

Filter leaves

Cleaning

Clean a filter leaf with a pressure spray

Caution
Do not back flow or backwash a filter leaf.
The filter wire will bulge out and tear away from the frame.

1. Put the filter leaf on a slope to let excess water flow off.
2. Hold the spray lance at 45° to the filter surface.
3. Keep the spray lance at least 2,5 cm (1inch) from the filter surface

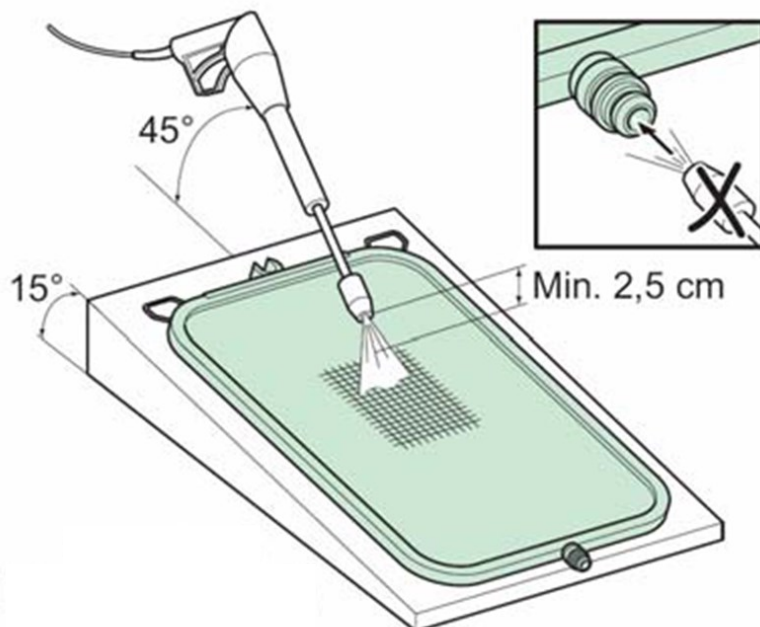
Caution
Do not damage the nozzle or O-rings.
Put the filter leaves, nozzle down, on two wooden beams, one beam at each side of the nozzle.

Water

- ◆ Maximum temp: 150°C.
- ◆ Maximum pressure: 60-80 barg.

Steam

- ◆ Maximum temp: 150°C.
- ◆ Maximum pressure: 5 bar.



Clean a filter leaf with chemicals

Put the leaves in a tank with cleaning liquid or flush the cleaning liquid through the filter.

Use:

- ◆ 10-15% liquid of sodium hydroxide (caustic soda) with a temperature of 50-60°C.
- ◆ 10-15% alkaline cleaner such as Henkel P-3-S or P3-T7124 (or equivalent) with a temperature of 80-90°C.

Caution
The maximum exposure time is 3 hours.

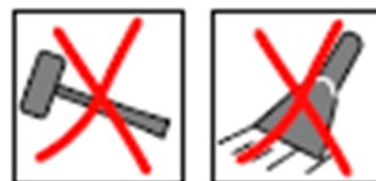
Flush the filter leaves with water after cleaning.

Caution
Do not use hydrochloric acid (HCl) or cleaning fluids which produce free chlorine. These cleaning fluids will very quickly make a filter leaf unserviceable.

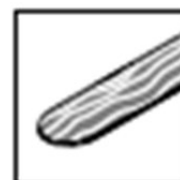


Not advised cleaning tools

Using metal tools to clean the leaves are not ideal, this is because they can scratch the leaves to an extent that it can not be fix.



Use non metal tools that are not sharp.

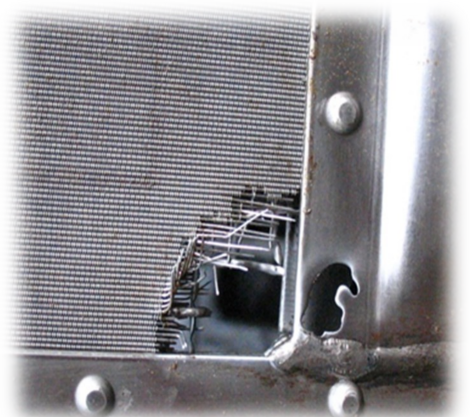
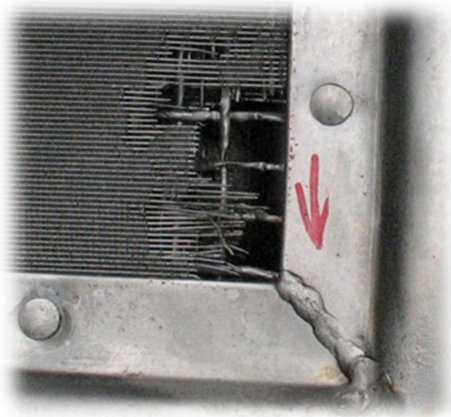


