Alfa Laval SaniMagnum

Hygienic, Low-Flow Cleaning

Application

The Toftejorg SaniMagnum 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 hygienic applications, can be used in tanks ranging from 5 m^3 to 50 m^3.

Working principle

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

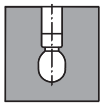
TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Wetting radius:	Max. 3 m
Impact cleaning radius:	Max. effective 2 m

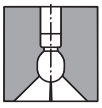
Pressure

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

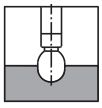
Spray Pattern



360°



270° up



180° down

Standard Design

As standard documentation, the Toftejorg SaniMagnum can be supplied with a "Declaration of Conformity" for material specifications or 3.1 certification for metallic parts. Conformity of Declaration ATEX available on request. The device is available in hastelloy C22 (balls in hastelloy C276) with 3.1 certification for metallic parts. ATEX approved, Category 1 for installation in zone 0/20.

Certificates

2.2 material certificate, Q-doc and ATEX.

PHYSICAL DATA

Materials

Inlet connections/Head:	316L (UNS S31603)
Bearing race parts:	Duplex steel (UNS S31803)
Balls:	316L (UNS S31603) /PTFE*
Clip parts	316

* FDA compliance 21CFR§177

Standard Surface finish:

exterior:	Ra 0.8µm
internal:	Ra 0.8µm

Improved Surface finish:

exterior:	Ra 0.5µm
internal:	Ra 0.8µm

Temperature

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

Weight

Thread and clip-on: . . . . . 0.76 kg
On pipe: . . . . . 0.97/1.52 kg

Connections

- Thread: 1 1/4" or 1 1/2" Rp (BSP) or NPT
- Weld-on: 1 1/2" or 2" ISO 2037, or DN40 DIN11850-R2, or 1 1/2" or 2" BPE US
- Clip-on: 1 1/2" or 2" ISO 2037, or DN40 DIN11850-R1 or R2, or 1 1/2" or 2" BPE US

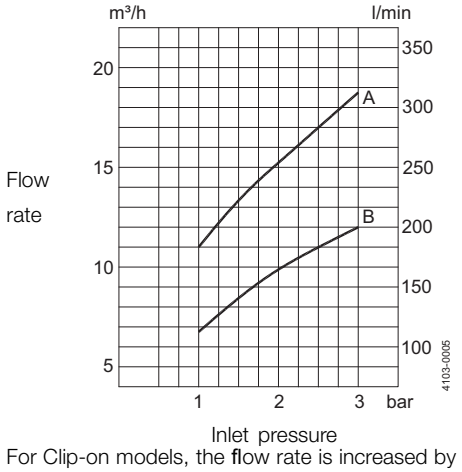
Caution

Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Qualification Documentation (Q-doc)

Documentation specification	
Q-doc	Equipment Documentation includes: - EN 10204 type 3.1 Material Inspection certificate - FDA Declaration of Conformity - ADI Declaration (TSE) - QC Declaration of Conformity
ATEX	ATEX approved machine for use in explosive atmospheres. Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T 140°C.

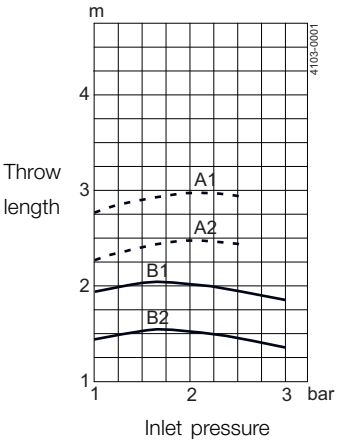
Flow Rate



A: 360°/270° UP
B 360° Low-Flow/270°UP LowFlow/180° Down

For Clip-on models, the flow rate is increased by approx. 1.5 m³/h

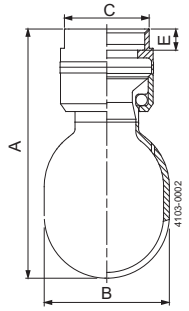
Cleaning radius



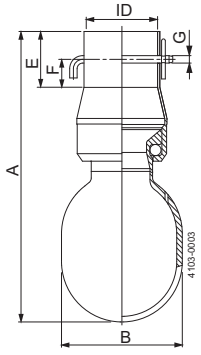
A1	360°/270° UP 180° Down	Wetting
A2	270° UP LowFlow 360° LowFlow	Wetting
B1	360°/270° UP 180° Down	Impact cleaning
B2	270° UP LowFlow 360° LowFlow	Impact cleaning

Dimensions (mm)

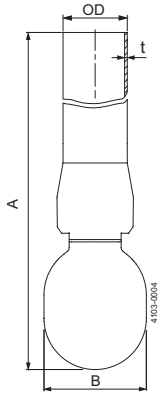
Thread



Clip-on



Weld-on



TH
1 1/4" (BSP)
1 1/4" NPT
1½" (BSP)
1½" NPT

ID	
ID 1: 1½"	ø38.4 mm
ID 2: 2"	ø51.3 mm
DIN Range 1	ø40.4 mm
DIN Range 2	ø41.4 mm

OD x t	
ISO	ø38 x 1.2 mm
BPE US	ø38.1 x 1.65 mm
BPE US	ø50.8 x 1.65 mm
DIN Range 1	ø40 x 1 mm
DIN Range 2	ø41 x 1.5 mm

Type	A	B	C	E	F	G
Tread	130	ø65	44	10		
Clip-on	157	ø65		30	15	ø4.2
Weld-on	157, 500, 1000	ø65				

ESE00332en 1912

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.