



Filters . Accumulators

Offline Filtration Systems

15...170 NFF2 0020-0270

*Mobile filtration systems with
integral motor-pump units*

*For temporary or permanent
installation using offline flow*

*Reduce usage of main flow
filters, extending life of more
expensive elements*

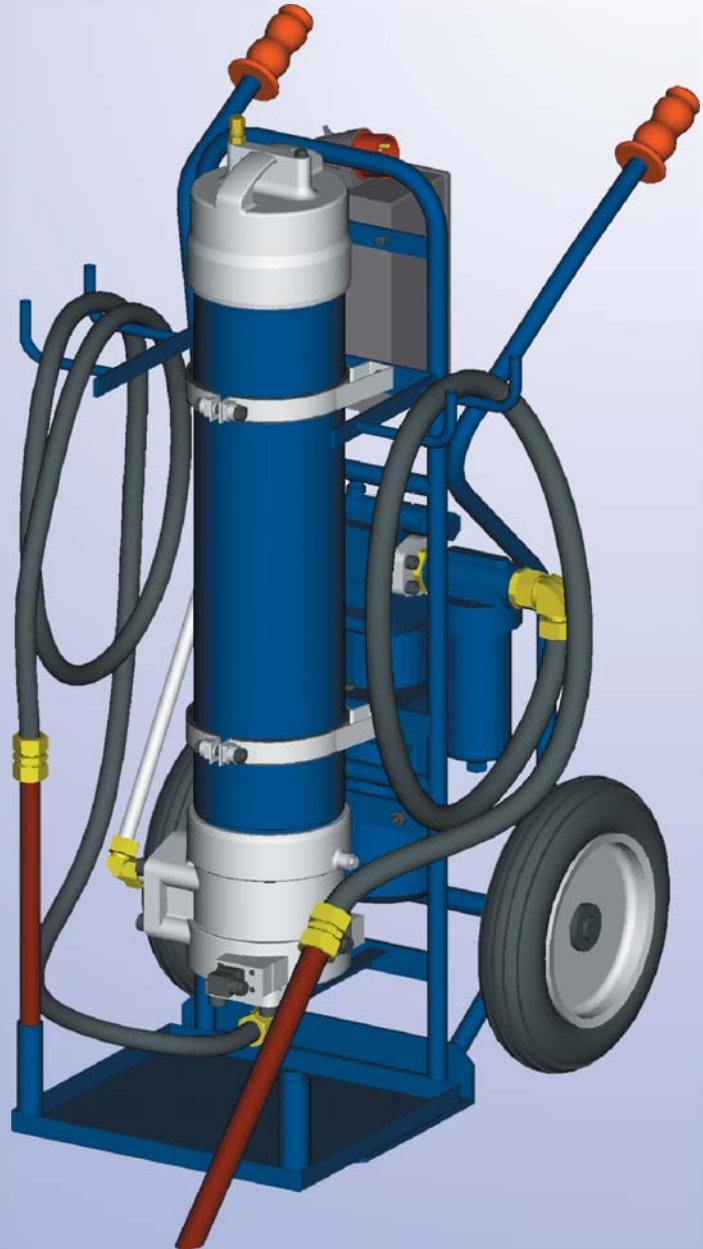
*Filtration of fresh and top-up
fluids.*

*Flushing of contaminated
systems or reservoirs*

*Upgrade filtration on existing
systems*

Low pressure drop

*High efficient special filter
media*



*Flow rate 10-170 l/min
Special sizes on request*



Offline Filtration Systems

15-170 NFF2....

Operating temperature - 10°C to + 100°C

Application

Filtration of pressurised liquids and lubricants. Separate installation in the offline or cooling circuit for fine filtration and relief for main filter. Filtration of fresh oil and flushing of contaminated systems.

Wear protection of components and systems.

Design

Mobile filtration system mounted on 2- or 4-wheel-cart with EPE-series filter.

Material : as per spare parts list in this brochure.

