

Alfa Laval GJ 9

Rotary jet heads

Introduction

The Alfa Laval GJ 9 is a rotary jet head tank cleaning machine for use as a portable tank cleaning machine in both industrial and hygienic applications. Built to clean intermediate bulk containers (IBCs) and tanks from 1-6 metre in diameter and up to 6 metre tall, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360° cleaning pattern.

The GJ 9 minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Applications

The Alfa Laval GJ 9 is designed for the removal of the toughest residues from industrial and hygienic IBCs, such as those containing paint, oil, food products, and home care products.

Benefits

- Cleans IBCs quickly and efficiently
- 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 IBC covers
- Lightweight and easy to handle

Standard design

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

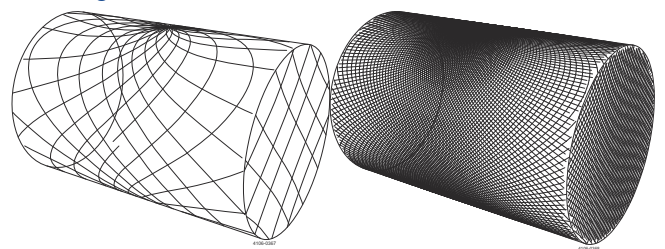
Working principle

The high-impact jet streams from the Alfa Laval GJ 9 rotary jet head cover the entire surface of the interior of IBCs and tanks 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 coarse pattern on the tank interior. The subsequent cycles gradually increase the pattern density. Once the full cleaning pattern is achieved, the machine will begin a new cycle of the 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 is due to the additional rotations of the machine that gradually increase the density of the cleaning pattern.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	1.2 - 6 m

Pressure

Working pressure:	3 - 70 bar
Recommended pressure:	7 - 41 bar

PHYSICAL DATA

Temperature

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

Weight

Weight:	2.2 kg
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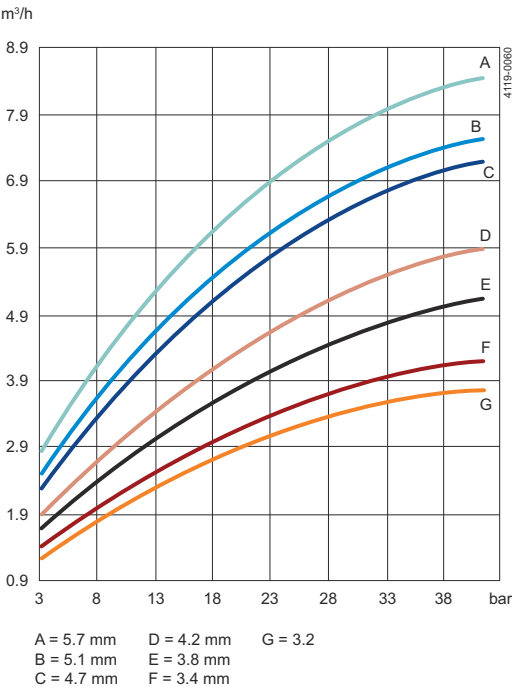
Connections

Standard thread:	¾" Rp NPT, female/ 1 ¼" camlock
Available option:	¾" BSP, female/ 1 ¼" camlock, 1 ½" tube weld on

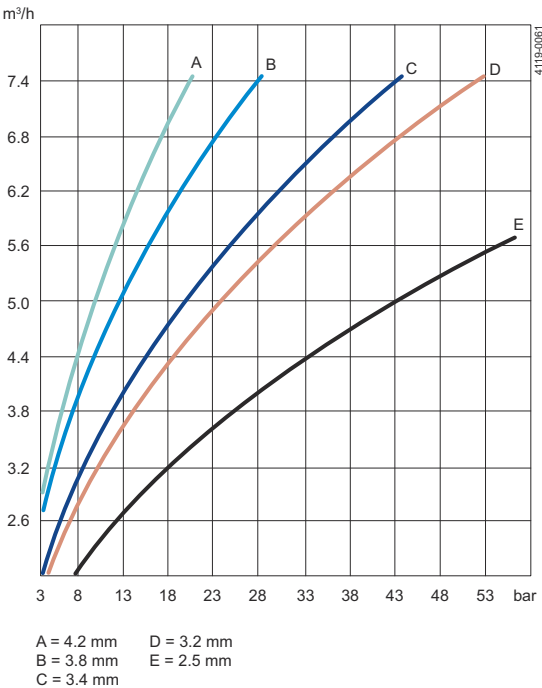
Caution

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.

