

# Alfa Laval GJ 5

## Rotary jet heads

### Introduction

The Alfa Laval GJ 5 is a rotary jet head tank cleaning machine for industrial environments. Designed to clean tanks with capacities from 1320.85 - 5283.4 US gallons, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern. The Alfa Laval GJ 5 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 enables companies to spend less time cleaning and more time producing.

### Application

The Alfa Laval GJ 5 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the home-personal care, chemical, pulp and paper, ethanol, starch, and oil industries.

### Benefits

- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- Eliminates the need for confined space entry for manual tank cleaning
- High-impact cleaning in a 360° repeatable cleaning pattern
- Available in special version “downwards cleaning version”, making it possible to clean open tanks
- Slim design makes it possible to insert through small tank inlet openings

### Standard design

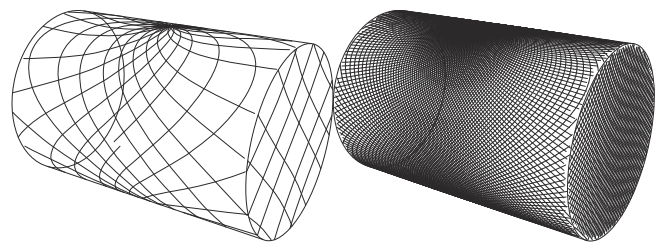
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries.

### Working principle

The high-impact jet stream from the Alfa Laval GJ 5 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 a 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.



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:	Food grade
Max. throw length:	4 - 24 ft

### Pressure

Working pressure:	40 - 1,000 PSI
Recommended pressure:	50 - 600 PSI

## PHYSICAL DATA

### Materials

1.4404 (316L), PPS, PTFE, FKM (EPDM and FFKM available)

### Temperature

Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

### Weight

Weight:	7 lbs
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### Connections

Standard thread:	1¼" Rp, NPT female
Available option:	1½" tube weld on

### Option

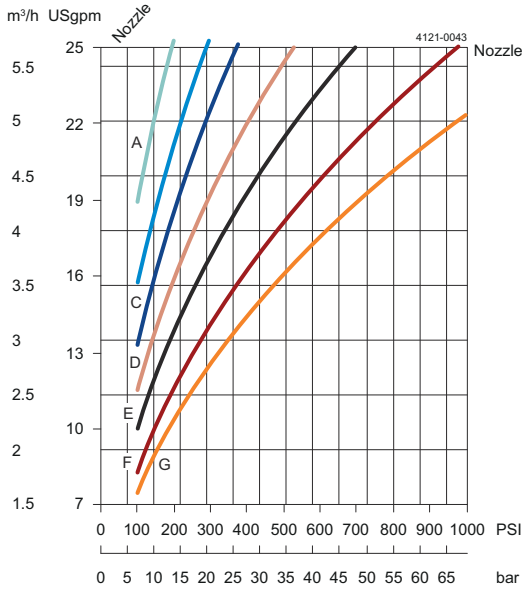
Electronic rotation sensor to verify 3D coverage

## Caution

Do not use for gas evacuation or air dispersion.

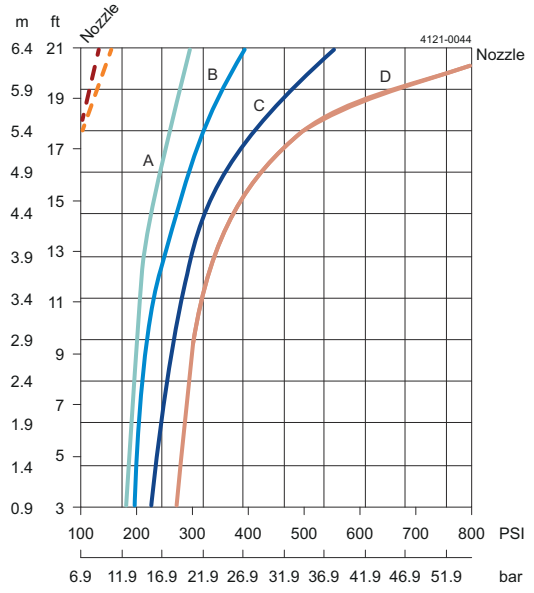
Disclaimer: Information in this product data leaflet is intended for general guidance purposes. Specific data for device selection and sizing is available upon request.

### Flow Rate



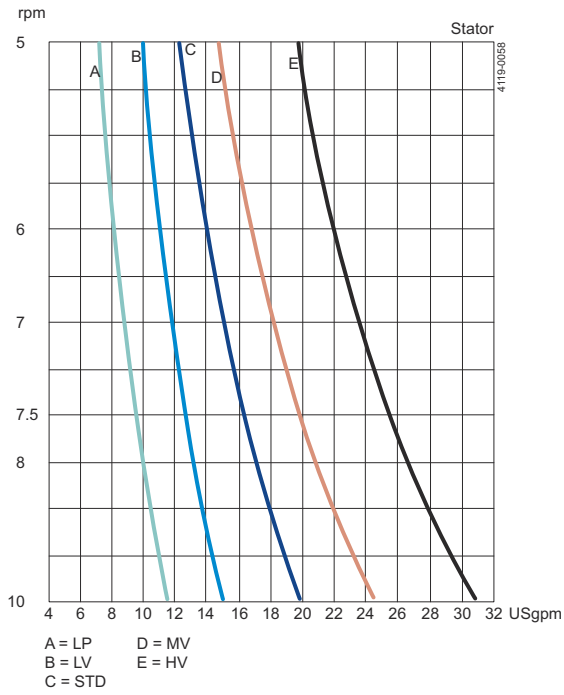
A = 6.4 mm (0.250") D = 4.2 mm (0.165") G = 3.2 mm (0.125")  
 B = 5.1 mm (0.200") E = 3.8 mm (0.150")  
 C = 4.7 mm (0.187") F = 3.4 mm (0.135")

### Impact Throw Length



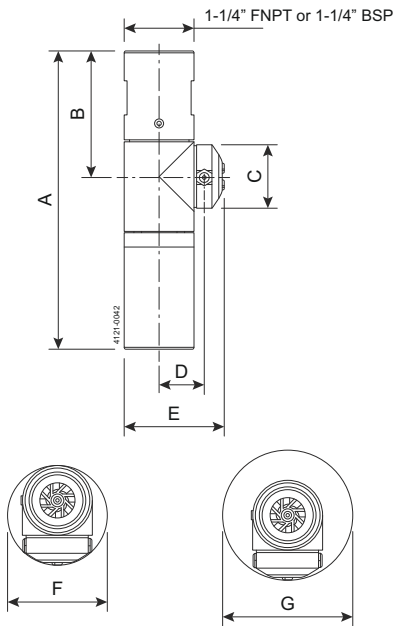
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 5.1 mm (0.200") 4.2 mm (0.165") D = 3.2 mm (0.125")  
 3.8 mm (0.150")

### Cleaning Time



A = LP D = MV  
 B = LV E = HV  
 C = STD

## Dimension (Inch)



A	B	C	D	E	F	G
8.8	3.7	1.9	1.3	3	3	3.9



NOTE 1: 1" R-CLIP COLLAR OR 1-1/2" BUTT WELD

## Standard Design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ 5 can be supplied with a "Declaration of Conformity" for material specifications.

## TRAX simulation tool

TRAX is a unique software that simulates how the Alfa Laval GJ 5 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.