Sanitary, Low-Flow Cleaning

Toftejorg SaniMagnum Rotary Spray Head

ESE00332EN 0901

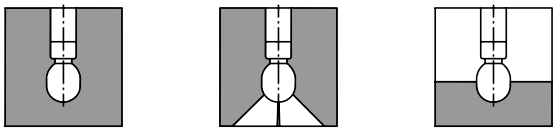
Application

The Toftejorg SaniMagnum is an efficient replacement for traditional static spray balls as it uses low volumes of liquid at low pressure. The device, particularly well-suited to sanitary applications, can be used in tanks ranging from 5 m^3 to 50 m^3 (1,300 to 13,000 US gallons).

Working principle

The flow of the cleaning media causes the head of the Toftejorg SaniMagnum to rotate, with fan jets laying out a swirling pattern throughout the vessel. This generates a vibrating impact and cascading flow that covers all internal surfaces of the tank or reactor. The device's self-cleaning feature is achieved by directing the cleaning media through the rotating bearing track and onto the neck of the elongated head.

Spray Pattern



360° and 360° LF | 270° and 270° up LF | 180° down

Standard Design

As standard documentation, the Toftejorg SaniMagnum can be supplied with a "Declaration of Conformity" for material specifications or 3.1.B certification for metallic parts. Conformity of Declaration ATEX directive 94/9/EC available on request. The device is available in hastelloy C22 (balls in hastelloy C276) with 3.1.B certification for metallic parts.
ATEX approved, Category 1 for installation in zone 0/20

Qualification Documentation (Q-doc.)

In addition to the standard Declaration of Conformity per ISO 10474/2.2 (EN 10204/2.2), as optional we can offer a Pharma Qualification Documentation Package in accordance to ASME BPE 2007 consisting of:

1. Requirement Specification
2. Design Specification incl. Traceability Matrix
3. FAT, Factory Acceptance Test incl. QC Documentation, IQ & OQ
4. Declaration of Conformity per ISO 10474/3.1B (EN 10204/3.1)
5. FDA Declaration of Conformity per 21 CFR Part 177
6. Installation -, Operation - & Maintenance Manual
7. SAT, Site Acceptance Test Protocols incl. IQ & OQ for End-Users Execution

Technical Data

Weight:	Thread and clip-on: 0.76 kg (1.48 lbs) On pipe: 0.97/1.52 kg (2.14/3.35 lbs)
Lubricant:	Self-lubricating with the cleaning fluid
Working pressure:	1 - 3 bar (14.5 - 44 psi)
Recommended pressure:	2 bar (29 psi)
Max. working temperature:	95 °C (203 °F)
Max. ambient temperature:	140 °C (284 °F)
Wetting radius:	Max. 3 m (10 ft)
Impact cleaning radius:	Max. effective 2 m (6 ft)
Connection:	1 1/4" / 1½" Rp (BSP) or NPT thread. Clip-on or weld-on for pipe: ISO 2037, ASTM A270, BS4825 part 1, DIN11850 R1, DIN11850 R2, ASME BPE US & Schedule 40 pipe
Standard Surface finish:	Ra0.8µm (32µ inch) exterior / Ra0.8µm (32µ inch) internal
Improved Surface finish:	Ra0.5µm (20µ inch) exterior / Ra0.5µm (32µ inch) internal + Electropolished

Ordering

Please specify desired spray pattern, required connections, material selection and type of certification required. Please also confirm the application suitable.

