

# Manual

## Circukon 8000 Series Filter



### General instructions:

This filter is designed and manufactured to meet the highest standards of quality and workmanship.

What makes this filter unique is the fact that the filter element is constantly cleaning itself, collecting the deposit in a built-in chamber. The collection chamber can be emptied during operation by automatic activation of the flush valve.

### Working:

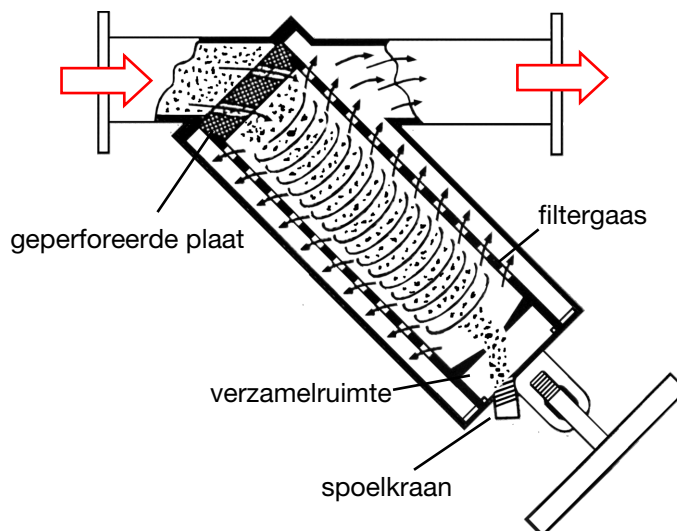
The drawing shows the way the filter works. The water flows through a perforated plate with 4 obliquely drilled-in holes. This results in the circular water movement, which provides a constant cleaning action of the filter screen. Impurities are taken towards the flush valve. For this reason, the filter body should be installed pointing downwards. The collected dirt can be discharged through a – manual or automatic – 1" drain valve.

### Installation:

When installing the filter, pay particular attention to the correct direction of the water flow (inlet/outlet) as indicated by the arrow on the filter. The filter body points downwards; if this position is not possible, the filter body may be placed at an angle of up to 45°. The flush valve must be located on the underside of the filter. Install a quick-acting (mechanical) check valve if there is a risk of water flowing back. A pressure relief valve must be installed upstream of the filter if the pressure is not sufficiently under control.

When installing more than one filter, allow enough room between the units for easy maintenance. (option: flush controller can be ordered separately)

The maximum working pressure is up to 8 bar. The filter is designed to withstand a maximum pressure of 10 bar.



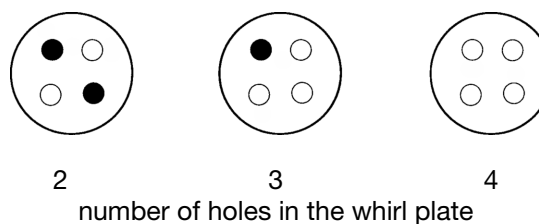
### Acid injection:

The filter is suitable for water with pH values 5 to 9. In the case of acid injection into the system, it is recommended to inject the acid after the filter to prevent acid accumulation in case of system failure.

It is also advisable to install a check valve after the filter before the acid injection point.

### Adjustment:

Rubber plugs can be inserted in the holes of the whirl plate. The table below shows the recommended number of openings at different flow rates. The table is based on a pressure differential within the ideal working range of 0.25-0.5 bar.



### Operation:

Optimal filtration is achieved at the proper flow velocity, which is when the differential pressure between inlet and outlet is 0.25-0.5 bar. Measure the differential pressure across the filter during operation by inserting a pressure gauge (with needle) into the pressure-measuring points (18) in the inlet and outlet.



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If the differential pressure is too low, close off another hole in the whirl plate with the rubber plug supplied.

