Willibrord Lösing Filterproduktion GmbH
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SWK switchover system

SWK-5/U, SWK-5/50/U, SWK-10/U, SWK-18/U, SWK-40/U, SWK-130/U

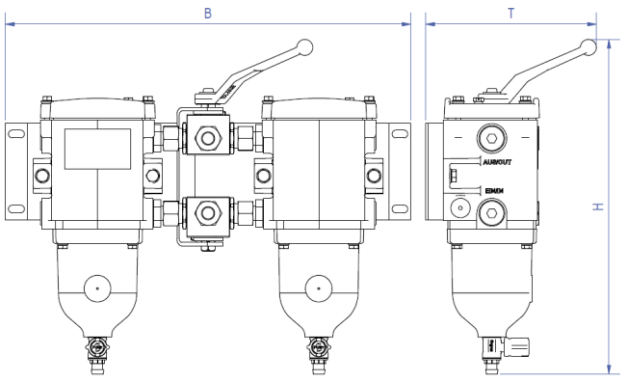
Fuel prefilter



Quick Guide

The water separator SWK switchover system is the redundant version of the proven SWK fuel prefilter and provides the same reliable removal of suspended particles and water from diesel fuel.

Mechanical data



	-5/U	-5/50/U	-10/U	-18/U	-40/U	-130/U
W[mm]	440	440	460	625	805	1195
H [mm]	280	315	380	445	550	855
D [mm]	175	175	240	275	355	520

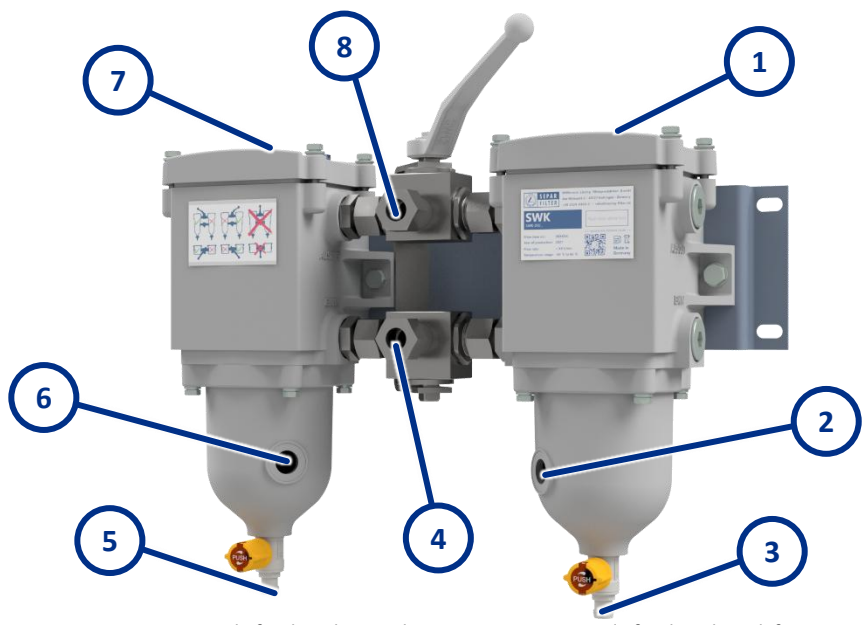
All dimensions are subject to tolerances. Dimensions may also vary depending on the filter version. Exact dimensions are specified in the corresponding drawings.

