



# Air-Operated Kidney Loop Systems

- Supplementing in-line filtration by system filters when adequate turnover cannot be attained
- Large volume systems requiring multiple filters in different locations
- Cleaning up a hydraulic system following component replacement
- Ideal location for water removal
- Field applications on service trucks

## Applications

## Specifications

<b>Flow Rating:</b>	7 gpm (26.5 L/min) max and 14 gpm (53.0 L/min) max
<b>Maximum Viscosity:</b>	1000 SUS (216 cSt) Higher viscosity version available. Contact factory for details.
<b>Fluid Temperature:</b>	25°F to 150°F (-4°C to 65°C) For higher temperature applications contact factory.
<b>Bypass Valve Setting:</b>	Cracking: 30 psi (2 bar)
<b>Material:</b>	Manifold and cap: Cast aluminum Element case: Steel
<b>Compatibility:</b>	All petroleum based hydraulic fluid. Contact factory for use with other fluids.
<b>Element Change Clearance:</b>	8.50 (215) 1K

### How to Build a Valid Model Number for Schroeder Air-Operated Kidney Loop Systems:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Example:** NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7
AKS	1	09	Z10	Z05	B	14

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7
Model	No. of Elements	Element Length	Element Media First Filter	Element Media Second Filter (AKD Only)	Seal Material	Pump Size (gpm)
AKS	1	09	E, Z, EWR	E, Z, EWR	B = Buna N	07
AKD	2	18	plus 01, 03	plus 01, 03		14
	3	27	05 10, 25	05 10, 25		

#### Notes:

Boxes 2 & 3: When Box 2 equals 2 or 3, Box 3 must be 09.

Boxes 4 & 5: E media elements are only available in 03, 10 and 25 microns.

Water removal (W) elements are indicated by an "EWR" in the part number and are not followed by a 01, 03, 05, 10 or 25.

Box 5: When AKD is ordered, the number of elements, element length, and seals will be identical for both filter housings.

Box 7: GPM only valid with fluids up to 1000 SUS.

07 GPM - 50 CFM at 70 psi.

14 GPM - 70 CFM at 70 psi.

## Model Number Selection

- TCM
- TCM-FC
- TSU
- TMU
- TPM
- TIM
- TMS
- CTU
- TWS-C
- ET-100-6
- HMG 3000
- EPK
- HTB
- GS

### Trouble Check Plus

### Test Points

### Adapters

### Hose Joiners

### Microflex Hose

### Pressure Limiters

### Pressure Gauges

### Test Kits

### Probalizer

### Filtration Station

### MFS, MFD

### AMS, AMD

### KLS, KLD

### AKS, AKD

### KLC

### X Series

### MTS

### HFS

### SVD

### TDS-A

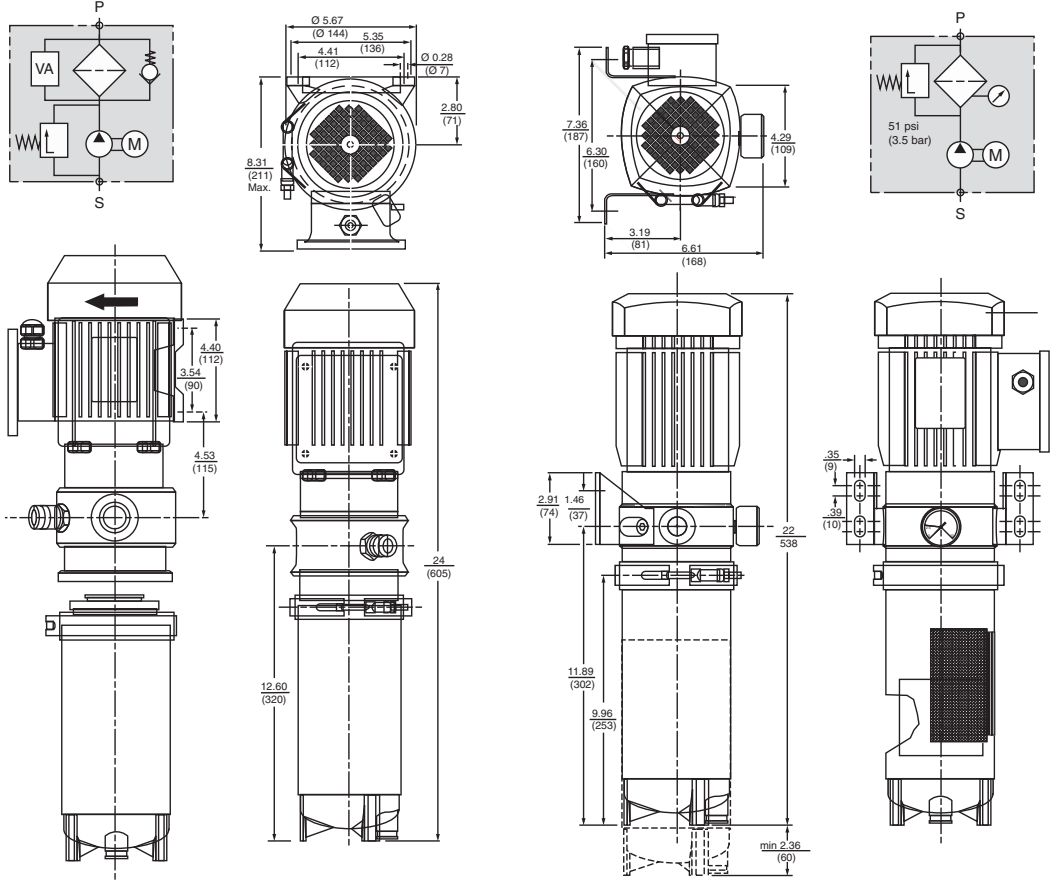
### TDS-E

### IXU

### Appendix

# Kidney Loop Systems

**KLC**



Metric dimensions in ( ).

