws: 316 SS
Standard springs and drive pins: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite and silicon carbide
Optional: Solid nickel bound tungsten carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)
Temperature: -20° to 400°F (-29° to 205°C)
Speeds: 5000 fpm (25 m/s)

STANDARD SINGLE CARTRIDGE SEALS

VGS - VERSATILE GENERAL SERVICE SEAL

The springs in the **VGS** are located in the seal gland and are not subjected to centrifugal forces permitting operation on high PV applications. The stationary design eliminates seal face misalignment and is ideal in pulp & paper, chemical processing, wastewater treatment, and wherever high speed applications are found.

Stationary Design

The seal faces are squared 90 ° to the centerline of the shaft preventing misalignment and allowing for better control of the parallel sealing gap eliminating axial adjustments that cause wear.

Cartridge-Mounted

A completely self-contained unit pre-assembled and pre-set at the factory for ease of installation.

Compact

The narrow cross-section allows for installation on stuffing boxes with minimal radial space without requiring modifications. This includes small ANSI pumps with 5/16" radial space.

Versatile

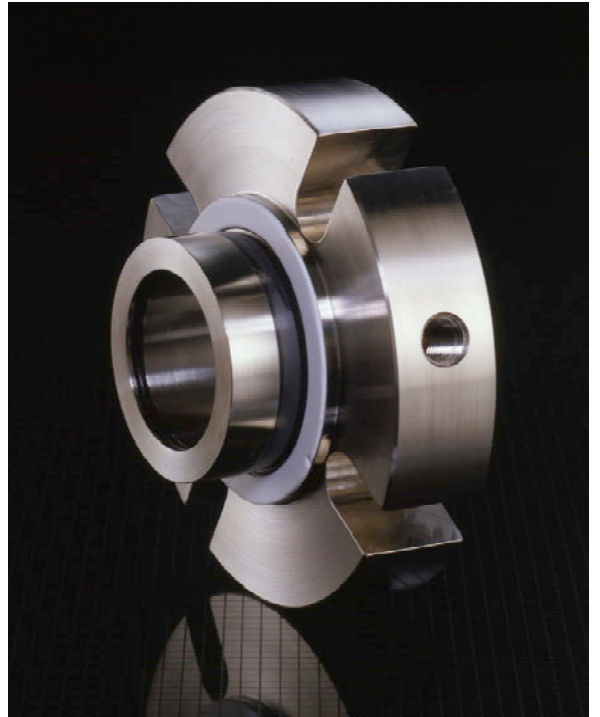
The seal gland is slotted to provide versatility for mounting and machined for superior strength and corrosion resistance.

Hydraulically Balanced

Internal balancing provides for operation in higher pressures and reduces hydraulic loads providing for cooler operation and extended reliability. The balance feature also reduces power consumption.

Isolated Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated to prevent clogging from process fluids containing suspended solids.



VGS - SPECIFICATIONS

Metal Parts:

Standard metal parts and set screws: 316 SS
Standard springs: Hastelloy® C

Face Materials:

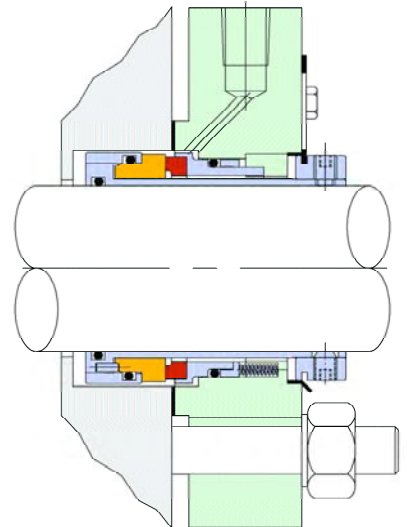
Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, silicon carbide, and ceramic

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)
Temperature: 32° to 400°F (0° to 205°C)
Speeds: 7500 fpm (38 m/s)



STANDARD SINGLE CARTRIDGE SEALS

GEM - GENERAL SERVICE ECONOMICAL MODEL SEAL

The springs in the **GEM** are located in the seal gland and not subjected to centrifugal forces permitting this low-cost general service unit to operate on high PV factors. The cast gland reduces the cost of the seal and is ideal for installation on ANSI process pumps in pulp & paper, chemical processing, wastewater treatment, and wherever high speed applications are encountered

Stationary Design

The seal faces are squared 90° to the centerline of the shaft preventing misalignment and allowing for better control of the parallel sealing gap eliminating axial adjustments that cause wear.

Cartridge-Mounted

A completely self-contained unit pre-assembled and pre-set at the factory for ease of installation.

Compact

The narrow cross-section allows for installation on stuffing boxes with minimal radial space without requiring modifications. This includes small ANSI pumps with 5/16" radial space.

Versatile

The slotted gland plate design allows the seal to fit a variety of stud and bolt circle diameters.

Hydraulically Balanced

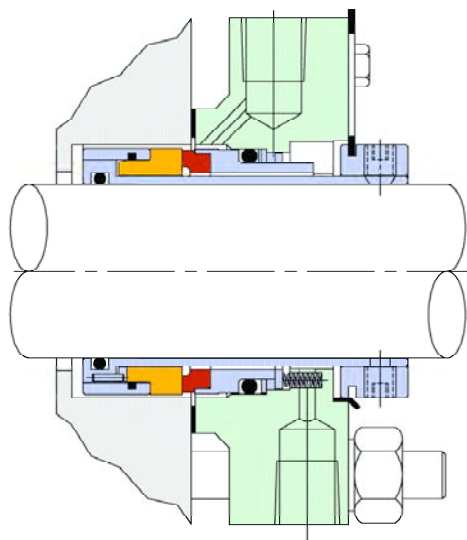
Internal balancing provides for operation in higher pressures and reduces hydraulic loads resulting in cooler operation and extended reliability. This balance reduces power consumption.

Isolated Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated to prevent clogging from process fluids containing suspended solids.



GEM - SPECIFICATIONS



Metal Parts:

Standard metal parts and set screws: 316 SS
Standard springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, silicon carbide, and ceramic

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)
Temperature: 32° to 400°F (0° to 205°C)
Speeds: 7500 fpm (38 m/s)

STANDARD DOUBLE CARTRIDGE SEALS

DTP - DOUBLE TANDEM PUMPER SEAL

The SEPCO® DTP is a multiple cartridge mounted seal design that is simple, rugged, and highly dependable yet cost less than most competitors' comparable repaired seals. It is suitable in all types of industries where leakage of hazardous or costly products cannot be tolerated and where positive lubrication is required from an external source without dilution of the pumped product.

Cartridge Mounted

The DTP is a completely self contained unit pre-assembled and pre-set at the factory for ease of installation and maintenance on equipment where axial adjustments are required.

Reciprocal Balanced

The inboard seal is hydraulically balanced to permit the seal to operate in either a double or tandem mode. This allows lubrication to the inboard seal faces without separation and leakage.

Pumping Ring with Tangential Drilled Flush Connections

This feature allows the DTP to remove destructive frictional heat from the double seal cavity for cooler operation and extended reliability and makes it ideal for use on closed-loop flush systems.

Clamped-In Mating Rings

The stationary seats are clamped in allowing for higher pressure conditions and are exposed to the flow of flush liquid aiding in heat transfer and cooler operation.

Versatile

The seal gland is slotted to provide versatility in mounting and machined for superior strength and corrosion resistance. Flush connections are located to facilitate piping from the side without trapping air in the double seal cavity and causing excessive frictional heat and rapid face wear.



DTP - SPECIFICATIONS

Metal Parts:

Standard metal parts: 316 SS

Optional: Alloy 20, titanium, Hastelloy®, and low expansion alloys

Face Materials:

Standard: High quality chemical grade carbon-graphite and silicon carbide

Optional: Solid nickel bound tungsten carbide.

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

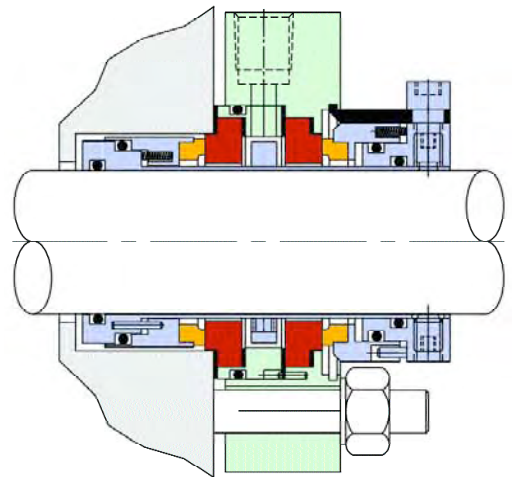
Pressure: Inboard Seal: 350 psig (24 bar g) Pressure Differential

Outboard Seal: To 150 psig (10 bar g)

Temperature: Inboard Seal: To 400°F (205°C)

Outboard Seal: To 250°F (121°C)

Speeds: 5000 fpm (25 m/s)



STANDARD DOUBLE CARTRIDGE SEALS

RBD - RECIPROCAL BALANCED DUPLEX SEAL

The SEPCO® RBD is a multiple cartridge mounted seal with springs mounted in the gland to reduce centrifugal forces and permit operation on high PV applications. The RBD is used where leakage of hazardous or costly products cannot be tolerated and where positive lubrication without product dilution is required.

Stationary Design

This design squares the seal faces 90° to the centerline of the shaft preventing misalignment, giving better control of the parallel sealing gap and eliminating wear in secondary seal areas.

Cartridge Mounted

The RBD is a completely self-contained unit pre-assembled and pre-set at the factory for ease of installation and maintenance on equipment where axial adjustments may be required.

Versatile

The seal gland is slotted to provide versatility for mounting and machined for superior strength and corrosion resistance. The narrow cross-section inboard design allows for installation on stuffing boxes with minimal radial space.

Reciprocal Balanced

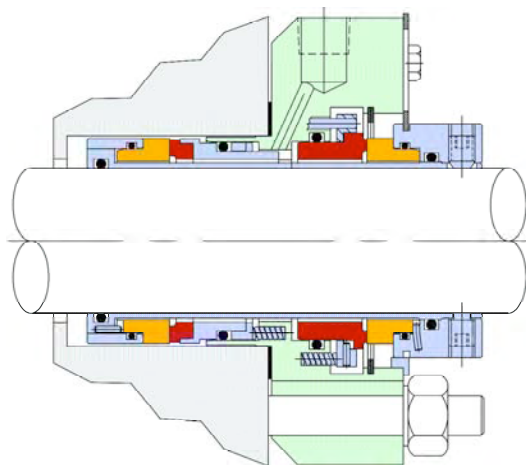
The inboard seal is balanced from both the product side as well as the flush side of the inboard seal faces. The seal can operate in either a tandem or double mode without face separation.

Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated from the pumped product to prevent clogging. They are manufactured from Hastelloy® to provide superior corrosion resistance.



RBD - SPECIFICATIONS



Metal Parts:

Standard metal parts and set screws: 316 SS
Springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, ceramic, and silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: Inboard Seal: 350 psig (24 bar g) Pressure Differential
Outboard Seal: To 150 psig (10 bar g)
Temperature: Inboard Seal: To 400°F (205°C)
Outboard Seal: To 250°F (121°C)
Speeds: 7500 fpm (38 m/s)

SPECIAL DUTY SEALS - SINGLE COMPONENT

TJS - THIN JUMBO SEAL

The SEPCO® TJS is a single rotary unit designed to mount internally on large rotating equipment. It is ideal for use on pressure screens and other types of equipment where a component seal design is required. Several mating ring types and materials are available for running in conjunction with the TJS.

Compact Design

The narrow cross-section and compact working length allows use in all types of seal chambers without requiring modifications.

Hydraulically Balanced

The internal balance feature reduces power consumption and permits use in higher pressures without expensive stepped sleeves. It also reduces hydraulic loads for cooler operation.

Resists Clogging

The design of the dynamic o-ring allows it to move toward a clean surface to compensate for seal face wear allowing installation on lubricating process liquids that contain suspended solids.

Isolated Multiple Springs

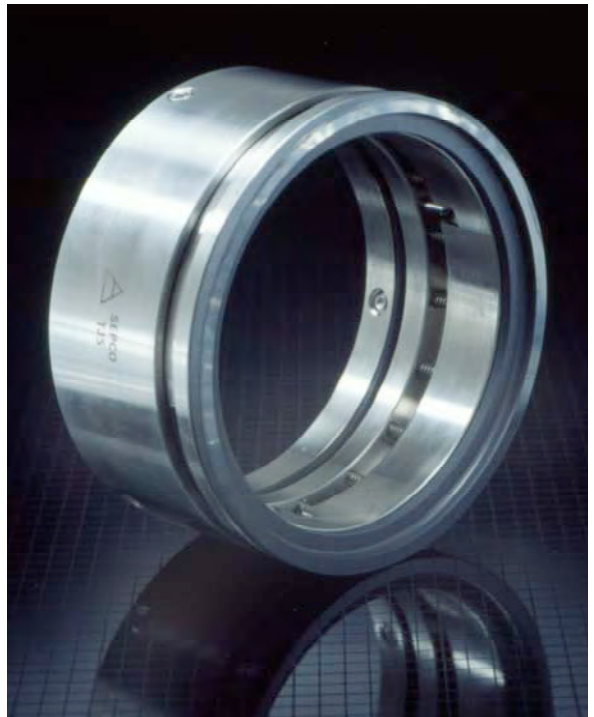
Multiple springs provide even mechanical loads for cooler operation. To prevent clogging the springs are isolated from the process fluid and made from Hastelloy to resist corrosion.

Static Shaft O-Ring

The o-ring that seals to the shaft / sleeve does not slide axially along the shaft as the unit adjusts for misalignment. This prevents fretting and eliminates shaft and sleeve replacement.

Field Repairable

Primary and secondary seal components can be easily replaced in-the-field for a fraction of the cost of a new seal reducing inventories and providing performance of a repaired TJS consistent to that of a new one.



TJS - SPECIFICATIONS

Metal Parts:

Standard metal parts and set screws: 316 SS
Standard springs and drive pins: Hastelloy® C

Face Materials:

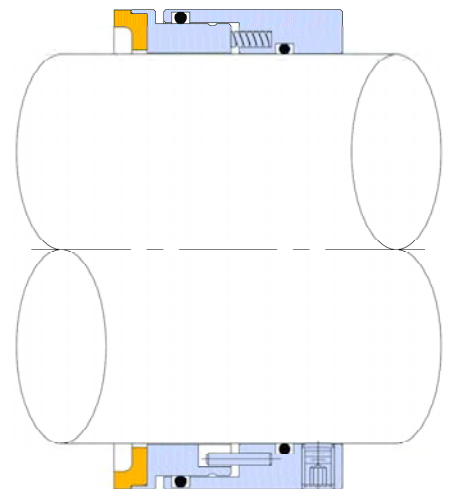
Standard: High quality chemical grade carbon-graphite
Optional: Solid nickel bound tungsten carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: 350 psig (24 bar g)
Temperature: -20 to 400°F (-29° to 205°C)
Speeds: 5000 fpm (25 m/s)



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

SPECIAL DUTY SEALS - SINGLE COMPONENT

OMS - OUTSIDE MIXER SEAL

The SEPCO® OMS is an externally mounted single component seal capable of handling up to 1/4" shaft deflection. This makes it ideal for use on augers, belt driven pumps, mixers, agitators and slow moving rotating equipment with high rates of shaft deflection. The OMS is equipped with multiple springs that provide even mechanical loads reducing wear and extending performance.

Hydraulically Balanced

The OMS is reverse-balanced to prevent catastrophic leakage from face separation caused by stuffing box pressure surges. Hydraulic load is reduced at elevated pressures resulting in cooler operation and long-term reliability.

Easily Installed and Maintained

Since the OMS mounts externally and has assembly clips to fix the axial setting, installation is easy with no installation measurements required. Inspection and adjustment are readily performed to insure correct spring loads are maintained.

Easily Serviced

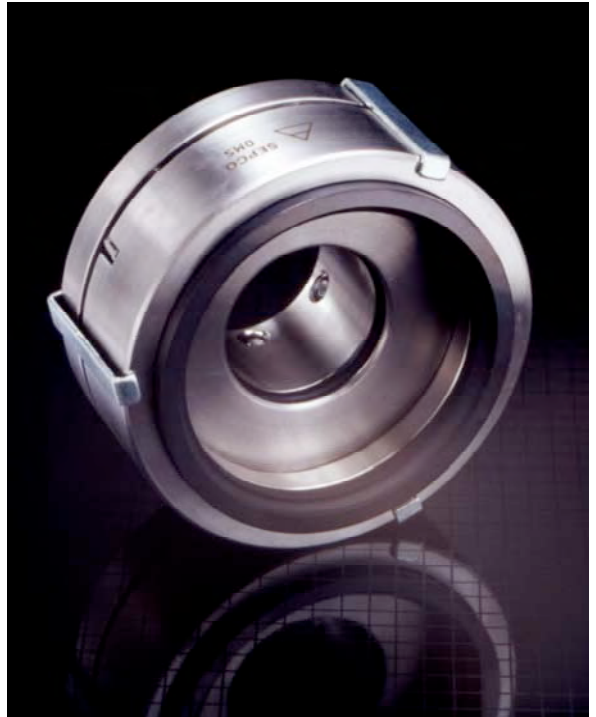
Adjustments and cleaning are performed without removal and equipment disassembly.

