

Award-Winning Design for Ultra Hygiene

Toftejorg TJ 20G Rotary Jet Head

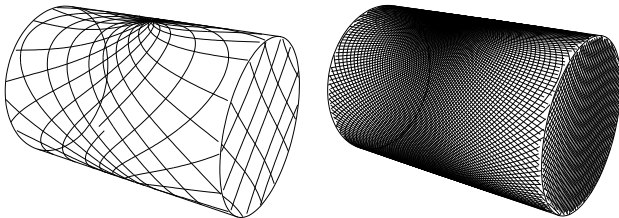
Application

The Toftejorg TJ 20G rotary jet head provides 360° indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in breweries, food and dairy processes and many other industries, the device is suitable for processing, storage and transportation tanks and vessels between 15 and 150 m³ (4,000 to 40,000 US gallons). The award-winning design is particularly suitable for ultra-hygienic industries that follow European Hygienic Equipment Design Group guidelines. The Toftejorg TJ 20G meets the requirements of the ATEX directive 94/9/EF, EEX group II, category 1 GD, zone 0, C T140° C.

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 TJ 20G 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. The Toftejorg TJ 20G is tested according to the EHEDG test procedure. As standard documentation, it can be supplied with a "Declaration of Conformity" for material specifications.



Materials

1.4404 (316L), SAF 2205 (UNS 31803), EPDM, PEEK, PVDF, PFA

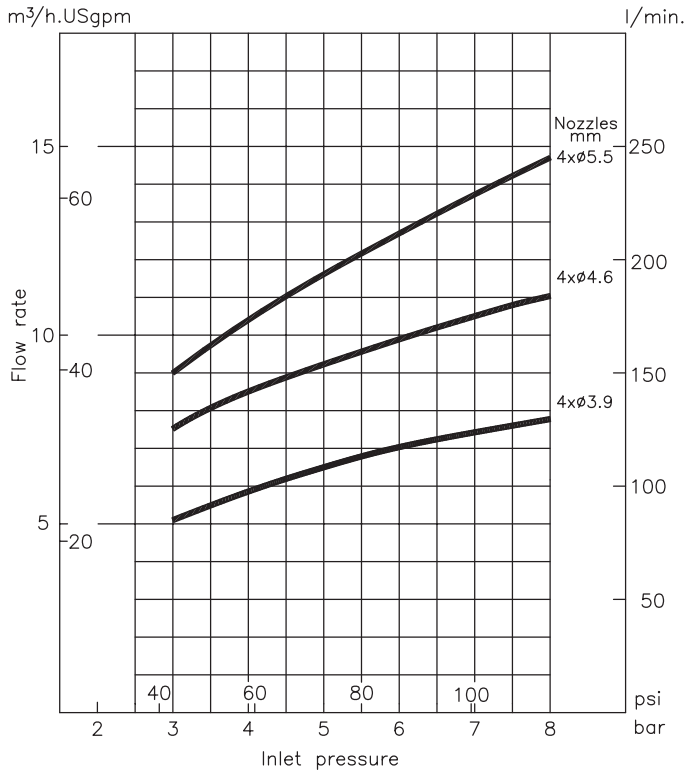
Technical Data

Surface finish:	External surface finish: Ra = 0.5 µm
Weight:	5.1 kg (11 lbs)
Lubricant:	Self-lubricating with the cleaning fluid
Working pressure:3 - 8 bar (45 - 115 psi)
Recommended pressure:4 - 7 bar (58 - 100 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 thread:1" BSP or NPT, female Top cone 1" BSP with sanitary seal

