S E A L S U P P O R T S Y S T E M

SEPCO®

Sealing Equipment Products Co., Inc.

Quality Fluid Sealing Solutions for Industry.

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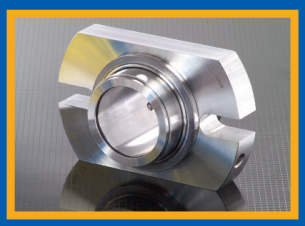
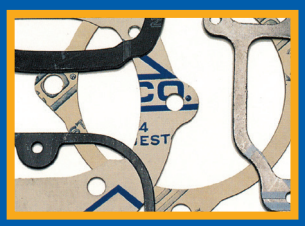




CHEMICAL

POWER

REFINING

MINING

PULP & PAPER

WATER WASTE TREATMENT

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 Firesleeving. 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.

DEDICATED TO MANUFACTURING QUALITY FLUID SEALING PRODUCTS
QUALITY

A1C52

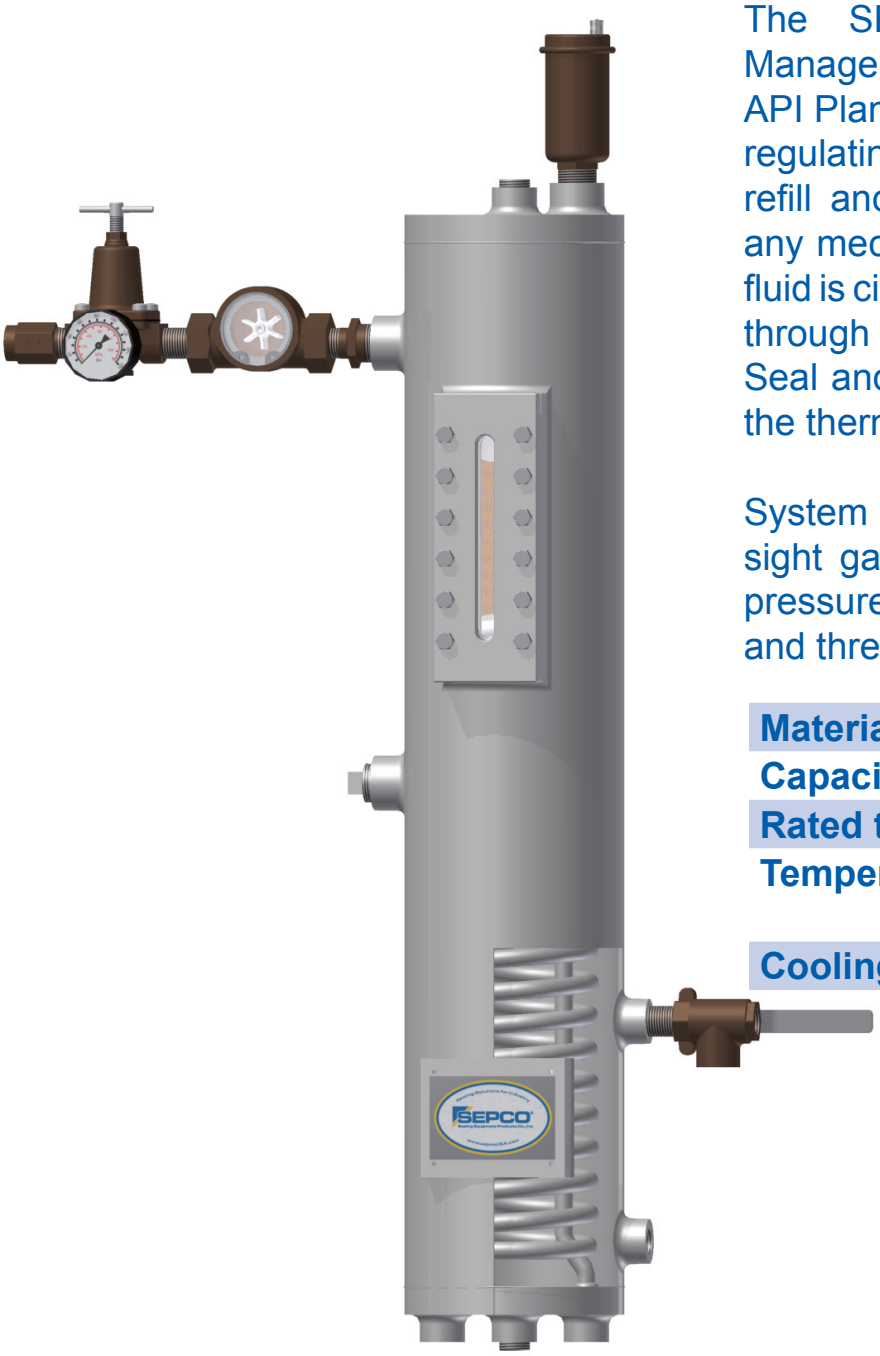
Designed for light duty to medium duty services in ANSI Plans 7352 & 7353 for the Chemical, Food, Pharmaceutical, Pulp & Paper, Water & Waste Treatment and General Industry

