Alfa Laval GJ A2

Rotary jet heads

Introduction

The Alfa Laval GJ A2 is a rotary jet head tank cleaning machine for use in hygienic environments. Built to clean tanks from 0.5-1.5 m3 it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ A2 minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Applications

The Alfa Laval GJ A2 is designed for the removal of residues from hygienic tanks across a broad range of industries, such as the dairy, brewery, beverage, food, and personal care industries.

Due to its slim design, the Alfa Laval GJ A2 is ideal to retrofit spray balls, thereby reducing Cleaning-in-Place (CIP) costs and cleaning time.

Benefits

- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck
- Slim design makes it possible to insert through small tank inlet openings

Standard design

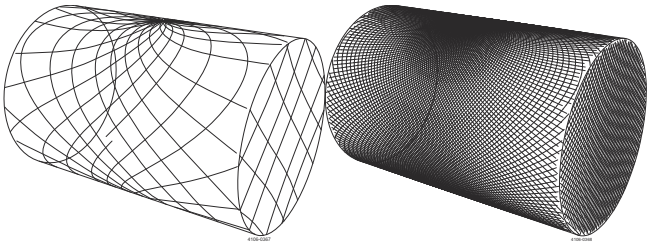
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

Working principle

The high-impact jet stream from the Alfa Laval GJ A2 rotary jet head covers the entire surface of the tank interior in a successively denser pattern. This achieves a powerful mechanical impact with a low volume of water and cleaning media.

The flow of the cleaning fluid makes the nozzles perform a geared rotation around the vertical and horizontal axes. In the first cycle, the nozzles lay out a course pattern on the tank surface. The subsequent cycles gradually make the pattern denser until at full cleaning pattern is reached. Once the full cleaning pattern is reached, the machine will start over again and continue to perform the next full cleaning pattern.

Cleaning Pattern



First Cycle Full Pattern

The above drawings show the cleaning pattern achieved on a cylindrical horizontal vessel. The difference between the first cycle and the full pattern represents the number of additional cycles available to increase the density of the cleaning.

Certificate

2.1 material certificate

TECHNICAL DATA

Lubricant:	Self-lubricating
Max. throw length:	4 - 5 m

Pressure	
Working pressure:	2.75 - 14 bar
Recommended pressure:	4 - 10 bar

PHYSICAL DATA

Materials
316L, PPS[1], PTFE[1], EPDM[1] (FKM[1] and FFKM[1])
[1] FDA compliance 21CFR§177