Performance data

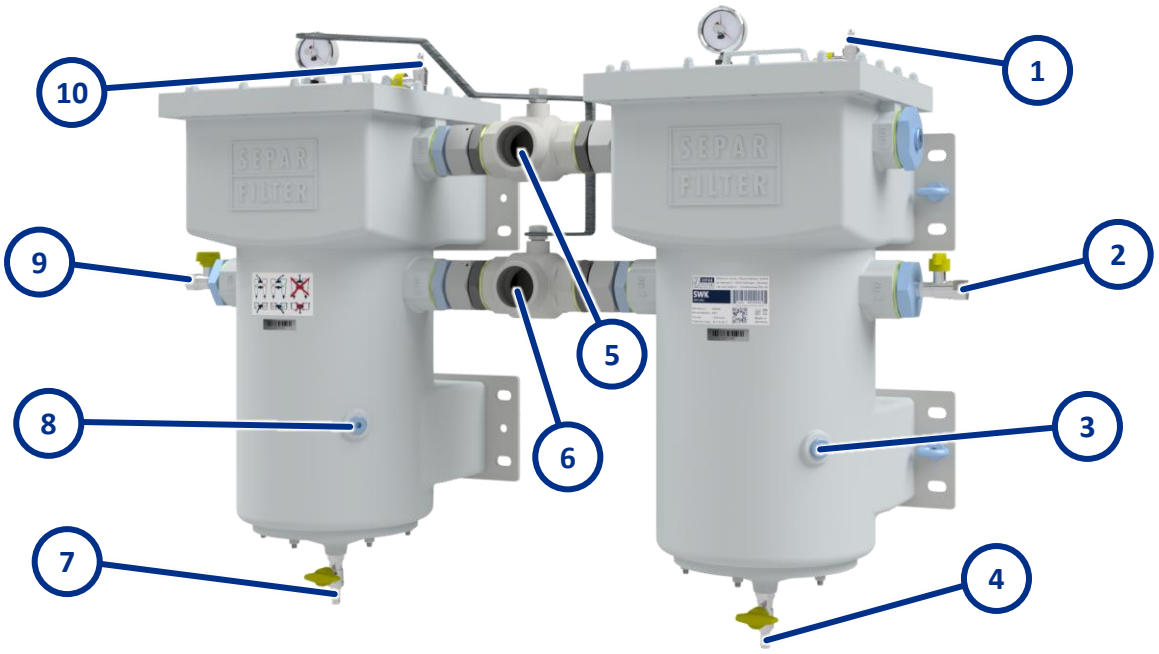
	SWK-5/U	SWK-5/50/U	SWK-10/U	SWK-18/U	SWK-40/U	SWK-130/U
Mass	< 2,5 kg	< 2,7 kg	< 10 kg	< 18 kg	< 40 kg	< 130 kg
Ambient temperature	- 40 °C ... 80 °C					
Fixing points	2	2	4	4	4	16
Slotted hole	9x18 mm	9x18 mm	9x18 mm	12x24 mm	12x24 mm	15x27 mm
Min. screw length	20 mm	20 mm	20 mm	30 mm	40 mm	40 mm
Tightening torque	Depending on the material					
Media connectors	2					
Pipe outside diameter	Ø 12 mm	Ø 12 mm	Ø 15 mm	Ø 22 mm	Ø 35 mm	-
Internal thread	-	-	-	-	-	G2“
Seal according	DIN 2353	DIN 2353	DIN 2353	DIN 2353	DIN 2353	USIT-Ring
Tightening torque	-	-	-	-	-	90 ± 10 Nm
Water sensor connector (optional)						
Internal thread	PG7	PG7	PG7 oder M18x1,5	PG7 oder M18x1,5	PG7 oder M18x1,5	M18x1,5
Tightening torque	Hand-fight					
Operating pressure	-0,8 bar ... 1 bar					
Pressure drop (at Vmax & 20 °C)	< 30 mbar	< 30 mbar	< 25 mbar	< 25 mbar	< 35 mbar	-
Volume flow (Vmax)	< 5 l/min	< 5 l/min	< 10 l/min	< 18 l/min	< 40 l/min	< 130 l/min
Separation process	Hydrophobic barrier					
Degree of water separation	> 99 % according to ISO 16332					
Available pore sizes	60 µm, 30 µm, 10 µm					
Filter surface area (per filter)	approx. 3,3 dm²	approx. 8,4 dm²	approx. 11 dm²	approx. 28 dm²	approx. 47 dm²	approx. 112 dm²
Water holding capacity (per filter)	approx. 120 ml	approx. 120 ml	approx. 240 ml	approx. 500 ml	approx. 1500 ml	approx. 8,5 l
Water alarm at (optional)	approx. 80 ml	approx. 80 ml	approx. 140 ml	approx. 300 ml	approx. 1250 ml	approx. 7 l

Mechanical connections

All images are for illustrative purposes only. The actual product may differ.



