

## Supplementary information

**Table S1:** Time until first observation of fouling in the heat exchanger.

Experiment	Time until first fouling (h)	Time until clogging (h)
10 min - 30% US - 9°C	1	1.5
10 min - 30% US - 1°C	1	1.92
16 min - 55% US - 5°C	1.75	3.67
31 min - 80% US - 9°C	1	3.75
31 min - 80% US - 1°C	1.75	4
31 min - 30% US - 1°C	2.5	4

**Table S2:** Parameters used for the image analysis. The algorithm and further information can be found elsewhere [26].

Version	MacroU-V69
Scale in scale in pixels/ $\mu\text{m}$	0.650
Background image method	Median of multiple frames
Edge detection High Threshold	3
Edge detection Low Threshold	1
Edge detection Smoothing	2
Edge detection Sharpening	0.4
Frames for background subtraction	30
Use additional histogram based binerization	true
Closing cycles when using histogram binerization	0
Closing cycles after edge detection	2
Field of View correction factor	true
Minimum size	1
Minimum circularity	0
Maximum circularity	1
Watershed irregular features	true
Erosion cycles	3
Convexity threshold	1

Figure S1: Picture of the setup.