A1C53

Materials: 304 Stainless Steel
Capacity: 3 Gallon (12 Liters)
Rated to: 400 psig (2.75 MPa)
Temperature: -75º F – 400º F (-60º C – 200º C)
Cooling Coil: Standard

A1CWMS

SEPCO's **A1CWMS** Water Management System utilizes the pressure available from the plant water line to pressurize the barrier fluid inside the vessel. This provides a pressurized barrier fluid that maintains a stable fluid film across the seal faces which most mechanical seals require. The check valve protects the plant water line from process contamination and also maintains the maximum pressure from the plant water line. The Flow Indicator visually makes the user aware that an inboard seal leak has occurred.



The SEPCO **A1CWMS** Water Management System is piped as an API Plan 53A System. This is a self regulating system which can both refill and re-pressurize itself upon any mechanical seal upset. Barrier fluid is circulated from the **A1CWMS** through the Double Mechanical Seal and back to the **A1CWMS** by the thermosyphon effect

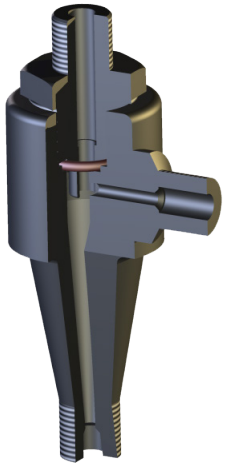
System comes standard with sight gauge, Flow indicator, water pressure regulator, air vent valve and three way valve.

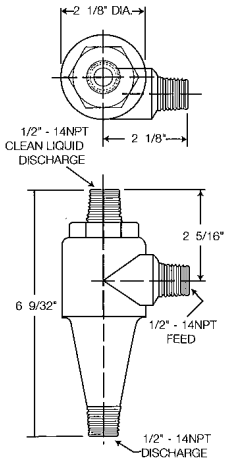
Materials: 304 Stainless Steel
Capacity: 3 Gallon (12 Liters)
Rated to: 400 psig (2.75 MPa)
Temperature: - 75º F to 400º F (-60º F to 200º C)
Cooling Coil: Standard

ABRASIVE SEPARATORS

SEPCO's abrasive separators provide a simple yet extremely effective method of keeping dirt and other abrasives from the sealing faces – a method that can increase seal or packing life many times over to greatly reduce replacement and maintenance costs. Connected to the discharge side of the pump, the separator takes the abrasive-laden fluid and removes foreign bodies completely. The clean fluid is then injected into the gland housing over the seal faces. This is particularly important in plant start ups where foreign particles are invariable present in the liquid. It also permits the taking of service water from streams, rivers, lakes, and other sources containing abrasives without the usual wear to seals or packing.

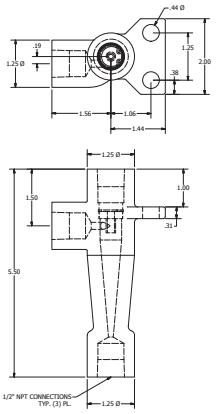
MODEL SAS-N



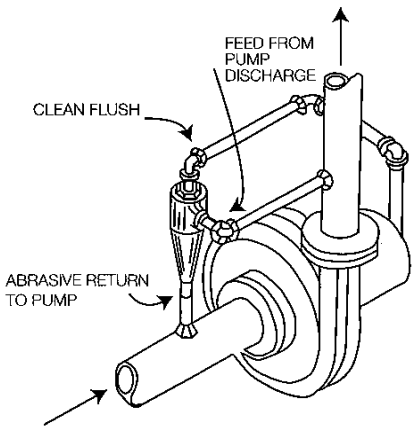


Material: Nylon
Temperature: 0F(-18C) to 240 F(116C)
Pressures: up to 650 psi (4.48 MPa)

