

Meets the Highest Standards in Sanitary Cleaning

Toftejorg SaniJet 20 Rotary Jet Head

Application

The Toftejorg SaniJet 20 is a sanitary, rotary jet head device that cleans in a 360° indexed pattern. Designed for permanent installation, the device is completely self-cleaning and self-draining and has an integrated self-cleaning downpipe (patent pending). The drive mechanism is located outside the tank or process equipment, leaving a minimum of parts to be submerged into the product. All product contact surfaces are either 1.4404 (316L) stainless steel or FDA-approved polymer materials.

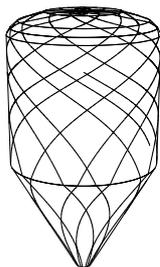
The device is designed for use in pharmaceutical, biotechnological, food and dairy processing applications and is suitable for tanks and vessels between 0.5 and 30 m³ (130 to 8,000 US gallons). It is especially well-suited to processing highly viscous, foaming or thixotropic products and to chemical processing applications where product cross-contamination is unacceptable.

Working Principle

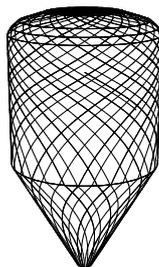
The Toftejorg SaniJet 20 utilises the patented “Golden Section” cleaning pattern (see back page). The distance between the tracks of the jets ensures efficient removal of residual product from the tank surface from the start of the cleaning sequence, allowing for quick, yet effective cleaning.

Cleaning Pattern

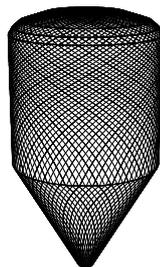
Example - 2 nozzle machine



0.8 min.



2.3 min.



6.0 min.



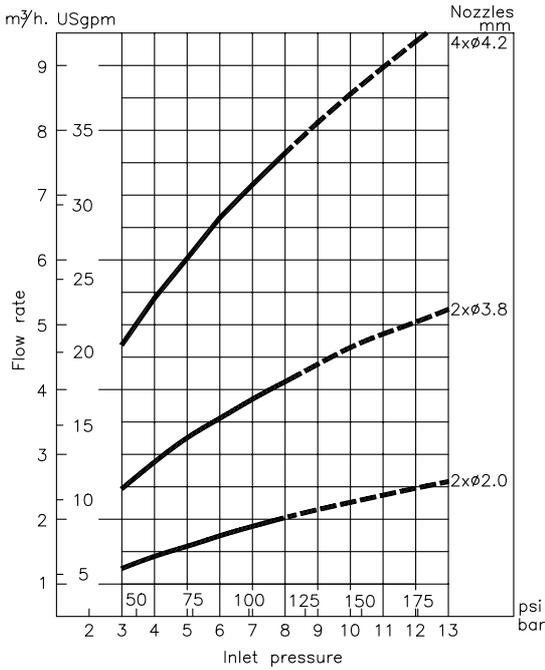
Standard Design

The Toftejorg SaniJet 20 is available in media-driven or motor-driven versions (electrical/air). Motor-driven versions are equipped with a magnetic clutch for leakage-proof transmission. The air motor provides an effective drive for low flow machines in rough environments and for use in explosive hazard zones, provided it is installed according to safety instructions. The air motor has variable speed adjustment. The device is designed in accordance with the EHEDG design requirements for sanitary design of processing equipment. As standard documentation, it can be supplied with a “Declaration of Conformity” for material specifications.