Filter Element

Pleated design with optimised pleat density and various filter media. The filter elements is the most important component of the filter in view of prolonged life and wear protection of the system.

Oil cleanliness, the initial pressure drop and the dirt holding capacity are the most important criteria for selection.

For further detailed information please refer our "Filter Elements" brochure.

Accessories

Maintenance Indicators

For monitoring the filter element's contamination status, visual and visual/electrical indicators, with one or two switching points are available.

Bypass Valve

To protect the filter element during start up and over pressurisation due to clogging.

Vent Valve

For removing the air from the filter during starting and for safe de-pressurisation.

Particle Counter

Most industry today need to know the oil cleanliness level. We can provide an integrated particle counter to give results in ISO/SAE Classes. Software for connecting the computer to the particle counter is also possible.

Guideline for selection

Initial pressure drop : 0,1-0,5 bar at operating viscosity

Selection in accordance to flow and reservoir capacity

Reservoir capacity volume V	Circulation time time t	Circulation factor factor f*
< 1000 l	30 min	2
1000 l - 5000 l	60 min	1
5000 l - 10000 l	120 min	0,5
> 10000 l	180 min	0,33

Achievable oil cleanliness as per ISO 4406

Calculation example	H1XL	H3XL	H10XL
5	12/9/5	13/11/8	17/15/12
10	10/7/2	12/10/6	15/14/10

Reservoir capacity : 3500 l

Recommended circulation factor : 1

Needed pump flow:

$$Q = \frac{V \times f}{t} = \frac{3500 \times 1}{60} = 58,3 \text{ l/min}$$

Chosen size : 80 l/min, 80 NFF2 0120

* circulation factor (f) indicates how often the system capacity in liters (l) passes the filter system in one hour.

The higher this factor the faster the flushing or cleaning process will be.

Filtering Media

The Main Filters are supplied with a variety of Elements including

Disposable Glass Fibre Media in 1, 3, 6, 10 & 20 μ(absolute)

Reusable SS Mesh in 10, 25, 40, 60 μ(nominal) & above

Disposable Paper Media in 5, 10 & 25 μ(nominal)

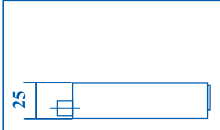
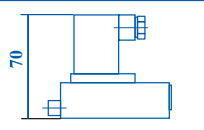
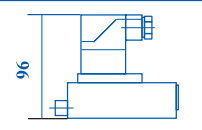
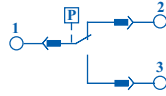
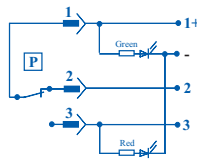
Disposable Polypropylene Media in 10, 25 & 40 μ(nominal)

Disposable Water Absorbing Media in 1, 3, 6, 10 & 20 μ(absolute)

The Suction Filters are supplied with reusable SS Mesh Element of 800 μ(nominal) rating.

