

Q-filter

Q-filter is the solution for the filtration of valuable fluids like machine coolants and aqueous cleaners. Integrate Q-filter with your process and the medium remains clean.

Your advantage: cost savings and product quality improvement.

Unique:

The unique transport system takes care of a trouble free installation and transportation of the filter cloth. You can choose from a wide range of qualities and types of filter cloth so you can use the most optimal filter cloth.

The intelligent control system controls the filtration process and the pressure drop over the cloth, which prevents compression of the cloth and promotes the formation of a filter cake; you remove more dirt with less filter cloth.

The perfect sealing and the formation of a filter cake cause a much finer filtration. So you remove more and finer dirt and keep you medium even cleaner.

The advantages.

- Compact:** You need only half the floor space.
- Effective:** Your filter usage remains low through optimal control of the filtration process.
- Efficient:** You get a much finer filtration due to perfect sealing and process control.
- Energy efficient:** You only use less than half the energy.
- Economical:** With a limited investment you get low operational cost and long medium life time.

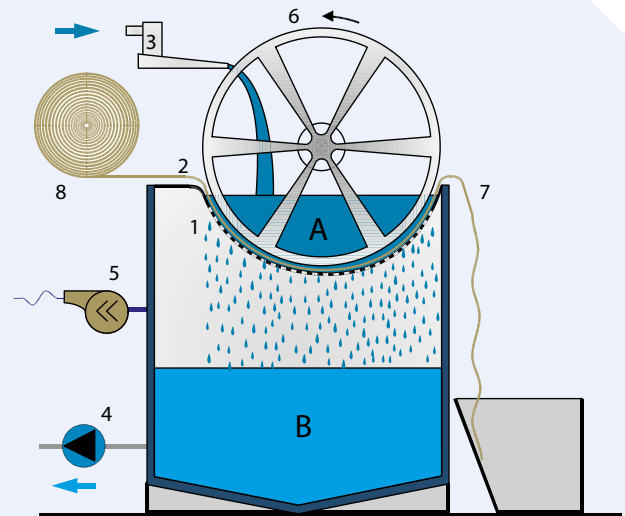


Functioning

The two chambers, A (dirty chamber) and B (clean chamber), positioned above each other, are separated by the filter cloth (2) which is supported by the sieve plate (1).

Polluted medium flows through the inlet (3) into chamber A and through the filter cloth into chamber B, where pump (4) pumps off the clean fluid.

Dirt accumulates on the filter cloth and forms a cake, which causes the resistance to increase and the level in A to rise. If a previously set level is reached, vacuum pump (5) kicks in and creates under pressure in chamber B, causing the medium to be sucked through the cloth and preventing the level in A to rise any further.



As the filter cake on the cloth grows and the resistance increases, the under pressure in chamber B is further increased until a set maximum, at which point the cloth is forwarded over a short distance by turning wheels (6). Used cloth (7) comes out at the right while fresh cloth is pulled from roll (8), into the device. Then the cycle starts over again.

User friendly - Reliable

The Q-filter is developed for industrial applications and full-automatic operation, without supervision, and with minimal maintenance. If the cloth runs out you get a message well in time. You don't even have to interrupt the filtration process; placing a new roll of cloth, even changing to a totally different type of cloth, can be done during normal operation without a problem.

The intelligent control system is the heart of the Q-filter and takes care of the optimal functioning of the system and maximum support of the user. The user interface panel offers the user all required functionality.

- Clear instructions in the use of the equipment.
- Alarm messages for every possible problem.
- Display of important process variables.
- No user settings; completely self-tuning.



Sealing

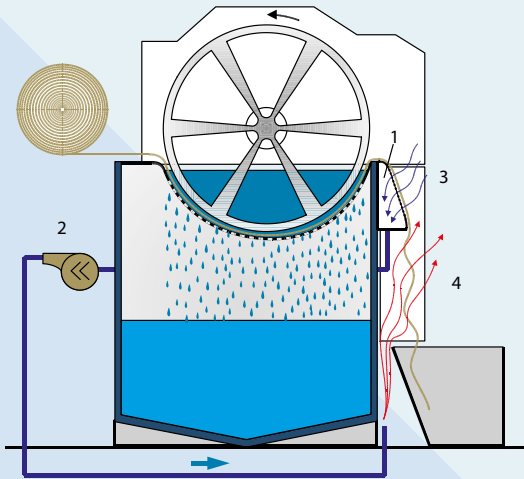
Sealing of the filter cloth at the edges is of the utmost importance. If the sealing is not tight enough, dirt will pass along the edges of the cloth, into the clean chamber. Q-filter has 4, full contact, sealing lines, two on each side of the cloth. In the picture to the left it is clearly visible how the dirt is kept away from the edges.



Drying used cloth

The wet cloth comes on to drainage box (1). When drying, the vacuum pump (2) pulls in air (3) through the wet cloth and the drainage box and that way pulls fluid out of the cloth. The fluid ends up in chamber B.