MODEL SAS-S



Material: 316SS
Temperature: -20F(-29C) to 400 F (205 C)
Pressures: up to 2000 PSI (13.8 MPa)



Operation:

Principle: Liquid piped from the pump discharge enters the feed tap and is rotated inside the cone shaped bore at a velocity dependent on the pressure differential. The particles in the liquids being of greater densities remain close to the tapered wall of the cone and are forced downward to the discharge outlet at the bottom of the separator. From there, they are piped with a small amount of liquid to a lower pressure point in the system. No liquid is lost. The clean liquid rises up through the outlet at the top of the separator and is then piped to the housing for flushing the seal faces or lantern gland if packing is used.

Conditions:

1. Minimum pressure differential of 20 psi should be maintained between feed and overflow.
2. Specific gravity of the particles being separated must be greater than the liquid.
3. Centrifugal separators are only effective with inherent abrasives such as sand, small articles of iron oxide, scaly substances, or other natural debris. In contrast, chromates and any Substances that are dissolved in the liquid cannot be removed by a centrifugal separator.

FLOW METER SSF

The SEPCO® Model **SSF** sealing liquid monitor is designed for applications where uninterrupted seal water flow is required. Adequate seal water flow for cooling and lubrication result in water savings, energy savings, reduced maintenance, and extended life of seals. The SSF is compatible with all seal types. The sturdy modular construction and many accessories make it very flexible.

Applications:

Seal flush systems
Single and double mechanical seals
Gland packings

Features:

Reliable operation
Solid construction
Excellent corrosion and heat resistance
Clear DETACHABLE metering scale
Alarm ready
Clog resistant flow control valve
3 connector options
Mounting bracket and Built-in tube cleaner
PSU (polysulphone) tube.

TECHNICAL SPECIFICATIONS

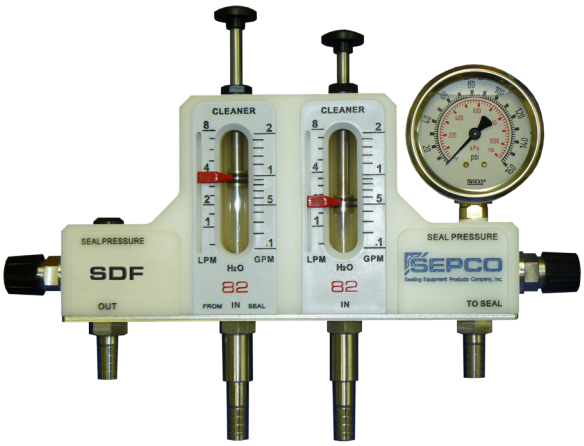
Body	**Standard Delrin (POM)**
Metering tube	**Polysulphone (PSU)**
Metallic parts	**AISI 316 and AISI 304**
Seals	**Viton o-rings**
Max. Pressure	**435 psi @ 120ºF**
Max. Temperature	**212ºF (100ºC): POM body/PSU tube** **266ºF (130ºC): PVDF body/ PSU tube**
Connection size	**Standard ⅜”ID Hose, Optional ⅜”OD Tube (for compression fitting)**
Weight	**3.5lb / 1.5kg incl. Pressure gauge, pressurizing valve and packaging**

SEPCO® Sealing Equipment Products Co., Inc.

SSF - _ _ _ _ _ _ _

SINGLE FLOW MONITOR		
350	3 LPM	48 USGPH
120	1 LPM	16 USGPH
1335	13 LPM	3.5 USGPM
82	8 LPM STANDARD	2 USGPM
BODY MATERIAL		
D	Delrin (POM) STANDARD	
K	Kynar	
CONNECTION TYPE		
H	⅜" ID hosebarb STANDARD	
S	⅜" OD straight tube	
T	⅜" compression fittings (c/w nut and 2 ferrules)	
PRESSURE GAUGE		
A	15 psi	
B	30 psi	
C	60 psi	
D	100 psi	
E	160 psi STANDARD	
F	200 psi	
G	300 psi	
H	400 psi	
I	100 psi with red set pointer	
J	160 psi with red set pointer	
K	200 psi with red set pointer	
L	300 psi with red set pointer	
M	400 psi with red set pointer	
OPTIONS		
P	Pressuring valve (for double seal with SSF Model)	
S	Stand	
A	Alarm 10-55 VDC 150 mA (IG 5919)	
B	Alarm 20-250 VAC/DC 300 mA (IG 0374)	

