

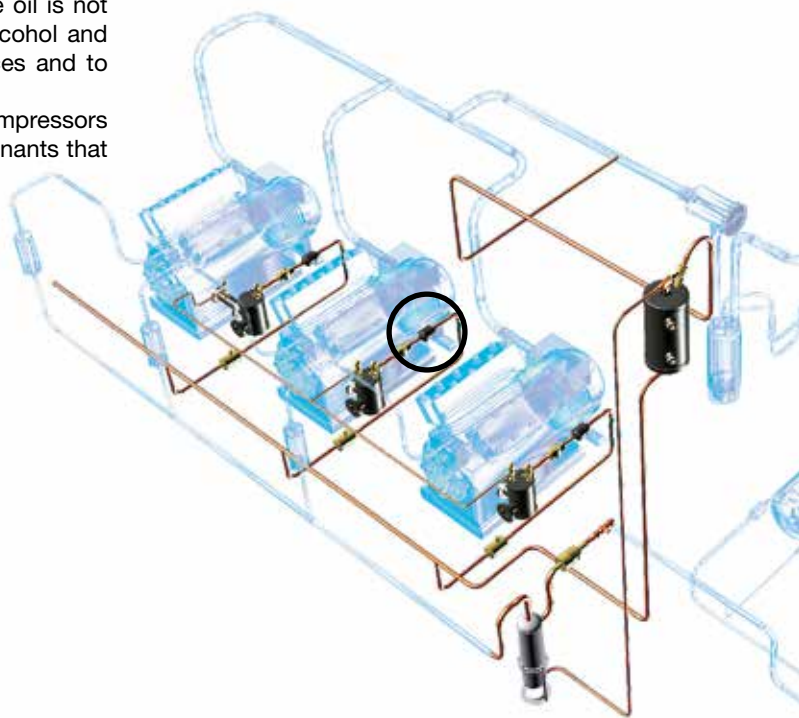


Filter drier for refrigerants oils

→ HYDROIL

■ Applications

- Continuous filtration and dehydration of oils, on the oil return line to the compressors crankcases, present in the refrigerating and air conditioning installations.
- HYDROIL is a safety component for refrigerating compressors, because when the quantity of water contained in the oil is not controlled, the esters transform by hydrolysis into alcohol and fatty acids (soaps), likely to block the smallest orifices and to cause the compressor burnout.
- This filter is essential for the proper functioning of the compressors and oil level regulators. It protects them from contaminants that may damage them (metallic chips, filings, oxides, sludge, humidity, etc...).



■ Functional features

- Products are compatible with CFCs, HCFCs, HFCs, CO₂, as well as with their associated oils and additives. Products are designed for use of non-hazardous refrigerants from group 2 of PED 2014/68/EU. To use CARLY components with fluids of the hydrocarbon group 1 – Propane R290, Butane R600, Isobutane R600a, Propylene R1270 – with HFOs and transcritical CO₂ and for a RANKINE organic cycle application, contact CARLY technical department.
- Product classification in CE categories is done with the PED 2014/68/EU table, corresponding to a volume-based selection.
- Hermetically sealed outer steel enclosure with paint to ensure a high resistance to corrosion.
- Filtering threshold: 10 microns
- Initial drying capacity guaranteed by a 200 °C oven drying and airtight sealing.

Possible customization on demand:

- Specific connections (O-RING, ORFS, ...)
- Connections to braze 100 % copper

■ CARLY advantages

- Maximum working pressure 46 bar
- Those filters may be used on low and high pressure oil return systems.
- Automatic bypass of the internal filter when it is too dirty and when the pressure drop generated exceeds 0.5 bar; this particularity ensures the continuity of compressor lubrication, even if filter maintenance is late.
- A large contaminant retention capacity is ensured by an important filtering area of 175 cm² and by a volume of drying agents of 170 cm³ with very low pressure drop.
- Chemical agents in the form of free grains, for very high drying performances.
- A pressure tap on the filter case makes it possible to check its good operation.



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■ Warning

Before selecting or installing any component, please refer to the chapter 0 - **WARNING**.

■ General assembly precautions

The installation of a component in a refrigeration system by a skilled professional, requires some precautions:

- Some are specific to each component, and in this case, they are specified in the **RECOMMENDATIONS SPECIFIC** part

defined hereafter ;

- Other are general to all CARLY components, they are presented in the chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.
- The recommendations relating to the CARLY components for the subcritical

CO₂ applications are also developed in chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.

■ Recommendations specific to the oil filters HYDROIL

- The oil filters are to be mounted on the oil return line, between the oil separator and the oil level regulator, as close as possible to the latter.
- The direction of oil flow, indicated by an arrow on the filter tag and by an “IN” sticker next to the inlet connection, must imperatively be respected.
- The degree of clogging of the filters must be regularly checked, ensuring that the oil return is correct in the crankcases of compressors; oil filters must be imperatively replaced at the first sign of clogging.

- It is highly recommended to install downstream oil filter an oil sight glass HCYVP (refer to chapter 48) in order to visually check the presence and the condition of the oil.
- The change of the filter is recommended after each intervention on the oil circuit and particularly after an addition of oil.
- The POE and PVE oils are very hydrophilous, therefore the installation of a HCYF or HCYBF regular oil filter is not sufficient.
- Oil acidity monitoring is ensured by using TESTOIL (TESTOIL-MAS, TESTOIL-POE

or TESTOIL-3P-CO₂) acidity tests: refer to chapter 91.

- Make sure that the piping can support without deformation the weight of the oil filter; otherwise, plan the attachment of the oil filter with a clamp on a stable part of the installation.



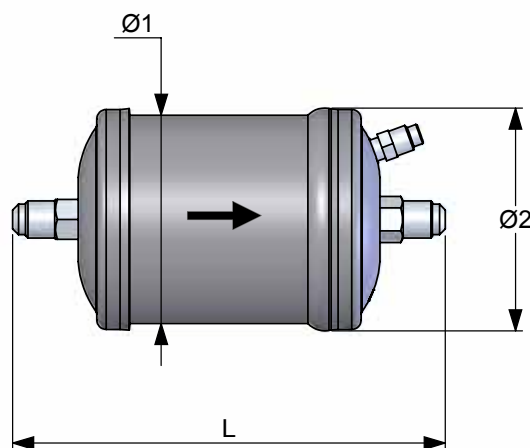
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■ Technical features

CARLY references	Connections To screw SAE inch	Connections types ⁽¹⁾	Filtering surface cm ²	Volume of desiccation products cm ³ ⁽¹⁾	Dimensions mm		
					Ø1	Ø2	L
HYDROIL 163	3/8	1	175	170	89	96	187

⁽¹⁾ Chapter "Connection features and drawings" (refer to chapter 114).



CARLY references	Volume	Maximal working pressure	Working pressure ⁽¹⁾	Maximal working temperature	Minimal working temperature	Working temperature ⁽¹⁾	CE Category ⁽²⁾
	V L	PS bar	PS BT bar	TS maxi °C	TS mini °C	TS BT °C	
HYDROIL 163	0,7	46	15	120	-40	-30	Art4§3

⁽¹⁾ The working pressure is limited to the PS BT value when working temperature is lower than or equal to TS BT value.

⁽²⁾ Classification by volume, according to PED 2014/68/EU (refer to chapter 0).

■ Weights and packaging

CARLY references	Unit weight kg		Packaging number of pieces
	With packaging	Without packaging	
HYDROIL 163	1,59	1,55	6