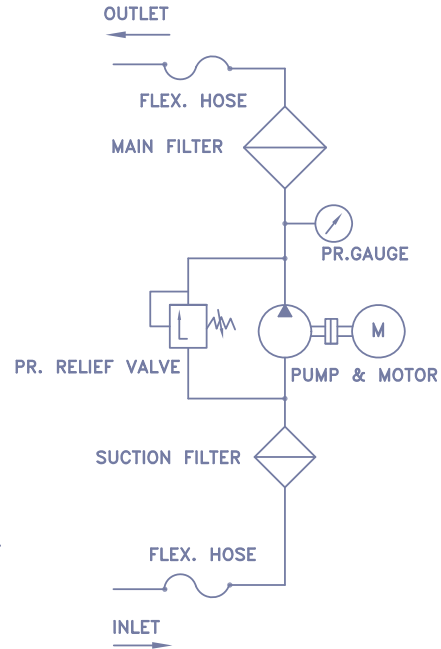
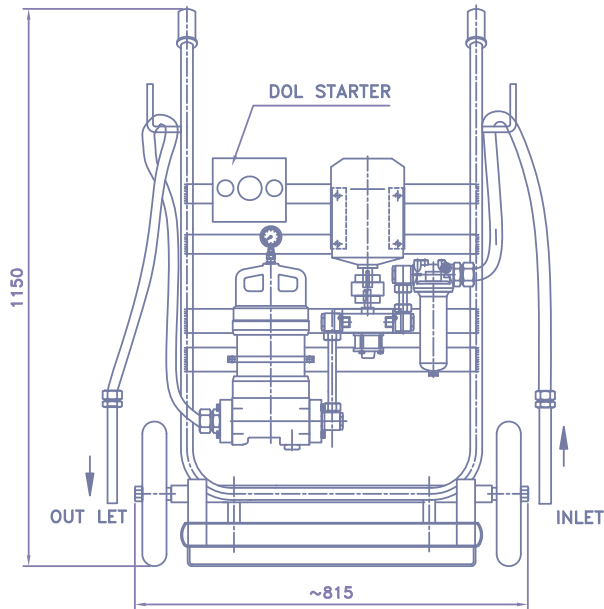
Maintenance Indicators

Maintenance indicators are used for monitoring the filter element's contamination status. They are available as visual or visual / electrical indicators.

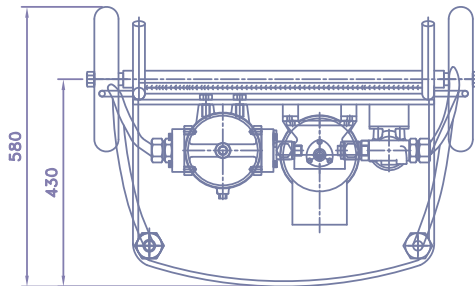
		
A... Visual	B... Visual/electrical	C... Visual/electrical With two signal lights and two switching points
Ordering information A2.5 = F2.5-A0-00-00-P A5.0 = F5.0-A0-00-00-P	Ordering information B2.5 = F2.5-GW-02-00-P B5.0 = F5.0-GW-02-00-P	Ordering information C2.5 = F2.5-GW-26-00-P C5.0 = F5.0-GW-26-00-P
	Switch Symbol 	Switch Symbol 