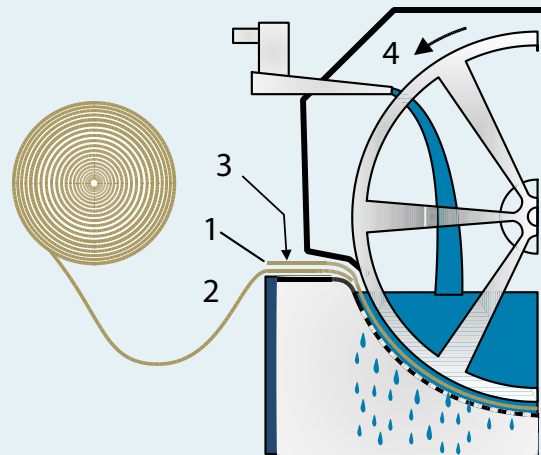
To further dry the cloth, the exhaust air from the vacuum pump is blown from the bottom up along the free hanging section (4) of the cloth.



Installing the filter cloth

Placing a new roll in minutes:

1. Cut off the old cloth
2. Unwrap approximately 1 meter from the roll and slide the beginning under the old cloth.
3. Press down the old cloth on the new one.
4. Start the transport mechanism with the foot switch and the new cloth is simply pulled into the machine.



A smart system

The unique and patented transport system feeds the cloth problem-free through the system, even at high vacuum and high flows. A wide range of varying types and qualities of filter cloth can be used without a problem and without the risk of tearing or perforations.

Placing a new roll of filter cloth is practically the only thing the user has to do. Feeding the cloth into the machine is done almost automatically as explained above.

Separate from the cost for filtration materials, the cost for filtration are mainly determined by the disposal cost of the used cloth. Since this strongly depends on the weight, it is essential that the cloth is as dry as possible. Above you can read how the Q-filter achieves this without expensive additions or extra equipment.

Due to an almost air tight construction of the clean chamber, the Q-filter only needs a small, low-energy, vacuum pump while the vacuum can be controlled optimally.



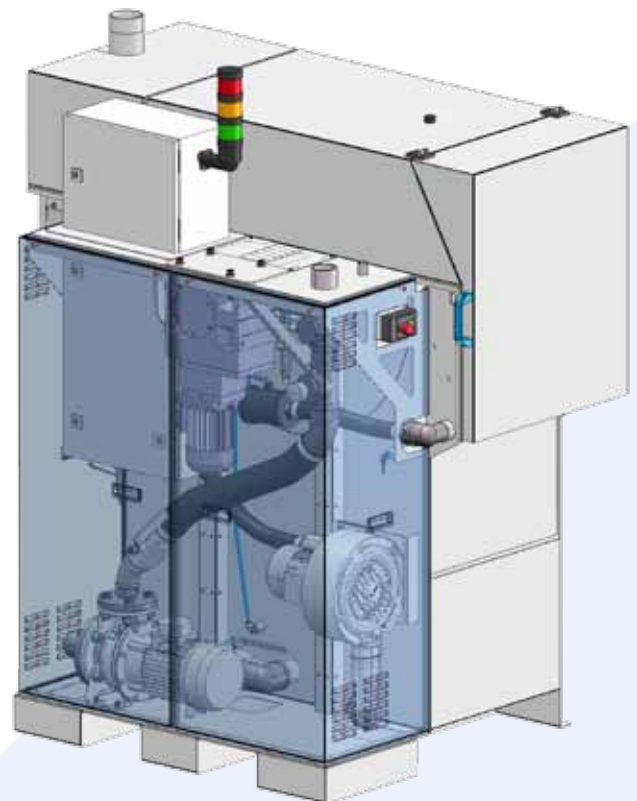
A view in the internal

Specifications

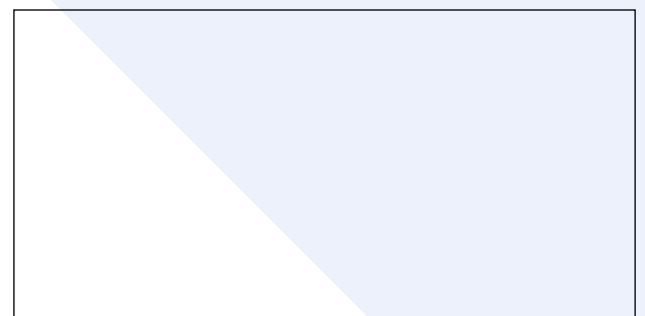
Model:	QF150	QF300
Material:	ss 304	ss 304
length	1510 mm	1510 mm
Width	1050 mm	1550 mm
Height	1800 mm	1800 mm
Weight	550 kg	850 kg
Capacity	15 m3/h	30 m3/h
Width filter cloth	500 mm	1000 mm
Pump capacity	**	**
Power supply *	1 kW*	1 kW*
Vacuum capacity	-200 mbar	-200 mbar

Laboratory tests

Already at an early stage we can test for you what is achievable in your application. A sample of 5-10 liters of the polluted medium suffices for a test, free of charge, in our laboratory, whereby we will also make a first selection from the available filter materials.



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