Field Repairable

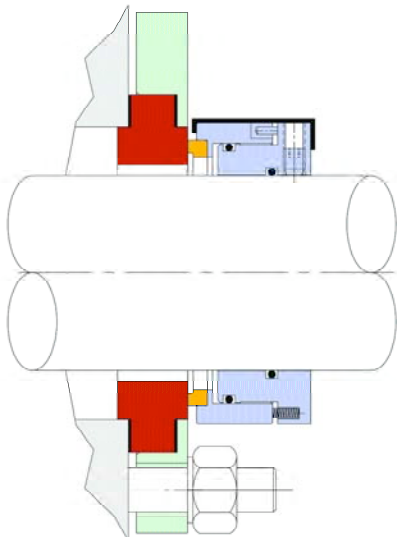
Components subject to normal wear can be replaced in the field without the cost and inventory associated with factory repair while providing reliability consistent with new seals.

Static Shaft O-Ring

The o-ring that seals to the shaft is static and not required to slide axially along the shaft to accommodate for seal face misalignment. This prevents fretting and eliminates the need to replace expensive shafts and sleeves.



OMS - SPECIFICATIONS



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

Metal Parts:

Standard metal parts and set screws: 316 SS
Standard springs and drive pins: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite and solid nickel bound tungsten carbide
Optional: Silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 150 psig (10 bar g)
Temperature: -20° to 250°F (-29° to 121°C)
Speeds: 1000 fpm (5 m/s)

SPECIAL DUTY SEALS - SINGLE COMPONENT

PDC - POSITIVE DISPLACEMENT COMPONENT

The SEPCO® PDC is a single, internal component seal designed for positive displacement pumps, equipped with seal only stuffing boxes, moving highly viscous, abrasive and sticky fluids. Isolated multiple springs will not clog from suspended solids in the pumped product and will provide even mechanical loads. The simple yet rugged design is highly dependable and inexpensive.

Compact

The short operating height allows installation on equipment with limited axial space in the stuffing box.

O-Ring Design

Use of o-rings as secondary seals allows for installation on products that are highly corrosive to standard elastomers where PTFE secondary seals are normally required.

Rugged

Rotation is achieved with lugs and three strategically located knurl point hardened steel set screws that provide positive drive on applications where high torque conditions are encountered.

Internally Balanced

Balance is achieved internally to provide controlled hydraulic loads.

Static Secondary Seal

The shaft o-ring is not required to move axially to adjust for seal face misalignment preventing fretting and wear that requires replacement of expensive shafts.

High Torque Stationary Seat

The stationary seat is designed to reduce the possibility of spinning and mechanical breakage on products that are sticky.



PDC - SPECIFICATIONS

Metal Parts:

Standard metal parts: 316 SS

Standard springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite or solid nickel bound tungsten carbide

Optional: Silicon carbide or 17-4PH stainless steel

O-ring Materials:

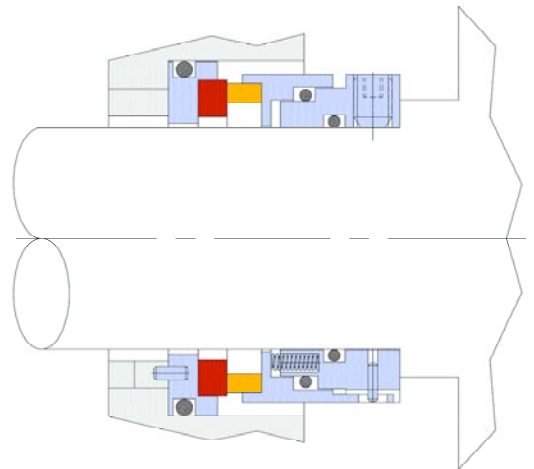
Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)

Temperature: To 400°F. (205°C)



SPECIAL DUTY SEALS - SINGLE COMPONENT

OSS - OUTSIDE SINGLE SPRING

The SEPCO® OSS is an external mounted, single spring component seal designed primarily for installation on positive displacement pumps. Ease of installation and maintenance makes the seal excellent for sealing products that polymerize. The OSS can be designed to handle up to 1/4" shaft deflection and 1/8" end-play making it also ideal for installation on augers, mixers, agitators and reactors.

Hydraulically Balanced

The OSS is reverse-balanced to prevent catastrophic leakage from face separation caused by stuffing box pressure surges. Hydraulic load is reduced at elevated pressures resulting in cooler operation and long-term reliability.

Easily Installed and Maintained

Since the OSS mounts externally and has assembly clips to fix the axial setting, installation is easy with no installation measurements required. Inspection and adjustment are readily performed to insure correct spring loads are maintained.

Easily Serviced

Adjustments and cleaning are performed without removal and equipment disassembly.

Field Repairable

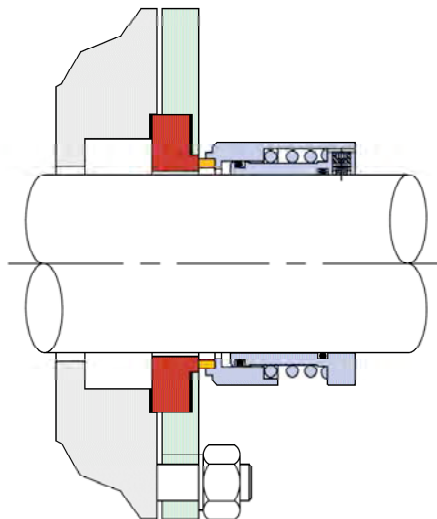
Components subject to normal wear can be replaced in the field without the cost and inventory associated with factory repair while providing reliability consistent with new seals.

Static Shaft O-Ring

The o-ring that seals to the shaft is static and is not required to slide axially along the shaft to accommodate for seal face misalignment. This prevents fretting and eliminates the need to replace expensive shafts and sleeves.



OSS - SPECIFICATIONS



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

Metal Parts:

Standard metal parts and set screws: 316 SS

Face Materials:

Standard: High quality chemical grade carbon-graphite and solid nickel bound tungsten carbide

Optional: Silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 150 psig (10 bar g)

Temperature: -20° to 250°F (-29° to 121°C)

Speeds: 1000 fpm (5 m/s)

SPECIAL DUTY SEALS - DOUBLE COMPONENT

SMD - SHAFT MOUNTED DOUBLE SEAL

The SEPCO® SMD is a heavy duty multiple component seal that mounts externally on equipment with adequate first obstruction space. It can be designed to handle up to 1/4" shaft deflection and 1/8" end-play making it ideal for use on agitators, mixers, reactors, belt driven pumps and other equipment that exceeds the movement capabilities of standard off-the-shelf seal designs.

Hydraulically Balanced

Reciprocally balancing the seal allows for changes in operating pressure conditions without face separation. Reduced hydraulic loads allow the seal to operate successfully at high pressure without reducing lubrication critical for cooler operation & reliability.

Mounting

The seal mounts externally and the component design can be installed without making critical measurements. It is also available as a cartridge mounted unit where preferred.

Multiple Seal Design

Allows for installation on high-pressure applications where hazardous, abrasive, non-lubricating products are handled that requires flushing without dilution of the pumped product. The seal is capable of operating in either a double or tandem mode.

Isolated Metal Parts

The SMD can be designed to eliminate all metal components from the process fluid making it ideal for use on corrosive applications.

Lug Driven

The rotating elements are lug driven to provide positive rotation on high pressure or applications where torque factors are excessive.



SMD - SPECIFICATIONS

Metal Parts:

Standard metal parts: 316 SS

Face Materials:

Standard: High quality chemical grade carbon-graphite or solid nickel bound tungsten carbide

Optional: Silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™

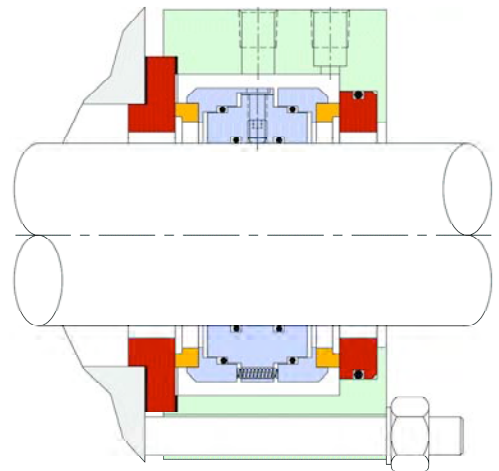
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 750 psig (52 bar g)

Temperature: -20° to 500°F. (-29° to 260°C)

Speeds: 5000 fpm (25 m/s)



Stationary seat rings must be ordered separately.
Please see page 37 for standard configurations.

SPECIAL DUTY SEALS - SINGLE CARTRIDGE

BSS - BALANCED SINGLE SPRING SEAL

The SEPCO® BSS is a single, internal, cartridge-mounted seal that utilizes a single coil spring for providing consistent mechanical loads to maintain seal face alignment. This permits the BSS to operate on equipment with up to 1/8" end play making it ideal for use on double suction pumps handling relatively clean liquids.

Cartridge Mounted

A completely self-contained unit pre-assembled and pre-set at the factory for ease of installation and maintenance.

Hydraulically Balanced

Internal balancing allows higher operating pressures than conventional unbalanced single spring designs. This feature reduces hydraulic loads for cooler operation and less power consumption.

Versatile

The small cross-section allows for installation on stuffing boxes with minimal radial space. The short external length permits installation on equipment with limited first obstruction space. The machined gland has superior strength and corrosion resistance. Modifications can be made to the seal rather than the equipment.

Static Shaft O-Ring

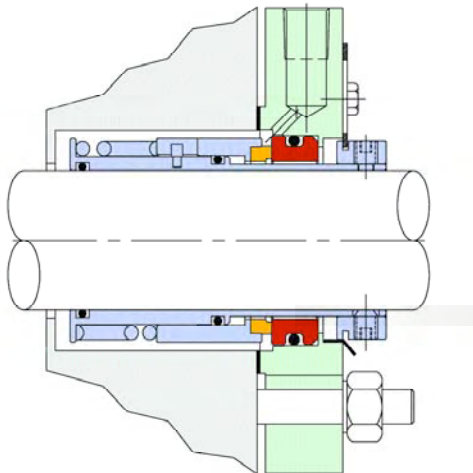
The o-ring that seals to the shaft / sleeve does not slide axially along the shaft preventing fretting and eliminating the need to replace expensive shafts and sleeves.

Field Repairable

Primary and secondary seal components that wear during normal operation can be easily replaced with new parts at a fraction of the cost of a new seal. This reduces inventory cost while providing performance consistent with new mechanical seals.



BSS - SPECIFICATIONS



Metal Parts:

Standard metal parts and spring: 316 SS

Face Materials:

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, and silicon carbide

Optional: 17-4PH

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 300 psig (21 bar g)

Temperature: -20° to 400°F (-29° to 205°C)

Speeds: 5000 fpm (25 m/s)

SPECIAL DUTY SEALS - SINGLE CARTRIDGE

PDS - POSITIVE DISPLACEMENT SINGLE SEAL

The SEPCO® PDS mounts externally and is a single, cartridge mounted, rotary seal designed for positive displacement pumps where viscous, abrasive, and sticky products are encountered.

Custom Built

The seal gland can be designed to fit equipment that normally requires modifications in order to fit a cartridge mounted seal. The machined gland offers excellent corrosion resistance and strength.

Rugged Design

The PDS is simple yet highly dependable. Drive mechanisms provide positive start up where high torque conditions are encountered.

Cartridge Mounted

The unit is pre-assembled and pre-set at the factory for ease of installation and maintenance.

Reverse Balanced

The PDS is balanced to prevent face separation during extreme pressure surges.

Compact

The unit mounts externally and the short axial length makes it ideal for fitting equipment with limited first obstruction space.

Isolated Multiple Springs

Multiple springs provide even mechanical loads and are isolated from the pumped product to prevent clogging.

Inexpensive

The simple design makes the PDS an inexpensive alternative for sealing positive displacement pumps. The unit is also fully repairable for a fraction of the cost of a new seal.



PDS - SPECIFICATIONS

Metal Parts:

Standard metal parts and spring: 316 SS

Face Materials:

Standard: High quality chemical grade carbon-graphite and solid nickel bound tungsten carbide

Optional: Silicon carbide and 17-4PH stainless steel

O-ring Materials:

Standard: Viton®, EPR and Aflas™

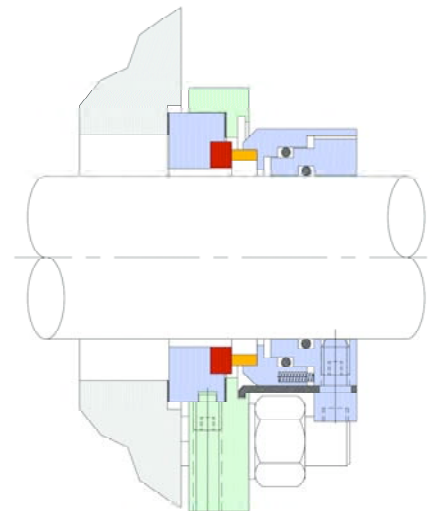
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 150 psig (10 bar g) with surges to 300 psig (21 bar g)

Temperature: -20° to 250°F (-29° to 121°C)

Speeds: 2600 fpm (13 m/s)



SPECIAL DUTY SEALS - SINGLE CARTRIDGE

HOS - HOT OIL SEAL

The **HOS** is a balanced, single spring, rotary seal capable of handling conditions much higher than conventional single spring designs. It was developed for use where lubricating products are handled that contain suspended solids as well as thermosensitive liquids that set up and harden at ambient temperatures.

Non-Clogging

The design of the HOS allows operation in liquids that contain suspended solids or thermosensitive products that have a tendency to impede operation as wear occurs.

Single Coil Spring

This spring keeps a consistent load as the faces wear and is more resistant to clogging than other types of loading devices.

Cartridge Mounted

This completely self-contained unit is pre-assembled and pre-set at the factory for ease of installation and maintenance on equipment that requires periodic axial adjustments.

Hydraulically Balanced

Hydraulic balancing is achieved internally allowing operation at high pressures. This also reduces hydraulic loads resulting in cooler operation, less power usage and extended reliability.

Turbulence Enhancer

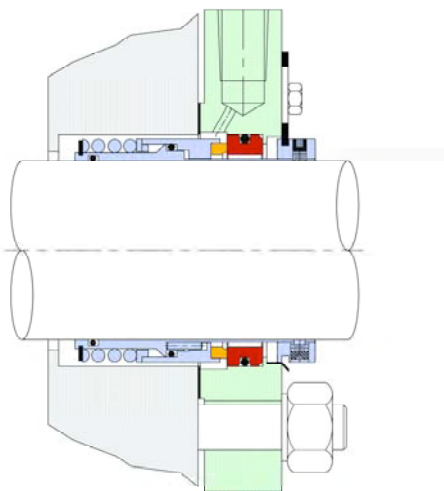
The compression ring is designed to create movement in and around the dynamic o-ring reducing accumulation of solids. This allows correct seal face alignment.

Versatile

The HOS is available for standard and oversized stuffing boxes. The slotted gland allows for versatility in mounting the seal. Machined parts provide superior corrosion resistance and eliminate expensive modifications to the equipment.



HOS - SPECIFICATIONS



Metal Parts:

Standard metal parts and spring: 316 SS
Optional: Low expansion alloys (service over 400°F (205°C))

Face Materials:

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, and silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 350 psig (24 bar g)
Temperature (standard metal): -20° to 400°F (-29° to 205°C)
Temperature (low expansion alloys and perfluorinated elastomer o-rings): -40 to 550°F (-40 to 288°C)
Speeds: 5000 fpm (25 m/s)

SPECIAL DUTY SEALS - SINGLE CARTRIDGE

VSR - VERTICAL SINGLE ROTARY SEAL

The SEPCO® VSR is a single, external, cartridge-mounted, rotary seal designed for installations where shaft deflection exceeds the limits allowed by off-the-shelf cartridge seals. Excessive radial clearances designed in the seal make it ideal for vertical turbine pumps in power plants, pulp & paper mills, municipalities, and applications in relatively clean, lubricating fluids.

Cartridge Mounted

The VSR is a completely self contained unit that is pre-assembled and pre-set at the factory for ease of installation. This feature also allows impeller adjustments to be made quickly and easily without interfering with the correct axial setting of the seal.

Mounts Externally

This allows installation on equipment where packing has been used without having to replace expensive shafts and sleeves.

Hydraulically Balanced

Hydraulic balancing is achieved internally allowing operation in higher pressures without the need for special stepped sleeves and shafts. The balance feature also reduces hydraulic loads allowing for cooler operation and extended reliability.

Versatile Gland

The gland is vented to eliminate air entrapment and improve cooling efficiency for longer seal life. Machined glands offer superior corrosion resistance and strength and can be modified to fit the equipment saving equipment modification cost.

Fully Repairable

All sealing elements that wear during normal operation can be replaced and the seal repaired at a fraction of the cost of a new seal while providing performance consistent with a new seal.



