Close at hand

Tank cleaning equipment for Hygienic Fluid Handling Equipment, February 2024

Everything at your fingertips

Tackle the challenges you face with innovative Alfa Laval solutions for hygienic applications. Regularly updated, this convenient online catalogue gives you fast access to our comprehensive product range.

Sustainability is at the core of Alfa Laval technologies. These hygienic components and equipment can help you reduce emissions, contamination risks, energy and water use, and total cost of ownership. They also increase uptime, safety and product integrity.

Wherever you are, you have fast access to the components, equipment and expertise you need through the Alfa Laval global network of more than 1500 partners, supported by our sales companies worldwide. Using our eBusiness portal,our channel partners can locate the products you need, order equipment, or track shipments in real time.

To make your life easier, take advantage of Alfa Laval tools and resources. Simply click on the sales item number to view or download 3D CAD models and 2D drawings from our CAD portal.Or download product documentation, including Q-doc documentation for our UltraPure portfolio, here.

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Pumps

Centrifugal pumps


LKH


LKH UltraPure


LKH Evap


LKHPF


LKH Multistage

Valves

Double seat valves


Aseptic Mixproof


Unique Mixproof


Unique Mixproof 3-body


Unique Mixproof CP-3


Unique Mixproof UltraPure


Unique Mixproof Large Particle

Diaphragm valves


Unique DV-ST UltraPure


DV-ST Multiport

Ball valves


SBV Sanitary

Shutter valves


Koltek Valves

Regulating valves


Unique RV-ST


Unique RV-P

Heat transfer

Gasketed plate heat exchangers


Hygienic line


FrontLine


BaseLine


Industrial line

Tank equipment

Tank cleaning machines


SaniJet 25 UltraPure


SaniJet 20 UltraPure


TJ40G


TJ 20G


GJ PF FT


GJ A6


GJ 9


Multijet 25


MultiJet 45

Agitators


ALS and ALS-SB


ALB


ALT


ALTB

Mixers


Hybrid Powder Mixer


Rotary Jet Mixer


LeviMag®


LeviMag® UltraPure

Installation material

Hygienic tubes and fittings


Flanges, clamps and unions


Bends, tees and reducers

Tubes and tube support

UltraPure tubes and fittings

UltraPure tubes and fittings

Filters and strainers

Strainers


LKH Prime


LKH Prime UltraPure


SolidC

Rotary lobe pumps


OptiLobe


SRU


Unique Mixproof PMO Curd


Unique Mixproof Tank Outlet


Unique Mixproof Horizontal Tank

Double seal valves


SMP-BC


SMP-BC 22

Single seat valves


Unique SSV


Unique SSV Change-over


Unique SSV FDV

Control/Check valves


CPM-2


LKC-2 Non-Return


LKC UltraPure


Unique Vacuum Breaker

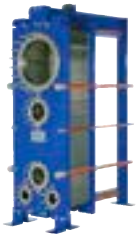

LKUV-2 Air-Relief

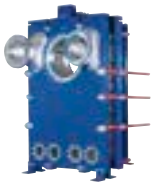
Safety valves


Safety Valve


SB Anti Vacuum House


TS-series


AlfaCond


AlfaVap

Fusion-bonded plate heat exchangers


AlfaNova

Brazed plate heat exchangers


Brazed PHE


GJ 4


SaniMicro


SaniMidget


SaniMagnum


SaniMidget SB


SaniMagnum SB


SaniMega SB

Static spray balls


LKRK Static Spray Ball

Wall mounted cleaning nozzles


PlusClean®/PlusClean® UltraPure

Tank covers


LKDC-LP


Type R


LKD


Type CG


Type C

Tank accessories


Sight glasses

Tank feet

Membranes and filters

Membranes

Spiral membranes

Plate and frame module

Flat sheet membranes

Auxiliary membrane equipment

Test units

Housing

ATD Couplers

Safety filters

Circumferential piston pumps


SX


SX UltraPure


DuraCirc


DuraCirc Aseptic

Twin screw pumps


Twin Screw


Unique SSV Aseptic


SSV Tangential


Unique SSV Tank Outlet


Unique SSV Manual


Unique SSSV Small Single Seat

Butterfly valves


LKB


LKB-F


LKB UltraPure

Sampling valves


SB Anti Vacuum Valve


SB Pressure Relief Valve


Unique Sampling Valve


SB Membrane Sample Valve


SB Micro Sample Port


SB Micro Sample Port Type M

Welded spiral heat exchangers


Spiral Heat Exchangers

Welded plate and block heat exchangers


Combabloc Free Flow

Scraped surface heat exchangers


Contherm

Tubular heat exchangers


Pharma-line S and P


Pharma-line Point of Use

Automation

Sensing and control


ThinkTop® V70


ThinkTop® V50


ThinkTop® D30


ThinkTop® Basic Intrinsically Safe


IndiTop


Unique Control LKB

Condition monitoring


CM Connect


CM

Cleaning validation


Rotacheck

Service and spare parts


Service kits

Service tools


Service tools valves


Service tools mixing and blending


Service tools tank cleaning


Service tools pumps

Alfa Laval Stainless Steel and Rubber Materials

Technical Information

Stainless Steel

Our stainless steel material have the following demands to the contents of the most essential alloys:

Descriptions	Standard	Chrome Cr%	Nickel Ni%	Molybdenum Mo%	Carbon C%
AISI 304	ASTM A270	18.0-20.0	8.0-10.5	0.0	≤ 0.08
AISI 304L	ASTM A270	18.0-20.0	8.0-12.0	0.0	≤ 0.03
AISI 316L	ASTM A270	16.0-18.0	10.0-14.0	2.0-3.0	≤ 0.03
1.4301 (304)	EN 10088-1 (X 5CrNi18-10)	17.0-19.5	8.0-10.5	0.0	≤ 0.07
1.4307 (304L)	EN 10088-1 (X 2CrNi18-9)	17.5-19.5	8.0-10.0	0.0	≤ 0.03
1.4401 (316)	EN 10088-1 (X 5CrNiMo17-12-2)	16.5-18.5	10.0-13.0	2.0-2.5	≤ 0.07
1.4404 (316L)	EN 10088-1 (X 2CrNiMo17-12-2)	16.5-18.5	10.0-13.0	2.0-2.5	≤ 0.03
1.4435 (316L)	EN 10088-1 (X 2CrNiMo18-14-3)	17.0-19.0	12.5-15.0	2.5-3.0	≤ 0.03
1.4571 (316Ti)	EN 10088-1 (X6CrNiMoTi17-12-2)	16.5-18.5	10.5-13.5	2.0-2.5	≤ 0.08

Rubber Materials

In order to obtain the longest possible lifetime for rubber seals it is essential to choose the right quality for the actual duty. Consequently when choosing rubber quality, the characteristics of the different rubber types should be considered. All product wetted rubber material are in conformity of FDA.

EPDM Rubber (Ethylene Propylene)

EPDM rubber is widely used within the food industry as it is resistant to most products used in this sector. Another advantage is that it may be used to a recommend max. temperatures of 140°C (244°F). However, there is one essential limitation, EPDM is not resistant to organic and non-organic oils and fats.

Actylonitrile Butadiene Rubber, NBR

NBR is the rubber type most frequently used for technical purposes. It is quite resistant to most hydrocarbons, e.g oil, grease and fat. It is sufficiently resistant to diluted lye and nitric acid and may be used to a recommended max. 95°C (203°F). As NBR is attacked by ozone it may not be exposed to ultraviolet rays and should thus consequently be stored so that this is avoided.

Silicone rubber, Q

The most significant quality of silicone rubber is that it can be applied from temperatures below -50°C (-58°F) to approx. + 180°C (356°F) and still keep its elasticity. The chemical resistance is satisfactory to most products. However, undiluted lye and acids as well as hot water and steam may destroy silicone rubber. The resistance to ozone is good.

Fluorine rubber, FPM

FPM is often used when other rubber types are unsuited, especially at high temperatures up to approx. 180°C (356°F). The chemical resistance is good to most products, however hot water, steam, lye, acid and alcohol should be avoided. The resistance to ozone is good.

Hydrogenated actylonitrileButadiene Rubber, HNBR

Mechanically strong and normally resistant to ozone and strong oxidizers, animal and vegetable fats, nonpolar solvents, oils and lubricants, water and aqueous solutions. The recommend max. temperature is 130°C (266°F).

Perfluoroalkoxy polymer, PFA

PFA is very similar to PTFE, but opposite to those PFA is thermo plastic and has minimal porosity. PFA has a very high mechanical strength which makes it a perfect choice when dealing with abbrasive products. The PFA seal offers longer service intervals. The recommended max. temperature for the PFA seal is 90°C (194°F).

Product and chemical resistance of flexible rubber materials

The information below is intended as an aid in selecting the best rubber quality for an actual application. It is not possible to state any general lifetime of rubber seals as many factors influence it: chemical attack, temperature, mechanical wear etc. Extreme temperatures, even within the generally accepted limits, may worsen other kinds of attack and thus reduce the lifetime.

Ratings

1 = Unsuitable.

2 = Limited suitability.

3 = Normal suitability.

4 = High suitability.

- = Not recommended for other reasons.

The table contains data which have been compiled from the results of our own tests and the recommendations of our raw material suppliers. The data should be considered as recommendations only and will be brought up-to-date from time to time. They are based on constant contact with the specified product.

In case of doubt or lack of information it would be advisable to consult us directly, which will enable us to investigate specific applications.

Product or process	NBR [1]	HNBR [2]	EPDM [3]	Q [4]	FPM [5]	PTFE [6]
Dairy products (milk, cream)	3	3-4	3-4	3-4	-	3-4
Dairy products (sour milk products)	3	3-4	3-4	3-4	-	3-4
Brewery products (beer, hops etc.)	3	3-4	3-4	1-2	2-3	3-4
Wine and yeast	3	3-4	4	4	2-3	3-4
Animal and vegetable fats: 100°C	3	4	1–2	3	4	3-4
Water and water solutions < 70°C	3	4	4	3	2-4	3-4
Hot water and steam < 130°C	1	4	4	2	-	3-4
Concentrated fruit juices and etheral oils < 100°C	1	-	1	1	3	3-4
Non-oxydising acids < 80°C	1-2	2	3	1–2	2	3-4
Oxydising acids < 80°C	-	2	3	1	2	3-4
Weak concentrate of lye < 100°C	2	3-4	4	2	2	3-4
Strong concentrate of lye < 100°C	1	2-3	3	1	1	3-4
Mineral oils < 110°C	3	4	-	-	4	3-4
Aliphatic carburetted hydrogen (hexane)	3	3	1	1	4	3-4
Aromatic carburetted hydrogen (benzole)	1	2	1	1	3	3-4
Alcohols	1–3	2-3	2-3	3-4	3-4	3-4
Ester and ketones	1-2	1-2	1-2	1-2	3-4	3-4
Ether	1	2	1	1-3	3-4	3-4
Methylene chloride	1	2	1	2-3	3-4	3-4
Ozone and atmospheric conditions	1-2	3	4	4	3-4	3-4

International designation of flexible rubber materials according to ISO R 1629.

ISO = International standard.

Notes

	Designation of flexible rubber materials	Abbreviation symbol
[1]	Nitrile rubber	N
[2]	Hydrogenated actylonitrile rubber	H
[3]	Ethylene propylene rubber	E
[4]	Silicone rubber	Q
[5]	Fluorinated rubber	F
[6]	Polytetraflour ethylene	

Compliance and certification

We can provide documented and certified compliance with a broad spectrum of relevant international and local hygiene standards, worldwide. This helps you significantly reduce the engineering costs of setting up and operating standard-compliant processing plants around the world.

Please find below some examples of regulations, standards, and guidelines applicable to our products used in hygienic applications.

More information can be found in Instruction Manuals on alfalaval.com page.

For special requests please contact your local Alfa Laval organization.

Authorized to carry the 3A symbol

The mission of 3-A SSI is to enhance product safety for consumers of food, beverages, and pharmaceutical products through the development and use of 3-A Sanitary Standards and 3-A Accepted Practices. The 3-A symbol is a registered mark used to identify equipment that meets 3-A Sanitary Standards for design and fabrication.

ATEX-directive is the popular name for the European Directive 2014/34/EU setting the rules for equipment and protective systems intended for use in potentially explosive atmospheres.

Compliance to the Regulation (EC) No. 1935/2004.

The framework regulation (EC) No. 1935/2004 regulates food contact materials and articles within EU. It includes several requirements for materials and articles intended to come into contact with food to ensure material safety.The glass and fork symbol may be used to indicate that the relevant requirements stated in (EC) No. 1935/2004 are met.

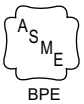
CE marking is a mandatory conformity mark for products placed on the market in the European Economic Area (EEA). With the CE marking on a product the manufacturer ensures that the product conforms with the essential requirements of the applicable EC directives. The letters "CE" stand for "Conformité Européenne" ("European Conformity").

UKCA marking is a mandatory conformity mark for products placed on the market in Great Britain (England, Scotland, and Wales). With the UKCA marking the manufacturer ensures that the product conforms with the relevant requirements of the applicable legislations.

Within United States, requirements for food contact materials and articles are specified by the Food and Drug Administration (FDA) and are regulated under the Code of Federal Regulations, Title 21 “Food and drugs”, Parts 170-199 “Food for human consumption”.

USP Class VI / ISO 10993

The United States Pharmacopeia (USP) standards, chapter 87 and 88, and International Organization for Standardization (ISO) standard 10993, sections 5, 6,10 and 11, specifies requirements to ensure biocompatibility of product contact parts intended to be used in pharma applications.



The American Society of Mechanical Engineers Bioprocessing Equipment (ASME BPE) is the Bioprocess Equipment group of the ASME that provides engineers and quality control professionals a measurable way to specify and purchase equipment for the Biotechnology, Pharmaceutical and Personal Care Products industries.

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Tank cleaning equipment

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Wall Mounted Cleaning Devices

Alfa Laval PlusClean®

Wall mounted cleaning nozzles

Introduction

Alfa Laval PlusClean® is a wall mounted cleaning nozzle designed for cleaning of shadow areas in tanks; e.g. below agitator blades and other tank internals. PlusClean is smoothly integrated into the tank wall. When activated during Cleaning-in-Place (CIP), PlusClean covers cleaning shadow areas with a high impact fan of cleaning media, giving the market's first guarantee of 100% impact cleaning coverage.

Application

There is a broad range of applications within hygiene-critical industries such as food, beverage, dairy and pharmaceutical industries, but likewise applications such as personal care, home care and less hygiene critical applications. PlusClean is the key to ensure high product yield by eliminating any risk of contamination. This is done by targeting cleaning media to the shadow zones for reinforced hygienic tank cleaning. PlusClean is optimal for installation in all tank types and tank sizes with highest hygienic tank cleaning requirements to ensure high product quality.

Benefits

- High product yield with 100% cleaning coverage guarantee
- Low cleaning media consumption
- Installed flush with the tank wall, allowing the unit to be used in tanks with frame type agitators
- Easy to install using the patented adjustable flange connection
- Hygienic design
- Option for actuator & ThinkTop control unit

Available versions:

- PlusClean media driven
- PlusClean air driven by a pneumatic actuator

Standard design

The PlusClean is available as standard with all wetted stainless-steel components manufactured from AISI 316L. O-rings are made from FEP/SIL and EPDM. The choice of slot (spray pattern) can optimize spray impact length and flow rate at the desired pressure.

Certificates

2.2 material certificate, Q-doc applicable to product contact parts only.

Working Principle

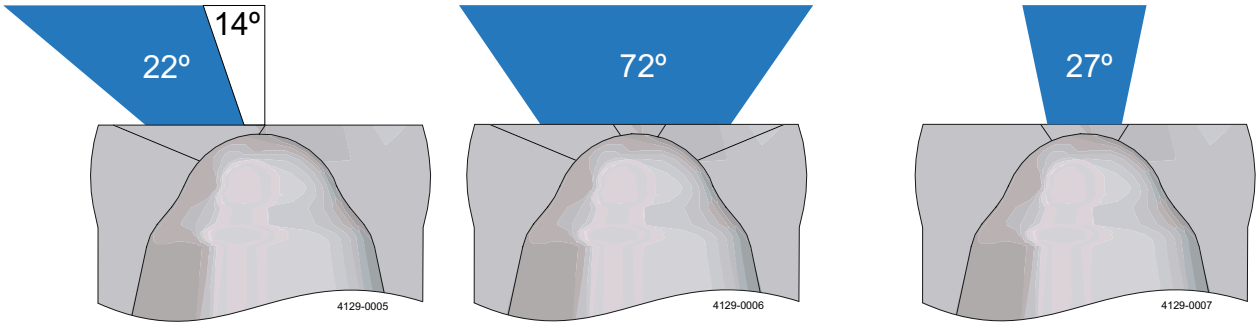
PlusClean operates based on a spring activated piston and is available in media or pneumatic driven versions and can thus be activated from either the cleaning media or controlled air pressure. When activated, PlusClean sprays a high impact fan of cleaning media directly to the soiled area. Cleaning coverage is ensured through controlled and repeated rotation of the device, e.g. agitator blades, through the spray fan. When cleaning is completed the piston position is restored by the integrated spring mechanism and the cleaning device is securely closed and sealed off. If purging is needed, always operate with actuator. PlusClean operates perfectly together with the primary top mounted cleaning device, whether it is a static spray ball, rotary spray head or a rotary jet head type cleaning device.

TECHNICAL DATA

Product wetted surface finish:	Ra 32 µin
Wetting distance:	Maximum 24.3 ft
Impact cleaning distance:	Maximum effective 17.9 ft

Pressure	
Working pressure:	27.6 - 101.5 PSI
Recommended CIP pressure:	29.0 - 72.5 PSI
Tank pressure range:	Media driven: –14.5 to 58 PSI
	Air driven: –14.5 to 87 PSI

Spray Pattern



Offset Slot | Wide Center Slot | Narrow Center Slot

PHYSICAL DATA

Materials (media contact parts)	
Components:	AISI 316L
O-rings:	FEP/VMQ, EPDM
Guide ring:	PTFE

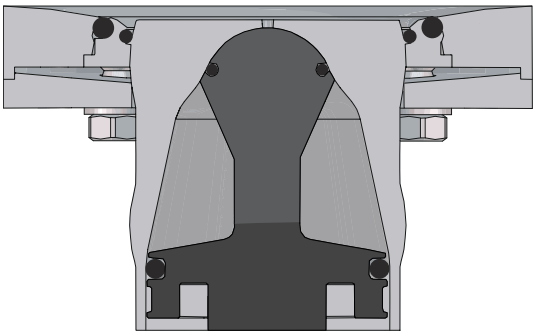
Temperature	
Maximum cleaning fluid temperature:	203 °F
Maximum tank temperature:	302 °F

Weight	
Weight:	Media driven: 4.6 lbs
	Pneumatic driven: 6 lbs

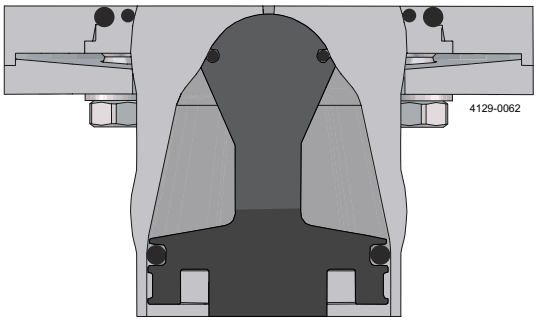
Connections	
Cleaning media connection:	Clamp connection: ASME BPE – L14AM-0.75 / DIN32676 Reihe A DN15
Air connections for actuator:	ISO 288/ G ⅛" internal thread fitted as standard

Mounting options

PlusClean has 2 types of weld plates: Adjustable weld plate and fixed weld plate.



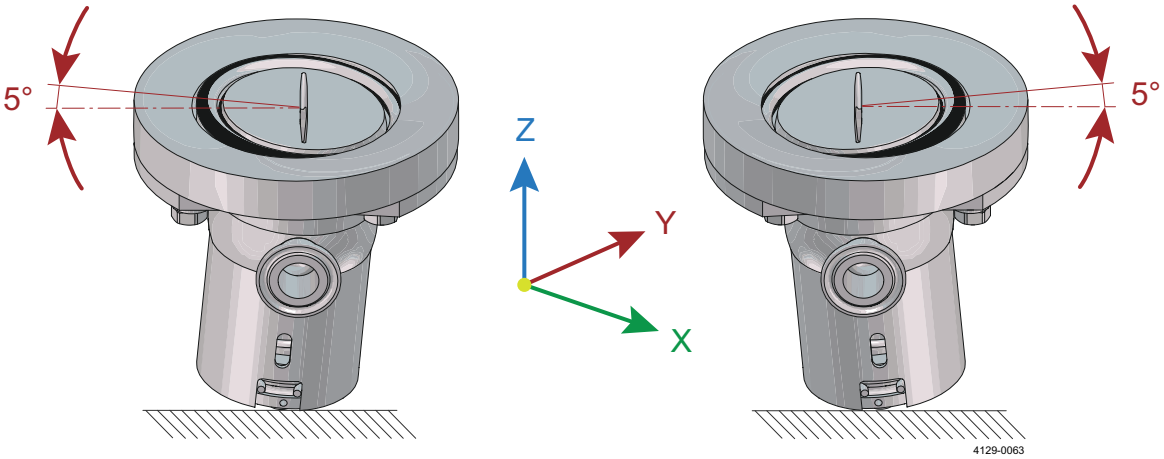
Adjustable weld plate



Fixed weld plate

The adjustable weld plate has a curved surface on the tank side of the weld plate and allows adjusting the angle of the cleaning nozzle ±5° from the center along all 3 axes. It is drainable only when installed at an angle more than 30°. The adjustable weld plate should be used in applications where the PlusClean is installed on tank walls and tank bottoms with more than 30° inclination to horizontal.

The fixed weld plate only allows the device to rotate around Z-axis. It is drainable at all angles due to the flat top surface.



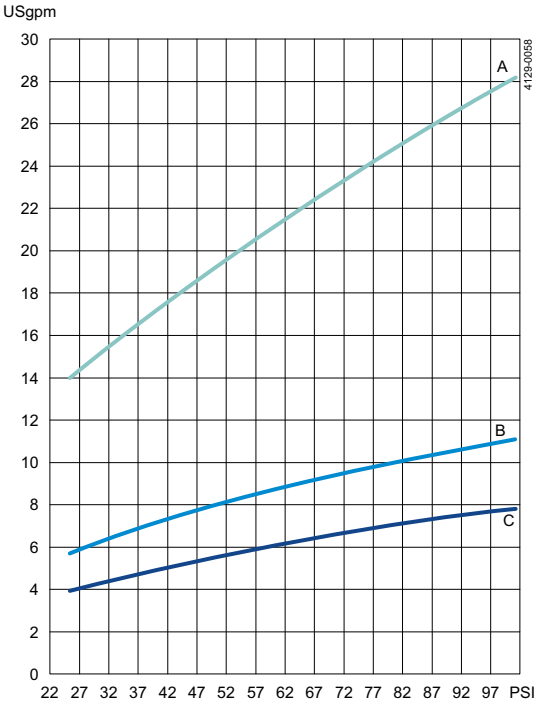
Qualification Documentation

Documentation specification

Q-doc	Equipment Documentation includes: • EN 10204 type 3.1 Material Inspection Certificate Note! Product contacted parts only! • FDA Declaration of Conformity • ADI Declaration (TSE) • QC Declaration of Conformity

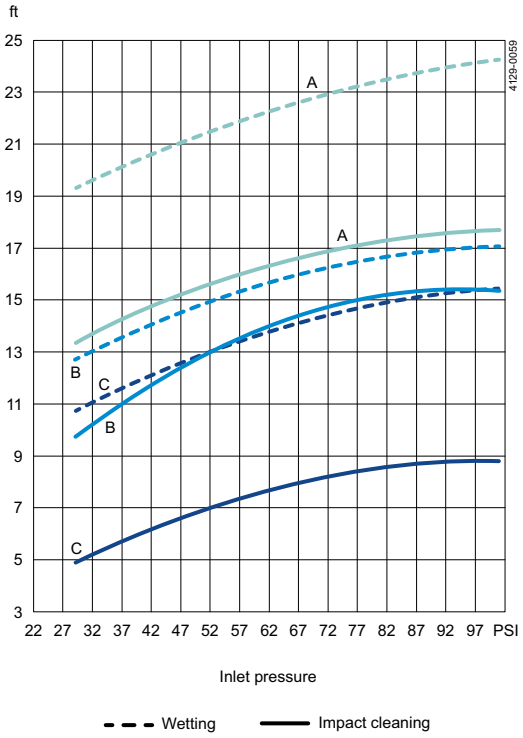
Performance data

Flow rate



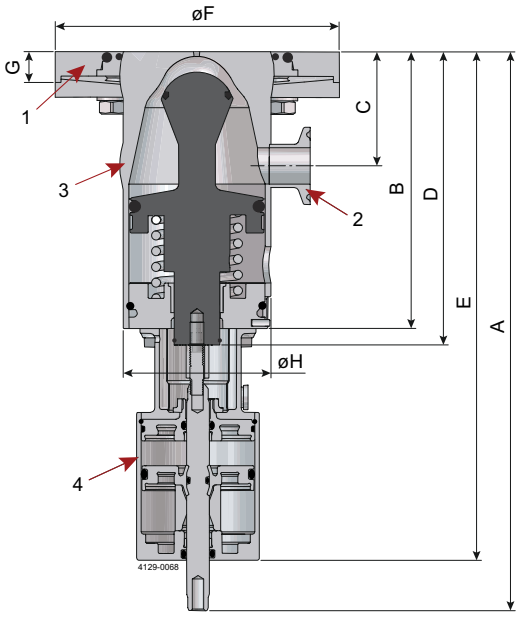
A = Wide center slot
B = Offset slot
C = Narrow slot

Throw length



A = Offset slot
B = Wide center slot
C = Narrow center slot

Dimensions (inch)



1. Tank connection
2. Inlet connection for cleaning media: 3/4" Clamp
3. Alfa Laval PlusClean
4. Pneumatic Actuator

A-H see tables below

Media driven

Stroke	A	B	C	D	E	F	G		H	Weight
							Adjustable weld plate	Fixed weld plate		
0.4	NA	4.8	2	5.2	NA	5.1	0.7	0.6	2.6	4.6 lbs

Pneumatic driven

Stroke	A	B	C	D	E	F	G		H	Weight
							Adjustable weld plate	Fixed weld plate		
0.4	9.7	4.8	2	5.2	8.8	5.1	0.7	0.6	2.6	6 lbs

Alfa Laval PlusClean® UltraPure

Wall mounted cleaning nozzles

Introduction

Alfa Laval PlusClean® UltraPure is a wall mounted cleaning nozzle designed for cleaning of shadow areas in tanks; e.g. below agitator blades and other tank internals. PlusClean UltraPure cleaning nozzle is smoothly integrated into the tank wall. When activated during Cleaning-in-Place (CIP), PlusClean UltraPure cover cleaning shadow areas with a high impact fan of cleaning media, giving the market's first guarantee of 100% impact cleaning coverage.

Application

Alfa Laval PlusClean UltraPure is engineered to meet sterile and aseptic process requirements in the biotechnology and pharmaceutical industries and is thus supplied with the comprehensive Alfa Laval Q-doc documentation package. PlusClean UltraPure cleaning nozzle is the key to ensure high product yield by eliminating any risk of contamination. This is done by targeting cleaning media to the shadow zones for reinforced hygienic tank cleaning. PlusClean UltraPure is optimal for installation in all tank types and tank sizes with highest hygienic tank cleaning requirements to ensure high product quality.

Benefits

- High product yield with 100% cleaning coverage guarantee
- Low cleaning media consumption
- Installed flush with the tank wall, allowing the unit to be used in tanks with frame type agitators
- Easy to install using the patented adjustable flange connection
- Hygienic design
- Option for actuator & ThinkTop
- Full traceability with Q-doc package

Available versions:

- PlusClean UltraPure media driven
- PlusClean UltraPure air driven by a pneumatic actuator

Standard design

The PlusClean UltraPure is available as standard with all wetted stainless-steel components manufactured from AISI 316L. O-rings are made from FEP/SIL and EPDM; both in compliance

with FDA regulation and USP Class VI. The choice of slot (spray pattern) can optimize spray impact length and flow rate at the desired pressure.

Certificates

Working Principle

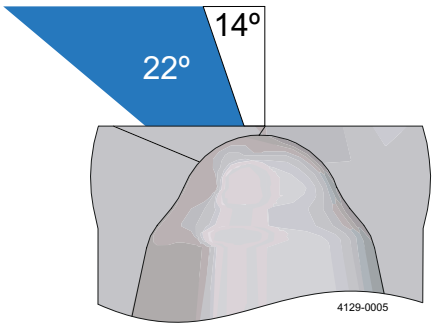
PlusClean UltraPure operates based on a spring activated piston and is available in media or pneumatic driven versions and can thus be activated from either the cleaning media or controlled air pressure. When activated, PlusClean UltraPure sprays a high impact fan of cleaning media directly to the soiled area. Cleaning coverage is ensured through controlled and repeated rotation of the device, e.g. agitator blades, through the spray fan. When cleaning is completed the piston position is restored by the integrated spring mechanism and the cleaning device is securely closed and sealed off. If purging is needed, always operate with actuator. PlusClean UltraPure operates perfectly together with the primary top mounted cleaning device, whether it is a static spray ball, rotary spray head or a rotary jet head type cleaning device.

TECHNICAL DATA

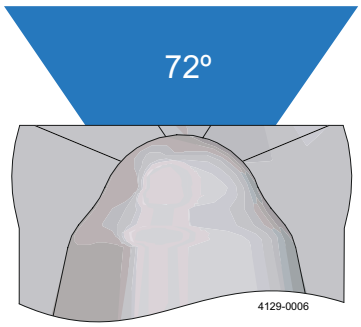
Product wetted surface finish:	Ra 15 µin
	Electropolished (ASME BPE SF4)
Wetting distance:	Maximum 24.3 ft
Impact cleaning distance:	Maximum effective 17.9 ft

Pressure	
CIP working pressure:	27.6 - 101.5 PSI
Recommended CIP pressure:	29.0 - 72.5 PSI
Tank pressure range:	Media driven: –14.5 to 58 PSI
	Air driven: –14.5 to 87 PSI

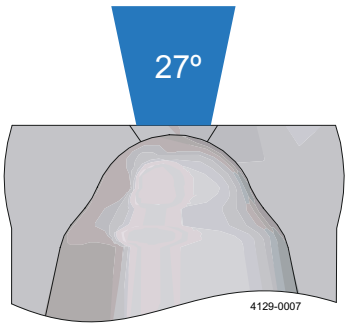
Spray Pattern



Offset Slot



Wide Center Slot



Narrow Center Slot

PHYSICAL DATA

Materials (media contact parts)	
Components:	AISI 316L
O-rings:	FEP/VMQ, EPDM
Guide ring:	PTFE

Temperature	
Maximum cleaning fluid temperature:	203 °F
Maximum tank temperature:	302 °F

Weight	
Weight:	Media driven: 4.6 lbs
	Pneumatic driven: 6 lbs

Connections	
Cleaning media connection:	Clamp connection: ASME BPE – L14AM-0.75 / DIN32676 Reihe A DN15
Air connections for actuator:	ISO 288/ G ⅛" internal thread fitted as standard

Mounting options

PlusClean UltraPure has 2 types of weld plates: Adjustable weld plate and fixed weld plate.

