

Fuel Filter COM plus

Nominal pressure 16 bar (232 psi); nominal size DN 25 up to DN 100

1. Features

Automatic filter for heavy fuel (HFO)

For the conditioning of heavy fuels, there is a special demand of purity, particularly for the usage in large engines. The Filtration Group COM plus filter series combines highest retention rates with a innovative self cleaning filter technique. Through back flushing with pressure preloaded, tempered and purified heavy fuel the self cleaning process takes place without interference with the filters capacity.

- Degree of filtration down to 10 µm absolute
- Defined and minimized back flush flow rate
- Compact design
- No pressure drop all through cleaning cycle
- Back flushing with tempered and purified heavy fuel
- Powerful cleaning by reliable back flush nozzles
- Back flushing neither effect the filtration process nor the system pressure
- Adjustable cleaning intensity
- Integrated trace heating
- Quality filters, easy to service
- Worldwide distribution and service



2. Mode of operation

The Filtration Group COM plus is a special designed filter for heavy fuel and large engine applications. It is part of the Filtration Group large engine filter product line.

The COM plus combines the reliable and proven cleaning system with back flush nozzles and the new opportunity of a process capable of cleaning without a pressure drop. The cleaning process and the discharge of the dirt have no influence to the filter process itself.

At operating temperature the heavy fuel is pumped into the filter. The filter is fluidically optimized and trace heated as standard. The Filter insert itself is designed either as single or duplex filter insert.

The duplex filter insert consists of two concentric stainless steel wire mesh cylinders, which come in the required filter fineness.

Utilizing lateral flow the dirt load is evenly spread over and retained at the surface of the wire mesh cylinder.

The filtered heavy fuel is discharged through the outlet flange.

The cleaning cycles are controlled through a preset time or a differential pressure threshold. A control box automatically triggers the cleaning cycle, if either time or the differential pressure threshold is reached. For monitoring the filter from a distant control room, the filter control is able to give an analog data signal and to two relay thresholds. For the back flushing a defined amount of clean heavy fuel is stored inside the filter. With use of external pressure it is used to clean the filter. Simultaneously the exact same amount of sludge is sucked up from the dirt side of the filter. The refilling of the back flush storage tank, with filtered and tempered heavy fuel, proceeds simultaneously with the drainage of the dirt to the dirt tank. This refilling does not affect the filtration process. All filters of the Filtration Group large engine product line are patented.

3. Technical Specification

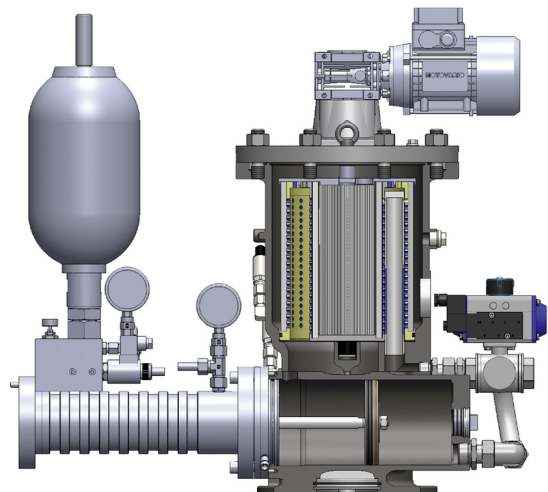
Design:	Pressure vessel
Nominal pressure:	16 bar (232 psi)
Test pressure:	24 bar (348 psi)
Operating temperature:	max. 160 °C (Higher temperatures on request)
Trace steam heating:	10 bar (141 psi)/200 °C
Cleaning pressure Δp :	0.5 bar
Differential pressure stability:	min. 3 bar
Materials	
Filter cover:	1.0038
Filter housing:	0.7040
Seals:	FPM
Filter mesh:	1.4401

Special filter wire mesh available in 48, 34, 25 and 10 μm .

