



# Powerful tank cleaning at a range of pressures and flows

## Alfa Laval GJ PF flow-through version

### Application

The field-proven Alfa Laval GJ PF is part of the world-renowned range of Gamajet high impact tank cleaning devices. This tank cleaning device is designed to be flow-through, meaning no lubricant can pass through the gear train. It has been proven to provide companies with up to 85% in water, time, energy, and resource savings compared to static spray balls. This device is capable of cleaning tanks with capacities between 18.9 m<sup>3</sup> - 94.6 m<sup>3</sup> (5,000-25,000 gallons). The Alfa Laval GJ PF fits through openings as small as 10 cm (4") and operates at low pressures and flows, cleaning tanks in the ethanol, paper, pulp, chemical, steel, industrial fermentation industry, and many other applications that require high impact cleaning. By implementing this device into their tank cleaning process, companies spend less time cleaning and more time producing.

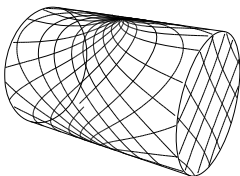
### Working principle

The Gamajet range of high impact tank cleaning devices combine pressure and flow to create high impact cleaning jets. Cleaning occurs at the point at which the concentrated stream impacts the surface. It is this impact and the tangential force that radiates from that point which blasts contaminants from the surface, scouring the tank interior. In conjunction with this impact, the device is engineered to rotate in a precise, repeatable and reliable, 360° pattern. This full-coverage, global indexing pattern ensures the entire tank interior is cleaned, every time.

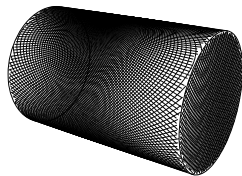
### TECHNICAL DATA

Lubricant	Self-lubricating with the cleaning fluid
Max. throw length	14 - 20 m (45-65 ft.)
<b>Pressure</b>	
Working pressure	3 - 28+ bar (40 - 400+ PSI)
Recommended pressure	4 - 20 bar (50 - 300 PSI)

### 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



### PHYSICAL DATA

#### Materials

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

#### Temperature

Max. working temperature . . . . . 90°C (195°F)  
Max. ambient temperature . . . . . 140°C (284°F)

Weight . . . . . 4.5kg (10 lbs.)

Surface finish . . . . . 0.8 µm (32 Ra)

#### Connections

Standard thread . . . . . 1½" Rp (BSP) or NPT, female  
Available option . . . . . 1.5" weld, 1.5" tri-clamp, 1.5" ISO 2037 slip fit, 1.5" DIN R1 slip fit, 1.5" DIM R2 slip fit

#### Options

Electronic rotation sensor to verify 3D coverage.

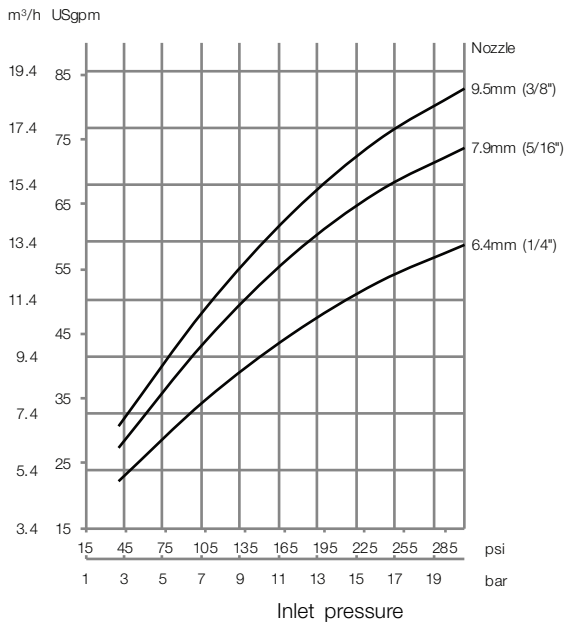
#### Caution

Do not use for gas evacuation or air dispersion.

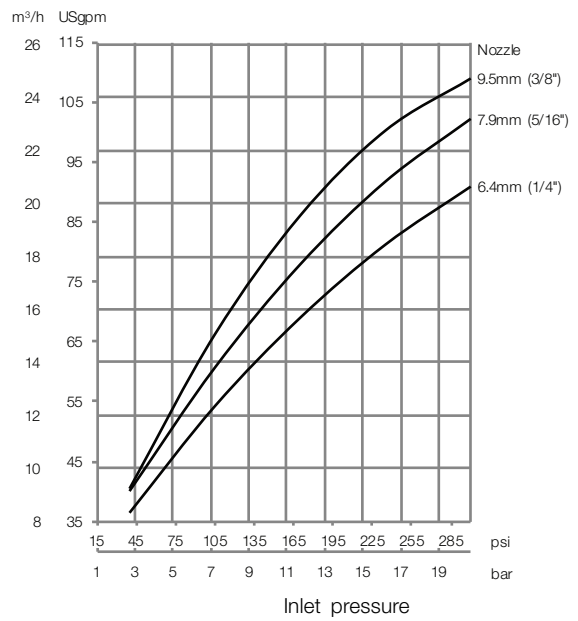


Disclaimer: Information in this product data leaflet is intended for general guidance purposes. Specific data for device selection and sizing is available upon request.

