

Alfa Laval MultiJet 45

Rotary jet heads

Introduction

The Alfa Laval MultiJet 45 is a rotary jet head tank cleaning machines for use in industrial environments. Built to clean tanks with capacities up to 500 m³ it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern. The MultiJet 45 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.

Application

The Alfa Laval MultiJet 45 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, oil.

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
- Allows re-circulation of CIP media with particles in, up to 3 mm particle size
- Robust and durable design

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. A 2.1 material certificate and an ATEX certification are available.

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 MultiJet 45 is the Alfa Laval GJ 8 for applications that require a small tank inlet opening.

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.

Certificates

2.1 material certificate and ATEX.

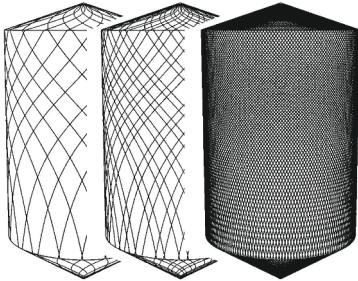


Working principle

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:	4 nozzle: 8 - 17 m
Impact throw length:	4 nozzles: 4 - 10 m

Pressure

Working pressure:	4 nozzles: 3 - 12 bar
Recommended pressure:	4 nozzles: 5 - 6.5 bar

PHYSICAL DATA

Materials

316L (UNS S31603), PTFE, PEEK, ETFE, FPM, TFM

Surface finish

Exterior finish:	Mat
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Temperature

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

Weight:	4 nozzles: 6.1 kg
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Connections

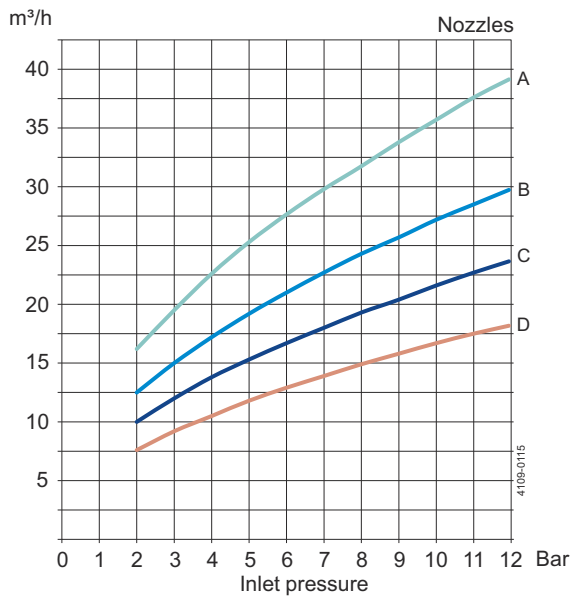
Standard female thread:	1½"Rp (BSP) male, 1½" NPT male, adapter connection
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Caution

Avoid hydraulic shock, hard and abrasive particles above 3 mm 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.

PERFORMANCE DATA, 4 NOZZLES

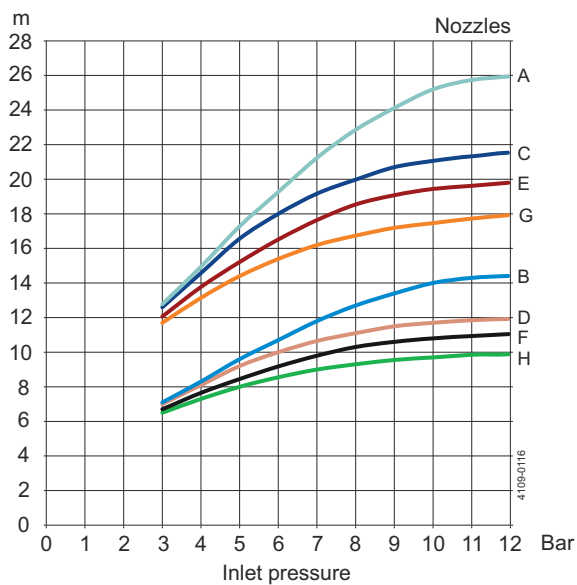
Flow rate



A = 4 x ø10 mm
B = 4 x ø8 mm

C = 4 x ø7 mm
D = 4 x ø6 mm

Impact throw length

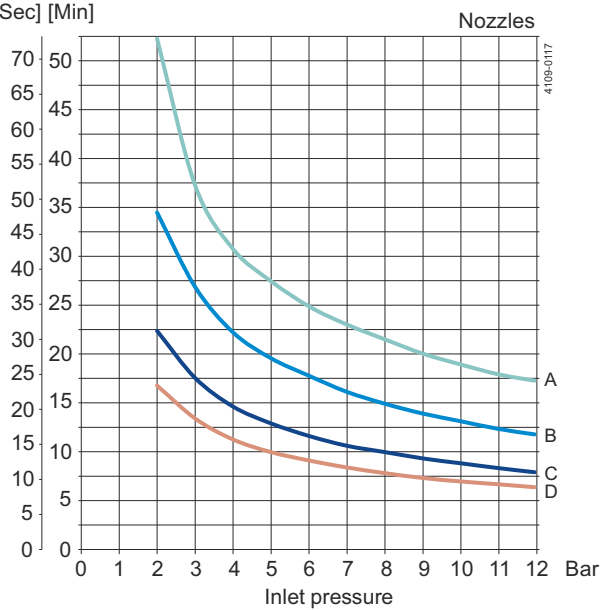


A = 4 x ø10 mm, Max static
B = 4 x ø10 mm, Effective
C = 4 x ø8 mm, Max static
D = 4 x ø8 mm, Effective

E = 4 x ø7 mm, Max static
F = 4 x ø7 mm, Effective
G = 4 x ø6 mm, Max static
H = 4 x ø6 mm, Effective

Cleaning time, complete pattern

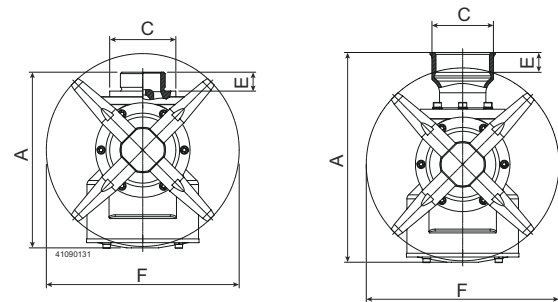
[Sec] [Min]



A = 4 x ø10 mm
B = 4 x ø8 mm

C = 4 x ø7 mm
D = 4 x ø6 mm

Dimensions



Thread (1½" Rp) male or Thread (1½" NPT) male

	A	C	E	F
mm	186	70	20	204

Female connection, prepared for adapter

	A	C	E	F
mm	222	65	21	204

Qualification documentation

Documentation specification

ATEX

ATEX approved machine for use in explosive atmospheres.

Category 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU

II 1G Ex h IIC 85°C ... 175 °C Ga

II 1D Ex h IIIC T85°C ... T140 °C Da

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