



# Sanitary, Low-Flow Cleaning

## Alfa Laval TJ 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 27 to 2,700 US gallons.

### 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.



### TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid  
Wetting radius: . . . . . Max. 10 ft  
Impact cleaning radius: . . . . . Max. effective 4 ft

### Pressure

Working pressure: . . . . . 14.5 - 44 PSI  
Recommended pressure: . . . . . 29 PSI

### 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

AISI 316L (UNS S31603). PTFE\*

\* FDA compliance 21CFR§177.

Clip parts . . . . . 316

#### Standard Surface finish:

exterior: . . . . . Ra 20µin

internal: . . . . . Ra 32µin

#### Improved Surface finish:

exterior + Electro polished: . . . Ra 20µin

internal + Electro polished: . . . Ra 20µin

#### Temperature

Max. working temperature: . . . 203 °F

Max. ambient temperature: . . . 284 °F

#### Weight

Thread and clip-on: . . . . . 0.66 lbs.

On pipe: . . . . . 1.21/1.98 lbs

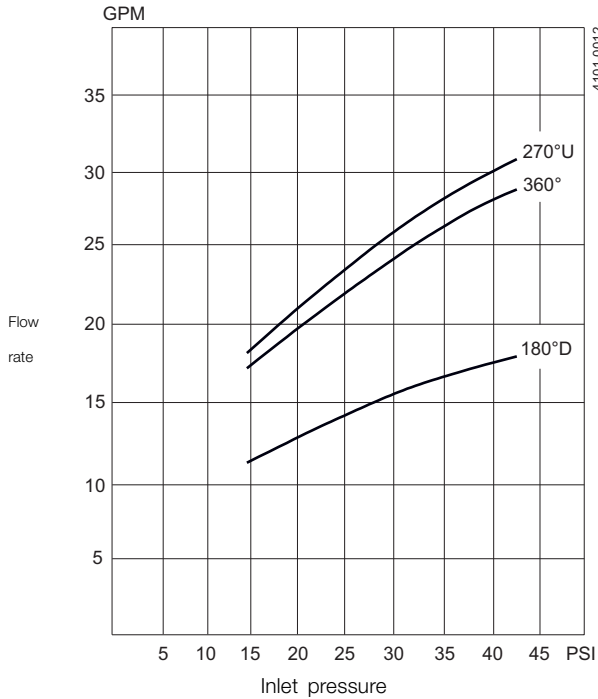
#### Connections

- Thread: 3/4" Rp (BSP), or 3/4" or 1/2" NPT

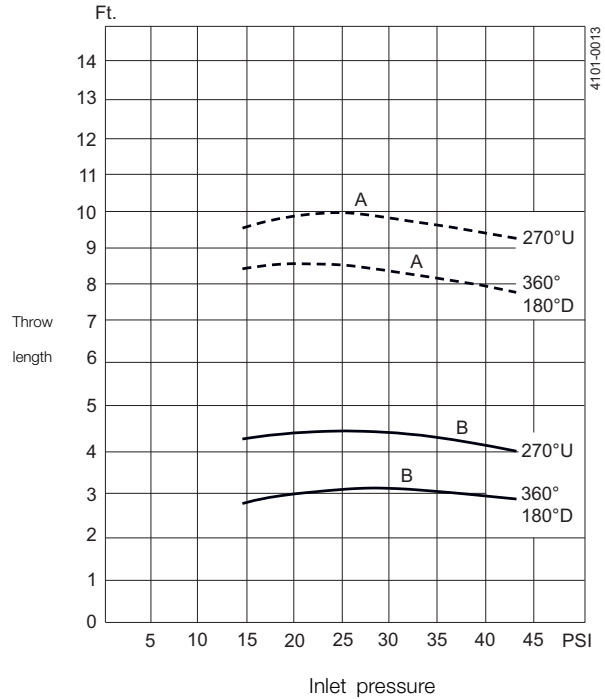
- Weld-on: 1" ISO 2037, or DN25 DIN11850-R2, or 1" BPE US

- Clip-on: 1" ISO 2037, or DN25 DIN11850-R1 or R2, or 1" BPE US

### Flow Rate



### Cleaning Radius

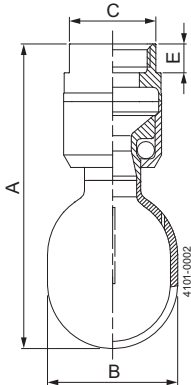


A: Wetting - B: Impact cleaning

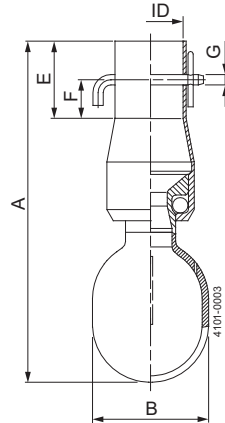
For clip-on models, the flow rate is increased by approx. 0.65 yard<sup>3</sup>/h.

### Dimensions (inch)

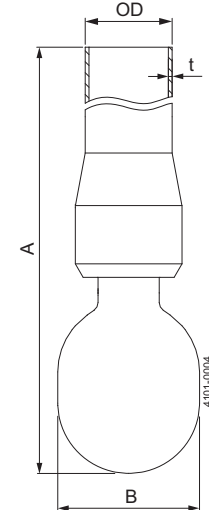
#### Thread



#### Clip-on



#### Weld-on



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

**ID**  
ISO:  $\varnothing$ 0.10 inch  
BPE US:  $\varnothing$ 1.01 inch  
DIN Range 1:  $\varnothing$ 1.11 inch  
DIN Range 2:  $\varnothing$ 1.15 inch

**OD x t**  
ISO:  $\varnothing$ 0.98 x 0.047 inch  
BPE US:  $\varnothing$ 1 x 0.065 inch  
DIN Range 1:  $\varnothing$ 1.10 x 0.039 inch  
DIN Range 2:  $\varnothing$ 1.14 x 0.059 inch

Type	A	B	C	E	F	G
Thread	4.02	$\varnothing$ 1.77	1.18	0.39		
Clip-on	5.26	$\varnothing$ 1.77			0.59	$\varnothing$ 0.16
Weld-on	4.74 / 19.68 / 39.37	$\varnothing$ 1.77				



**Qualification Documentation (Q-doc)**

Designed for the BioPharm and Personal Care industry for qualification of hygienic Tank Cleaning Machines. Developed in according 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.



**CSI**

CONTACT CSI FOR MORE INFORMATION | [CSIDESIGNS.COM](http://CSIDESIGNS.COM) | [SALES@CSIDESIGNS.COM](mailto:SALES@CSIDESIGNS.COM) | 417.831.1411

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CONTACT CSI FOR MORE INFORMATION | [CSIDESIGNS.COM](http://CSIDESIGNS.COM) | [SALES@CSIDESIGNS.COM](mailto:SALES@CSIDESIGNS.COM) | 417.831.1411