

# 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 m<sup>3</sup>.

### 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. 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: . . . . . 316L (UNS S31603)  
 Bearing race parts: . . . . . Duplex steel (UNS N31803)  
 Balls: . . . . . 316L (UNS S31603) /PTFE\*  
 Head: . . . . . 316L (UNS 31603)  
 \* FDA compliance 21CFR§177  
 Standard Surface finish: . . . . . Ra 0.5µm 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: . . . . . 0.30 kg  
 On pipe: . . . . . 0.55/0.90 kg

#### Connections

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