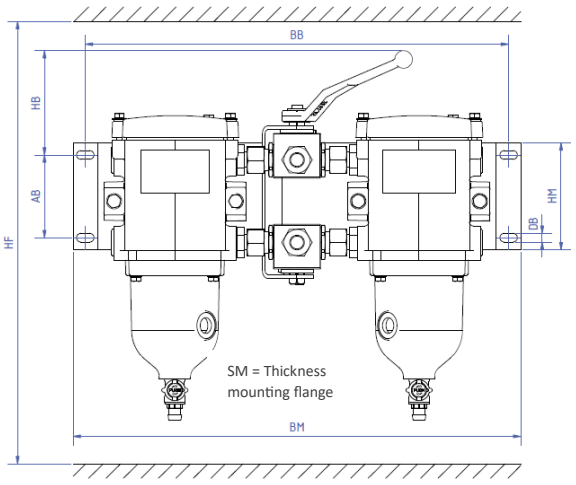
1 Bleed screw right
2 Screw-in thread for water sensor (optional)
3 Nozzle for drain hose right
4 Media inlet
5 Nozzle for drain hose left
6 Screw-in thread for water sensor (optional)
7 Bleed screw left
8 Media outlet



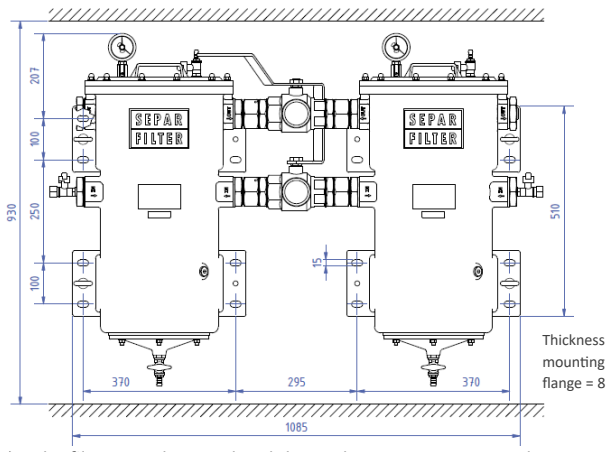
1 Bleed valve right
2 Fill-in nozzle right
3 Screw-in thread for water sensor
4 Nozzle for drain hose
5 Media outlet
6 Media inlet
7 Nozzle for drain hose left
8 Screw-in thread for water sensor
9 Fill-in nozzle left
10 Bleed valve left

Mounting

The filter is fixed with two to sixteen machine screws, which are inserted through the mounting flange from the front and screwed into threaded holes.



	-5	-5/50	-10	-18	-40
AB	-	-	85	80	100
BB	416	416	435	590	770
BM	440	440	460	625	805
DB	9	9	9	12	12
HB	88	104	107	121	127
HF	350	385	450	515	620
HM	50	50	110	110	130
SM	3	3	3	4	5



► The filter is undamaged and the package content is complete.
► The clear height (HF) specified in the sketches above is existing at the mounting location.
► The filter can be mounted so that sufficient space remains under the drain nozzle for the connection of the drain hose.
► The filter can be mounted so that sufficient space remains above the cover to allow the filter element to be replaced.
► The mounting flange does not protrude over the mounting surface.
1. Drill threaded holes for all mounting points (2 to 16) according to the correct hole pattern.
2. Deburr bores.
3. Insert all screws through the mounting flange from the front side and screw hand-tight into the mounting surface.
4. Align filter so that its axis is vertical.
5. Fix filter and tighten both screws with the admissible torque.
= The filter is mounted.