FLOW METER SDF



The SEPCO® Model **SDF** Saves resources and extends seal life. The Dual Flow flowmeter is the ideal partners for applications requiring uninterrupted seal water flow for cooling and lubrication. The model is compatible with all seal types. Modular construction and various options make this flowmeter flexible and versatile.

Applications

- Seal flush systems
- Single and double mechanical seals
- Gland packings

Options

- Glass tube
- Inductive adjustable alarm
- Pressure gauge
- Floor mounting stand
- Hose barb connectors, straight tube connectors for compression fittings or ⅜" compression fittings

Features

- Reliable operation
- Solid construction
- Excellent corrosion and heat resistance
- Clear DETACHABLE metering scale
- Built-in pressurizing valve
- Alarm ready
- Clog resistant flow control valve
- 3 connector options
- Mounting bracket
- Built-in tube cleaner
- PSU (polysulphone) tube
- Easy access to the flowmeter fittings as all connectors are in a straight lineMounting bracket and Built-in tube cleaner
- PSU (polysulphone) tube.

TECHNICAL SPECIFICATIONS

Body	**Standard Delrin (POM)**
Metering tube	**Polysulphone (PSU)**
Metallic parts	**AISI 316 and AISI 304**
Seals	**Viton o-rings**
Max. Pressure	**435 psi @ 120ºF**
Max. Temperature	**212ºF (100ºC): POM body/PSU tube** **266ºF (130ºC): PVDF body/ PSU tube**
Connection size	**Standard ⅜"ID Hose, Optional ⅜"OD Tube (for compression fitting)**
Weight	**5 lbs / 2.3 kg c/w pressure gauge, all fittings and packaging**

SEPCO® Sealing Equipment Products Co., Inc.

SDF [ ] - [ ]

DUAL FLOW MONITOR		
350	3 LPM	48 USGPH
120	1 LPM	16 USGPH
1335	13 LPM	3.5 USGPM
82	8 LPM STANDARD	2 USGPM
BODY MATERIAL		
D	Delrin (POM) STANDARD	
K	Kynar	
CONNECTION TYPE		
H	⅜" ID hosebarb STANDARD	
S	⅜" OD straight tube	
T	⅜" compression fittings (c/w nut and 2 ferrules)	
PRESSURE GAUGE		
A	15 psi	
B	30 psi	
C	60 psi	
D	100 psi	
E	160 psi STANDARD	
F	200 psi	
G	300 psi	
H	400 psi	
I	100 psi with red set pointer	
J	160 psi with red set pointer	
K	200 psi with red set pointer	
L	300 psi with red set pointer	
M	400 psi with red set pointer	
OPTIONS		
P	Pressuring valve (for double seal with SSF Model)	
S	Stand	
A	Alarm 10-55 VDC 150 mA (IG 5919)	
B	Alarm 20-250 VAC/DC 300 mA (IG 0374)	
OPTIONAL SEAL KIT ITEMS FITTINGS		
A	¼"NPT x ⅜"ID Hosebarb (AD1/4N3/8H)	
B	⅜"NPT x ⅜"ID Hosebarb (AD3/8N3/8H)	
C	½"NPT x ⅜"ID Hosebarb (AD1/2N3/8H)	
D	¼"R x ⅜"ID Hosebarb (AD1/4R3/8H)	
E	⅜"R x ⅜"ID Hosebarb (AD3/8R3/8H)	
F	½"R x ⅜"ID Hosebarb (AD1/2R3/8H)	
HOSE		
X	Quantity (1-4) of 5 Foot length hose C/W SS Hosebarb clamps (HO3/8X300X5)	
CHECK VALVE		
A	¼"NPT x ⅜"ID Hosebarb Checkvalve ES-2029-1	
B	⅜"NPT x ⅜"ID Hosebarb Checkvalve ES-2029	
C	½"NPT x ⅜"ID Hosebarb Checkvalve ES-2004	
D	¼"NPT x ⅜"tube compression fitting Checkvalve ES-	
E	⅜"NPT x ⅜"tube compression fitting Checkvalve ES-2075	
F	½"NPT x ⅜"tube compression fitting Checkvalve ES-2074	
FITTING		
A	¼"NPT x ⅜"ID Hosebarb (AD1/4N3/8H)	
B	⅜"NPT x ⅜"ID Hosebarb (AD3/8N3/8H)	
C	½"NPT x ⅜"ID Hosebarb (AD1/2N3/8H)	
D	¼"R x ⅜"ID Hosebarb (AD1/4R3/8H)	
E	⅜"R x ⅜"ID Hosebarb (AD3/8R3/8H)	
F	½"R x ⅜"ID Hosebarb (AD1/2R3/8H)	
FITTING		
A	¼"NPT x ⅜"ID Hosebarb (AD1/4N3/8H)	
B	⅜"NPT x ⅜"ID Hosebarb (AD3/8N3/8H)	
C	½"NPT x ⅜"ID Hosebarb (AD1/2N3/8H)	
D	¼"R x ⅜"ID Hosebarb (AD1/4R3/8H)	
E	⅜"R X ⅜"ID Hosebarb (AD3/8R3/8H)	
F	½"R X ⅜"ID Hosebarb (AD1/2R3/8H)	