15-NFF2-0020.... 20-NFF2-0020.... 40-NFF2-0045

Dimensions



HYDRAULIC CIRCUIT

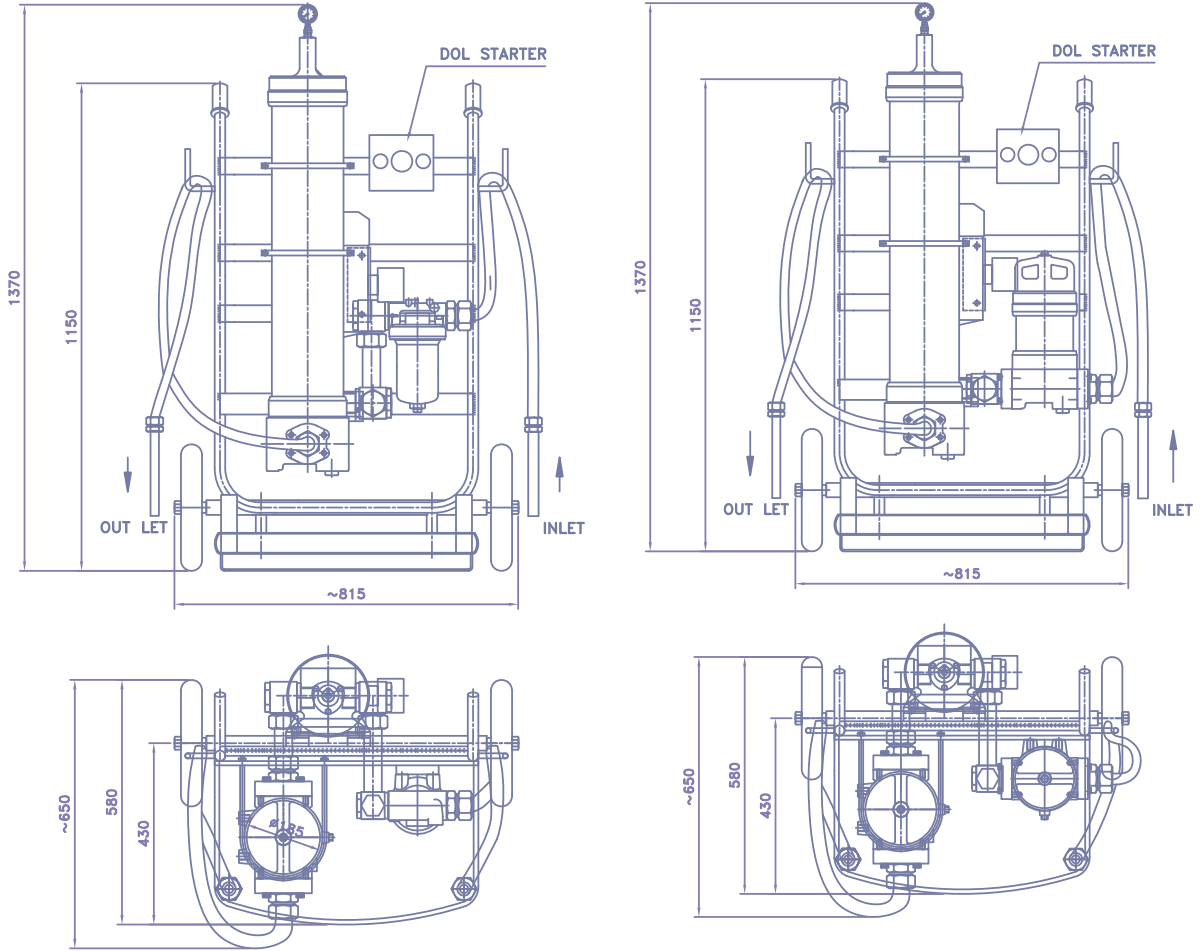


Ordering code / Spare Parts List

Filter System consisting of	15 NFF2 0020...-A00-07A2, 5-00P00	20 NFF2 0020...-A00-07A2, 5-00P00	40 NFF2 0045...-A00-07A2, 5-00P00
Volume Flow Rate	15 l/min	20 l/min	40 l/min
Main Filter	40 FLE 0020...-A00-07A2, 5-R0P00	40 FLE 0020...-A00-07A2, 5-R0P00	40 FLE 0045...-A00-07A2, 5-R0P00
Maintenance Indicator	Visual (Pop-up / Gauge type), Electric Switch (F2,5 GW 02 00P)		
Main Filter Element	1.0020...-A00-0-P	1.0020...-A00-0-P	1.0045...-A00-0-P
Suction Filter	40 LE 0008 G800-A00-000-00P00	40 LE 0008 G800-A00-000-00P00	40 LE 0015 G800-A00-000-00P00
Suction Filter Element	2.0008 G800-A00-O-P	2.0008 G800-A00-O-P	2.0015 G800-A00-O-P
Mounting	Mobile with 2 wheels		
Hose	2m + lance 1m		
Nominal Size Suction/Pressure	Ø 16 / Ø 16	Ø 16 / Ø 16	Ø 25 / Ø 30
Electrical Data	415 V; 50 Hz; 1HP	415 V; 50 Hz; 1HP	415 V; 50 Hz; 1.5HP
Pump Pressure	Max 8 bar		
Viscosity Range	6-220 mm ² /s (up to 1000mm ² /s on request)		

Filter fineness see Guideline for selection page 2, category "Filtering Media"
Special design on request