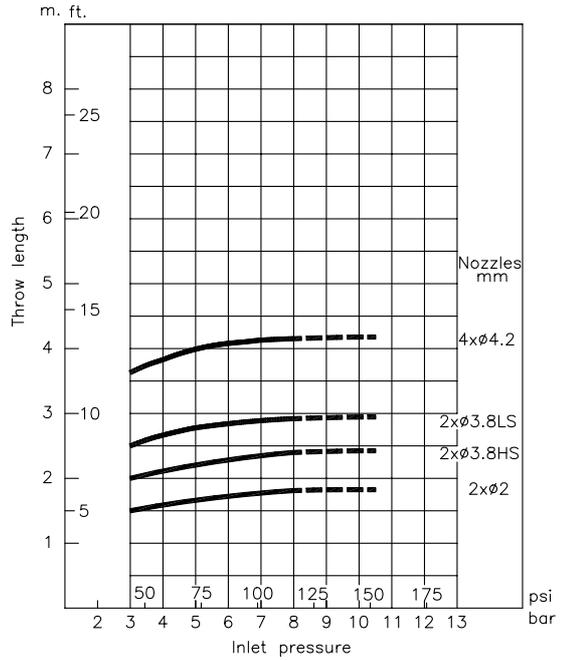
Materials

1.4404 (316L), PEEK, E-CFTE
 Sealing: EPDM
 Polymers FDA-approved 21 CFR §177

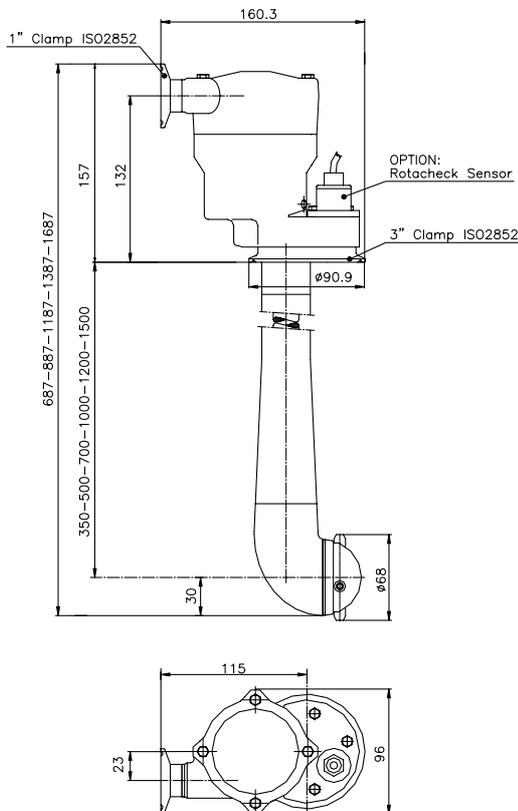
Flow Rate



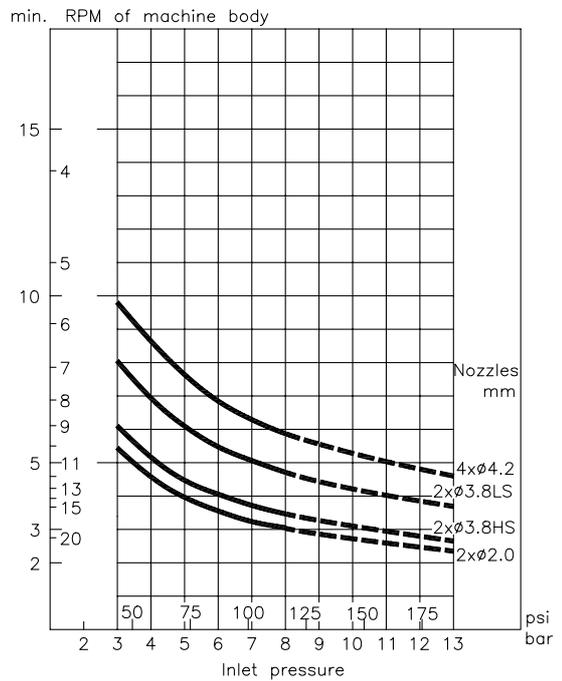
Impact Throw Length, Media Driven



Dimensions (mm), Media Driven

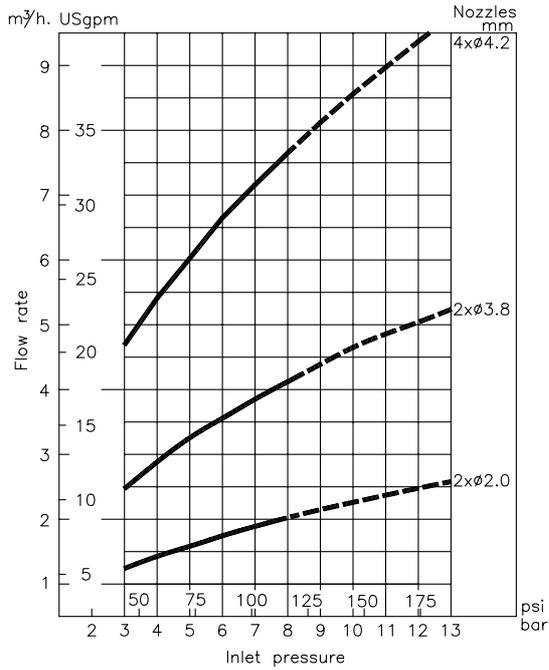


Cleaning Time, Complete Pattern, Media driven

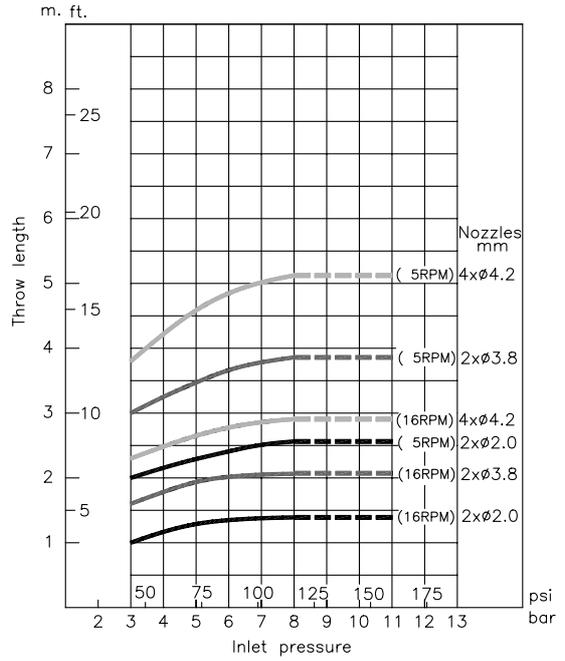


4.2

Flow rate

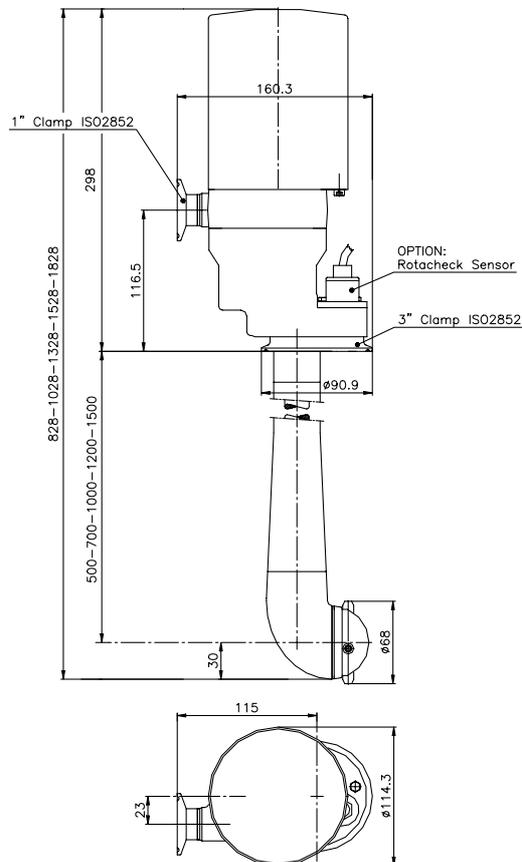


Impact Throw Length, Motor Driven



Depending on rotation speed

Dimensions (mm), Motor Driven



Air driven

- Air supply pressure: 7 bar
- Air quality: Clean, filtered max. 40 µm
Dry, dew point max. 5 °C
Non-lubricated possible
- Free air consumption: Max. 2 l/sec. (8 m³/h)
- Adjustable speed: 5 - 16 RPM
- Cleaning time: 3 - 10 min

Electrical driven

- Supply: 1 phase 220 - 230 V, 15 W
1 phase 220 V, 15 W
1 phase 110 - 115 V, 15 W
1 phase 100 V, 15 W
- Cleaning time/speed (at frequency 50 Hz):
2 x Ø2.0 mm: 4 min/14 RPM
2 x Ø3.8 mm: 4 min/14 RPM
2 x Ø3.8 mm: 8,5 min/6.5 RPM
2 x Ø4.2 mm: 8.5 min/6.5 RPM

Technical Data

Surface finish:	Product contact surfaces: Ra = 0.8 µm
Weight:	Media-driven machine 9.5 kg (21 lbs)
	Electrical-driven machine 11.8 kg (26 lbs)
	Air-driven machine 11.7 kg (26 lbs)
Lubricant:	Machine: Self-lubricating with the cleaning fluid
	Air motor: Can operate non-lubricated
Working pressure:	3 - 13 bar (45 - 185 psi)
