**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 m³, 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
- **Wettable 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 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.

Flow Rate

<table>
<thead>
<tr>
<th>Flow rate</th>
<th>Cleaning Radius</th>
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<tbody>
<tr>
<td>m³/h</td>
<td>m</td>
</tr>
<tr>
<td>1</td>
<td>5.0</td>
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<tr>
<td>2</td>
<td>4.0</td>
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<td>3</td>
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<tr>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

For Clip-on models, the flow rate is increased by approx. 0.2 m³/h

Dimensions (mm)

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thread</td>
<td>3/8&quot; Rp (BSP)</td>
<td>3/8&quot; NPT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>ISO:</td>
<td>ø17.4 mm</td>
<td>DIN Range 1:</td>
<td>ø18.2 mm</td>
<td>BPE US / DIN Range 2:</td>
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<tr>
<td>Weld-on</td>
<td>OD x t</td>
<td>ø17.2 x 1 mm</td>
<td>ISO:</td>
<td>ø18 x 1 mm</td>
<td>DIN Range 1:</td>
</tr>
<tr>
<td>Type</td>
<td>A</td>
<td>B</td>
<td>E</td>
<td>F</td>
<td>G</td>
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<tr>
<td>Tread</td>
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<td>ø25</td>
<td>11</td>
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<tr>
<td>Clip-on</td>
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Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval
Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.