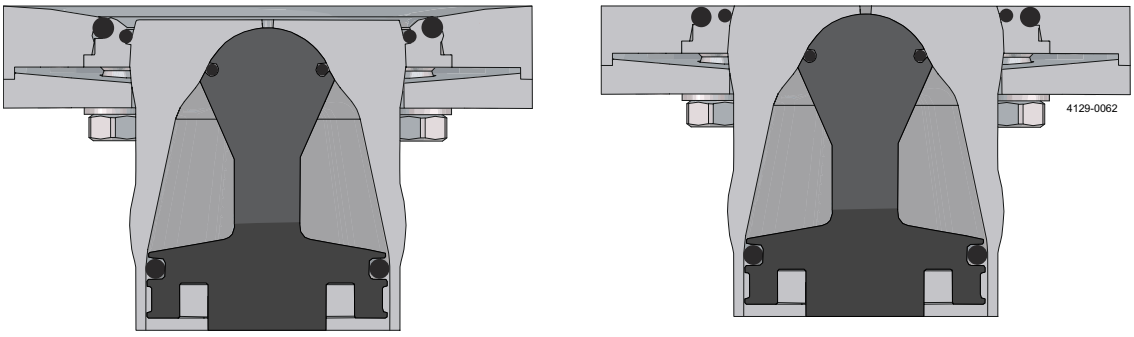


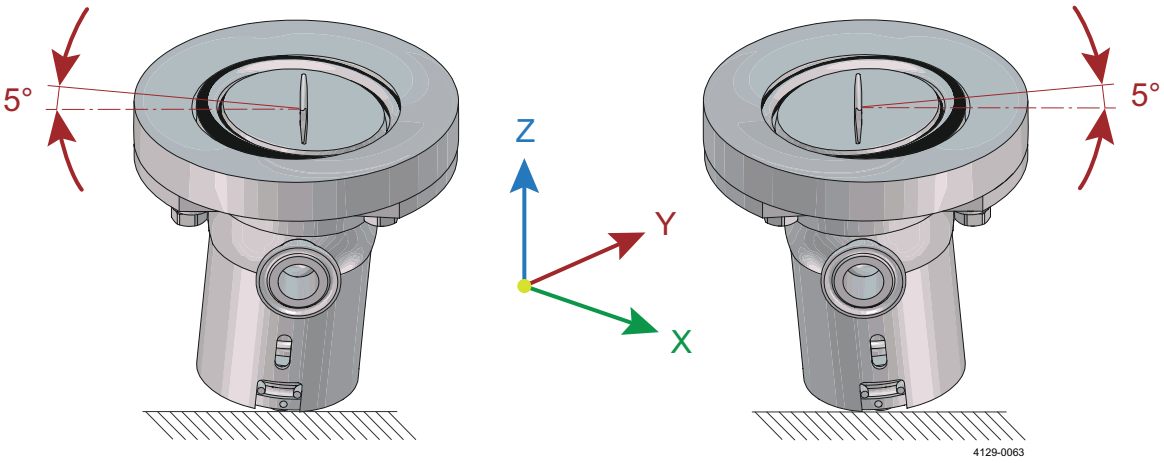
Figure 1.

Adjustable weld plate

Fixed weld plate

The adjustable weld plate has a curved surface on the tank side of the weld plate and allows adjusting the angle of the cleaning nozzle ±5° from the center along all 3 axes. It is drainable only when installed at an angle more than 30°. The adjustable weld plate should be used in applications where the PlusClean UltraPure is installed on tank walls and tank bottoms with more than 30° inclination to horizontal.

The fixed weld plate only allows the device to rotate around Z-axis. It is drainable at all angles due to the flat top surface.



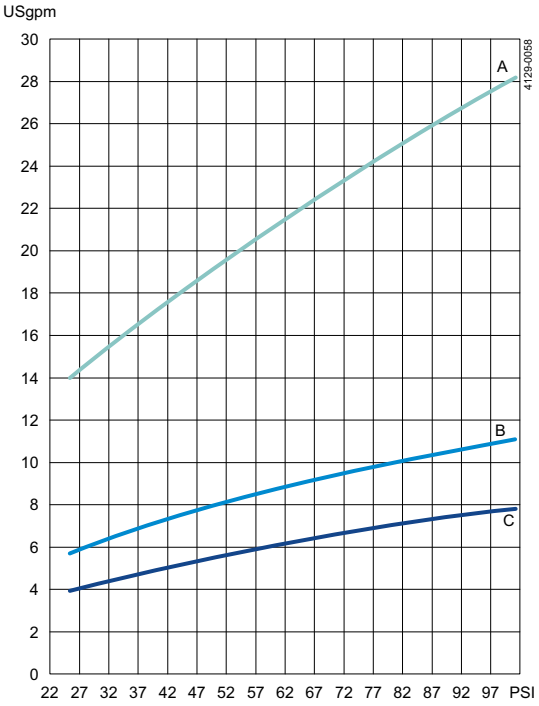
Qualification Documentation

Documentation specification

Q-doc	Equipment Documentation includes: • EN 10204 type 3.1 Material Inspection Certificate Note! Product contacted parts only! • FDA Declaration of Conformity • ADI Declaration (TSE) • QC Declaration of Conformity • USP Class VI certificate

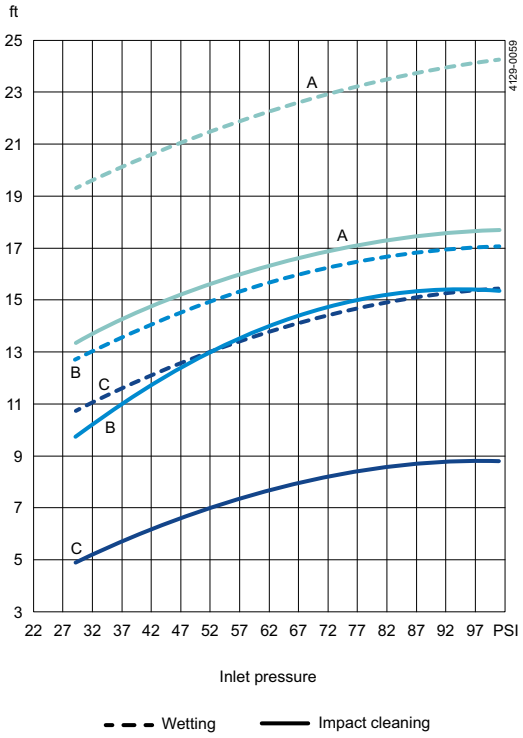
Performance data

Flow rate



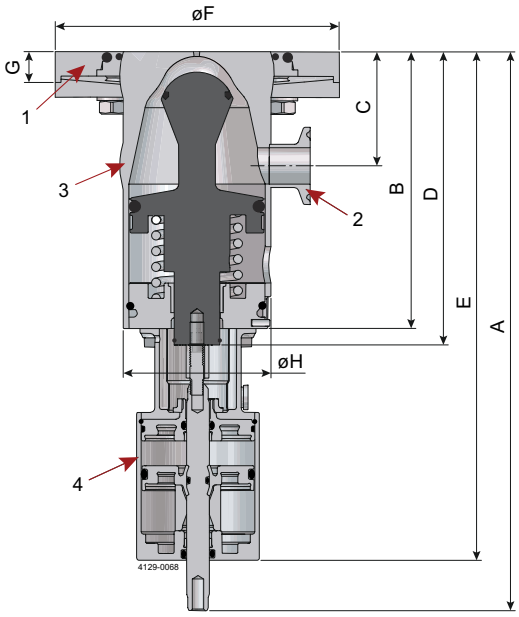
A = Wide center slot
B = Offset slot
C = Narrow slot

Throw length



A = Offset slot
B = Wide center slot
C = Narrow center slot

Dimensions (inch)



1. Tank connection
2. Inlet connection for cleaning media: 3/4" Clamp
3. Alfa Laval PlusClean
4. Pneumatic Actuator

A-H see tables below

Media driven

Stroke	A	B	C	D	E	F	G		H	Weight
							Adjustable weld plate	Fixed weld plate		
0.4	NA	4.8	2	5.2	NA	5.1	0.7	0.6	2.6	4.6 lbs

Pneumatic driven

Stroke	A	B	C	D	E	F	G		H	Weight
							Adjustable weld plate	Fixed weld plate		
0.4	9.7	4.8	2	5.2	8.8	5.1	0.7	0.6	2.6	6 lbs

Alfa Laval Free Rotating Retractor

Wall-mounted cleaning device for ducts, tanks and other hard-to-clean vessels

Introduction

Safeguard product quality, prevent contamination, and meet hygienic processing standards with the Alfa Laval Free Rotating Retractor. This high-efficiency, retractable cleaning device prepares vessels for production quickly and economically. It removes residues from the interior surfaces of ducts, tanks, and other hard-to-clean confined spaces. Boost process uptime with this dynamic, resource-efficient retractable cleaning device.

Applications

The Free Rotating Retractor is a retractable spray device designed for dairy, food, beverage, home and personal care, and other industries where hygiene is critical. It provides 100% cleaning coverage of ducts, tanks, and processing vessels with hard-to-reach shadow areas. The device, combined with other Free Rotating Retractors, can be used as a stand-alone wall-mounted cleaning device, or paired with an Alfa Laval ThinkTop sensing and control unit to monitor or regulate the opening and closing of the device. The interior surfaces of processing vessels are spotless after every CIP cycle.

Benefits

- Secure product quality with 100% cleaning coverage of ducts, tanks and other hygienic processing vessels
- Up to 35% savings in time, water and cleaning media compared to static spray ball systems
- Reduce total cost of ownership due to minimal cost and effort to install, operate and maintain the retractor
- Boost uptime and increase productivity with faster and resource-efficient CIP cycles
- Get fully automated operation when paired with Alfa Laval ThinkTop sensing and control units

Standard design

Based on the proven solutions of the Alfa Laval SSV valve and the SaniMidget SB series, versatile and modular, the Free Rotating Retractor consists of all AISI 316 stainless steel for wetted metal parts. All wetted parts have a surface finish of Ra 0.8. Wetted elastomers and polymers are food-compliant (FDA and EU regulations). Upon request, the Free Rotating Retractor can be supplied with the Alfa Laval Q-doc documentation

package, ensuring full traceability of the entire supply chain. The Q-doc includes 3.1 certificates for metal parts.

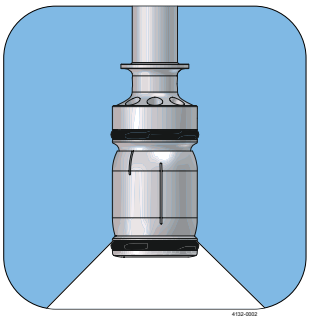
Certificates

- Q-Doc

2.2 material certificate, Q-doc applicable to product contact parts only.

Working principles

The Alfa Laval Free Rotating Retractor functions as a pneumatically open and spring-close seat valve to clean the interior surfaces of vessels that manufacture hygienic products. In the closed position, the installation forms a flush design with the vessel wall, and the spray head is not exposed to the product zone. Prior to cleaning, the spray head extends into the product area. It rotates between the two hydro bearings due to the reaction forces of the cleaning media expelled from the orifices in a swirling 310°-up spray pattern. In doing so, the device provides complete coverage of the vessel surfaces through vibrating impact and cascading flow of the cleaning media.



The actuator can remain extended during a draining or purging phase.

The device is completely self-cleaning except for the product-facing part of the plug. This surface is typically cleaned by pairing it with another tank cleaning device. When properly installed, the device is self-draining.

TECHNICAL DATA

Temperature/pressure – process contact	
Temperature range – liquid service	-10° C to 95° C (14° F to 284° F)
Temperature max. – steam/gas service	Max. 121° C (250° F)
Temperature max. – ambient	Max. 150° C (304° F)
Pressure range – liquid service	1-3 bar (14.5 psi to 43.5 psi)
Pressure max. – liquid service	5 bar (72.5 psi)
Pressure max. – steam/gas	Contact Alfa Laval for information
Pressure min. – vessel	Full Vacuum

Temperature/pressure – actuator	
Temperature range	-10° C to 60° C (14° F to 140° F)
Pressure range - supply	5-7 bar (72.5 psi to 101.5 psi)

Misc.	
Wetting radius (see performance data)	900 mm (35.5 inch)
Cleaning radius (see performance data)	800 mm (31.5 inch)
Lubrication – product contact	Cleaning media
Air supply connection	6 mm (0.24 inch)

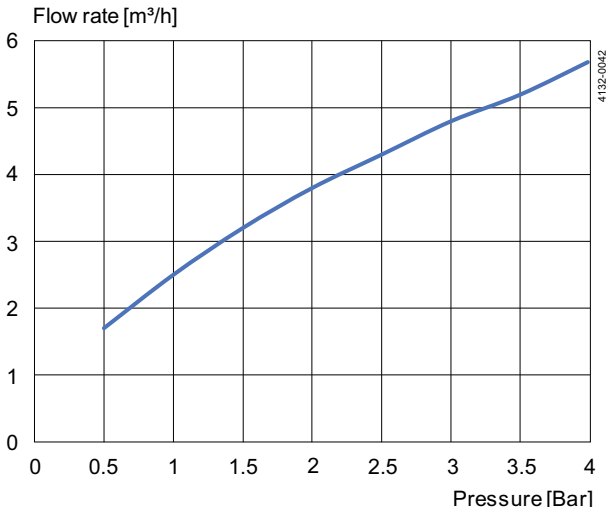
PHYSICAL DATA

Materials	
Steel parts – product wetted	AISI 316
Steel parts – non-product wetted	AISI 304, AISI 304L, AISI 302, Brass
Seal parts – product wetted	EPDM
Seal parts – non-product wetted exposed	NBR, FPM
Polymer parts – product wetted	PEEK
Polymer parts – non-product wetted exposed	Igildur, PP

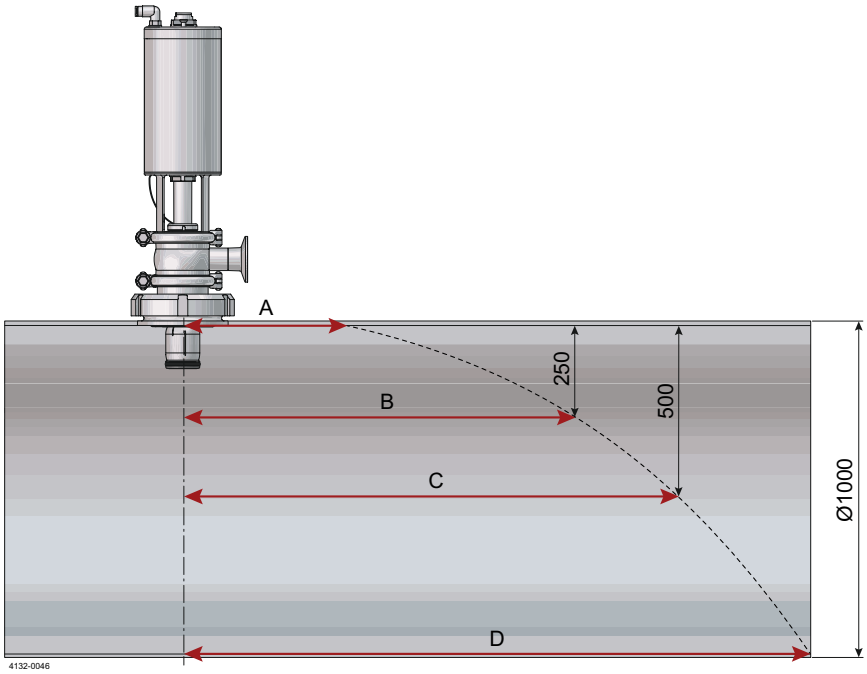
Surface roughness	
External surface finish	Bead blasted
Internal surface finish – cleaning media	Ra 0.8 µm / Ra 32 µi
Internal surface finish - product	Ra 0.8 µm / Ra 32 µi

Surface roughness	
External surface finish	Bead blasted
Internal surface finish – cleaning media	Ra 0.8 µm / Ra 32 µi
Internal surface finish - product	Ra 0.38 µm EP / Ra 15 µi EP

Flow rate



Throw length

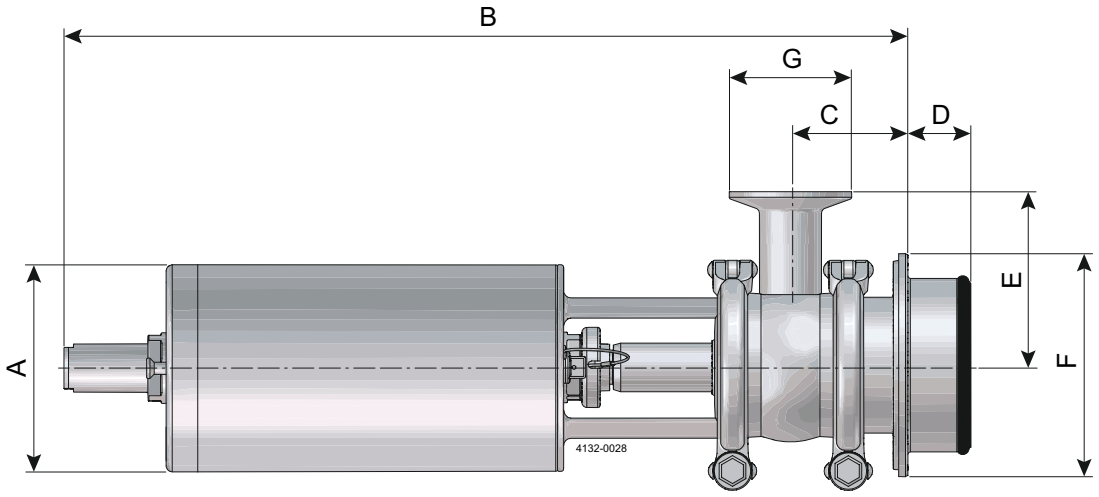


Wetting distance mm / inch				
Pressure	A	B	C	D
2 bar	900 / 35.5	3300 / 130	4000 / 158	4800 / 189

Cleaning distance mm / inch				
Pressure	A	B	C	D
2 bar	800 / 31.5			

Throw lengths are measured as horizontal throw length. Effective throw length varies depending on substance to be removed, cleaning procedure and agent. Throw length distance of the machine installed vertically at the top to the circular duct. Along the top wall, throw lengths are smallest. Further down the side of the circular duct, the throw length increases.

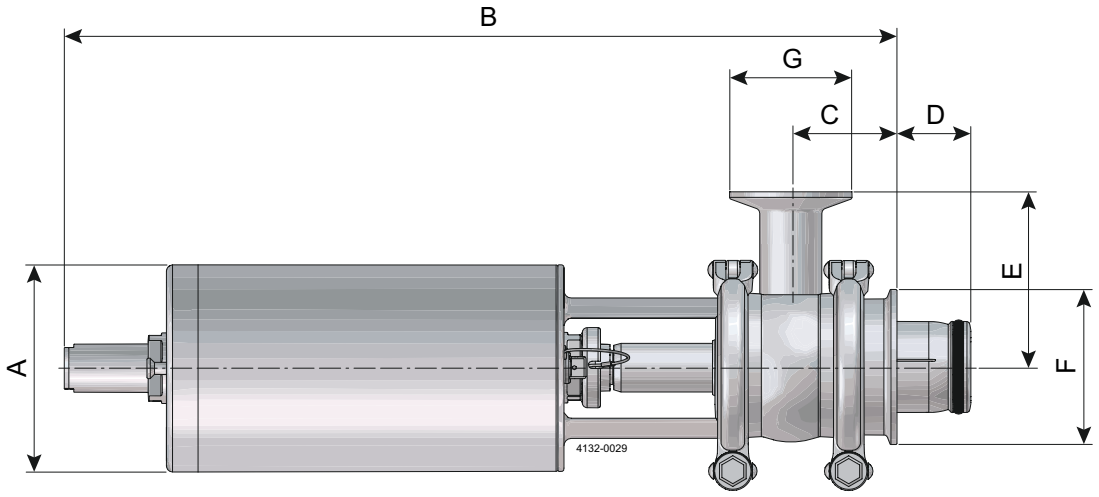
Dimensions



Tank connection	Inlet connection	Dimension mm / inch					Weight
F	G	A	B	C	D	E	Kg / lb
3 inch RJT	1 inch Clamp	85 / 3.3	365.4 / 14.39	48.4 / 1.91	26.0 / 1.02	71.5 / 2.81	5.3 / 11.7
DN80 Clamp[1]			361.8 / 14.24	44.9 / 1.77	29.5 / 1.16		4.7 / 10.4
3 inch Clamp[2]			368.4 / 14.50	51.4 / 2.02	23.0 / 0.91		4.5 / 10.0

[1] DIN 11866

[2] ISO 2852



Tank connection	Inlet connection	Dimension mm / inch					Weight
F	G	A	B	C	D	E	Kg / lb
2 inch Clamp[1]	1 inch Clamp	85 / 3.3	361 / 14.21	44 / 1.73	30.5 / 1.20	71.5 / 2.81	4.0 / 8.8

[1] ISO 2852

Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC

Alfa Laval Free Rotating Retractor UltraPure

Wall-mounted cleaning device for high-purity ducts, tanks and other hard-to-clean vessels

Introduction

When high-purity pharmaceutical processing is a must, select the Alfa Laval Free Rotating Retractor UltraPure. This wall-mounted cleaning device lets manufacturers spend less time cleaning and more time producing. Lift uptime and productivity with cleaner ducts and tanks, especially in those hard-to-reach shadow areas. This dynamic, resource-efficient, retractable cleaning device removes contaminants from the interior surfaces of processing vessels while reducing the total cost of ownership.

Applications

The Free Rotating Retractor UltraPure provides the highest levels of hygiene for high-purity products manufactured in the biotechnology and pharmaceutical industries. It provides 100% cleaning coverage of ducts, tanks, and processing vessels with hard-to-reach shadow areas. The device, combined with other Free Rotating Retractors, can be used as a stand-alone wall-mounted cleaning device, or paired with an Alfa Laval ThinkTop sensing and control unit to monitor or regulate the opening and closing of the device. The interior surfaces of processing vessels are spotless after every CIP cycle.

Benefits

- Up to 35% savings in time, water and cleaning media compared to static spray ball systems
- Reduce total cost of ownership due to minimal cost and effort to install, operate and maintain the retractor
- Lift uptime and productivity with faster and resource-efficient CIP cycles
- Electropolished product contact surface with roughness less than Ra 0.38
- Fully automated operation when paired with an Alfa Laval ThinkTop sensing and control unit

Standard design

Based on the proven solutions of the Alfa Laval SSV valve and the SaniMidget SB series, versatile and modular, the Free Rotating Retractor UltraPure consists of all AISI 316L stainless-steel for product-wetted metal parts. Process-wetted parts have a surface finish of Ra 0.8 and product-wetted metal parts are electropolished with a surface finish of Ra 0.38. Product-wetted elastomers and polymers are food-compliant (FDA and EU

regulations) and compliant with pharmaceutical standards (USP 87 and 88 Class VI or ISO 10993-5 and ISO 10993-6, -10, -11).

The Free Rotating Retractor UltraPure comes with the Alfa Laval Q-doc documentation package, ensuring full traceability of the entire supply chain. The Q-doc includes 3.1 certificates for metal parts.

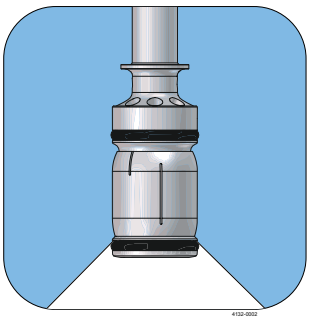
Certificates

- Q-Doc

2.2 material certificate, Q-doc applicable to product contact parts only.

Working principles

The Alfa Laval Free Rotating Retractor UltraPure functions as a pneumatically open and spring-close seat valve to clean the interior surfaces of vessels used for the manufacture of high-purity products. In the closed position, the installation forms a flush design with the vessel wall, and the spray head is not exposed to the product zone. Prior to cleaning, the spray head extends into the product area. It rotates between the two hydro bearings due to the reaction forces of the cleaning media expelled from the orifices in a swirling 310°-up spray pattern. In doing so, the device provides complete coverage of the vessel surfaces through vibrating impact and cascading flow of the cleaning media.



The actuator can remain extended during a draining or purging phase.

The device is completely self-cleaning except for the product-facing part of the plug. This surface is typically cleaned by pairing it with another tank cleaning device. When properly installed, the device is self-draining.

TECHNICAL DATA

Temperature/pressure – process contact	
Temperature range – liquid service	-10° C to 95° C (14° F to 284° F)
Temperature max. – steam/gas service	Max. 121° C (250° F)
Temperature max. – ambient	Max. 150° C (304° F)
Pressure range – liquid service	1-3 bar (14.5 psi to 43.5 psi)
Pressure max. – liquid service	5 bar (72.5 psi)
Pressure max. – steam/gas	Contact Alfa Laval for information
Pressure min. – vessel	Full Vacuum

Temperature/pressure – actuator	
Temperature range	-10° C to 60° C (14° F to 140° F)
Pressure range - supply	5-7 bar (72.5 psi to 101.5 psi)

Misc.	
Wetting radius (see performance data)	900 mm (35.5 inch)
Cleaning radius (see performance data)	800 mm (31.5 inch)
Lubrication – product contact	Cleaning media
Air supply connection	6 mm (0.24 inch)

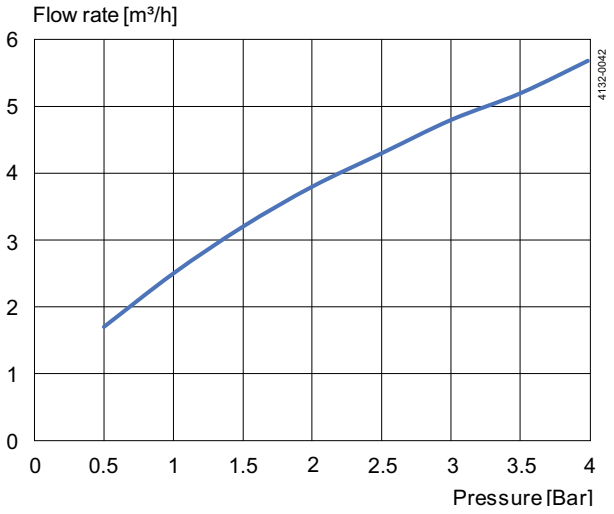
PHYSICAL DATA

Materials	
Steel parts – product wetted	AISI 316
Steel parts – non-product wetted	AISI 304, AISI 304L, AISI 302, Brass
Seal parts – product wetted	EPDM
Seal parts – non-product wetted exposed	NBR, FPM
Polymer parts – product wetted	PEEK
Polymer parts – non-product wetted exposed	Igildur, PP

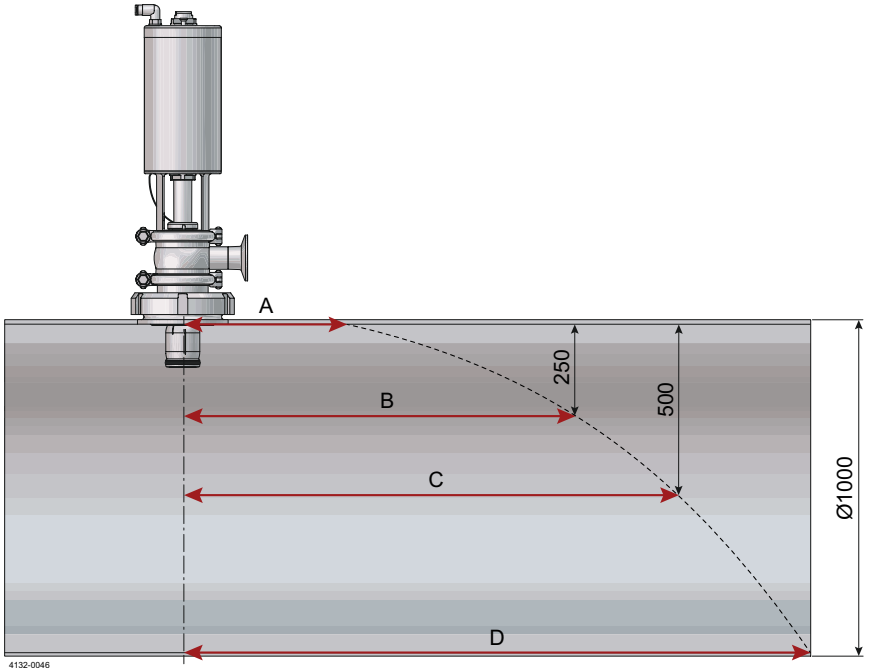
Surface roughness	
External surface finish	Bead blasted
Internal surface finish – cleaning media	Ra 0.8 µm / Ra 32 µi
Internal surface finish - product	Ra 0.8 µm / Ra 32 µi

Surface roughness	
External surface finish	Bead blasted
Internal surface finish – cleaning media	Ra 0.8 µm / Ra 32 µi
Internal surface finish - product	Ra 0.38 µm EP / Ra 15 µi EP

Flow rate



Throw length

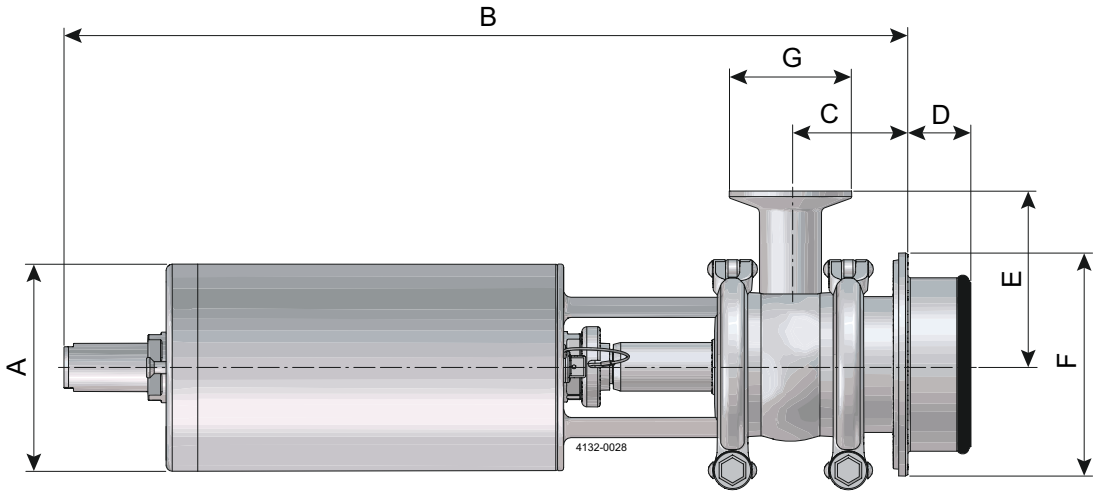


Wetting distance mm / inch				
Pressure	A	B	C	D
2 bar	900 / 35.5	3300 / 130	4000 / 158	4800 / 189

Cleaning distance mm / inch				
Pressure	A	B	C	D
2 bar	800 / 31.5			

Throw lengths are measured as horizontal throw length. Effective throw length varies depending on substance to be removed, cleaning procedure and agent. Throw length distance of the machine installed vertically at the top to the circular duct. Along the top wall, throw lengths are smallest. Further down the side of the circular duct, the throw length increases.