VSR - SPECIFICATIONS

Metal Parts:

Standard metal parts and set screws: 316 SS
Standard Springs and drive pins: Hastelloy® C

Face Materials:

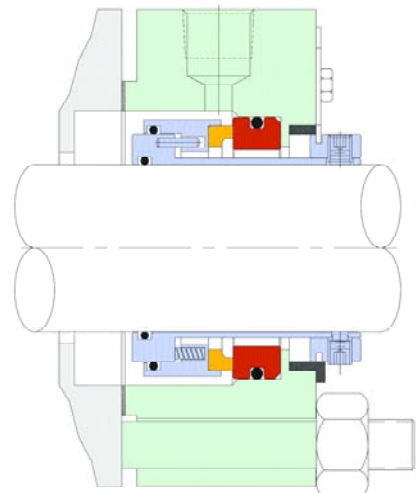
Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, silicon carbide, and high purity ceramic
Optional: 17-4PH stainless steel.

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Operating Capabilities:

Pressure: To 300 psig (21 bar g)
Temperature: 32° to 400°F (0° to 205°C)
Speeds: 5000 fpm (25 m/s)



SPECIAL DUTY SEALS - SINGLE CARTRIDGE

ESC - EXTERNAL SINGLE CARTRIDGE SEAL

The SEPCO® **ESC** is a single, external, cartridge-mounted unit designed for operation on clean, lubricating, fluids that are corrosive to standard 316SS parts. Alloy 20 wetted parts and a carbon-filled PTFE gland make this seal ideal for use in sulfuric acid. The stationary design eliminates face misalignment eliminating wear in secondary areas of the seal.

Cartridge Mounted

The unit is a completely self-contained design that is pre-assembled and pre-set at the factory for ease of installation and maintenance on equipment where axial adjustments are required.

Stationary Design

This design squares the faces 90° to the center-line of the shaft preventing misalignment allowing better control of the parallel sealing gap while eliminating axial adjustments that cause wear.

Hydraulically Balanced

Internal balancing reduces power consumption and provides for cooler operation in higher pressures extending seal reliability.

Isolated Multiple Springs

This provides even mechanical loads for cooler operation and are isolated to prevent clogging from process fluids.

Static Shaft O-Ring

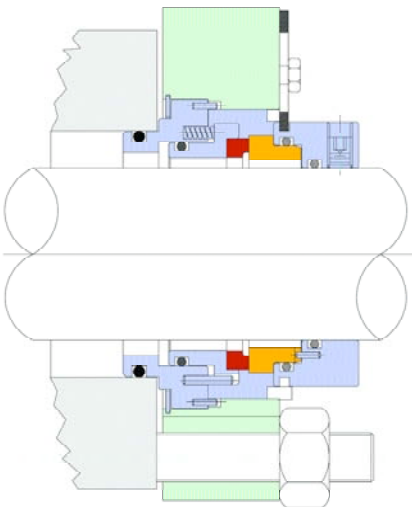
The shaft o-ring is static and is not required to move axially to adjust for misalignment preventing fretting and eliminating the need to replace expensive shafts and sleeves.

Versatility

The seal gland is slotted to provide maximum interchangeability and the short external length will fit equipment with minimal first obstruction space.



ESC - SPECIFICATIONS



Metal Parts:

Standard parts: Alloy 20 wetted parts, carbon filled PTFE Gland
Standard springs and drive pins: Hastelloy® C

Face Materials:

Standard: Acid grade carbon-graphite, silicon carbide, and high purity ceramic

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Litharge cured Viton® and Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 150 psig (10 bar g)
Temperature: 32° to 250°F (0° to 121°C)
Speeds: 2600 fpm (13 m/s)

SPECIAL DUTY SEALS - DOUBLE CARTRIDGE

ESD - EXTERNALLY SET DOUBLE SEAL

The SEPCO® ESD is a back-to-back, multiple seal assembly designed for applications where positive lubrication is required from an external flush without dilution of product. Since all metal parts are isolated and the pumped product is sealed from the stuffing box, the ESD is an economic solution to sealing extremely corrosive and abrasive fluids.

Easily Installed

The ESD is a three-piece seal assembly that is pre-set and pre-assembled at the factory. Since it sets externally, mechanics are not required to make critical installation measurements.

Easily Maintained

Equipment disassembly is not required for axial adjustments.

Versatile

The ESD is designed for fitting small cross-section stuffing boxes. Its minimal internal length fits different stuffing box depths. These provisions are made internal to the seal preventing the need to make expensive equipment modifications.

Multiple Spring Design

This spring design provides even loading for cooler operation and reliability, are isolated from the pumped product to prevent clogging, and made of Hastelloy® C for superior corrosion resistance.

Product Isolated from Stuffing Box

The pumped product is sealed from the stuffing box reducing seal hang up while eliminating corrosive and erosive wear.

Economical & Repairable

Since all metal components are isolated from the pumped product, expensive alloys are not required. All normal wear components are easily replaced at a fraction of the cost of a new seal while gaining new seal performance.



ESD - SPECIFICATIONS

Metal Parts:

Standard isolated metal parts and set screws: 316 SS
Standard springs and drive pins: Hastelloy® C

Face Materials:

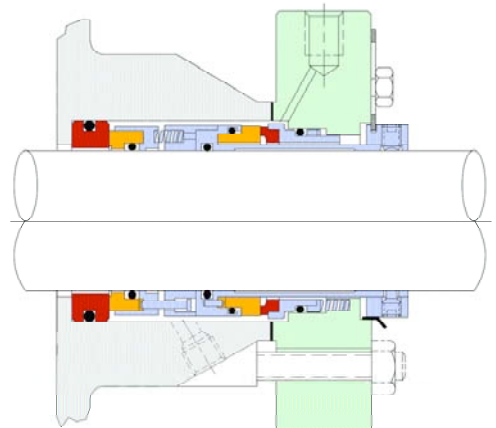
Inboard Standard: Silicon carbide
Outboard Standard: High quality chemical grade carbon-graphite, ceramic, and silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: 50 psig (3.4 bar g) Maximum Differential Pressure
75 psig (5.2 bar g) Maximum Discharge Pressure
Temperature: -20° to 250°F (-29° to 121°C)
Speeds: 5000 fpm (25 m/s)



SPECIAL DUTY SEALS - DOUBLE CARTRIDGE

PRO - PROGRESSIVE CAVITY PUMP SEAL

The SEPCO® PRO is a multiple, cartridge-mounted, stationary seal designed for installation on progressive cavity pumps without having to make equipment modifications. The stationary design aligns the seal faces 90 degrees to the center-line of the shaft eliminating wear in secondary areas of the seal.

Stationary Design

This design squares the seal faces 90° to the centerline of the shaft preventing misalignment, giving better control of the parallel sealing gap and eliminating wear in secondary seal areas.

Cartridge Mounted

The PRO is a completely self-contained unit pre-assembled and pre-set at the factory for ease of installation and maintenance on equipment where axial adjustments may be required.

Versatile

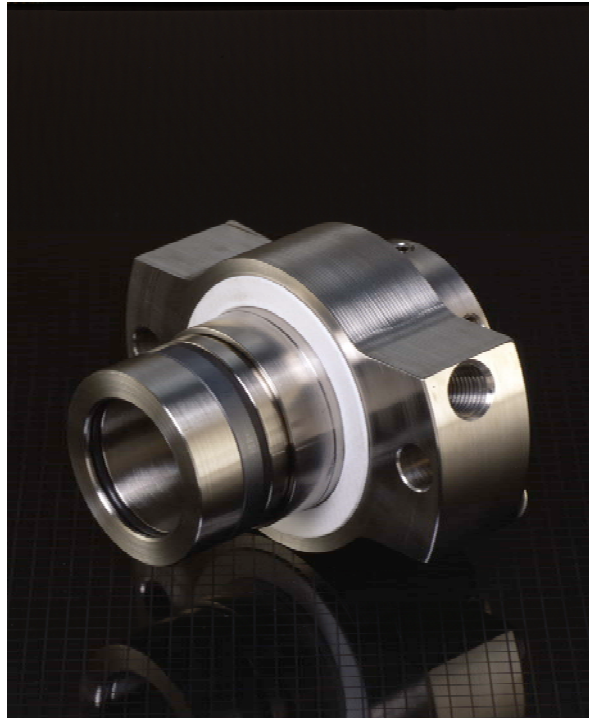
The seal gland is slotted to provide versatility for mounting and machined for superior strength and corrosion resistance. The narrow cross-section inboard design allows for installation on stuffing boxes with minimal radial space.

Reciprocal Balanced

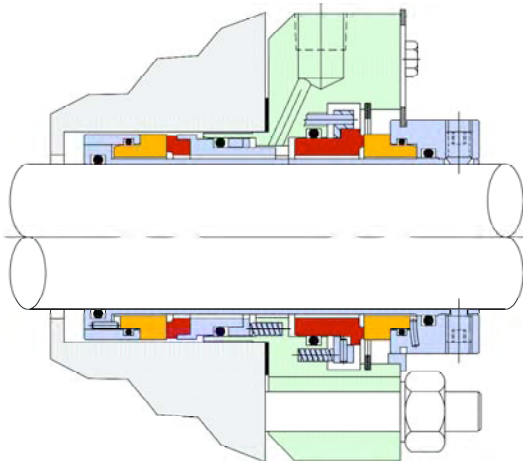
The inboard seal is balanced from both the product side as well as the flush side of the inboard seal faces. The seal can operate in either a tandem or double mode without face separation.

Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated from the pumped product to prevent clogging. They are manufactured from Hastelloy® to provide superior corrosion resistance.



PRO - SPECIFICATIONS



Metal Parts:

Standard metal parts and set screws: 316 SS

Springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, ceramic, and silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: Inboard Seal: 350 psig (24 bar g) Pressure Differential

Outboard Seal: To 150 psig (10 bar g)

Temperature: Inboard Seal: To 400°F (205°C)

Outboard Seal: To 250°F (121°C)

Speeds: 7500 fpm (38 m/s)

SPECIAL DUTY SEALS - DOUBLE CARTRIDGE

DRC - DOUBLE ROTARY CARTRIDGE

The **DRC** is a multiple, cartridge mounted, rotary seal designed to be easily adapted on equipment that is difficult to fit. Although inexpensive, it is rugged and highly dependable. The unit is ideal for installation on positive displacement pumps moving abrasive, sticky products requiring multiple seals operating in conjunction with closed loop systems.

Cartridge Mounted

The DRC is a completely self-contained unit pre-assembled and pre-set at the factory for ease of installation.

Reciprocal Balanced

The inboard seal is hydraulically balanced to permit the seal to operate in either a double or tandem mode. This provides lubrication of the inboard seal faces without separation and leakage.

Clamped-In Mating Ring

Stationaries are clamped in allowing for higher pressure operation

Versatile

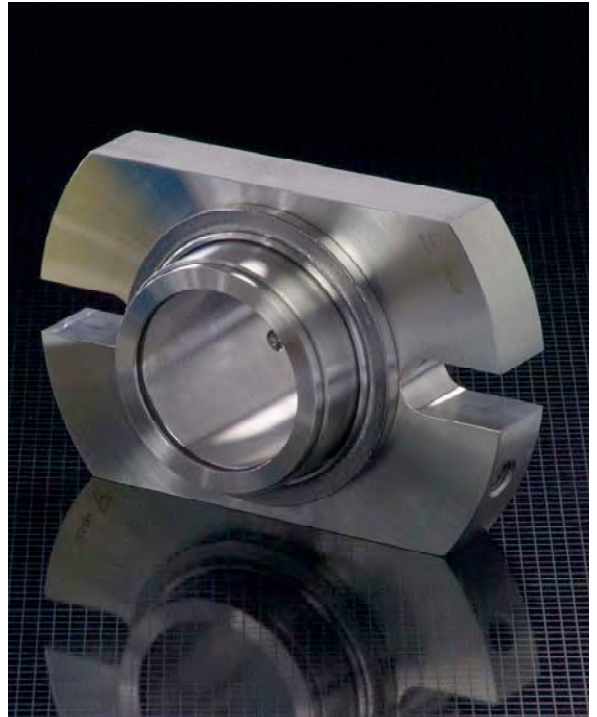
The gland is machined for superior strength and corrosion resistance. Machining allows for modifications within the seal instead of modifying the equipment. The narrow cross-section and short axial length allows use on equipment with limited space.

Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated to prevent clogging.

Static Shaft O-Ring

The o-ring that seals to the shaft is static and not required to slide axially to adjust for seal face misalignment. This prevents wear and the need to replace expensive shafts.



DRC - SPECIFICATIONS

Metal Parts:

- Standard metal parts: 316 SS
- Standard springs and drive pins: Hastelloy® C

Face Materials:

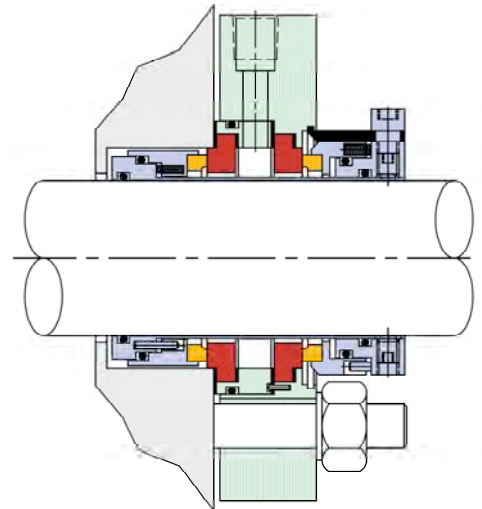
- Standard: High quality chemical grade carbon-graphite and 17-4PH stainless Steel

O-ring Materials:

- Standard: Viton®, EPR and Aflas™
- Optional: Perfluorinated Elastomers

Operating Capabilities:

- Pressure: Inboard Seal: 350 psig (24 bar g) Pressure Differential
- Outboard Seal: To 150 psig (10 bar g)
- Temperature: Inboard Seal: To 400°F (205°C)
- Outboard Seal: To 250°F (121°C)
- Speeds: 5000 fpm (25 m/s)



SPECIAL DUTY SEALS - DOUBLE CARTRIDGE

RBA - RECIPROCAL BALANCED AXIAL SEAL

The SEPCO® RBA is a multiple, cartridge mounted seal. The flexible parts are mounted in the gland to reduce centrifugal forces permitting operation on high PV applications. The multiple spring design allows up to 1/16" end-play making the seal ideal for equipment with excessive end-play, split case pumps and where positive lubrication is required from an external source without diluting the pumped product.

Stationary Design

This design squares the seal faces 90° to the centerline of the shaft preventing misalignment, giving better control of the parallel sealing gap and eliminating wear in secondary seal areas.

Cartridge Mounted

The RBA is a completely self-contained unit pre-assembled and pre-set at the factory for ease of installation and maintenance.

Versatile

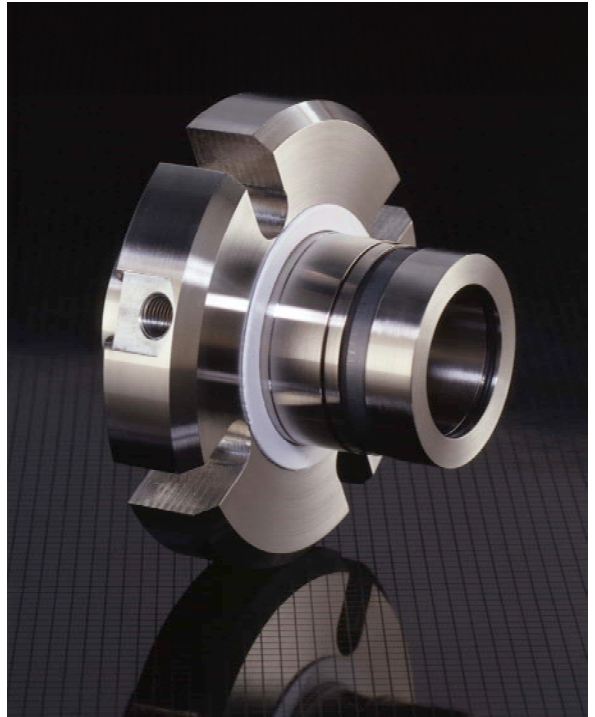
The seal gland is slotted to provide versatility for mounting and machined for superior strength and corrosion resistance. The narrow cross-section inboard design allows for installation on stuffing boxes with minimal radial space.

Reciprocal Balanced

The inboard seal is balanced from the product side as well as the flush side of the inboard seal faces. The RBA can operate in either a tandem or double mode without face separation.

Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated from the pumped product to prevent clogging. They are manufactured from Hastelloy® to provide superior corrosion resistance.



RBA - SPECIFICATIONS



Metal Parts:

Standard metal parts and set screws: 316 SS

Springs: Hastelloy® C

Face Materials:

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, high-purity ceramic, and silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: Inboard Seal: 350 psig (24 bar g) Pressure Differential

Outboard Seal: To 150 psig (10 bar g)

Temperature: Inboard Seal: To 400°F (205°C)

Outboard Seal: To 250°F (121°C)

Speeds: 7500 fpm (38 m/s)

SPECIAL DUTY SEALS - DOUBLE CARTRIDGE

EDP - ETHANOL DOUBLE PUMPER

The **EDP** is a back-to-back, multiple seal assembly that was designed exclusively for sealing abrasive products where positive lubrication is required from an external source without dilution. The design isolates the metal components and prevents abrasive & corrosive pumped products from entering the stuffing box and causing erosion problems that require expensive repair.