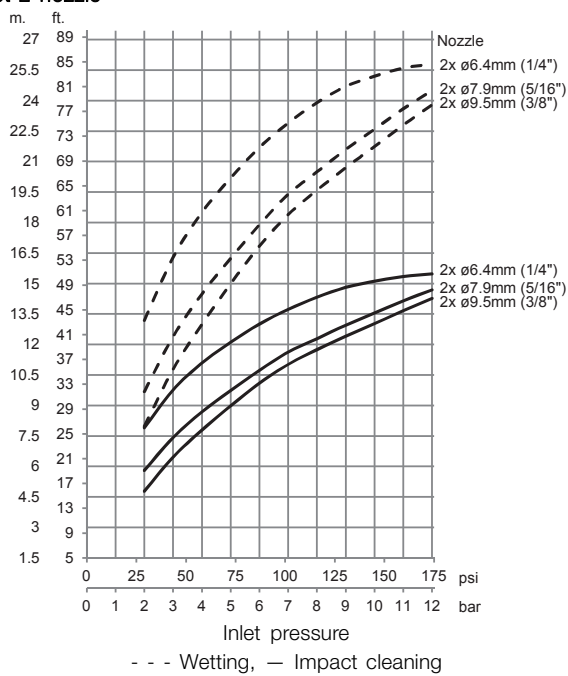
### Flow Rate 2-nozzle



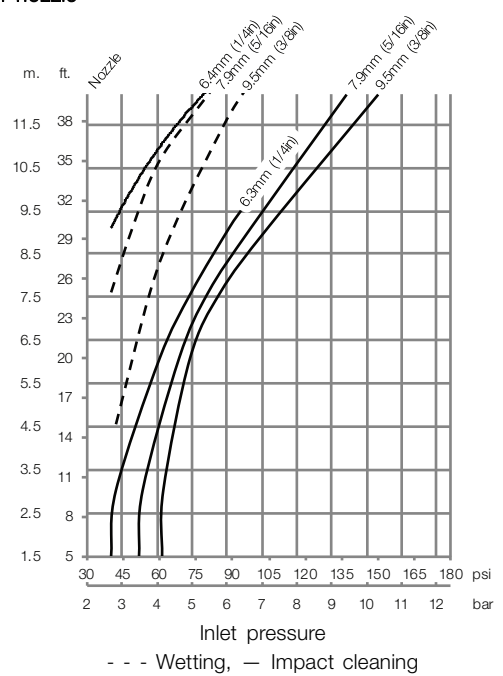
### Flow Rate 4-nozzle



### Impact 2-nozzle

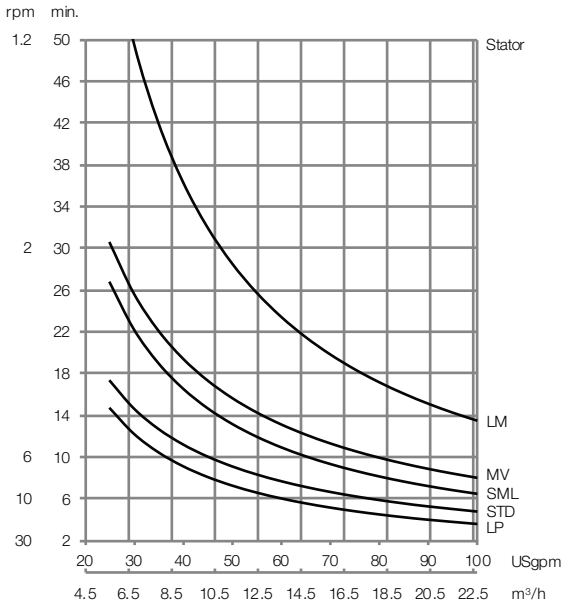


### Impact 4-nozzle

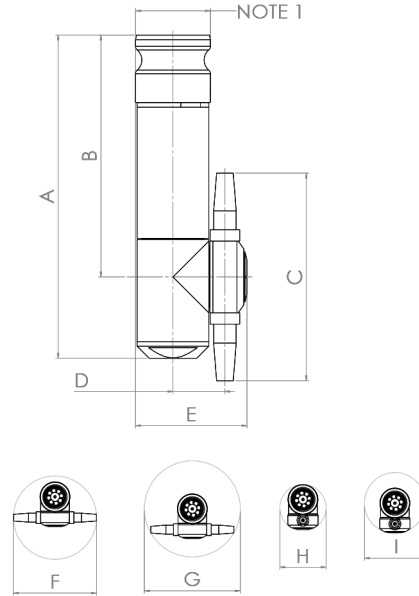


Custom inlets available. Contact your local Alfa Laval representative for details.