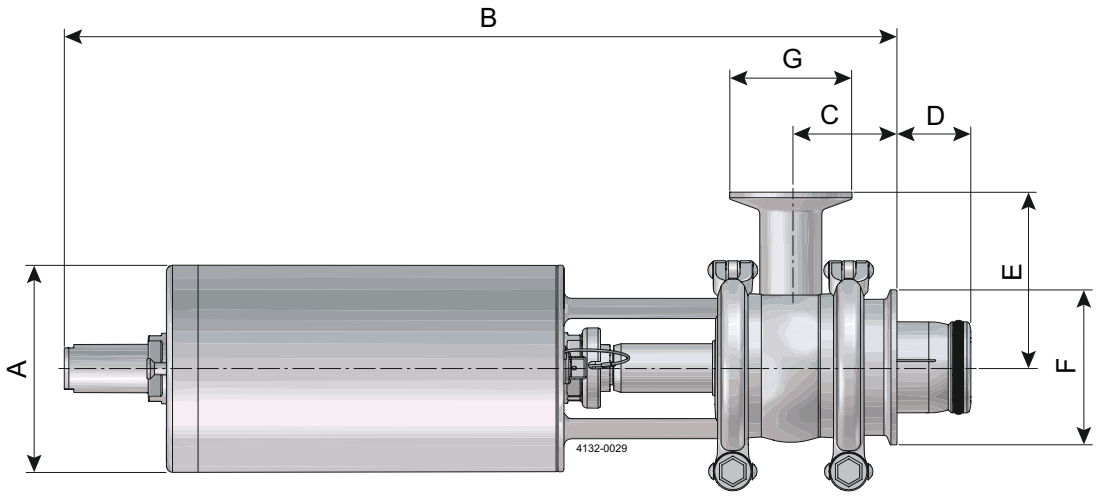
Dimensions



Tank connection	Inlet connection	Dimension mm / inch					Weight
F	G	A	B	C	D	E	Kg / lb
3 inch RJT	1 inch Clamp	85 / 3.3	365.4 / 14.39	48.4 / 1.91	26.0 / 1.02	71.5 / 2.81	5.3 / 11.7
DN80 Clamp[1]			361.8 / 14.24	44.9 / 1.77	29.5 / 1.16		4.7 / 10.4
3 inch Clamp[2]			368.4 / 14.50	51.4 / 2.02	23.0 / 0.91		4.5 / 10.0

[1] DIN 11866

[2] ISO 2852



Tank connection	Inlet connection	Dimension mm / inch					Weight
F	G	A	B	C	D	E	Kg / lb
2 inch Clamp[1]	1 inch Clamp	85 / 3.3	361 / 14.21	44 / 1.73	30.5 / 1.20	71.5 / 2.81	4.0 / 8.8

[1] ISO 2852

Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC • USP 87 and 88 Class VI or ISO 10993-5 and ISO 10993-6, 10, 11

ALSIS Code: 5485, 5546, 5713

Item no.	Inlet connection	Description	
			Adjustable PlusClean
9618291484 9618291478 9618291471 9618291486 9618291485 9618291487	ASME BPE ASME BPE ASME BPE DIN DIN DIN	PlusClean 22° Offset PlusClean 27° Center PlusClean 72° Center PlusClean 22° Offset PlusClean 27° Center PlusClean 72° Center	
			Blind Cap
8010025663 8010025752		Blind cap tool kit for adjustable weld plate, EPDM Includes: blindcap, adaptor ring, 2 O-rings Blind cap tool kit for fixed weld plate, EPDM Includes: blindcap, adaptor ring, 2 O-rings	
			Fixed PlusClean
9618291532 9618291508 9618291479 9618291525 9618291480 9618291473	ASME BPE ASME BPE ASME BPE DIN DIN DIN	PlusClean 22° Offset PlusClean 72° Center PlusClean 27° Center PlusClean 22° Offset PlusClean 27° Center PlusClean 72° Center	
			Heat Sink
8010025445 8010025446		Heat sink kit for adjustable weld plate Heat sink kit for fixed weld plate	

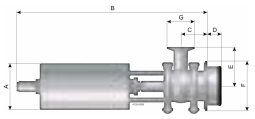
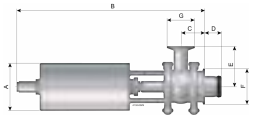
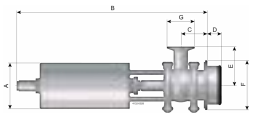
In Anytime configurator the PlusClean can be configured with following options:
Elastomer: EPDM or FPM. Surface Finish: Standard or UltraPure. Actuator: Media activated, Air activated, or Air activated with ThinkTop. Documentation: 2.2 and Q-Doc.

ALSIS Code: 5485, 5546, 5713

Item no.	Inlet connection	Description	
			Weld Plate
8010025780 8010025804		Weld plate kit for Adjustable PlusClean Includes: weld plate, 2 brackets, 6 bolts/washers, Adaptor ring and O-rings are delivered together with the actual PlusClean Weld plate kit for Fixed PlusClean Includes: weld plate, 2 brackets, 6 bolts/washers, Adaptor ring and O-rings are delivered together with the actual PlusClean	

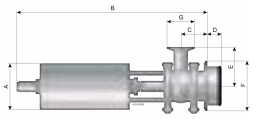
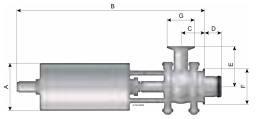
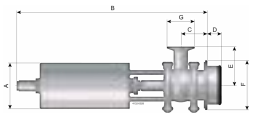
In Anytime configurator the PlusClean can be configured with following options:
Elastomer: EPDM or FPM. Surface Finish: Standard or UltraPure. Actuator: Media activated, Air activated, or Air activated with ThinkTop. Documentation: 2.2 and Q-Doc.

ALSIS Code: 5497 Gasket material: EPDM

Item no.	Tank connection standard	Tank connection size nom	Dimensions (mm)					
			A	B closed	C	D closed	E	
Clamp insert								
8010032561	DIN 11866	DN80	85	365	48.4	26	71.5	
8010032562	ISO 2852	3inch	85	365	48.4	26	71.5	
8010032920	ISO 2852	3inch	85	365	48.4	26	71.5	
8100032919	DIN 11866	DN80	85	365	48.4	26	71.5	
Clamp on								
8010032435	ISO 2852	2inch	85	361	44	30.5	71.5	
8010032918	ISO 2852	2inch	85	361	44	30.5	71.5	
Thread insert								
8010030789	RJT	3inch	85	365	48.4	26	71.5	
8010032917	RJT	3inch	85	365	48.4	26	71.5	

For more specifications please see the product leaflet.

ALSIS Code: 5497 Gasket material: EPDM

Item no.	Tank connection standard	Tank connection size nom	Dimensions (mm)					
			A	B closed	C	D closed	E	
Clamp insert								
8010032927 8010032928	DIN 11866 ISO 2852	DN80 3inch	85 85	365 365	48.4 48.4	26 26	71.5 71.5	
Clamp on								
8010032926	ISO 2852	2inch	85	361	44	30.5	71.5	
Thread insert								
8010032925	RJT	3inch	85	365	48.4	26	71.5	

For more specifications please see the product leaflet.

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Rotary jet heads

Product leaflet

Ordering leaflet

Rotary jet heads

Ordering leaflet

Alfa Laval GJ A2
Rotary jet heads

Introduction
The Alfa Laval GJ A2 is a rotary jet head tank cleaning machine for use in hygienic environments. Built to clean tanks from 132-396 US gallon it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.
The GJ A2 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.
Applications
The Alfa Laval GJ A2 is designed for the removal of residues from hygienic tanks across a broad range of industries, such as the dairy, brewery, beverage, food, and personal care industries.
Due to its slim design, the Alfa Laval GJ A2 is ideal to retrofit spray balls, thereby reducing Cleaning-in-Place (CIP) costs and cleaning time.
Benefits
- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck
- Slim design makes it possible to insert through small tank inlet openings

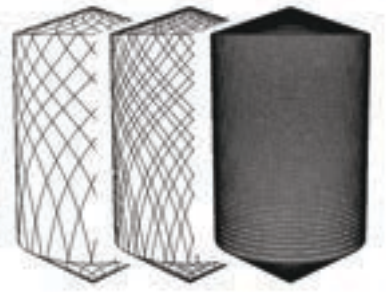
Standard design
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.
Certificate
2.1 material certificate

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant:	Self-lubricating
Max. throw length:	12 - 14 ft
Pressure	
Working pressure:	40 - 200 PSI
Recommended pressure:	50 - 150 PSI

PHYSICAL DATA

Materials

316L, PPS, PTFE, EPDM1 (FKM and FFKM)

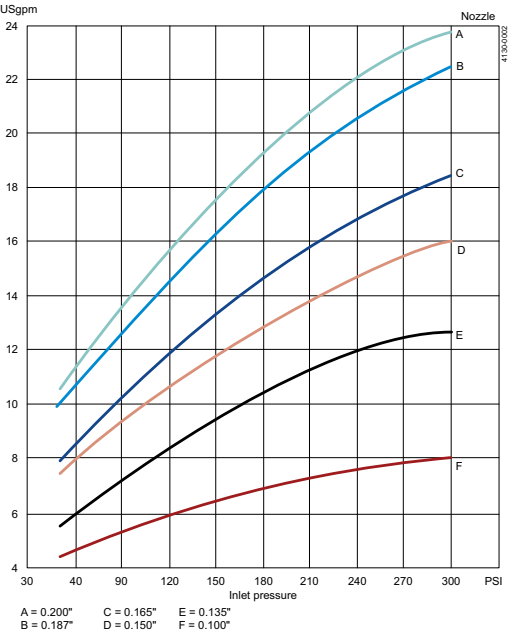
1 FDA compliance 21CFR§177

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F
Weight	
Weight:	5 lbs
Finish	
Surface finish:	Ra 32 µin
Connections	
Standard thread:	1" ISO 2852 Clamp
Available option:	3/4" NPT Female Thread
	3/4" Rp Female Thread
	ODØ38,1/1½" ISO 2037 Weld-on

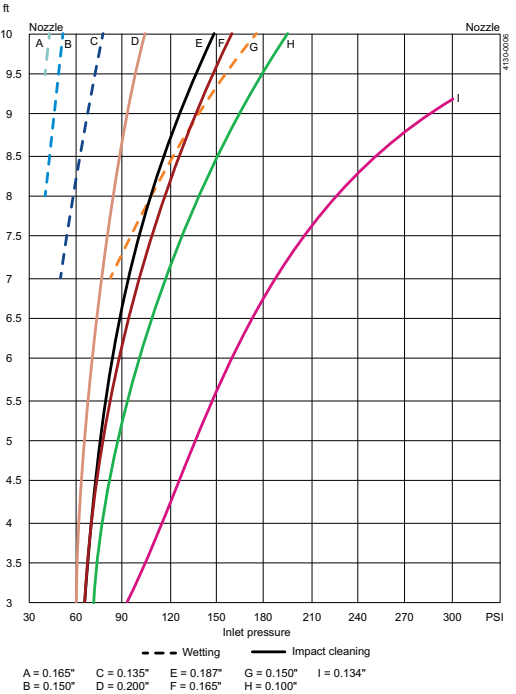
Caution

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.

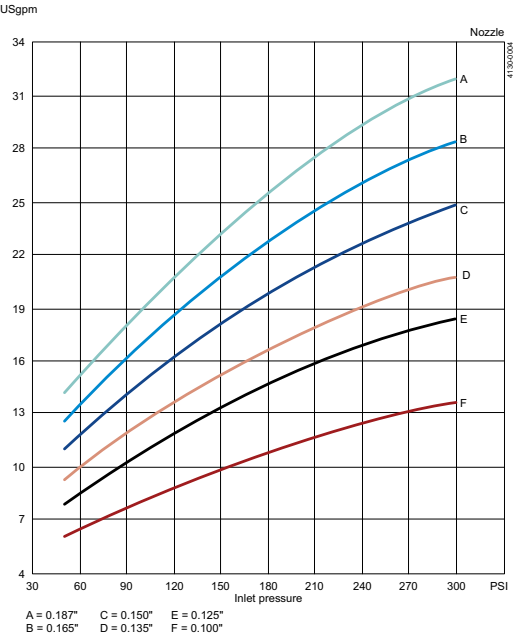
Flow Rate (2 nozzle)



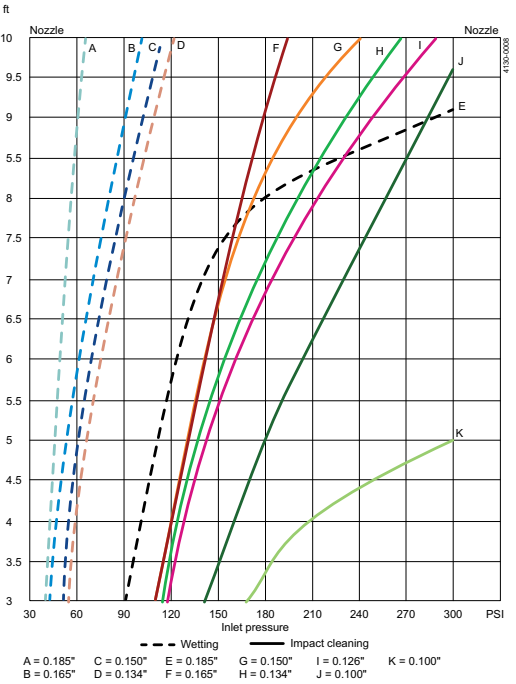
Impact Throw Length (2 nozzle)



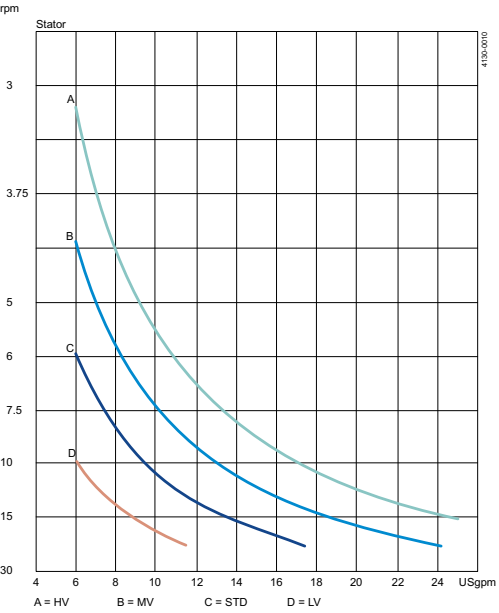
Flow Rate (4 nozzle)



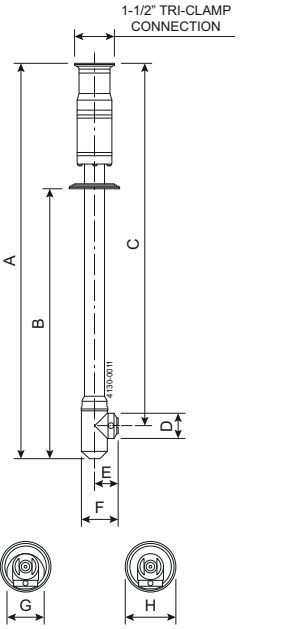
Impact Throw Length (4 nozzle)



Cleaning Time



Dimensions (inch)



A	B	C	D	E	F	G	H
19.8	13.5	18.1	1.2	1.2	1.9	1.9	2.4

Alfa Laval TZ-89

Rotary jet heads

Introduction

The Alfa Laval TZ-89 is a rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 1321-5283 US gallons, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The TZ-89 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.

Applications

The Alfa Laval TZ-89 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, and personal care industries.

Benefits

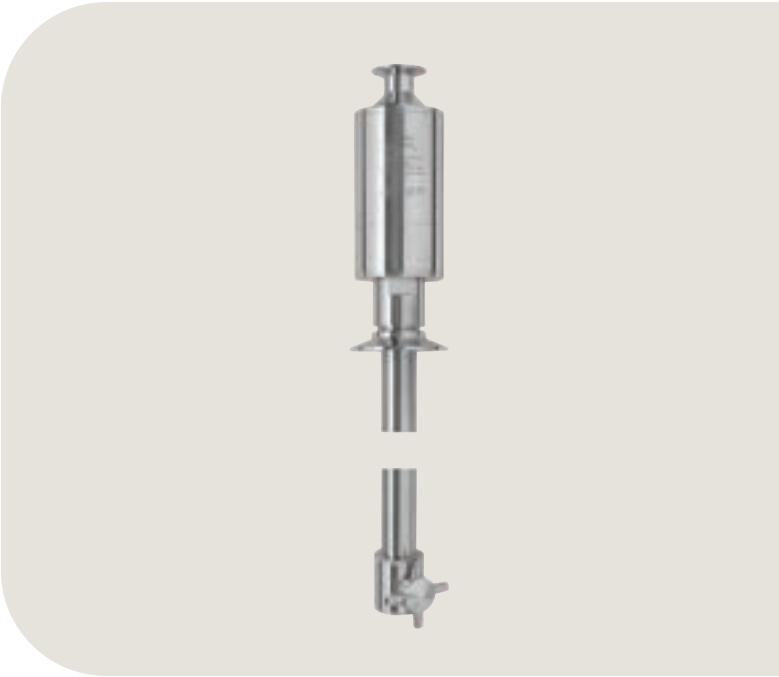
- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- Eliminates the need for confined space entry for manual tank cleaning
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. Due to its slim design, it is ideal to retrofit spray balls, thereby reducing Cleaning-in-Place (CIP) costs and cleaning time.

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 TZ-89 is the Alfa Laval SaniJet 20 for applications that require 3.1. material certification, ATEX certification, and the Alfa Laval Q-doc documentation package.

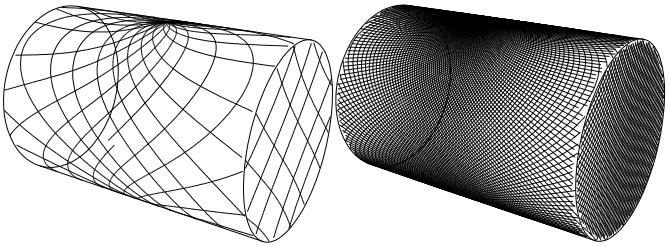


Working principle

The high-impact jet stream from the Alfa Laval TZ-89 rotary jet head is designed to cover the inside of the tank 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.

Cleaning Pattern



First cycle 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

2.1 material certificate

TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid

Standard Surface finish	
Product contact parts:	Ra 39 µin

Throw length	
Max. throw length:	13 - 23 ft
Impact throw length:	8 - 13 ft

Pressure	
Working pressure:	30 - 100 PSI
Recommended pressure:	72 - 94 PSI

PHYSICAL DATA

Materials:	316L (UNS S61603), Duplex steel (UNS N31803), PTFE, PEEK, FEP/silicone

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

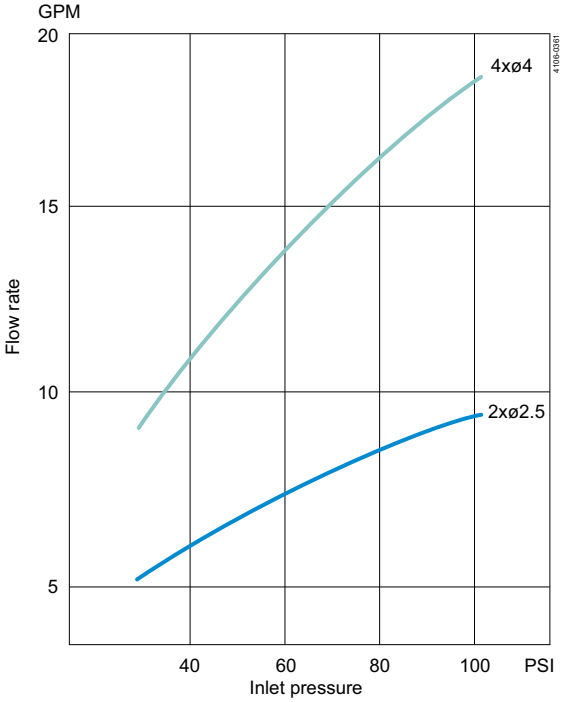
Weight	
Weight:	12 - 18.7 lbs

Connections	
Inlet connections:	Thread: 3/4" Rp (BSP) or NPT, male or Clamp: 1" ISO 2852
Tank connection:	Flange: 50 DN6 DIN 2501, or 3" ANSI B 16.5 or Clamp: 3" or 4" ISO2852

Caution

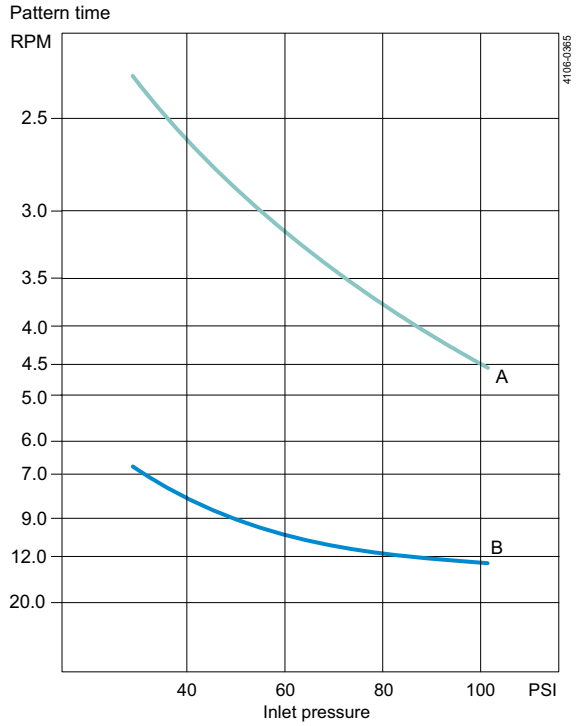
Avoid hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, it is recommended to place a filter in the supply line.

Flow Rate



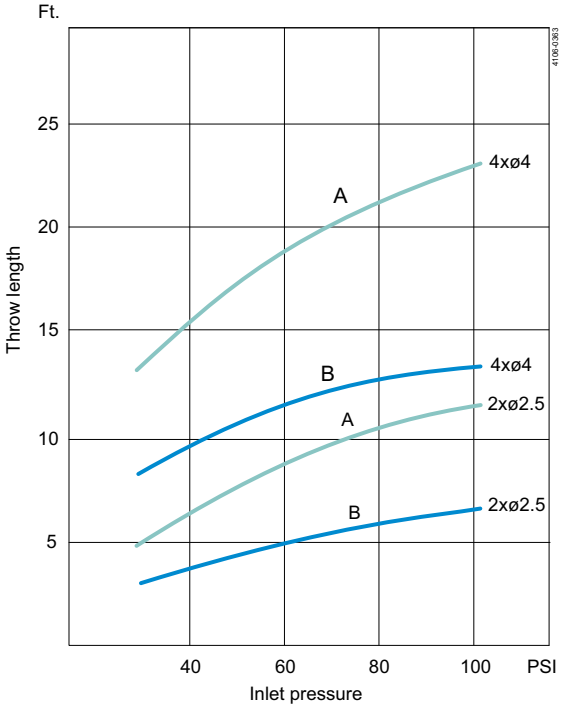
Nozzles inch
A = 4 x Ø0.16
B = 2 x Ø0.1

Cleaning Time, Complete Pattern



Nozzles inch
A = 4 x Ø0.16
B = 2 x Ø0.1

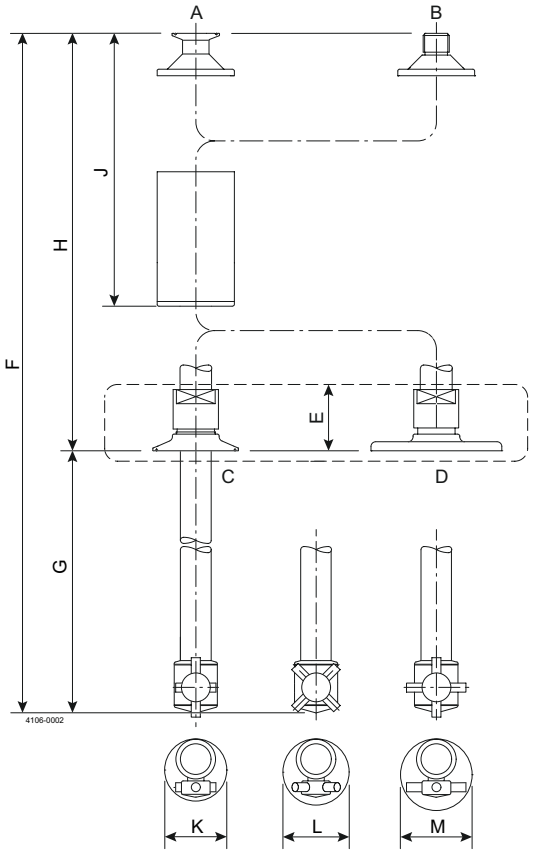
Impact Throw Length



A = Wetting
B = Impact cleaning

Nozzles inch
A = 4 x Ø0.16
B = 2 x Ø0.1

Dimensions (inch)



A: Clamp 1" ISO, B: Thread 3/4" Rp (BSP) / NPT, C: Clamp 3" ISO

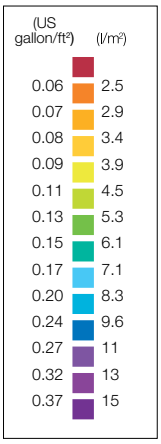
F	G-DPL	H	J	K	L	M
350	Min. 62 Max. 288	Max. 96 Min. 254	190	Ø69	Ø72	Ø79.5
500	Min. 62 Max. 246	Max. 438 Min. 254	190	Ø69	Ø72	Ø79.5
750	Min. 62 Max. 496	Max. 688 Min. 254	190	Ø69	Ø72	Ø79.5
1020	Min. 62 Max. 766	Max. 958 Min. 254	190	Ø69	Ø72	Ø79.5
1270	Min. 62 Max. 1016	Max. 1208 Min. 254	190	Ø69	Ø72	Ø79.5
1500	Min. 62 Max. 1246	Max. 1438 Min. 254	190	Ø69	Ø72	Ø79.5

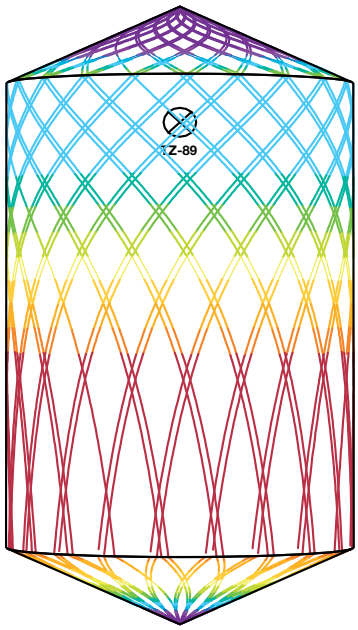
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-89 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning machine and the correct combination of flow, time and pressure to implement.

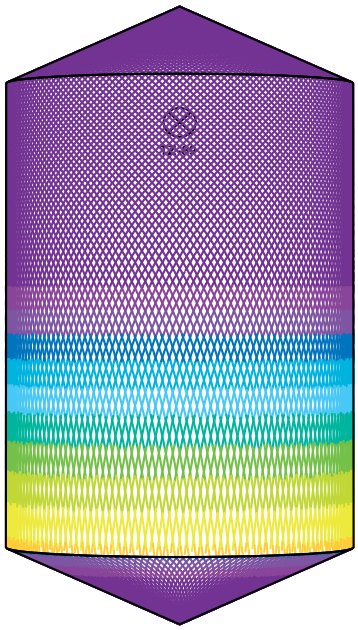
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D2 H3, TZ-89 4x Ø0.16 inch, time 2.8 min



D2 H3, TZ-89 4 x Ø0.16 inch, time 11.1 min

Alfa Laval GJ A6

Rotary jet heads

Introduction

The Alfa Laval GJ A6 is a rotary jet head tank cleaning machine for use in hygienic environments. Built to clean tanks from 6-20 feet in diameter and up to 20 feet tall, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ A6 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.

Applications

The Alfa Laval GJ A6 is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as the dairy, brewery, beverage, food, and personal care industries.

Due to its slim design, the GJ A6 is ideal to retrofit spray balls, thereby reducing Cleaning-in-Place (CIP) costs and cleaning time.

Benefits

- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck
- Slim design makes it possible to insert through small tank inlet openings

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

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 GJ A6 is the Alfa Laval SaniJet 20, which offers a more hygienic design and an electropolished Ra 0.5 surface finish. The SaniJet 20 is ideal for applications that require 3.1 material certification, ATEX certification, and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.