Bi-Directional Radial Flow Pumping Ring

The pumping ring with tangentially drilled flush ports remove destructive heat from the seal cavity for cooler operation and extended reliability. The EDP is ideal in closed-loop flush systems.

Easily Installed

The EDP is a three-piece seal assembly that is pre-assembled and pre-set at the factory. Since the EDP sets externally, mechanics are not required to make critical installation measurements and can make axial adjustments with the equipment on-line.

Versatile

Provisions for fitting the seal are made internal to prevent the need to make expensive equipment modifications. Complete dimensional information is required to confirm fit specifications.

Isolated Multiple Springs

Multiple springs load evenly for cool operation and are isolated from the product to prevent clogging from suspended solids.

Economical & Repairable

Since the product is excluded from the stuffing box, the ESP is an economic alternative to replacement of expensive pump parts damaged by erosion. All sealing components that wear during normal operation can be easily replaced at a fraction of the cost of a new seal making performance of the repaired seal consistent to that of a new seal.



EDP - SPECIFICATIONS

Metal Parts:

Standard metal parts: 316 SS

Face Materials:

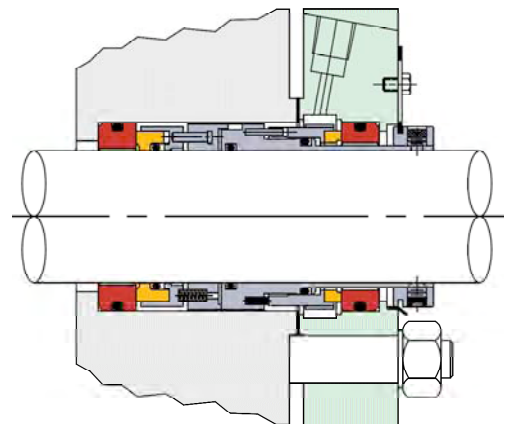
Standard: High quality chemical grade carbon-graphite and silicon carbide

O-ring Materials:

Standard: Viton®, EPR and Aflas™
Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: 50 psig (3.5 bar g) Maximum Pressure Differential
75 psig (5 bar g) Maximum Pump Discharge Pressure
Temperature: To 250°F (121°C)
Speeds: 5000 fpm (25 m/s)



SPECIAL DUTY SEALS - DOUBLE CARTRIDGE

OUS - OVER UNDER SEAL

The SEPCO® **OUS** mounts externally and is a multiple cartridge-mounted assembly for installation where first obstruction space is limited. It can handle up to 5/32" shaft deflection making it ideal for equipment where movement is excessive. The heavy duty design allows for successful operation where stuffing box pressure operates higher than safely handled by off-the-shelf designs.

Rotary or Stationary Design

The OUS is available in both rotary and stationary designs. The rotary is preferred on equipment with excessive shaft deflection and the stationary design where high PV factors are encountered.

Hydraulically Balanced

This allows for changes in operating pressures without face separation. Reduced hydraulic loads allow operation on high pressure without reducing lubrication critical for cooler operation.

Cartridge Mounted

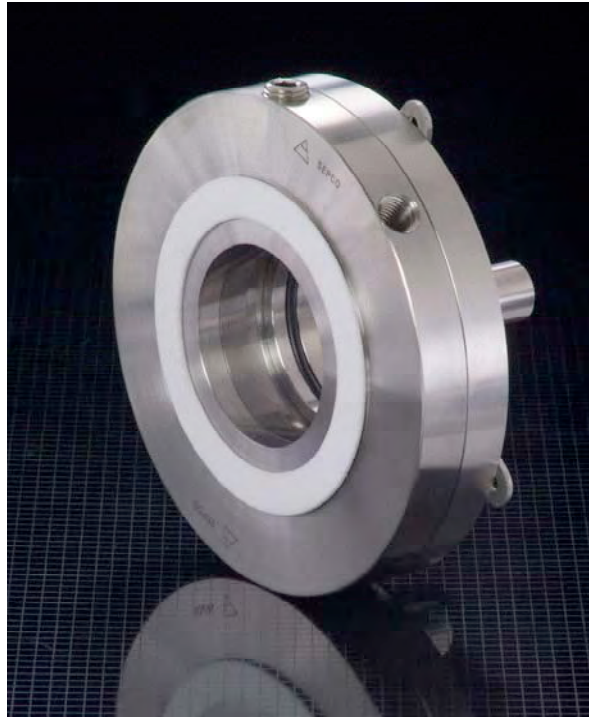
A self-contained unit pre-assembled and pre-set at the factory eases installation and maintenance. When seal leakage occurs, the unique design allows the seal to be slid back and the stuffing box packed to control leakage until an outage can be scheduled.

Multiple Seal Design

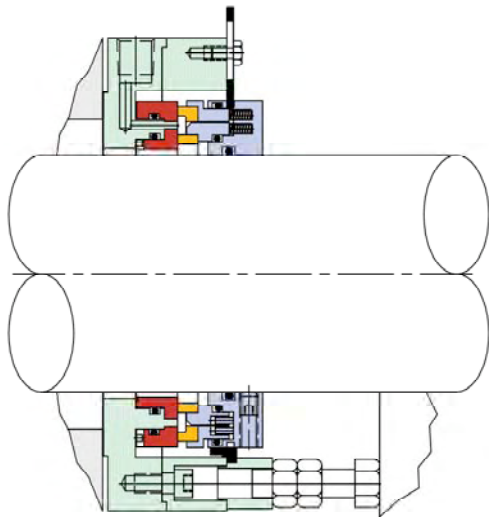
Allows for installation where hazardous, abrasive, non-lubricating products are handled that require injection of a neutral liquid from an external source without diluting the pumped product. The seal can operate in either a double or tandem mode.

Isolated Multiple Springs

Multiple springs provide even mechanical loads for cooler operation and are isolated from the pumped product to eliminate clogging from suspended solids.



OUS - SPECIFICATIONS



Metal Parts:

Standard metal parts: 316 SS

Face Materials:

Standard: High quality chemical grade carbon-graphite and solid nickel bound tungsten carbide

Optional: 17-4PH stainless steel.

O-ring Materials:

Standard: Viton®, EPR and Aflas™

Optional: Perfluorinated Elastomers

Operating Capabilities:

Pressure: To 750 psig (52 bar g)

Temperature: -20° to 500°F (-29° to 260°C)

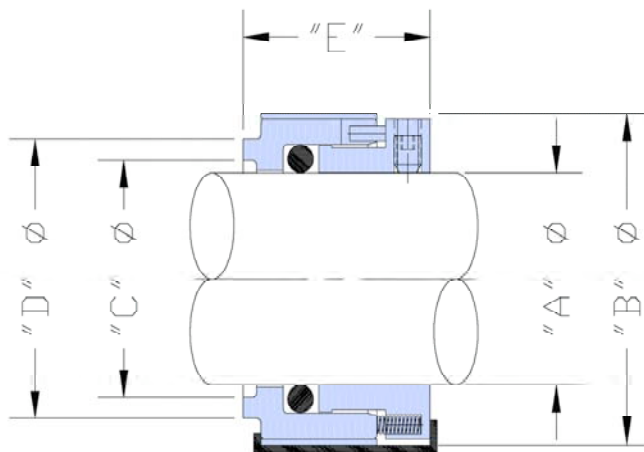
Speeds: Rotary Design 5000 fpm (25 m/s)

Stationary Design 7500 fpm (38 m/s)

INSTALLATION DIMENSIONS - COMPONENT SEALS

CSO - CORROSIVE SERVICE OUTSIDE SEAL

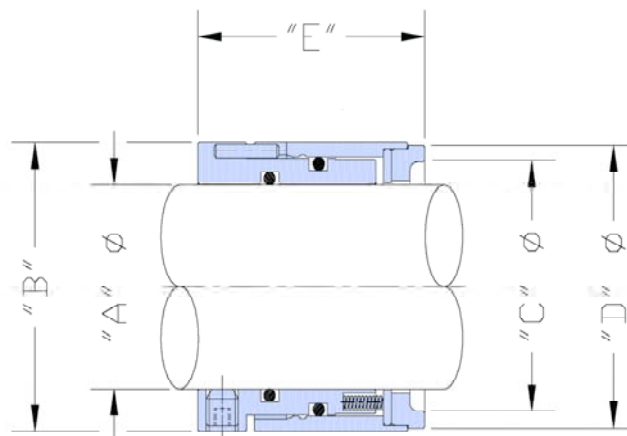
Size Code	Shaft Diameter (A)		Seal OD (B)		Seal Face ID (C)		Seal Face OD (D)		Working Length (E)
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
M24		24	1.72	43.7	1.11	28.2	1.38	35.0	1-5/16
M25		25	1.76	44.7	1.15	29.2	1.42	36.1	1-5/16
16	1.00		1.78	45.2	1.16	29.5	1.44	36.6	1-5/16
M28		28	1.88	47.7	1.27	32.2	1.54	39.1	1-5/16
18	1-1/8		1.90	48.3	1.29	32.8	1.56	39.6	1-5/16
M30		30	1.96	49.8	1.35	34.3	1.62	41.1	1-5/16
20	1-1/4		2.03	51.6	1.41	35.8	1.70	43.2	1-5/16
M32		32	2.04	51.8	1.42	36.1	1.70	43.2	1-5/16
22	1-3/8		2.15	54.6	1.54	39.1	1.81	46.0	1-5/16
M35		35	2.15	54.6	1.54	39.1	1.81	46.0	1-5/16
M38		38	2.32	58.9	1.66	42.2	1.94	49.3	1-7/16
24	1-1/2		2.32	58.9	1.66	42.2	1.94	49.3	1-7/16
M40		40	2.39	60.7	1.74	44.2	2.02	51.3	1-7/16
26	1 5/8		2.44	62.0	1.79	45.5	2.06	52.3	1-7/16
28	1 3/4		2.57	65.3	1.91	48.5	2.19	55.6	1-7/16
M45		45	2.59	65.8	1.94	49.3	2.21	56.1	1-7/16
30	1 7/8		2.69	68.3	2.04	51.8	2.32	58.9	1-7/16
M50		50	2.79	70.9	2.13	54.1	2.41	61.2	1-7/16
32	2.00		2.82	71.6	2.16	54.9	2.44	62.0	1-7/16
34	2-1/8		2.94	74.7	2.29	58.2	2.57	65.3	1-7/16
M55		55	2.98	75.7	2.33	59.2	2.61	66.3	1-7/16
36	2-1/4		3.07	77.9	2.41	61.2	2.70	68.6	1-7/16
38	2-3/8		3.19	81.0	2.54	64.5	2.82	71.6	1-7/16
40	2-1/2		3.32	84.3	2.66	67.6	2.94	74.7	1-7/16
42	2-5/8		3.44	87.4	2.79	70.9	3.07	78.0	1-7/16



INSTALLATION DIMENSIONS - COMPONENT SEALS

HDN - HEAVY DUTY NARROW SEAL

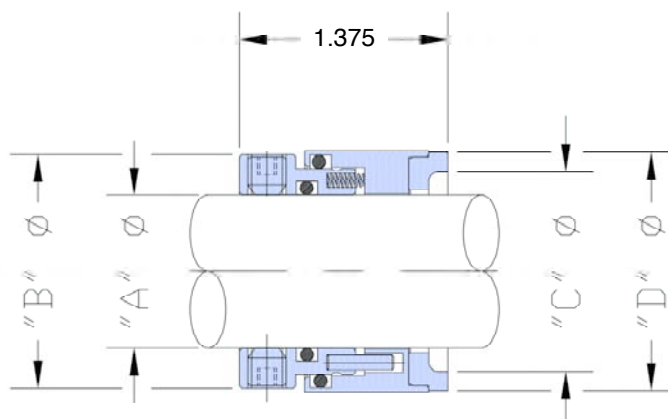
Size Code	Shaft Diameter (A)		Seal OD (B)		Seal Face ID (C)		Seal Face OD (D)		Working Length (E)
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
M24		24	1.52	38.6	1.24	31.5	1.50	38.1	1-3/4
M25		25	1.58	40.1	1.31	33.3	1.56	39.6	1-3/4
16	1.00		1.58	40.1	1.31	33.3	1.56	39.6	1-3/4
M28		28	1.71	43.4	1.44	36.6	1.69	42.7	1-3/4
18	1-1/8		1.71	43.4	1.44	36.6	1.69	42.7	1-3/4
M30		30	1.77	44.9	1.50	38.1	1.74	44.2	1-3/4
20	1-1/4		1.85	47.0	1.56	39.6	1.81	46.0	1-3/4
M32		32	1.85	47.0	1.56	39.6	1.81	46.0	1-3/4
22	1-3/8		1.96	49.8	1.69	42.9	1.92	48.8	1-3/4
M35		35	1.96	49.8	1.69	42.9	1.92	48.8	1-3/4
M38		38	2.19	55.6	1.81	46.0	2.06	52.3	1-3/4
24	1-1/2		2.19	55.6	1.81	46.0	2.06	52.3	1-3/4
M40		40	2.26	57.4	1.88	47.7	2.15	54.6	1-3/4
26	1 5/8		2.31	58.7	1.93	49.0	2.19	55.6	1-3/4
28	1 3/4		2.44	62.0	2.05	52.1	2.32	58.9	1-3/4
M45		45	2.44	62.0	2.05	52.1	2.32	58.9	1-3/4
30	1 7/8		2.56	65.0	2.18	55.4	2.45	62.2	1-3/4
M50		50	2.69	68.3	2.31	58.7	2.57	65.3	1-3/4
32	2.00		2.69	68.3	2.31	58.7	2.57	65.3	1-3/4
34	2-1/8		2.81	71.4	2.43	61.7	2.70	68.6	1-3/4
M55		55	2.85	72.4	2.48	63.0	2.73	69.3	1-3/4
36	2-1/4		2.94	74.7	2.56	65.0	2.82	71.6	1-3/4
38	2-3/8		3.06	77.7	2.68	68.1	2.95	74.9	1-3/4
40	2-1/2		3.19	81.0	2.81	71.4	3.07	78.0	1-3/4
42	2-5/8		3.31	84.1	2.93	74.4	3.20	81.3	1-3/4



INSTALLATION DIMENSIONS - COMPONENT SEALS

SRS - SHORT ROTARY SEAL

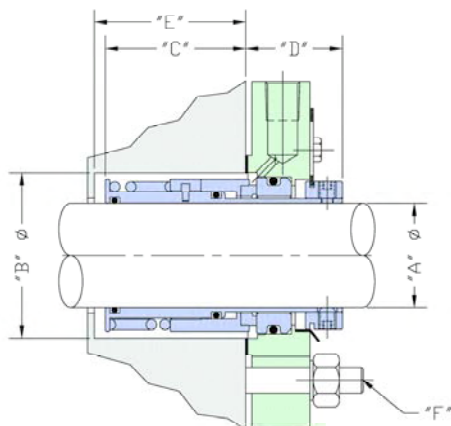
Size Code	Shaft Diameter (A)		Seal OD (B)		Seal Face ID (C)		Seal Face OD (D)		Minimum Box Bore	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
M18		18	1.290	32.8	1.026	26.1	1.281	32.5	1.312	33.3
15	15/16		1.517	38.5	1.245	31.6	1.495	38.0	1.562	39.7
M24		24	1.517	38.5	1.245	31.6	1.495	38.0	1.562	39.7
M25		25	1.580	40.1	1.307	33.2	1.560	39.6	1.625	41.3
16	1.00		1.580	40.1	1.307	33.2	1.560	39.6	1.625	41.3
17	1-1/16		1.705	43.3	1.437	36.5	1.685	42.8	1.750	44.4
M28		28	1.705	43.3	1.437	36.5	1.685	42.8	1.750	44.4
18	1-1/8		1.705	43.3	1.437	36.5	1.685	42.8	1.750	44.4
M30		30	1.767	44.9	1.500	38.1	1.747	44.4	1.812	46.0
19	1-3/16		1.767	44.9	1.500	38.1	1.747	44.4	1.812	46.0
20	1-1/4		1.830	46.5	1.560	39.6	1.812	46.0	1.875	47.6
M32		32	1.830	46.5	1.560	39.6	1.812	46.0	1.875	47.6
21	1-5/16		1.955	49.6	1.690	42.9	1.917	48.7	2.000	50.8
22	1-3/8		1.955	49.6	1.690	42.9	1.917	48.7	2.000	50.8
23	1-7/16		2.017	51.2	1.752	44.5	1.997	50.7	2.187	55.5
24	1-1/2		2.080	52.8	1.747	44.4	2.004	50.9	2.125	54.0
M40		40	2.262	57.5	1.880	47.8	2.147	54.5	2.312	58.7
26	1 5/8		2.312	58.7	1.932	49.1	2.195	55.8	2.375	60.3
28	1 3/4		2.437	61.9	2.055	52.2	2.322	59.0	2.500	63.5
M45		45	2.437	61.9	2.055	52.2	2.322	59.0	2.500	63.5
30	1 7/8		2.562	65.1	2.181	55.4	2.448	62.2	2.625	66.7
M50		50	2.687	68.2	2.306	58.6	2.573	65.4	2.750	69.8
32	2.00		2.687	68.2	2.306	58.6	2.573	65.4	2.750	69.8
34	2-1/8		2.812	71.4	2.431	61.7	2.700	68.6	2.875	73.0
36	2-1/4		2.937	74.6	2.556	64.9	2.825	71.8	3.000	76.2
38	2-3/8		3.062	77.8	2.681	68.1	2.950	74.9	3.125	79.4
40	2-1/2		3.187	80.9	2.806	71.3	3.075	78.1	3.250	82.6
42	2-5/8		3.312	84.1	2.932	74.5	3.200	81.3	3.375	85.7