Temperature	
Max. working temperature:	95 °C
Max. ambient temperature:	140 °C

Weight	
Weight:	2.26 kg

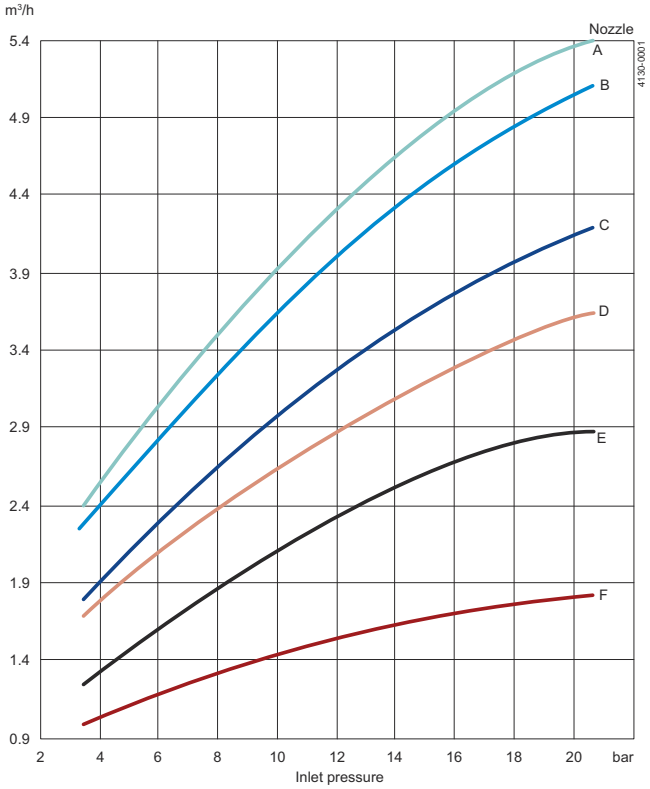
Finish	
Surface finish:	Ra 0.8 µm

Connections	
Standard thread:	1" ISO 2852 Clamp
Available option:	3/4" NPT Female Thread 3/4" Rp Female Thread ODØ38,1/1½" ISO 2037 Weld-on

Caution

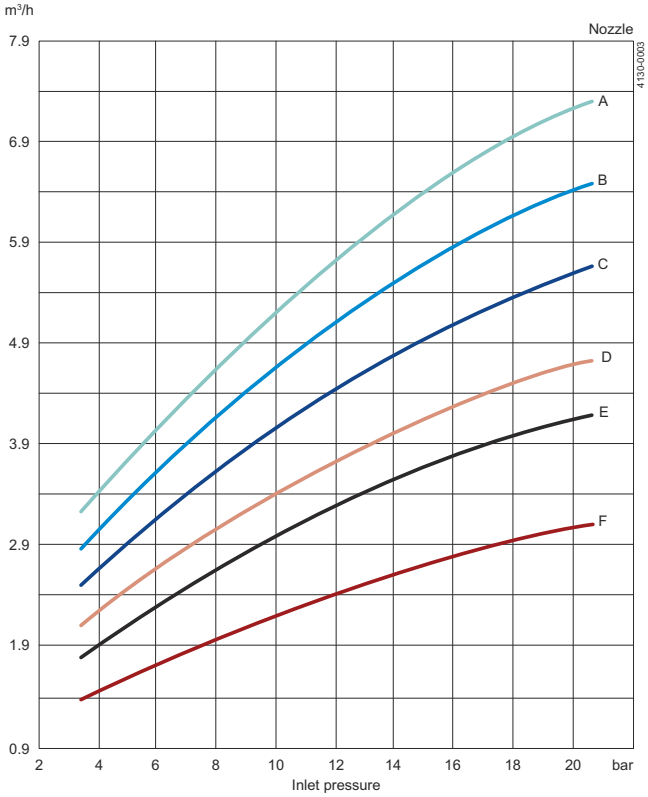
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate (2 nozzle)



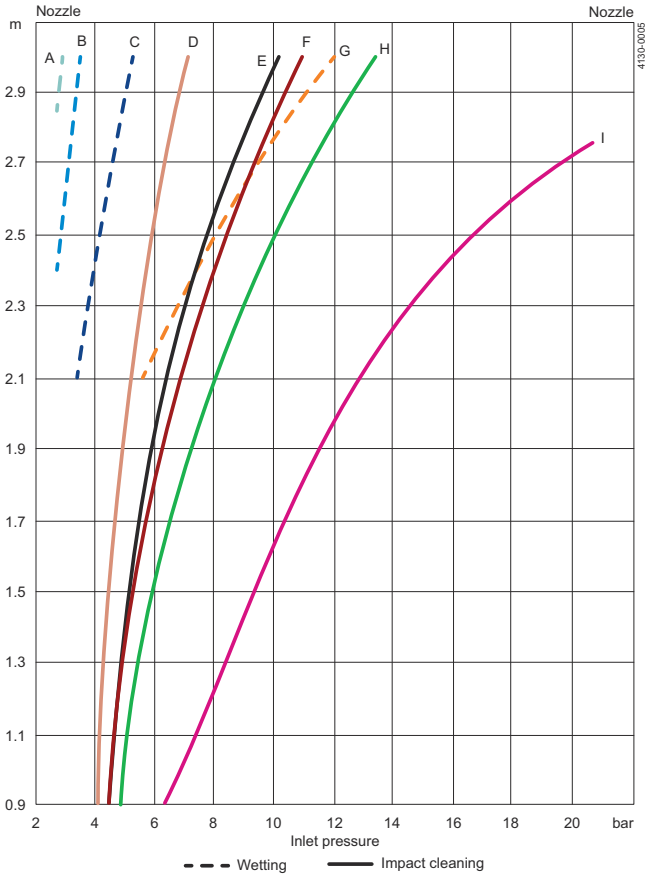
A = 5.1 mm C = 4.2 mm E = 3.4 mm
B = 4.7 mm D = 3.8 mm F = 2.54 mm

