Donaldson
FILTRATION SOLUTIONS

Donaldson Delivers

# Filter Cart

## For Off-Line Hydraulic and Lubricating Oil Filtration

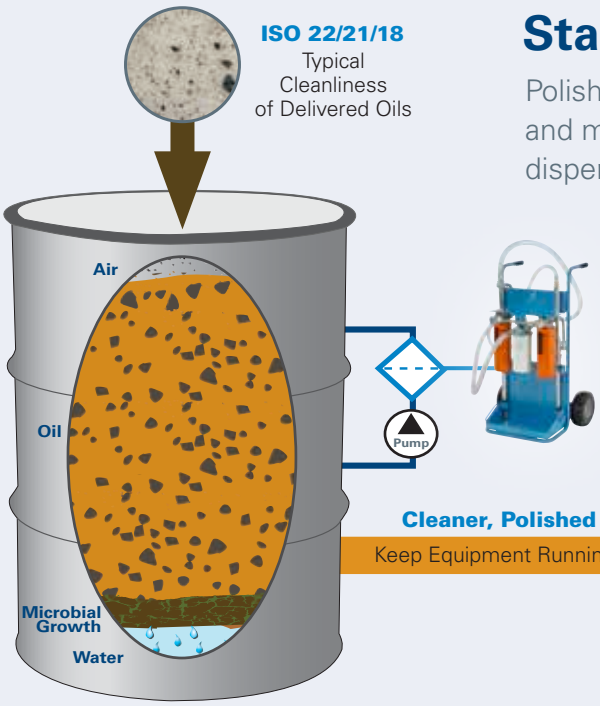
The Donaldson filter cart provides a convenient, portable mode of off-line filtration, flushing and fluid transfer.* Use it with your in-plant machinery and mobile hydraulic equipment to achieve and maintain proper ISO cleanliness levels.

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




## 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

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

**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

**Integrated safety relief valve**
- Protects against over pressurizing

**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 Filters ordered separately  | 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<br>Pressure – 25 psid/1.7 bar | Suction – Y strainer<br>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)<br>Width: 24" (610 mm)<br>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 | $B_{x(c)}$ = 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[1] | Viton®, Epoxy |
| Synteq | 9 µm | 11.6/294 | P165675 | |
| | | 11.6/294 | P171274[1] | 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[1] | Viton, Epoxy |
| Synteq | 23 µm | 7.6/193 | P176208 | |
| | | 11.6/294 | P165569 | |
| | | 11.6/294 | P1712761 | 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 | $Beta_{x(c)}$=200 Rating | Length (in./mm) | Part No. |
|---|---|---|---|
| Wire Mesh | 150 µm nominal | 6.7/170 | P550275 |
| | | 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

[1] Filters with seals made of Buna-N® are appropriate for most applications involving petroleum oil. Filters with seals made of Viton® (a fluoroelastomer) 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.

# 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 to following formula to calculate the amount of time needed to achieve single-pass filtration:

**(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 gallons x 7) / 10 gpm = 35 minutes

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

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