



Alfa Laval TJ40G

Rotary jet heads

Introduction

The Alfa Laval TJ40G range of rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 150-2250m³ it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The TJ40G range minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval TJ40G range is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as the dairy, food, beverage, brewery, distillery*, pharmaceutical and personal care industries.

Benefits

- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- Eliminates the need for confined space entry for manual tank cleaning
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck
- Heavy-duty (HD) version can handle re-circulation of larger particles in the cleaning liquid*
- Burst version with fast chemical wetting reduces cleaning time and costs

Standard design

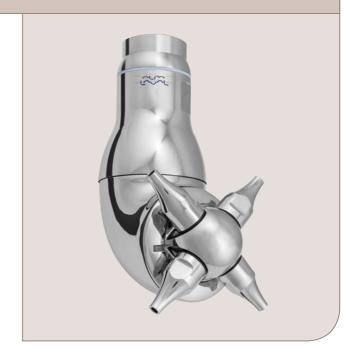
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. These special versions are available:

- Alfa Laval TJ40G-HDfor applications where larger amounts of particles in the cleaning liquid are re-circulated over the machine. Its special design ensures that particles do not get trapped inside the machine or damage / block the machine during operation.
- Alfa Laval TJ40G Burstwith a special burst nozzle design for fast chemical wetting of the tank. Burst cleaning reduces cleaning cycle time and the use of water and chemicals. For more information, see the separate datasheet about the burst technique.

Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries. An alternative that offers performance similar to the Alfa Laval TJ40G range is the Alfa Laval GJ 8 or Alfa Laval GJ 4 for applications that require a small tank inlet opening.

Working principle

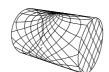
The high-impact jet stream from the Alfa Laval TJ40G rotary jet head range is designed to cover the entire surface of the tank interior in a successively denser pattern. This achieves a powerful mechanical impact with a low volume of water and cleaning media.



The flow of the cleaning fluid makes the nozzles perform a geared rotation around the vertical and horizontal axes. In the first cycle, the nozzles lay out a course pattern on the tank surface. The subsequent cycles gradually make the pattern denser until at full cleaning pattern is reached. Once the full cleaning pattern is reached, the machine will start over again and continue to perform the next full cleaning pattern.

 * Heavy-duty distillery version can handle re-circulation of larger particles in the cleaning liquid.

Cleaning Pattern







Full pattern

The above drawings show the cleaning pattern achieved on a cylindrical horizontal vessel. The difference between the first cycle and the full pattern represents the number of additional cycles available to increase the density of the cleaning.

Certificates

2.2 material certificate, Q-doc and ATEX







Lubricant:	Cleaning liquid
Surface finish	
Standard Surface finish:	Exterior surface finish Ra 0.5µm
Interior surface finish:	Ra 0.8 µ m
Throw length	
Max throw length (5 bar):	21.5 m
Impact throw length (5 bar):	10.5 m
Pressure	
Working pressure:	3-12 bar
Recommended pressure:	5-7 bar

PHYSICAL DATA

Materials	
AISI 316, SAF 2205, PFA*, PEEK*, EPDM*	
* FDA compliance 21CFR§177	
Temperature	
Max. working temperature:	95°C
Max. ambient temperature:	140°C
Weight	
Weight:	6.3 kg.

Caution

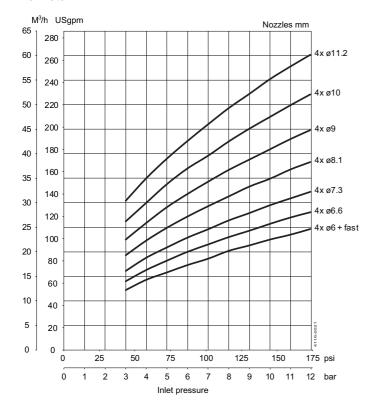
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. For low amount of particles in the cleaning media a 3mm strainer is recommend for both the TJ40G and TJ40G-HD For high amount of particles in the cleaning media a 0.1mm strainer (TJ40G) and 1mm (TJ40G-HD) is recommended Do not use for gas evacuation and air dispersion