Flow Rate (4 nozzle)



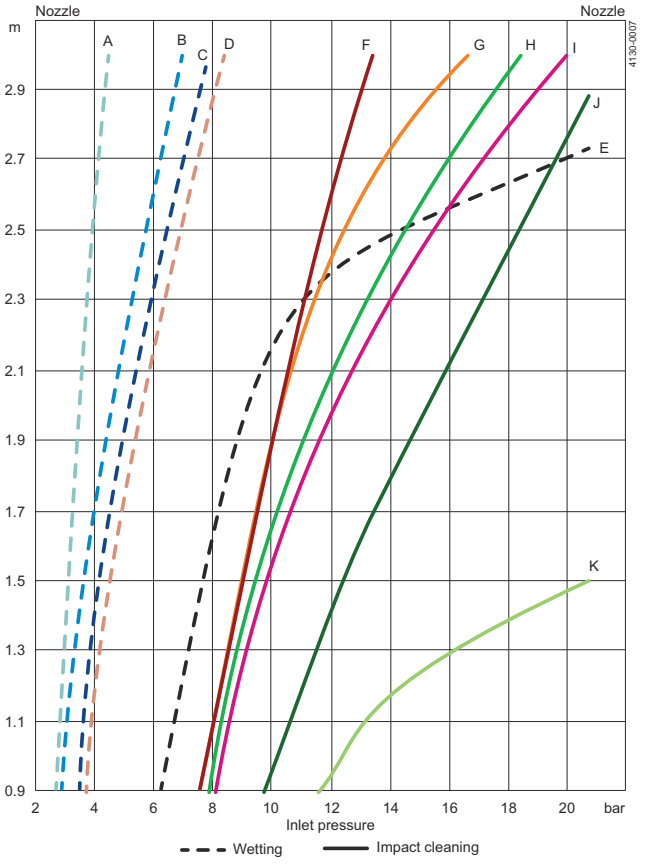
A = 4.7 mm C = 3.8 mm E = 3.2 mm
B = 4.2 mm D = 3.4 mm F = 2.54 mm

Impact Throw Length (2 nozzle)



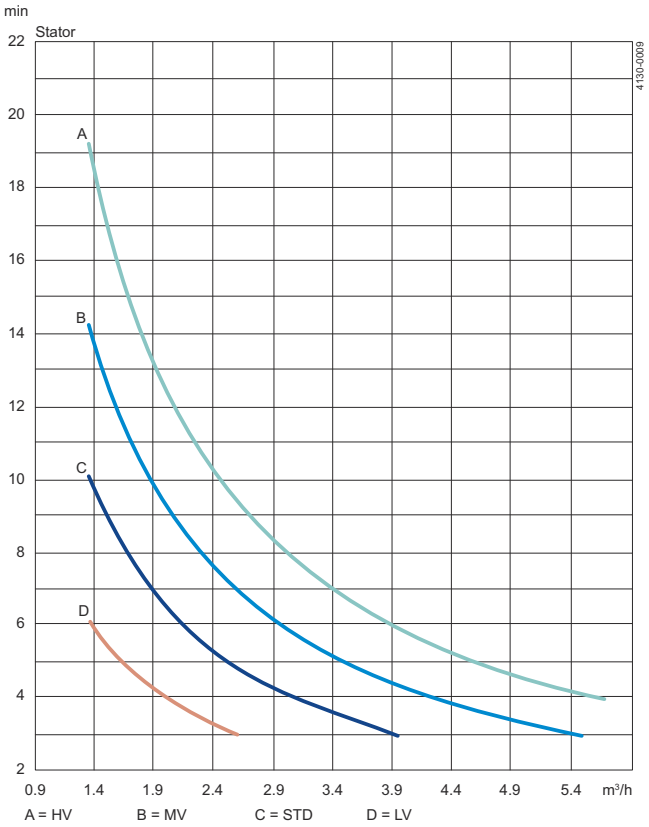
A = 4.2 mm C = 3.4 mm E = 4.7 mm G = 2.54 mm I = 2.54 mm
B = 3.8 mm D = 5.1 mm F = 4.2 mm H = 3.4 mm