80-NFF2-0120.... 120-NFF2-0200 Dimensions



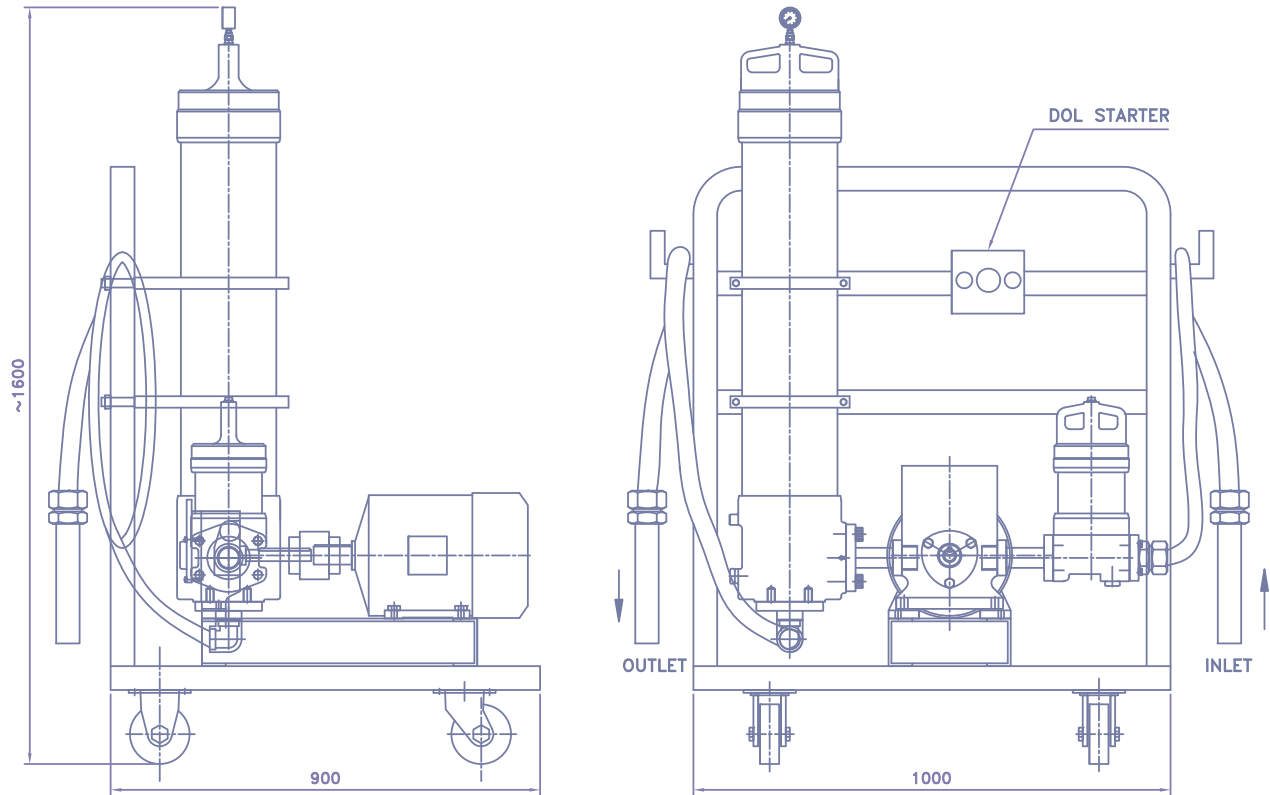
Ordering code / Spare Parts List

Filter System consisting of	80 NFF2 0120...-A00-07A2, 5-00P00	120 NFF2 0200...-A00-07A2, 5-00P00
Volume Flow Rate	80 l/min	120 l/min
Main Filter	40 FLE 0120...-A00-07A2, 5-R0P00	40 FLE 0200...-A00-07A2, 5-R0P00
Maintenance Indicator	Visual (Pop-up / Gauge type), Electric Switch {F2,5 GW 02 00P}	
Main Filter Element	1.0120...-A00-0-P	1.0200...-A00-0-P
Suction Filter	40 LE 0020 G800-A00-000-00P00	40 FLE 0020 G800-A00-000-00P00
Suction Filter Element	2.0020 G800-A00-0-P	1.0020 G800-A00-0-P
Mounting	Mobile with 2 wheels	
Hose	2m + lance 1m	
Nominal Size Suction/Pressure	Ø 30 / Ø 45	1-1/2" / 1-1/2"
Electrical Data	415 V; 50 Hz; 3HP	415 V; 50 Hz; 5HP
Pump Pressure	Max 8 bar	
Viscosity Range	6-220 mm ² /s (up to 1000mm ² /s on request)	

