

STEEL OR STAINLESS STEEL CONSTRUCTION

FEATURES

- Flow rates **1,500 - 9,000 GPH @ 60 Hz**
(7,875 - 28,350 LPH @ 50 Hz)
- Heavy duty cast **316 SS** or cast iron centrifugal single or double seal pumps **1.0 - 5.0 HP** (.75 - 3.2 kW)
- Heavy duty filter chambers carbon steel, **304SS** or **316SS** (rated to 150 PSI)
- High filter surface area
(to 280 sq. ft solids loading area)
- Flow control valve between pump and filter chamber
- Differential, drain and vent ports standard on filter system chamber
- For use with stainless steel or polypropylene media (See Bulletins M-109 and M-309.)

The **SERFILCO KNIGHT Filtration Systems** feature the most durable pumps and filter chambers in our product line. They are designed to provide years of trouble-free service in demanding applications. The **KNIGHT** systems are intended for use where thermoplastic systems are unsuitable due to chemical and / or temperature limitations.

PUMP:

The series 'HSS', cast 316 stainless steel, or 'HCI', cast iron, centrifugal pumps feature a compact, close-coupled design. A high efficiency, semi-open impeller minimizes clogging, and since the components are cast, there are no welds to break. Also, cast construction provides corrosion resistance that is superior to welded styles. The pump is available with a single seal or with a double seal which uses external liquid as a flush. Motors are TEFC, 208-230-460V, 3 ϕ , 3450 RPM, 60 Hz.

SYSTEM:

Models offer a choice of 304 or 316 stainless steel filter chamber with a cast centrifugal 316SS pump, or a carbon steel filter chamber with cast iron pump. Systems include a flow control valve between pump and filter, piping and 0-60 PSI pressure gage, all mounted on a rugged vinyl coated steel base plate.

FILTER CHAMBER:

The series 'K' filter chamber is available in carbon steel, 304 stainless steel, or 316 stainless with an EPDM cover gasket (Viton optional). The chamber is 150 PSI design with quick swing closure, and also includes differential, drain and vent parts.



The following systems and specifications depict a representative sampling of the Knight product line. Standard systems are shown for stainless steel or carbon steel construction. Stainless steel systems have a 304SS or 316SS filter chamber with a 316SS pump. Carbon steel systems have a carbon steel filter chamber with a cast iron pump. EPDM elastomers are standard for both.

Consult Sales Department for systems with self-priming pumps or for special systems featuring titanium pumps, Teflon lined chambers and special seals for use with external applications such as black oxide.

SPECIFICATIONS AND ORDERING INFORMATION

304 stainless steel chamber with 316SS pump- single mechanical seal

| SYSTEM NUMBER ^{1,2,3} | FLOW | | MAX. PUMP PSI | PUMP HP | MEDIA | SURFACE AREA sq. ft.* | CONNECTIONS SUCTION X DISCHARGE | DIMENSIONS L x W x H | SHIPPING WEIGHT lbs. |
|---|------------|------------|---------------|---------|-------------------------------------|-----------------------|---------------------------------|---|----------------------|
| | GPH@ 60 Hz | LPH@ 50 Hz | | | | | | | |
| K4S6HSS110 K4S9HSS110 K4S12HSS110 | 1,500 | 4,725 | 21 | 1.0 | 3 - 20 " 3 - 30 " 3 - 40 " | 21 32 42 | 1 1/4" NPT x 1 1/2" NPT | 30 x 13 x 37" 30 x 13 x 47" 30 x 13 x 57" | 145 170 195 |
| K4S12HSS215 K4S18HSS215 | 2,500 | 7,875 | 26 | 1.5 | 6 - 20 " 6 - 30 " | 42 63 | 1 1/4" NPT x 2" NPT | 33 x 18 x 37" 33 x 18 x 47" | 180 205 |
| K4S18HSS420 K4S24HSS420 | 3,500 | 11,025 | 30 | 2.0 | 6 - 30 " 6 - 40 " | 63 84 | 1 1/4" NPT x 2" NPT | 33 x 18 x 47" 33 x 18 x 57" | 215 240 |
| K4S18HSS620 K4S24HSS620 | 4,500 | 14,175 | 19 | 2.0 | 6 - 30 " 6 - 40 " | 63 84 | 2" NPT x 2" NPT | 33 x 18 x 47" 33 x 18 x 57" | 225 250 |
| K4S33HSS730 K4S44HSS730 | 7,500 | 23,625 | 28 | 3.0 | 11 - 30 " 11 - 40 " | 116 154 | 2" NPT x 3" F | 50 x 18 x 73" 50 x 18 x 83" | 540 550 |
| K4S44HSS950 K4S60HSS950 K4S80HSS950 | 9,000 | 28,350 | 32 | 5.0 | 11 - 40 " 20 - 30 " 20 - 40 " | 154 210 280 | 2" NPT x 3" F | 50 x 18 x 83" 50 x 18 x 74" 50 x 18 x 84" | 550 610 620 |

¹ For Viton elastomers, add - V to System Number.