Certificate

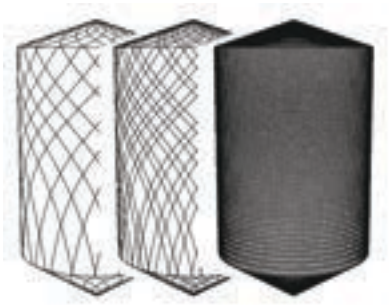
2.1 material certificate

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant:	Lubricated with cleaning fluid

Throw length	
Max. throw length:	6-20 ft

Pressure	
Working pressure:	30-150+ PSI
Recommended pressure:	60-150 PSI

PHYSICAL DATA

Materials
1.4404 (316L), PEEK, EPDM[1] (FKM and FFKM), PPS
[1] FDA compliance 21CFR§177

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Weight	4 lbs

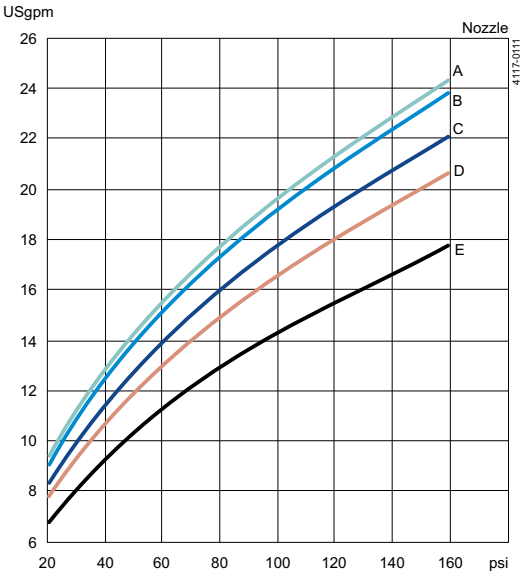
Surface finish	
Surface finish:	32 µin

Connections	
Standard inlet connection:	1" US BPE SCH 5/IDØ25,7 Clip-on
Available option:	DN25 Clip-on DIN 11850 range 1 DN25 Clip-on DIN 11850 range 2 1½" ASME BPE Weld-on 3/4" FNPT thread with external 1" male camlock

Caution

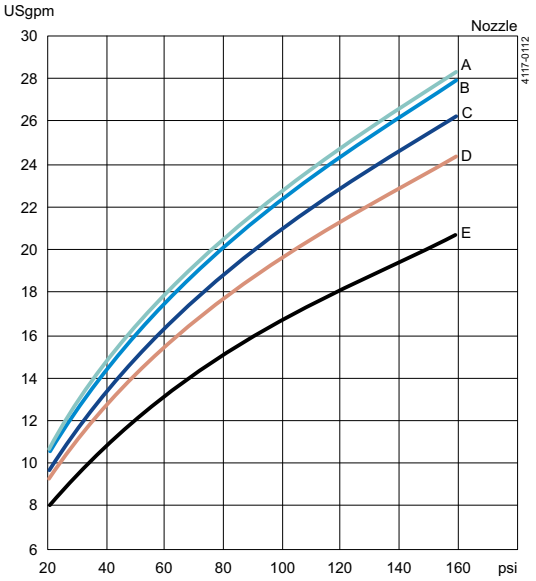
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Pressure Flow – 2 Nozzles



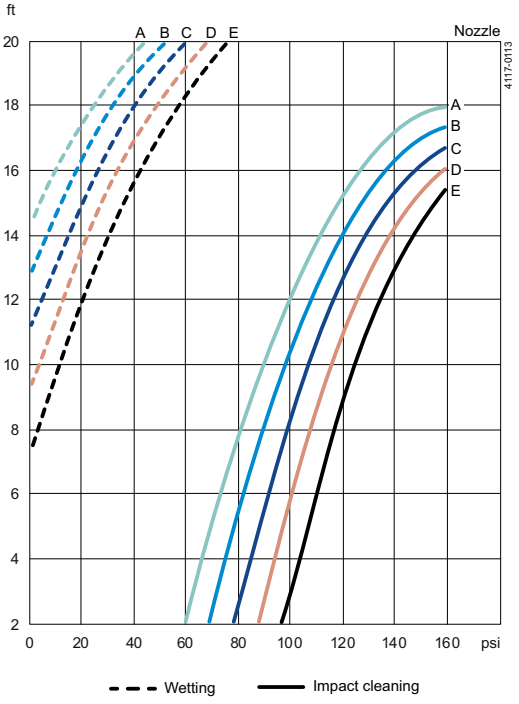
A = 0.200” D = 0.150”
B = 0.187” E = 0.125”
C = 0.165”

Pressure Flow – 3 Nozzles



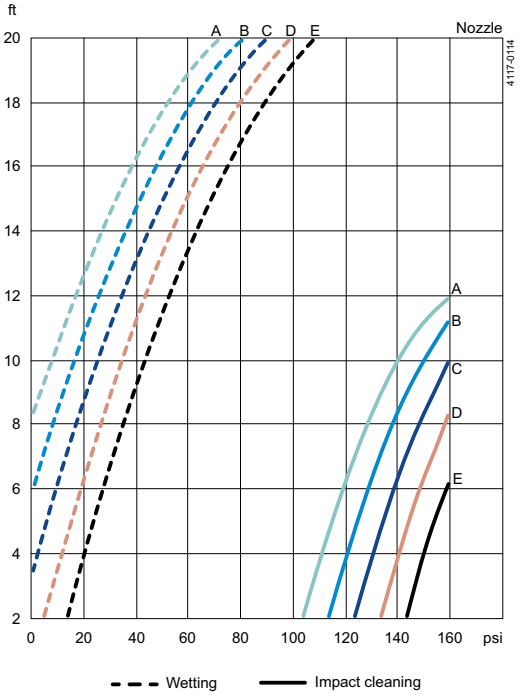
A = 0.200” D = 0.150”
B = 0.187” E = 0.125”
C = 0.165”

Throw Distance – 2 Nozzles



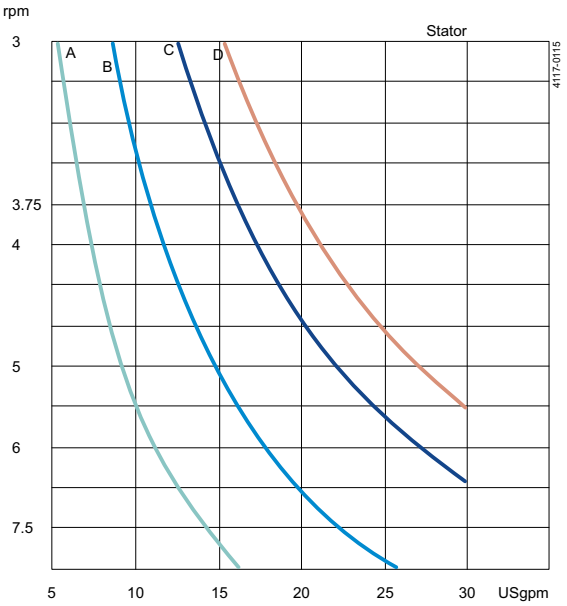
A = 0.200” D = 0.150”
B = 0.187” E = 0.125”
C = 0.165”

Throw Distance – 3 Nozzles



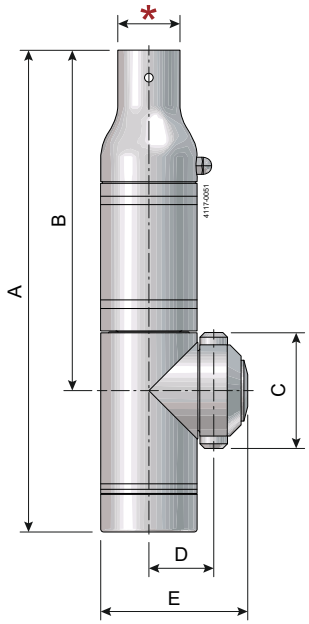
A = 0.200” D = 0.150”
B = 0.187” E = 0.125!
C = 0.165”

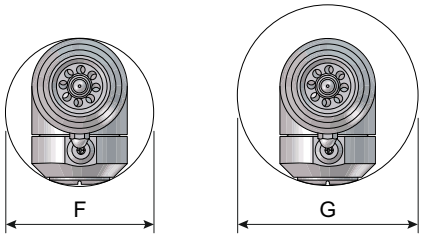
Flow Rate Cycle Time



A = LV D = HV
B = STD
C = MV

Dimensions (inch)





NOTE *: 1" R-CLIP COLLAR OR 1-1/2" BUTT WELD

A	B	C	D	E	F	G
8.75	6.19	2.1	1.18	2.67	2.72	3.64

Alfa Laval SaniJet 20

Rotary jet heads

Introduction

The Alfa Laval SaniJet 20 is a rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 1321-7925 USG it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The SaniJet 20 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.

Applications

The Alfa Laval SaniJet 20 is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as in yeast propagation plants and in the food and beverage industries.

Benefits

- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

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 SaniJet 20 is the Alfa Laval SaniJet 20 UltraPure for hygienic applications that require full traceability of product-contacted parts and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.

Certificates

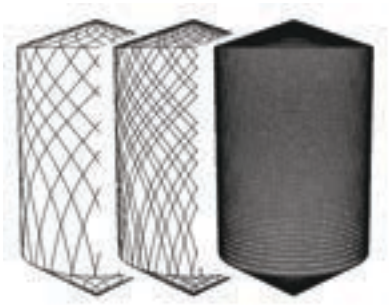
2.2 material certificate, Q-doc and ATEX.

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant	
Machine:	Self-lubricating with the cleaning fluid
Air motor:	Must **NOT** be operated non-lubricated

Surface finish	
Product contact parts:	Ra 32 µin

Impact throw length	
Impact throw length:	5 - 13 ft

Min. tank opening	
Min. tank opening:	4" Clamp w. rotacheck 3" clamp - rotacheck N/A

Pressure	
CIP media working pressure:	45 - 185 PSI
CIP media recommended pressure:	72 - 116 PSI

Air driven. Air quality:	
Clean, filtered max.:	1.97 µ inch
Dry, dew point max.:	41°F Must **NOT** be operated non-lubricated. **MUST** be lubricated
Air supply pressure:	87 PSI
Air consumption at max. speed:	1.59 gallon/sec. (28.77 $yard^3$/h)
Adjustable speed:	3 - 14 RPM
Cleaning time:	4 - 18 min. (adjustable)

PHYSICAL DATA

Materials	
316L (UNS S31603), PEEK[1], Titanium Ti-GL	
Sealing:	EPDM[1] (standard), FPM[1] FFKM[1]

[1] FDA compliance 21CFR§177

Temperature	
Max. working temperature:	194 °F
Max. ambient temperature:	284 °F

Weight	
Media-driven machine:	24 - 40 lbs
Air-driven machine:	26 - 42 lbs

Connections	
Inlet connection:	Clamp: 1" ISO 2852
Tank connection:	Clamp: 4" ISO 2852
Tank connection:	Clamp: 3" [1]ISO 2852

[1] Note! 3" Tank connection has no possibility of integrated rotacheck.

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.

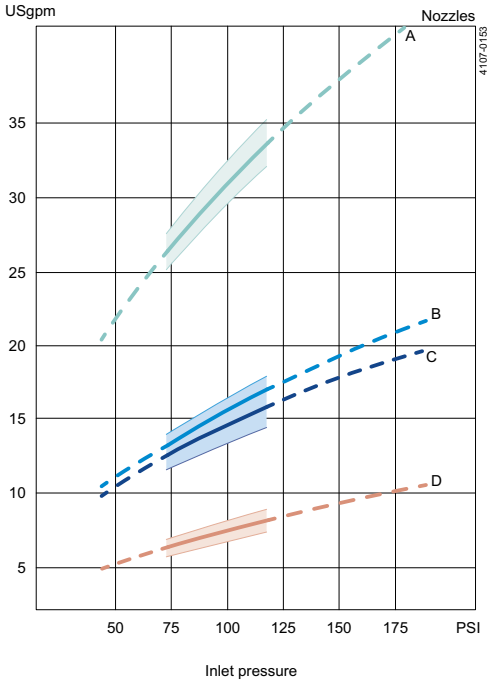
Options

- Electronic rotation sensor to verify 3D coverage
- Improved surface finish
- 3.1 certification for metallic parts by request
- With FFKM or FPM seal ring
- ATEX

Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	ATEX approved machine for use in explosive atmospheres Media/Air driven: Cleaning unit: Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU II 1G Ex h IIC 185 °F ... 347 °F Ga II 1D Ex h IIIC T185 °F ... T284 °F Da Air driven: Air motor unit: Catagory 2 for installation in zone 1/21 in accordance with Directive 2014/34/EU II 2G Ex h IIC T4 Ga II 2D Ex h IIIC T135 °F Da

Flow Rate

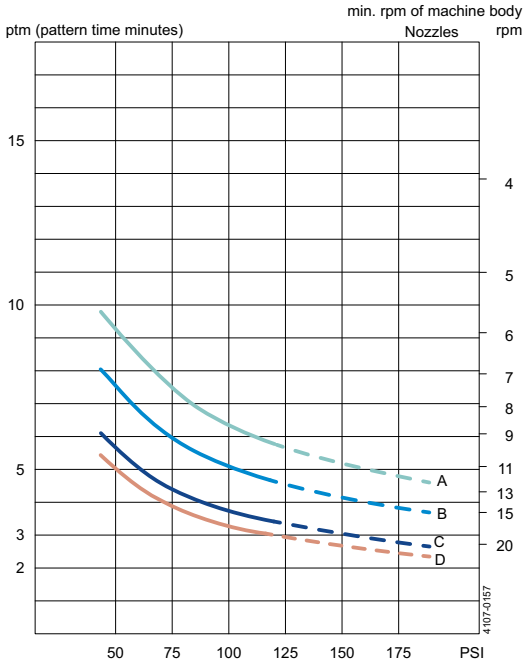


Inlet pressure

Recommended operating pressure 72.5 - 116 PSI

A = 4 x Ø0.17" D = 2 x Ø0.08"
B = 2 x Ø0.15" HS
C = 2 x Ø0.15" LS

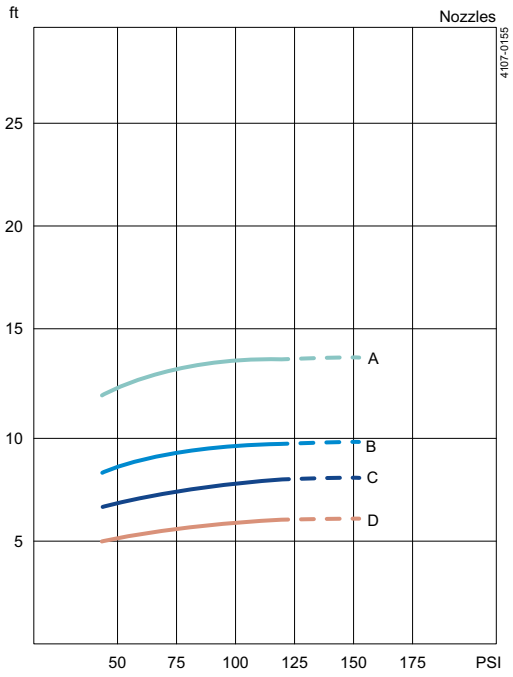
Cleaning Time, Complete Pattern, Media driven



Inlet pressure

A = 4 x Ø0.17" D = 2 x Ø0.08"
B = 2 x Ø0.15" LS
C = 2 x Ø0.15" HS

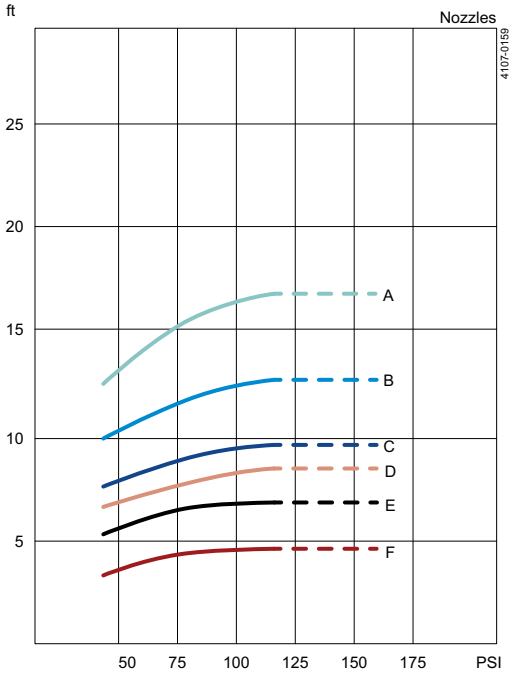
Impact Throw Length, Media Driven



Inlet pressure

A = 4 x Ø0.17" D = 2 x Ø0.08"
B = 2 x Ø0.15" LS
C = 2 x Ø0.15" HS

Impact Throw Length, Air Driven

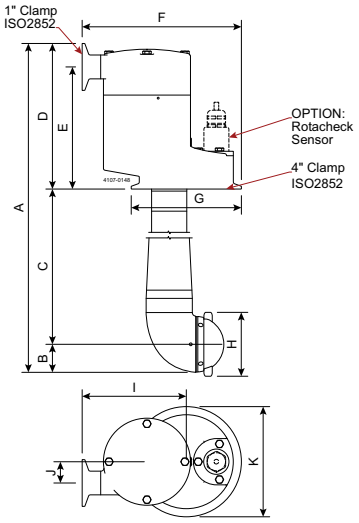


Inlet pressure

A = (5 rpm) 4 x Ø0.17" D = (5 rpm) 2 x Ø0.08"
B = (5 rpm) 2 x Ø0.15" E = (16 rpm) 2 x Ø0.15"
C = (16 rpm) 4 x Ø0.17" F = (16 rpm) 2 x Ø0.08"

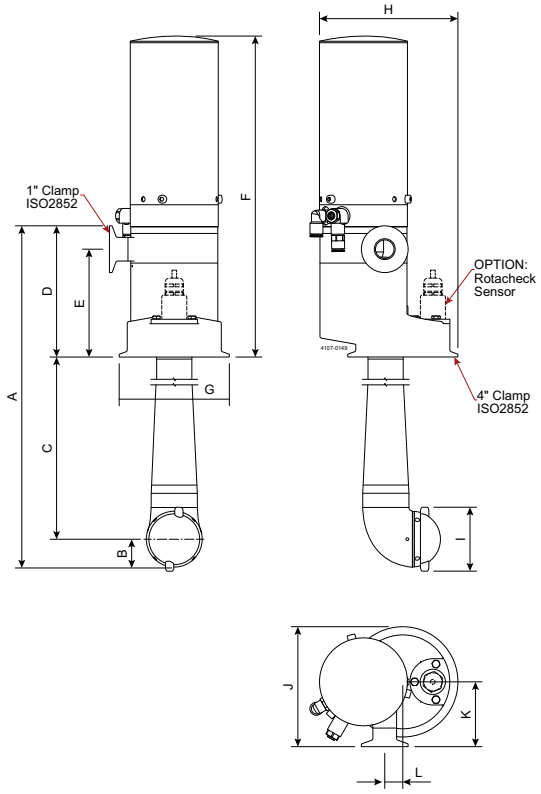
Dimensions (inch)

Media Driven



A	B	C	D	E	F	G	H	I	J	K
21.14 - 27.05 - 34.92 - 46.73 - 54.61 - 66.42	1.22	13.78 - 19.68 - 27.56 - 39.37 - 47.24 - 59.05	6.19	5.20	6.77	Ø4.69	Ø2.72	4.43	0.91	4.69

Air Driven



A	B	C	D	E	F	G	H	I	J	K	L
20.59 - 26.50 - 34.37 - 46.18 - 54.17 - 65.87	1.22	14.17 - 19.68 - 27.56 - 39.37 - 47.24 - 59.05	5.59	4.61	13.39	Ø4.69	6.61	Ø2.72	5.12	2.76	0.77

Alfa Laval GJ PF FT

Rotary jet heads

Introduction

The Alfa Laval GJ PF FT is a rotary jet head tank cleaning machine for hygienic environments. Designed to clean tanks with capacities from 3963-39626 US gallons, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ PF FT 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.

Applications

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

Due to its slim design, the GJ PF FT is ideal to retrofit spray balls, thereby reducing Cleaning-in-Place costs and cleaning time.

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
- Slim design makes it possible to insert through small tank inlet openings

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

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 GJ PF FT is the Alfa Laval TJ20G, which offers a more hygienic design. The TJ20G is ideal for applications that require material traceability 3.1 material certification, ATEX certification, and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.

Certificate

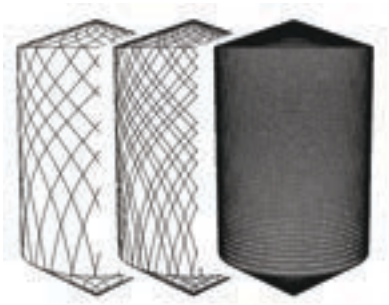
2.1 material certificate

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Max. throw length:	45-65 ft

Pressure	
Working pressure:	40 - 400+ PSI
Recommended pressure:	50 - 300 PSI

PHYSICAL DATA

Materials	
	316L, PPS, PTFE, EPDM[1] (FKM and FFKM available)

[1] FDA compliance 21CFR§177

Temperature	
Max. working temperature:	195 °F
Max. ambient temperature:	284 °F

Weight:	10 lbs

Finish	
Surface finish:	32 Ra

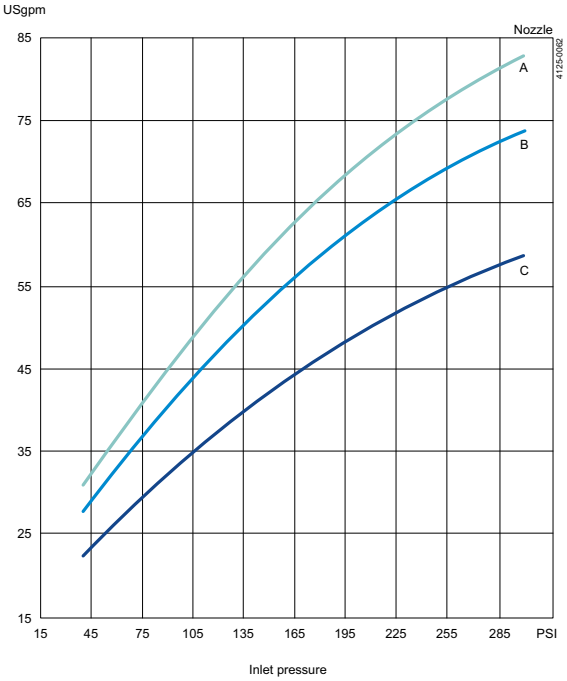
Connections	
Standard thread:	1½" US/IDØ38,4 Clip-on
Available option:	1½" ISO 2852 Clamp
	1½" NPT female Thread
	DN40 Clip-on DIN 11850 range 1
	DN40 Clip-on DIN 11850 range 2
	ODØ38,1/1½" ISO 2037 Weld-on

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.

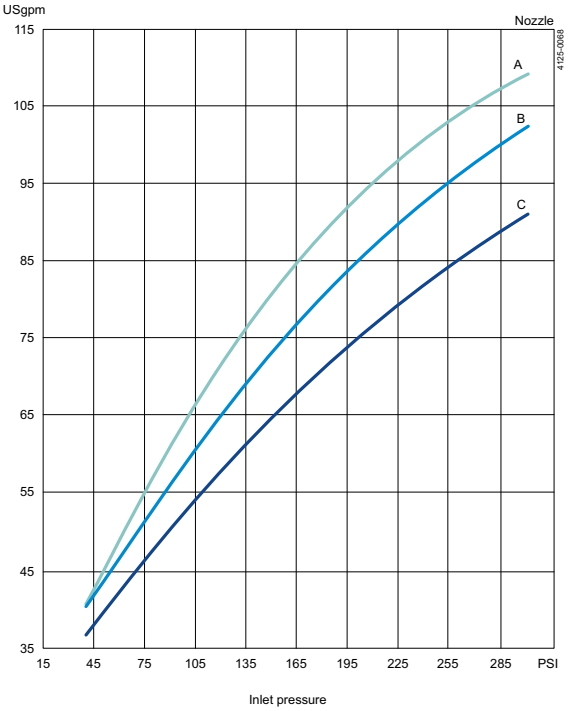
Flow Rate

2-nozzle



A = 3/8"
B = 5/16"
C = 1/4"

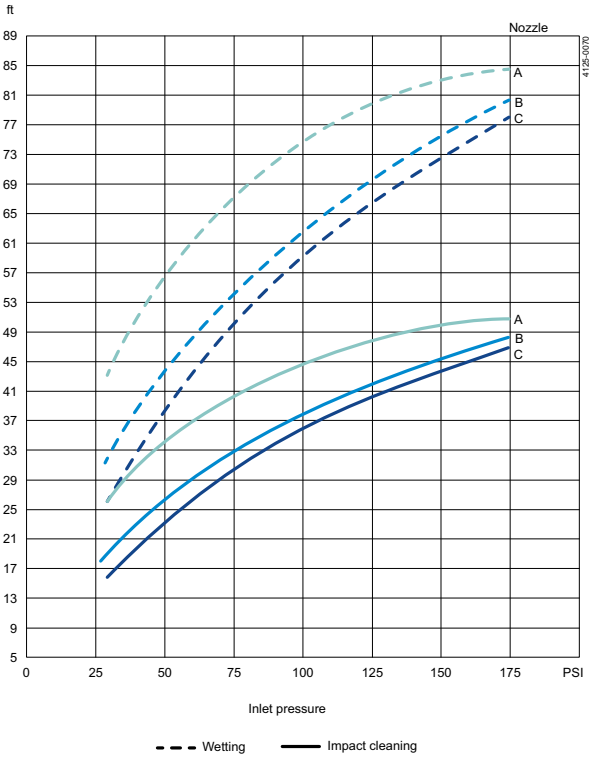
4-nozzle



A = 3/8"
B = 5/16"
C = 1/4"

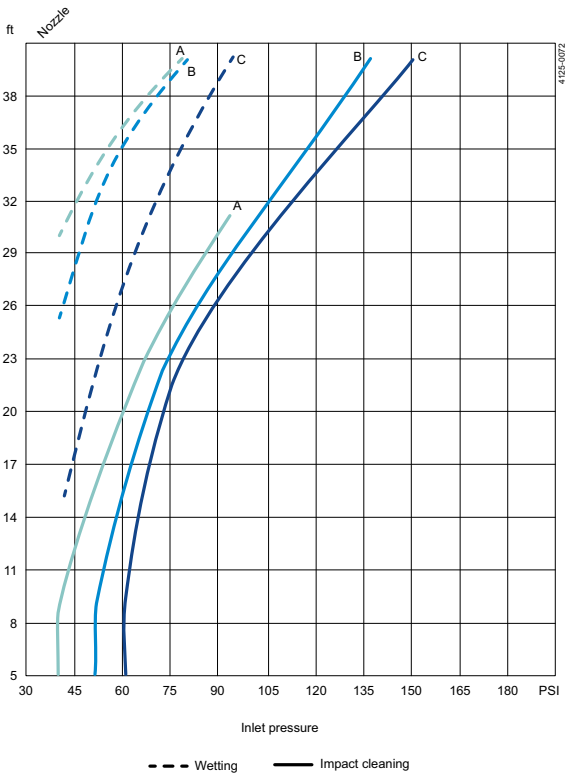
Impact

2-nozzle



A = 2 x ø1/4"
B = 2 x ø5/16"
C = 2 x ø3/8"

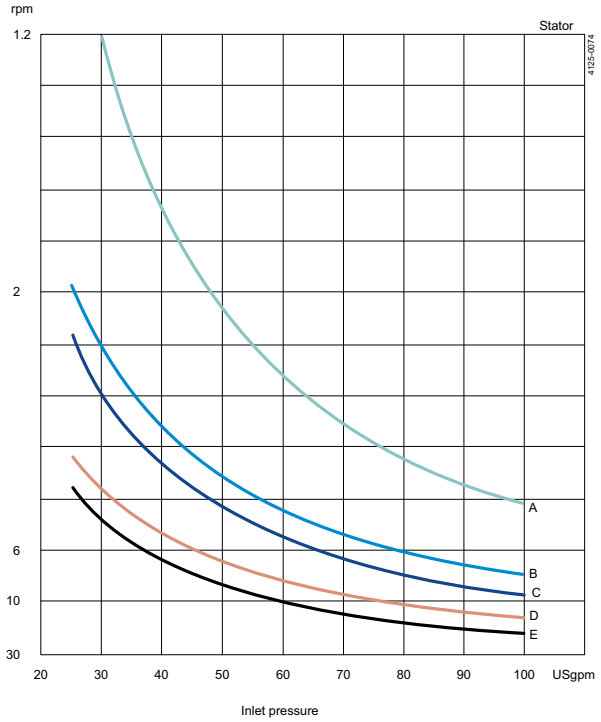
4-nozzle



A = 1/4"
B = 5/16"
C = 3/8"

Custom inlets available. Contact your local Alfa Laval representative for details.

Cleaning Time



A = LM
B = MV
C = SML
D = STD
E = LP

Dimensions (inch)

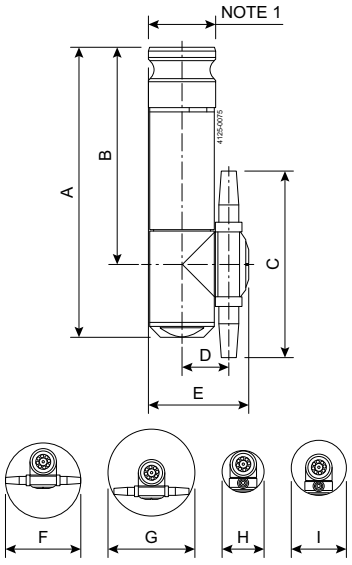


Figure 1. 2-nozzle

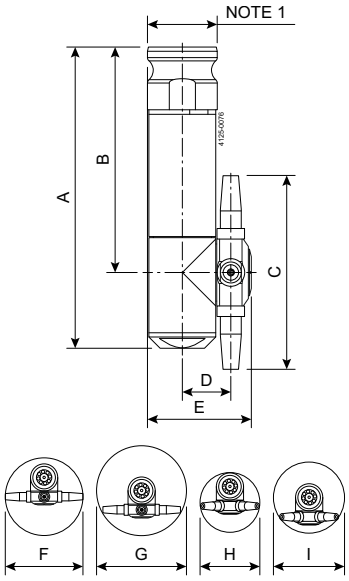


Figure 2. 4-nozzle

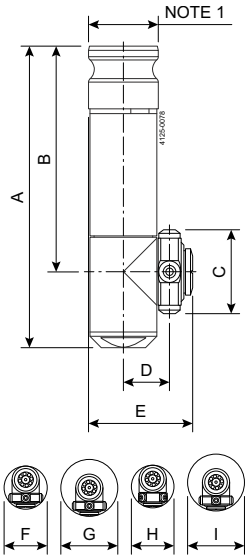


Figure 3. Low-profile

2-nozzle

A	B	C	D	E	F	G	H	I
10.70	8.01	6.88	1.73	3.69	6.90	7.95	3.83	5.05

NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK

4-nozzle

A	B	C	D	E	F	G	H	I
10.70	8.01	6.88	1.73	3.69	6.90	7.95	5.29	6.31

NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK

Low-profile version

	A	B	C	D	E	F	G	H	I
in	10.70	8.01	2.98	1.64	3.69	3.82	5.05	3.82	5.05

NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK

Alfa Laval TJ20G

Rotary jet heads

Introduction

The Alfa Laval TJ20G is a rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 3963-39626 USGit combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The TJ20G 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 TJ20G is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as the dairy, food, brewery, beverage, distillery[1], 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

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. A special version of the Alfa Laval TJ20G is available for distillery applications where larger particles in the cleaning fluid can pass though without damaging the machine.