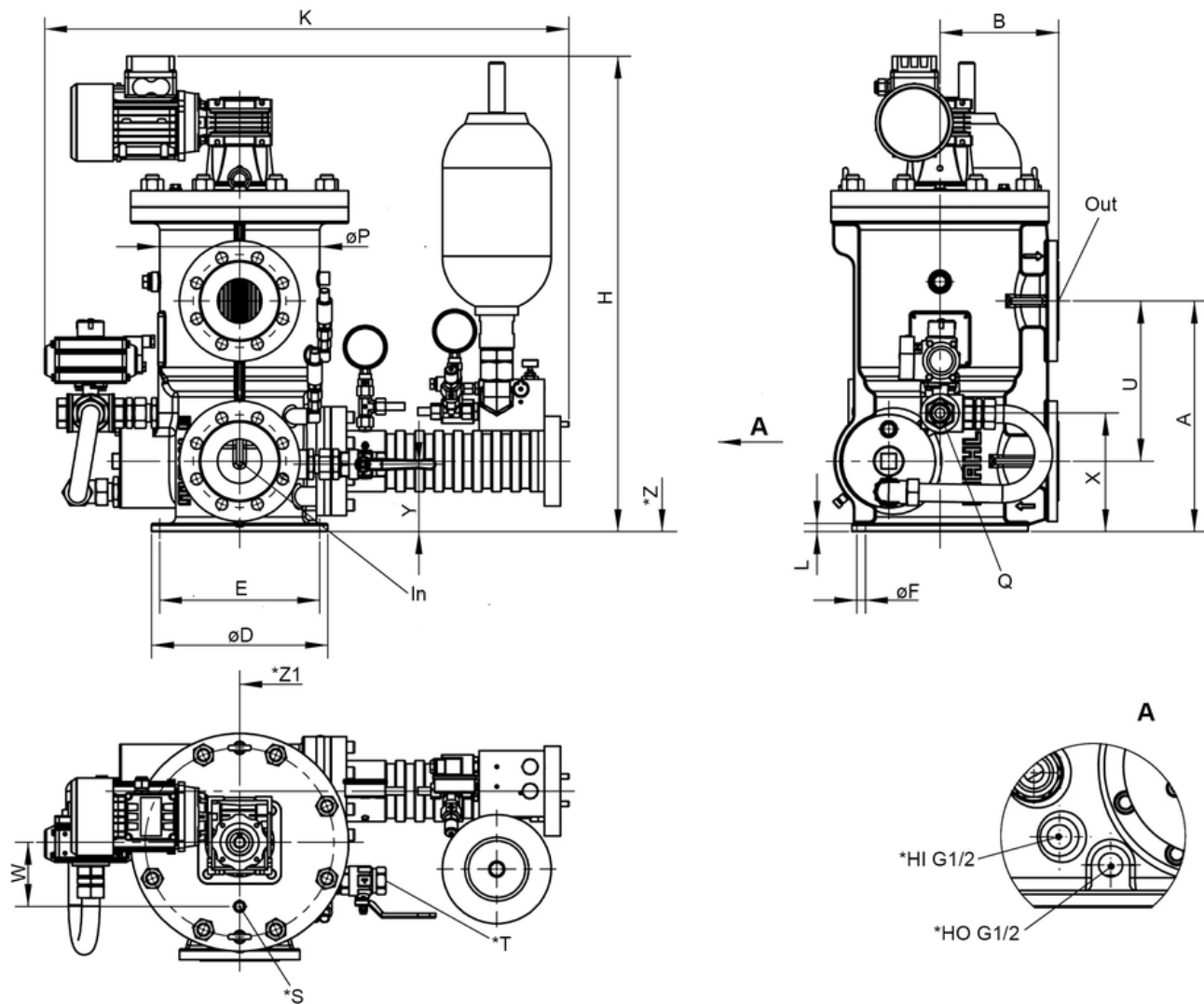
Active filter area up to 16,000 cm^2 possible.

A hydraulic prop is used for cleaning cycle drive.

Subject to technical alteration without prior notice.



4. Dimensions



In	Inlet	*S	Venting
Out	Outlet	*T	Drain
*HI	Heating connection inlet	*Z	Minimum clearance for insert removal
*HO	Heating connection outlet	*Z1	Minimum clearance for disc piston with hydr. drive removal
Q	Back wash line		

