



Sanitary, Low-Flow Cleaning

Toftejorg SaniMidget Rotary Spray Head

Application

The Toftejorg SaniMidget 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 0.1 to 10 m³.

Working principle

The flow of the cleaning media causes the head of the Toftejorg SaniMidget 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.

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.

TECHNICAL DATA

Lubricant: Self-lubricating with the cleaning fluid
 Wetting radius: Max. 3 m
 Impact cleaning radius: Max. effective 1.4 m

Pressure

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

Spray Pattern



360°



270° up



180° down

Standard Design

As standard documentation, the Toftejorg SaniMidget can be supplied with a "Declaration of Conformity" for material specifications or 3.1 certification for metallic parts. The device is available in an electro-polished version as well as in hastelloy C22 (balls in hastelloy C276) with 3.1 certification for metallic parts.

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 N31803)
 Balls: 316L (UNS S31603) /PTFE*
 * FDA compliance 21CFR§177

Standard Surface finish:

exterior: Ra 0.5µm
 internal: Ra 0.8µm

Improved Surface finish:

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

Temperature

Max. working temperature: . . . 95 °C
 Max. ambient temperature: . . . 140 °C

Weight

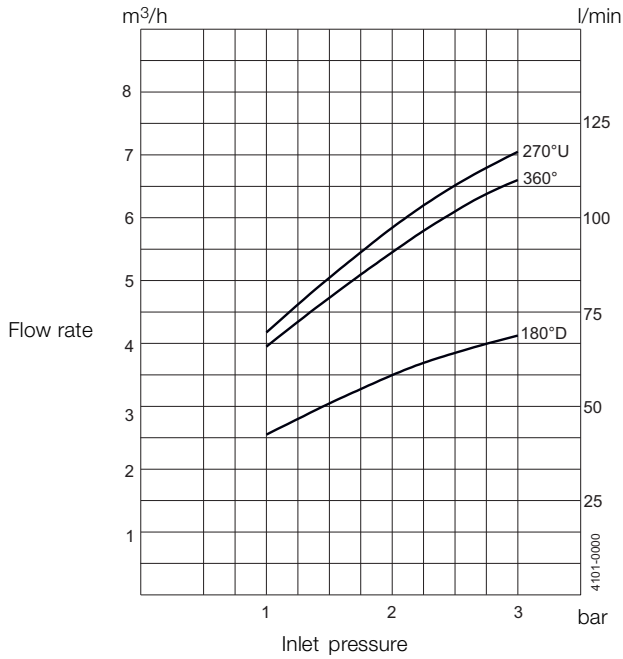
Thread and clip-on: 0.30 kg
 On pipe: 0.55/0.90 kg

Connections

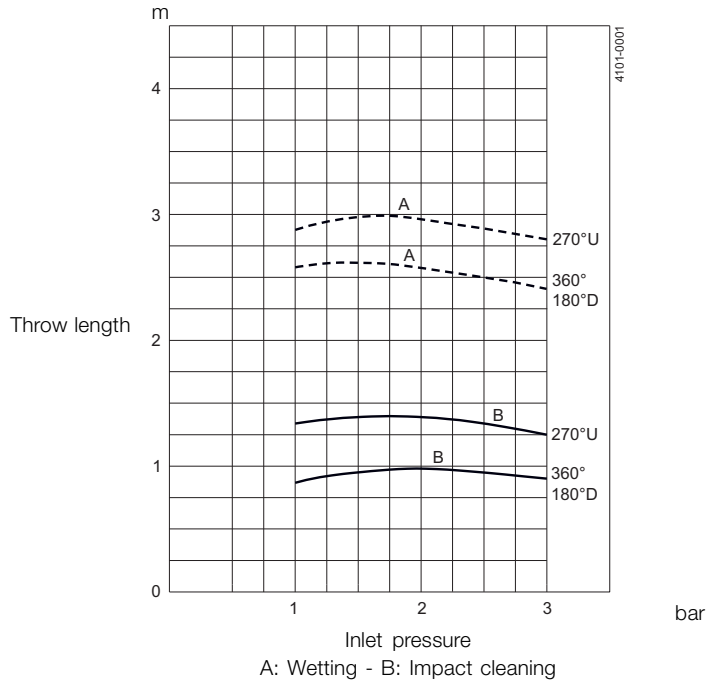
- Thread: 3/4" Rp (BSP), or 3/4" or 1/2" NPT
- Weld-on: 1" ISO 2037, or DN25 DIN11850-R2, or 1" BPE US
- Clip-on: 1" ISO 2037, or DN25 DIN11850-R1 or R2, or 1" BPE US



Flow Rate



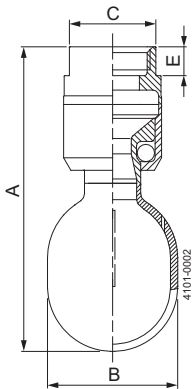
Cleaning Radius



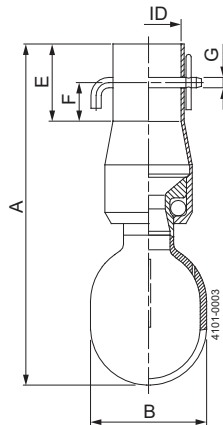
For clip-on models, the flow rate is increased by approx. 0.5 m³/h.

Dimensions (mm)

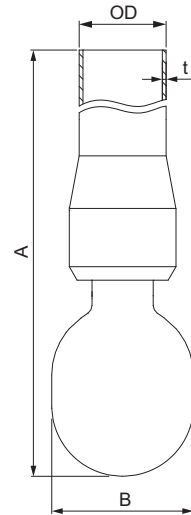
Thread



Clip-on



Weld-on



TH

3/4"Rp (BSP)
3/4" NPT

ID

ISO: $\varnothing 25.3$ mm
BPE US: $\varnothing 25.7$ mm
DIN Range 1: $\varnothing 28.3$ mm
DIN Range 2: $\varnothing 29.3$ mm

OD x t

ISO: $\varnothing 25 \times 1.2$ mm
BPE US: $\varnothing 25.4 \times 1.65$ mm
DIN Range 1: $\varnothing 28 \times 1$ mm
DIN Range 2: $\varnothing 29 \times 1.5$ mm

| Type | A | B | C | E | F | G |
|---------|------------------|------------------|----|----|----|-----------------|
| Thread | 102 | $\varnothing 45$ | 30 | 10 | | |
| Clip-on | 133.5 | $\varnothing 45$ | | 30 | 15 | $\varnothing 4$ |
| Weld-on | 120.5, 500, 1000 | $\varnothing 45$ | | | | |

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