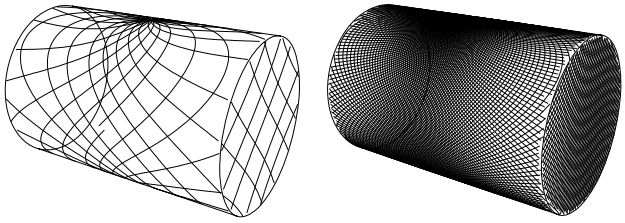
Fast, Effective Impact Cleaning

Toftejorg MultiJet 25 Rotary Jet Head

Application
The Toftejorg MultiJet 25 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is ideal for applications where cost-effective impact cleaning with rotary jet heads is needed, but where compliance with hygienic design standards is not a requirement. The device is suitable for process, storage and transportation tanks between 15 and 150 m^3 (4,000 to 40,000 US gallons). It is designed to work under conditions where finer particles, etc. in the cleaning media may be re-circulated through the machine.

Working principle
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 coarse pattern on the tank surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 8 cycles.

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.

Standard Design
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. The Toftejorg MultiJet 25 is also available with PEEK impeller. A welding adaptor with sealing for 1" ISO, 1" ANSI, 1 1/2" ISO Dairy Pipe or 1 1/2" SWG Pipe is available as an accessory.

ATEX approved, Category 1 for installation in zone 0/20

Materials
1.4404 (316L), UNS S31803, UNS S 21800, EPDM, PEEK, PVDF, PFA

Technical Data

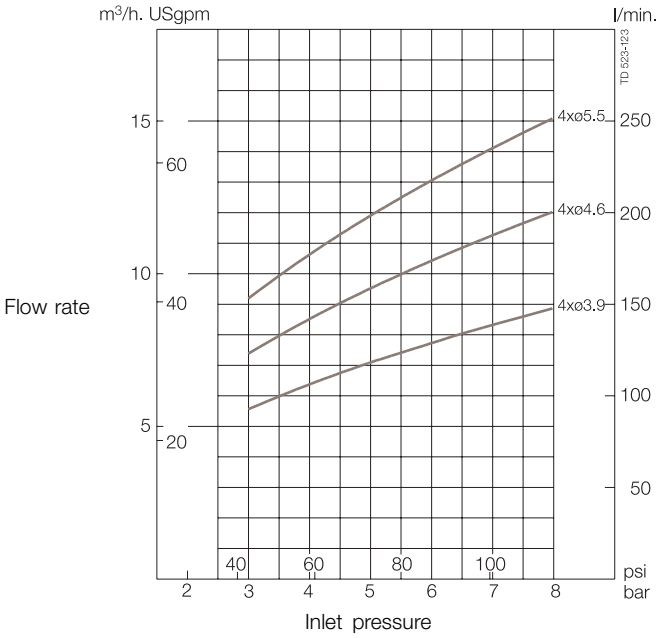
Surface finish:	Exterior finish: Glass blasted
Weight:	5.1 kg (11 lbs)
Lubricant:	Self-lubricating with the cleaning fluid
Working pressure:	3 - 8 bar (45 - 115 psi)
Recommended pressure:	5 - 6.5 bar (72 - 94 psi) *
Max. working temperature:	95 °C (203 °F)
Max. ambient temperature:	140 °C (284 °F)
Max throw length:	9 - 14 m (29 - 46 ft)
Impact throw length:	4 - 8 m (13 - 26 ft)
Standard female thread:	1" Rp (BSP) or NPT

* Does not apply for 4 x ø8 mm (0.16 x ø0.31 inch) 100%

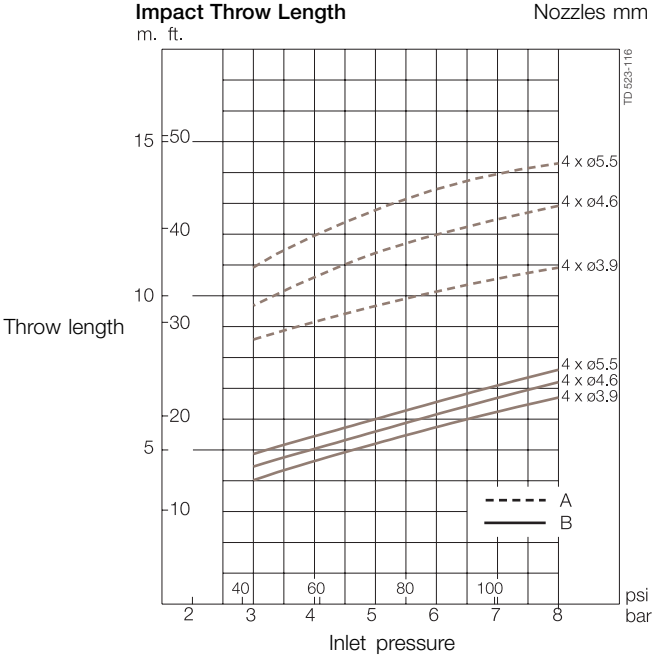
Certificate:
2.1 - ATEX

Caution
Avoid 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.