				TJ40G-HD
	TJ40G	TJ40G Burst	TJ40G-HD	Burst
4x ø 6				
fast	15.8	20.8	17.5	22.5
4x ø 6	15.8	20.8	17.5	22.5
4x ø 6,6	18.2	23.2	20.0	25.0
4x ø 7,3	20.9	25.9	22.5	27.5
4x ø 8,1	24.9	29.9	26.5	31.5
4x ø 9	29.1	34.1	31.0	36.0
4x ø 10	33.8	38.8	35.5	40.5
_4x ø 11	39.0	44.0	41.0	46.0
2x ø 10	19.2	21.7	20.3	22.8
2x ø 11	22.4	24.9	23.4	25.9

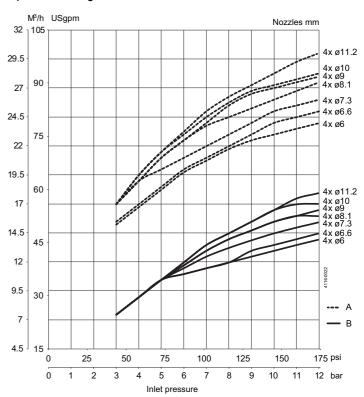
Qualification Documentation

Documentation	n specification		
	Equipment Documentation includes: - EN 1935/2004 DoC		
	 EN 10204 type 3.1 inspection Certificate and DoC 		
Q-doc	- FDA DoC		
	- GMP EC 2023/2006 DoC		
	- EU 10/2011 DoC		
	- ADI DoC		
	- QC DoC		
	ATEX approved machine for use in explosive		
	atmospheres.		
ATEV	Category 1 for installation in zone 0/20 in accordance		
ATEX	with directive 2014/34/EU		
	II 1G Ex h IIC 85°C175°C Ga		
	II 1D Ex h IIIC T85°CT140°C Da		

Flow rate

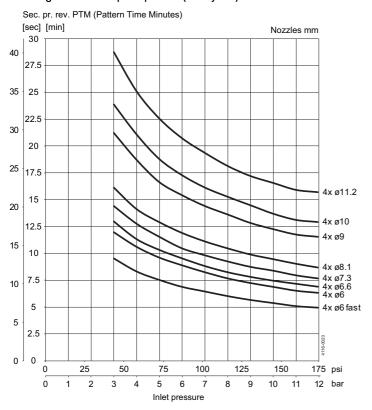


Impact throw length



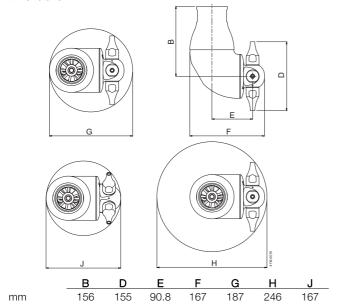
Throw length measured according to tech. specification 93P003

Cleaning time for complete pattern (= 8 cycles)



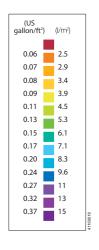
Burst cleaning version has a 20-25% faster complete pattern

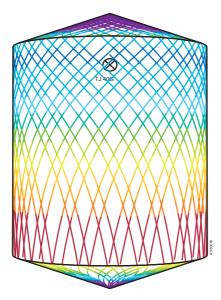
Dimensions



TRAX simulation tool

Wetting Intensity





D4.6m H5.5m, Toftejorg TJ40G, $4 \times \varnothing 7.3$ mm, Time = 2 min., Water consumption = 700 I



D4.6m H5.5m, Toftejorg TJ40G, 4 x \varnothing 7.3 mm, Time = 16 min., Water consumption = 5600 I





Alfa Laval SaniMidget

Rotary Spray Head

Introduction

The Alfa Laval SaniMidget is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 1 - $10~{\rm m}^3$

The Alfa Laval SaniMidget minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, the SaniMidget allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval SaniMidget is designed for the removal of residues from hygienic tanks across the dairy, brewery, distillery, beverage, food, IBC (intermediate bulk container), personal care and many other industries.