Filter fineness see Guideline for selection page 2, category "Filtering Media"
Special design on request

145-NFF2-0270.... 170-NFF2-0270

Dimensions



Ordering code / Spare Parts List

Filter System consisting of	145 NFF2 0270...-A00-07A2, 5-00P00	170 NFF2 0270...-A00-07A2, 5-00P00
Volume Flow Rate	145 l/min	170 l/min
Main Filter	40 FLE 0270...-A00-07A2, 5-R0P00	40 FLE 0270...-A00-07A2, 5-R0P00
Maintenance Indicator	Visual (Pop-up / Gauge type), Electric Switch {F2,5 GW 02 00P}	
Main Filter Element	1.0270...-A00-0-P	1.0270...-A00-0-P
Suction Filter	40 FLE 0020 G800-A00-000-00P00	40 FLE 0020 G800-A00-000-00P00
Suction Filter Element	1.0020 G800-A00-0-P	1.0020 G800-A00-0-P
Mounting	Mobile with 4 wheels	
Hose	2m + lance 1m	
Nominal Size Suction/Pressure	2" / 2"	2" / 2"
Electrical Data	415 V; 50 Hz; 7.5HP	415 V; 50 Hz; 7.5HP
Pump Pressure	Max 8 bar	
Viscosity Range	6-220 mm ² /s (up to 1000mm ² /s on request)	

Filter fineness see Guideline for selection page 2, category "Filtering Media"
Special design on request



Filters . Accumulators

Installation, Starting and Maintenance

Installation of Offline Filter Systems

Remove dust protection plugs from filter inlet and outlet. Connect inlet and outlet in pipeline without tension stress considering flow direction (direction arrows).

Please take care, that the hoses are beneath the oil level. If you do not use screw fittings, you can also use pipe nozzles.

Bypass filtration units have to be mounted in a way that effective flushing of the reservoir is possible. Please connect the suction line in the return chamber of the reservoir, and the pressure line in the suction chamber of the reservoir. If you use a cooling system, please connect it behind the filter.

Starting

Open valves if existing. Start pump of the bypass filtration unit. Vent the filter by open the vent valve. Close vent valve when liquid emerges.

Maintenance

If the system is equipped with a visual/electrical indicator the system shuts down automatically if the pressure drop of the filter element reaches the switching point of 2,5 bar.

Filter Element Service

Switch off the pump of the bypass filter unit.

Open vent valve and depressurise system. Open plug and drain contaminated oil from the filter housing. Un screw filter upper part/filter cover and remove filter element from housing turning slightly off its spigot in the filter lower part.

Screw in plug.

Check filter housing inside and clean if necessary.

Replace filter element H...-XL, P...and VS... Lubricate filter element o-ring and install replaced filter element inside filter housing by putting it up to its locator and slightly turning.

Take care not to damage pleated filter element media during installation in filter housing.

Check o-ring in filter housing, replace in case of damage or wear. Screw on filter head hand tighten, then tighten a further 1/4 turn back. Do not over tighten.

Operate as described above.

EPE PROCESS FILTERS & ACCUMULATORS PVT LTD

Techni Towers

C-54/A, A.P.I.E., Balanagar

Hyderabad -500 037. A.P., India.

Tel. Nos. : 23778803/23778804/23871445

Fax Nos. : 040-23871447.

Internet : www.epe-india.com

E-mail : business@epe-india.com

Technical specifications are subject to change!