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 TJ20G is the Alfa Laval GJ PF FT for hygienic applications that require a small tank inlet opening.

Working principle

The high-impact jet stream from the Alfa Laval TJ20G rotary jet head is designed to cover the entire surface of the tank if IBC

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.

[1]Distillery version can handle re-circulation of larger particles in the cleaning liquid.

Certificates

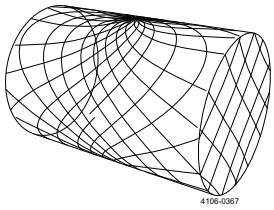
2.2 material certificate, Q-doc, ATEX

TECHNICAL DATA

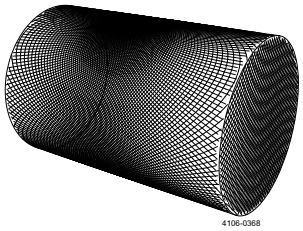
Lubricant:	Self-lubricating with the cleaning fluid
Standard Surface finish:	Exterior surface finish Ra 32 µin
Max. throw length:	29 - 46 ft
Impact throw length:	13 - 26 ft
Standard thread:	1" Rp (BSP) or NPT, female Top cone. 1" Rp (BSP) with hygienic seal

Pressure	
Working pressure:	45 - 115 PSI
Recommended pressure:	72 - 94 PSI

Cleaning Pattern



First cycle



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.

PHYSICAL DATA

Materials
316L (UNS S31603), Duplex steel (UNS N31803), EPDM[1], PEEK[1], PVDF[1], PFA[1]
[1] FDA compliance 21CFR§177

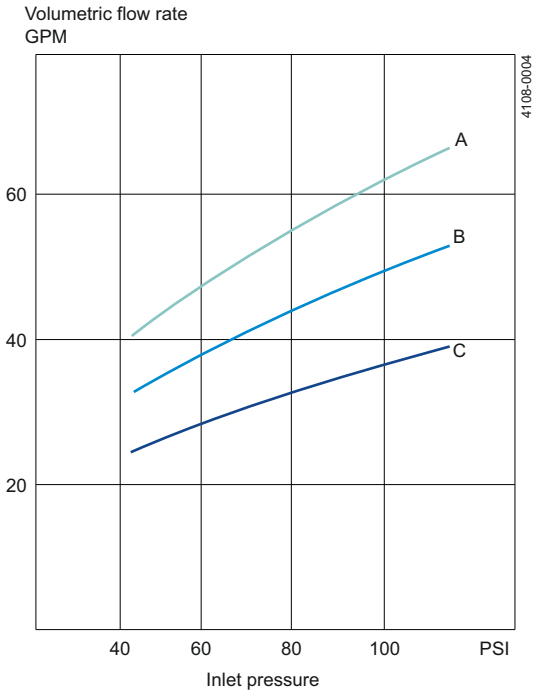
Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F
Special high temperature version available to handle max. 392 °F ambient temperature	

Weight:	11 lbs

Caution

Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage internal mechanisms. For low amount of particles in the cleaning media a 0.12 inch strainer is recommend for both the TJ20G and TJ20G distillery. For high amount of particles in the cleaning media a 0.004 inch strainer (TJ20G) and 0.04 inch (TJ20G distillery) is recommended. Do not use for gas evacuation and air dispersion. For steaming we refer to the manual.

Flow Rate

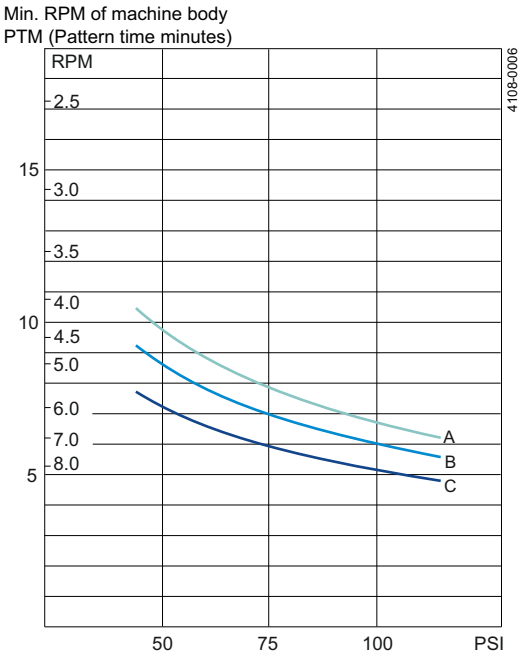


Nozzles inch
A = 4 x Ø0.22
B = 4 x Ø0.18
C = 4 x Ø0.15

Distillery version - flow at 5 bar / 72.5 PSI

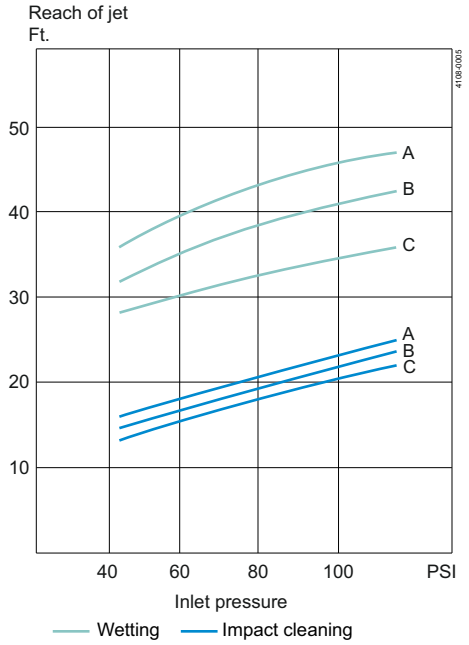
4 x Ø0.15 = 13.08 (yard3/h), 4 x Ø0.18 = 16.22 (yard3/h), 4 x Ø0.22 = 18.18 (yard3/h)

Cleaning Time, Complete Pattern



Inlet pressure
Nozzles inch
A = 4 x Ø0.22
B = 4 x Ø0.18
C = 4 x Ø0.15

Impact Throw Length

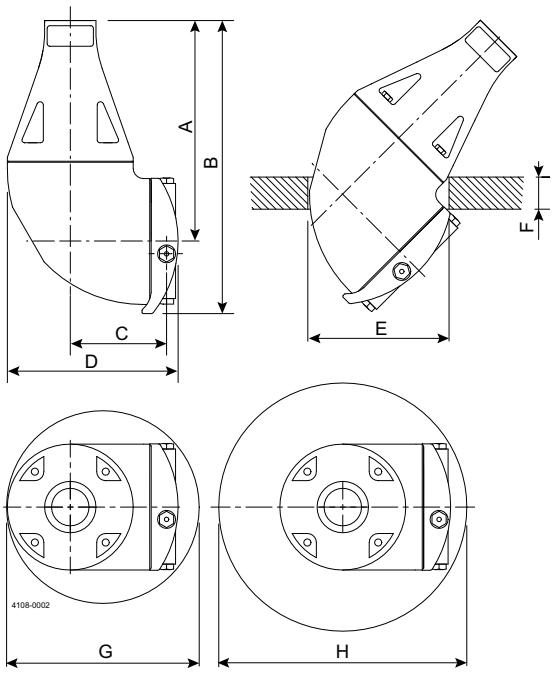


Nozzles inch
A = 4 x Ø0.22
B = 4 x Ø0.18
C = 4 x Ø0.15

Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	ATEX approved machine for use in explosive atmospheres Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU **For TE20X000_054 except TE20G016_018:** II 1G Ex h IIC 185 °F ...347 °F Ga II 1D Ex h IIIC T185 °F ...T284 °F Da **For TE20G016_018:** II 1G Ex h IIC 185 °F ...482 °F Ga II 1D Ex h IIIC T185 °F ...T392 °F Da

Dimensions (inch)



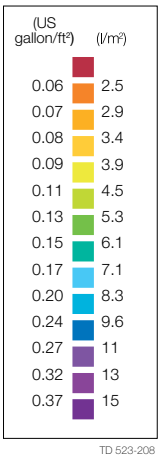
A	B	C	D	E	F	G	H
6.81	9.06	2.95	5.24	Ø4.33	max. 0.98	Ø5.91	Ø7.87

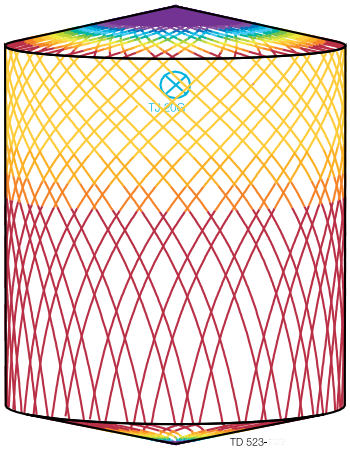
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TJ20G performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning machine and the correct combination of flow, time and pressure to implement.

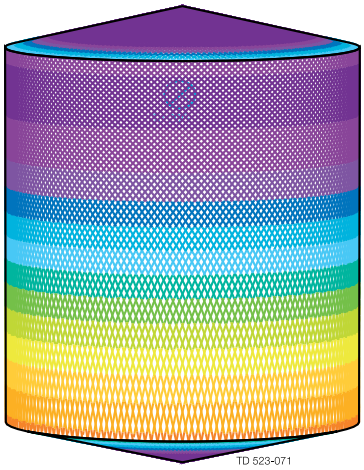
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D15 ft H18 ft, Toftejorg TJ 20G, 4 x Ø0.22 inch, Time = 2.08 min, Water consumption = 106 gallon



D15 ft H18 ft, Toftejorg TJ 20G, 4 x Ø0.22 inch, Time = 8.3 min, Water consumption = 428 gallon

Alfa Laval SaniJet 25

Rotary jet heads

Introduction

The Alfa Laval SaniJet 25 is a rotary jet head tank cleaning machine for hygienic environments. Built to clean tanks with capacities from 3963-39626 US gallons it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The SaniJet 25 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 SaniJet 25 is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as the dairy, brewery, food and beverage 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

Standard Design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

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 SaniJet 25 is the Alfa Laval SaniJet 25 UltraPure for hygienic applications that require full traceability of product-wetted parts and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.

Working principle

The high-impact jet stream from the Alfa Laval SaniJet 25 rotary jet head 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.

Certificates

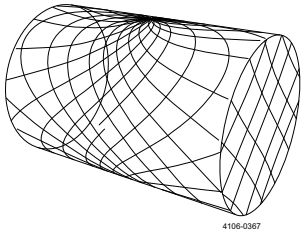
2.2 material certificate, Q-doc and ATEX.

TECHNICAL DATA

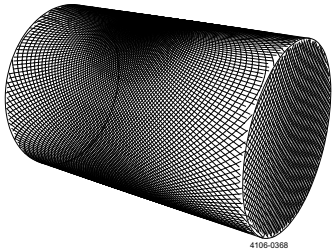
Lubricant:	Self-lubricating with the cleaning fluid
Standard Surface finish:	Ra 20 µin exterior / Ra 32 µin internal
Max throw length:	29 - 46 ft
Impact throw length:	13 - 26 ft

Pressure	
Working pressure:	45 - 115 PSI
Recommended pressure:	72 - 94 PSI

Cleaning Pattern



First cycle



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.

PHYSICAL DATA

Materials
316L (UNS S31603), Duplex steel (UNS N31803), Duplex steel (UNS S21800), PEEK*, PFA* and EPDM*
* FDA compliance 21CFR§177

Welding connection
1" ISO, 1" ANSI/Sch40, 1½" BPE US/SWG, 1½"Dairy, 1½"ANSI/Sch40 or NW40

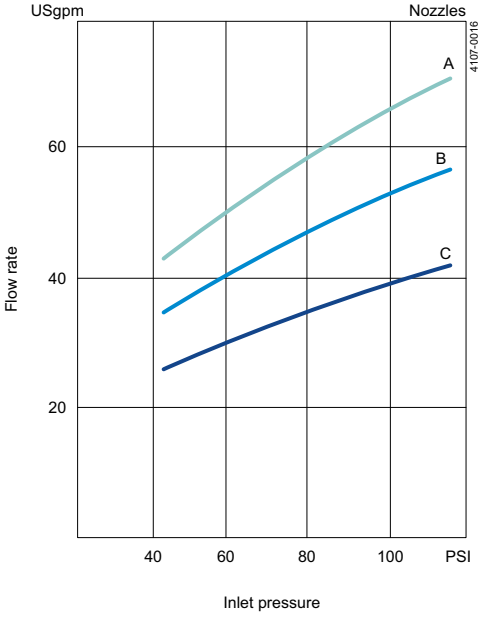
Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight:	14 lbs

Caution

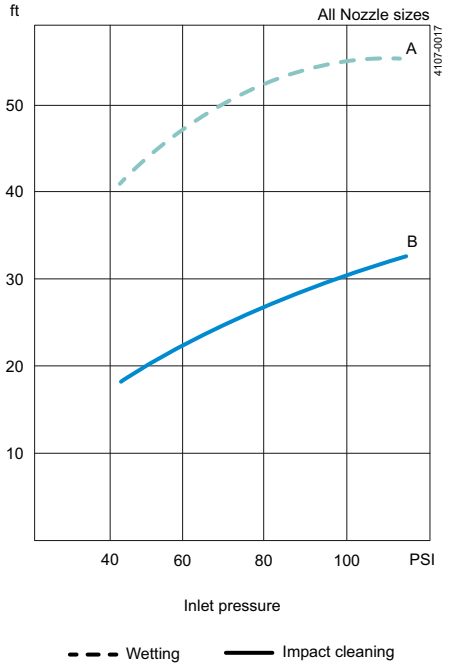
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate



A = 4 x Ø0.24"
B = 4 x Ø0.20"
C = 4 x Ø0.17"

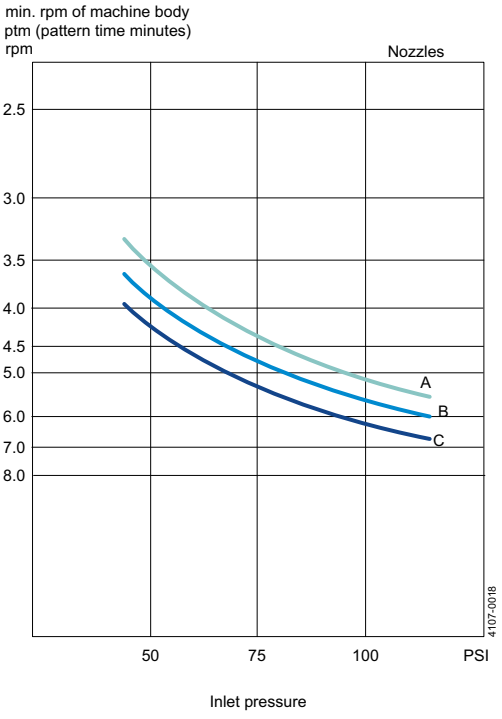
Impact Throw Length



A = Wetting
B = 4 x Ø0.17"
4 x Ø0.20"
4 x Ø0.24"

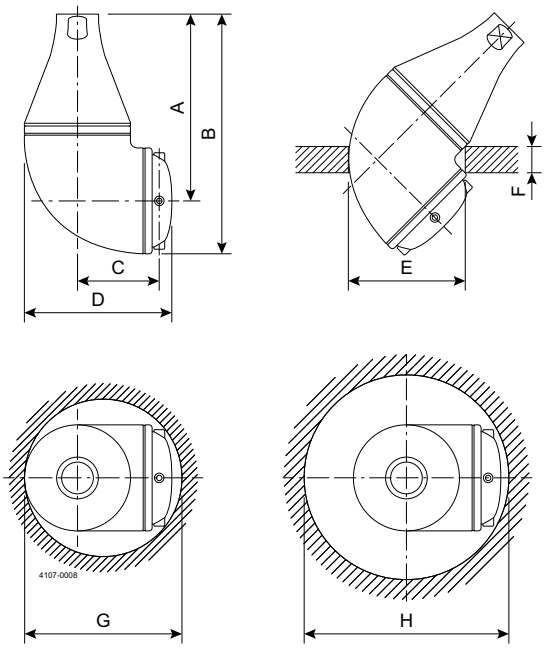
Cleaning Time, Complete Pattern

Min. RPM of machine body



A = 4 x Ø0.24"
B = 2 x Ø0.20"
C = 2 x Ø0.17"

Dimensions (inch)



A	B	C	D	E	F	G	H
7.01	9	3.15	5.51	Ø4.33	max. 0.98	Ø5.91	Ø7.68

Qualification Documentation (Q-doc)

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 10204 type 3.1 Material Inspectioncertificate • 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 with Directive 2014/34/EU II 1G Ex h IIC 185 °F ...347 °F Ga II 1D Ex h IIIC T185 °F ...T284 °F Da

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 39626-594387 US gallons 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

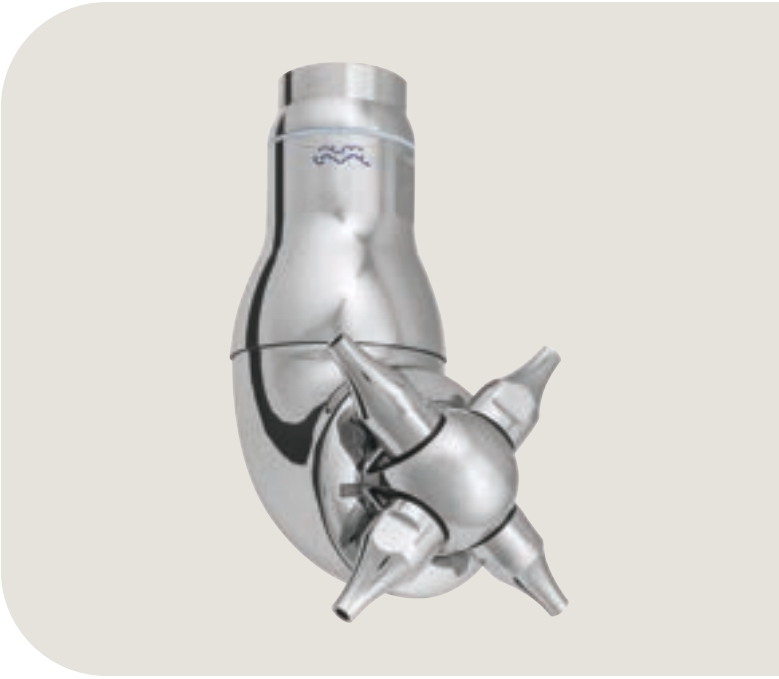
The Alfa Laval TJ40G range is designed for the removal of the toughest residues from hygienic tanks across a broad range of industries, such as the dairy, food, beverage, brewery, distillery[1], pharmaceutical and personal care industries.

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[2]
- 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-HD** for 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 Burst** with 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.

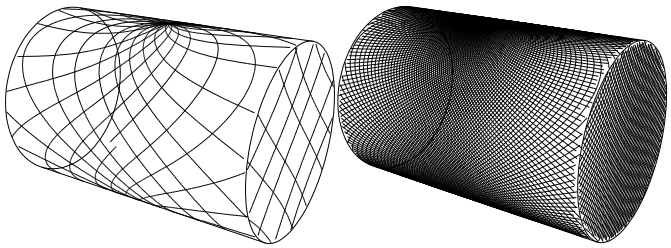
[1] Heavy-duty distillery version can handle re-circulation of larger particles in the cleaning liquid.

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.

Cleaning Pattern



First cycle 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

TECHNICAL DATA

Lubricant:	Cleaning liquid

Surface finish	
Standard surface finish:	Exterior surface finish Ra 20 µin
Interior surface finish:	Ra 32 µin

Throw length	
Max throw length (5 bar):	70.5 ft
Impact throw length (5 bar):	34.4 ft

Pressure	
Working pressure:	43.5-174 PSI
Recommended pressure:	72.5-101.5 PSI

PHYSICAL DATA

Materials
AISI 316, SAF 2205, PFA[1], PEEK[1], EPDM[1]
[1] FDA compliance 21CFR§177

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Weight:	13.9 lbs

Caution

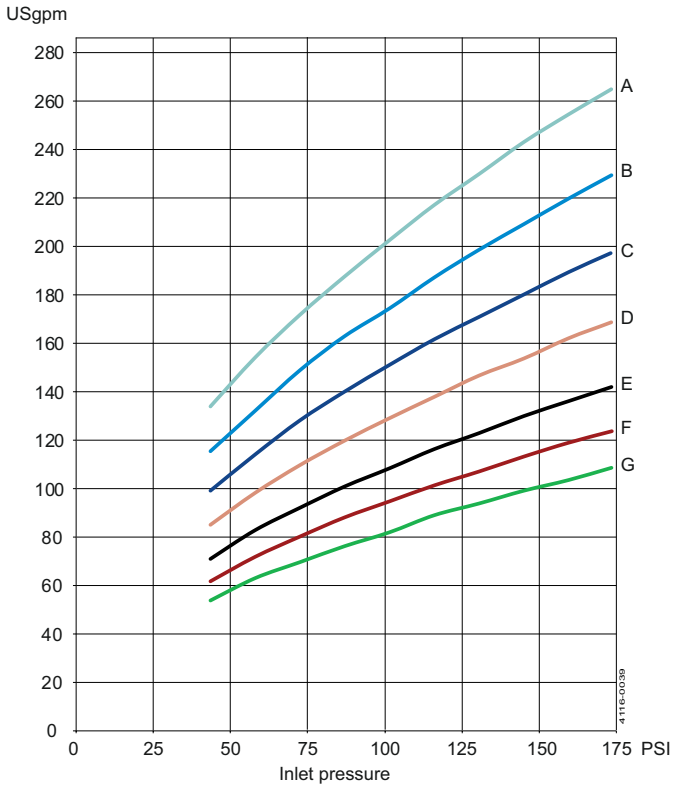
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. For low amount of particles in the cleaning media a 0.12 in strainer is recommend for both the TJ40G and TJ40G-HD. For high amount of particles in the cleaning media a 0.0039 in strainer (TJ40G) and 0.039 in (TJ40G-HD) is recommended. Do not use for gas evacuation and air dispersion.

	TJ40G	TJ40G Burst	TJ40G-HD	TJ40G-HD Burst
4xØ6 fast	0.62	0.82	0.69	0.89
4xØ0.24	0.62	0.82	0.69	0.89
4xØ0.26	0.72	0.91	0.79	0.98
4xØ2.87	0.82	1.02	0.89	1.08
4xøØ0.32	0.98	1.02	1.04	1.24
4xØ0.35	1.15	1.34	1.22	1.42
4xØ0.39	1.33	1.53	1.40	1.59
4xØ0.43	1.54	1.73	1.61	1.81
2xØ0.39	0.76	1.09	0.80	0.90
2xØ0.43	0.88	0.98	0.92	1.02

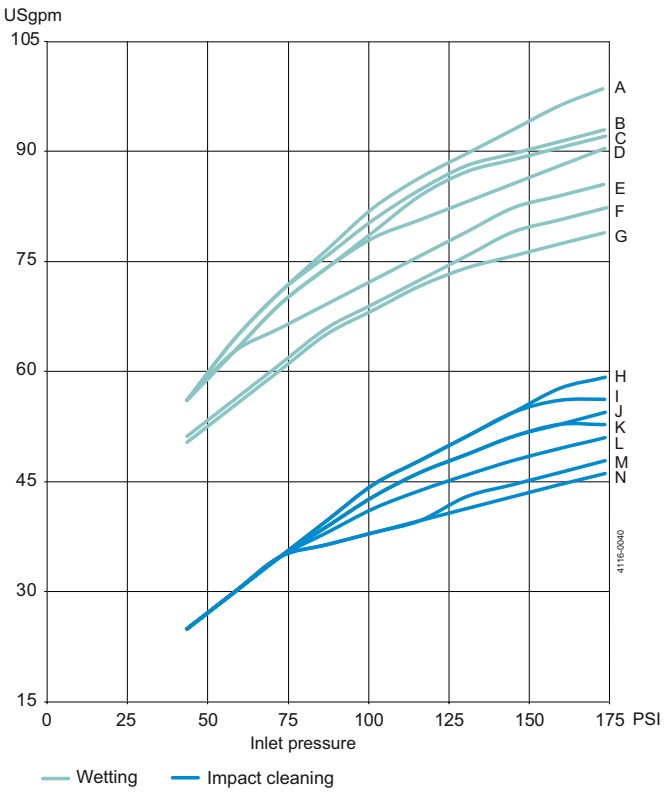
Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	ATEX approved machine for use in explosive atmospheres Category 1 for installation in zone 0/20 in accordance with directive 2014/34/EU II 1G Ex h IIC 185 °F ... 347 °F Ga II 1D Ex h IIIC T185 °F ... T284 °F Da

Flow rate



Cleaning time for complete pattern (= 8 cycles)



Nozzles (in)

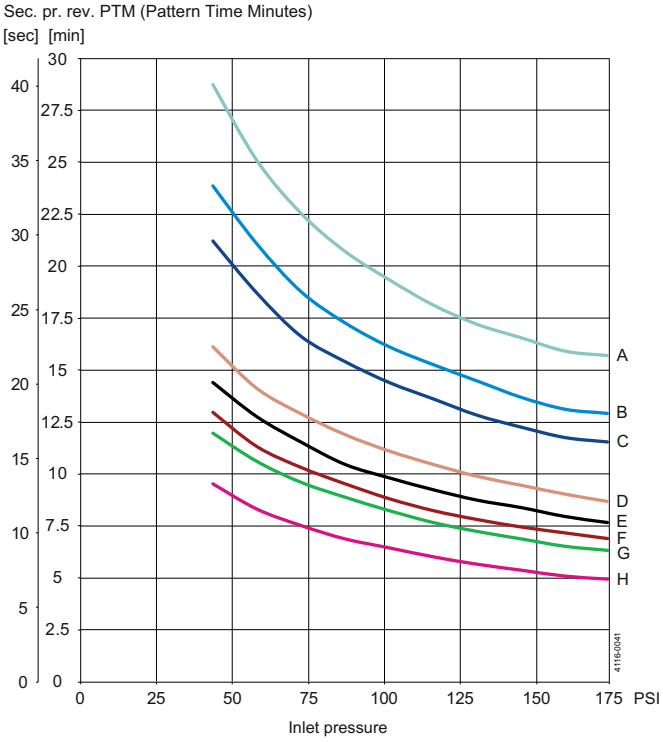
A = 4x Ø0.44	C = 4x Ø0.35	E = 4x Ø0.29	G = 4x Ø0.24 + fast
B = 4x Ø0.39	D = 4x Ø0.32	F = 4x Ø0.26	

Nozzles (in)

A = 4x Ø0.44	C = 4x Ø0.35	E = 4x Ø0.29	G = 4x Ø0.24 + fast
B = 4x Ø0.39	D = 4x Ø0.32	F = 4x Ø0.26	

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

Impact throw length



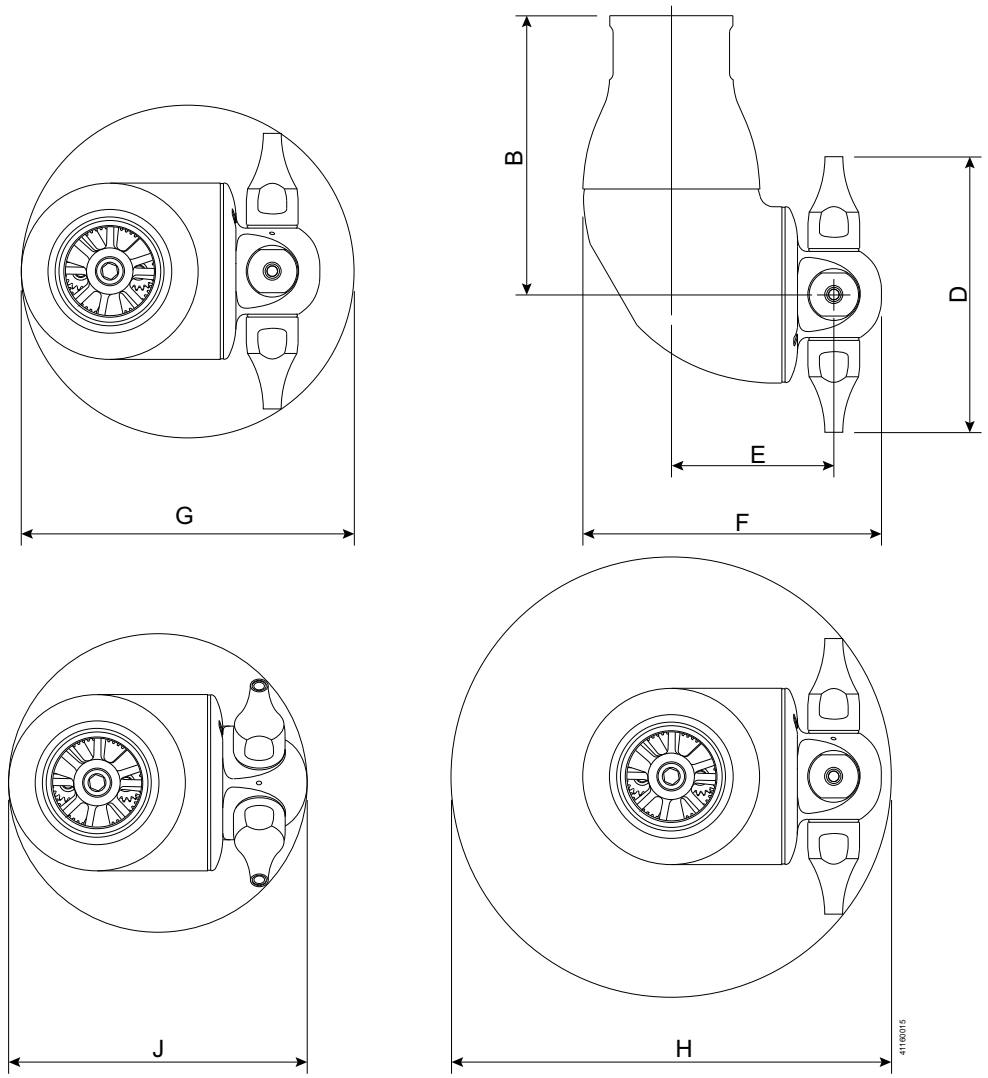
Nozzles (in)

A = 4x Ø0.44	C = 4x Ø0.35	E = 4x Ø0.29	G = 4x Ø0.24
B = 4x Ø0.39	D = 4x Ø0.32	F = 4x Ø0.26	

H =4x Ø0.44	J = 4x Ø0.35	L= 4x Ø0.29	N= 4x Ø0.24
I = 4x Ø0.39	K = 4x Ø0.32	M = 4x Ø0.26	

Throw length measured according to tech. specification 93P003

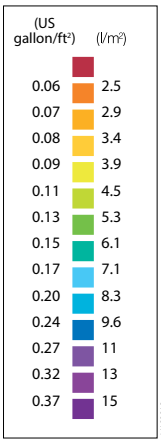
Dimensions (inch)

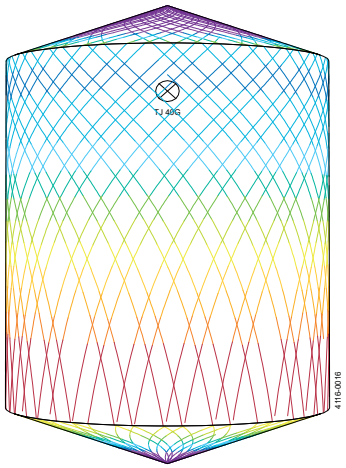


B	D	E	F	G	H	J
7.4	6.1	3.6	6.6	7.4	9.7	6.6

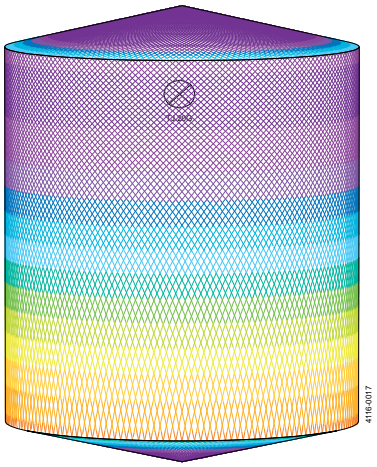
TRAX simulation tool

Wetting Intensity





D15 ft H18 ft, Toftejorg TJ40G, 4 x Ø0.29 inch, Time = 2 min, Water consumption = 185 gallon



D15 ft H18 ft, Toftejorg TJ40G, 4 x Ø0.29 inch, Time = 16 min, Water consumption = 1479 gallon

Alfa Laval GJ 7

Rotary jet heads

Introduction

The Alfa Laval GJ 7 is our smallest rotary jet head tank cleaning machine. Built to clean small tanks, filling machines, drums and barrels, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ 7 minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Applications

The Alfa Laval GJ 7 is designed for the removal of residues in small tanks, filling machines, drums and barrels across a broad range of industrial applications, such as paint, ink and chemical industries.