Benefits

- 40% faster cleaning = more time for production
- · Saves up to 40% of your cleaning cost
- Dynamic cleaning performance and 360° full wetting
- Easy to retrofit traditional spray balls to a more economical solution

Standard design

Different choice of spray pattern suitable for various applications and tank designs, ranging from simple tanks to more complex tanks with structure such as agitator and baffles. The SaniMidget is lubricated by the cleaning media.

Working principle

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



Spray Pattern







180° dowr

Certificates

2.2 material certificate, Q-doc and ATEX.







TECHNICAL DATA	
Lubricant:	Self-lubricating with the cleaning fluid
Wetting radius:	Max. 3 n
Impact cleaning radius:	Max. effective 1.4 n
Pressure	
Working pressure:	1-3 ba
Recommended pressure:	
PHYSICAL DATA	
Materials	AISI 316L (UNS S31603). PTFE
* FDA compliance 21CFR§177	
Olip parts:	316
Standard Surface finish	
exterior:	Ra 0.5 µ m
internal:	Ra 0.8µm
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	
- Weld-on: 1" ISO 2037, or DN25 DIN11850-R2, or 1" 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

Documentation specification

Equipment Documentation includes:

- Clip-on: 1" ISO 2037, or DN25 DIN11850-R1 or R2, or 1" BPE US

- EN 1935/2004 DoC
- EN 10204 type 3.1 inspection Certificate and DoC
- FDA DoC

Q-doc

- GMP EC 2023/2006 DoC
- EU 10/2011 DoC
- ADI DoC
- QC DoC

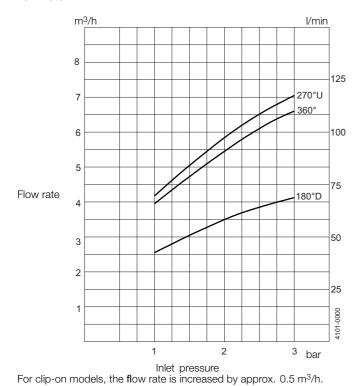
ATEX approved machine for use in explosive atmospheres.

Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU

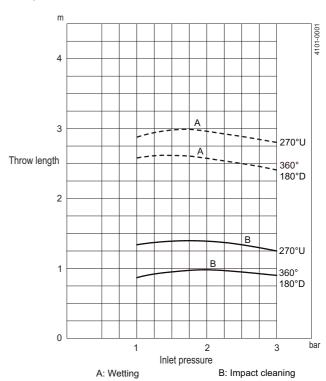
ATEX

II 1G Ex h IIC 85°C ...175°C Ga II 1D Ex h IIIC T85°C ...T140°C Da

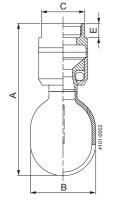
Flow Rate



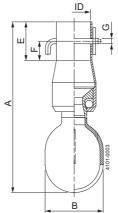
Cleaning Radius



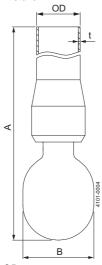
Thread



Clip-on



Dimensions mm



Weld-on

TH 3/4"Rp (BSP) 3/4" NPT

ID

ISO: **ø**25.3 mm BPE US: **ø**25.7 mm DIN Range 1: ø28.3 mm DIN Range 2: ø29.3 mm OD x t

ISO: ø25 x 1.2 mm BPE US: ø25.4 x 1.65 mm DIN Range 1: ø28 x 1 mm DIN Range 2: **ø**29 x 1.5 mm

Туре	A	В	С	Е	F	G
Thread	102	ø 45	30	10		
Clip-on	133.5	ø 45		30	15	ø4
Weld-on	120.5, 500, 1000	ø 45				







Alfa Laval SaniMicro

Rotary Spray Head

Introduction

The Alfa Laval SaniMicro is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 0.05-1 m 3 (13-264 US gallons).

The Alfa Laval SaniMicro minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, the SaniMicro allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval SaniMicro is designed for the removal of residues from hygienic tanks across the dairy, brewery, distillery, beverage, food, personal care and many other industries.

