



# Low Flow Saves on Water and Chemicals

## Alfa Laval TJ MultiMagnum Rotary Spray Head

### Application

The Toftejorg MultiMagnum 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 MultiMagnum's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 5 m<sup>3</sup> to 50 m<sup>3</sup>, depending on dimensions and cleaning task.

The Toftejorg MultiMagnum 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 MultiMagnum's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 1,300 - 13,000 US gallons, depending on dimensions and cleaning task.

### Working principle

The flow of the cleaning media causes the head of the Toftejorg MultiMagnum 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. The MultiMagnum are designed to be installed in any given angle.

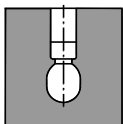
### TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Lubricant:	Self-lubricating with the cleaning fluid
Wetting radius:	Max. 3 m
Wetting radius:	Max. 10 ft
Impact cleaning radius:	Max. effective 2 m
Impact cleaning radius:	Max. effective 6 ft

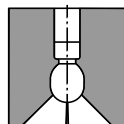
### Pressure

Working pressure:	1-3 bar
Working pressure:	14.5 - 44 PSI
Recommended pressure:	2 bar
Recommended pressure:	29 PSI

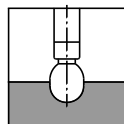
### Spray Pattern



360°



270° up



180° down

### Standard Design

As standard documentation, the Toftejorg MultiMagnum can be supplied with a "Declaration of Conformity" for material specifications.

### Certificates

2.1 material certificate.



### PHYSICAL DATA

#### Materials

Inlet connections/Balls:	316 (UNS S31600)
Bearing race parts:	Duplex steel (UNS S31803)
Head:	316 (UNS S31603)
Standard Surface finish:	Ra 0.8µm exterior/ Ra 0.8µm internal
Standard Surface finish:	Ra 32µin outside / Ra 32µin inside

#### Standard Surface finish:

exterior:	Ra 0.8µm
exterior:	Ra 32µin
internal:	Ra 0.8µm
internal:	Ra 32µin

#### Temperature

Max. working temperature:	95°C
Max. working temperature:	203°F
Max. ambient temperature:	140°C
Max. ambient temperature:	284°F