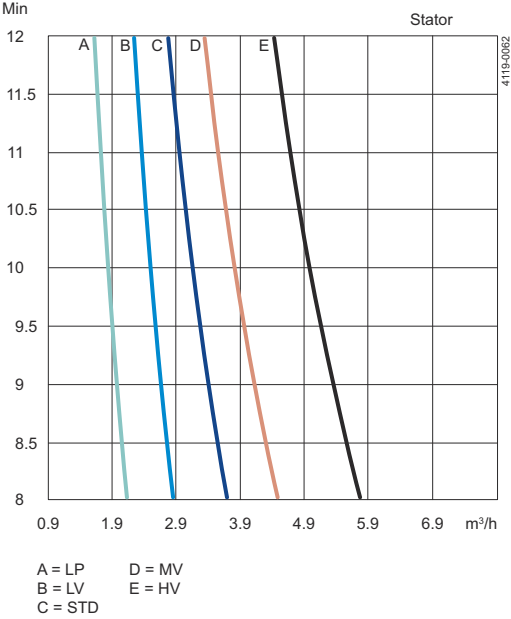
Pressure - Flow Rate, 2-Nozzle



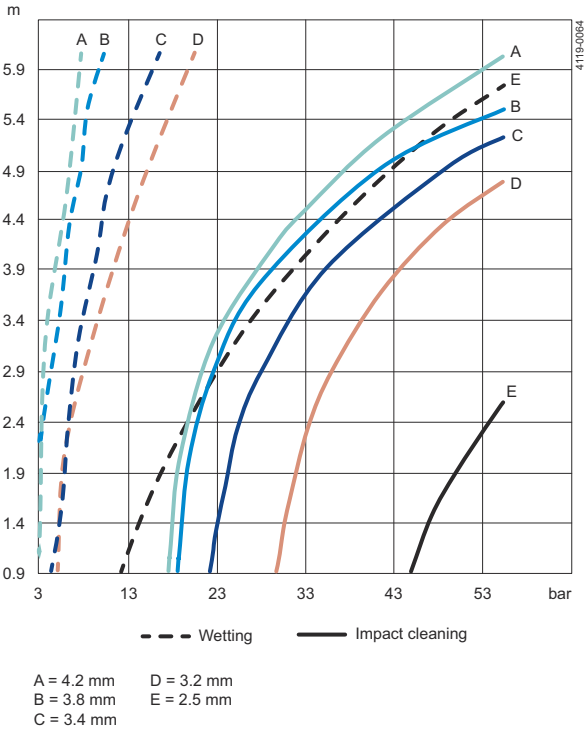
Pressure - Flow Rate, 4-Nozzle



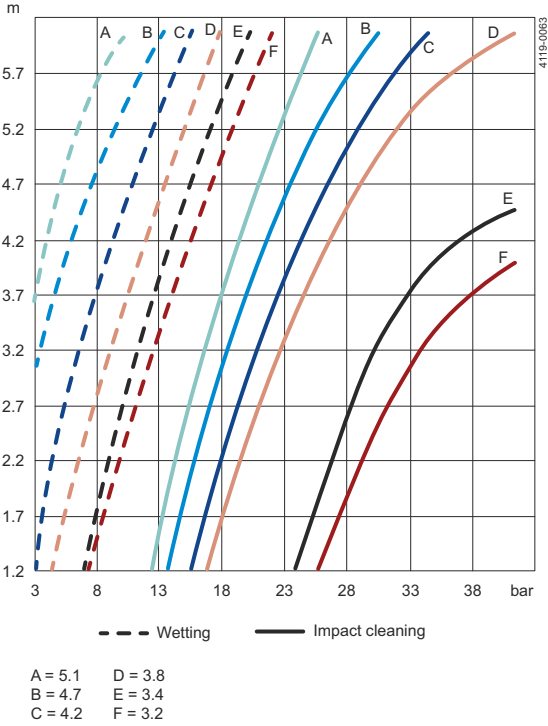
Flow Rate-Cycle Time



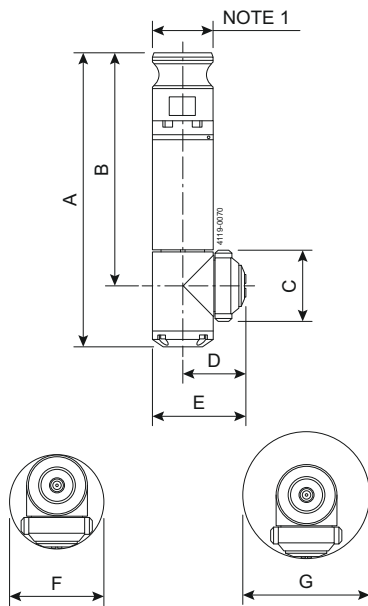
Throw Distance by Pressure, 4-Nozzle



Throw Distance by Pressure, 2-Nozzle



Dimensions (mm)



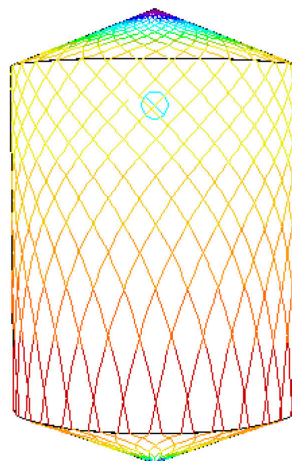
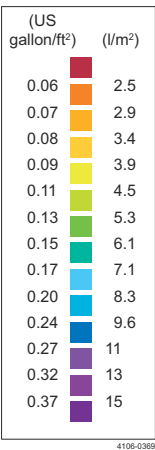
A	B	C	D	E	F	G
223	177	54	48	71	72	96

→ NOTE 1: 3/4" FNPT/1-1/4" CAMLOCK OR 1-1/2" Tri-Clamp

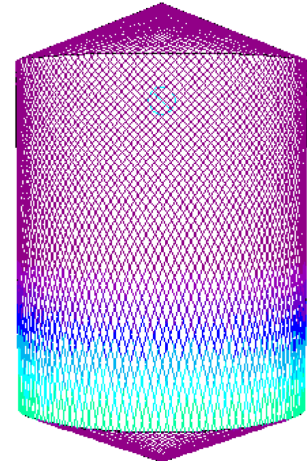
TRAX simulation tool

TRAX is a unique software that simulates how the Alfa Laval GJ 9 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



First cleaning cycle



Full cleaning pattern

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