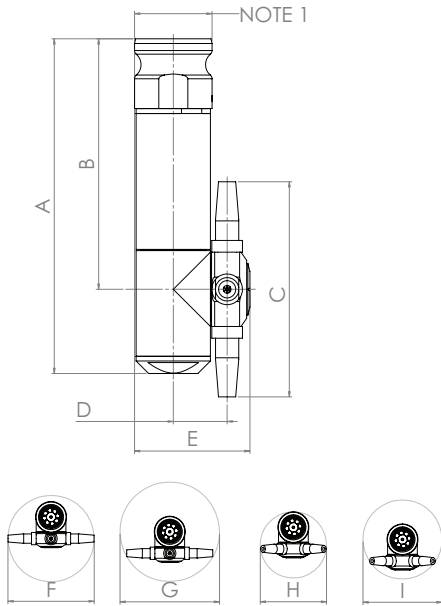
### Cleaning Time



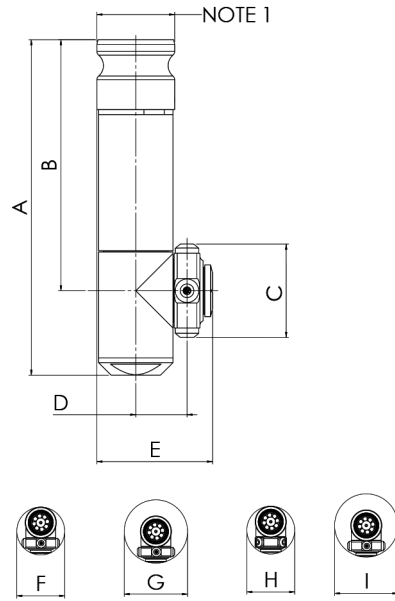
### Dimensions 2-nozzle



### Dimensions 4-nozzle



### Dimensions low-profile



### Dimensions 2-nozzle

	A	B	C	D	E	F	G	H	I
mm	272	204	175	44	94	176	202	98	129
in	10.70	8.01	6.88	1.73	3.69	6.90	7.95	3.83	5.05

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

### Dimensions 4-nozzle

	A	B	C	D	E	F	G	H	I
mm	272	204	175	44	94	176	202	134.47	160.35
in	10.70	8.01	6.88	1.73	3.69	6.90	7.95	5.29	6.31

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

### Dimensions low-profile version

	A	B	C	D	E	F	G	H	I
mm	272	204	76	42	94	97	129	97	129
in	10.70	8.01	2.98	1.64	3.69	3.82	5.05	3.82	5.05

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

### Standard Design

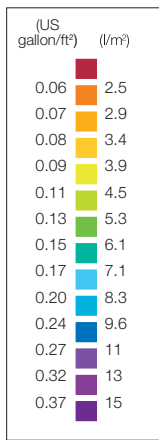
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ PF flow-through version can be supplied with a "Declaration of Conformity" for material specifications.

### TRAX simulation tool

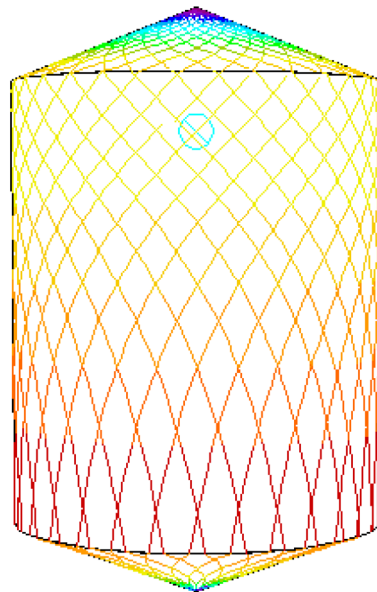
TRAX is a unique software that simulates how the Alfa Laval GJ PF flow-through version performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning 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.

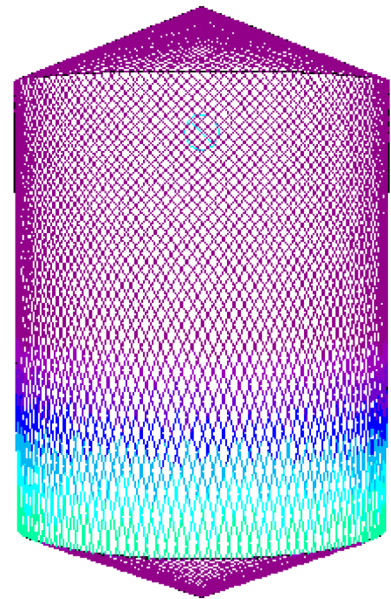
### Wetting Intensity



TD 523-208



D9.1m (360"), H14.7m (580"), 2xØ7.94mm (2xØ5/16") Time = 4.25 min.



D9.1m (360"), H14.7m (580"), 2xØ7.94mm (2xØ5/16") Time = 17 min.

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