Donaldson® Industrial Hydraulic Filter Cart (IHFC)

Filter Cart for flushing and transfer of oil into drums or reservoirs to reduce contamination.

Product description:

The Donaldson Industrial Hydraulic Filter Cart (IHFC) is designed to provide filtration, flushing and transfer of oil from containers to the hydraulics reservoir or vice versa. The filter cart can also be configured as a portable “kidney loop” filter system to help supplement the existing filtration on a specific hydraulic application. Due to its portability, the filtration system can be moved from machine to machine.

Whether it is used for new or used oil, the hydraulic filter cart ensures the cleanest oil possible for increased equipment life.

Installing an optional Donaldson water absorption element enables removal of a limited amount of free water. (Absorbs approximate 6oz/170ml of water @ 20psid).

Applications:

The Donaldson IHFC is developed for the following applications in mind:

* Pharmaceutical Industry
* Mining Industry
* Machine Tool Industry
* Plastic Injection Moulding
* Petrochemical Industry
* Power Plants
* Automotive Industry
* Paper Mills
* Oil Refineries
* Marine Industry
## Donaldson® IHFC

<table>
<thead>
<tr>
<th>Features:</th>
<th>Benefits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rugged and durable frame construction</td>
<td>Enables long service life</td>
</tr>
<tr>
<td>Lightweight and portable</td>
<td>One person operation</td>
</tr>
<tr>
<td>Water removal replacement elements available</td>
<td>To remove excessive water and particles in the oil</td>
</tr>
<tr>
<td>Oil sampling ports before and after filter element</td>
<td>Monitoring of filter element performance and cleanliness level of oil</td>
</tr>
<tr>
<td>Inlet strainer (suction filter)</td>
<td>Protection of pump to reduce cost of ownership</td>
</tr>
</tbody>
</table>
| Single-handle bar for operation and storage | Ease of mobility, ease to maneuver  
Allows horizontal storage below work desk |
| Complete range of Donaldson high efficiency filter elements available | Correct choice of element provides correct filter efficiency and reduces cost of operation |
| Safety relief valve (100psig) | Prevents damage to the pump and filter element when cart system is overpressurised  
Reduces cost of operation and cost of ownership |

Designed for horizontal storage
Donaldson® IHFC

Operation Instructions:

- Remove 1" suction line from the coiled filter cart handle, insert into tank to be filtered.
- Remove ¾" pressure line and insert into tank to be filled or circulated into.
- Note: Be careful not to restrict the pressure line with shut-off valves. The 100psi relief valve on the pump will prevent damage to the pump and filter but no filtration will take place and the pump may overheat.
- Plug filter cart into 240VAC grounded outlet. A 13Amp circuit will be fine. To turn on the hydraulic pump, the electrical switch behind panel must be pressed “ON”. If the pump is overloaded, heater inside the switch will trip. To reset, turn the power switch off and reset the switch before turning back to on. Check for restricted flow on the suction and pressure side of the pump.
- When turning on the electric motor, take caution that the pressure line is held firmly in place so that the force of the fluid leaving the hose does not push the return hose out of the tank, spilling all the fluid on the floor.
- If filling a reservoir, make sure the filler screen is removed, as most filter breather screens will not allow a 33LPM flow to pass through the screen without overflowing. Put back the filler screen after the tank had been filled.
- Continue to monitor the filter cart at all time until finished. Do not allow the pump to run for a periods of time without fluid, this will cause damages to the pump.
- When the filtration transfer is completed, turn off the electric motor, unplug the power cord, and put the filter wands back to the dip tray.
- The preferred method to completely clean up fluid in an existing system is to transfer all the oil from the hydraulic reservoir into tanks or barrels. This assures that all of the fluid has been cycled through the filter. The fluid should be filtered and returned to the reservoir.

Setup and Maintenance Guideline

- Connect 1” line to suction, ¾” line to return
- Connect cord to 240VAC, 13Amp source
- Caution! Pump Flow = 33LPM
- Turn on power switch.
- Replace elements when indicated
- Do not run pump dry
Donaldson® IHFC – Product Features

- **Motor / Pump**
  - Industrial Brand name

- **Drip Tray**
  - Helps to control oil dripping and spillage

- **Oil Sampling Valve (Before Filter)**

- **Discharge Filter**
  - Choice of filter elements to meet application requirements

- **Safety Electrical Switch**
  - Prevents pump overloading

- **Safety Relief Valve**
  - Prevents system overpressure

- **Suction Filter**
  - Enhances life of pump

- **Visual Indicator**
  - Shows when to change elements

- **Single-hand Bar**
  - Easy to maneuver

- **Clear Hoses**
  - Length of hoses customised to meet your specific needs

- **Heavy Duty Wheels**
Donaldson® IHFC

Applications and Uses:

- Transfer Cart – Oil is transferred from a storage container (tote, drum, tank etc.) to machine’s lube compartment
- Cleaning Stored Lubes (Oils) – In this application, the cart multipasses fluid out and back into the drum or tote to reduce contamination. Example: Improve oil (lube) quality from ISO 24/21/19 to ISO 17/14/11
- Offline Filtration – Filter Cart can be mounted permanently to a machine to supplement filtration
- Line Flush – Often remote lines and components need to be partitioned to enable flushing. This can easily be done with a filter cart
- Hose Cleaning – New hoses can be flushed of debris using a filter cart before they are installed on the machine
- Flushing after Repairs and Equipment-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 have ingressed during transport and storage

Specifications:

<table>
<thead>
<tr>
<th>Model</th>
<th>Flowrate</th>
<th>Weight (Approx.)</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Electric Motor</th>
<th>Hoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHFC</td>
<td>33 LPM</td>
<td>129 lbs</td>
<td>26 “</td>
<td>22 “</td>
<td>51 “</td>
<td>0.75 kw/230 Vac/50 Hz/Single Phase</td>
<td>9.9’ hoses with wands</td>
</tr>
</tbody>
</table>

Types of Oil:
The Donaldson IHFC6404 is developed to filter the following:

- Lubricating Oil
- Turbine Oil
- Sealing Oil
- Cutting / Cooling Oils
- Gear Oils
- Hydraulic Oils
- Vacuum pump Oils
- Synthetic fluids Oils
- Roll, draw Oils
- Engine Oils
- Transformer Oils
- Compressor Oils
- Insulating Oils
- Quenching Oils
Donaldson® IHFC Selection Guide

Viscosity
\[ V_1 = 100 \, \text{cts} \]
\[ V_x = \underline{\phantom{100}} \, \text{cts} \]

Colour
\[ \text{SB} = \text{Standard Blue (std.)} \]
\[ \text{EY} = \text{Equipment Yellow} \]
\[ \text{Cx} = \underline{\phantom{100}} \]  

Hose Length
\[ 03 = 9.9 \, \text{feet (std.)} \]
\[ 06 = 19.8 \, \text{feet} \]
\[ H_x = \underline{\phantom{100}} \, \text{ft} \]

Pressure Filter
\[ S10 = \text{Synteq 10 } \mu\text{m (std.)} \]
\[ S05 = \text{Synteq 05 } \mu\text{m} \]
\[ S0x = \underline{\phantom{100}} \, \mu\text{m} \]

Suction Filter
\[ \text{WM} = \text{Wire Mesh 149 } \mu\text{m (std.)} \]
\[ \text{WA} = \text{Water Abs. 05 } \mu\text{m} \]
\[ \text{CE1} = \text{Cellulose 45 } \mu\text{m} \]
\[ \text{CE2} = \text{Cellulose 27 } \mu\text{m} \]

Power Supply
\[ P1 = 110 \, \text{VAC / 60 Hz} \]
\[ P2 = 230 \, \text{VAC / 50 Hz (std.)} \]
\[ P3 = 400 \, \text{VAC / 3-P / 50 Hz} \]
\[Px = \underline{\phantom{100}}\]

Flow
\[ F1 = 33 \, \text{Liter / min. (std.)} \]
\[ Fx = \underline{\phantom{100}} \, \text{Liter / min.} \]
Donaldson® IHFC

Donaldson Hydraulic/Lube Filter Cart Replacement Elements

The Donaldson Hydraulic filter cart is designed with the very popular spin-on head assembly to provide the user with a wide range of our filter element choices.

Element Choices:

<table>
<thead>
<tr>
<th>Element#</th>
<th>Beta_{x(c)} 2 (50%) per ISO 4735</th>
<th>Beta_{x(c)} 200 (99%) per ISO 16889</th>
<th>Beta_{x(c)} 1000 (99.99%) per ISO 16889</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>P167796</td>
<td>&lt;2 Micron</td>
<td>**</td>
<td>&lt;4 Micron^{(c)}</td>
<td>11”</td>
</tr>
<tr>
<td>P169430</td>
<td>&lt;2 Micron</td>
<td>**</td>
<td>&lt;5 Micron^{(c)}</td>
<td>7”</td>
</tr>
<tr>
<td>P167832</td>
<td>2 Micron</td>
<td>5 Micron^{(c)}</td>
<td>5 Micron^{(c)}</td>
<td>11”</td>
</tr>
<tr>
<td>P168765</td>
<td>2 Micron</td>
<td>8 Micron^{(c)}</td>
<td>11 Micron^{(c)}</td>
<td>7”</td>
</tr>
<tr>
<td>P165876</td>
<td>10 Micron</td>
<td>21 Micron^{(c)}</td>
<td>27 Micron^{(c)}</td>
<td>7”</td>
</tr>
<tr>
<td>P550387</td>
<td>25 Micron</td>
<td>45 Micron^{(c)}</td>
<td>n/a</td>
<td>7”</td>
</tr>
<tr>
<td>P550388</td>
<td>Water Absorption Element</td>
<td></td>
<td></td>
<td>11”</td>
</tr>
<tr>
<td>P561183</td>
<td>Strainer Element, Suction Filter</td>
<td></td>
<td></td>
<td>11”</td>
</tr>
</tbody>
</table>

** Beyond the limitation of the APC, \(^{(c)}\) NIST traceability

\(^{(1)}\) standard scope of supply

Distributed by:

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