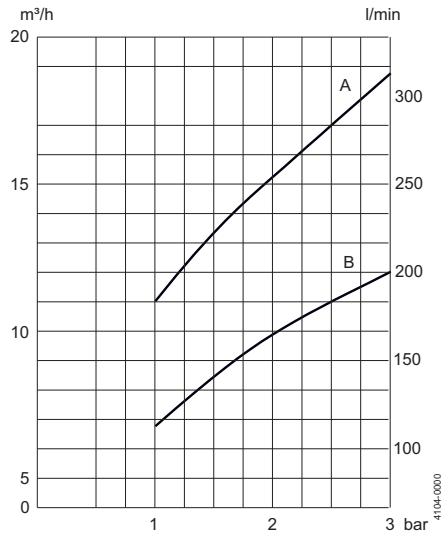
#### Weight

Thread:	0.90 kg
Thread:	1.98 lbs
On pipe:	2.5 kg
On pipe:	5.51 lbs

#### Connections

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

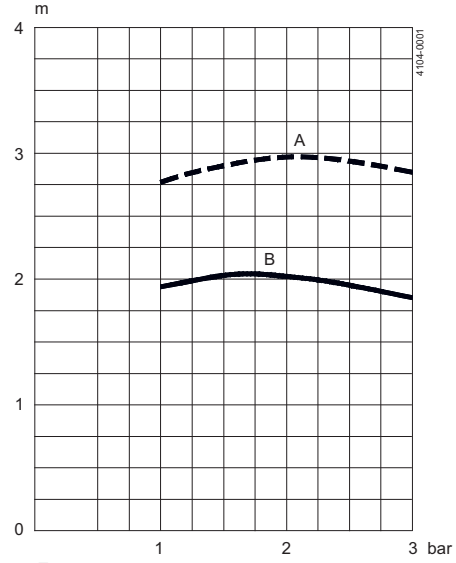
### Flow Rate



A: 360°  
270° UP

B: 180°

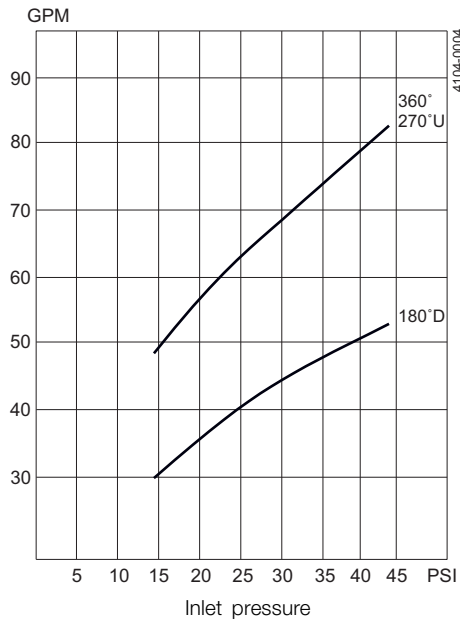
### Cleaning radius



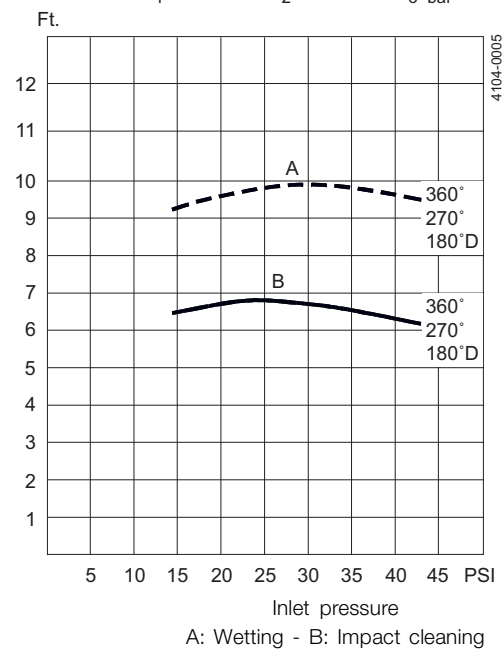
A: 360°  
270° UP  
180° Down

B: 360°  
270° UP  
180° Down

Flow rate



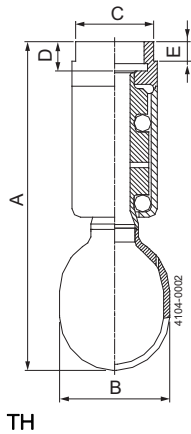
Throw length



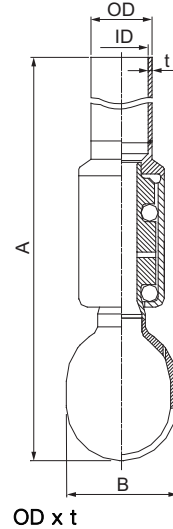
A: Wetting - B: Impact cleaning

### Dimensions (mm)

#### Thread



#### Weld-on



1 1/4" Rp (BSP)

1 1/4" NPT

Welded on

pipe

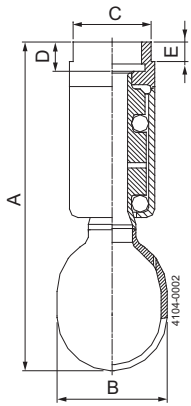
ISO:  $\varnothing 38 \times 1.6$  mm

DIN Range 2:  $\varnothing 41 \times 1.5$  mm

Type	A	B	C	D	E
Thread	183	$\varnothing 65$	46	16	15
Weld-on	1000	$\varnothing 65$			

Dimensions (inch)

Thread

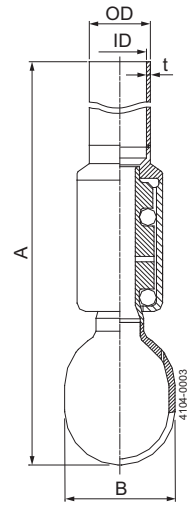


TH

1 1/4" Rp (BSP)