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

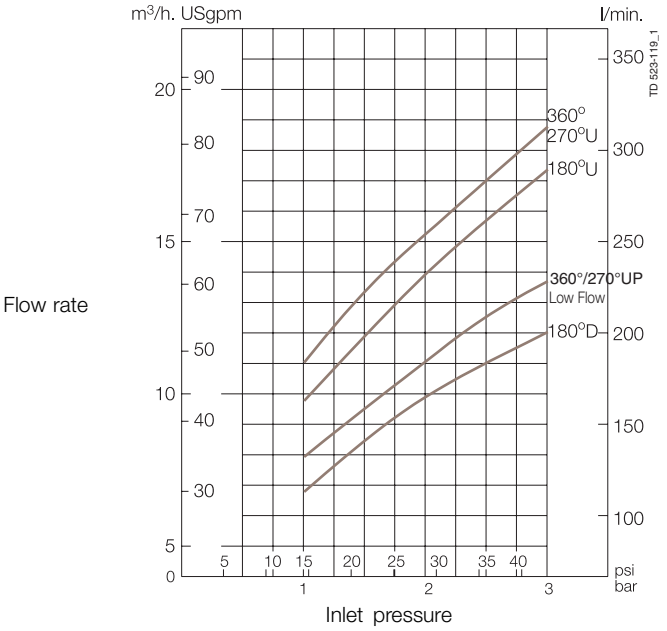
Materials

Inlet connections: 1.4404 (316L)
Bearing race parts: . . . . . .UNS S31803
Balls: . . . . . .1.4404 (316L)/PTFE*
Head: 1.4404 (316L)
* FDA compliance 21CFR§177

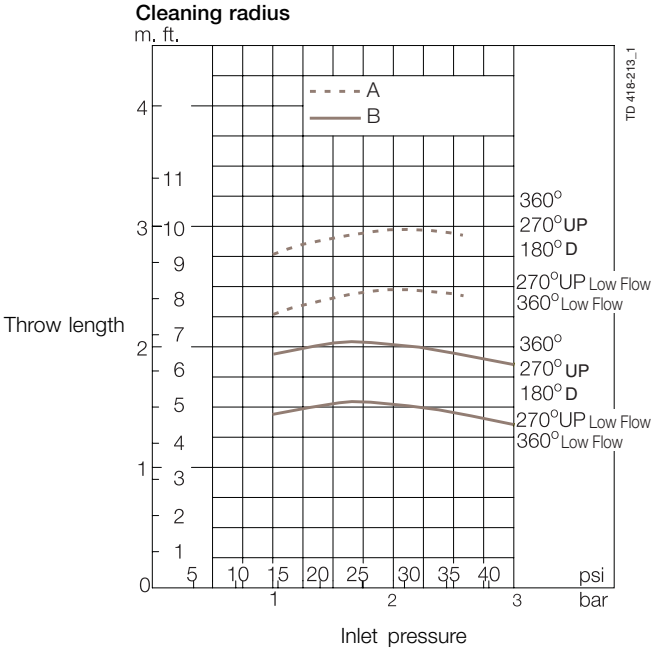
Certificate:

2.2 - 3.1.B - ATEX

Flow Rate



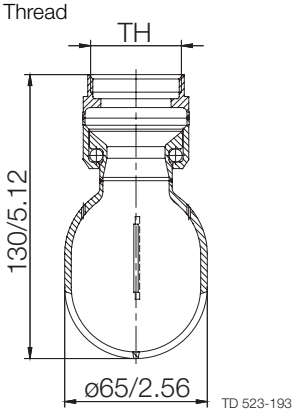
Cleaning radius



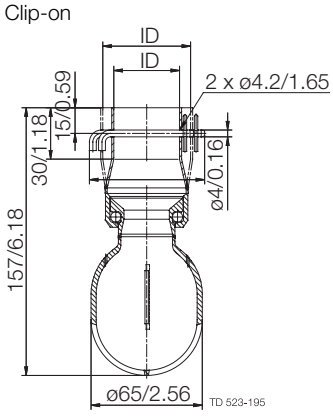
A: Wetting - B: Impact cleaning

Dimensions (mm / inch)

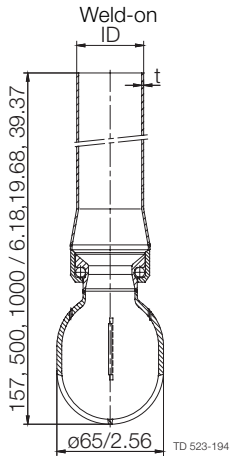
Thread



Clip-on



Weld-on



TH
1 1/4" BSP
1 1/4" NPT
1½" BSP
1½" NPT

ID	
1½"	ø38.4 mm
2"	ø51.3 mm
DIN Range 1	ø40.4 mm
DIN Range 2	ø41.4 mm

OD x t	
ISO	ø38 x 1.2 mm
BPE US	ø38.1 x 1.65 mm (ø1.5 x 0.065 inch)
BPE US	ø50.8 x 1.65 mm (ø2 x 0.065 inch)
DIN Range 1	ø40 x 1 mm
DIN Range 2	ø41 x 1.5 mm

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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.