



**CSI**

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# Low Flow Saves on Water and Chemicals

## Alfa Laval TJ SaniMicro Rotary Spray Head

### Application

The Toftejorg SaniMicro is a rotary spray head that uses cleaning media to provide coverage and impact. The device represents an effective alternative to traditional static spray balls because it uses low volumes of cleaning fluid at low pressure. The double ball bearing in the Toftejorg SaniMicro's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 0.05 to 1 m<sup>3</sup>, depending on dimensions and cleaning task.

### Working principle

The flow of the cleaning media causes the head of the Toftejorg SaniMicro to rotate, and the fan-shaped jets lay out a swirling pattern throughout the tank or reactor. This generates the impact needed for the efficient removal of residual product; the cascading flow covers all internal surfaces of the vessel.



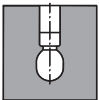
### TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid  
Wetting radius . . . . . Max. 2.5 m  
Impact cleaning radius: . . . . . Max. effective 0.6 m

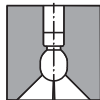
### Pressure

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

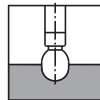
### Spray Pattern



360°



270° up



180° down

### Standard Design

As standard documentation, the Toftejorg SaniMicro can be supplied with a "Declaration of Conformity" for material specifications or 3.1 certification for metallic parts. The device is available in an electropolished 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

Min. tank opening: . . . . . 25 mm diameter (DN25)

#### Standard Surface finish:

exterior: . . . . . Ra 0.5µm

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: . . . . . 75 g

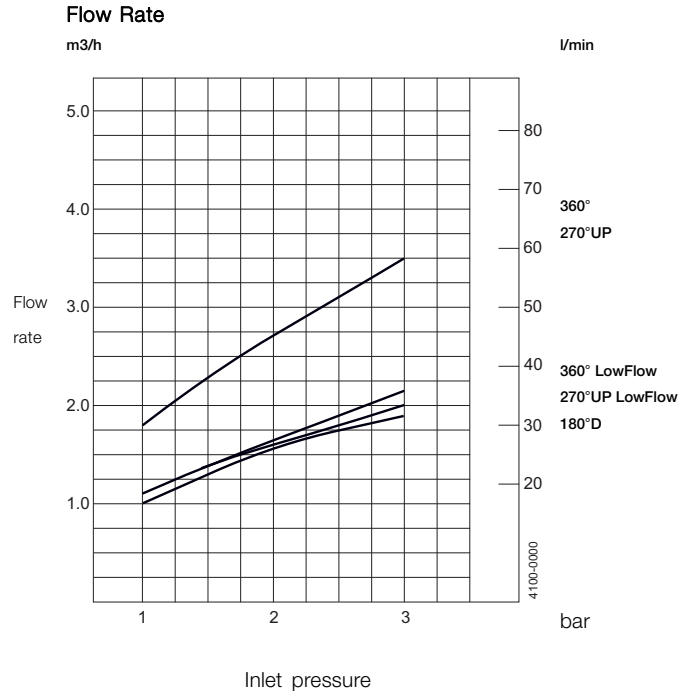
#### Connections

- Thread: 3/8" Rp (BSP), or 3/8" NPT
- Weld-on: 3/4" ISO 2037, or DN15 DIN11850-R1 or R2, or 3/4" BPE US
- Clip-on: 3/4" ISO 2037, or DN15 DIN11850-R1 or R2, or 3/4" BPE US

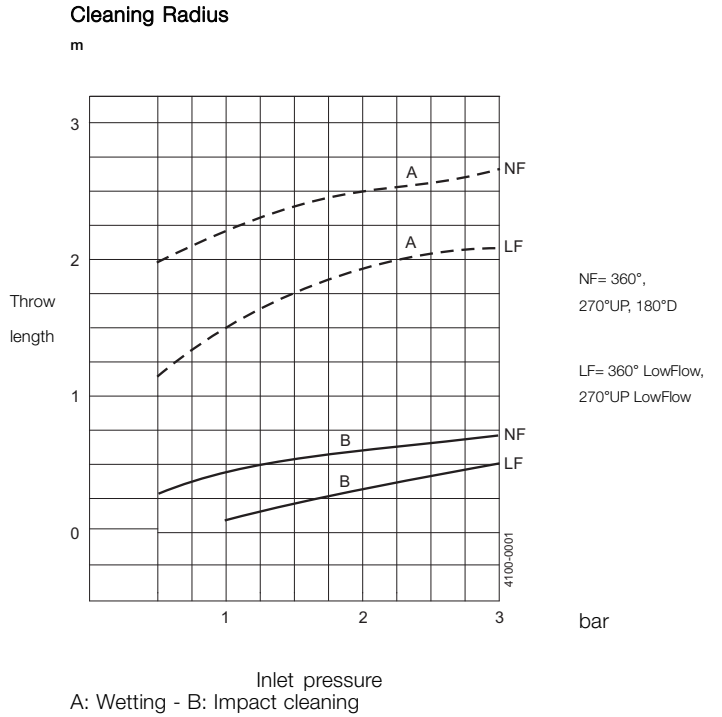


### Qualification Documentation (Q-doc)

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.

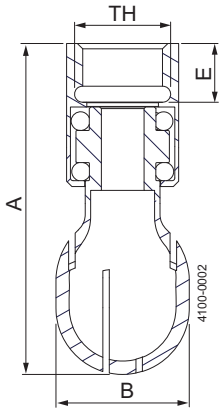


For Clip-on models, the flow rate is increased by approx. 0.2 m<sup>3</sup>/h



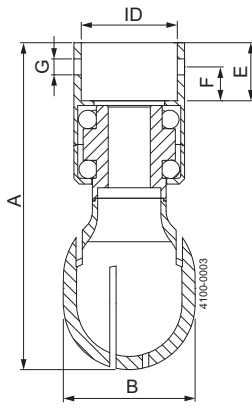
### Dimensions (mm)

#### Thread



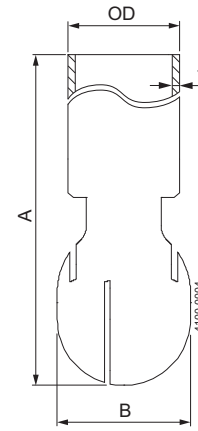
TH  
 3/8" Rp (BSP)  
 3/8" NPT

#### Clip-on



ID  
 ISO:  $\varnothing 17.4$  mm  
 DIN Range 1:  $\varnothing 18.2$  mm  
 BPE US / DIN Range 2:  $\varnothing 19.2$  mm

#### Weld-on



OD x t  
 ISO:  $\varnothing 17.2 \times 1$  mm  
 DIN Range 1:  $\varnothing 18 \times 1$  mm  
 DIN Range 2:  $\varnothing 19 \times 1.5$  mm  
 BPE US:  $\varnothing 19.05 \times \varnothing 1.65$  mm

Type	A	B	E	F	G
Tread	62	$\varnothing 25$	11		
Clip-on	62	$\varnothing 25$	11	5.9	$\varnothing 3.6$
Weld-on	77.500	$\varnothing 25$			

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

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