

# Alfa Laval GJ PF FT

# Powerful tank cleaning at a range of pressures and flows

### Application

The Alfa Laval GJ PF FT tank cleaning device provides companies with up to 85% savings in water, time, energy, and resources compared to static spray ball tank cleaning. It is ideal for retrofit applications in tanks with capacities between 18.9 m³ - 94.6 m³ (5,000-25,000 gallons) in hygienic applications, such as food and beverage and personal care environments. The Alfa Laval GJ PF FT fits through openings as small as 10 cm (4") and operates at low pressures and flows.

#### Working principle

The GJ 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.

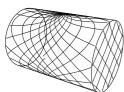


Max. throw length ..... 14 - 20 m

Pressure

Working pressure . . . . . . 3 - 28+ bar Recommended pressure . . . . . . 4 - 20 bar

# 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)

\* FDA compliance 21CFR§177

#### Temperature

Max. working temperature	 90°C
Max. ambient temperature	 140°C
Weight	 4.5kg
Surface finish	 0.8 µm

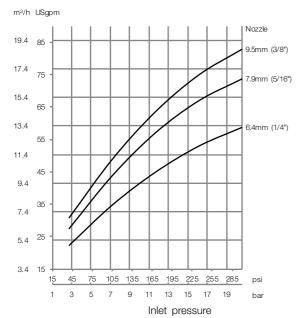
#### Connections

Standard thread	 . 11/2" US/IDØ38,4 Clip-on
Available option	 . 11/2" ISO 2852 Clamp
	11/2" NPT female Thread
	11/2" Rp female Thread
	DN40 Clip-on DIN 11850
	range 1
	DN40 Clip-on DIN 11850
	range 2
	ODØ38,1/1½" ISO 2037
	Weld-on

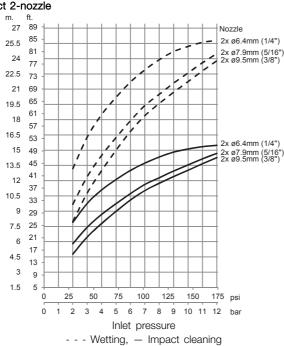
#### Caution

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.

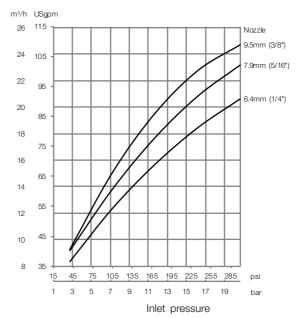
### Flow Rate 2-nozzle



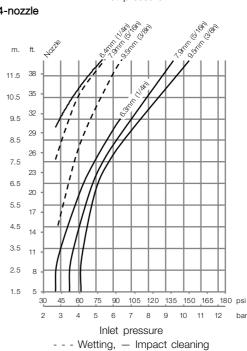
# Impact 2-nozzle



# Flow Rate 4-nozzle



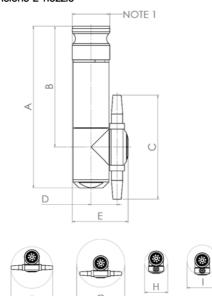
### Impact 4-nozzle



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

# Cleaning Time rpm min. 1.2 50 Stato 46 42 38 34 30 26 22 18 6 10 MV SML 10 6

## Dimensions 2-nozzle



### Dimensions 4-nozzle

20

40

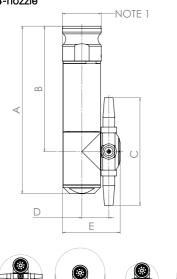
50 60 70

4.5 6.5 8.5 10.5 12.5 14.5 16.5 18.5 20.5 22.5

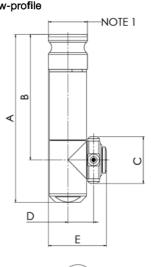
100 USgpm

m³/h

30



#### Dimensions low-profile











### Dimensions 2-nozzle

	Α	В	С	D	Е	F	G	Н	ı
mm	272	204	175	44	94	176	202	98	129

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

### Dimensions 4-nozzle

	Α	В	С	D	E	F	G	Н	ı
mm	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

# Dimensions low-profile version

	Α	В	С	D	E	F	G	Н	ı
mm	272	204	76	42	94	97	129	97	129

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

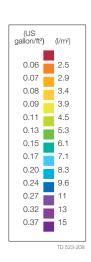
# Standard Design

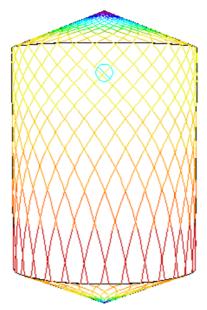
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ PF FT version can be supplied with a "Declaration of Conformity" for material specifications.

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







= 4.25 min.

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

Alfa Laval reserves the right to change specifications without prior notification.