Schematic illustration: The SWK is fitted into the suction pipe between the tank and the fuel feed pump.

Documentation

Special features and other options for this product can be found in the operating manual.

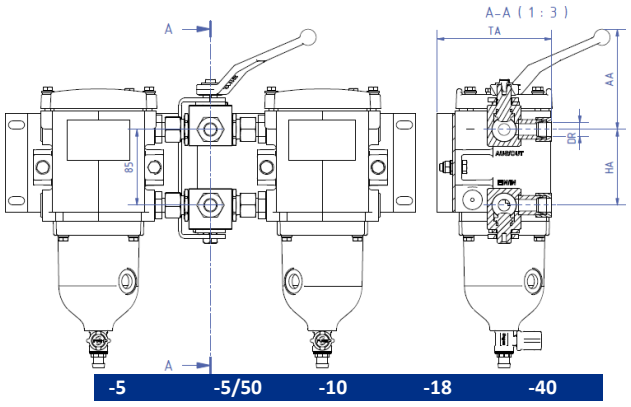
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https://www.separ.de/swk-u

Other spare parts not listed here are available on request.

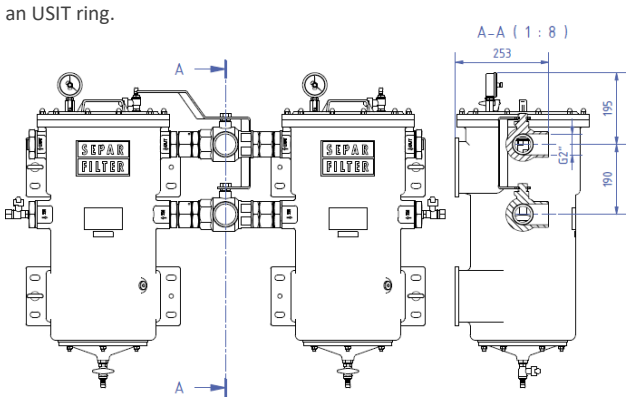
Connection

The media connections of SWK-5 to SWK-40 filters are already equipped with cutting ring fittings in accordance with DIN 2353. They can be connected directly to pipes of the appropriate diameter (DR).



	-5	-5/50	-10	-18	-40
AA	69	69	112	121	127
DR	12	12	15	22	35
HA	41	75	85	90	100
TA	113	113	128	170	221

The media connections on the SWK-130 filter are designed with a flat sealing surface. Locking screws and pipe connections are sealed using an USIT ring.

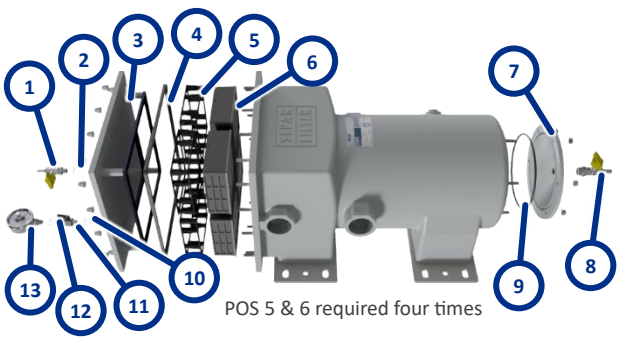


Media inlet:	Connection for the fuel line from the lowest point of the tank.
Media outlet:	Connection for the fuel line to the fuel injection system.
Fill-in nozzle:	The SWK-130 features two filling ports for direct filling, eliminating the need to feed large quantities of fuel through the entire fuel system.
Bleeding screw/valve:	Vent the filter during filling.
Nozzle for drain hose:	To facilitate drainage of the filter, a hose suitable for the medium can be fitted.
Screw-in thread for water sensor:	A water sensor, available as an accessory, can be screwed into this threaded bore; this must be monitored by additional electronic components. This allows a warning to be generated when the filter needs to be drained.