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

BSS - BALANCED SINGLE SPRING SEAL

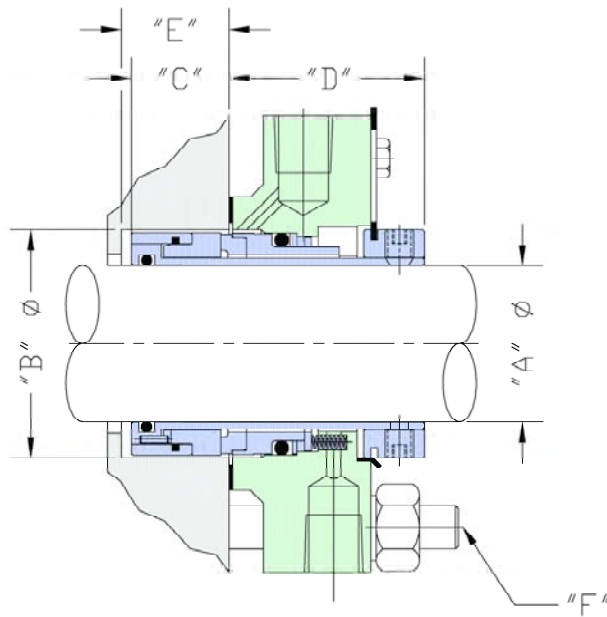
Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
16	1	1.625	1.750	2.01	1.27	2.07	2-19/32	4	2-23/32	9/16
18	1-1/8	1.750	1.875	2.01	1.27	2.07	2-23/32	4	2-27/32	9/16
20	1-1/4	1.875	2.000	2.01	1.27	2.07	2-27/32	4	2-31/32	9/16
22	1-3/8	2.000	2.125	2.01	1.27	2.07	2-31/32	4	3-3/32	9/16
24	1-1/2	2.250	2.500	2.01	1.40	2.07	3-11/32	5	3-15/32	5/8
26	1-5/8	2.375	2.625	2.01	1.40	2.07	3-15/32	5	3-19/32	5/8
28	1-3/4	2.500	2.750	2.01	1.40	2.07	3-19/32	5-1/2	3-23/32	5/8
30	1-7/8	2.625	2.875	2.01	1.40	2.07	3-23/32	5-1/2	3-27/32	5/8
32	2	2.750	3.000	2.01	1.40	2.07	3-27/32	6	3-31/32	5/8
34	2-1/8	2.875	3.125	2.01	1.40	2.07	3-31/32	6	4-3/32	3/4
36	2-1/4	3.000	3.375	2.01	1.40	2.07	4-3/32	6-1/4	4-7/32	3/4
38	2-3/8	3.125	3.500	2.01	1.40	2.07	4-7/32	6-1/4	4-11/32	3/4
40	2-1/2	3.250	3.625	2.01	1.40	2.07	4-11/32	6-1/2	4-15/32	3/4
42	2-5/8	3.625	4.125	3.03	2.35	3.09	4-31/32	6-1/2	5-3/32	3/4
44	2-3/4	3.750	4.250	3.03	2.35	3.09	5-3/32	7	5-7/32	3/4
46	2-7/8	3.875	4.375	3.03	2.35	3.09	5-7/32	7	5-11/32	3/4
48	3	4.000	4.500	3.03	2.35	3.09	5-7/32	8	5-11/32	7/8
50	3-1/8	4.125	4.625	3.03	2.35	3.09	5-11/32	8	5-15/32	7/8
52	3-1/4	4.250	4.750	3.03	2.35	3.09	5-15/32	8	5-19/32	7/8
54	3-3/8	4.375	4.875	3.03	2.35	3.09	5-19/32	8	5-23/32	7/8
56	3-1/2	4.500	5.000	3.03	2.35	3.09	5-23/32	8-1/2	5-27/32	7/8
58	3-5/8	4.625	5.125	3.03	2.35	3.09	5-27/32	8-1/2	5-31/32	7/8
60	3-3/4	4.750	5.250	3.03	2.35	3.09	5-31/32	8-1/2	6-3/32	7/8
62	3-7/8	4.875	5.375	3.03	2.35	3.09	6-3/32	8-1/2	6-7/32	7/8
64	4	5.000	5.500	3.03	2.35	3.09	6-7/32	9	6-11/32	7/8



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

GEM - GENERAL SERVICE ECONOMICAL MODEL SEAL

Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
18	1-1/8	1.750	2.125	.87	1.69	.93	2-25/32	4	2-29/32	5/8
22	1-3/8	2.000	2.375	.87	1.69	.93	3-1/32	4	3-5/32	5/8
28	1-3/4	2.500	2.750	.91	1.84	.97	3-19/32	5-1/2	3-23/32	5/8
30	1-7/8	2.625	3.000	.91	1.84	.97	3-23/32	5-1/2	3-27/32	5/8



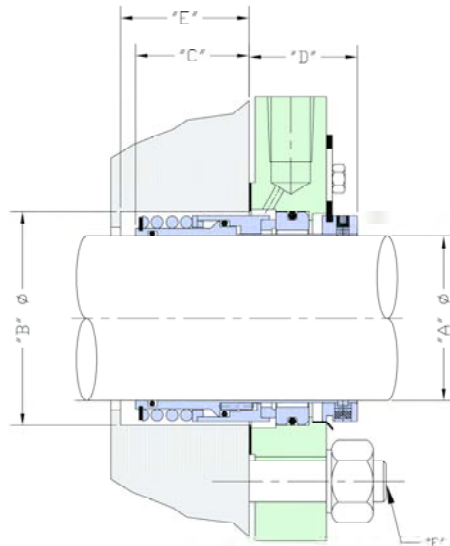
INSTALLATION DIMENSIONS - CARTRIDGE SEALS

HOS - HOT OIL SEAL

Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
18	1-1/8	1.750	1.875	1.96	1.26	2.02	2-23/32	4	2-27/32	9/16
22	1-3/8	2.000	2.125	1.96	1.26	2.02	2-31/32	4	3-3/32	9/16
28	1-3/4	2.500	2.750	1.97	1.39	2.03	3-19/32	5-1/2	3-23/32	5/8
30	1-7/8	2.625	2.875	1.97	1.39	2.03	3-23/32	5-1/2	3-27/32	5/8
32	2	2.750	3.000	1.97	1.39	2.03	3-27/32	6	3-31/32	5/8
34	2-1/8	2.875	3.125	1.97	1.39	2.03	3-31/32	6	4-3/32	3/4
40	2-1/2	3.250	3.625	1.97	1.39	2.03	4-11/32	6-1/2	4-15/32	3/4
42	2-5/8	3.625	4.125	2.53	2.13	2.59	5	6-1/2	5-1/8	3/4
48	3	4.000	4.500	2.53	2.13	2.59	5-1/4	8	5-3/8	7/8
60	3-3/4	4.750	5.250	2.53	2.13	2.59	6	8-1/2	6-1/8	7/8
76	4-3/4	5.875	6.625	2.81	2.13	2.87	7-5/8	10-1/2	7-3/4	1

HOS - BIG BORE DIMENSIONS

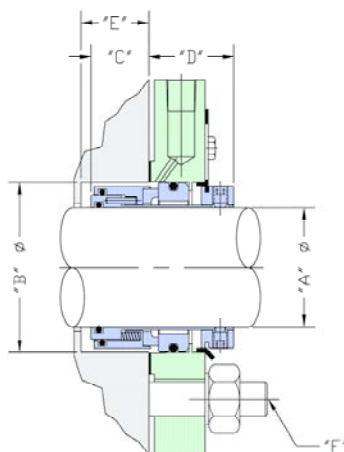
22	1-3/8	2.875	3.125	1.85	1.38	1.91	4	4-3/4 x 3-3/4 Elliptical Gland	-	7/16
28	1-3/4	3.500	3.750	1.97	1.39	2.03	4-27/32	6-1/2	4-31/32	5/8
30	1-7/8	3.625	3.875	1.91	1.45	1.97	4-5/8	6	4-3/4	5/8
34	2-1/8	3.875	4.125	1.97	1.39	2.03	5-1/4	7	5-3/8	3/4
40	2-1/2	4.500	4.750	1.72	1.64	1.78	6	8	6-1/8	3/4
42	2-5/8	4.625	4.750	1.21	2.13	1.27	-	7	6	5/8 Holes



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

SRC - SINGLE ROTARY CARTRIDGE SEAL

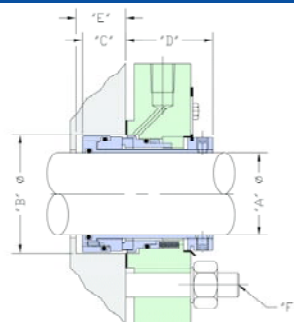
Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
16	1	1.625	1.750	.92	1.26	.98	2-19/32	4	2-23/32	9/16
18	1-1/8	1.750	1.875	.92	1.26	.98	2-23/32	4	2-27/32	9/16
20	1-1/4	1.875	2.000	.92	1.26	.98	2-27/32	4	2-31/32	9/16
22	1-3/8	2.000	2.125	.92	1.26	.98	2-31/32	4	3-3/32	9/16
24	1-1/2	2.250	2.500	.95	1.39	1.01	3-11/32	5	3-15/32	5/8
26	1-5/8	2.375	2.625	.95	1.39	1.01	3-15/32	5	3-19/32	5/8
28	1-3/4	2.500	2.750	.95	1.39	1.01	3-19/32	5-1/2	3-23/32	5/8
30	1-7/8	2.625	2.875	.95	1.39	1.01	3-23/32	5-1/2	3-27/32	5/8
32	2	2.750	3.000	.95	1.39	1.01	3-27/32	6	3-31/32	5/8
34	2-1/8	2.875	3.125	.95	1.39	1.01	3-31/32	6	4-3/32	3/4
36	2-1/4	3.000	3.375	.95	1.39	1.01	4-3/32	6-1/4	4-7/32	3/4
38	2-3/8	3.125	3.500	.95	1.39	1.01	4-7/32	6-1/4	4-11/32	3/4
40	2-1/2	3.250	3.625	.95	1.39	1.01	4-11/32	6-1/2	4-15/32	3/4
42	2-5/8	3.625	4.125	.95	2.13	1.01	5	6-1/2	5-1/8	3/4
44	2-3/4	3.750	4.250	.95	2.13	1.01	5-1/8	7	5-1/4	3/4
46	2-7/8	3.875	4.375	.95	2.13	1.01	5-1/4	7	5-3/8	3/4
48	3	4.000	4.500	.95	2.13	1.01	5-1/4	8	5-3/8	7/8
50	3-1/8	4.125	4.625	.95	2.13	1.01	5-3/8	8	5-1/2	7/8
52	3-1/4	4.250	4.750	.95	2.13	1.01	5-1/2	8	5-5/8	7/8
54	3-3/8	4.375	4.875	.95	2.13	1.01	5-5/8	8	5-3/4	7/8
56	3-1/2	4.500	5.000	.95	2.13	1.01	5-3/4	8-1/2	5-7/8	7/8
58	3-5/8	4.625	5.125	.95	2.13	1.01	5-7/8	8-1/2	6	7/8
60	3-3/4	4.750	5.250	.95	2.13	1.01	6	8-1/2	6-1/8	7/8
62	3-7/8	4.875	5.375	.95	2.13	1.01	6-1/8	8-1/2	6-1/4	7/8
64	4	5.000	5.500	.95	2.13	1.01	6-1/4	9	6-3/8	7/8
68	4-1/4	5.250	6.125	.95	2.13	1.01	7	9-1/2	7-1/8	7/8
72	4-1/2	5.500	6.375	.95	2.13	1.01	7-3/16	10	7-5/16	7/8
76	4-3/4	5.750	6.625	.95	2.13	1.01	7-5/8	10-1/2	7-3/4	1
80	5	6.250	7.375	.95	2.13	1.01	8-3/16	10-1/2	8-5/16	1



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

VGS - VERSATILE GENERAL SERVICE SEAL

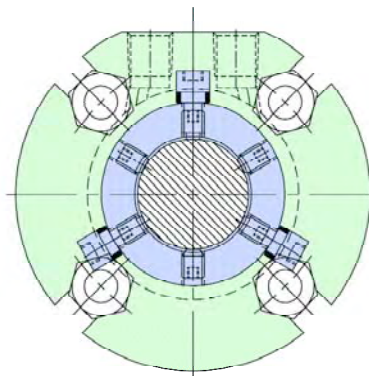
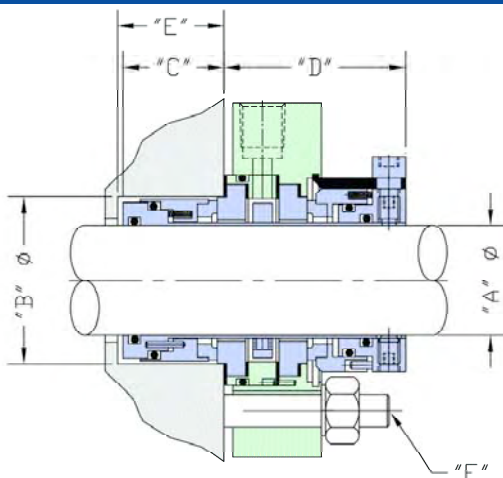
Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
16	1	1.625	2.000	.85	1.71	.91	2-21/32	4	2-25/32	5/8
18	1-1/8	1.750	2.125	.85	1.71	.91	2-25/32	4	2-29/32	5/8
20	1-1/4	1.875	2.250	.85	1.71	.91	2-29/32	4	3-1/32	5/8
22	1-3/8	2.000	2.375	.85	1.71	.91	3-1/32	4	3-5/32	5/8
24	1-1/2	2.250	2.500	.91	1.84	.97	3-9/32	4-1/2	3-13/32	5/8
26	1-5/8	2.375	2.625	.91	1.84	.97	3-13/32	5	3-17/32	5/8
28	1-3/4	2.500	2.750	.91	1.84	.97	3-19/32	5-1/2	3-23/32	5/8
30	1-7/8	2.625	3.000	.91	1.84	.97	3-23/32	5-1/2	3-27/32	5/8
32	2	2.750	3.125	.79	1.96	.85	3-25/32	5	3-29/32	5/8
34	2-1/8	2.875	3.125	.79	1.96	.85	3-27/32	6	3-31/32	3/4
36	2-1/4	3.000	3.750	.79	1.96	.85	4-15/32	6	4-19/32	3/4
38	2-3/8	3.125	3.875	.79	1.96	.85	4-19/32	6	4-23/32	3/4
40	2-1/2	3.250	4.000	.79	1.96	.85	4-23/32	6	4-27/32	3/4
42	2-5/8	3.625	4.125	.79	1.96	.85	4-27/32	6	4-31/32	3/4
44	2-3/4	3.750	4.250	1.11	2.30	1.17	4-31/32	7	5-3/32	3/4
46	2-7/8	3.875	4.375	1.11	2.30	1.17	5-3/32	7	5-7/32	3/4
48	3	4.000	4.500	1.11	2.30	1.17	5-7/32	8	5-11/32	7/8
50	3-1/8	4.125	4.625	1.11	2.30	1.17	5-11/32	8	5-15/32	7/8
52	3-1/4	4.250	5.125	1.11	2.30	1.17	5-27/32	8	5-31/32	7/8
54	3-3/8	4.375	5.250	1.11	2.30	1.17	5-31/32	8	6-3/32	7/8
56	3-1/2	4.500	5.375	1.11	2.30	1.17	6-3/32	8-1/2	6-7/32	7/8
58	3-5/8	4.625	5.500	1.11	2.30	1.17	6-7/32	8-1/2	6-11/32	7/8
60	3-3/4	4.750	5.625	1.11	2.30	1.17	6-11/32	8-1/2	6-15/32	7/8
62	3-7/8	4.875	5.750	1.11	2.30	1.17	6-15/32	8-1/2	6-19/32	7/8
64	4	5.000	6.000	1.11	2.30	1.17	6-23/32	9	6-27/32	7/8
68	4-1/4	5.250	6.125	1.11	2.30	1.17	6-31/32	9-1/2	7-3/32	7/8
72	4-1/2	5.500	6.375	1.11	2.30	1.17	7-7/32	10	7-11/32	7/8
76	4-3/4	5.750	6.625	1.11	2.30	1.17	7-9/16	10-1/2	7-11/16	1
80	5	6.250	7.375	1.08	2.48	1.14	8-3/16	10-1/2	8-5/16	1
84	5-1/4	6.500	7.625	1.08	2.48	1.14	8-7/16	11-1/2	8-9/16	1
88	5-1/2	6.750	7.875	1.08	2.48	1.14	8-11/16	11-1/2	8-13/16	1
92	5-3/4	7.000	8.125	1.08	2.48	1.14	8-15/16	12	9-1/16	1
96	6	7.250	8.875	1.08	2.48	1.14	9-11/16	12	9-13/16	1