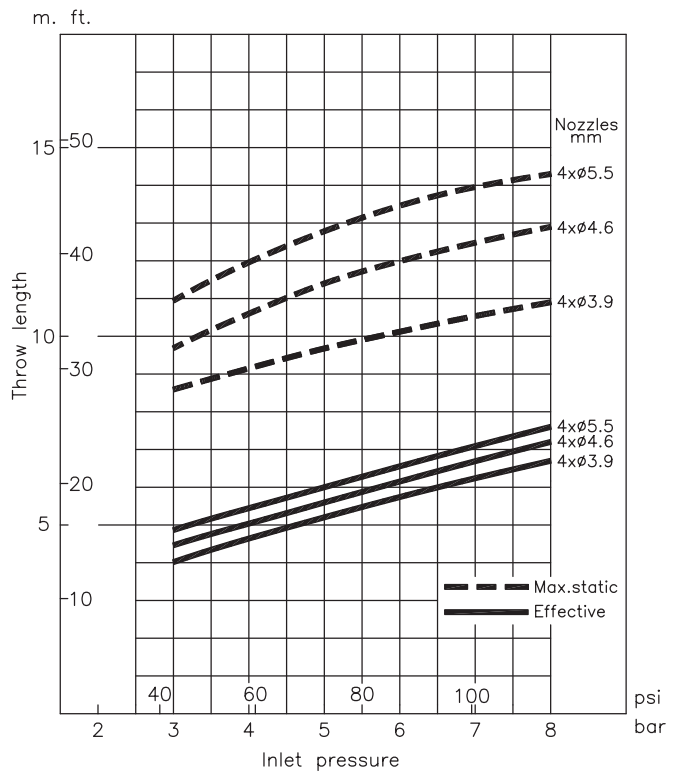
Caution

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.

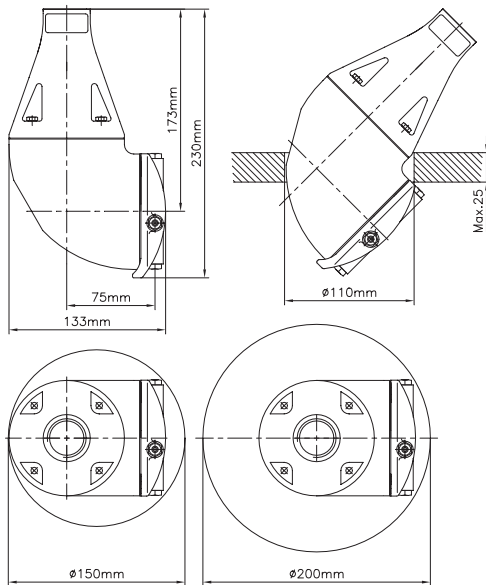
Flow Rate



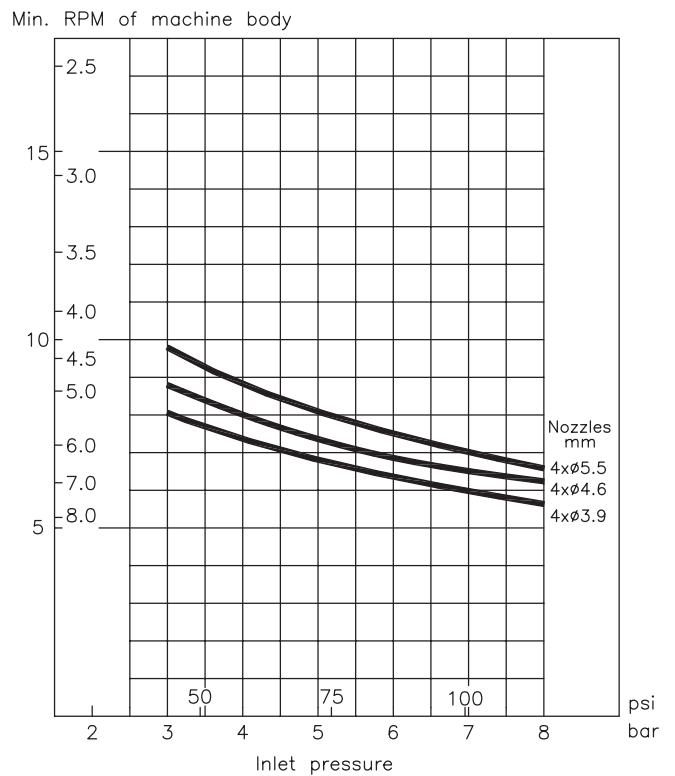
Impact Throw Length



Dimensions (mm)



Cleaning Time, Complete Pattern



Ordering

Please specify nozzle size and required connections and confirm application suitability

Options

- A. Electronic rotation sensor to verify 360° coverage
- B. Downpipes
- C. Retractable system

TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TJ 20G 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 (l/m²)