HELIFLOW HEAT EXCHANGER

- API 21 & 23
- API 682 Compliant
- Broad Range Of Materials Available
- Cleaning Made Easy
- Superior Cooling

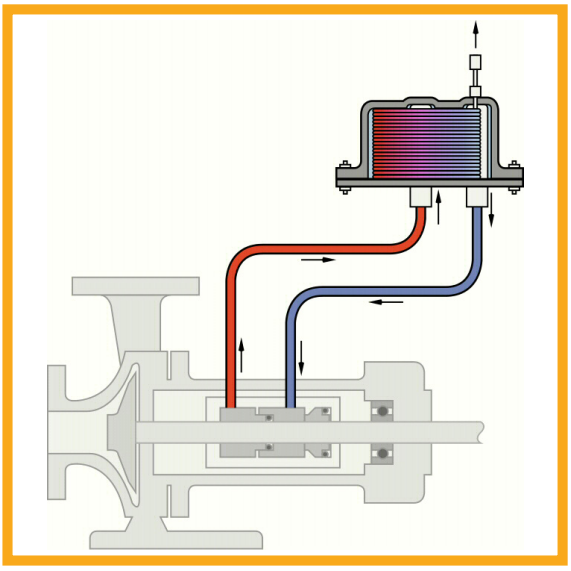
The SEPCO® Heliflow is a unique type of shell and tube heat exchanger. The tubes in the Heliflow are arranged in parallel, starting with an inlet manifold on one end, and terminating at an outlet manifold on the opposite end. The tube bundle is wound into a helical pattern. This coiled construction creates a spiral flow path for the fluid inside the coil.

Each tube is in close contact with the tube above and below it. The coiled tube bundle is fit into a two piece casing. When the casing is tightened, it is designed to slightly compress the tubes. Because of the tight fit, the shell side fluid is forced to circulate in a spiral pattern which is created by the open spaces between the coils.

The SEPCO Heliflow is excellent for your seal cooling applications.

Keeping the mechanical seal faces cool is extremely important in extending the operating life of mechanical seals. The unique design of the SEPCO Heliflow facilitates superior cooling of the seal flush fluid as compared to traditional mechanical seal coolers.

Heliflow seal coolers can be fitted with bent connections which enable the units to meet the venting and draining requirements of API 682. In addition, SEPCO Heliflow seal coolers have the ability to thermosiphon in the event of a pumping ring failure.



API flush plans 21 or 23 are the common arrangements for configuring mechanical seal cooling systems. In Plan 21, the product from the pump discharge is circulated through a valve or orifice and then flows through a SEPCO Heliflow seal cooler where it is cooled before returning to the mechanical seals. In API Plan 23, the product is recirculated from the stuffing box through the Heliflow and then back to the mechanical seal.

