

Alfa Laval GJ PF FT

Rotary jet heads

Introduction

The Alfa Laval GJ PF FT is a rotary jet head tank cleaning machine for hygienic environments. Designed to clean tanks with capacities from 15-150 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 PF FT 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 PF FT is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as the dairy, brewery, distillery, beverage, food, pharmaceutical, and personal care industries.

Due to its slim design, the GJ PF FT is ideal to retrofit spray balls, thereby reducing Cleaning-in-Place costs and cleaning time.

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.

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 PF FT is the Alfa Laval TJ20G, which offers a more hygienic design. The TJ20G is ideal for applications that require material traceability 3.1 material certification, ATEX certification, and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.



Certificate

2.1 material certificate

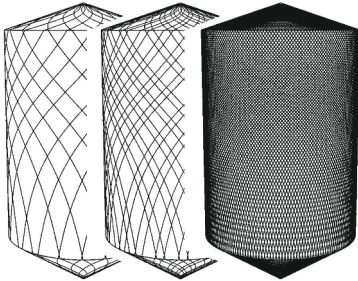


Working principle

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: | Self-lubricating with the cleaning fluid |
| Max. throw length: | 14 - 20 m |

Pressure

| | |
|-----------------------|-------------|
| Working pressure: | 3 - 28+ bar |
| Recommended pressure: | 4 - 20 bar |

PHYSICAL DATA

Materials

316L, PPS, PTFE, EPDM¹ (FKM and FFKM available)

¹ FDA compliance 21CFR§177

Temperature

| | |
|---------------------------|--------|
| Max. working temperature: | 90 °C |
| Max. ambient temperature: | 140 °C |

| | |
|---------|--------|
| Weight: | 4,5 kg |
|---------|--------|

Finish

| | |
|-----------------|--------|
| Surface finish: | 0,8 µm |
|-----------------|--------|

Connections

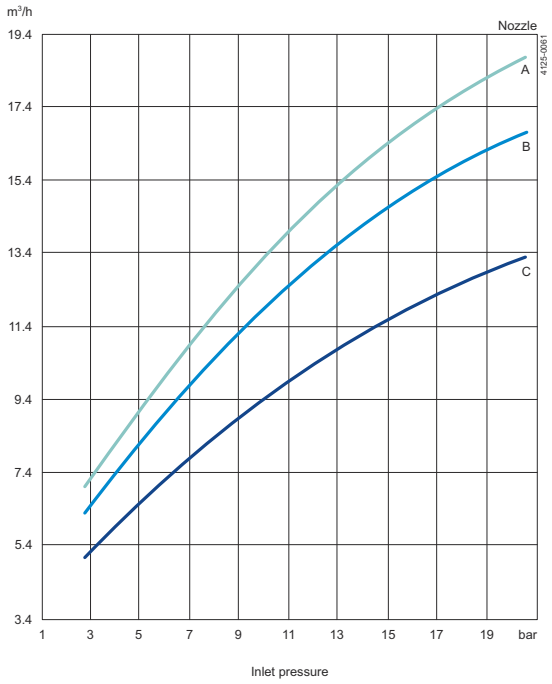
| | |
|-------------------|--------------------------------|
| Standard thread: | 1½" US/IDØ38,4 Clip-on |
| Available option: | 1½" ISO 2852 Clamp |
| | 1½" NPT female Thread |
| | DN40 Clip-on DIN 11850 range 1 |
| | DN40 Clip-on DIN 11850 range 2 |
| | ODØ38,1/1½" ISO 2037 Weld-on |

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.