² For 316 stainless steel filter chamber change K4s to K6s in System Number.

³ For double mechanical seal pump change HSS to HSSD in System Number.

* with 2 1/2" diameter nominal string wound cartridges. Order media separately. Refer to Bulletins M-109 and M-309.

Motors are TEFC, 230-460V/3φ/60 Hz. Consult Sales Dept. for explosion-proof, 50 Hz or 1φ motors.



Carbon steel chamber with cast iron pump – single mechanical seal

| SYSTEM NUMBER ^{1,2} | FLOW | | MAX. PUMP PSI | PUMP HP | MEDIA | SURFACE AREA sq. ft.* | CONNECTIONS SUCTION X DISCHARGE | DIMENSIONS L x W x H | SHIPPING WEIGHT lbs. |
|--|------------|------------|---------------|---------|-----------|-----------------------|---------------------------------|----------------------|----------------------|
| | GPH@ 60 Hz | LPH@ 50 Hz | | | | | | | |
| KS6HCI110 KS9HCI110 KS12HCI110 | 1,500 | 4,725 | 21 | 1.0 | 3 - 20 " | 21 | 1 1/4" NPT x 1 1/2" NPT | 30 x 13 x 37" | 145 |
| 3 - 30 " | | | | | 32 | 30 x 13 x 47" | | 170 | |
| 3 - 40 " | | | | | 42 | 30 x 13 x 57" | | 195 | |
| KS12HCI215 KS18HCI215 | 2,500 | 7,875 | 26 | 1.5 | 6 - 20 " | 42 | 1 1/4" NPT x 2" NPT | 33 x 18 x 37" | 180 |
| 6 - 30 " | | | | | 63 | 33 x 18 x 47" | | 205 | |
| KS18HCI420 KS24HCI420 | 3,500 | 11,025 | 34 | 2.0 | 6 - 30 " | 63 | 1 1/4" NPT x 2" NPT | 33 x 18 x 47" | 215 |
| 6 - 40 " | | | | | 84 | 33 x 18 x 57" | | 240 | |
| KS18HCI620 KS24HCI620 | 4,500 | 14,175 | 19 | 2.0 | 6 - 30 " | 63 | 2" NPT x 2" NPT | 33 x 18 x 47" | 225 |
| 6 - 40 " | | | | | 84 | 33 x 18 x 57" | | 250 | |
| KS33HCI730 KS44HCI730 | 7,500 | 23,625 | 28 | 3.0 | 11 - 30 " | 116 | 2" NPT x 3" F | 50 x 18 x 73" | 510 |
| 11 - 40 " | | | | | 154 | 50 x 18 x 83" | | 520 | |
| KS44HCI950 KS60HCI950 KS80HCI950 | 9,000 | 28,350 | 39 | 5.0 | 11 - 40 " | 154 | 2" NPT x 3" F | 50 x 18 x 83" | 520 |
| 20 - 30 " | | | | | 210 | 50 x 18 x 74" | | 580 | |
| 20 - 40 " | | | | | 280 | 50 x 18 x 84" | | 590 | |

¹ For Viton elastomers, add **-V** to System Number.

² For double mechanical seal pump change HCI to HCID in System Number.

* with 2 1/2" diameter nominal string wound cartridges. Order media separately. Refer to Bulletins M-109 and M-309.