Benefits

- 40% faster cleaning = more time for production
- Saves up 40% of your cleaning cost
- Dynamic cleaning performance and 360° full wetting
- Easy to retrofit traditional spray balls to a more economical solution

Standard design

Different choice of spray pattern suitable for various applications and tank designs, ranging from simple tanks to more complex tanks with structure such as agitator and baffles. The SaniMicro is lubricated by the cleaning media.

Working principle

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

Spray Pattern







180° down

360°

270° up

Certificates

2.2 material certificate, Q-doc and ATEX.









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

PHYSICAL DATA

	AICLOTEL (LINE COTEON) DIFF*
Materials:	AISI 316L (UNS S31603). PTFE*

* FDA compliance 21CFR§177.

Clip parts: 316

Standard Surface finish

exterior:	Ra 0.5µm
internal:	Ra 0.8µm

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

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

Documentation specification

ATEX

Equipment Documentation includes:

- EN 1935/2004 DoC
- EN 10204 type 3.1 inspection Certificate and DoC
- FDA DoC

Q-doc - GMP EC 2023/2006 DoC

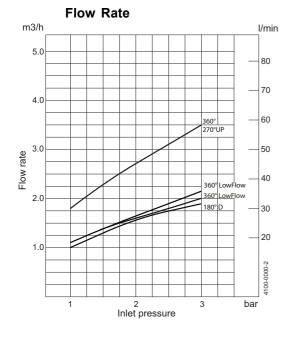
- EU 10/2011 DoC
- ADI DoC
- QC DoC

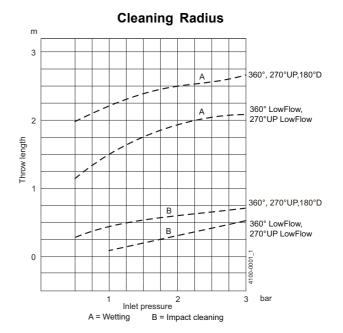
ATEX approved machine for use in explosive atmospheres.

Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU

II 1G Ex h IIC 85°C ...175°C Ga

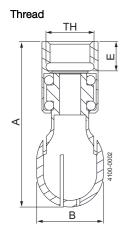
II 1D Ex h IIIC T85°C ...T140°C Da



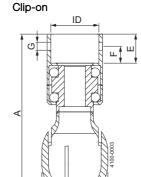


For Clip-on models, the flow rate is increased by approx. 0.2 m3/h

Dimensions (mm)



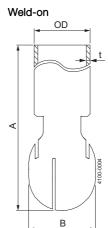
TH 3/8" Rp (BSP) 3/8" NPT



ID ISO: DIN Range 1: BPE US / DIN Range 2:

В

ø17.4 mm ø18.2 mm ø19.2 mm



OD x t ISO: ø17.2 x 1 mm DIN Range 1: ø18 x 1 mm DIN Range 2: ø19 x 1.5 mm BPE US: ø19.05 x ø1.65 mm

Type	Α	В	E	F	G
Tread	62	ø 25	11		
Clip-on	62	ø 25	11	5.9	ø 3.6
Weld-on	77.5	ø 25			







Alfa Laval SaniMagnum SB 3-A

Rotary Spray Head

Introduction

The Alfa Laval SaniMagnum SB 3-A is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 1,321-13,209 US gallons.

The Alfa Laval SaniMagnum SB 3-A minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, the SaniMagnum SB 3-A allows companies to spend less time cleaning and more time producing.

The SaniMagnum SB 3-A is authorized to carry the 3-A symbol.

Application

The Alfa Laval SaniMagnum SB 3-A is designed for the removal of residues from hygienic tanks across the dairy, brewery, distillery, beverage, food, personal care and many other industries.

Benefits

- 40% faster cleaning = more time for production
- Saves up to 40% of your cleaning cost
- Dynamic cleaning performance and 360° full wetting
- Easy to retrofit traditional spray balls to a more economical solution

Standard design

Different choice of spray patterns suitable for various applications and tank designs, ranging from simple tanks to more complex tanks with structures such as agitator and baffles. The SaniMagnum SB 3-A is lubricated by the cleaning media.