Impact Throw Length (4 nozzle)

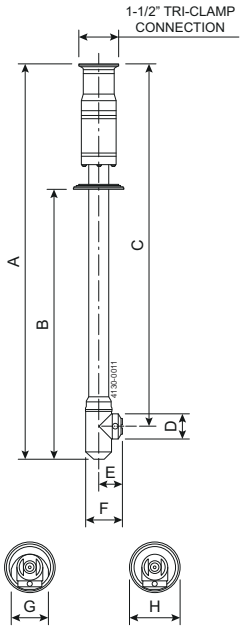


A = 4.7 mm C = 3.8 mm E = 2.54 mm G = 4.2 mm I = 3.4 mm K = 2.54 mm
B = 4.2 mm D = 3.4 mm F = 4.7 mm H = 3.8 mm J = 3.2 mm

Cleaning Time



Dimensions (mm)

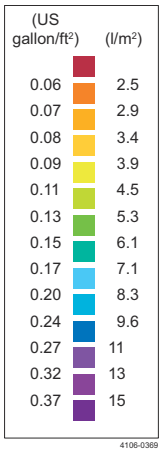


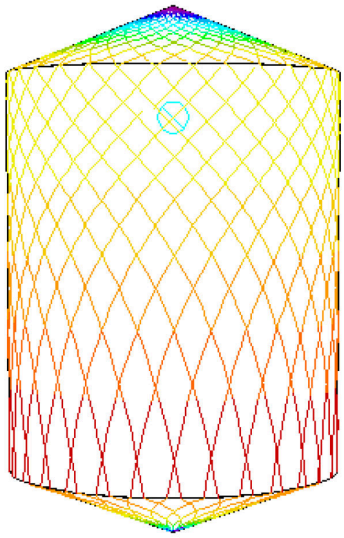
A	B	C	D	E	F	G	H
503	343	431	31	30	47	47	61

TRAX simulation tool

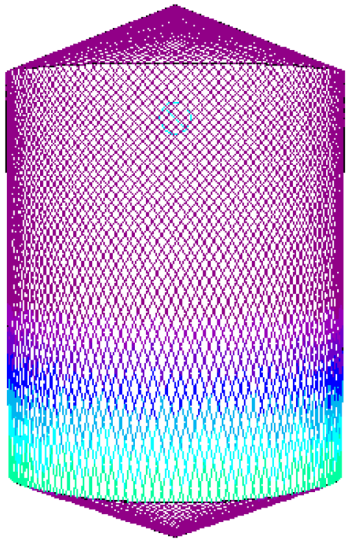
TRAX is a unique software that simulates how the Alfa Laval GJ A2 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct combination of flow, time, and pressure to implement. A TRAX demo containing different cleaning simulations covering a variety of applications can be used as a reference and documentation for tank cleaning applications. The TRAX demo is free and available upon request.

Wetting Intensity





D2.2, H3.6, 2 x Ø3.81, time 2 min



D2.2, H3.6, 2 x Ø3.81, time 8 min

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How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com