Benefits

- 60% faster cleaning = more time for production
- Saves up to 70% of your cleaning cost
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck
- Slim design makes it possible to insert through small tank inlet openings

Standard design

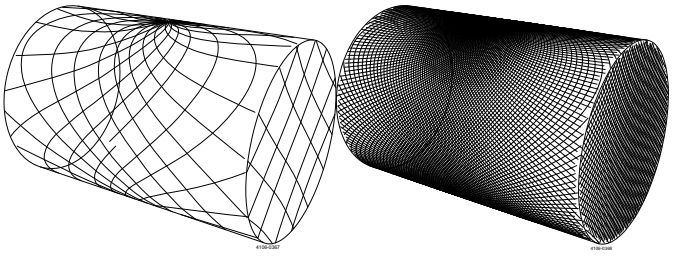
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

Working principle

The high-impact jet stream from the Alfa Laval GJ 7 rotary jet head covers the entire surface of the interior of drum or barrel 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.

Cleaning Pattern



First cleaning cycle Full cleaning 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.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	7 - 8 ft

Pressure	
Working pressure:	50-1,200 PSI
Recommended pressure:	80 - 800 PSI

PHYSICAL DATA

Materials
1.4404 (316L), PTFE, EPDM (FKM and FFKM available)

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

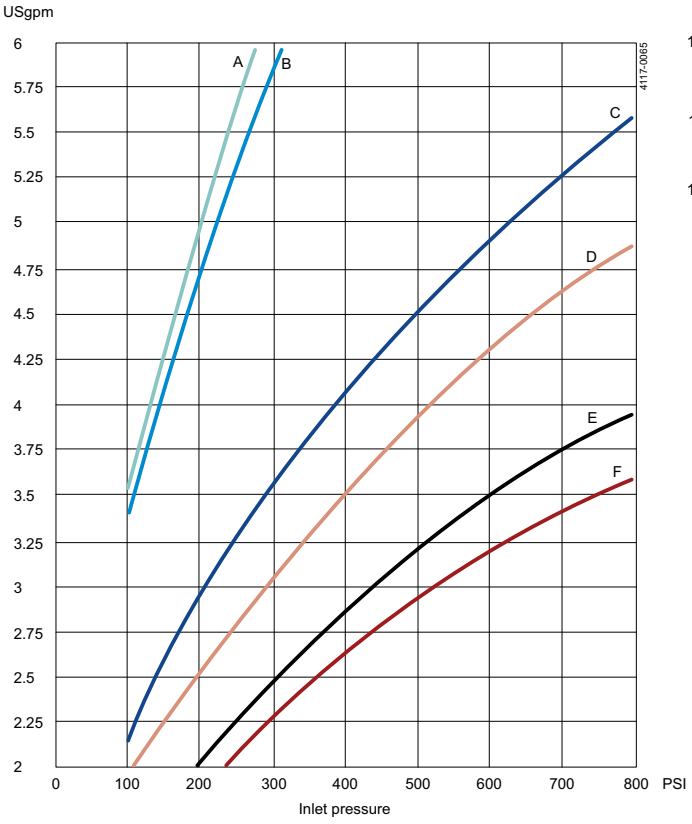
Weight	
Weight:	1.5 lbs

Connections	
Standard thread:	½" NPT, ½" BSP

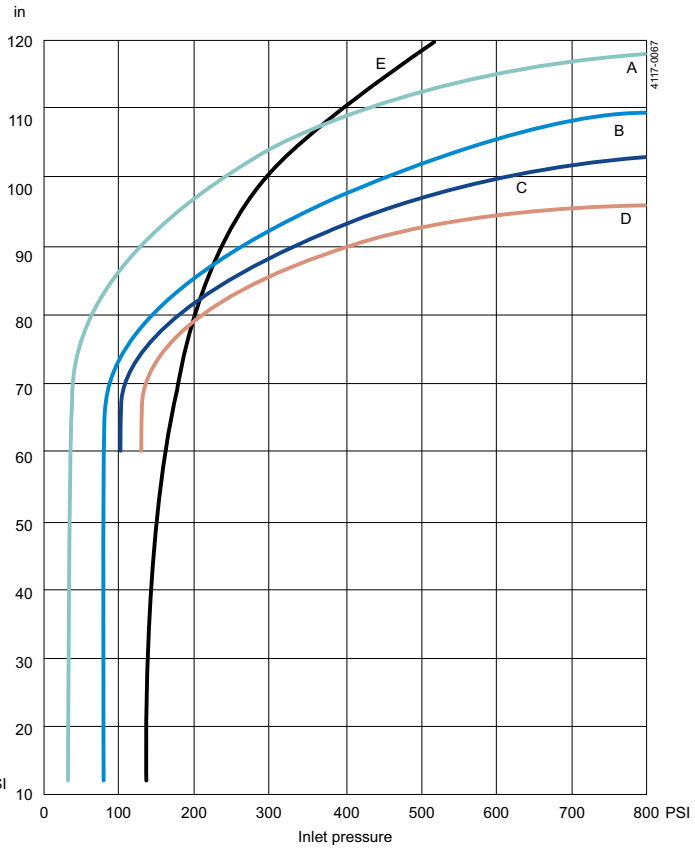
Caution

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.

Flow Rate



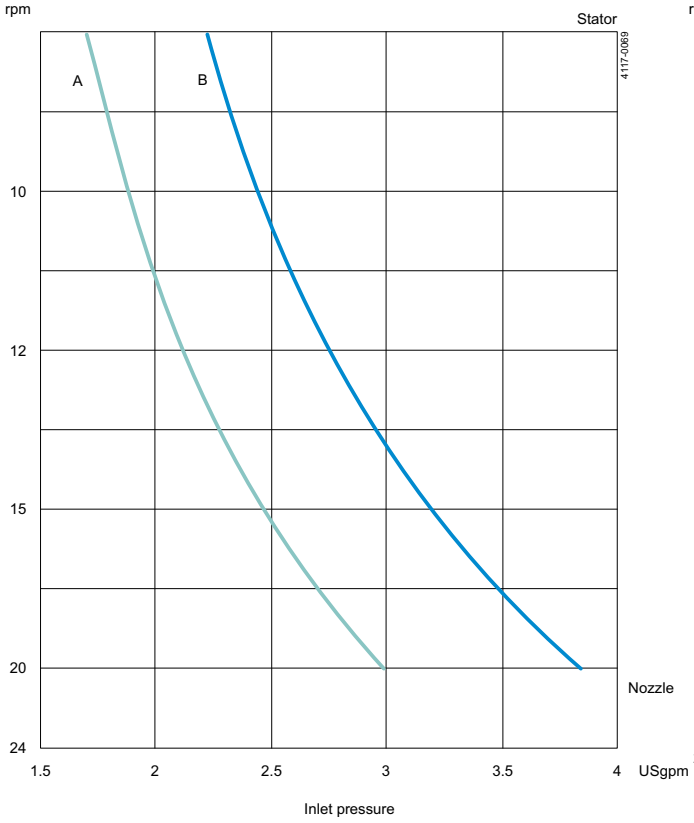
A = 3-Nozzle: 0.100"
B = 2-Nozzle: 0.100"
C = 2-Nozzle: 0.080" Stator: 5H
D = 2-Nozzle: 0.075" Stator: 4H
E = 2-Nozzle: 0.070 Stator: 4X
F = 2-Nozzle: 0.070 mm Stator: 4



A = 2-Nozzle: 0.100"
B = 3-Nozzle: 0.100"
C = 2-Nozzle: 0.070" Stator: 4x
D = 2-Nozzle: 0.070" Stator: 4
E = 2-Nozzle: 0.080" Stator 5H

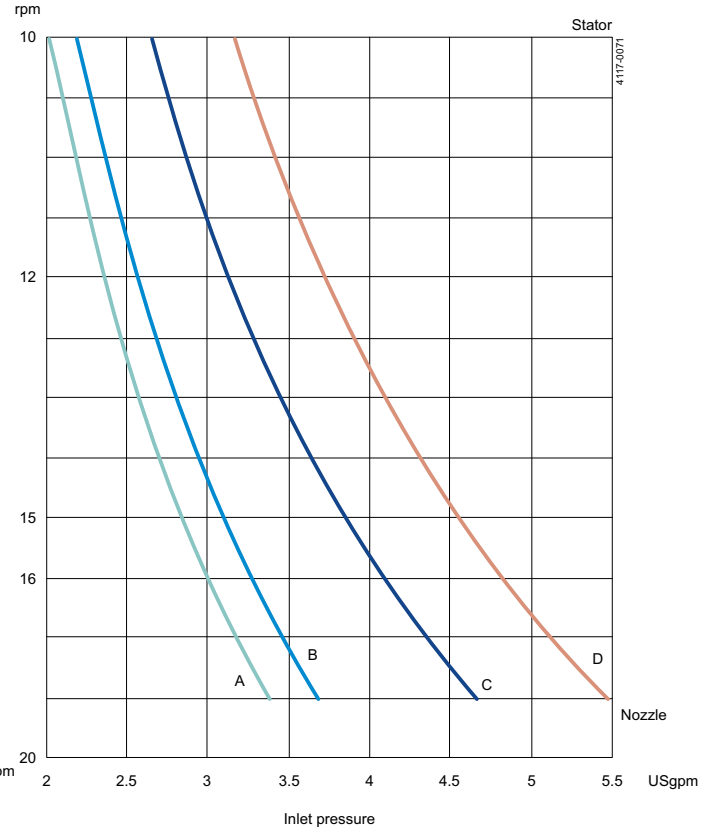
Cleaning Time

Cleaning Time .100 NOZ



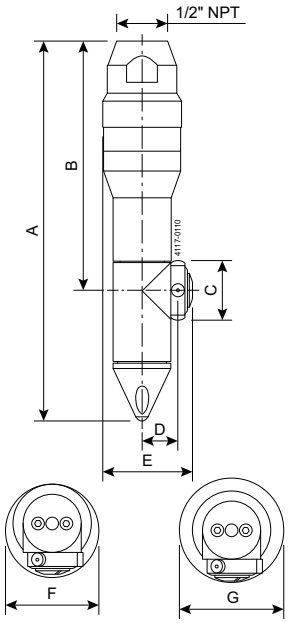
A = SV 0.100"
B = MV 0.100"

Cleaning Time .7 —.8 NOZ



A = 4 0.070"
B = 4X 0.070"
C = 4H 0.075"
D = 5H 0.085"

Dimensions (inch)



A	B	C	D	E	F	G
6.9	4.5	1.1	0.7	1.7	1.7	1.9

Alfa Laval GJ BB

Rotary jet heads

Introduction

The Alfa Laval GJ BB is a rotary jet head tank cleaning machine for use as a portable tank cleaning machine in both industrial and hygienic applications. Built to clean barrels and drums in two to three minutes using as little as 8-12 US gallons of water, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ BB minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricant, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time on their barrels and drums and more time producing.

Applications

The Alfa Laval GJ BB is designed for the removal of the toughest residues in drums and barrels across a broad range of industries in both industrial and hygienic applications.

Benefits

- Fast cleaning time in two to three minutes
- High-impact cleaning in a 360° repeatable cleaning pattern
- Slim design makes it possible to insert through small tank inlet openings
- Light weight, easy to handle

Standard design

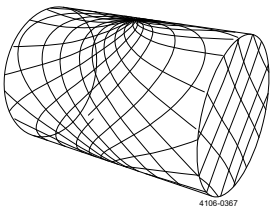
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

Working principle

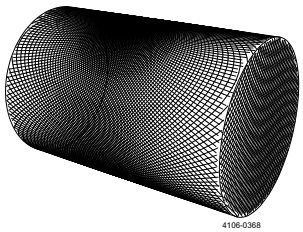
The high-impact jet stream from the Alfa Laval GJ BB rotary jet head covers the entire surface of the interior of the barrel or drum. This achieves a powerful mechanical impact with a low volume of water and cleaning media.

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.

Cleaning Pattern



First Cycle



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.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	8 ft

Pressure	
Working pressure:	80 - 1,200 PSI
Recommended pressure:	80 - 800 PSI

PHYSICAL DATA

Materials	
Materials:	1.4404 (316L), PPS, PFTE, EPDM

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

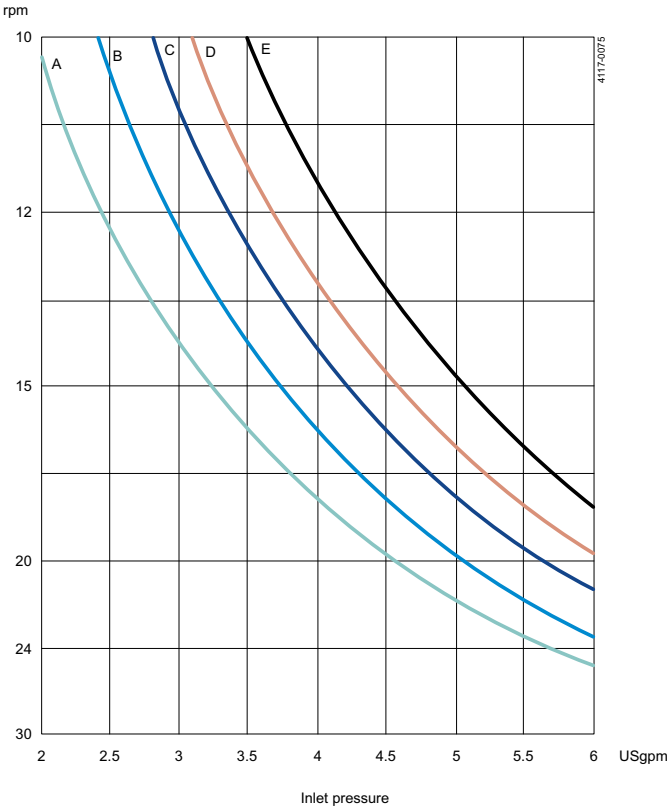
Weight	
Weight:	5.5 lbs

Connections	
Standard thread:	⅜" NPT
Available option:	¾" NPT, ¾" BSP

Concept

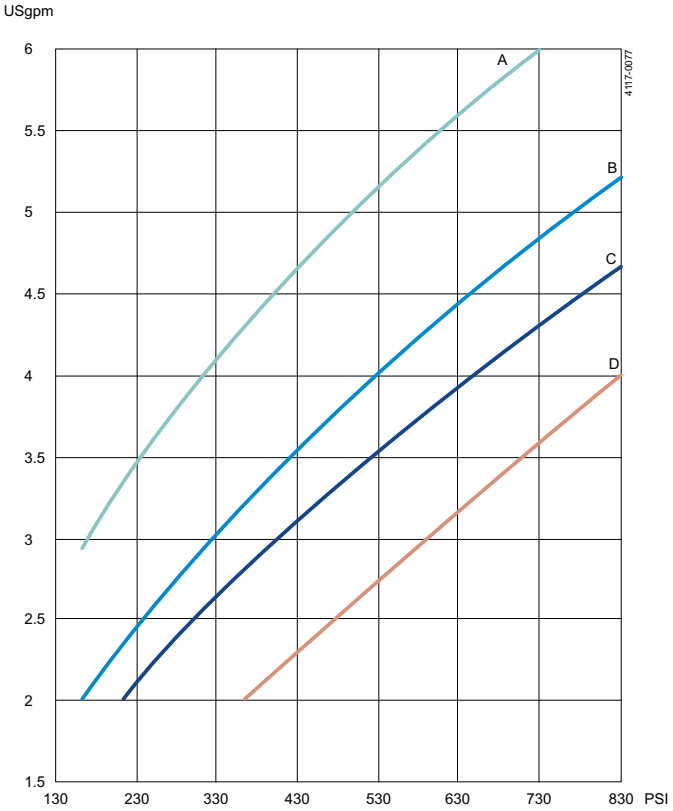
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Cleaning time



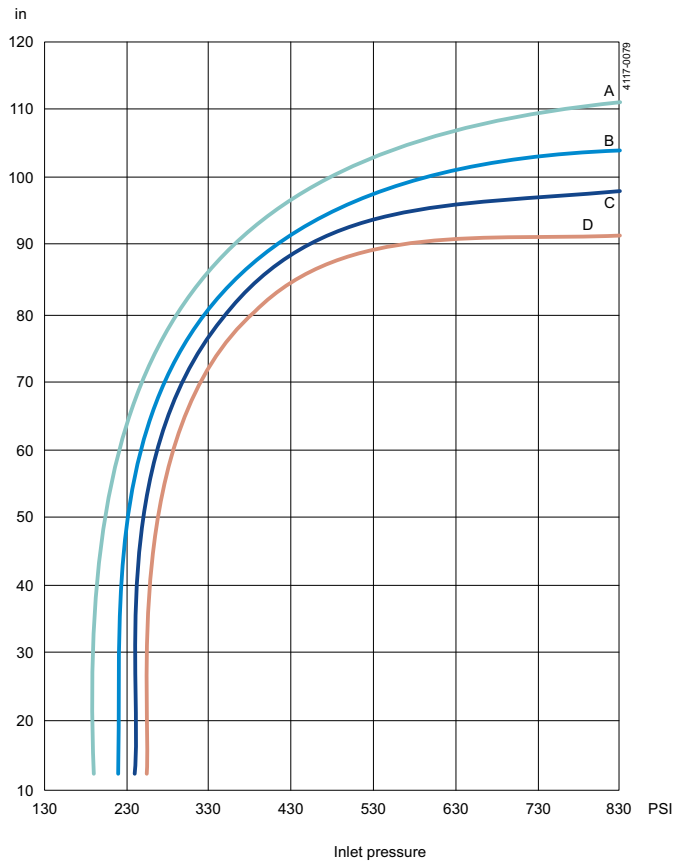
A = Nozzle: 0.070"
Stator 3.5
B = Nozzle: 0.075"
Stator 4.0
C = Nozzle: 0.080"
Stator: 4.5
D = Nozzle: 0.085"
Stator: 5.0
E = Nozzle: 0.085"
Stator: 5.5

Flow Rate



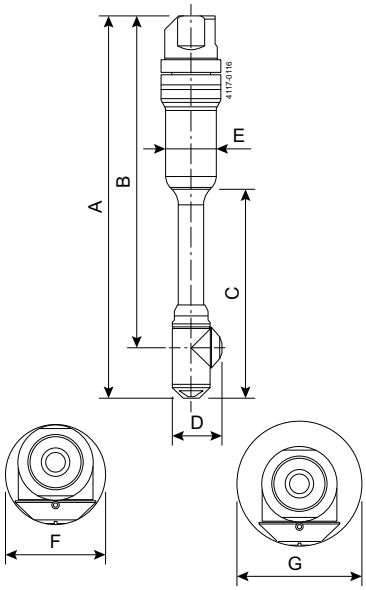
A = Nozzle: 0.085"
Stator: 5.0 & 5.5
B = Nozzle: 0.080"
Stator 4.5
C = Nozzle: 0.075"
Stator: 4.0
D = Nozzle: 0.070"
Stator 3.5

Impact Throw Length



A = Nozzle: 0.085" Stator: 5.0 & 5.5
B = Nozzle: 0.080" Stator 4.5
C = Nozzle: 0.075" Stator: 4.0
D = Nozzle: 0.070" Stator 3.5

Dimensions (inch)



A	B	C	D	E	F	G
12.79	11.1	6.99	1.66	1.7	1.67	2.05

Alfa Laval GJ 9

Rotary jet heads

Introduction

The Alfa Laval GJ 9 is a rotary jet head tank cleaning machine for use as a portable tank cleaning machine in both industrial and hygienic applications. Built to clean intermediate bulk containers (IBCs) and tanks from 4-20 feet in diameter and up to 20 feet tall, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360° cleaning pattern.

The GJ 9 minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Applications

The Alfa Laval GJ 9 is designed for the removal of the toughest residues from industrial and hygienic IBCs, such as those containing paint, oil, food products, and home care products.

Benefits

- Cleans IBCs quickly and efficiently
- High-impact cleaning in a 360° repeatable cleaning pattern
- Cleaning process can be validated using Alfa Laval Rotacheck
- Slim design makes it possible to insert through IBC covers
- Lightweight and easy to handle

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

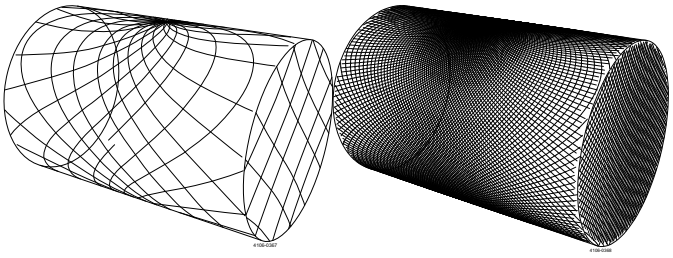
Working principle

The high-impact jet streams from the Alfa Laval GJ 9 rotary jet head cover the entire surface of the interior of IBCs and tanks 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 coarse pattern on the tank

interior. The subsequent cycles gradually increase the pattern density. Once the full cleaning pattern is achieved, the machine will begin a new cycle of the full cleaning pattern.

Cleaning Pattern



First Cycle 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 is due to the additional rotations of the

machine that gradually increase the density of the cleaning pattern.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	4 - 20 ft

Pressure	
Working pressure:	40 - 1,000 PSI
Recommended pressure:	100 - 600 PSI

PHYSICAL DATA

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

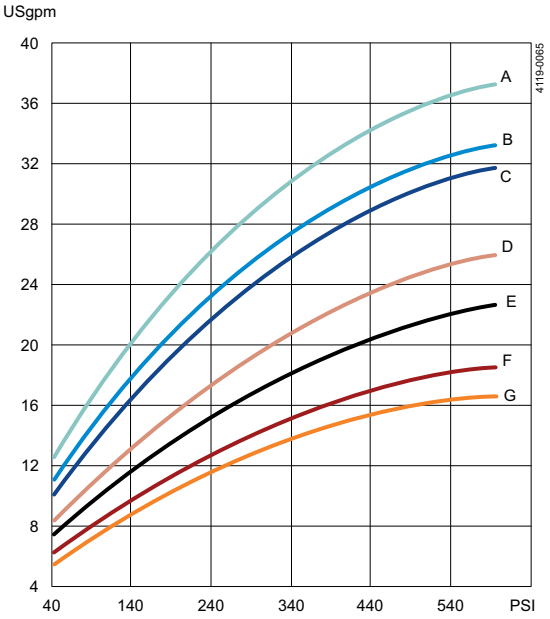
Weight	
Weight:	5 lbs

Connections	
Standard thread:	¾" Rp NPT, female/ 1 ¼" camlock
Available option:	¾" BSP, female/ 1 ¼" camlock, 1 ½" tube weld on

Caution

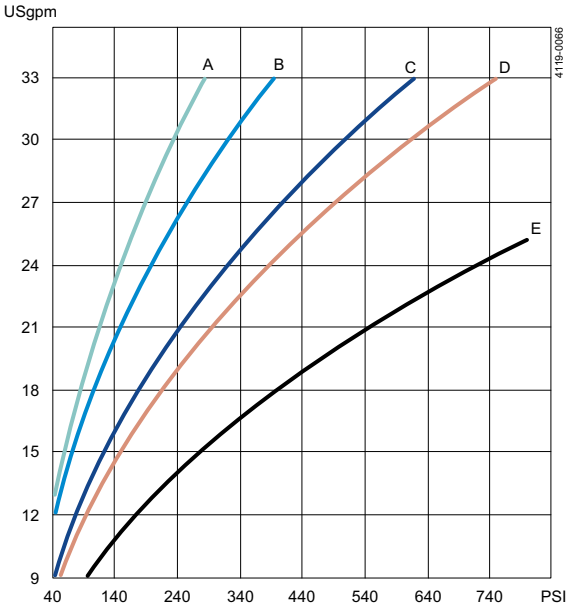
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Pressure - Flow Rate, 2-Nozzle



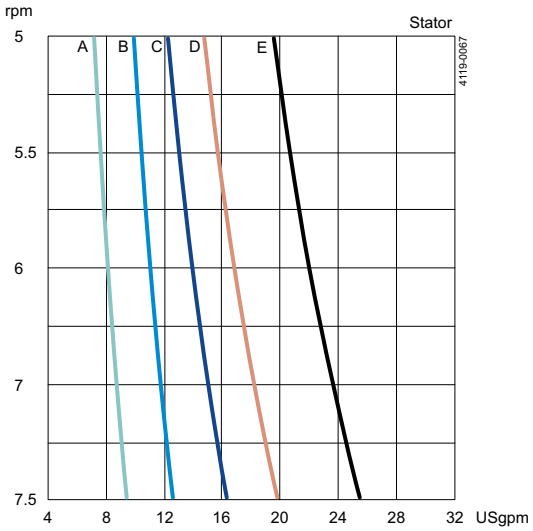
A = 0.225" D = 0.165" G = 0.125"
B = 0.200" E = 0.150"
C = 0.187" F = 0.135"

Pressure - Flow Rate, 4-Nozzle



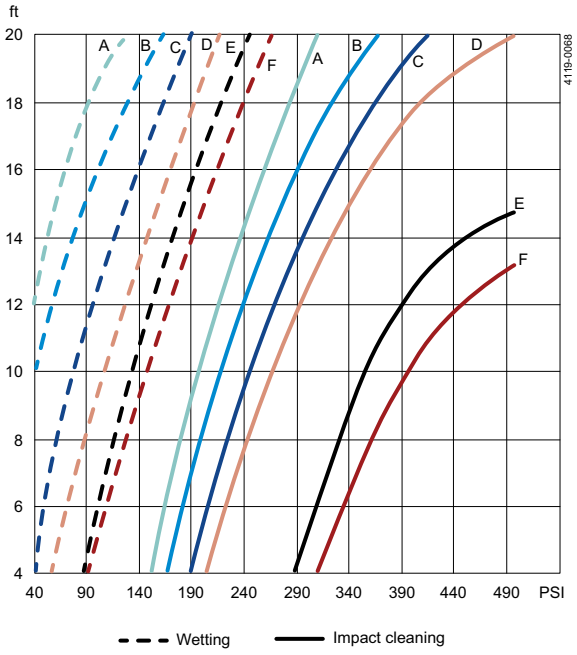
A = 0.165" D = 0.125"
B = 0.150" E = 0.100"
C = 0.135"

Flow Rate-Cycle Time



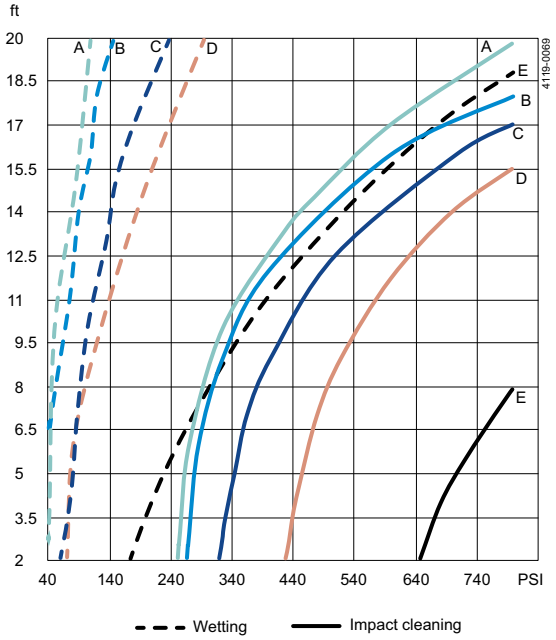
A = LP
B = LV
C = STD
D = MV
E = HV

Throw Distance by Pressure, 2-Nozzle



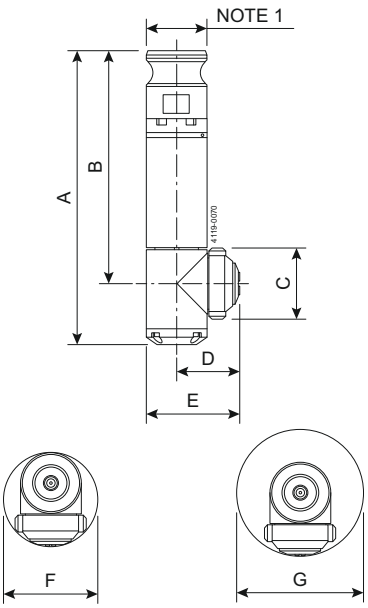
A = 0.200"
B = 0.187"
C = 0.165"
D = 0.150"
E = 0.135"
F = 0.125"

Throw Distance by Pressure, 4-Nozzle



A = 0.165"
B = 0.150"
C = 0.135"
D = 0.125"
E = 0.100"

Dimensions (inch)



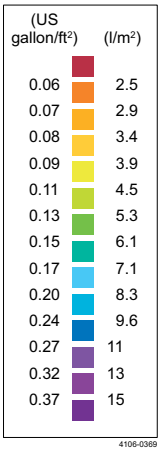
A	B	C	D	E	F	G
8.77	6.96	2.1	1.88	2.78	2.80	3.77

NOTE 1: 3/4" FNPT/1-1/4" CAMLOCK OR 1-1/2" Tri-Clamp

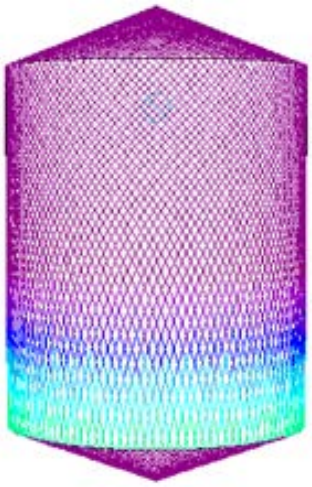
TRAX simulation tool

TRAX is a unique software that simulates how the Alfa Laval GJ 9 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct combination of flow, time, and pressure to implement. A TRAX demo containing different cleaning simulations covering a variety of applications can be used as a reference and documentation for tank cleaning applications. The TRAX demo is free and available upon request.

