Fast, Effective Impact Cleaning

Toftejorg TZ-67 Rotary Jet Head - Portable

ESE00322EN 0901

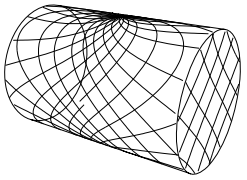
Application

The Toftejorg TZ-67 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. The device is suitable for processing, storage and transportation tanks and vessels between 50 and 500 m^3 (13,000 to 130,000 US gallons). Used in breweries, food and dairy processes and many other industries, the Toftejorg TZ-67 is particularly well-suited to portable applications where high impact is required.

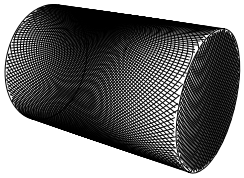
Working principle

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. Complete portable systems can comprise a four-wheel carriage and hose winch. As standard documentation, the Toftejorg TZ-67 can be supplied with a “Declaration of Conformity” for material specifications.

Materials

1.4404 (316L), PTFE, PVDF, PEEK, ETFE, TFM

Technical Data

Standard Surface finish:	Ra0,5µm exterior
Weight:	6 kg (13 lbs)
Lubricant:	Self-lubricating with the cleaning fluid
Working pressure:	3 - 12 bar (44 - 174 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:	7 - 17 m (23 - 56 ft)
Impact throw length:	4 - 10 m (13 - 33 ft)
Standard thread:	1 1/2” Rp (BSP) or NPT, male

* Does not apply for 4 x ø7 mm (0.16 x ø0.28 inch) 100%

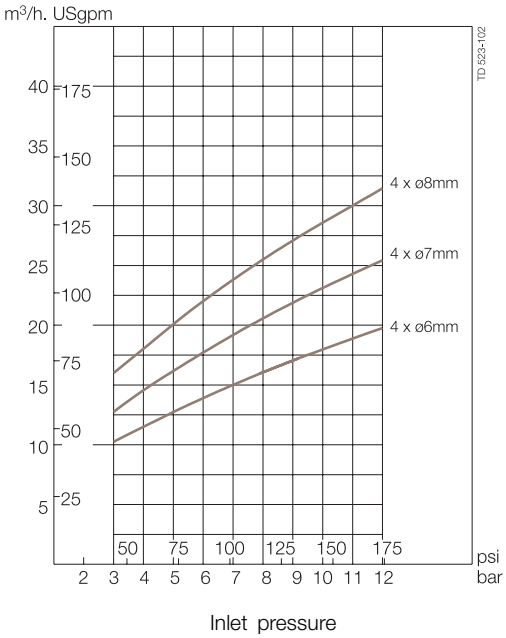
Certificate:

2.1

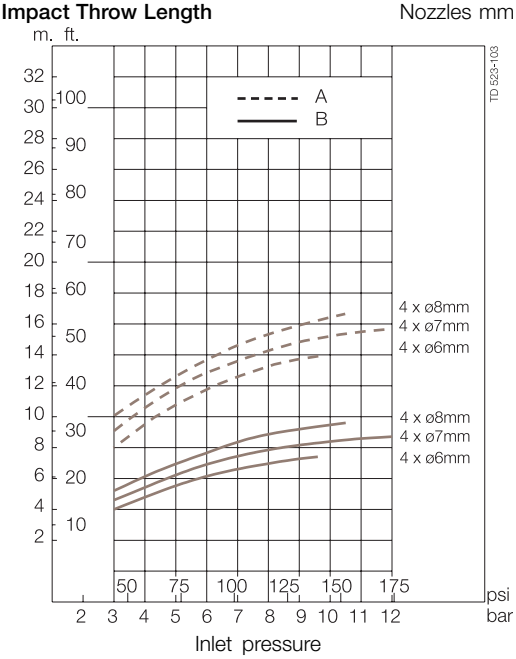
Caution

Do not use for gas evacuation or air dispersion.