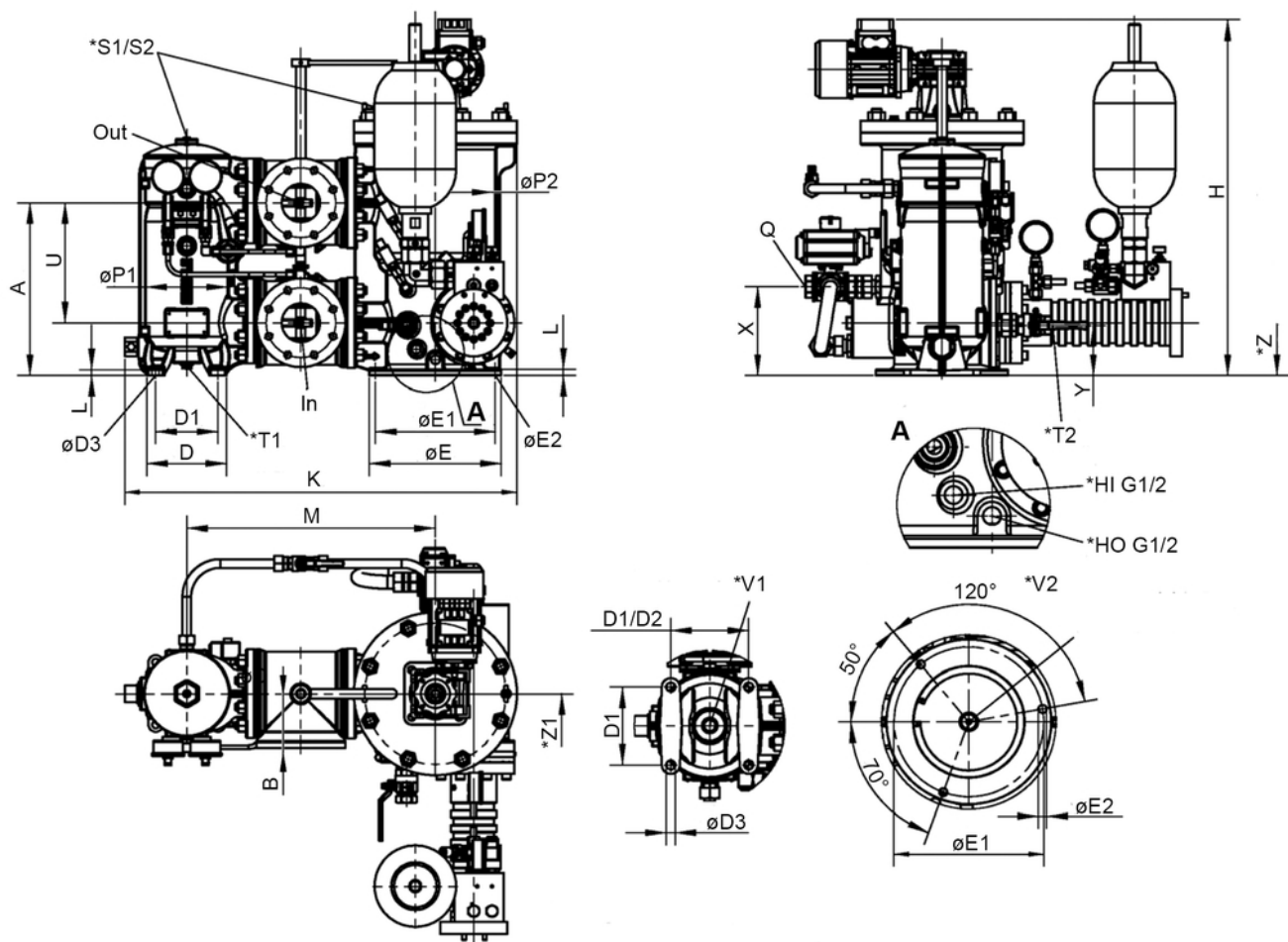
All dimensions except "Q", "S" and "T" in mm.

Type	Connection*	A	B	ØD	E	ØF	H
RP063110F590020	DN 40	300	150	225	200	3x 13.5	725
RP083110F600020	DN 65	360	185	275	250	3x 13.5	735
RP103110F630020	DN 100	580	225	275	250	3x 13.5	955

* EN 1092-1 PN 16

Type	K	L	ØP	Q	S	T	U
RP063110F590020	720	13	190	G1	G¼	G1	200
RP083110F600020	820	13	250	G1	G¼	G1	250
RP103110F630020	1020	13	340	G1	G¼	G1	450

Type	W	X	Y	Z	Z1	Weight in kg
RP063110F590020	80	150	105	730	540	60
RP083110F600020	100	185	105	970	700	130
RP103110F630020	100	205	105	1420	920	170



In	Inlet	*T1/T2	Drain
Out	Outlet	*V1	Bottom view filter
*HI	Heating connection inlet	*V2	Bottom view COMplus
*HO	Heating connection outlet	*Z	Minimum clearance for insert removal
Q	Back wash line	*Z1	Minimum clearance for disc piston with hydr. drive removal
*S1/S2	Venting		

All dimensions except "Q", "S1", "S2", "T1" and "T2" in mm.

Type	Conne- ction*	A	B	D	D1	D2	øD3	øE	øE1
KP063110F590020	DN 40	300	105	100	100	90	11.5	225	200
KP083110F600020	DN 65	360	113	170	130	-	15.0	275	250
KP103110F630020	DN 100	580	180	245	130	-	13.5	275	250

* EN 1092-1 PN 16

Type	øE2	H	K	L	M	øP1	øP2	Q	S1
KP063110F590020	3x 13.5	725	600	13	340	115	190	G1	G1/4
KP083110F600020	3x 13.5	735	875	13	511	171	250	G1	G1/4
KP103110F630020	3x 13.5	955	1111	13	655	247	340	G1	G3/8

Type	S2	T1	T2	U	X	Y	Z	Z1	Weight in kg
KP063110F590020	G¼	G3/8	G1	200	150	105	370	540	90
KP083110F600020	G¼	G3/8	G1	250	185	105	970	700	180
KP103110F630020	G¼	G3/8	G1	450	205	105	1420	920	350