Wetting Intensity



First cleaning cycle



Full cleaning pattern

Alfa Laval GJ 10

Rotary jet heads

Introduction

The Alfa Laval GJ 10 is a fluid-driven rotary tank cleaning device for industrial environments that require underground fuel storage tanks. Capable of fitting through a 4" opening, the GJ 10 thoroughly cleans through a single insertion an underground fuel storage tank with a volume of 30,000 gallons.

Lightweight, compact and efficient, it combines pressure and flow to create high-impact cleaning jets that are precision engineered to rotate in a precise, repeatable and reliable 360-degree pattern. Within minutes, this device blasts away contaminants and breaks up dirt and sludge, easily converts the contaminant-laden sludge into a liquid effluent for complete tank extraction and thorough tank cleaning.

The GJ 10 minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval GJ 10 is the first and only automated tank cleaning machine capable of removing 100% of residual fuel, dirt and sludge from underground fuel storage tanks across the petroleum and contract cleaning industries.

Benefits

- Fast cleaning time = More production time
- Reduces water and resource usage, leading to reduced cost to clean
- Durable and reliable, rotary jet heads are proven to boost cleaning efficiency by providing reliable and repeatable cleaning performance

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

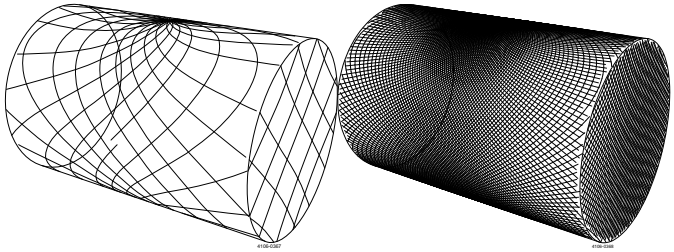
Working principle

The high-impact jet stream from the Alfa Laval GJ 10 rotary jet head covers 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.

Cleaning Pattern



First Cycle 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.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	35 ft

Pressure	
Working pressure:	40 - 300 PSI
Recommended pressure:	50 - 270 PSI

PHYSICAL DATA

Materials
1.4404 (316L), PPS, FKM (EPDM and FFKM available)

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

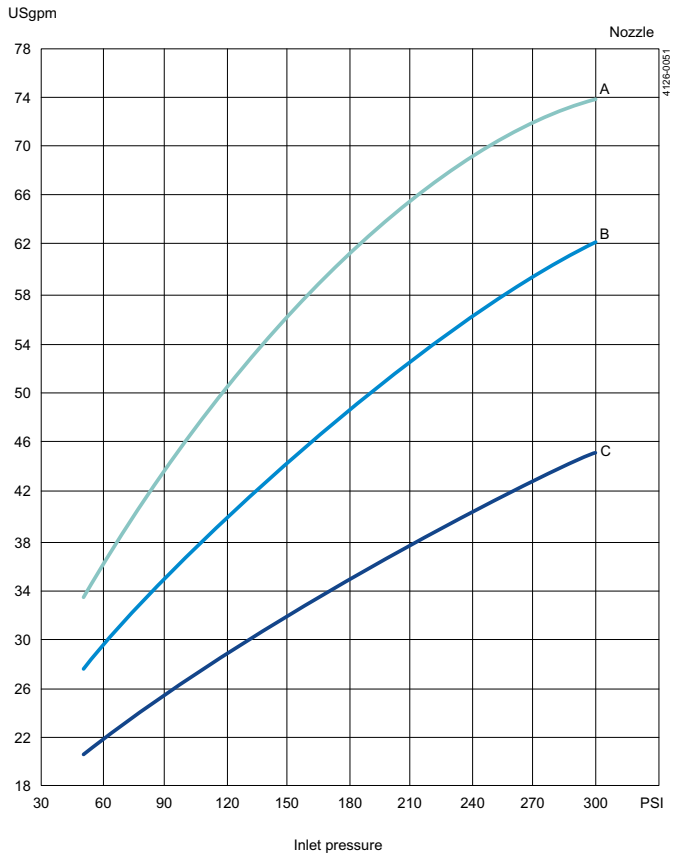
Weight	
Weight:	9.5 lbs

Connections	
Standard thread	1½" NPT, 1½" BSP

Caution

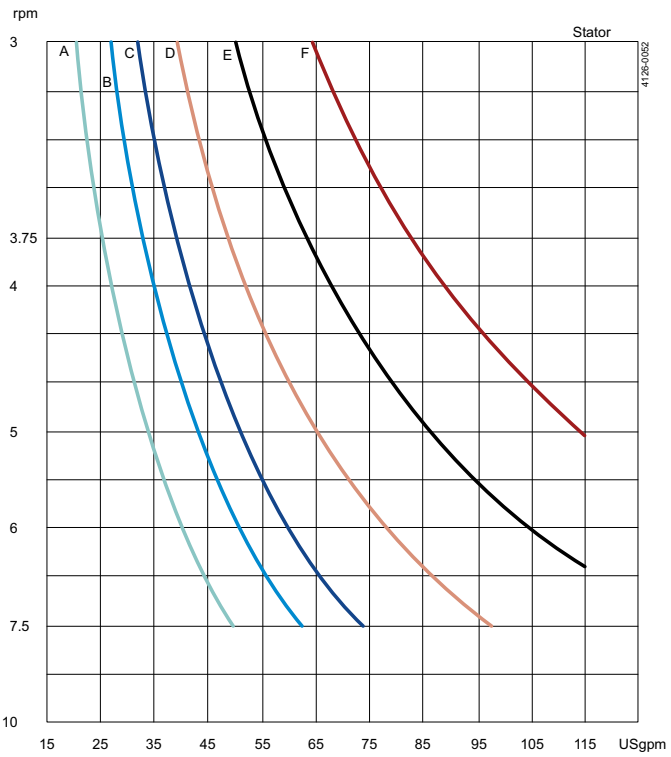
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate



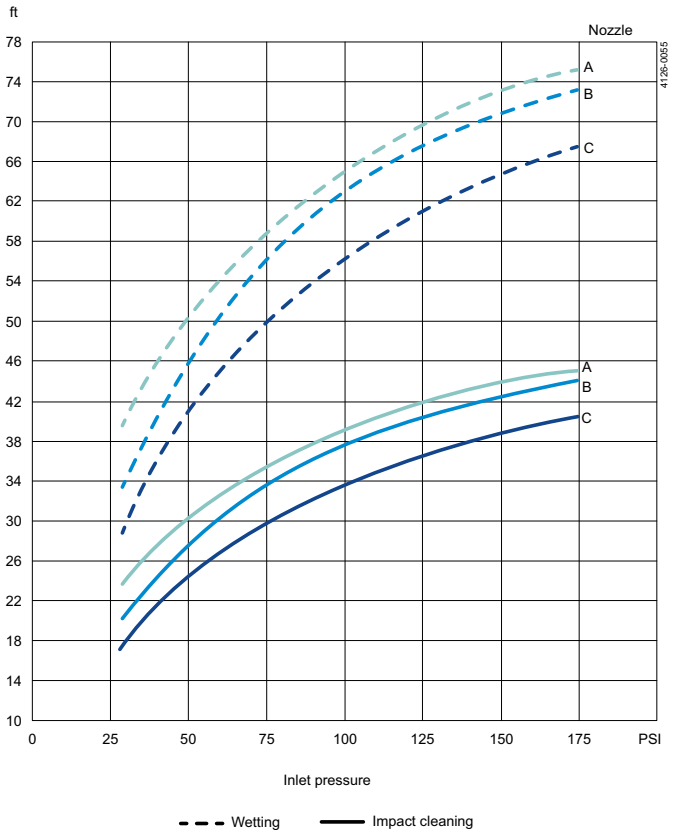
A = 3/8"
B = 5/16"
C = 1/4"

Cleaning Time



A = LP
B = STD
C = LV
D = MV
E = LM
F = HV

Impact Throw Length



A = 2 x Ø1/4"
B = 2 x Ø5/16"
C = 2 x Ø3/8"

Dimensions (inch)

A	B	C	D	E	F	G
10.7	8	3.7	1.7	3.9	3.9	5.4

Alfa Laval GJ PF

Rotary jet heads

Introduction

The Alfa Laval GJ PF is a rotary jet head tank cleaning machine for industrial environments. Designed to clean tanks with capacities from 3963-39626 US gallon it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The Alfa Laval GJ PF minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Applications

The Alfa Laval GJ PF is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the home care, chemical, pulp and paper, ethanol, starch, and oil 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
- Slim design makes it possible to insert through small tank inlet openings

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries.

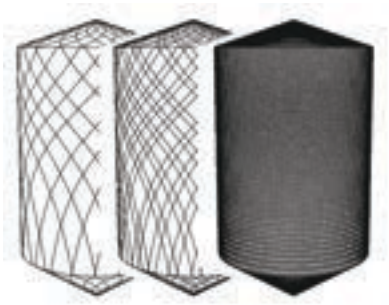
An alternative that offers performance similar to the Alfa Laval GJ PF is the Alfa Laval MultiJet 25. The MultiJet 25 is ideal for applications that require 2.1. material certification and/or ATEX certification.

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	45-65 ft

Pressure	
Working pressure:	40 - 400+ PSI
Recommended pressure:	50 - 300 PSI

PHYSICAL DATA

Materials:	316L, PPS, PTFE, EPDM (FKM and FFKM available)

Temperature	
Max. working temperature:	195 °F
Max. ambient temperature:	284 °F

Weight:	10 lbs

Finish	
Surface finish:	32 Ra

Connections	
Standard thread:	1½" Rp (BSP) or NPT, female
Available option:	1.5" weld, 1.5" tri-clamp, 1.5" ISO 2037 slip fit, 1.5" DIN R1 slip fit, 1.5" DIN R2 slip fit

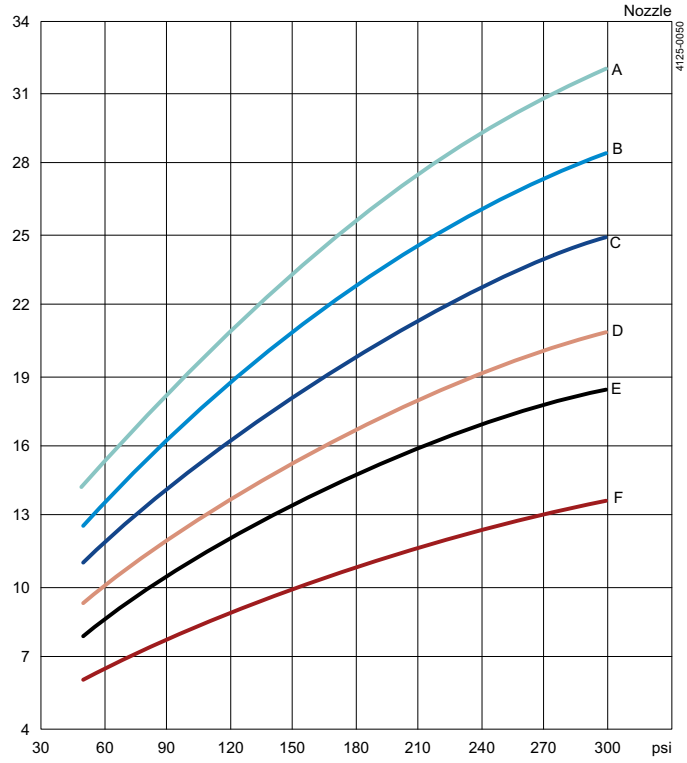
Caution

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.

Flow Rate

2-nozzle

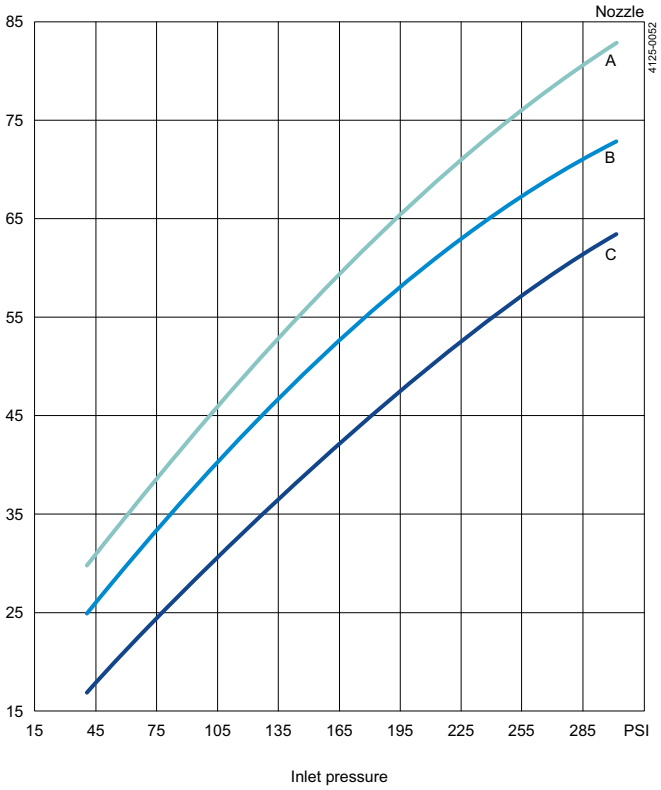
USgpm



A = 0.187" D = 0.135"
B = 0.165" E = 0.125"
C = 0.150" F = 0.100"

4-nozzle

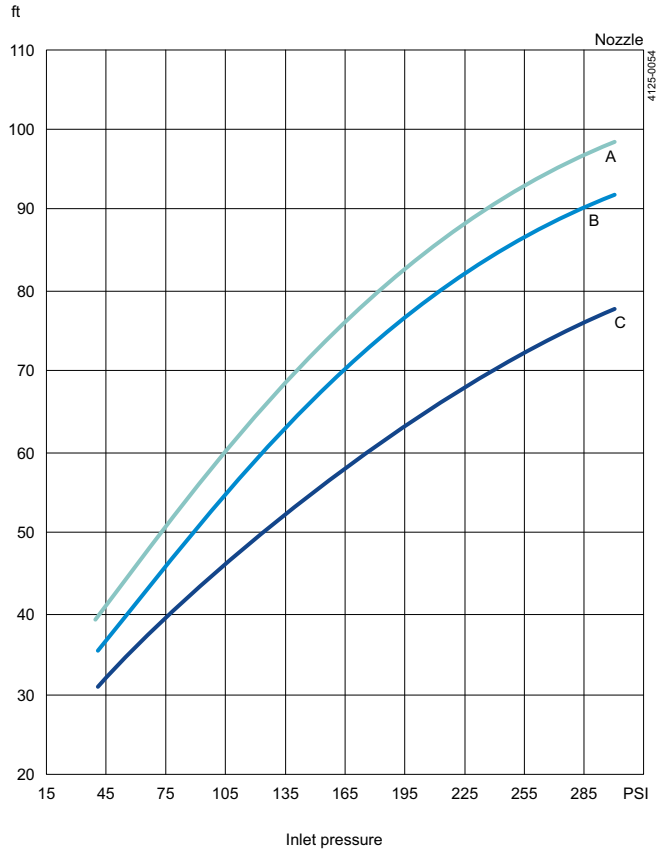
USgpm



A = 3/8"
B = 5/16"
C = 1/4"

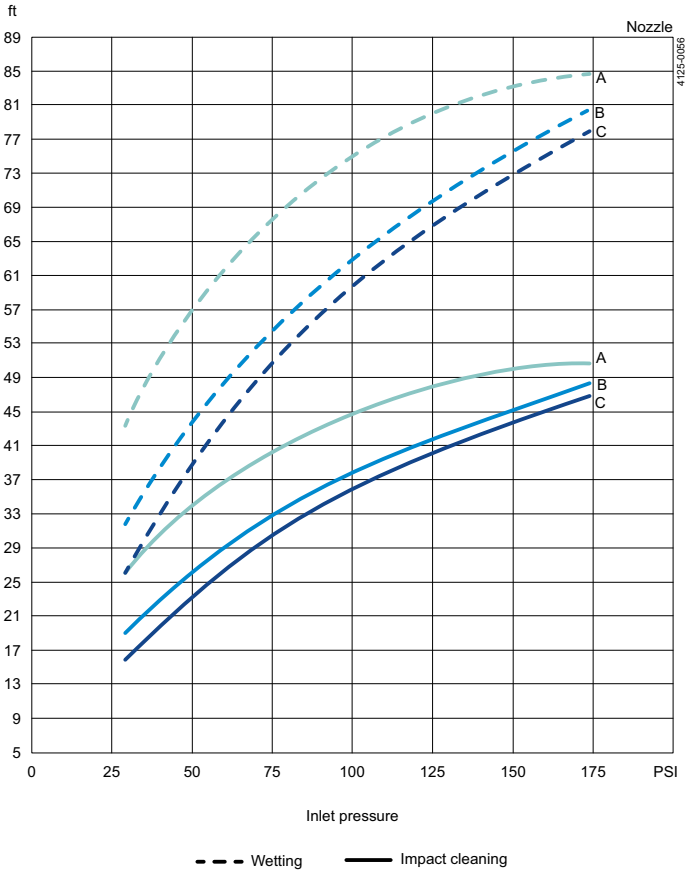
Impact

2-nozzle



A = 2 x Ø3/8"
B = 2 x Ø5/16"
C = 2 x Ø1/4"

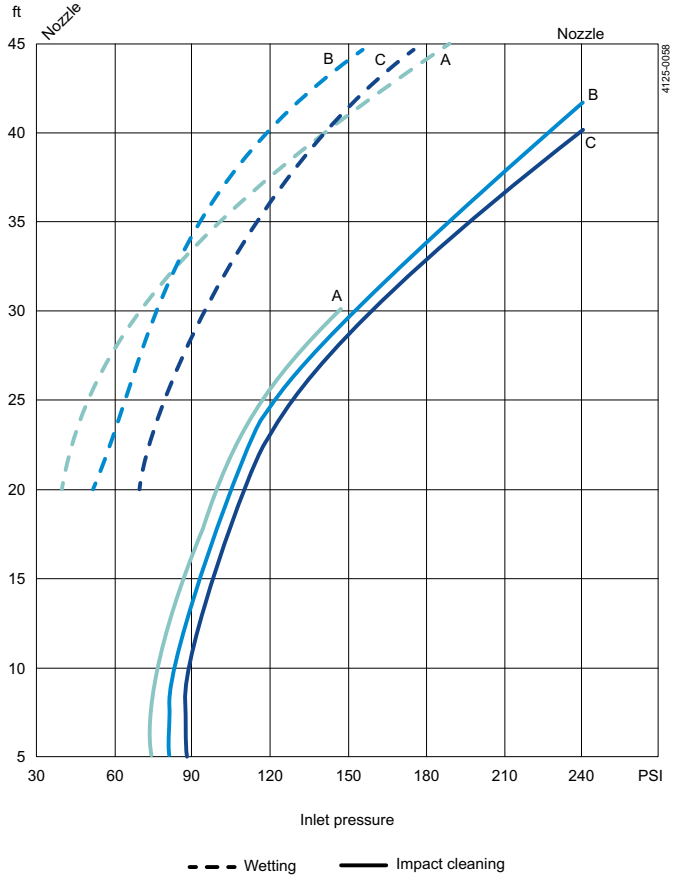
4-nozzle



A = 4 x Ø3/8"
B = 4 x Ø5/16"
C = 4 x Ø1/4"

Custom inlets available. Contact your local Alfa Laval representative for details.

Cleaning Time



A = 1/4"
B = 5/16"
C = 3/8"

Dimensions (inch)

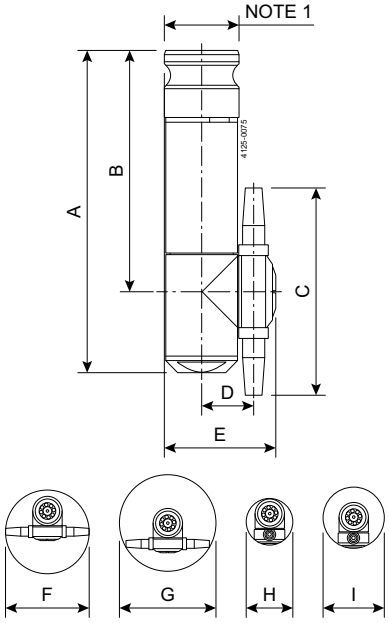


Figure 1. 2-nozzle

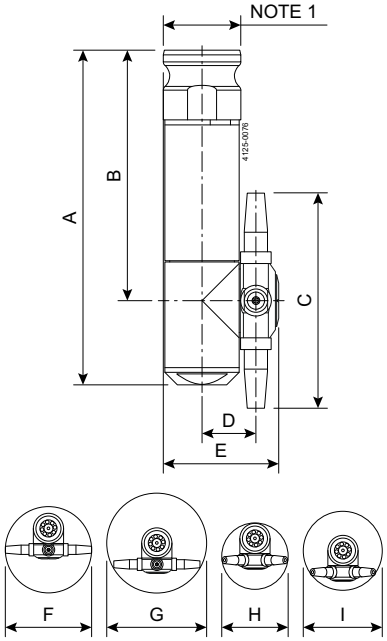


Figure 2. 4-nozzle

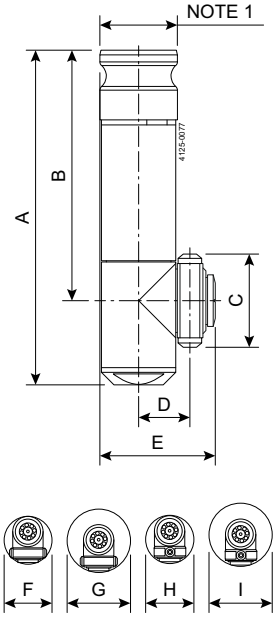


Figure 3. Low-profile

2-nozzle (in)

A	B	C	D	E	F	G	H	I
10.70	8.01	6.88	1.73	3.69	6.90	7.95	3.83	5.05

NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK (option shown above)

4-nozzle (in)

A	B	C	D	E	F	G	H	I
10.70	8.01	6.88	1.73	3.69	6.90	7.95	5.29	6.31

NOTE 1: 1-1/2" FNPT/2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK (option shown above)

Low-profile version (in)

A	B	C	D	E	F	G	H	I
10.70	8.01	2.98	1.64	3.69	3.82	5.05	3.82	5.05

NOTE 1: 1-1/2" FNPT/ 2" CAMLOCK OR 1-1/2" BSP/2" CAMLOCK (option shown above)

Alfa Laval GJ 8

Rotary jet heads

Introduction

The Alfa Laval GJ 8 is a rotary jet head tank cleaning machine for industrial environments. Built to clean tanks from 66,000-330,000 gallons in size, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

Durable and reliable, the GJ 8 minimizes the consumption of water and cleaning media yet provides with proven cleaning efficiency. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval GJ 8 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the chemical, pulp and paper, ethanol, starch, transportation, oil industries.

Benefits

- Sustainable cleaning solution using less water and chemicals compared to manual cleaning or cleaning using traditional spray balls
- Eliminates the need for confined space entry for manual tank cleaning
- Reliable and repeatable cleaning performance
- Cleaning process can be validated using Alfa Laval Rotacheck
- Slim design, making it possible to insert through small tank inlet openings

Standard design

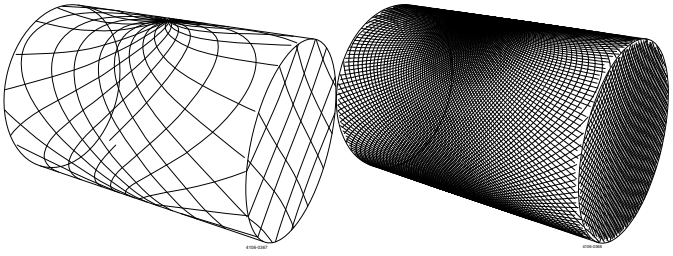
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.

Working principle

The high-impact jet stream from the Alfa Laval GJ 8 rotary jet head covers 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.

Cleaning Pattern



First Cycle

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.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length	45-85 ft.

Pressure	
Working pressure:	40 - 400+ PSI
Recommended pressure:	50 - 300 PSI

PHYSICAL DATA

Materials
1.4404 (316L), PPS, PTFE, FKM (EPDM and FFKM available)

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

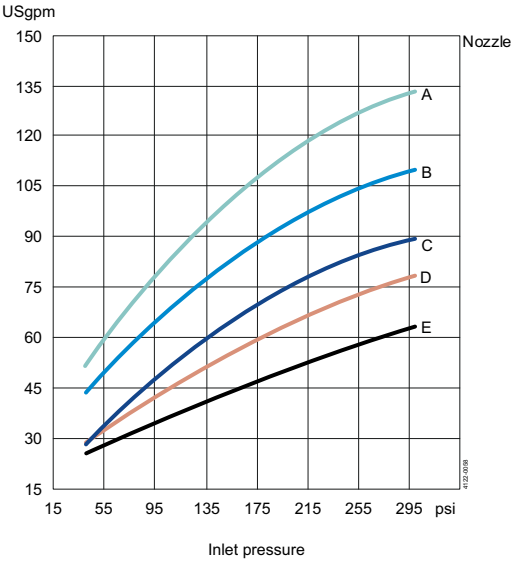
Weight	
Weight:	14.5 lbs.

Connections	
Standard thread:	1½" Rp (BSP) or NPT, female
Available option:	2" Rp (BSP) or NPT, female

Caution

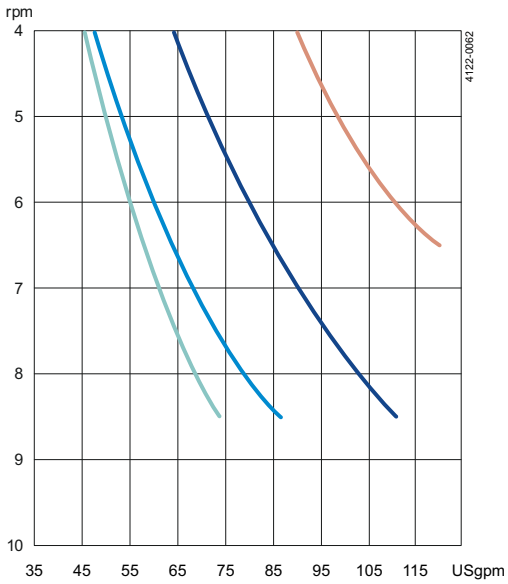
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate



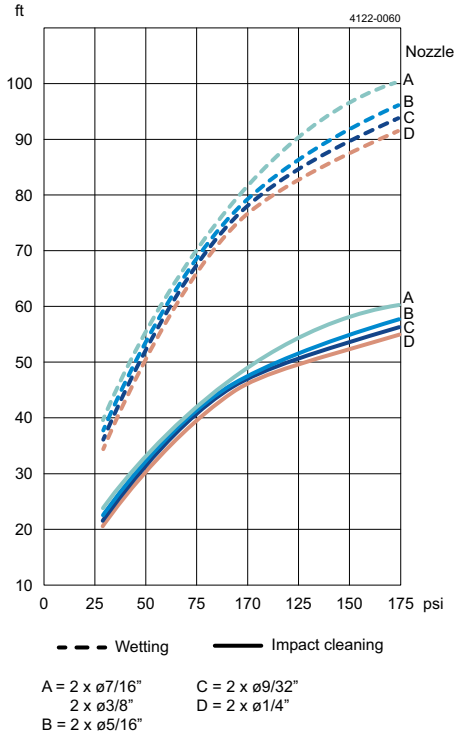
A = 7/16" D = 9/32"
B = 3/8" E = 1/4"
C = 5/16"

Cleaning Time



A = LV D = LM
B = SML
C = LRG

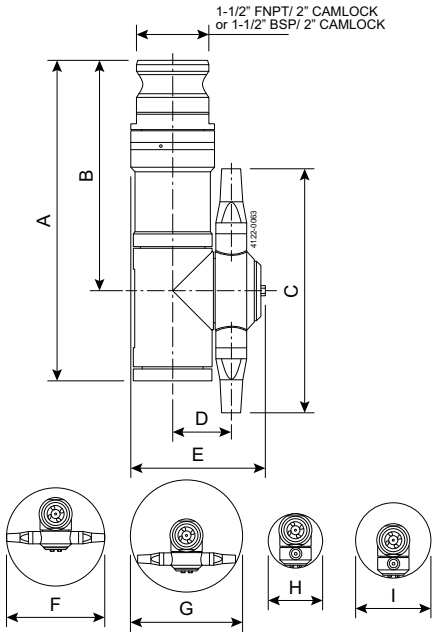
Impact Throw Length



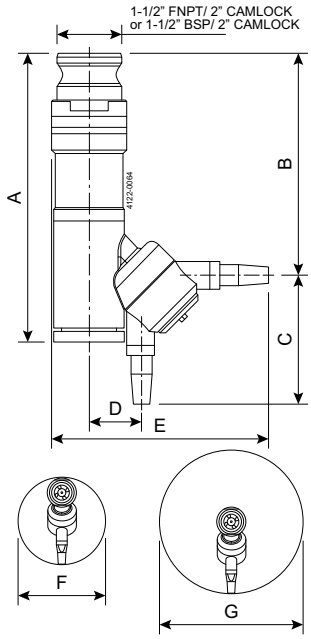
A = 2 x ø7/16”
2 x ø3/8”
B = 2 x ø5/16”

C = 2 x ø9/32”
D = 2 x ø1/4”

Dimensions



Dimensions 180° directional version



	A	B	C	D	E	F	G	H	I
(in)	11.05	7.95	8.46	2.02	4.64	8.50	9.76	4.76	6.50

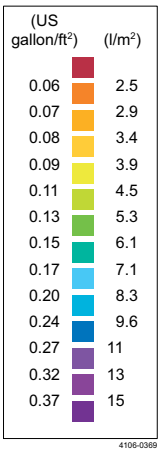
Dimensions 180° directional version

	A	B	C	D	E	F	G
(in)	11.05	7.95	8.46	2.02	4.64	8.50	9.76

TRAX simulation tool

TRAX is a unique software that simulates how the Alfa Laval GJ 8 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct combination of flow, time, and pressure to implement.A TRAX demo containing different cleaning simulations covering a variety of applications can be used as a reference and documentation for tank cleaning applications. The TRAX demo is free and available upon request.