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

DTP - DOUBLE TANDEM PUMPER SEAL

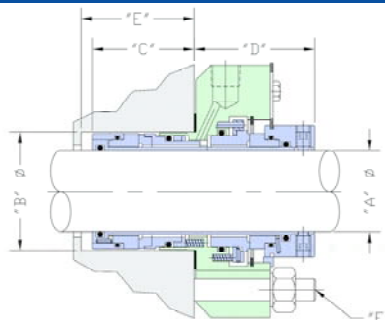
Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
16	1	1.625	1.750	1.14	2.05	1.20	2-5/8	4		7/16
18	1-1/8	1.750	1.875	1.14	2.05	1.20	2-3/4	4		7/16
20	1-1/4	1.875	2.000	1.14	2.05	1.20	2-7/8	4		7/16
22	1-3/8	2.000	2.125	1.14	2.05	1.20	3	4-1/4		7/16
24	1-1/2	2.250	2.375	1.15	2.16	1.21	3-3/8	4-1/2	3-1/2	5/8
26	1-5/8	2.375	2.500	1.15	2.16	1.21	3-1/2	5	3-5/8	5/8
28	1-3/4	2.500	2.625	1.15	2.16	1.21	3-5/8	5-1/2	3-3/4	5/8
30	1-7/8	2.625	2.750	1.15	2.16	1.21	3-3/4	5-1/2	3-7/8	5/8
32	2	2.750	2.875	1.15	2.16	1.21	3-7/8	5-1/2	4	5/8
34	2-1/8	2.875	3.000	1.15	2.16	1.21	4	6	4-1/8	3/4
36	2-1/4	3.000	3.125	1.15	2.16	1.21	4-1/8	6	4-1/4	3/4
38	2-3/8	3.125	3.250	1.15	2.16	1.21	4-1/4	6	4-3/8	3/4
40	2-1/2	3.250	3.375	1.15	2.16	1.21	4-3/8	6	4-1/2	3/4
42	2-5/8	3.375	3.500	1.15	2.16	1.21	4-1/2	6	4-5/8	3/4
44	2-3/4	3.750	4.000	1.27	2.73	1.33	5-1/4	7	5-3/8	3/4
46	2-7/8	3.875	4.125	1.27	2.73	1.33	5-3/8	7	5-1/2	3/4
48	3	4.000	4.250	1.27	2.73	1.33	5-1/2	8	5-5/8	7/8
50	3-1/8	4.125	4.375	1.27	2.73	1.33	5-5/8	8	5-3/4	7/8
52	3-1/4	4.250	4.500	1.27	2.73	1.33	5-3/4	8	5-7/8	7/8
54	3-3/8	4.375	4.625	1.27	2.73	1.33	5-7/8	8	6	7/8
56	3-1/2	4.500	4.750	1.27	2.73	1.33	6	8-1/2	6-1/8	7/8
58	3-5/8	4.625	4.875	1.27	2.73	1.33	6-1/8	8-1/2	6-1/4	7/8
60	3-3/4	4.750	5.000	1.27	2.73	1.33	6-1/4	8-1/2	6-3/8	7/8
62	3-7/8	4.875	5.125	1.27	2.73	1.33	6-3/8	8-1/2	6-1/2	7/8
64	4	5.000	5.250	1.27	2.73	1.33	6-1/2	9	6-5/8	7/8
68	4-1/4	5.250	5.500	1.27	2.73	1.33	7	9-1/2	7-1/8	7/8
72	4-1/2	5.500	5.750	1.27	2.73	1.33	7-1/4	10	7-3/8	7/8
76	4-3/4	5.750	6.000	1.27	2.73	1.33	7-1/2	10-1/2	7-5/8	1
80	5	6.000	6.250	1.27	2.73	1.33	8-1/4	10-1/2	8-3/8	1



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

RBD - RECIPROCALLY BALANCED DOUBLE SEAL

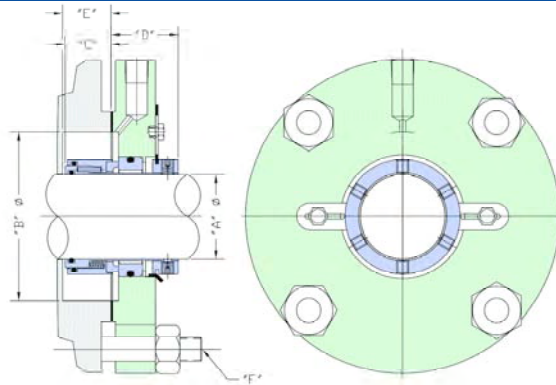
Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
16	1	1.625	2.000	1.74	2.01	1.80	2-11/16	4	2-13/16	5/8
18	1-1/8	1.750	2.125	1.74	2.01	1.80	2-13/16	4-1/4	2-15/16	5/8
20	1-1/4	1.875	2.250	1.74	2.01	1.80	2-15/16	4-1/4	3-1/16	5/8
22	1-3/8	2.000	2.375	1.72	2.03	1.78	3-1/8	4-1/4	3-1/4	5/8
24	1-1/2	2.250	2.500	1.99	2.07	2.05	3-5/16	4-1/2	3-7/16	5/8
26	1-5/8	2.375	2.625	1.99	2.07	2.05	3-15/32	5	3-19/32	5/8
28	1-3/4	2.500	2.750	1.99	2.07	2.05	3-5/8	5-1/2	3-3/4	5/8
30	1-7/8	2.625	3.000	1.74	2.32	1.80	3-23/32	5-1/2	3-27/32	5/8
32	2	2.750	3.125	1.99	2.07	2.05	3-13/16	5	3-15/16	5/8
34	2-1/8	2.875	3.125	1.74	2.32	1.80	3-31/32	6	4-3/32	3/4
36	2-1/4	3.000	3.750	1.74	2.32	1.80	4-15/32	6	4-19/32	3/4
38	2-3/8	3.125	3.875	1.74	2.32	1.80	4-19/32	6	4-23/32	3/4
40	2-1/2	3.250	4.000	1.99	2.07	2.05	4-11/16	6	4-13/16	3/4
42	2-5/8	3.625	4.125	2.25	2.84	2.31	4-13/16	6	4-15/16	3/4
44	2-3/4	3.750	4.250	2.25	2.84	2.31	4-31/32	7	5-3/32	3/4
46	2-7/8	3.875	4.375	2.25	2.84	2.31	5-1/16	7	5-3/16	3/4
48	3	4.000	4.500	2.25	2.84	2.31	5-3/16	8	5-5/16	7/8
50	3-1/8	4.125	4.625	2.25	2.84	2.31	5-5/16	8	5-7/16	7/8
52	3-1/4	4.250	5.125	2.25	2.84	2.31	5-13/16	8	5-15/16	7/8
54	3-3/8	4.375	5.250	2.25	2.84	2.31	5-15/16	8	6-1/16	7/8
56	3-1/2	4.500	5.375	2.25	2.84	2.31	6-1/16	8-1/2	6-3/16	7/8
58	3-5/8	4.625	5.500	2.25	2.84	2.31	6-3/16	8-1/2	6-5/16	7/8
60	3-3/4	4.750	5.625	2.25	2.84	2.31	6-5/16	8-1/2	6-7/16	7/8
62	3-7/8	4.875	5.750	2.34	2.75	2.40	6-7/16	8-1/2	6-9/16	7/8
64	4	5.000	6.000	2.25	2.84	2.31	6-11/16	9	6-13/16	7/8
68	4-1/4	5.250	6.125	2.25	2.84	2.31	6-15/16	9-1/2	7-1/16	7/8
72	4-1/2	5.500	6.375	2.25	2.84	2.31	7-3/16	10	7-5/16	7/8
76	4-3/4	5.750	6.625	2.25	2.84	2.31	7-7/16	10-1/2	7-9/16	1
80	5	6.250	7.375	2.25	2.84	2.31	8-3/16	10-1/2	8-5/16	1
84	5-1/4	6.500	7.625	2.25	2.84	2.31	8-7/16	11-1/2	8/9/16	1
88	5-1/2	6.750	7.875	2.25	2.84	2.31	8-11/16	11-1/2	8-13/16	1
92	5-3/4	7.000	8.125	2.25	2.84	2.31	8-15/16	12	9/1/16	1
96	6	7.250	8.875	2.25	2.84	2.31	9-11/16	12	9/13/16	1



INSTALLATION DIMENSIONS - CARTRIDGE SEALS

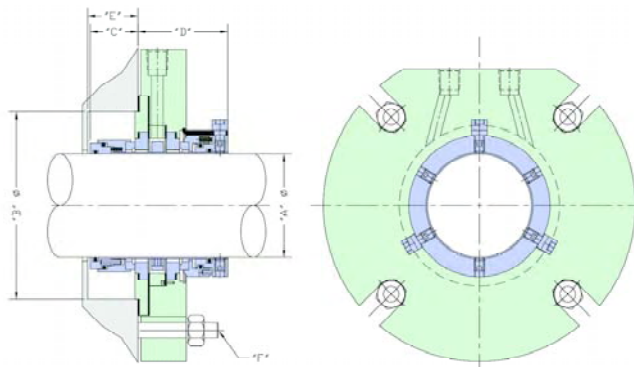
SRC - BIG BORE DIMENSIONS

Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
22	1-3/8	2.875	3.125	.81	1.38	.87	4	4-3/4 x 3-3/4 Elliptical Gland		7/16
28	1-3/4	3.500	3.750	.95	1.39	1.01	4-27/32	6-1/2	4-31/32	5/8
30	1-7/8	3.625	3.875	.89	1.45	.95	4-5/8	6	4-3/4	5/8
34	2-1/8	3.875	4.125	.95	1.39	1.01	5-1/4	7	5-3/8	3/4
40	2-1/2	4.500	4.750	.70	1.64	.76	6	8	6-1/8	3/4
42	2-5/8	4.625	4.750	.92	2.15	.98	-	7	6	5/8 Holes



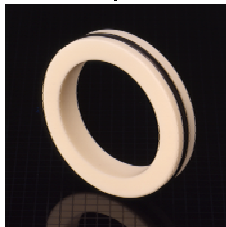
DTP - BIG BORE DIMENSIONS

Size Code	Shaft Size (A)	Stuffing Box Bore (B)		Internal Length (C)	External Length (D)	Min. Depth (E)	Gland Bolt Circle (F)			
		Min.	Max.				3/8 Stud Min.	Gland OD Max. BC	1/2 Studs Min.	Slot Size
22	1-3/8	2.875	3.000	1.14	2.05	1.20	4	4-3/4 x 3-3/4 Elliptical Gland		7/16
28	1-3/4	3.500	3.625	1.15	2.16	1.21	4-5/8	6	4-3/4	5/8
30	1-7/8	3.625	3.750	1.15	2.16	1.21	4-11/16	5-1/2	4-13/16	5/8
34	2-1/8	3.875	4.125	1.15	2.16	1.21	5-1/8	7	5-1/4	11/16
40	2-1/2	4.500	4.750	1.15	2.16	1.21	5-3/4	7-1/2	5-7/8	11/16
42	2-5/8	4.625	4.750	1.15	2.16	1.21	5-3/4	7-1/2	5-7/8	11/16

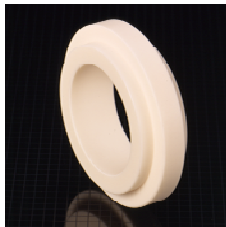


STATIONARY SEAT DIMENSIONS

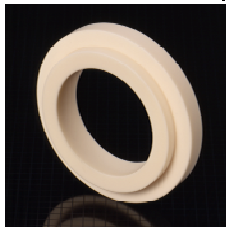
O-Ring Mount						O-Ring Mount					
Seal Size		OD (A)	Bore ID (B)	ID (C)	Hgt. (D)	Seal Size		OD (A)	Bore ID (B)	ID (C)	Hgt. (D)
Inch	Dash #					Inch	Dash #				
15/16	7.5	1.551	1.562	1.000	.375	2-1/2	20	3.364	3.375	2.574	.562
1	8	1.614	1.625	1.062	.437	2-5/8	21	3.487	3.500	2.702	.625
1-1/8	9	1.739	1.750	1.187	.437	2-3/4	22	3.737	3.750	2.952	.625
1-1/4	10	1.864	1.875	1.312	.437	2-7/8	23	3.862	3.875	3.077	.625
1-3/8	11	1.989	2.000	1.437	.437	3	24	3.987	4.000	3.202	.625
1-1/2	12	2.114	2.125	1.562	.437	3-1/8	25	4.112	4.125	3.327	.625
1-5/8	13	2.364	2.375	1.687	.500	3-1/4	26	4.237	4.250	3.452	.625
1-3/4	14	2.489	2.500	1.812	.500	3-3/8	27	4.362	4.375	3.577	.625
1-7/8	15	2.614	2.625	1.937	.500	3-1/2	28	4.487	4.500	3.707	.687
2	16	2.739	2.750	2.062	.500	3-5/8	29	4.612	4.625	3.832	.687
2-1/8	17	2.864	2.875	2.199	.562	3-3/4	30	4.737	4.750	3.957	.687
2-1/4	18	3.114	3.125	2.324	.562	3-7/8	31	4.862	4.875	4.082	.687
2-3/8	19	3.239	3.250	2.449	.562	4	32	4.987	5	4.207	.687



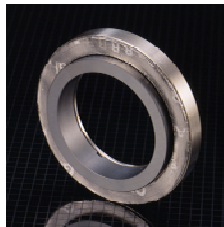
O-Ring Mounted



T-Shape Standard



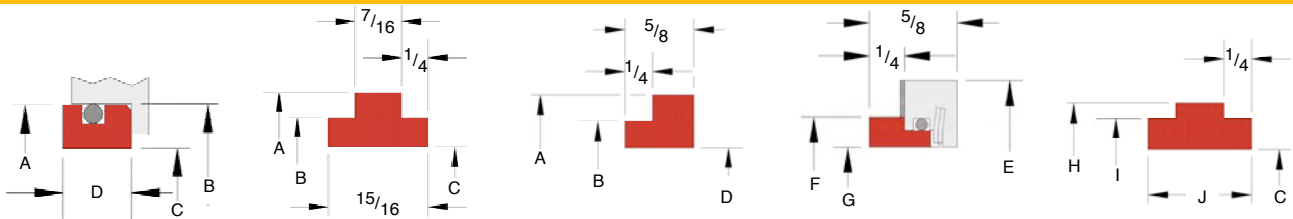
L-Shape



RF Mount



T-Shape OEM



Seal Size		Standard T-Shape			L-Shape	RF Mount			OEM T-Shape		
Inch	Dash #	OD (A)	Face OD (B)	ID (C)	ID (D)	OD (E)	OD (F)	ID (G)	OD (H)	Face OD (I)	Thk. (J)
		15/16	7.5	1.93	1.55	1.00	1.06	-	-	-	-
1	8	2.09	1.62	1.06	1.12	2.09	1.575	1.135	-	-	-
1-1/8	9	2.21	1.74	1.19	1.25	2.22	1.700	1.260	1.980	1.745	1.000
1-3/16	9.5	2.43	1.80	1.25	1.31	-	-	-	-	-	-
1-1/4	10	2.34	1.87	1.31	1.37	2.34	1.825	1.395	2.375	1.995	0.875
1-3/8	11	2.35	1.99	1.43	1.50	2.41	1.950	1.510	2.350	1.995	1.000
1-1/2	12	2.71	2.24	1.56	1.62	2.72	2.135	1.635	-	-	-
1-5/8	13	2.84	2.37	1.69	1.75	2.84	2.288	1.788	-	-	-
1-3/4	14	3.09	2.49	1.81	1.87	3.09	2.406	1.906	2.975	2.495	1.000
1-7/8	15	3.21	2.61	1.93	2.00	3.22	2.525	2.025	2.855	2.620	1.000
2	16	3.40	2.74	2.06	2.12	3.47	2.635	2.135	-	-	-
2-1/8	17	3.71	2.86	2.20	2.25	3.72	2.800	2.300	-	-	-
2-1/4	18	3.84	2.99	2.32	2.37	3.84	2.918	2.418	-	-	-
2-3/8	19	3.87	3.05	2.45	2.50	3.88	3.010	2.510	-	-	-
2-1/2	20	4.09	3.24	2.57	2.62	4.10	3.135	2.635	-	-	-
2-5/8	21	4.21	3.36	2.70	2.75	4.22	3.260	2.760	-	-	-

CGS - CARTRIDGE GREASE SEAL



The SEPCO® **CGS** is a single, cartridge-mounted mechanical seal that can be used to replace double seals without using a water flush. The unique feature of the CGS Seal is a grease barrier cavity to prevent product leakage to the atmosphere without elaborate environmental controls.