**Do not open the cover and do not tighten it while the filter is being used or under pressure.**

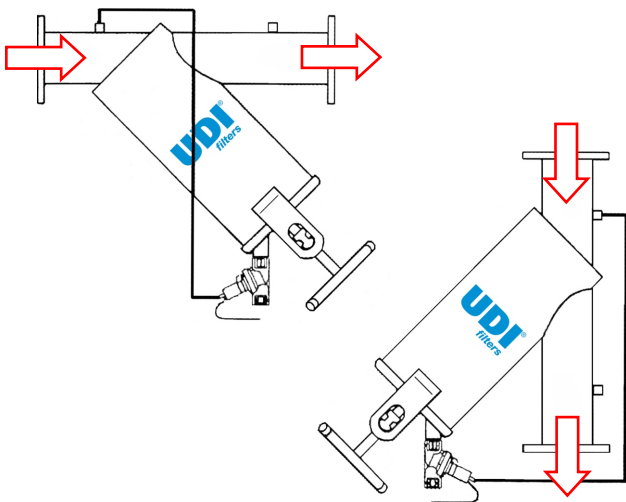
### Flushing:

Draining off has to take place at regular intervals, depending on the working conditions and the water quality.

Draining off can be achieved in 3 ways:

1. By hand: by opening the drain valve (10).
2. Automatically: using a timer. In this case, a hydraulic or electric valve should be installed instead of a manual valve. The connection of the operating pressure to the valve must be located before the filter. Adjust the flushing program to the recommended time intervals:

- flushing time: 10-25 seconds.
- flushing intervals: 30-120 minutes



3. Continuously: by connecting a (Ø 10-20mm) hose to the valve. The hose must be straight, not rolled-up or twisted. If dirt tends to accumulate, shorten the hose.

If quantities of residue are becoming too large, shorten the time intervals between flushing operations.

Check if the flushing control is working properly by activating it manually.

### Periodic cleaning:

Check and clean the filter element (06) every 2-3 weeks, at the end of the season or when soiled due to improper operation.

1. Stop the flow to the filter.
2. Manually open the flush valve (09) to release the pressure, and drain the filter.
3. Remove the cover (03), the filter element (06), and the inner rubber (04). Thoroughly clean the filter element with clean water, using a brush to remove dirt particles from the mesh (never use a steel wire brush!).
4. Make sure the filter element is intact and undamaged.

### Assembly:

Place the whirl plate (07) in its position on the element.

Close the appropriate number of holes in the whirl plate.

Place the inner rubber (04) on the filter element on the side of the whirl plate.

For model 8015 (1.5"), 8020 (2"):

1. Place the cover rubber (05) at the other end of the filter element (06).
2. Carefully insert the element into the housing (14) and fit the cover rubber (05) snugly onto the filter body.

For models 8030 (3"), 8040 (4"), 8060 (6"):

1. Place the centering ring (13) in its groove.
2. Carefully place the filter element (06) with the ring into the filter body (14), gently turn until the centering ring is positioned below a cam, and place the cover rubber (05) snugly onto the filter body.
3. Place the cover (03).
4. Check if the flush valve (10) has been placed correctly at the lowest point.
5. Place the handle and the tightening bracket (01+02) and tighten them properly, or place the bolts and tighten them crosswise.

### Maintenance:

Check the element every 2-3 weeks for damage; replace immediately if damaged.

Apply a film of grease on the thread of the spindle (01) or on the bolts.

Any damage to the protective coating of the filter must be repaired immediately. Before applying the protective paint, the damaged spot must be cleaned thoroughly using a steel wire brush.

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### Parts drawing:

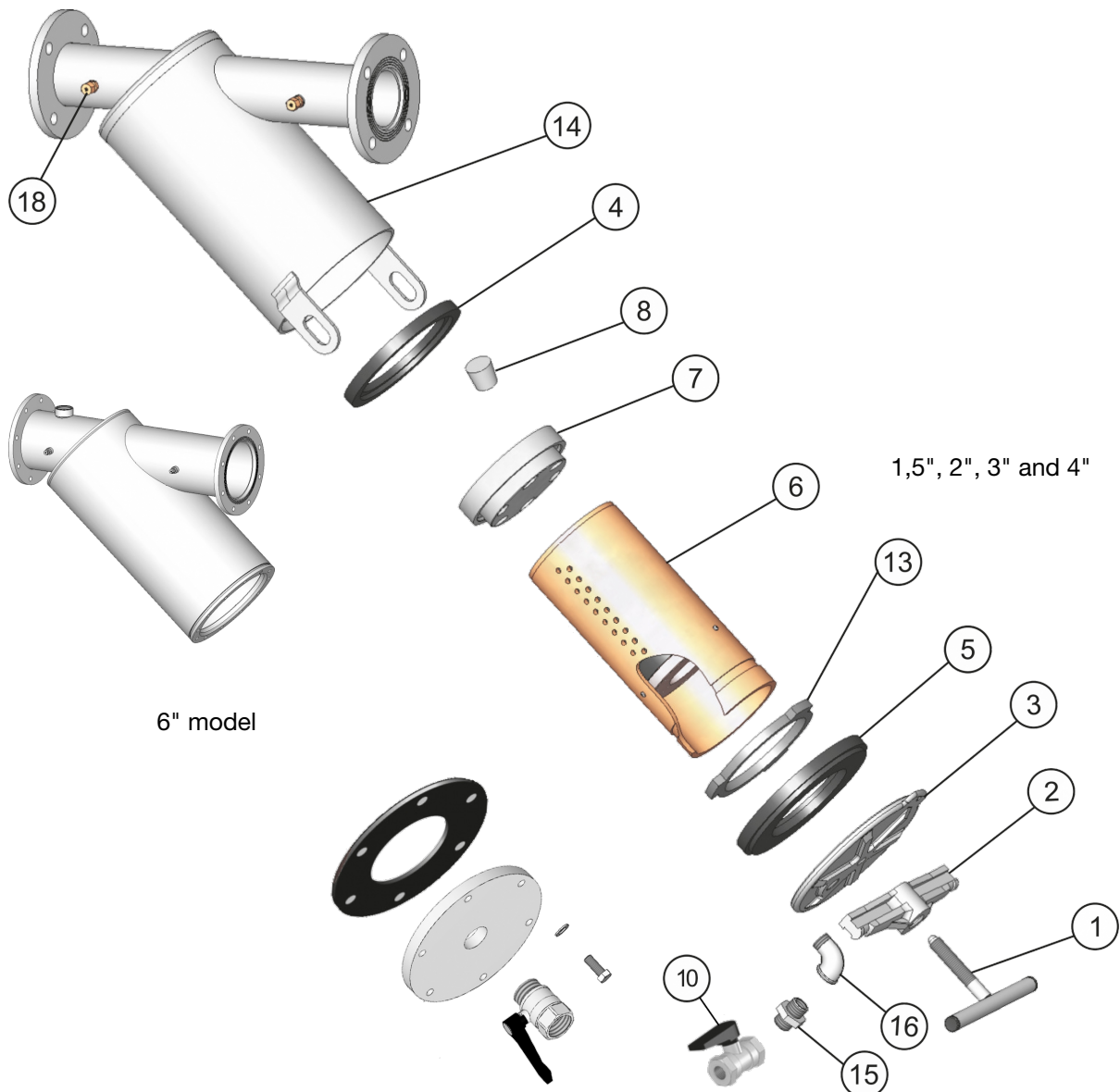
When ordering, state the number of microns.  
The 6", 8" and 10" versions feature a cover secured by bolts.

