



# Sanitary, Low-Flow Cleaning

## Toftejorg 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.



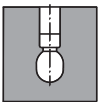
### TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid  
 Wetting radius: . . . . . Max. 3 m  
 Impact cleaning radius: . . . . . Max. effective 2 m

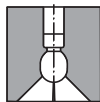
### Pressure

Working pressure: . . . . . 1-3 bar  
 Recommended pressure: . . . . . 2 bar

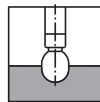
### Spray Pattern



360°/360° Low Flow



270° up/270°  
up Low Flow



180° down

### 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: . . . . . 316L (UNS S31603)  
 Bearing race parts: . . . . . Duplex steel (UNS N31803)  
 Balls: . . . . . 316L (UNS S31603) /PTFE\*  
 Head: . . . . . 316L (UNS S31603)

\* FDA compliance 21CFR§177

Standard Surface finish: . . . . . Ra 0.8µm exterior / Ra 0.8µm internal

Improved Surface finish: . . . . . Ra 0.5µm exterior / Ra 0.5µm internal + Electro polished

#### 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

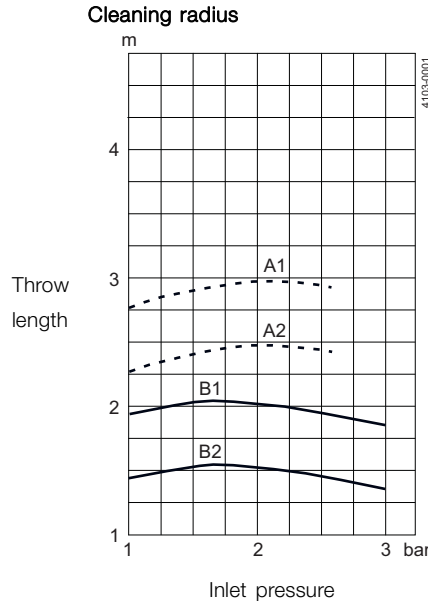
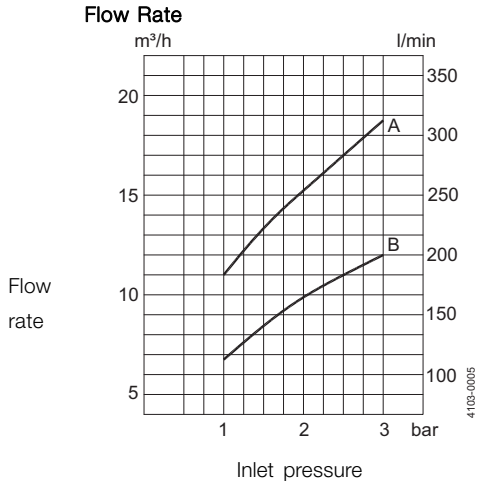
- Thread: 1 1/4" or 1 1/2" of Rp (BSP) or NPT
- Weld-on: 1 1/2" or 2" of ISO 2037, or DN40 DIN 11850-R2, or 1 1/2" or 2" of BPE US
- Clip-on: 1 1/2" or 2" of ISO 2037, or DN40 DIN 11850-R1 or R2, or 1 1/2" or 2" of BPE US



**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:

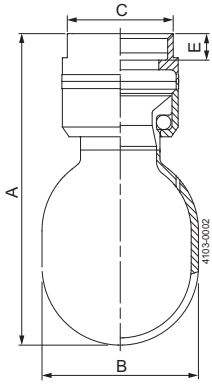
RS (Requirement Specification); DS (Design Specification incl. Traceability Matrix); FAT (Factory Acceptance Test incl. IQ & OQ); 3.1 and USP Class VI Certificates; FDA Declaration of Conformity; TSE Declaration; QC Declaration of Conformity; SAT (Site Acceptance Test Protocol incl. IQ & OQ) for End-User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



- A: 360°/270° UP
  - B: 360° LowFlow/270°UP  
LowFlow/180° Down
  - A1: 360°/270° UP      Wetting  
180° Down
  - A2: 270° UP LowFlow      Wetting  
360° LowFlow
  - B1: 360°/270° UP      Impact  
180° Down                  cleaning
  - B2: 270° UP LowFlow      Impact  
360° LowFlow              cleaning
- For Clip-on models, the flow rate is increased by approx. 1.5 m³/h

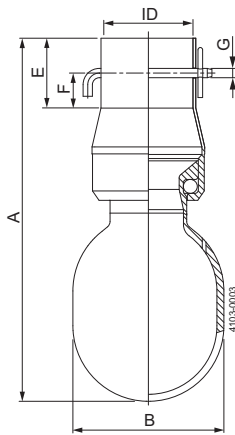
**Dimensions (mm)**

**Thread**



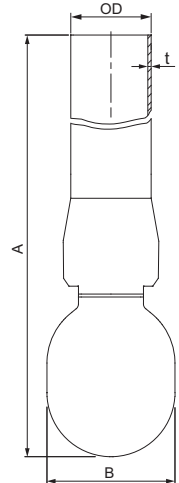
- TH**
- 1 1/4" (BSP)
  - 1 1/4" NPT
  - 1 1/2" (BSP)
  - 1 1/2" NPT

**Clip-on**



- 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

**Weld-on**



- 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
Weld-on	157, 500, 1000	ø65				

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

ESE00332EN 1201

© Alfa Laval

---

**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.