Alfa Laval GJ 4

Rotary jet heads

Introduction

The Alfa Laval GJ 4 is a rotary jet head tank cleaning machine for industrial environments. Designed to clean tanks from 150-2250 m^3 it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ 4 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.

Application

The Alfa Laval GJ 4 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the chemical, pulp and paper, ethanol, starch, transportation, 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
- 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. As standard documentation, the Alfa Laval GJ 4 can be supplied with a “Declaration of Conformity” for material specifications.

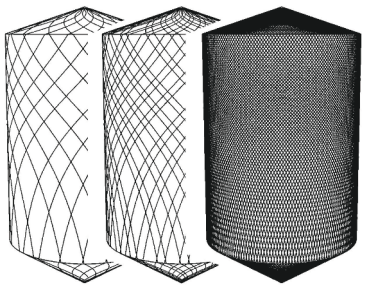
Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries. An alternative that offers performance similar to the Alfa Laval GJ 4 is the Alfa Laval TJ40G-HD, which offers a more hygienic design. The TJ40G-HD is ideal for applications that require 3.1. material certification, ATEX certification, and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	30.5 m

Pressure	
Working pressure:	3 - 21 bar
Recommended pressure:	3.5 - 14 bar

PHYSICAL DATA

Materials
1.4404 (316L), PPS, FKM (FFKM available)

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

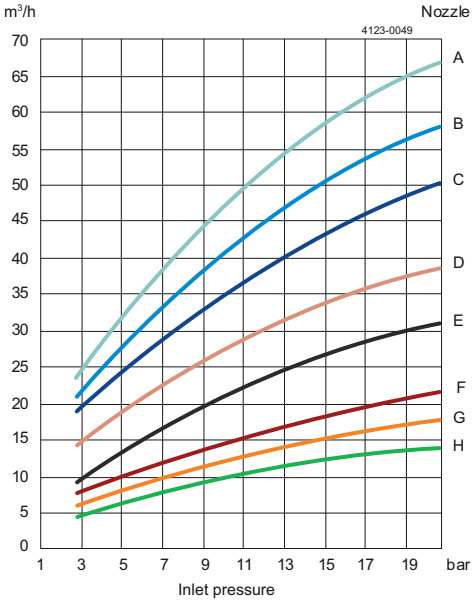
Weight:	12.7 - 13.2 kg

Connections	
Standard thread:	2" NPT, 2" BSP

Caution

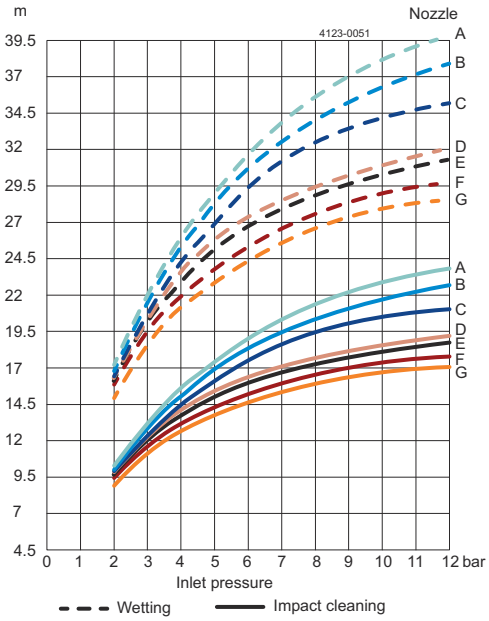
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate



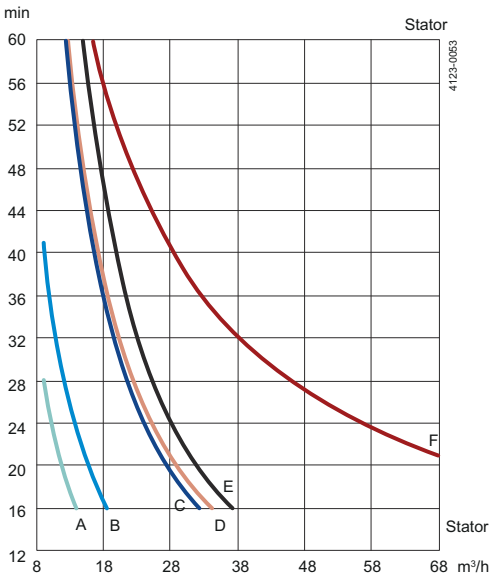
A = 15.9 mm
B = 14.3 mm
C = 12.7 mm
D = 11.1 mm
E = 9.5 mm
F = 7.9 mm
G = 7.1 mm
H = 6.4 mm

Impact Throw Length



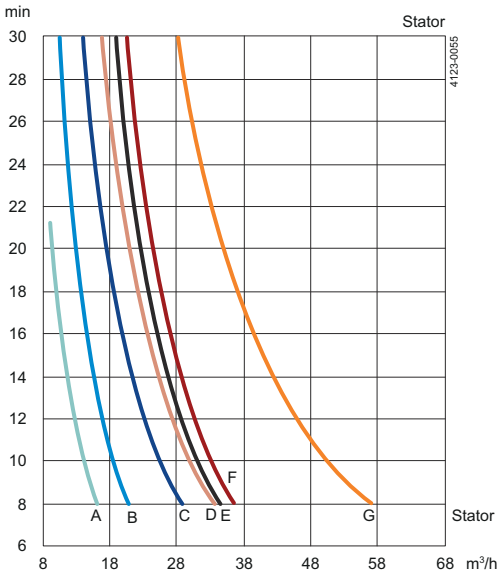
A = 2 x Ø14.3 mm
B = 2 x Ø11.1 mm
C = 2 x Ø12.7 mm
D = 2 x Ø9.5 mm
E = 2 x Ø7.9 mm
F = 2 x Ø7.1 mm
G = 2 x Ø6.4 mm

Cleaning Time (Gear Ratio 655:1)



A = LV
B = LP
C = HP
D = LM
E = HV1
F = HV2

Cleaning Time (Gear Ratio 273:1)



A = LV
B = LP
C = STD
D = LM
E = HP
F = HV1
G = HV2

Dimensions (mm)

A	B	C	D	E	F	G	H	I
308	131	331	76	155	331	372	168	219

Note! 2" NPT FEMALE/ 2-1/2" CAMLOCK. 2" NPT FEMALE/ 2-1/2" NST

200006318-2-EN-GB

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