Flow Rate Nozzles mm

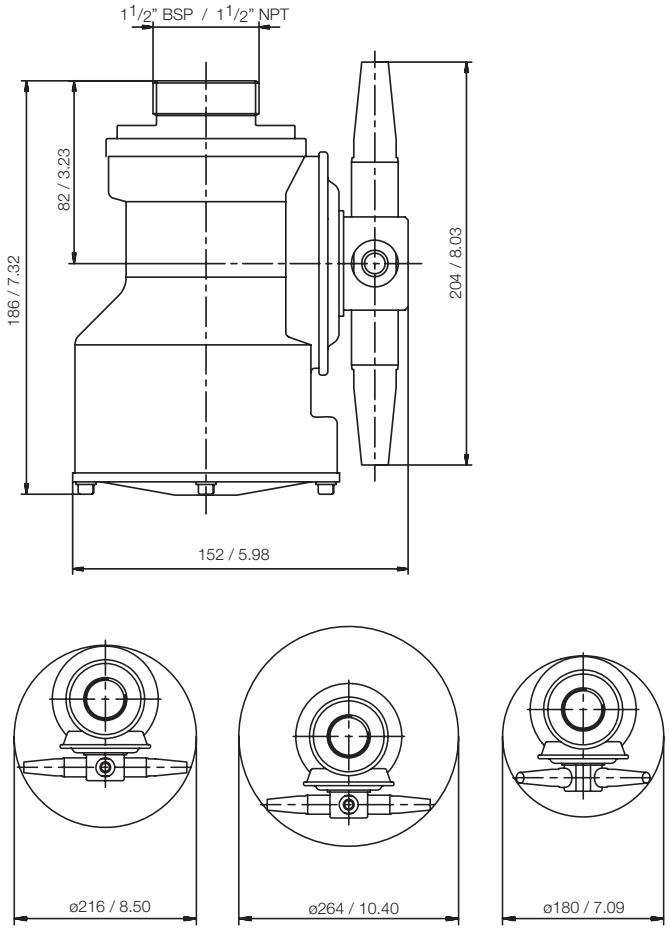


Impact Throw Length Nozzles mm



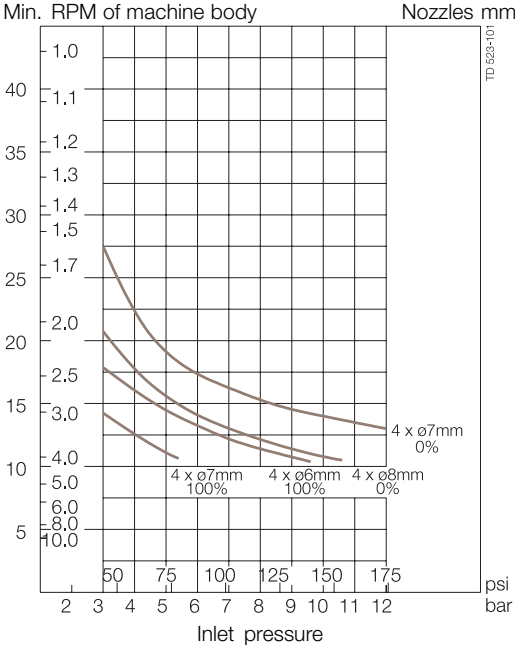
A: Wetting - B: Impact cleaning

Dimensions (mm / inch)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm



Ordering

Please specify nozzle size, inlet/guide configuration and connections and confirm application suitability

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

Options

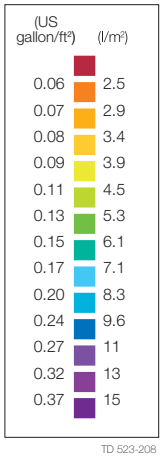
- Electronic rotation sensor to verify 3D coverage
- Hose saddle, deck cover plate, hose winch, hose, etc. are available.

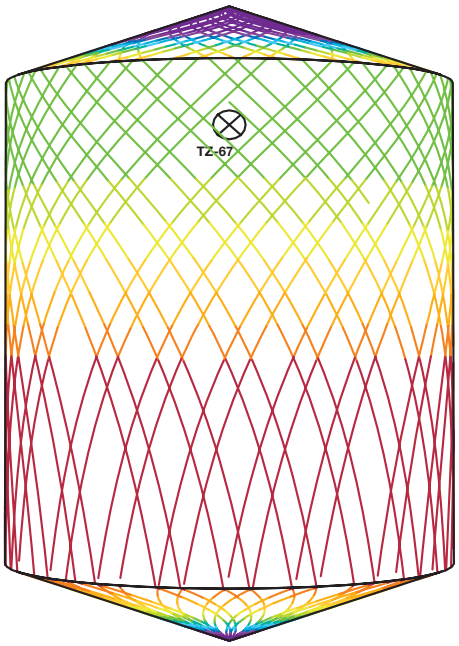
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-67 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





D2.5m H6m, Toftejorg TZ-67, 4 x ø6 mm Time = 3.5 min., Water consumption = 727 l (192 gallon)

D2.5m H6m, Toftejorg TZ-67, 4 x ø6 mm Time = 14.7 min., Water consumption = 3097 l (818 gallon)

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The information contained herein is correct at the time of issue,
but may be subject to change without prior notice.

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.