Initial commissioning

Before initial start-up, make sure that all lateral connections and the water sensor connection (bottom) is tightly closed. In addition, the water drain must be shut, and all screw must be tightened.

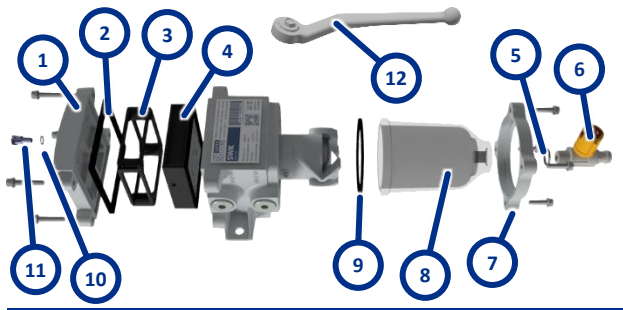
Spare parts



POS 5 & 6 required four times

POS	Description SWK-130/U	REF
6	Filter element 01810 (10 µm)	062660
	Filterelement 01830 (30 µm)	062638
	Stainless steel element 01860 S (60 µm)	062821
3	Filter lid	061050
4	Lid seal	063387
5	Spring cartridge	063298
9	Bowl seal	061136
7	Filter bottom	061135
8	Drain valve	063456
1	Bleed valve	063366-1
2	Bleed valve seal	061139
10…13	Vakuummeter kit	062317

Spare parts



POS	Description SWK-5/U & -5/50/U	REF
4	Filter element 00510 (10 µm)	062797
	Filter element 00510/50 (10 µm)	062575
	Filterelement 00530 (30 µm)	062774
	Filterelement 00530/50 (30 µm)	062776
	Stainless steel element 00560 S (60 µm)	062819
	Stainless steel element 00560/50/S (60 µm)	062025
1	Filter lid	063542
2	Lid seal	061367
3	Spring cartridge (-5)	063295
	Spring cartridge (-5/50)	063296
7	Bowl retainer ring	063564
9	Bowl seal	061366
8	Bowl transparent	063984
	Metal bowl	063981
5	Drain valve seal	061360
6	Drain valve	063366-1
11	Bleed screw	063408
10	Bleed screw seal	063558
12	Changeover handle	061215

POS	Description SWK-10/U	REF
4	Filter element 01010 (10 µm)	062791
	Filter element 01030 (30 µm)	062760
	Stainless steel element 01060 S (60 µm)	062836
1	Filter lid	063553
2	Lid seal	061362
3	Spring cartridge	063297
7	Bowl retainer ring	063569
9	Bowl seal	061361
8	Bowl transparent	063985
	Metal bowl	063982
5	Drain valve seal	061360
6	Drain valve	063366-1
11	Bleed screw	063408
10	Bleed screw seal	063558
12	Changeover handle	061216

POS	Description SWK-18/U	REF
4	Filter element 01810 (10 µm)	062660
	Filter element 01830 (30 µm)	062638
	Stainless steel element 01860 S (60 µm)	062821
1	Filter lid	063572
2	Lid seal	063421
3	Spring cartridge	063298
7	Bowl retainer ring	063575
9	Bowl seal	063423
8	Bowl transparent	063786
	Metal bowl	063793
5	Drain valve seal	061360
6	Drain valve	063366-1
11	Bleed screw	063408
10	Bleed screw seal	063558
12	Changeover handle	061217

POS	Description SWK-40/U	REF
4	Filter element 04010 (10 µm)	062662
	Filter element 04030 (30 µm)	062642
	Stainless steel element 04060 S (60 µm)	062866
1	Filter lid	063435
2	Lid seal	063440
3	Spring cartridge	063299
7	Bowl retainer ring	063446
9	Bowl seal	063442
8	Metal bowl	063457
6	Drain valve	063456
11	Bleed screw	063408
10	Bleed screw seal	063558
12	Changeover handle	061218