Working principle

The flow of the cleaning media causes the head of the Alfa Laval SaniMagnum SB 3-A to rotate, and the fan-shaped jets layout a swirling pattern throughout the tank or reactor. This generates the wetting/impact needed for the efficient removal of the residual product; the cascading flow covers all internal surfaces of the vessel.



Spray Pattern





360°

270° up

Certificates

2.2 material certificates, Q-doc, 3-A and ATEX





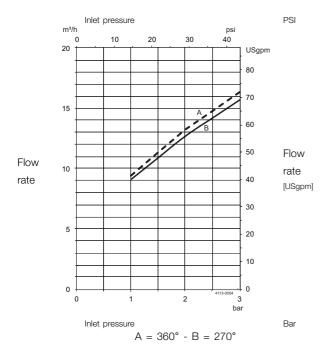


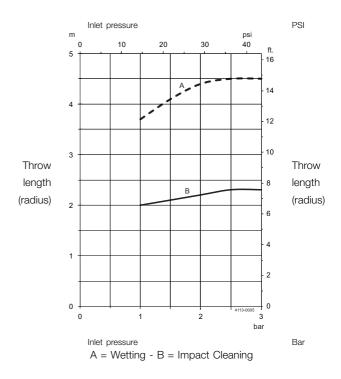


Lubricant:		Lubrication by rinse/clean	ing fl uid
Wetting radiu	S:	Max.	14.8 ft.
Impact cleani	ng radius:	Max.	7.9 ft.
Pressure			
Working pres	sure:	Max.	14.8 ft.
Recommende	ed pressure:	Max.	7.9 ft.
Caution			
Avoid hydraul	ic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear a	and/or damage of internal mechanis	sms. In
general, a filte	er in the supply line is recommended. Do not use for gas evacuation or air dispersion. For stea	aming we refer to the manual.	
PHYSICAL D	ATA		
Materials			
Metalic parts:			316L
Non-metallic	parts:	PEE	< 450G*
* FDA complia	ance 21CFR§177		
Surface finish	:	Ra	32 µ in
Temperature			
Max. working			203°F
Max. ambien	t temperature:		302°F
Weight:		C).88 lbs.
Connections			
Clip-on:		1½" BPE US, 1½" IS	O 2037
Weld-on:			BPE US*
Clip			
	ip (0.157 inch)		
	or both clip-on and weld-on versions to assemblethe machine.		
Recommende	ed tank size:	6.000-18.000 US	Gallons
Qualification	Documentation		
Documentati	on specification		
	Equipment Documentation includes: - EN 1935/2004 DoC		
Q-doc	- EN 10204 type 3.1 inspection Certificate and DoC		
	- FDA DoC - GMP EC 2023/2006 DoC		
	- GMP EC 2023/2006 DOC - EU 10/2011 DoC		
	- ADI DoC		
	- QC DoC		
	ATEX approved machine for use in explosive atmospheres.		
ATEX	Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU		
	II 1G Ex h IIB 185°F347°F Ga		
2 :	II 1D Ex h IIIC T185°FT284°F Da		
3-A	3-A number: 78-##. Spray Cleaning Devices		

Flow Rate

Cleaning radius





For Clip-on models, the flow rate is increased by approx. 3962.6 Gallon/hour.

Note: The inlet pressure has been taken immediately before the inlet to the machine. In order to achieve the performance indicated on the curves, the pressure drop in the supply lines between pump and machine must be taken in consideration and the water temperature during testing was approx. 68°F.

Dimensions (inch)

Type	Α	В	E	G	ID	OD	t	Clip
Clip-on	4.66"	ø2.15"	1"	ø0.16"	ø1.51"			ø 0.157
Weld-on**	5.47"	ø2.15"				ø1.5"	0.06"	

^{**} Weld-on version only meets the requirements of the 3-A Hygienic Standard 78-# # if installed according to the user manual.







