



Donaldson Delivers

## Filter Cart

For Off-Line Hydraulic and Lubricating Oil Filtration

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 mobile hydraulic equipment to achieve and maintain proper ISO cleanliness levels.

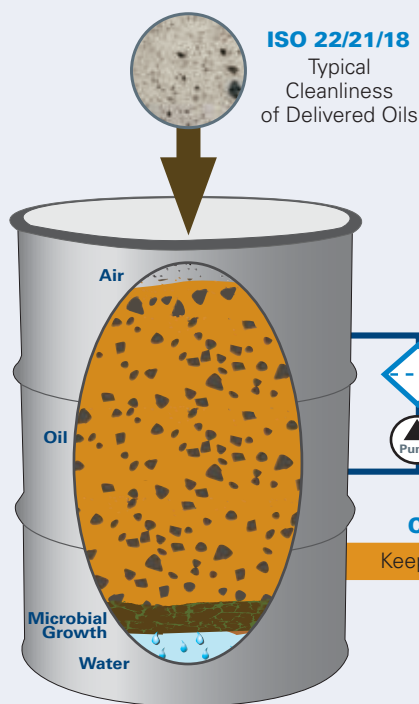
Pressure filters provide multi-stage coarse and fine particle removal. Optional water absorbing filters can be installed for combined particulate and water removal. The powerful one horsepower motor won't bog down when coupled with the pump, providing efficient fluid transfer and filtration. Convenient 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. It is a necessary step in protecting your machinery and equipment from breakdowns caused by oil contamination.

\*Not for use with diesel fuel or gasoline.



### New Oil isn't Clean Oil

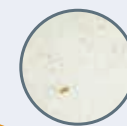


**ISO 22/21/18**  
Typical  
Cleanliness  
of Delivered Oils

### Oil Maintenance Starts Right in the Drum

Polish new lubricating oils inside the drum to meet and maintain baseline ISO cleanliness level – prior to dispensing into equipment, gearboxes and reservoirs.

### Target ISO Cleanliness



**ISO 16/14/11**  
Viscosity  
0-500cSt



**ISO 18/16/13**  
Viscosity  
0-6000cSt

# Filter Cart Features

## Stainless steel wands

- Will not break, corrosion resistant

## Differential pressure indicators

- Lets you know when to change filters

## Two pressure filters mounted in series

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

## Removable angled drip tray

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

## Clear braided hoses

- Visually shows fluid flowing

## Suction filter

- Protects pump

## Oil sampling valve

- Monitors filter performance and cleanliness of oil

## Motor/Pump

- Industrial brand  
10 gpm / 38 lpm flow

## Motor mounted on back

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

## Overload protected switch

- Protects motor and pump from overheating

## Integrated safety relief valve

- Protects against overpressurizing

## Foam filled tires

- Tires will not go flat



# Filter Cart Assembly Choices\*

## Assembly Notes

Pressure and Suction Filters must be ordered separately.

Assembly Part No.	Low Viscosity X011297	High Viscosity X011298
	Filters ordered separately	
Maximum Recommended Fluid Viscosity:	500 SUS or 108 cSt*	8000 SUS or 1700 cSt*
Filter Bypass Valve Settings:	Suction – 5 psid/0.34 bar Pressure – 25 psid/1.7 bar	Suction – Y strainer Pressure – 25 psid/1.7 bar
Dry Weight:	approx. 140 lbs. (63.5 kg)	approx. 175 lbs. (79.38 kg)
Electrical Service:	115 volts: 14 amp, single phase	
Cord Length:	7 ft. /2.1 m cord with storage for 50 ft./15 m	
Gear Pump:	60 Hz: 10.4 gpm/38 lpm*	60 Hz: 2 gpm/8 lpm*
Motor:	1 hp TEFC**	
Compatibility:	Mineral-based fluids, water glycols, polyol esters	
Operating Temperature:	-10° F to 150° F (-23° C to 65° C)	
Dimensions:	Height: 47" (1194 mm) Width: 24" (610 mm) Depth: 23" (585 mm) Hose/Wand assembly length: 10' (3.05 m)	
Filters Ordered Separately:	Requires three filters	Requires four filters



## Pressure Filter Choices

Media Type	B <sub>x(c)</sub> = 1000 Rating	Length (in./mm)	Part No.
Synteq™	<4 µm	14.2/361	P564468
Synteq	5 µm	11.6/294	P170906
			11.6/294 P171273; Viton®, Epoxy
Synteq	9 µm	11.6/294	P165675
			11.6/294 P171274; Viton, Epoxy
			14.2/361 P179763
Synteq	10 µm	11.6/294	P176567
Synteq	10 µm	14.2/361	P170949
Synteq	10 µm	7.6/193	P176207
			11.6/294 P165659
			11.6/294 P171275; Viton, Epoxy
Synteq	23 µm	7.6/193	P176208
			11.6/294 P165659
			11.6/294 P171276; Viton, Epoxy
			14.2/361 P173789
Synteq	>50 µm	11.6/294	P165672
			14.2/361 P170546
Water Removal		N/A	11.6/294 P179075

## Suction Filter Choices

Media Type	Beta <sub>x(c)</sub> = 200 Rating	Length (in./mm)	Part No.
Wire	150 µm	6.7/170	P550275
Mesh	nominal	10.7/271	P550276

\*Contact Donaldson for special order options

\*\*Totally Enclosed Fan-Cooled

\*\*\* Same filters applied to HMK05/25 Models

### Filter Notes

• Thread size is 1 3/4"-12 UNF-2B

<sup>1</sup> Filters with seals made of Buna-N® are appropriate for most applications involving petroleum oil. Filters with seals made of Viton® (a fluorocopolymer) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F. Donaldson offers both types, as shown in the table above. Filters with seals made of Buna-N® are appropriate for most applications involving petroleum oil.

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# Filter Cart Benefits

Features	Benefits
Rugged and durable frame	Enables long service life
High-efficiency media grades	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 protected switch	Prevents motor/pump from overheating
Applications	
Filter new fluid	New fluids are usually above the recommended ISO cleanliness level
Off-line 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

## Calculating the Time Required for Single-Pass Filtration

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:

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

**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 ingestion, choice of media grades and other variables.



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