oilquip inc

Filter and Cooling Systems

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Fluid Power Motion Control Specialist

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Filter and Cooling Systems

Applications

Oilquip, Inc. Filter and Cooling Systems are designed for use on existing equipment such as gear boxes, mechanical seals, and hydraulic systems where normal usage can lead to excessive build-up of heat or contamination, including emulsified water, in petroleumbased lubricating/cooling media.

Studies have shown that the reduction of dirt, water, and heat in systems where oil plays an important lubrication and/or cooling role is crucial to reduce maintenance costs and to maximize the life of equipment.

Depending upon application requirements, fluid is drawn into the unit, filtered, cooled, and returned to existing machinery without disrupting the normal operation of your equipment.

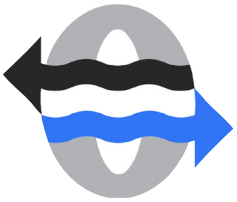
Construction and Operation

In normal operation fluid is drawn from existing machinery by an electric motor-driven pump. It is then circulated through the filter(s) and/or cooler selected for the application and returned to the machinery. Water circulating through the cooler works to remove heat. Should a blockage or other obstruction stop output from the unit, the system pressure limiting valve permits fluid temporarily from recirculating within the system.

Typical systems consist of a gear pump close-coupled to a totallyenclosed, fan-cooled electric motor, a beta-rated spin-on filter*, a high-capacity water-removal filter*, a shell-and-tube heat exchanger*, a system pressurelimiting check valve and system piping.

** Depending upon customer selection. See "Order Info" section.*

All package units are constructed of modular components for the greatest possible adaptability. Units different from standard packages can be built from inventory to fit your specific needs. Our technicians are on hand to assist you.



Specifications

Electric Motor	TEFC, C-face, 1725 RPM 230/460V 3-phase or 115/208V single phase
Pump	Gear type, self priming to 10 inches vacuum
Heat Exchanger	Multipass, shell-and-tube, fixed-bundle-type (water requirement at approximately half of oil flow rate)
Dirt Removal Filter	Spin-on type fiber glass element (available in 3, 6, and 23 micron beta-rated sizes; rated for over 99% particle removal over rated size) High flow/high viscosity units use 39" cartridge-type fiber glass elements (with same filtration rating as above)
Water Removal Filter	Spin-on type water absorption element
Materials	Wetted and non-wetted parts: aluminum, carbon steel, brass, copper, Buna-N rubber

Options

The most common options provided on standard systems include:

Hoses
Suction and/or discharge hoses (10' standard length)

Dirt Removal Filters
Available in various micron ratings (filtration levels)

Water Removal Filters

Heat Exchanger

Differential Pressure Indicator
Signals that the filter element should be replaced

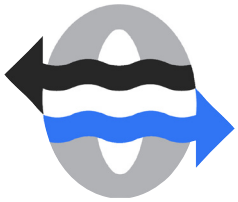
Dial Thermometer
Indicates fluid temperature

Low Flow Switch
Signals that an obstruction or other problem has reduced flow to the unit. The switch can be wired to shut off the electric motor, signal an alarm, etc.

Water Modulation Valve
Significantly increases savings on cooling water by automatically regulating its consumption as a function of fluid temperature

20-gallon Reservoir
Can be provided on stationary units for applications where the fluid reserve capacity of the existing machinery is insufficient

Immersion Heater
Can alleviate problems of low temperature that can adversely affect system performance (Note: must be accompanied by 20-gallon reservoir)



Filter and Cooling Systems

System Types

Stationary units are designed for permanent or semi-permanent installation. Units are mounted on a steel skid and are shipped ready to be wired.

Dimensions	
Width	33”
Depth	13”
Height	21”
Weight	95 lbs.

Dimensions	
Width	25”
Depth	23”
Height	50”
Weight	130 lbs.

Mobile units are designed for jobs where contamination and heat are an occasional problem. Standard mobile units are mounted on a heavy-duty dolly and come equipped with a six foot power cord.

High flow/high voscosity mobile units are mounted on a heavy-duty dolly with an integral drip pan and include a motor starter ready for wiring.

Dimensions	
Width	32”
Depth	26”
Height	52”
Weight	375 lbs.

Note: Dimensions indicated are maximum envelope dimensions on standard units. Dimensional and weight specifications may vary significantly depending upon options selected. See “Order Info” section.

Stationary and Mobile Units

FCS - ■ ■ ■ ■ ■ ■ ■
A B C D E F G

A. Unit Type
1 - stationary
2 - mobile

B. Power Requirement
1 - single phase 115/208 Volt (1 hp motor)
2 - three phase 230/460 Volt (3 hp motor)
P - pneumatic

C. Flow Rate
Stationary Units
1 - 3 gpm (250 SSU)
2 - 3 gpm (500 SSU)
3 - 3 gpm (5000 SSU)
9 - 9 gpm (250 SSU)
F - 15 gpm
Mobile Units
3 - 3 gpm (standard)
5 - 5 gpm
9 - 9 gpm
F - 15 gpm
X - other (specify)

D. First Filter
1 - 3 micron rated
2 - 6 micron rated
3 - 23 micron rated
4 - water-removal filter
X - other (specify)

E. Second Filter
0 - no second filter
1 - 3 micron rated
2 - 6 micron rated
3 - 23 micron filter
4 - water-removal filter
X - other (specify)

F. Heat Removal Capacity
0 - no cooler
1 - 4 hp removal capacity (3 gpm systems only)
2 - 15 hp removal capacity (3 gpm systems only)
3 - 50 hp removal capacity (9 gpm systems only)

G. Hoses
0 - no hoses
1 - suction hose (10')
2 - discharge hose (10')
3 - suction and discharge hoses
X - other (specify)

High Flow / High Viscosity Units

FCS - 3 ■ ■ ■ ■ ■
A B C D E

A. Power Requirement
3 - three phase 230/460 Volt (3 hp motor)

B. Motor Starter
0 - no starter
1 - with starter (standard)

C. Flow Rate
1 - 18 gpm (standard)
X - other (specify)

D. Filter (39" element)
1 - 3 micron rated
2 - 6 micron rated
3 - 23 micron filter

E. Hoses
0 - no hoses
1 - suction hose (10')
2 - discharge hose (10')
3 - suction and discharge hoses
X - other (specify)