1 1/4" NPT

Weld-on



OD x t

Welded on pipe

ISO:

$\varnothing 1.50 \times 0.062$  inch

DN40:

$\varnothing 1.61 \times 0.059$  inch

Type	A	B	C	D	E
Thread	7.20	$\varnothing 2.56$	1.81	0.63	0.59
Weld-on	39.37	$\varnothing 2.56$			

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

ESE00329EN 1507

© Alfa Laval

---

**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.



# Low Flow Saves on Water and Chemicals

## Alfa Laval TJ MultiMidget Rotary Spray Head

### Application

The Toftejorg MultiMidget 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 MultiMidget's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 0.1 m<sup>3</sup> to 10 m<sup>3</sup>, depending on dimensions and cleaning task.

The Toftejorg MultiMidget 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 MultiMidget's rotating head makes the device suitable for all industrial cleaning applications, including tanks, reactors, vessels and other containers ranging from 27 - 2.700 US gallons, depending on dimensions and cleaning task.

### Working principle

The flow of the cleaning media causes the head of the Toftejorg MultiMidget 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. The MultiMidget are designed to be installed in any given angle.

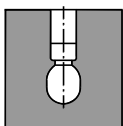
### TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid  
 Wetting radius: . . . . . Max. 3 m  
 Wetting radius: . . . . . Max. 10 ft  
 Impact cleaning radius: . . . . . Max. effective 1.4 m  
 Impact cleaning radius: . . . . . Max. effective 4 ft

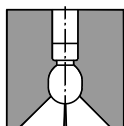
### Pressure

Working pressure: . . . . . 1-3 bar  
 Working pressure: . . . . . 14.5 - 44 PSI  
 Recommended pressure: . . . . . 2 bar  
 Recommended pressure: . . . . . 29 PSI

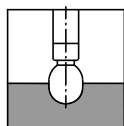
### Spray Pattern



360°



270° up



180° down

### Standard Design

As standard documentation, the Toftejorg MultiMidget can be supplied with a "Declaration of Conformity" for material specifications.

### Certificates

2.1 material certificate.



### PHYSICAL DATA

#### Materials

Inlet connections/Balls: . . . . . 316 (UNS S31600)  
 Bearing race parts: . . . . . Duplex steel (UNS S31803)  
 Head: . . . . . 316 (UNS S31603)  
 Standard Surface finish: . . . . . Ra 0.8µm exterior/ Ra 0.8µm internal  
 Standard Surface finish: . . . . . Ra 32µin outside / Ra 32µin inside

#### Temperature

Max. working temperature: . . . 95°C  
 Max. working temperature: . . . 203°F  
 Max. ambient temperature: . . . 140°C  
 Max. ambient temperature: . . . 284°F

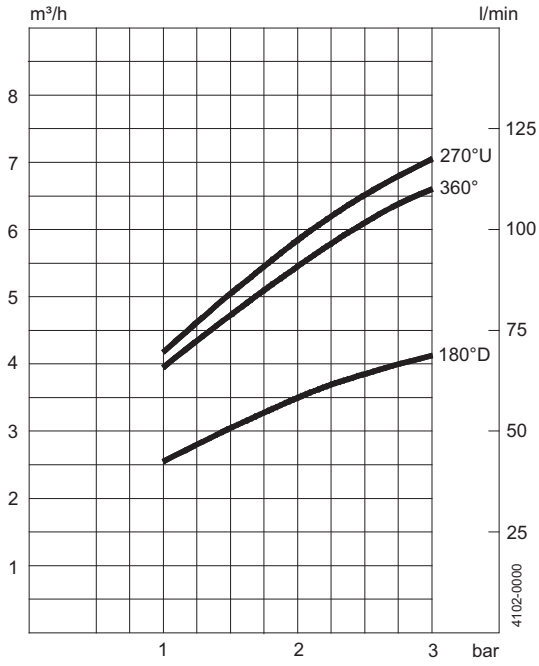
#### Weight

Thread: . . . . . 0.50 kg  
 Thread: . . . . . 1.1 lbs  
 On pipe: . . . . . 0.90 kg  
 On pipe: . . . . . 1.98 lbs