### Note:

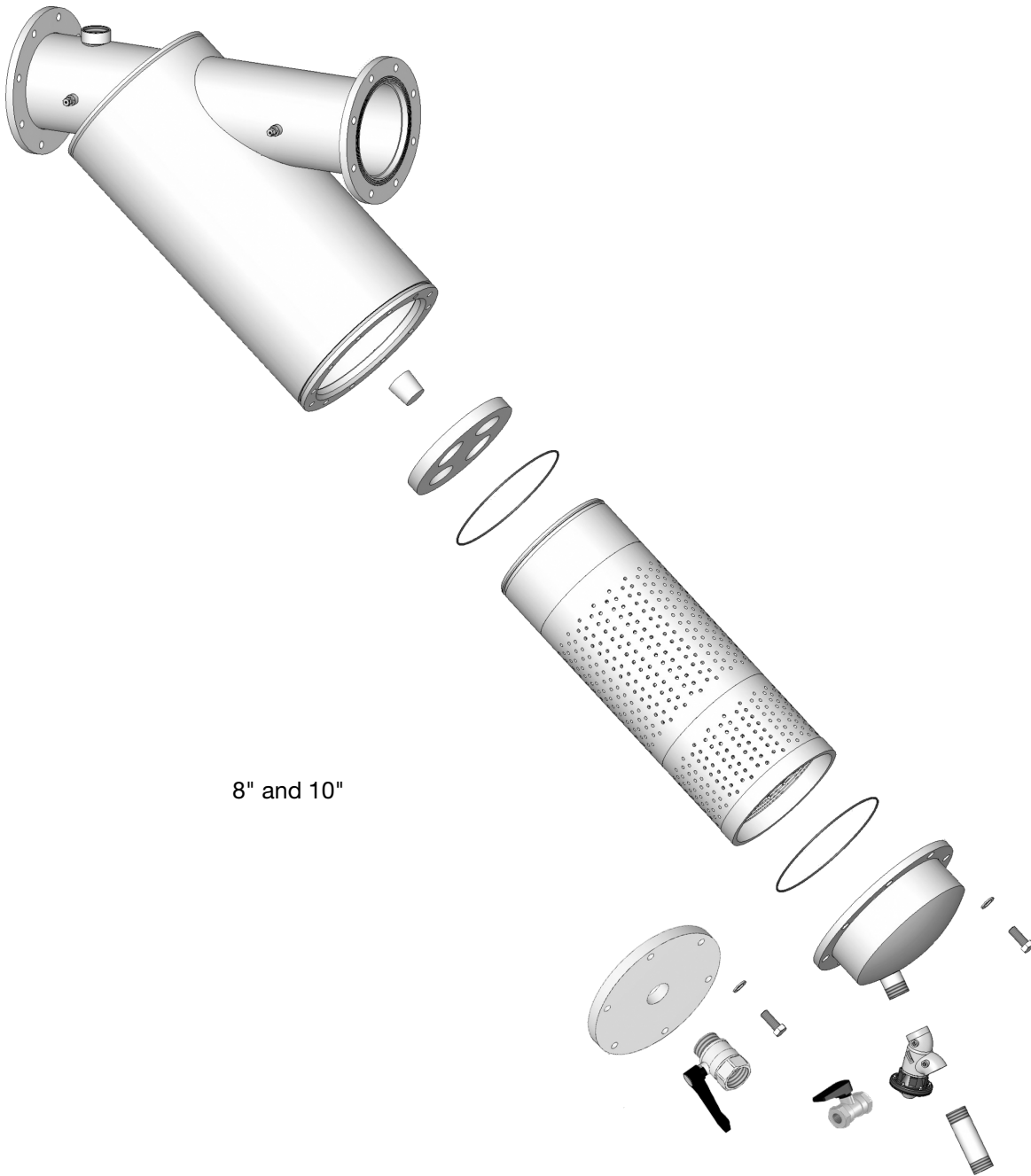
If the filter gets clogged too often, check the flushing system and/or close off an opening in the circulation plate.  
Automatically draining off is possible.  
The flow is not affected by the draining.  
Do not backwash – the screen in the element will be torn!

In view of on-going improvements, we reserve the right to change specifications at any time without prior notice.

Each filter comes with this manual which includes installation, operating and maintenance instructions.



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8" and 10"



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Type	Unit	4U8015F	4U8020F	4U8030F	4U8040F	4U8060F	4U8080F	4U8090F
Connection	inch	1,5"	2"	3"	4"	6"	8"	10"
Capacity	m <sup>3</sup> /h	4,5 - 13	9 - 25	16,5 - 45	27 - 75	55 - 150	165 - 300	270 - 500
Holes	2	4,5 - 7	9 - 13	16,5 - 24	27 - 40	55 - 80	-	-
	3	7 - 10	13 - 19	24 - 35	40 - 58	80 - 115	165 - 230	270 - 385
	4	9 - 13	18 - 25	32 - 45	53 - 75	106 - 150	210 - 300	355 - 500