



# 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.



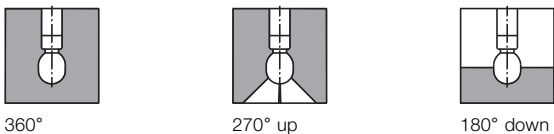
### TECHNICAL DATA

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

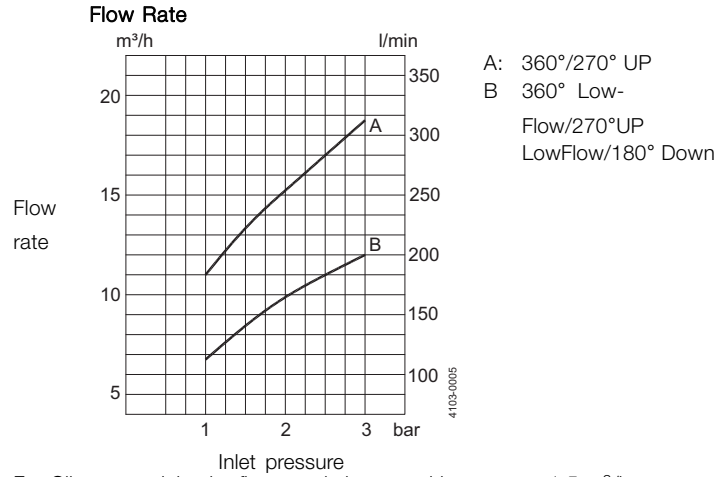
- Thread: 1 1/4" or 1 1/2" Rp (BSP) or NPT
- Weld-on: 1 1/2" or 2" ISO 2037, or DN40 DIN11850-R2, or 1 1/2" or 2" BPE US
- Clip-on: 1 1/2" or 2" ISO 2037, or DN40 DIN11850-R1 or R2, or 1 1/2" or 2" BPE US



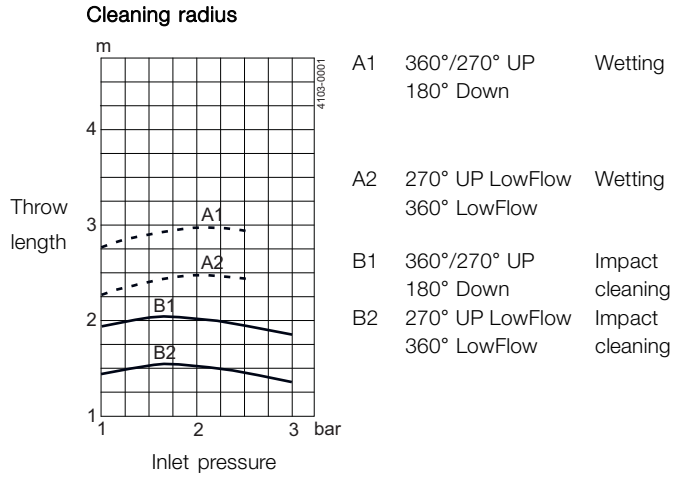
**Qualification Documentation (Q-doc)**

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.

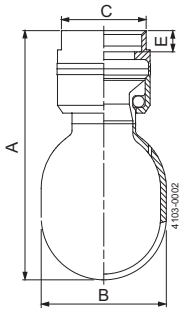


For Clip-on models, the flow rate is increased by approx. 1.5 m<sup>3</sup>/h

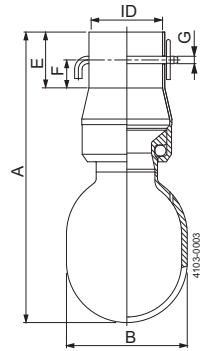


**Dimensions (mm)**

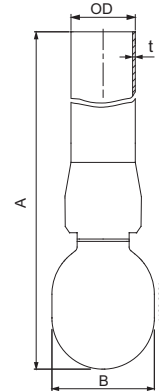
**Thread**



**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"  $\varnothing 38.4$  mm
  - ID 2: 2"  $\varnothing 51.3$  mm
  - DIN Range 1  $\varnothing 40.4$  mm
  - DIN Range 2  $\varnothing 41.4$  mm

- OD x t**
- ISO  $\varnothing 38 \times 1.2$  mm
  - BPE US  $\varnothing 38.1 \times 1.65$  mm
  - BPE US  $\varnothing 50.8 \times 1.65$  mm
  - DIN Range 1  $\varnothing 40 \times 1$  mm
  - DIN Range 2  $\varnothing 41 \times 1.5$  mm

Type	A	B	C	E	F	G
Thread	130	$\varnothing 65$	44	10		
Clip-on	157	$\varnothing 65$		30	15	$\varnothing 4.2$
Weld-on	157, 500, 1000	$\varnothing 65$				

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**How to contact Alfa Laval**

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