Recommended pressure:	3 - 8 bar (45 - 115 psi)
Max. working temperature:	90 °C (194 °F)
Max. ambient temperature:	140 °C (284 °F)
Impact throw length:	1.5 - 4 m (5 - 13 ft)
Inlet connection:	Clamp: 1" ISO 2852
Min. tank opening:	3" clamp (ø73 mm/2.87")
Tank connection:	Clamp: 3" ISO 2852

Caution

Avoid hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, it is recommended to place a filter in the supply line.

Ordering

Please specify number of nozzles, required connections and confirm application suitability

Options

- Electronic rotation sensor to verify 360° coverage
- Improved surface finish
- 3.1.B certification for metallic parts by request

Cleaning Pattern, the Golden Section

Toftejorg SaniJet 20 operates according to the patented Golden Section cleaning pattern (EP-Patent No.: 0495883, US-Patent No.: 5,279,675), which is unique in building up a uniform pattern. The pattern starts very coarse and refines itself in a step-less way by laying out the tracks approximately in the middle of the two most distant tracks already made. This means that the jets always clean the areas containing the most remaining product, and thereby remove as much deposit as possible in the shortest possible time. In some instances, this method of cleaning can even render a complete cleaning pattern unnecessary.

The Golden Section is the most suitable cleaning pattern for an effective pre-rinse.

Golden Section Cleaning Pattern Traditional Cleaning Pattern