Alfa Laval SaniMagnum

Rotary Spray Head

Introduction

The Alfa Laval SaniMagnum is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 5 - $40~\text{m}^3$

The Alfa Laval SaniMagnum minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, the SaniMagnum allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval SaniMagnum is designed for the removal of residues from hygienic tanks across the dairy, brewery, distillery, beverage, food, IBC (intermediate bulk container), personal care and many other industries.

Benefits

- 40% faster cleaning = more time for production
- Saves up to 40% of your cleaning cost
- Dynamic cleaning performance and 360° full wetting
- Easy to retrofit traditional spray balls to a more economical solution

Standard design

Different choice of spray pattern suitable for various applications and tank designs, ranging from simple tanks to more complex tanks with structure such as agitator and baffles. The SaniMagnum is lubricated by the cleaning media.

Working principle

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



Spray Pattern







180° dowr

Certificates

2.2 material certificate, Q-doc and ATEX.







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

PHYSICAL DATA

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

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

Documentation specification

Equipment Documentation includes:

- EN 1935/2004 DoC
- EN 10204 type 3.1 inspection Certificate and DoC

Q-doc

- FDA DoC
- GMP EC 2023/2006 DoC
- EU 10/2011 DoC
- ADI DoC
- QC DoC

ATEX approved machine for use in explosive atmospheres.

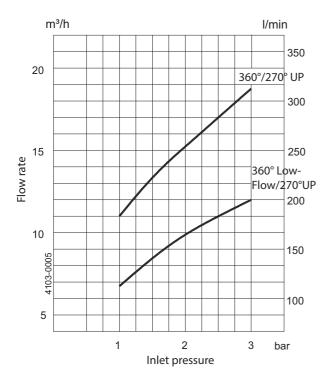
Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU

ATEX

II 1G Ex h IIC 85°C ...175°C Ga

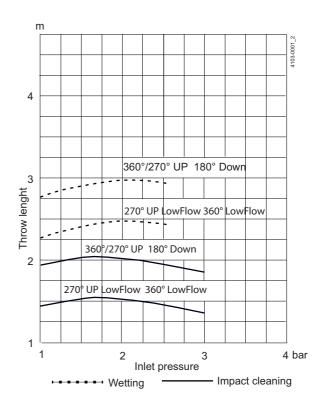
II 1D Ex h IIIC T85°C ...T140°C Da

Flow Rate



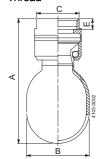
For Clip-on models, the flow rate is increased by approx. 1.5 m³/h

Cleaning radius

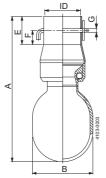


Dimensions (mm)

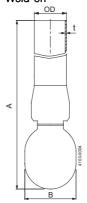
Thread







Weld-on



TH 1 1/4" (BSP)

1 1/4" (BSP 1 1/4" NPT 11/2" (BSP) 11/2" NPT ID

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

Туре	Α	В	С	Е	F	G
Tread	130	ø 65	44	10		
Clip-on	157	ø 65		30	15	ø 4.2
Weld-on	157, 500, 1000	ø 65				





Alfa Laval LKRK

For easy tank cleaning duties

Intro

The Alfa Laval LKRK is a fixed static spray ball for hygienic and industrial applications. It is designed to clean tanks with capacities from 5-75 m3. The static spray ball, in general, uses a high flow rate and low pressure to clean the tank.

Application

The Alfa Laval LKRK is designed to remove simple residues from various tanks, such as Cleaning-in-Place tanks, milk silos, and water tanks, with a maximum diameter of ~ø6 m. For sizing, contact Alfa Laval.

For tanks with tougher residues, Alfa Laval recommends using Rotary Spray Head, like the Alfa Laval SaniMidget, or Rotary Jet Head, like the Alfa Laval TJ20G which provides a hundred times more mechanical cleaning action.

Benefits

- Easy to inspect
- No moving parts
- Ideal for easy tank cleaning duties

Standard design

The Alfa Laval LKRK comes in two sizes: the LKRK-64 (ø64) and the LKRK-94 (ø94). Both spray balls are available with different spray patterns. The F-version provides 360° coverage, while the T and B versions provide a cleaning pattern that cleans only upwards or downwards. All spray balls are available with clip-on connections for both ISO and DIN tubes.