Filter leaves

Examples of leaf damage



Using metal scrapers



Using strong chemical solvents to clean



Filter leaves

Inspection

Filter leaf maintenance

Make sure that the filter mesh is not blocked:

- ◆ Look for bare or thin spots in the filter cake (before cleaning). A bare or thin spot means that the filter mesh is blocked.
- ◆ Hold the leaf to the light and look through it at an angle of about 45° (after cleaning). A dark area means that the filter mesh is blocked.

Make sure all leaves are straight

- ◆ Replace a leaf which is bent more than 5mm.

Examine each leaf:

- ◆ Make sure that all rivets are in position.
- ◆ Examine the outer mesh for:
 - ◆ Damage.
 - ◆ Bulging.
 - ◆ Corrosion.

Examine the frame of each filter leaf for:

- ◆ Tears or cracks.
- ◆ Sharp creases.

Note:

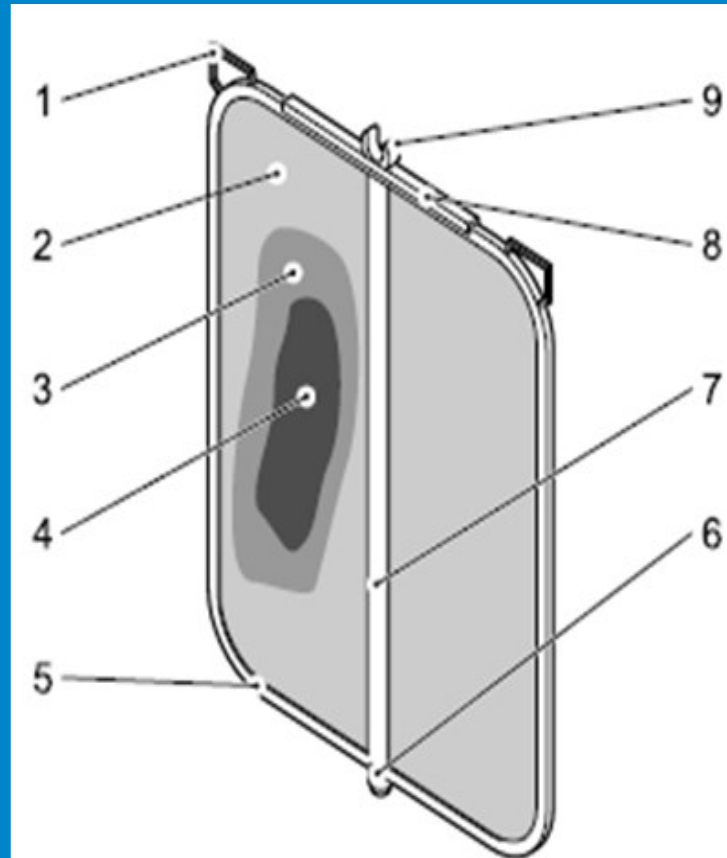


If there are pieces of metal in the filtrate one or more filter leaves have a broken inner mesh.

A filter leaf with a broken inner mesh has:

- ◆ Soft spots where the inner mesh has gone away.
- ◆ Bulges and/ or bad filtration on the underside of the filter leaf.

Examine the frame mesh corners with a feeler gauge of 0,10mm. If the feeler gauge goes through that means the frame needs to be tightened.



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|----|-------------|----|-----------------|
| 1. | Handle | 6. | Exit nozzle |
| 2. | Outer mesh | 7. | Central support |
| 3. | Middle mesh | 8. | Re-enforcement |
| 4. | Inner mesh | 9. | Vibrator clamp |
| 5. | Frame | | |

O-rings

- ◆ Replace the O-ring of a filter leaf every time the leaf is taken out of the manifold.
- ◆ Make sure the O-rings are undamaged. Replace all damaged O-rings.
- ◆ The life expectancy of the O-rings depends on your filtration process and liquids and operating time. Amafilter B.V. can advise a routine replacement schedule based on the parameters of your process.