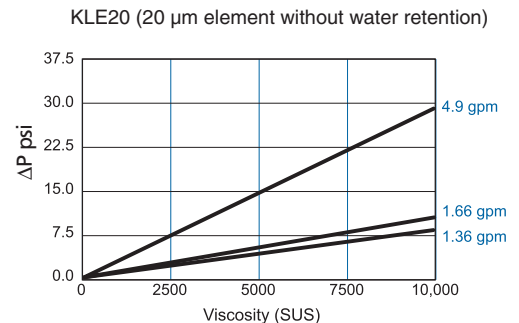
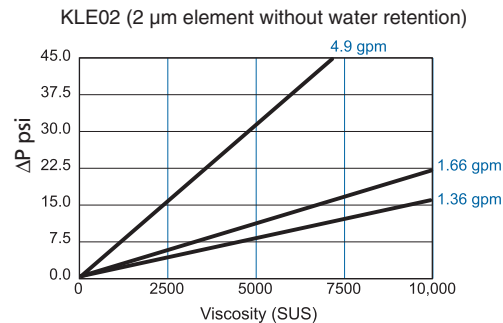
## Description

Schroeder's new series of Kidney Loop - Compact (KLC) filters are designed to filter highly contaminated hydraulic oils efficiently and cost effectively off-line. The KLC is designed for use containing up to 100 gallons and is perfect for retrofit situations when additional filtration is required. This compact filter is easy to install and ideal for gear boxes. They are supplied as ready-to-install off-line units complete with pump/motor assembly.

## Features

- Lower operating costs
- Extended element service life
- Extended fluid life
- Cleaner and more efficient systems
- Easy installation
- High dirt-holding capacity
- Requires low volume of oil

## Pressure Drop



# Kidney Loop Systems

- Injection molding machines
- Machine tools
- Gear boxes
- Mobile equipment
- Filtration of fluids for intermittently operated hydraulic systems and test stands

## Applications

## Specifications

Viscosity:	KLC04 to 10,000 SUS KLC05 to 700 SUS KLC15 to 3,000 SUS
Operating Pressure:	45 psi (3 bar) max
Suction Pressure:	11" Hg (-0.4 to 6 bar) max
Fluid Temperature:	32°F to 175°F (0°C to 80°C)
Ambient Temperature:	-4°F to 104°F (-20°C to 40°C)
Seals:	Buna N
Maximum Flow Rate:	KLC04 1.3 gpm KLC05 1.6 gpm KLC15 4.9 gpm
Fluids:	Standard mineral oils, water/oil based fluids (min 40% oil in fluid), Consult factory for other fluids
Media:	Membrane with or without water removal capability - (2 µm, 20 µm)
Dirt Holding Capacity:	200g ISO MTD / 185g ISO MTD
Water Retention:	Approximately 0.5 quarts (0.5 liters)
Beta Ratio:	βx > 1000
Maximum ∅P:	45 psi (3 bar)
Connections with Pump/Motor:	KLC04 Inlet & Outlet: SAE 16 (BSPP G1) KLC05 Inlet & Outlet: SAE 8 (BSPP G1/2) KLC15 Inlet & Outlet: SAE 8 (BSPP G1)
Weight:	KLC04 24.3 lbs (11.0 kg) KLC05 15.5 lbs (7.0 kg) KLC15 24.3 lbs (11.0 kg)

Note: SAE connections when using supplied adapters; BSPP connections when supplied adapters are not used. Housing drain standard on all models.

### How to Build a Valid Model Number for a Schroeder KLC:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Example:** NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
KLC04	V	3	20	VD

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
Model	Pump Type	Voltage	Element	Indicator
KLC04 KLC05 KLC15	V = Vane Pump F = Flow Control Valve (pump and motor not included)	1 = 12VDC 2 = 24VDC 3 = 115V single phase 4 = 220V single phase 5 = 220/440V 3 phase	2 = 2 micron 10 = 10 micron 20 = 20 micron A02 = 2 micron with water removal A20 = 20 micron with water removal	F = Static Electrical Switch VD = Differential Visual ED = Differential Electrical EVD = Differential Visual/Electrical G = Standard Gauge

Notes:

Box 2: F is only available with KLC05.

Box 5: G is only available with KLC05.

VD, ED and EVD are only available with KLC04 and KLC15.

## Model Number Selection

- TCM
- TCM-FC
- TSU
- TMU
- TPM
- TIM
- TMS
- CTU
- TWS-C
- ET-100-6
- HMG 3000
- EPK
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- Trouble Check Plus
- Test Points
- Adapters
- Hose Joiners
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- MFS, MFD
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- KLS, KLD
- AKS, AKD
- KLC**
- X Series
- MTS
- HFS
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- TDS-A
- TDS-E
- IXU
- Appendix