Stand models are available in 316 stainless steel tube side and cast iron shell. Options include 304 stainless steel, titanium, 70/30 cu.ni. tubes, 316SS and cast steel shell materials. Units can also be constructed to ASME Section VIII, Division 1 Code if desired.

Sizing software is available from SEPCO to assist in selecting units for both API Plans 21 and 23.

API 682 compliant units:

Standard SEPCO Heliflow units do not conform with the tubing recommendations of API 682, however, specially designed units are available, which include ¾" diameter x .095" wall thickness tubes to provide complete compliance with the standard.

SEPCO - Specification Range

Model	Surface Area	Tube Dia.	Coil Length	Shell Equ. Length	Max/Min @ 3 m/s (Max GPM @ 9 ft/s) Coil	
					Coil	Casing
SEPCO - 15x6C	0.13m2 (1.44Ft2)	10mm (3/8")	4.47m (176")	1.60m (64")	31.00 (6.75)	35.00 (7.68)
SEPCO - 25x6C	0.23m2 (2.56Ft2)	6mm (1/4")	12.00m (472")	1.70m (68")	25.80 (5.67)	40.40 (8.88)
SEPCO - 27x6C	0.25m2 (2.75Ft2)	12mm (1/2")	6.40m (252")	1.98m (78")	64.70 (14.22)	52.80 (11.60)

Allowable Working Temperature/Pressure

Model	Shellside	Tubeside				
SEPCO - 15X6C	177°C @6barg (350°F @ 89psig)	93°C @138barg (200°F @2000psig)	149°C @135barg (300°F @1950psig)	204°C @130barg (400°F @1900psig)	316°C @125barg (600°F @1800psig)	427°C @118barg (800°F @1700psig)
SEPCO - 25X6C	177°C @6barg (350°F @ 89psig)	93°C @138barg (200°F @2000psig)	149°C @135barg (300°F @1950psig)	204°C @130barg (400°F @1900psig)	316°C @125barg (600°F @1800psig)	427°C @118barg (800°F @1700psig)
SEPCO - 27X6C	177°C @5.7barg (350°F @ 83psig)	93°C @90barg (200°F @1300psig)	149°C @86barg \ (300°F @1250psig)	204°C @85barg (400°F @1225psig)	316°C @80barg (600°F @1150psig)	427°C @76barg (800°F @1100psig)

PRODUCT LINE

Compression Packing
Pumps & Valves General Service, PTFE, Aramid, GFO®, Graphitic, Carbon, Nuclear, Metallic, Flax, Hydraulic, Food Grade, Soot Blower, Die Formed Rings, Pre-Cut, Bulk, Spiral Pack.

Mechanical Seals
Pumps & Mixers, Cartridge Mounted, Single, Double, Rotaries, Stationaries, Glands, Single Spring.

Flexible Graphite
UCAR GRAPH-TEC, INC., SGL Technic, Inc., Ribbon Pack, Crinkle Gasket Tape, Thread Sealant Tape, Laminated Sheet, GSP Spiral Pack, Fabricated Gaskets, Die-Formed Rings, Grafoil®.

Fiberglass Products
Cloth, Braided Rope, Twisted Rope, Woven Tape, Tubing, Wovenstone, Insutape, Insutube, Pyrosleeve® (Fire Sleeve).

Sheet Gasket Material
Non-Asbestos Compressed Sheet, Red Rubber, Neoprene, Vegetable Fiber, PTFE, Grafoil®, Flexible Graphite.

Gasketing Material
Gore-Tex®, Tetracord, Flexible Graphite, Grafoil®.

Gaskets
Fabricated to Specifications, Die-Cut, Die-Formed.

Hydrload System
Shaft Stabilization System through the use of High Performance Bearing Grade Material.

Miscellaneous
Packing Hooks, Packing Tools, Packing Cutters, Gasket Cutters, PTFE Thread Tape, Lantern Rings.

DEDICATED TO MANUFACTURING QUALITY FLUID SEALING PRODUCTS
QUALITY

Sealing Equipment Products Co., Inc.
123 Airpark Industrial Road • Alabaster, AL 35007
(205) 403-7500 • Toll Free: (800) 633-4770
Fax: (205) 403-7592 • Toll Free Fax: (800)-426-3533
Email: sales@sepcoUSA.com • Web site: www.sepco.com