

The Donaldson® filter cart provides a convenient portable mode of off-line filtration, flushing and fluid transfer. Use it with your in-plant machinery and hydraulic equipment to achieve and maintain proper ISO cleanliness levels.

Two in-series pressure filters can provide coarse/fine particle removal or install a water absorbing element to obtain particulate and water removal. The powerful one horsepower motor will not bog down and when coupled with a 10 gpm/38 lpm pump it provides efficient fluid transfer and filtration. Convenience features include a rear-mounted motor for better balance, a removable angled drip tray and clear braided hoses.

The Donaldson filter cart is designed with performance, convenience and safety in mind. Its value-added features make it the best choice to protect your machinery and equipment from breakdowns caused by contamination.



FEATURES

Rugged and durable frame	Enables long service life
High-efficiency media grades	Provides cost-effective filtration
Two pressure filters	Two-stage filtration – coarse/fine or particulate/water
Safety relief valve	Prevents over pressurizing and damage to pump, hoses and filters
Overload protection switch	Prevents motor/pump from overheating

BENEFITS

APPLICATIONS

Filter new fluid	New fluids are usually above the recommended ISO cleanliness level
Offline filtration	Filter cart can be used to supplement existing filtration
Transferring fluid	Fluid is transferred from a storage container (tote, drum, tank) to a machines reservoir
Water removal	Using Donaldson water removal elements can help remove free water from the system
Flushing after repairs and rebuilds	After machines are serviced or repaired, they need to be flushed thoroughly before they are returned to service
Flushing during equipment commissioning	New machines have original fabrication debris and dirt that has ingressed during transport and storage

FILTER CART

FEATURES

Stainless steel wands

- Will not break; won't corrode

Differential pressure indicators

- Lets you know when to change elements

Two pressure filters plumbed in series

- Allows for particulate/water removal or coarse/fine particle removal

Clear braided hoses

- Visually shows fluid flowing

Suction filter

- Protects pump

Removable angled drip tray

- Easy clean up; fluid will not leak out when tipped back

Overload protection switch

- Protects motor and pump from overheating

Motor/Pump

- Industrial brand name

Safety relief valve

- Protects against over pressurizing

Motor mounted on back

- Better balance
- Fluid will not drip on motor when changing filters

Oil sampling valve (not shown)

- Monitors filter performance and cleanliness of oil



FILTER CART

ORDERING CODE

EXAMPLE

Model	Flow Rate	Power Supply	Suction Filter	Pressure Filter #1	Pressure Filter #2
DFC	10	P1	WM	3	WA
	TABLE 1	TABLE 2	TABLE 3	TABLE 4	TABLE 5

Shipped fully assembled—tested and ready to use.

SELECT ONE OPTION FROM EACH TABLE BELOW.

(See example shown above.)

TABLE 1
Flow Rate

10	10 gpm/38 lpm
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TABLE 2
Power Supply

P1	110 VAC / 60 Hz
P2	110 VAC / 50 Hz
P3	230 VAC / 60 Hz
P4	230 VAC / 50 Hz

TABLE 3
Suction Filter

WM	Wire Mesh 150 μ m
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TABLE 4
Pressure Filter #1

WA	Water absorbing
3	Synteq® Beta 1,000 at < 4 μ m
6	Synteq Beta 1,000 at 6 μ m
10	Synteq Beta 1,000 at 10 μ m
14	Synteq Beta 1,000 at 14 μ m
23	Synteq Beta 1,000 at 23 μ m

TABLE 5
Pressure Filter #2

WA	Water absorbing 10 μ m
3	Synteq Beta 1,000 at < 4 μ m
6	Synteq Beta 1,000 at 6 μ m
10	Synteq Beta 1,000 at 10 μ m
14	Synteq Beta 1,000 at 14 μ m
23	Synteq Beta 1,000 at 23 μ m

ELEMENT CHART

Micron Rating						
WM	WA	3	6	10	14	23
P550276	P179075	P564468	P170906	P176567	P170949	P173789

FILTER CART

SPECIFICATIONS

Electric Service	115 volts: 16 amp, single phase 230 volts: 8 amp, single phase
Cord Length	7 ft./2.1 m cord with storage for 50 ft./15 m cord
Hose Diameter	1-inch suction, 3/4-inch supply
Gear Pump	60 Hz: 10.4 gpm/38 lpm* 50 Hz: 8.3 gpm/31 lpm*
Motor	1 HP, 1200 RPM, TEFC
Maximum Recommended Fluid Viscosity	500 SUS or 108 cSt*†
Compatibility	Most petroleum oils and some high water content fluids*
Relief Valve Setting	135 psi/9.3 bar
Filter Bypass Valve Setting	Suction – 5 psid/.34 bar, Pressure – 25 psid/1.7 bar
Weight	Approximately 170 lbs. (77.1 kg)
Dimensions	Height: 47 inches (1194 mm) Width: 24 inches (610 mm) Depth: 23 inches (585 mm) Hose/Wand assembly length: 10 ft.(3.05 m)

* Contact Donaldson for special order options.

† To determine the fluid's viscosity, refer to the Viscosity-Temperature chart found in the Technical Reference Guide of the Donaldson IH Catalog or in the Lightning® Reference Handbook. (Lightning Reference Handbook is a registered trademark of Berendsen Fluid Power, Inc.)

USING THE DONALDSON FILTER CART

When using the filter cart for offline filtration the fluid will need to pass through the filter cart approximately seven times to achieve single-pass filtration. Use the following formula to calculate the amount of time needed to achieve single-pass filtration:

$$\text{(Reservoir Size x 7) / Filter Cart Flow Rate = Time}^{**}$$

For Example: If you have a 50 gallon reservoir it will take approximately 35** minutes to achieve single-pass filtration.

$$\text{(50 gallons x 7) / 10 gpm = 35 minutes}$$

** Times will vary depending on initial cleanliness of oil, system ingestion, choice of media grades and other variables.



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