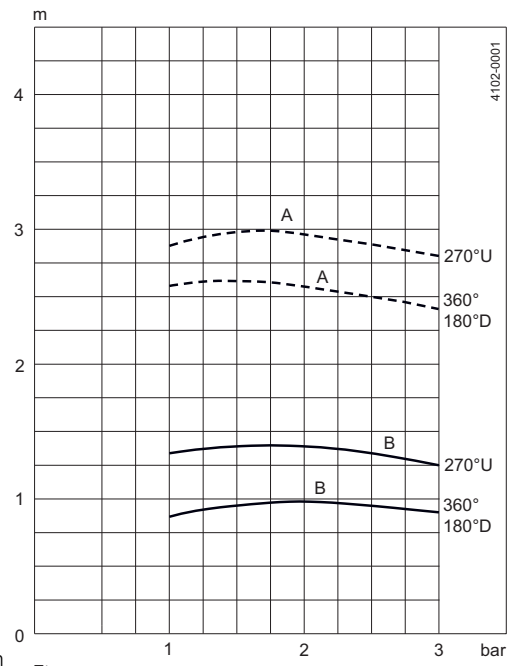
#### Connections

- Thread: 1/2" or 3/4" Rp (BSP) or NPT
- Weld-on: 1" ISO 2037 or DN25 DIN11850-R2
- Clip-on: 1" ISO 2037