Working principle

The Alfa Laval LKRK shoots a small jet of fluid in: all directions (version F), upwards (version T) or downwards (version B). This allows the tanks to be cleaned by dousing the interior surfaces with small jets of hot water and/or chemicals which create a falling film of cleaning fluid that runs down the tank surface, generating cleaning action.

Spray balls are not ideal for use on tanks which require high cleaning action. For more difficult-to-clean applications, Alfa Laval recommends using a rotary spray head like the Alfa Laval SaniMidget or a rotary jet head like the Alfa Laval TJ20G



Total cost of ownership

The rotary spray head, like the "Alfa Laval SaniMidget" and "Alfa Laval SaniMagum" will provide higher impact and lower the cleaning costs by 30%, while the rotary jet head, like the "Alfa Laval TJ20G" and "Alfa Laval TJ40G" will provide further savings. Up to 80% can be saved on the cleaning cost when using rotary jet head compared to the Alfa Laval LKRK.







F-version

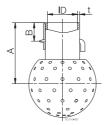
T-version

B-version

PHYSICAL DATA

Materials	
Housing and sprayhead assembly:	316L (UNS S31603)
Finish:	Bright
Oppositions LIVDIV	

Connections LKRK	
Type LKRK 64:	
ISO tube:	25 mm
DIN tube:	DN25 - pipe range 1 and 2
Type LKRK 94:	
ISO tube:	51 mm
DIN tube:	DN50 - pipe range 1 and 2

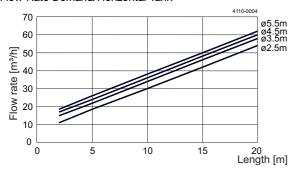


OD = Outside diameter ID = Inside diameter

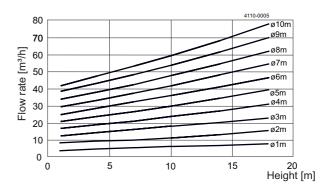
Dimensions (mm)

Size	64 (1")	94 (2")	
<u>A</u>	58	77.5	
<u>B</u>	17.5	22.5	
US tube ID	25.7	51.6	
ISO tube OD/ID/t	28.5/25.5/1.5	54.4/51.4/1.5	
DIN tube OD/ID/t Pipe range 1	32.5/28.5/2	54.4/52.4/1	
DIN tube OD/ID/t Pipe range 2	34.2/29.5/2.35	57.4/53.4/2	
Weight, kg	0.2	0.3	

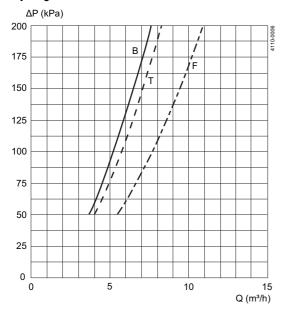
Flow Rate Demand/Horizontal Tank



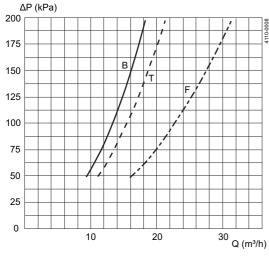
Flow Rate Demand/Vertical Tank



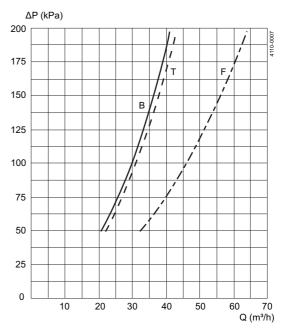
Capacity diagrams - LKRK



Type LKRK 64 with 2 mm holes: bottom drilled, top drilled, fully drilled



Type LKRK 94 with 2 mm holes, 51 mm (DN50) tube: bottom drilled, top drilled, fully drilled $\,$



Type LKRK 94 with 3 mm holes, 51 mm (DN50) tube: bottom drilled, top drilled, fully drilled

B = Bottom drilled T = Top drilled F = Fully drilled