OPERATING CAPABILITIES:

Pressures: 350 psig; 24 bar g

Temperatures: 32° to 250° F; 0° to 121° C

Speeds: 7500 fpm; 38 m/s

Cartridge Mounted

Easy installation • Facilitates impeller adjustments
No critical installation measurements

Versatile Design

Fits standard and over-sized stuffing boxes

Stationary Design

Eliminates misalignment • Reduces wear
High PV factors

Single Spring Design

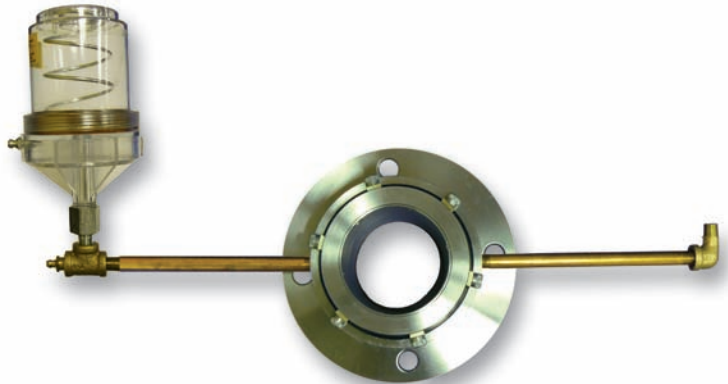
Consistent face loads • Non-clogging

Internally Balanced

Reduced hydraulic load
Reduced power consumption

Automatic Grease Dispenser Option

Automatic operation • Easy to install, inspect & refill
Low cost • Reduced surveillance & maintenance



This information is based on data that we believe to be reliable. Since conditions of product use are outside of our control, we make no warranties, expressed or implied and assume no liability in connection with any use of this information.

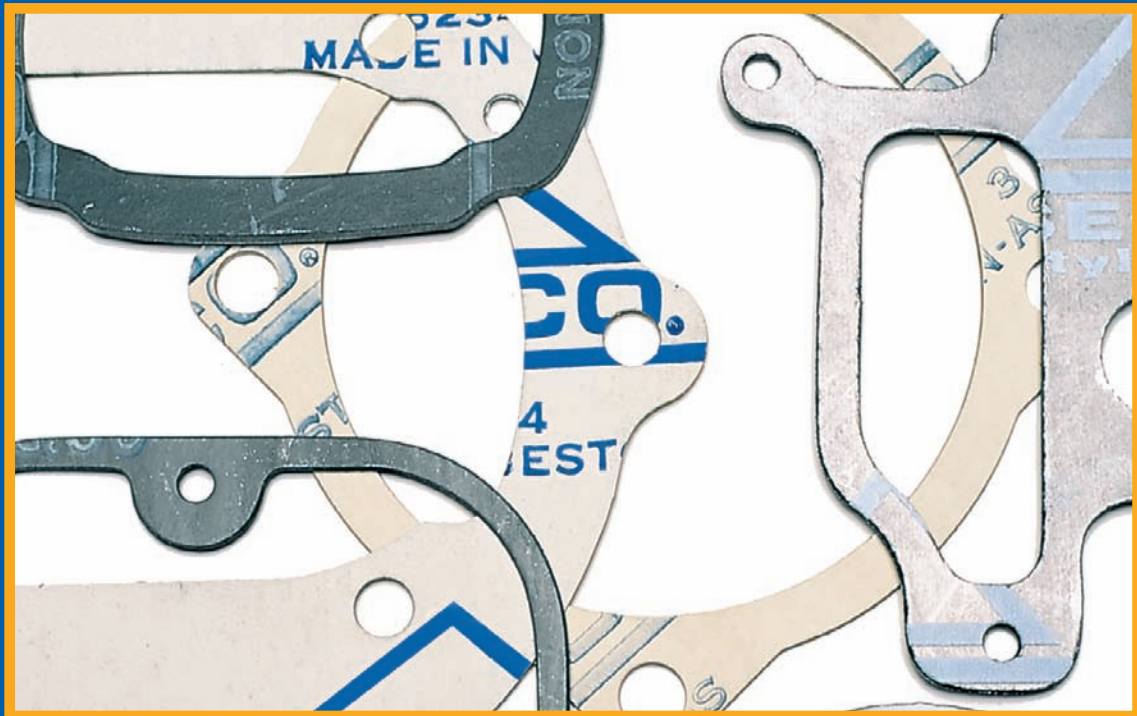
Certified to ISO 9001: 2000 Standards

Quality Fluid Sealing Solutions for Industry

S H E E T G A S K E T I N G

SEPCO®

Sealing Equipment Products Co., Inc.



Quality Fluid Sealing Solutions for Industry.



SEALING EQUIPMENT PRODUCTS Co., Inc.

QUALITY FLUID SEALING SOLUTIONS FOR INDUSTRY.

SEALING EQUIPMENT PRODUCTS COMPANY, HEADQUARTERED IN ALABASTER, ALABAMA, IS A MANUFACTURER WITH A LONG STANDING TRADITION OF PROVIDING THE HIGHEST QUALITY FLUID SEALING SOLUTIONS AVAILABLE IN THE MARKET PLACE. OUR PRIMARY FOCUS IS TO DELIVER EXCELLENT CUSTOMER SERVICE. WITH OVER 145,000 SQUARE FEET OF MANUFACTURING SPACE IN OUR STATE OF THE ART FACILITY WE ARE ONE OF THE LARGEST FEMALE OWNED BUSINESSES IN THE SOUTHEAST.

MAJOR PRODUCT AND SERVICES

OUR PRODUCTS ARE USED IN A WIDE VARIETY OF PROBLEM SOLVING APPLICATIONS WORLD WIDE. THE PRODUCT LINE INCLUDES: COMPRESSION PUMP PACKING, DIE-FORMED AND CUT RINGS, GASKETS, GASKETING MATERIAL, FLEXIBLE GRAPHITE AND FIBERGLASS PRODUCTS INCLUDING FIRESLEEVEING. ONE OF THE COMPANIES FASTEST GROWING PRODUCT LINES IS MECHANICAL SEALS. WE ARE LEADING THE WAY IN INNOVATIVE DESIGNS THAT MAKE MECHANICAL SEAL REPAIR PROGRAMS OBSOLETE.

MARKETS

SEALING EQUIPMENT PRODUCTS COMPANY HAS AN EXTENSIVE NETWORK OF INDUSTRIAL DISTRIBUTORS WHO PROVIDE FLUID SEALING PRODUCTS TO ELECTRICAL UTILITIES, PULP AND PAPER MILLS, REFINERIES, WASTE WATER TREATMENT PLANTS, MINING OPERATIONS, CHEMICAL PROCESSING PLANTS AND OTHER PROCESS INDUSTRIES. IN ADDITION, THE COMPANY IS A CERTIFIED SUPPLIER TO PUMP AND VALVE MANUFACTURERS.

QUALITY

SEALING EQUIPMENT PRODUCTS COMPANY IS CERTIFIED TO ISO 9001: 2000 STANDARDS.

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STYLE 100

STYLE 100 COMPRESSED SHEET

Color: Green

A good quality general service manufactured from non-asbestos fibers and blended with a proprietary elastomeric compound. Style 100 is SEPCO's most economical alternative to compressed asbestos sheet. Recommended for applications up to 700°F and pressures up to 900 psi.

Sizes: 60" x 60"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".



STYLE 200

STYLE 200 COMPRESSED SHEET/SBR BINDER

Color: Gray/Black

Manufactured from non-asbestos fibers bonded together into a homogenous sheet with an SBR binder. Our most popular compressed sheet. Withstands temperatures up to 750°F/400°C with excellent creep resistance and high torque retention properties. Treated with a clear anti-stick release agent. Recommended for pressures up to 1000 psi/69 bar. Applications include all mating pipe flanges, boilers, manhole and handhole gaskets, pumps, compressors, valves, turbines, mixers and vessels.

Sizes: 60" x 60"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".



STYLE 240

STYLE 240 COMPRESSED SHEET/NEOPRENE BINDER

Color: Gray/Black

Manufactured from high quality non-asbestos fibers and bonded with neoprene rubber. It demonstrates outstanding resistance to the effects of hydrocarbons with a minimum of swelling. Popular in applications where hot oil handling equipment is used. Temperatures to 750°F/400°C. Pressures to 1000 psi/69 bar. Recommended for mating flanges, pumps, compressors, vessels, and where ever oil may cause excessive swelling with other rubber compounds.

Sizes: 60" x 60"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".



STYLE 300

STYLE 300 COMPRESSED SHEET/SBR BINDER

Color: Off White

Manufactured from non-asbestos fibers and a SBR binder, and vulcanized to provide maximum strength and yield characteristics. Favored where color contamination of the product must be avoided. Maximum temperature limit is 750°F/400°C. Pressures to 1000 psi/69 bar. Recommended for all food handling and process equipment conveying products which must be kept uncontaminated from graphite and other discolorants.

Sizes: 60" x 120"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".

COMPRESSED GASKET SHEET

STYLE 500 COMPRESSED SHEET

Color: Gray/Black

Manufactured from 95% pure graphite with a .002" thick 316 stainless steel insert that reduces gasket handling damage and increases pressure resistance. Style 500 has no binders or resins to cook out and will not cold flow. Temperatures to -328° to 5432°F. Pressures up to 5000+ psi and a pH range of 0-14.

Sizes: 60" x 60"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".



STYLE 6234 COMPRESSED SHEET/NITRILE BINDER

Color: Off White

Manufactured with a special compound of heat and chemical resistant nitrile rubber and non-asbestos fibers. This blend of organic fibers exhibits the highest chemical and temperature resistance of all the non-asbestos compressed sheet we offer. Temperatures to 750°F/400°C. Pressures to 1450 psi/100 bar. Recommended for mating flanges in applications sealing steam, air, gases, ammonia, chemicals, and many acids and caustic solutions.

Sizes: 60" x 180"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".



STYLE 6234C COMPRESSED SHEET/NITRILE BINDER

Color: Black

Manufactured with a special compound of heat and chemical resistant nitrile rubber and carbon fibers. This blend of carbon fibers exhibits the highest chemical and temperature resistance of all the non-asbestos compressed sheet we offer. Temperatures to 750°F/400°C. Recommended for mating flanges in applications sealing steam, air, gases, ammonia, chemicals, and many acids and caustic solutions.

Sizes: 60" x 180"

Thickness: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4".



"Since the performance of the gasket material is dependent on many other factors not related to the gasket itself, Purchaser is WARNED that the maximum operating conditions shown in the 'Technical Data' chart may not be achieved under certain conditions. Purchaser is therefore urged to test the gasket material under the actual conditions of assembly and operation to determine the appropriate maximum operating conditions."

COMPRESSED SHEET TYPICAL SPECIFICATIONS

STYLE	200	240	300	500	6234	6234C
Typical Tensile ASTM 152 Across Grain	1600 psi	1600 psi	1600 psi	5000 psi	2000 psi	1500 psi
Compressibility ASTM 36A	7% - 17%	7% - 17%	7% - 17%	35% - 40%	7% - 17%	7% - 17%
Recovery ASTM 36A	Min. 50%	Min. 50%	Min. 50%	Min. 15%	Min. 50%	Min. 50%
Oil Resistance (5hrs. in ASTM No. 3 oil @ 300°F/149°C)						
Thickness Increase	20% - 35%	15% - 25%	20% - 35%	0% - 5%	0% - 5%	0% - 5%
Tensile Loss	Max. -50%	Max. -50%	Max. -50%	N/A	Max. -25%	Max. -25%
Fuel Resistance (5hrs. in ASTM Fuel B @ 73°F/23°C)						
Thickness Increase	15% - 25%	10% - 20%	15% - 25%	0% - 6.4%	0% - 6%	0% - 7%
Weight Increase	Max. 25%	Max. 20%	Max. 25%	Max. 28%	Max. 15%	Max. 15%
Leachable Chloride Content	<200 PPM	<500 PPM	<200 PPM	<50 PPM	<200 PPM	<200 PPM

COMPRESSED SHEET CHEMICAL RESISTANCE CHART

The information in this chart should only be used as general guide to the selection of a suitable material.

A = Suitable.

B = Suitability depends on operating conditions.

C = Not suitable.

Solid materials shown are to be understood as aqueous solutions or suspensions.

MEDIUM	STYLE					
	200	300	240	500	6234	6234C
Acetaldehyde	B	B	C	A	B	B
Acetic Acid 100%	B	B	B	A	A	A
Acetic Acid 10%	A	A	A	A	A	A
Acetic Ether	B	B	B	A	B	B
Acetone	A	A	B	A	B	B
Acetylene	A	A	A	A	A	A
Adipic Acid	A	A	A	A	A	A
Air	A	A	A	A	A	A
Alum	A	A	A	A	A	A
Aluminum Acetate	A	A	A	A	A	A
Aluminum Chloride	A	A	A	A	A	A
Ammonia	B	B	A	A	A	A
Ammonium Bicarbonate	A	A	A	A	A	A
Ammonium Chloride	A	A	A	A	A	A
Ammonium Diphosphate	A	A	A	A	A	A
Ammonium Hydroxide	B	B	B	A	B	A
Amyl Acetate	B	B	A	A	B	B
Aniline	B	B	C	A	C	C
Aviation Fuels	C	C	A	A	A	A
Barium Chloride	A	A	A	A	A	A
Benzene	C	C	B	A	A	A
Benzoic Acid	B	B	A	A	B	A

MEDIUM	STYLE					
	200	300	240	500	6234	6234C
Bleach Solutions	A	A	A	B	A	A
Boiler Feed Water	A	A	A	A	A	A
Borax	A	A	A	A	A	A
Boric Acid	A	A	A	A	A	A
Butane	C	C	A	A	A	A
Butanone (M.E.K.)	C	C	C	A	B	B
Butyl Acetate	B	B	B	A	B	B
Butyl Alcohol	A	A	A	A	A	A
Butyric Acid	A	A	A	A	A	A
Calcium Chloride	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A
Calcium Hypochlorite	A	A	B	B	A	A
Carbon Dioxide	A	A	A	B	A	A
Carbon Disulphide	C	C	B	A	C	B
Carbon Tetrachloride	C	C	C	A	B	B
Castor Oil	B	B	A	B	A	A
Chlorine (Dry)	B	B	A	A	A	A
Chlorine (Wet)	C	C	C	C	B	C
Chloroform	C	C	C	A	B	C
Chromic Acid	C	C	C	B	B	B
Citric Acid	A	A	A	A	A	A
Clophen T.64	C	C	A	A	B	B

COMPRESSED SHEET CHEMICAL RESISTANCE CHART

MEDIUM	STYLE					
	200	300	240	500	6234	6234C
Condensate	A	A	A	A	A	A
Copper Sulphate	A	A	A	A	A	A
Creosote	B	B	B	A	C	C
Cresol	B	B	B	A	B	B
Cyclohexanol	B	B	A	A	A	A
Decalin	C	C	B	A	A	A
Dibenzylether	C	C	C	A	C	C
Dibutylphalate	C	C	B	A	A	A
Diesel Oil	C	C	B	A	A	A
Dimethylformamide	C	C	C	A	C	C
Diphyl, Dowtherm A	C	C	B	A	A	A
Dye Liquors (alkaline, neutral, acid)	A	A	A	A	A	A
Ethane	A	A	A	A	A	A
Ethyl Acetate	B	B	B	A	B	B
Ethyl Alcohol, Ethanol	A	A	A	A	A	A
Ethyl Chloride	C	C	B	A	B	B
Ethylene	A	A	A	A	A	A
Ethylene Chloride	B	B	B	A	C	C
Ethylene Glycol	A	A	A	A	A	A
Ethyl Ether	B	B	A	A	A	A
Freon 12	C	C	A	A	A	A
Freon 22	C	C	A	A	A	A
Formaldehyde	A	A	A	A	A	A
Formic Acid 10%	A	A	A	A	A	A
Formic Acid 85%	B	B	B	A	B	B
Glycerine	A	A	A	A	A	A
Heating Oil	C	C	B	A	A	A
Heptane	C	C	A	A	A	A
Hydraulic Oil (glycol based)	A	A	A	A	A	A
Hydraulic Oil (mineral)	C	C	A	A	A	A
Hydraulic Oil (phosphate ester based)	B	B	B	A	B	B
Hydrochloric Acid 20%	C	C	B	A	B	B
Hydrochloric Acid 37%	C	C	C	A	C	C
Hydrofluoric Acid 10%	C	C	B	A	C	C
Hydrofluoric Acid 40%	C	C	C	A	C	C
Hydrogen	A	A	A	A	A	A
Hydrogen Peroxide (up to 6% w/w)	A	A	A	A	A	A
Hydrogen Chloride (Dry)	A	A	A	A	A	A
Iso-octane	B	B	A	A	A	A
Iso-propyl Alcohol	A	A	A	A	A	A
Kerosene	C	C	A	A	A	A
Lactic Acid 50%	A	A	A	A	A	A
Linseed Oil	B	B	A	A	A	A
Magnesium Sulphate	A	A	A	A	A	A
Mallic Acid	A	A	A	A	A	A
Methane	A	A	A	A	A	A
Methyl Alcohol	A	A	A	A	A	A
Methyl Chloride	C	C	B	A	B	B
Methylene Chloride	B	B	C	A	C	C
Methyl Ethyl Ketone	C	C	B	A	B	B
Mineral Oil	C	C	A	A	A	A
Mineral Oil Type ASTM 1	B	B	A	A	A	A
Mineral Oil Type ASTM III	B	B	A	A	A	A
Monochlor Methane	C	C	B	A	B	B
Nitrogen	A	A	A	A	A	A
Naphtha	C	C	B	A	A	A
Nitric Acid 20%	C	C	C	A	C	C

MEDIUM	STYLE					
	200	300	240	500	6234	6234C
Nitric Acid 40%	C	C	C	B	C	C
Nitric Acid 96%	C	C	C	C	C	C
Octane	C	C	B	A	A	A
Oleic Acid	A	A	A	A	A	A
Oxalic Acid	C	C	B	A	B	B
Palmitic Acid	A	A	A	A	A	A
Pentane	C	C	A	A	A	A
Perchlorethylene	C	C	B	A	B	B
Petroleum	B	B	A	A	A	A
Petroleum Ether	B	B	A	A	A	A
Phenol	B	B	B	A	C	C
Phosphoric Acid	A	A	A	A	A	A
Phthalic Acid	A	A	A	A	A	A
Potassium Acetate	A	A	A	A	A	A
Potassium Carbonate	A	A	A	A	A	A
Potassium Chlorate	A	A	A	C	A	A
Potassium Chloride	A	A	A	B	A	A
Potassium Cyanide	A	A	A	C	A	A
Potassium Dichromate	A	A	A	B	A	A
Potassium Hydroxide	B	B	B	A	B	A
Potassium Hypochlorite	A	A	A	B	A	A
Potassium Nitrate	A	A	A	C	A	A
Potassium Permanganate	A	A	A	A	A	A
Producer Gas	B	B	A	A	A	A
Propane	B	B	A	A	A	A
Pydrol	C	C	A	A	A	A
Pyridine	B	B	C	A	C	C
Rape Seed Oil	B	B	A	A	A	A
Silicone Oil	A	A	A	A	A	A
Sea Water	A	A	A	A	A	A
Sodium Aluminate	A	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	A	A
Sodium Bisulphite	A	A	A	A	A	A
Sodium Chloride	A	A	A	A	A	A
Sodium Hydroxide	B	B	B	A	B	A
Sodium Silicate	A	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A	A
Sodium Sulphide	A	A	A	A	A	A
Steam	B	B	B	B	B	A
Steric Acid	A	A	A	A	A	A
Sulphur Dioxide	B	B	B	A	C	B
Sulphuric Acid 20%	C	C	B	A	C	C
Sulphuric Acid 50%	C	C	C	A	C	C
Sulphuric Acid 96%	C	C	C	C	C	C
Sulputous Acid	B	B	B	A	B	B
Tanic Acid	A	A	A	A	A	A
Tartaric Acid	A	A	A	A	A	A
Tetrachlorethane	C	C	B	A	B	B
Tetralin	C	C	B	A	A	A
Toluene	C	C	B	A	A	A
Town Gas	B	B	A	A	A	A
Transformer Oil	B	B	A	A	A	A
Trichlor Ethylene	C	C	B	A	B	B
Turpentine	C	C	B	A	A	A
Vinyl Acetate	C	C	B	A	A	A
Water	A	A	A	A	A	A
Xylene	C	C	B	A	A	A

STYLE 20 RED RUBBER SHEET

Color: Red.