Flow Rate Nozzles mm

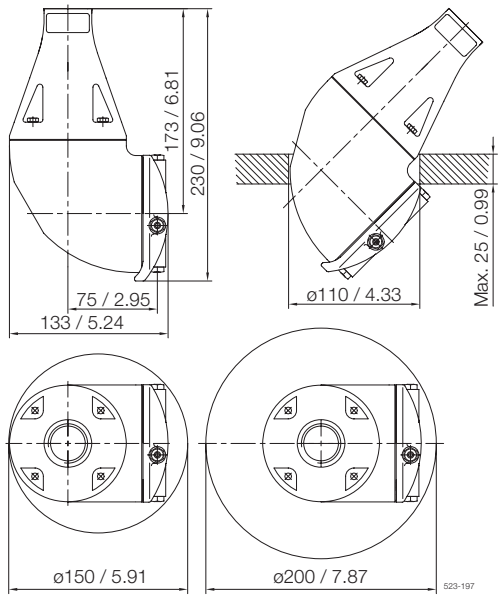


Impact Throw Length Nozzles mm

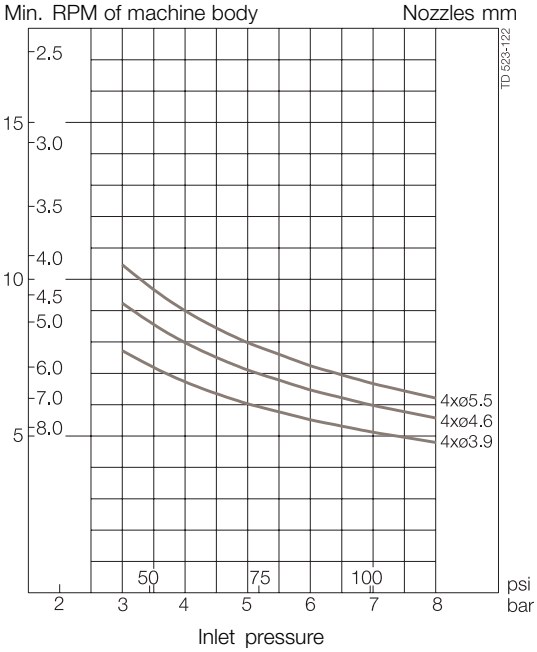


A: Wetting - B: Impact cleaning

Dimensions (mm / inch)



Cleaning Time, Complete Pattern



Ordering
Please specify nozzle size and required connections and confirm application suitability

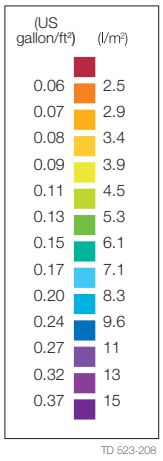
Sizing/selection and installation drawings are available in Alfa Laval's Selection Tools for Tank Cleaning Equipment.

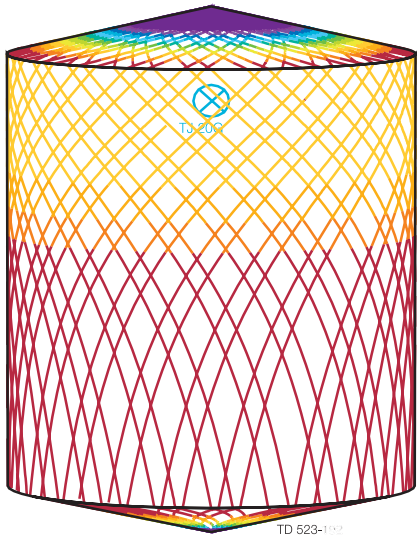
Options
Electronic rotation sensor to verify 3D coverage.

TRAX simulation tool
TRAX is a unique software that simulates how the Toftejorg MultiJet 25 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 machine and the correct combination of flow, time and pressure to implement.

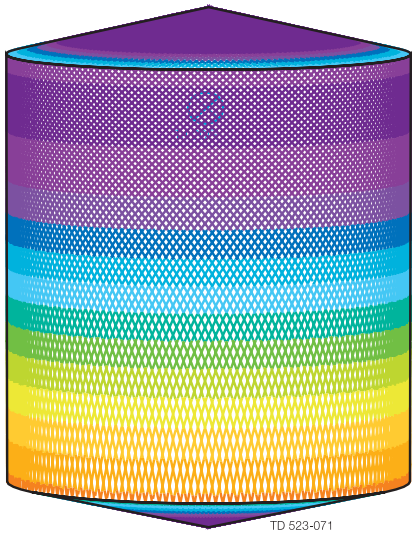
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. The TRAX demo is free and available upon request.

Wetting Intensity





D4.6m H5.5m, Toftejorg MultiJet 25, 4 x ø5.5 mm
Time = 2.08 min., Water consumption = 403 l (106 gallon)



D4.6m H5.5m, Toftejorg MultiJet 25, 4 x ø5.5 mm
Time = 8.3 min., Water consumption = 1612 l (426 gallon)

ESE00154EN 0901

How to contact Alfa Laval
Contact details for all countries
are continually updated on our website.
Please visit www.alfalaval.com to
access the information direct.