

# Filter Cart *for Industrial Applications*

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 won't bog down and when coupled with a 10 gpm 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.



Donaldson®

Features	Benefits
<b>Rugged and durable frame</b>	Enables long service life
<b>High efficiency media grades</b>	Cost effective filtration
<b>Two pressure filters</b>	Two-stage filtration – Coarse/Fine or Particulate/Water
<b>Safety relief valve</b>	Prevents over pressurizing and damage to pump, hoses and filters
<b>Overload protected switch</b>	Prevents motor/pump from overheating

## 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, etc.) to a machine's 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

# Features



**Stainless steel wands**  
- Will not break, won't corrode

**Differential pressure indicators**  
- Lets you know when to change elements

**Two pressure filters mounted 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

**Motor/Pump**  
- Industrial brand name

**Motor mounted on back**  
- Better balance  
- Fluid will not drip on motor when changing filters



**Overload protected switch**  
- Protects motor and pump from overheating

**Safety relief valve**  
- Protects against over pressurizing

**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
<b>DFC</b>	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
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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 150µm
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TABLE 4  
**Pressure Filter #1**

WA	Water absorbing
3	Synteq® Beta 1,000 at < 3 micron
10	Synteq® Beta 1,000 at 10 micron
23	Synteq® Beta 1,000 at 23 micron

TABLE 5  
**Pressure Filter #2**

WA	Water absorbing 10µm
3	Synteq® Beta 1,000 at < 3 micron
10	Synteq® Beta 1,000 at 10 micron
23	Synteq® Beta 1,000 at 23 micron

## Element Chart

Micron Rating				
WM	WA	3	10	23
P550276	P179075	P564468	P176567	P173789

# Specifications

Electrical Service:	115 volts: 16 amp, single phase
	230 volts: 8 amp, single phase
Cord Length:	7 ft. cord with storage for 50 ft.
Gear Pump:	60 Hz: 10.4 gpm*
	50 Hz: 8.3 gpm*
Maximum Recommended Fluid Viscosity:	500 SUS or 108 cSt*
Compatibility:	Mineral based fluids*
Operating Temperature:	-10° F to 150° F (-23° C to 65° C)
Filter Bypass Valve Settings:	Suction – 5 psid, Pressure – 25 psid
Weight:	approx. 140 lbs. (63.5 kg)
Dimensions:	Height: 47" (1194 mm)
	Width: 24" (610 mm)
	Depth: 23" (585 mm)
	Hose/Wand assembly length: 10' (3.05 m)

\*Contact Donaldson for special order options

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

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



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