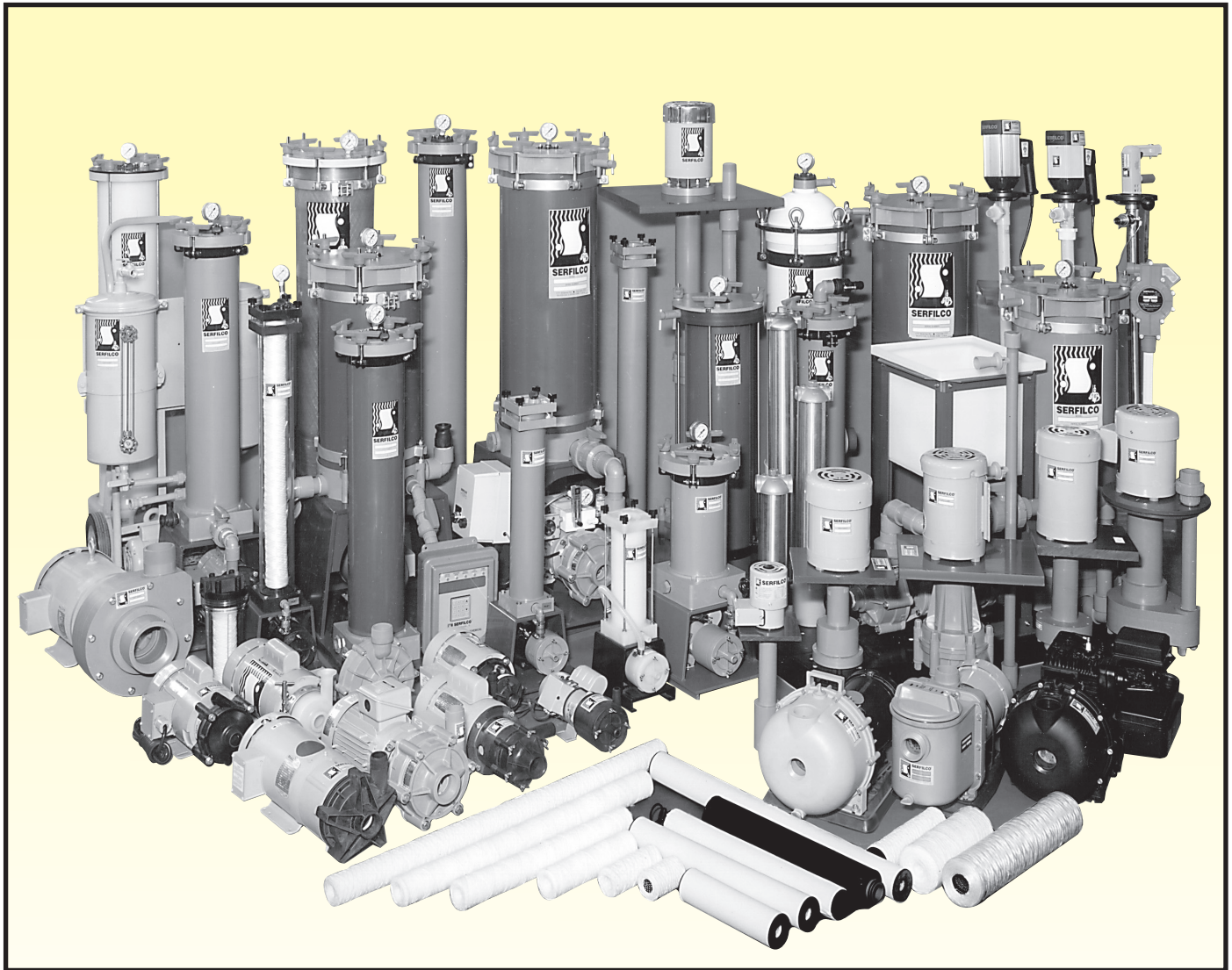
Motors are TEFC, 230-460V/3φ/60 Hz. Consult Sales Dept. for explosion-proof, 50 Hz or 1φ motors.

OPTIONAL EQUIPMENT

| DESCRIPTION | PRICE CODE NO. |
|--|----------------|
| MOTOR STARTER - Assembled & installed Specify operating voltage. Watertight NEMA 4X magnetic push-button with overload protection. For Start / Stop operation | O-MS3P |
| As above, but includes low voltage control circuit required for use with Dri-Stop 2R | O-MS3P-S |

| DESCRIPTION | PRICE CODE NO. |
|---|----------------|
| Dri-Stop® 2R Recommended for use with double mechanical water flush seal pump. Automatically de-energizes pump motor when cooling water flow is interrupted. Eliminates costly dry run repairs. Requires MS3P-S motor starter, electric and water source. | O-2DS2R |

Also available from SERFILCO:



Your one-stop source for pumping, filtration and purification needs!

SERFILCO can help you realize the economic value of clarification and purification of your process solutions and waste streams. Our wide range of pumps, filters, packaged systems, accessories and related control instruments make it possible for you to take advantage of one-stop shopping for all of your liquid handling needs. With modern filtration technology at work in your facility, you can reduce waste, lower your manufacturing costs, and enhance product integrity.

We've been serving industry worldwide for 50 years. We're ready to serve you, too!