

# Sanitary, Low-Flow Cleaning

## Alfa Laval TJ SaniMagnum Rotary Spray Head

**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<sup>3</sup> to 50 m<sup>3</sup>.

**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.



**TECHNICAL DATA**

Lubricant: . . . . . Self-lubricating with the cleaning fluid

Wetting radius: . . . . . Max. 3 m

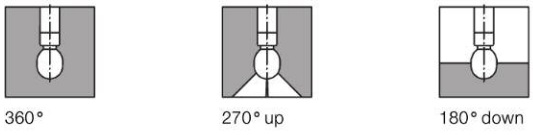
Impact cleaning radius: . . . . . Max. effective 2 m

**Pressure**

Working pressure: . . . . . 1-3 bar

Recommended pressure: . . . . . 2 bar

**Spray Pattern**



**Standard Design**

As standard documentation, the Toftejorg SaniMagnum can be supplied with a "Declaration of Conformity" for material specifications or 3.1 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 certification for metallic parts. ATEX approved, Category 1 for installation in zone 0/20.

**Certificates**

2.2 material certificate, Q-doc, Q-doc incl. FAT & SAT and ATEX.

**PHYSICAL DATA**

**Materials**

Inlet connections/Head: . . . . . 316L (UNS S31603)

Bearing race parts: . . . . . Duplex steel (UNS S31803)

Balls: . . . . . 316L (UNS S31603) /PTFE\*

Clip parts . . . . . 316

\* FDA compliance 21CFR§177

**Standard Surface finish:**

exterior: . . . . . Ra 0.8µm

internal: . . . . . Ra 0.8µm

**Improved Surface finish:**

exterior + Electro polished: . . . . . Ra 0.5µm

internal + Electro polished: . . . . . Ra 0.5µm

**Temperature**

Max. working temperature: . . . . . 95°C

Max. ambient temperature: . . . . . 140°C

**Weight**

Thread and clip-on: . . . . . 0.76 kg

On pipe: . . . . . 0.97/1.52 kg

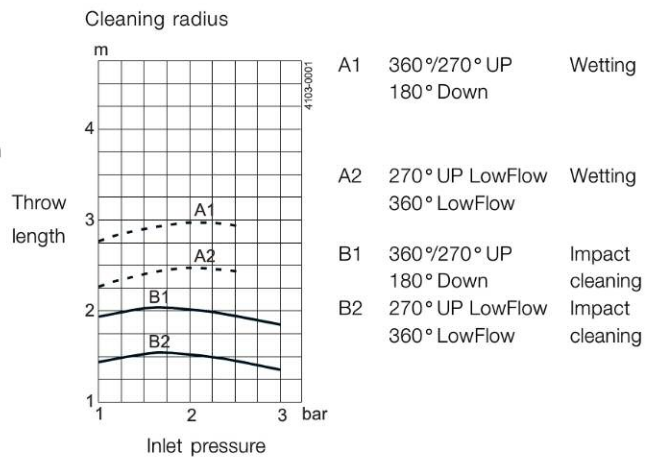
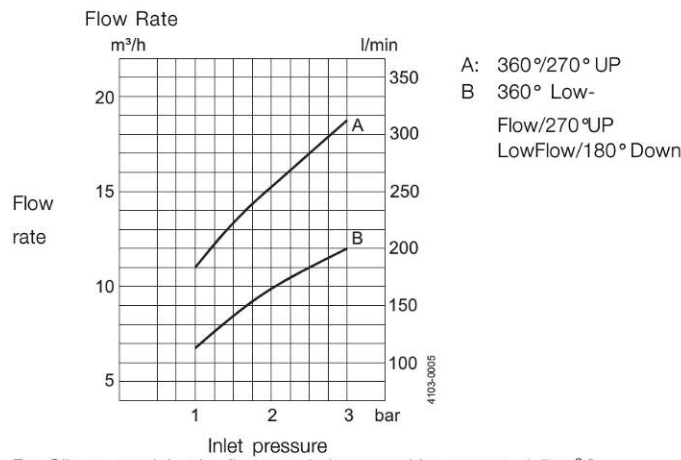
**Connections**

- Thread: 1 1/4" or 1 1/2" Rp (BSP) or NPT
- Weld-on: 1 1/2" or 2" ISO 2037, or DN40 DIN11850-R2, or 1 1/2" or 2" BPE US
- Clip-on: 1 1/2" or 2" ISO 2037, or DN40 DIN11850-R1 or R2, or 1 1/2" or 2" BPE US

Qualification Documentation (Q-doc)

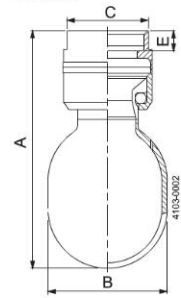
Designed for the BioPharm and Personal Care industry for qualification of hygienic Tank Cleaning Machines. Developed in accordance to the ISPE V-model and GDP, Good Documentation Practice, and includes:

RS (Requirement Specification); DS (Design Specification incl. Traceability Matrix); FAT (Factory Acceptance Test incl. IQ & OQ); 3.1 and USP Class VI Certificates; FDA Declaration of Conformity; TSE Declaration; QC Declaration of Conformity; SAT (Site Acceptance Test Protocol incl. IQ & OQ) for End-User Execution.

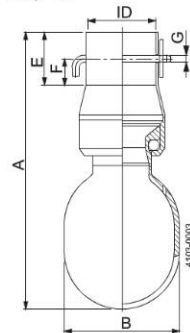


Dimensions (mm)

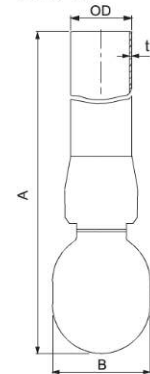
Thread



Clip-on



Weld-on



TH  
1 1/4" (BSP)  
1 1/4" NPT  
1 1/2" (BSP)  
1 1/2" NPT

ID  
ID 1: 1 1/2"      ø38.4 mm  
ID 2: 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  
BPE US            ø50.8 x 1.65 mm  
DIN Range 1      ø40 x 1 mm  
DIN Range 2      ø41 x 1.5 mm

Type	A	B	C	E	F	G
Tread	130	ø65	44	10		
Clip-on	157	ø65		30	15	ø4.2
Weld-on	157, 500, 1000	ø65				