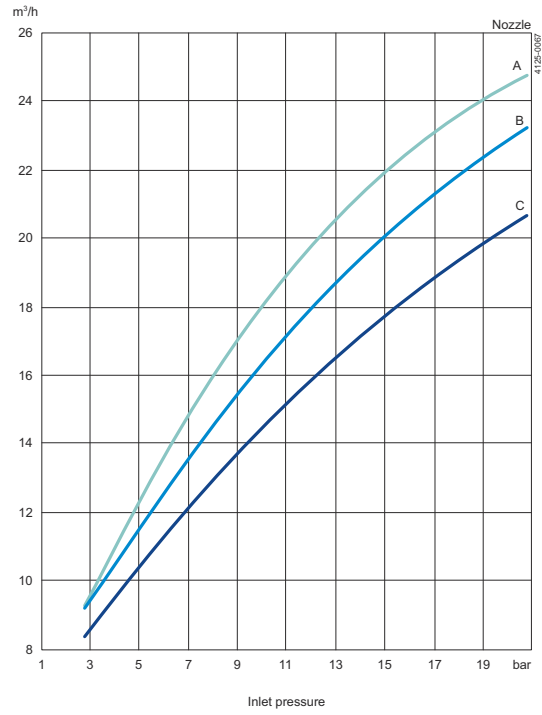
Flow Rate

2-nozzle



A = 9.5 mm
B = 7.9 mm
C = 6.4 mm

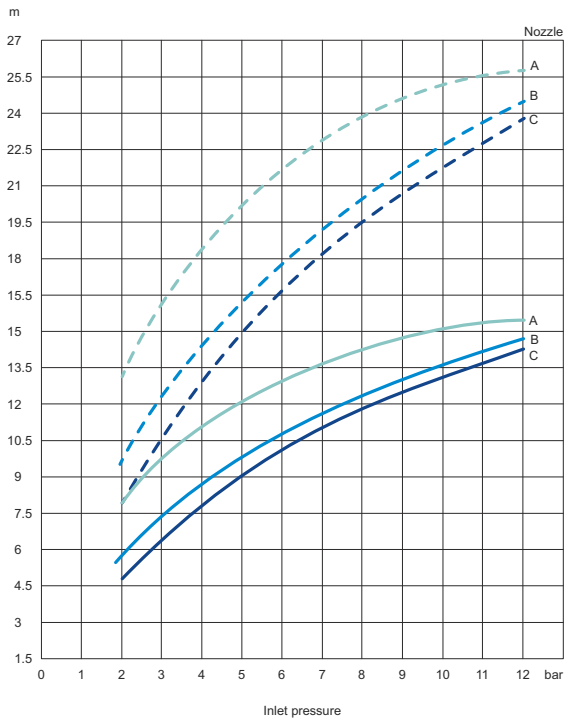
4-nozzle



A = 9.5 mm
B = 7.9 mm
C = 6.4 mm

Impact

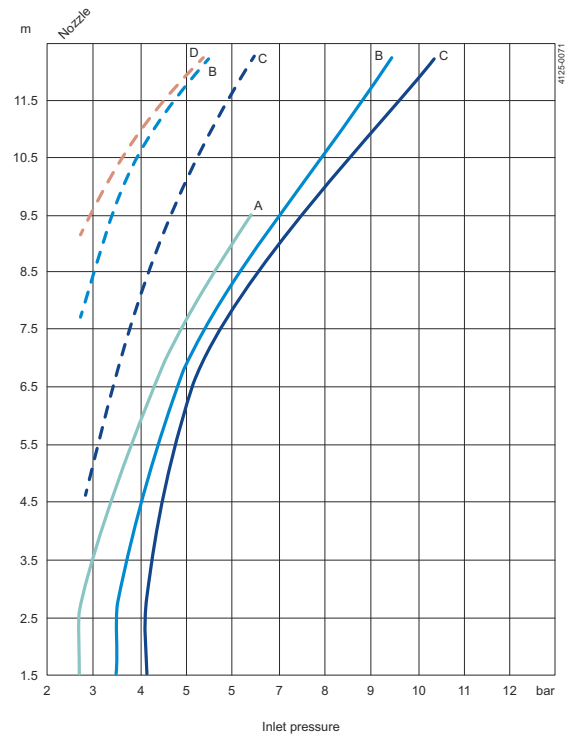
2-nozzle



A = 2 x Ø6.4 mm
B = 2 x Ø7.9 mm
C = 2 x Ø9.5 mm

--- Wetting — Impact cleaning

4-nozzle

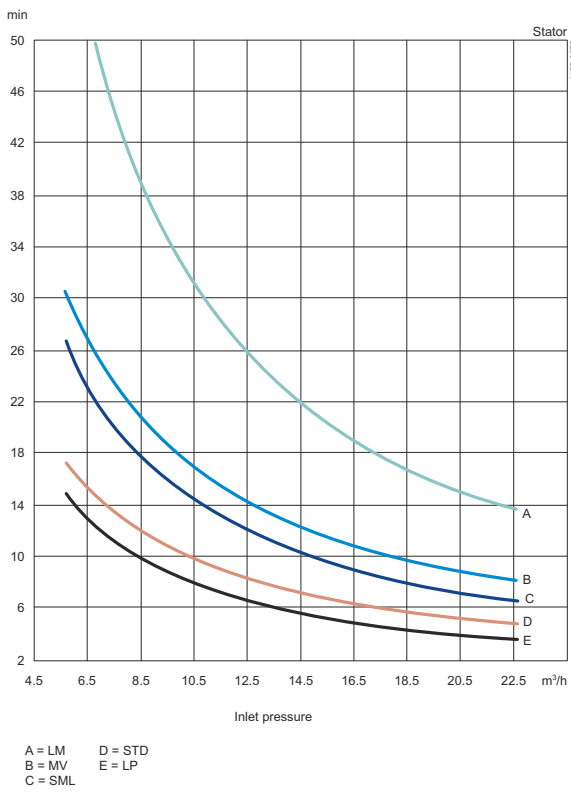


A = 6.3 mm D = 6.4 mm
B = 7.9 mm
C = 9.5 mm

--- Wetting — Impact cleaning

Custom inlets available. Contact your local Alfa Laval representative for details.

Cleaning Time



Dimensions (mm)

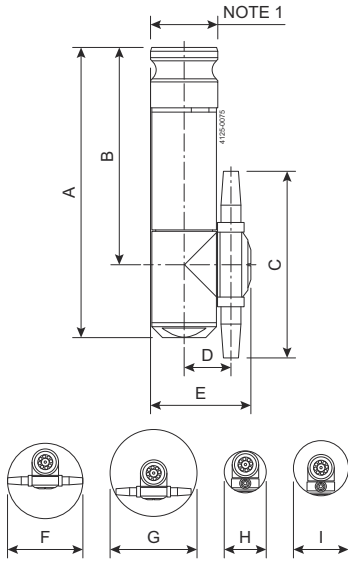


Figure 1. 2-nozzle

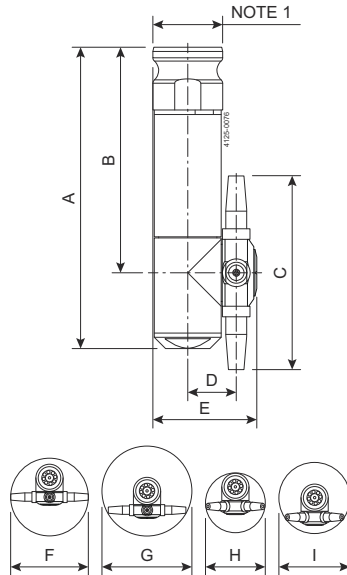


Figure 2. 4-nozzle

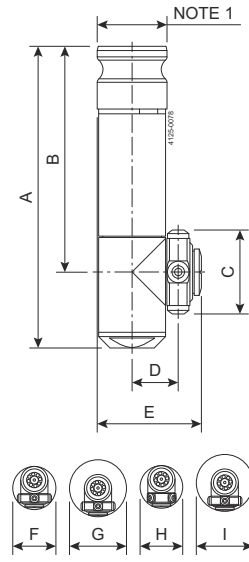


Figure 3. Low-profile

2-nozzle

| A | B | C | D | E | F | G | H | I |
|-----|-----|-----|----|----|-----|-----|----|-----|
| 272 | 204 | 175 | 44 | 94 | 176 | 202 | 98 | 129 |



NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK

4-nozzle

| A | B | C | D | E | F | G | H | I |
|-----|-----|-----|----|----|-----|-----|--------|--------|
| 272 | 204 | 175 | 44 | 94 | 176 | 202 | 134.47 | 160.35 |



NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK

Low-profile version

| A | B | C | D | E | F | G | H | I |
|-----|-----|----|----|----|----|-----|----|-----|
| 272 | 204 | 76 | 42 | 94 | 97 | 129 | 97 | 129 |



NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK

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