Features: A general service SBR rubber compound of excellent quality. This heat resistant material has been calendered and vulcanized under the strictest control.

Equipment: All mating flanges wherever a quality rubber sheet is required.

Remarks: Deforms to uneven flanges.

STYLE 900 CLOTH INSERTED RUBBER SHEET

Color: Black.

Features: A SBR Rubber Sheet with a polyester cloth inserted for additional strength.

Surface: Smooth.

Equipment: All flanges having narrow mating surfaces and where additional strength is required.

Limitations: Temperatures to 225°F/107°C, pressures to 500 psi.

Remarks: Greater tensile strength for higher pressures.

STYLE 1000N DIAPHRAGM RUBBER SHEET

Color: Black.

Features: A special neoprene compound with a medium weight woven polyester cloth insert for maximum strength. **Surface:** Smooth.

Equipment: Control valves and all equipment applications where a diaphragm material is required.

STYLE 1001N NEOPRENE/NYLON DIAPHRAGM RUBBER SHEET

Same as 1000N except that a neoprene sheet and a nylon cloth are combined for the advantages of oil and fuel resistance of the neoprene and the additional stretch and strength qualities of nylon.

Limitations: 1000 psi - all plies. Temperatures to 250°F/121°C.

STYLE 1105-50 DURO EPDM RUBBER SHEET

Color: Black.

Features: This 50 durometer sheet is an Ethylene propylene displaying excellent resistance to ozone, oxygen and water. **Surface:** Smooth.

Equipment: Mating flanges, boiler manhole and handhole flanges.

Remarks: An excellent low cost material for boiler gaskets.

1106-60 DURO EPDM

Same as 1105, except 60 durometer.

STYLE 1205-50 DURO NITRILE RUBBER SHEET

Color: Black.

Features: High grade Acrylonitrile sheet.

Surface: Smooth.

Equipment: All mating flanges.

Remarks: Use where ever a high temperature oil resistant elastomer is required.

1206-60 DURO NITRILE RUBBER SHEET

Same as 1205, except 60 durometer.

STYLE 1300 PURE NATURAL RUBBER SHEET

Color: Tan.

Features: A composition of specially blended compounds. Soft, pliable, capable of filling flange irregularities with the lightest bolt loads.

Surface: Smooth.

Equipment: All mating flanges.

Limitations: Temperatures to 200°F/93°C.

Remarks: Deforms easily and recovers readily.

STYLE 1405-50 DURO RED SILICONE RUBBER SHEET

Color: Red.

Features: This polysiloxane polymer contains no acid producing chemicals and is noncorrosive. Although silicone physical properties are modest at ambient temperatures, it does retain these properties at more severe conditions which would cause the failure of other elastomers.

Surface: Smooth.

Equipment: All mating surfaces.

Remarks: Excellent high and low temperature resistance.

1406-60 DURO RED SILICONE SHEET Same as 1405 except 60 Durometer.

STYLE 1607 VITON[®] RUBBER SHEET

Color: Black.

Features: This fluoro-elastomer sheet displays unusual resistance to oils and chemicals at elevated temperatures. **Surface:** Smooth.

Equipment: All mating surfaces.

Limitations: Temperatures from -40°F/-4°C to 500°F/260°C.

Remarks: A favorite for high temperature oils.

STYLE 3404-40 DURO NEOPRENE SHEET

Color: Black.

Features: This chloroprene composition has excellent weathering resistance, good oil resistance and good physical properties. 3404 is a 40 durometer sheet.

Surface: Smooth.

Equipment: All mating surfaces.

3405-50 DURO NEOPRENE SHEET Same as 3404 except 50 durometer hardness.

3406-60 DURO NEOPRENE SHEET Same as 3404 except 60 durometer hardness.

3407-70 DURO NEOPRENE SHEET Same as 3404 except 70 durometer hardness.

STYLE 3456 WHITE RUBBER SHEET

Color: White.

Features: A 60 durometer white rubber compound having the same qualities as 3406 except that it is white and may be used to prevent product discoloration.

Surface: Smooth.

Equipment: All mating surfaces.

Remarks: A popular rubber compound in food processing plants.

STYLE 207 FELT SHEET

Color: Gray/Blue.

Features: A fine quality wool felt cloth material.

Finish: No surface treatment.

Equipment: Equipment having provision for dust shields, wipers, as a grease retainer, wick or vibration dampener. **Recommended For:** Air, grease, oil, etc.

Remarks: A resilient felt material.

STYLE 440 VEGETABLE FIBER SHEET

Color: Tan.

Features: A strong plant fiber sheet impregnated with a glycerine compound.

Finish: No surface treatment, smooth.

Equipment: All mating flanges, automotive applications, etc.

Recommended For: Gasoline, benzine, oil, grease, and hot and cold water.

Limitations: Temperatures to 250°F/121°C, pressures to 500 psi.

Remarks: Tough, resilient, cuts cleanly, easy to use.

STYLE 445 CORK AND VEGETABLE FIBER SHEET

Features:

A plant fiber sheet containing 40% granulated cork particles impregnated with a glue-glycerine binder.

Finish: No surface treatment.

Equipment: All mating flanges, automotive engine applications.

Recommended For: Oil, water, gasoline, fuels and grease.

Limitations: Temperatures to 250°F/121°C, pressures to 500 psi.

Remarks: A soft resilient material. Use wherever minimum bolt loads are required.

STYLE 5000 PTFE SHEET

Color: White

Features: A virgin PTFE sheet meeting the highest standards of uniformity and quality.

Equipment: All equipment handling severe corrosives.

Recommended For: Acids, alkalis, corrosive chemicals and gases.

Limitations: Temperatures to 500°F/260°C.

STYLE 5100 PTFE SHEET

Color: White

Features: A commercial grade PTFE sheet which does not meet the same electrical specifications of virgin PTFE sheet.

Equipment: All equipment handling severe corrosives.

Recommended For: Acids, alkalis, corrosive chemicals and gases.

Limitations: Temperatures to 500°F/260°C.

TYPICAL SPECIFICATIONS

STYLE	20	900	1000N	1001N	1105	1205
Material	SBR	SBR Cloth Reinforced	Neoprene Cloth Reinforced	Neoprene Cloth Reinforced	EPDM	Nitrile
Durometer	80	80	70	60	60	50
Cloth Insert Plies	None	Cotton Duck 1 Ply per 1/16"	Polyester 1 Ply per 1/16"	Nylon 1 Ply per 1/16"	None	None
Approximate Weight per Sq. Yd. (1/16" Thick)	5.3 lbs	4.5 lbs	4.3 lbs	4.3 lbs	3.5 lbs	4.0 lbs
Available Widths	36" & 48"	48"	52"	56"	36"	48"
Available Thicknesses	1/16-1/4"	1/32-1/4"	1/16-1/4"	1/16-1/4"	1/32-1/4"	1/32-1/4"

STYLE	1300	1405	1607	3404	3456
Material	Natural	Silicone	Viton	Neoprene	Neoprene
Durometer	40	50	70	40	60
Cloth Insert Plies	None	None	None	None	None
Approximate Weight per Sq. Yd. (1/16" Thick)	3.6 lbs	3.5 lbs	5.5 lbs	4.3 lbs	4.8 lbs
Available Widths	36"	36" & 48"	36" & 48"	36" & 48"	36"
Available Thicknesses	1/16-1"	1/16-1/4"	1/16-1/4"	1/32-1"	1/16-1/4"

STYLE	440	445	STYLE	5000	5100	207
Typical Tensile ASTM 152 Across Grain	2000 psi	1000 psi	Material	Virgin PTFE	Mech. Grade PTFE	Wool Felt
Compressibility ASTM 36A	25% - 40%	40% - 50%	Approx. Wgt.	1/16" x Sq. Ft. .75 lbs	1/16" x Sq. Ft. .75 lbs	1/8 x Sq.Yd. 1.53 lbs.
Recovery ASTM 36A	Min. 40%	Min. 40%	Available Widths	48" x 48"	48" x 48"	72"
Oil Resistance (22 hrs. in ASTM No. 3 oil @ 70-85°F) Thickness Increase	5% Max.	5% Max.	Available Thickness	1/32"-1/4"	1/32"-1/8"	1/8"-1"
Fuel Resistance (22hrs. in ASTM Fuel B @ 70-85°F) Thickness Increase	5% Max.	5% Max.				



FG-7130

BRAIDED FIBERGLASS TUBING

FG-7130S SINGLE WALL
FG-7130D DOUBLE WALL

Construction: Texturized fiberglass yarns braided into a seamless, continuous sleeve.

Features: FG-7130S 1/16" thick, single wall.

FG-7130D 1/8" thick, double wall.

Treatment: None.

Recommended for: Pipe insulation for steam, water, oil and chemical services where the application is protected from weather.

Service Conditions: Temperatures to 1000°F/538°C.



FG-7140

WATERPROOF BRAIDED FIBERGLASS TUBING

FG-7140S WATERPROOF SINGLE WALL
FG-7140D WATERPROOF DOUBLE WALL

Construction: Texturized fiberglass yarns braided into a seamless, continuous sleeve.

Features: FG-7140S 1/16" thick single wall.

FG-7140D 1/8" thick, double wall.

Treatment: Neoprene Coating.

Recommended for: Pipe insulation for steam, water, oil, and chemical services where protection from the weather is needed.

Service Conditions: Temperatures to 500°F/260°C.



FG-4

FG-4 SQUARE-BRAIDED FIBERGLASS

Construction: Square plaited from continuous filament, inorganic glass fibers.

Features: Will not shrink or swell in service and is completely incombustible.

Treatment: None.

Equipment: Door seals and gasketing on covers of processing kettles, tanks, etc.

Recommended for: Extremely high temperatures up to 1000°F/538°C where sealing molten metals, acids, solvents, etc.

Service Conditions: Temperatures to 1000°F/538°C

STYLE 4 SQUARE BRAIDED FIBERGLASS

Same as FG-4 except hard and dense.



FG-800

FG-800 TWISTED FIBERGLASS ROPE

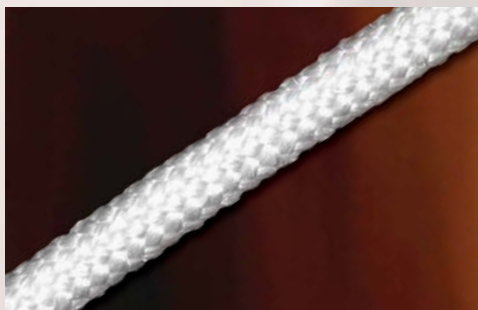
Construction: Fiberglass roving tightly twisted to desired diameter.

Features: A dry, flexible rope packing.

Equipment: Furnace doors, manhole covers, access doors, etc.

Recommended for: Sealing hot air, gases, and dry steam where an air tight seal is not required.

Service Conditions: Temperatures to 1000°F/538°C.



FG-801-805

BRAIDED FIBERGLASS ROPE

FG-801 SINGLE JACKETED **FG-805 SOLID BRAIDED ROUND**
FG-802 DOUBLE JACKETED **FG-805SQ SOLID BRAIDED SQUARE**

Construction: FG-801 Braided fiberglass jacket over a core of twisted fiberglass rope.

FG-802 Two braided jackets over a twisted fiberglass rope core.

FG-805 Braid-over-braid fiberglass

Features: Braided construction provides a more stable and durable product that a twisted rope. FG-805 is the strongest and firmest packing capable of withstanding greater mechanical abuse. FG-805 is available round, square or rectangular.

Equipment: As a seal on furnace and gas generator doors.

Recommended for: Hot air and gases at temperatures to 1000°F/538°C.

FIBERGLASS PRODUCTS

FG-80 PLAIN UNTREATED FIBERGLASS TAPE

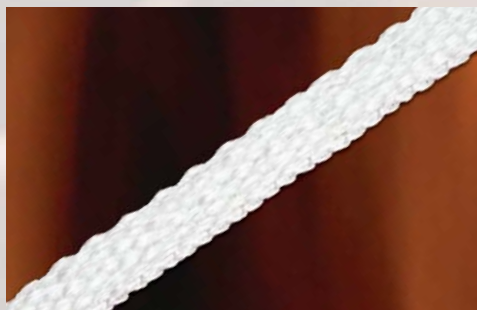
Construction: Made by weaving texturized fiberglass yarn to the required width and thickness.

Features: Cloth tape that is suitable for low-pressure industrial applications.

Equipment: Oven door flanges, pipe insulation.

Recommended for: Insulation on pipes, ducts, and process equipment to reduce energy loss and protect personnel.

Service Conditions: Temperatures to 1000°F/538°C.



FG-80

SS 490 LID AND DOOR SEAL PACKING

Construction: Braided from a unique Inconel wire-inserted high temperature yarn over a special high temperature polymer core.

Features: The core gives the packing compression/recovery characteristics to effective seal after heat cycling or door openings.

Recommended for: SS490 is an excellent product for applications such as oven doors, kilns, crucible lids and tanks where uneven or rough surfaces must be sealed.

Service Conditions: Temperatures to 1000°F/538°C.



SS-490

PYROSLEEVE®

Construction: Silicone rubber cover extruded over braided fiberglass tubing.

Features: Pyrosleeve provides high performance temperature and flame resistance and meets Aerospace Standard 1072 and mine safety requirements for flammability.

Recommended for: Protection on life lines, cables, electrical lines, pipes, and hoses in harsh and hostile operating environments. Protects lines from molten metal splash, fire and abrasion.



PYROSLEEVE®

FG-670 INSUTUBE

SEPCO Insutube is a lightweight insulation tubing comprised of an inner core of braided fiberglass tubing surrounded by a glass fiber insulation media with an outer jacket braided over the insulating media and tubing core.

FG-671 WATERPROOF INSUTUBE

Same as FG-670, except outer jacket waterproofed with neoprene compound.



FG-671



FG-670

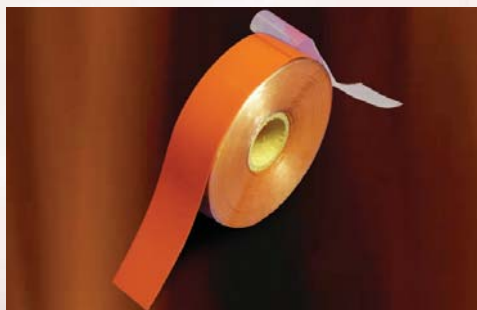
RL 6000 SILICONE STRETCH TAPE

Construction: Electrical grade silicone reinforced with a special weave fiberglass insert.

Features: This tape is self bonding without using an adhesive. This allows it to be used to the full operating temperature limits of silicone (500°F). The controlled stretch feature results in a constant insulation value.

Recommended for: Electrical and insulation applications such as motor rewinds, cable and harness wrapping, electronic assemblies, cable and connection insulation.

Size: 1" x .020" x 12 yd. rolls



RL-6000