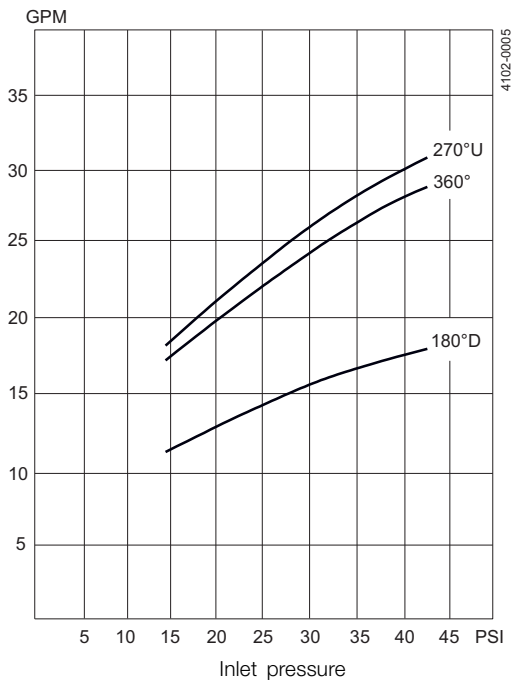
### Flow Rate



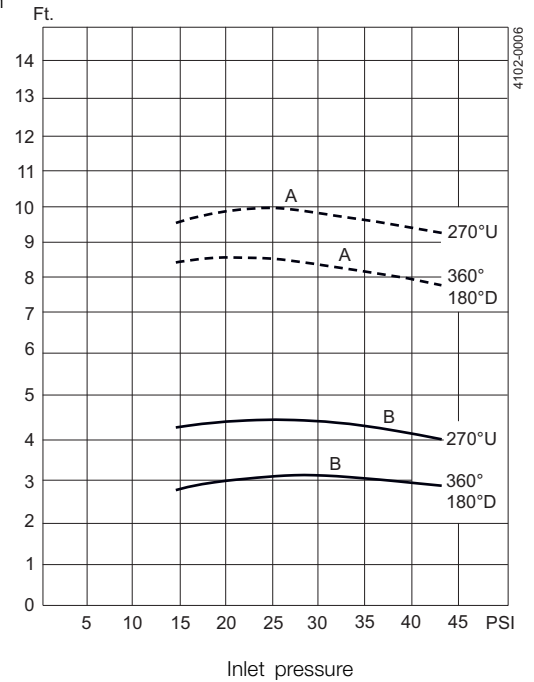
### Cleaning Radius



Flow rate



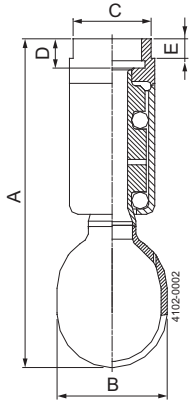
Throw length



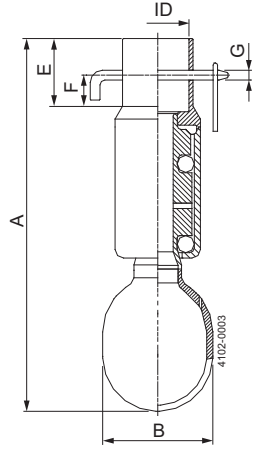
A: Wetting - B: Impact cleaning

For clip-on models, the flow rate is increased by approx. 0.5m³/h.  
 For clip-on models, the flow rate is increased by approx. 0.65 yard³/h.

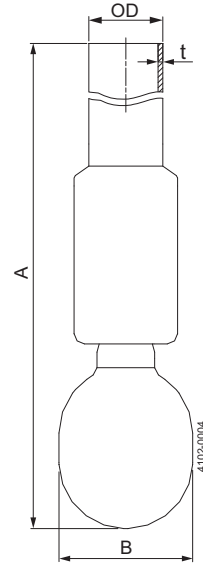
**Thread**



**Clip-on**



**Weld-on**



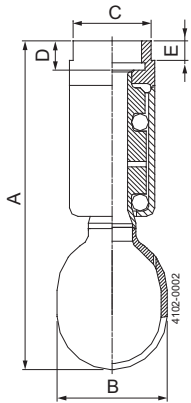
**TH**  
 1/2" Rp (BSP)  
 3/4" Rp (BSP)  
 1/2" NPT  
 3/4" NPT

**ID**  
 ISO :  $\varnothing 25.3$  mm

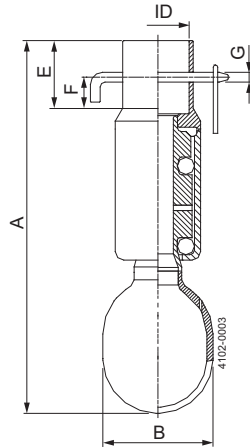
**OD x t**  
**Welded on pipe**  
 ISO:  $\varnothing 25 \times 1.6$  mm  
 DIN Range 2:  $\varnothing 29 \times 1.5$  mm

Type	A	B	C	D	E	F	G
Tread	137(BSP), 150(NPT)	$\varnothing 45$	32	12(BSP) 25(NPT)	9(BSP) 22.5(NPT)		
Clip-on	155	$\varnothing 45$			30	15	$\varnothing 4.2$
Weld-on	500	$\varnothing 45$					

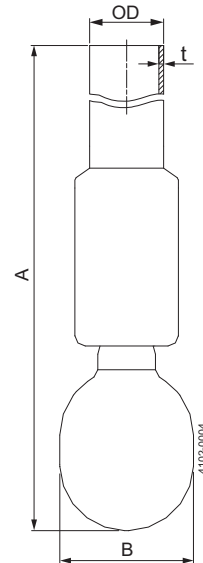
**Thread**



**Clip-on**



**Weld-on**



**TH**  
 1/2" Rp (BSP)  
 3/4" Rp (BSP)  
 1/2" NPT  
 3/4" NPT

**ID**  
 ISO :  $\varnothing 0.1$  inch

**OD x t**  
**Welded on pipe**  
 ISO:  $\varnothing 0.98 \times 0.06$  inch  
 DIN Range 2:  $\varnothing 1.14 \times 0.06$  inch

Type	A	B	C	D	E	F	G
Tread	5.39(BSP), 5.91(NPT)	$\varnothing 1.77$	1.26	0.47(BSP) 0.98(NPT)	0.35(BSP) 0.89(NPT)		
Clip-on	6.1	$\varnothing 1.77$			1.18	0.59	$\varnothing 0.18$
Weld-on	19.68	$\varnothing 1.77$					

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

ESE00330EN 1507

© Alfa Laval

---

**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.