Wetting Intensity



D 480", H 770", 2 x Ø5/16", Time = 3.1 min.

D 480", H 770", 2 x Ø5/16", Time = 12.5 min.

Alfa Laval GJ18

Rotary jet heads

Introduction

The Alfa Laval GJ 18 is a rotary jet head tank cleaning machine for industrial environments. Designed to clean tanks with capacities from 39625.5 - 594382.5 US gallons, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern. The Alfa Laval GJ 18 minimizes the consumption of water and cleaning media. Easy to customize to meet customer requirements, it enables companies to spend less time cleaning and more time producing.

The new patented gear design will last several times longer than other large industrial tank cleaning machines.

Application

The Alfa Laval GJ 18 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the chemical, pulp and paper, steel, starch, and tank truck wash 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
- Ideal solution for tank truck washing
- New patented gear design with long running hours

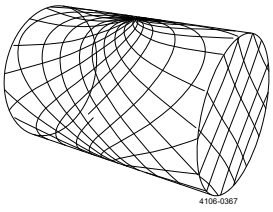
Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries.

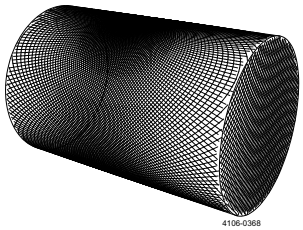
Working principle

The high-impact jet stream from the Alfa Laval GJ 18 rotary jet head covers 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.

Cleaning Pattern



First Cycle



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.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	100 ft

Pressure	
Working pressure:	45 - 300 PSI
Recommended pressure:	50 - 200 PSI

PHYSICAL DATA

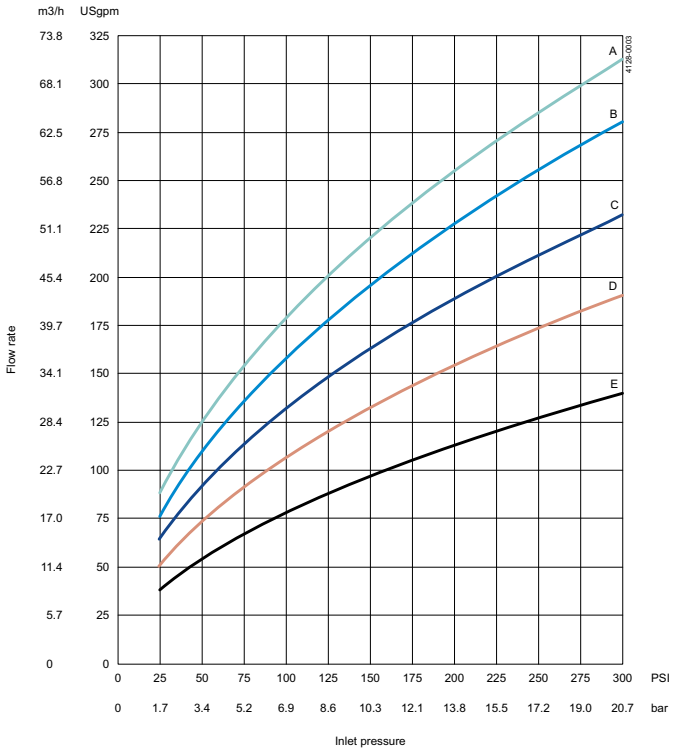
Materials
1.4404 (316L), PPS, FKM (FFKM available)

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Weight:	26 lbs

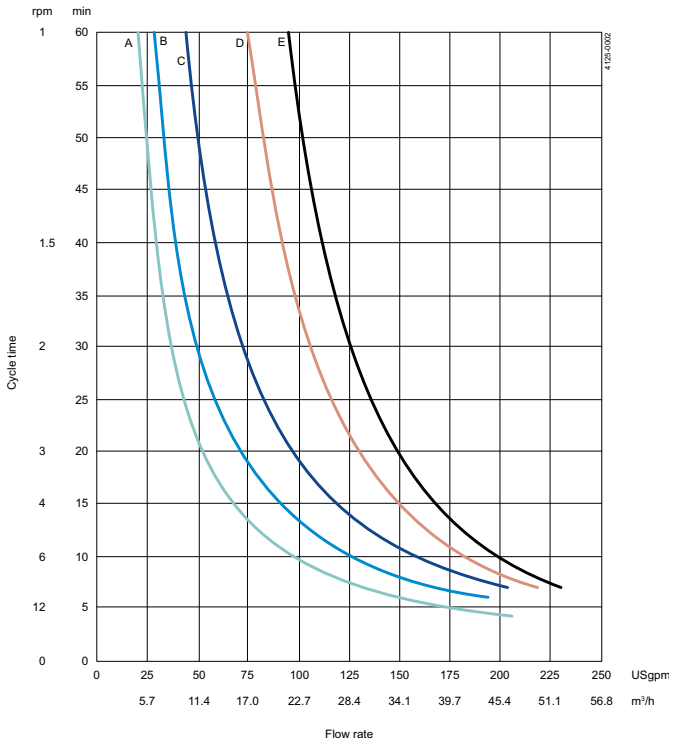
Connections	
Standard thread	2½" NPT, 2½" BSP

Pressure vs. Flow Rate



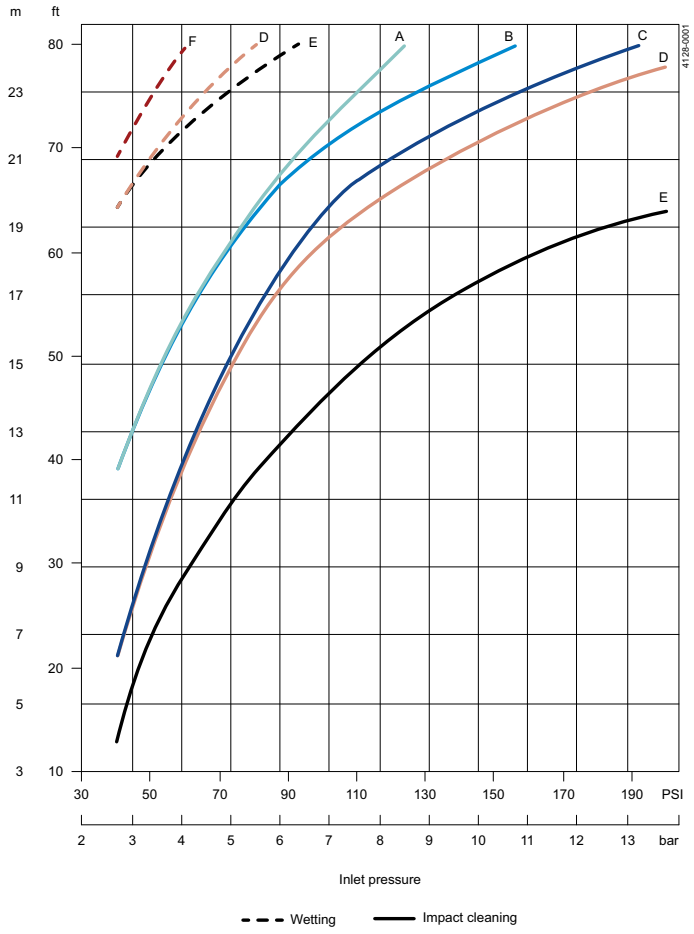
A = Nozzle size: 5/8" (15.9mm)
B = Nozzle size: 9/16" (14.3 mm)
C = Nozzle size: 1/2" (12.7 mm)
D = Nozzle size: 7/16" (11.1mm)
E = Nozzle size: 3/8" (9.5 mm)

Flow Rate vs, Cycle Time



A = Stator 35°
B = Stator 25°
C = Stator 15°
D = Stator 5°
E = No stator

Impact Data and Flow

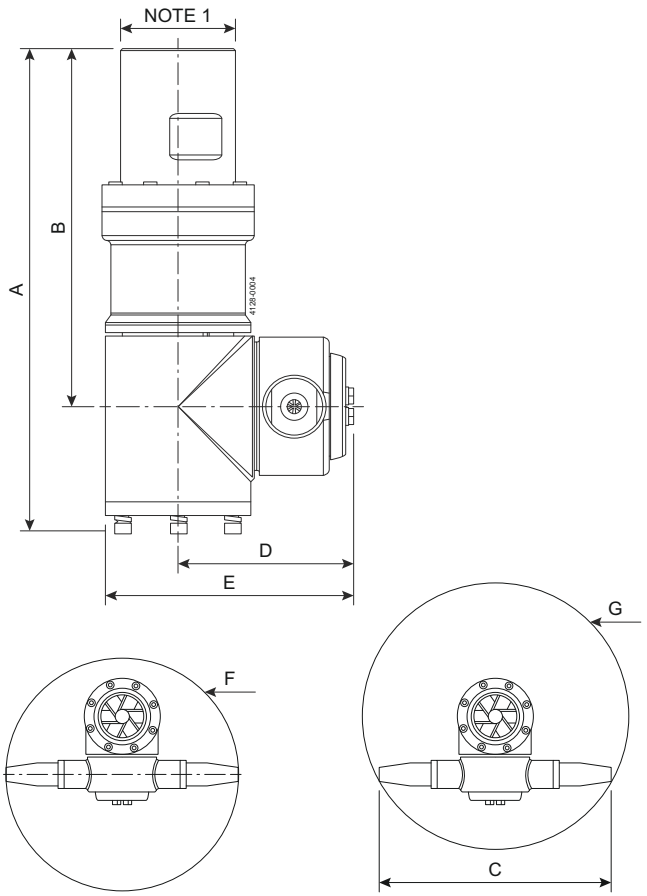


A = Nozzle: 5/8" (15.9 mm)
B = Nozzle: 9/16" (14.3 mm)
C = Nozzle: 1/2" (12.7 mm)

D = Nozzle: 7/16" (11.1 mm)
E = Nozzle: 3/8" (9.5 mm)

F = Nozzle: 5/8" (15.9 mm)
Nozzle: 9/16" (14.3 mm)
Nozzle: 1/2" (12.7 mm)

Dimensions (inch)



A	B	C	D	E	F	G
13.27	9.84	12.76	4.84	6.84	12.78	14.61

NOTE 1: 2½" NPT, 2½" BSP

Standard Design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ 18 can be supplied with a “Declaration of Conformity” for material specifications.

Alfa Laval GJ 4

Rotary jet heads

Introduction

The Alfa Laval GJ 4 is a rotary jet head tank cleaning machine for industrial environments. Designed to clean tanks from 39626-594387 US gallons it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern.

The GJ 4 minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it allows companies to spend less time cleaning and more time producing.

Application

The Alfa Laval GJ 4 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the chemical, pulp and paper, ethanol, starch, transportation, and oil 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
- Slim design makes it possible to insert through small tank inlet openings

Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ 4 can be supplied with a “Declaration of Conformity” for material specifications.

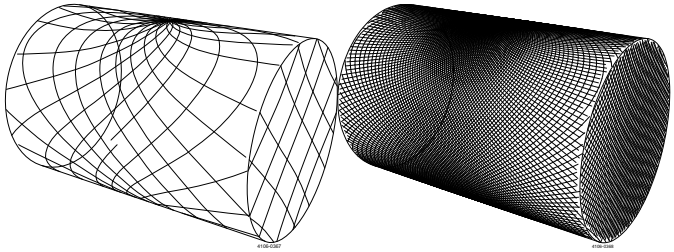
Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries. An alternative that offers performance similar to the Alfa Laval GJ 4 is the Alfa Laval TJ40G-HD, which offers a more hygienic design. The TJ40G-HD is ideal for applications that require 3.1. material certification, ATEX certification, and smooth qualification and validation processes through the Alfa Laval Q-doc documentation package.

Working principle

The high-impact jet stream from the Alfa Laval GJ 4 rotary jet head covers 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.

Cleaning Pattern



First Cycle 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.

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	100 ft

Pressure	
Working pressure:	40 - 300 PSI
Recommended pressure:	50 - 200 PSI

PHYSICAL DATA

Materials
1.4404 (316L), PPS, FKM (FFKM available)

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

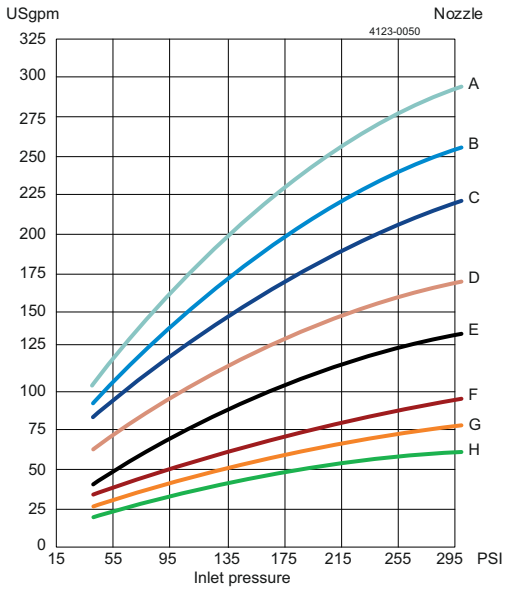
Weight:	28 - 29 lbs

Connections	
Standard thread:	2" NPT, 2" BSP

Caution

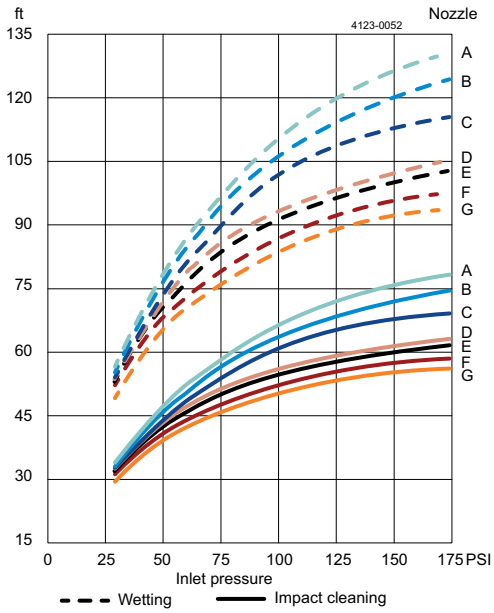
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate



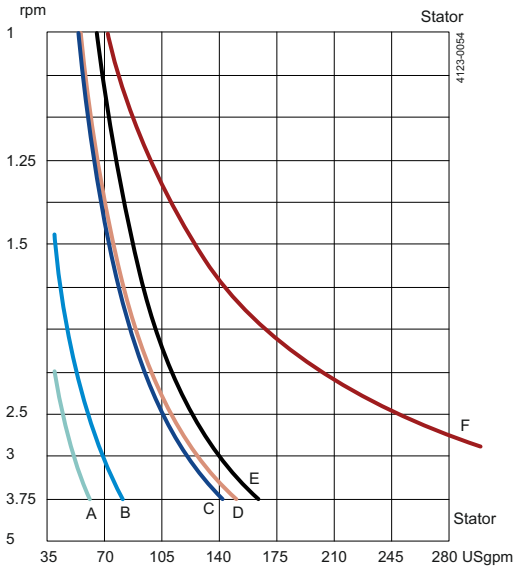
A = 5/8" D = 7/16" G = 9/32"
B = 9/16" E = 3/8" H = 1/4"
C = 1/2" F = 5/16"

Impact Throw Length



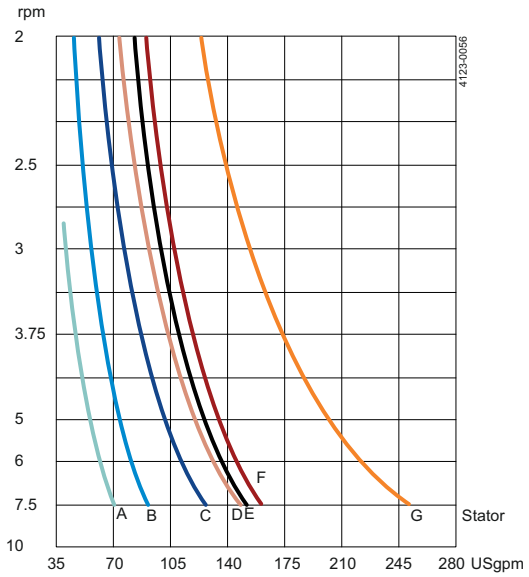
A = 2 x Ø9/16" D = 2 x Ø3/8" G = 2 x Ø1/4"
B = 2 x Ø7/16" E = 2 x Ø5/16"
C = 2 x Ø1/2" F = 2 x Ø9/32"

Cleaning Time (Gear Ratio 655:1)



A = LV D = LM
B = LP E = HV1
C = HP F = HV2

Cleaning Time (Gear Ratio 273:1)



A = LV D = LM G = HV2
B = LP E = HP
C = STD F = HV1

Dimensions (inch)

A	B	C	D	E	F	G	H	I
12.13	5.14	13	2.97	6.07	13.03	14.62	6.59	8.61

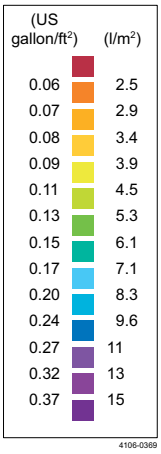
Note! 2" NPT FEMALE/ 2-1/2" CAMLOCK. 2" NPT FEMALE/ 2-1/2" NST

TRAX simulation tool

TRAX is a unique software that simulates how the Alfa Laval GJ 4 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct combination of flow, time, and pressure to implement. A TRAX demo containing different

cleaning simulations covering a variety of applications can be used as a reference and documentation for tank cleaning applications. The TRAX demo is free and available upon request.

Wetting Intensity



D8387.58 in, H1338,58 in, 2 x Ø0.437 in, Time = 6 min

D8387.58 in, H1338,58 in, 2 x Ø0.437 in, Time = 24 min

Alfa Laval GJ 5

Rotary jet heads

Introduction

The Alfa Laval GJ 5 is a rotary5 jet head tank cleaning machine for industrial environments. Designed to clean tanks with capacities from 1320.85 - 5283.4 US gallons, it combines pressure and flow to create high-impact cleaning jets that rotate in a repeatable and reliable 360-degree cleaning pattern. The Alfa Laval GJ 5 minimizes the consumption of water and cleaning media. The gear train, which uses food-grade lubricants, reduces the risk of particle damage to the machine during operation. Easy to customize to meet customer requirements, it enables companies to spend less time cleaning and more time producing.

Application

The Alfa Laval GJ 5 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the home-personal care, chemical, pulp and paper, ethanol, starch, and oil 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
- Available in special version “downwards cleaning version”, making it possible to clean open tanks
- Slim design makes it possible to insert through small tank inlet openings

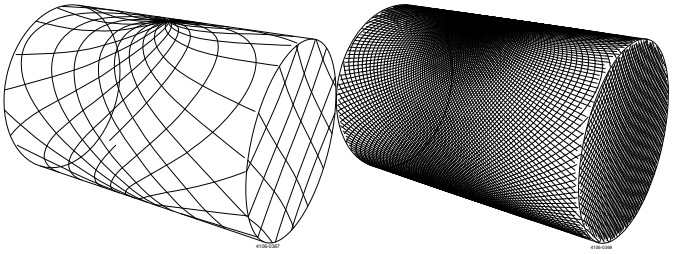
Standard design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. Alfa Laval offers a wide range of tank cleaning machines suitable for different duties and industries.

Working principle

The high-impact jet stream from the Alfa Laval GJ 5 rotary jet head covers 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 a 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.



First Cycle 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.

Certificate

2.1 material certificate

TECHNICAL DATA

Lubricant:	Food grade
Max. throw length:	4 - 24 ft

Pressure	
Working pressure:	40 - 1,000 PSI
Recommended pressure:	50 - 600 PSI

PHYSICAL DATA

Materials
1.4404 (316L), PPS, PTFE, FKM (EPDM and FFKM available)

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Weight:	7 lbs

Connections	
Standard thread:	1¼" Rp, NPT female
Available option:	1½" tube weld on

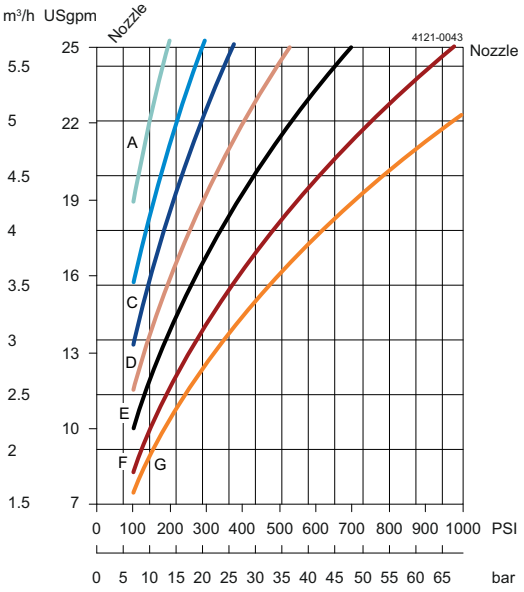
Option
Electronic rotation sensor to verify 3D coverage

Caution

Do not use for gas evacuation or air dispersion.

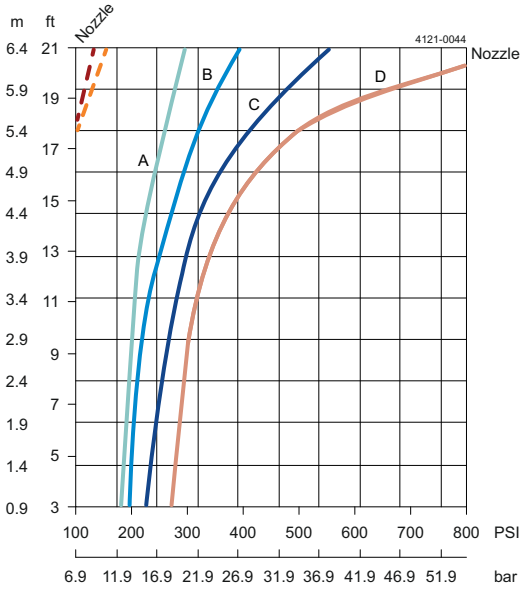
Disclaimer: Information in this product data leaflet is intended for general guidance purposes. Specific data for device selection and sizing is available upon request.

Flow Rate



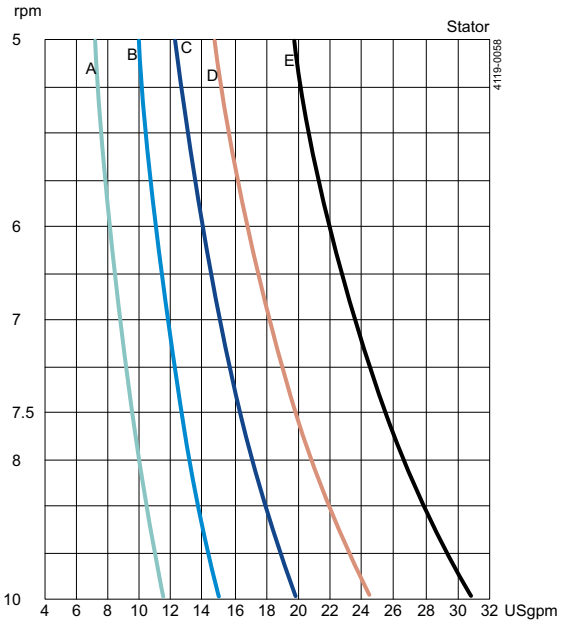
A = 6.4 mm (0.250")
B = 5.1 mm (0.200")
C = 4.7 mm (0.187")
D = 4.2 mm (0.165")
E = 3.8 mm (0.150")
F = 3.4 mm (0.135")
G = 3.2 mm (0.125")

Impact Throw Length



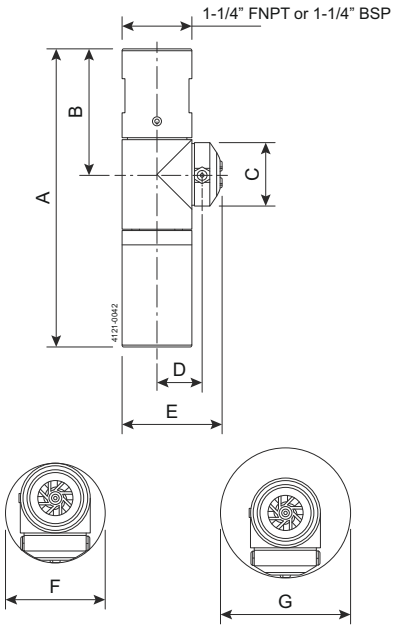
A = 6.4 mm (0.250")
5.1 mm (0.200")
B = 4.7 mm (0.187")
4.2 mm (0.165")
3.8 mm (0.150")
C = 3.4 mm (0.135")
D = 3.2 mm (0.125")

Cleaning Time



A = LP
B = LV
C = STD
D = MV
E = HV

Dimension (Inch)



A	B	C	D	E	F	G
8.8	3.7	1.9	1.3	3	3	3.9

NOTE 1: 1" R-CLIP COLLAR OR 1-1/2" BUTT WELD

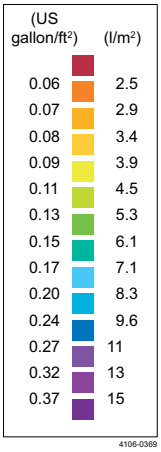
Standard Design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ 5 can be supplied with a “Declaration of Conformity” for material specifications.

TRAX simulation tool

TRAX is a unique software that simulates how the Alfa Laval GJ 5 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct combination of flow, time, and pressure to implement. A TRAX demo containing different cleaning simulations covering a variety of applications can be used as a reference and documentation for tank cleaning applications. The TRAX demo is free and available upon request.

Wetting Intensity



D4.8 m (190"), H7.6 m (300"), 2xØ4.76 mm (2xØ3/16") Time = 2.75 min

D4.8 m (190"), H7.6 m (300"), 2xØ4.76 mm (2xØ3/16") Time = 11 min

Alfa Laval MultiJet 25

Rotary jet heads

Introduction

The Alfa Laval MultiJet 25 is a rotary jet head tank cleaning machine for use in industrial environments. Built to clean tanks with capacities from 3963-39626 USG, it combines pressure and flow to create high-impact cleaning jets rotate in a repeatable and reliable 360-degree cleaning pattern.

The MultiJet 25 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 MultiJet 25 is designed for the removal of the toughest residues from industrial tanks across a broad range of industries, such as the home care, chemical, pulp and paper, ethanol, starch, and oil 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

Standard Design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. A 2.1 material certificate and an ATEX certification are available.

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 MultiJet 25 is the Alfa Laval GJ PF, which is ideal applications that require a small tank inlet opening.

Certificates

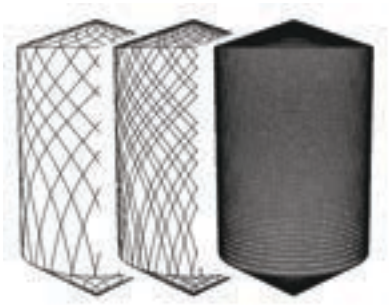
2.1 material certificate and ATEX.

Working principle

The high-impact jet stream from the rotary jet head covers the entire surface 360° 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.



TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Max. throw length:	29 - 46 ft
Impact throw length:	13 - 26 ft

Pressure	
Working pressure:	45 - 115 PSI
Recommended pressure:	72 - 94 PSI

PHYSICAL DATA

Materials
316L (UNS S31603), Duplex steel (UNS N31803), Duplex steel (UNS S 21800), EPDM[1], PEEK[1], PVDF[1], PFA[1]
[1] FDA compliance 21CFR§177

Surface finish:	Exterior finish: Glass blasted

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight:	11 lbs

Connections	
Standard female thread:	1" Rp (BSP) or NPT

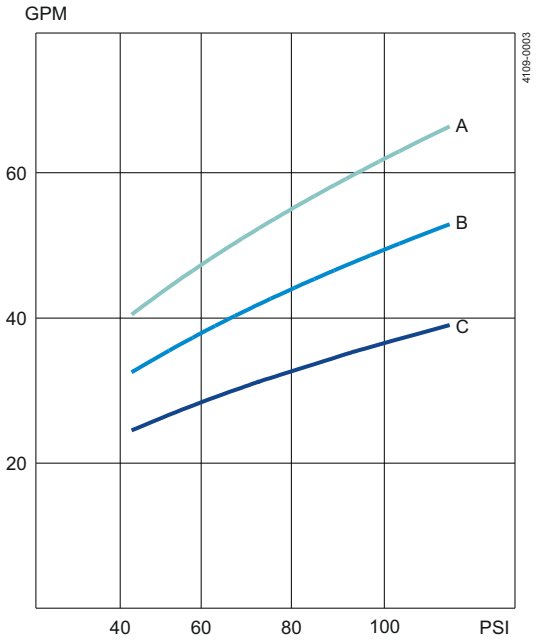
Caution

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

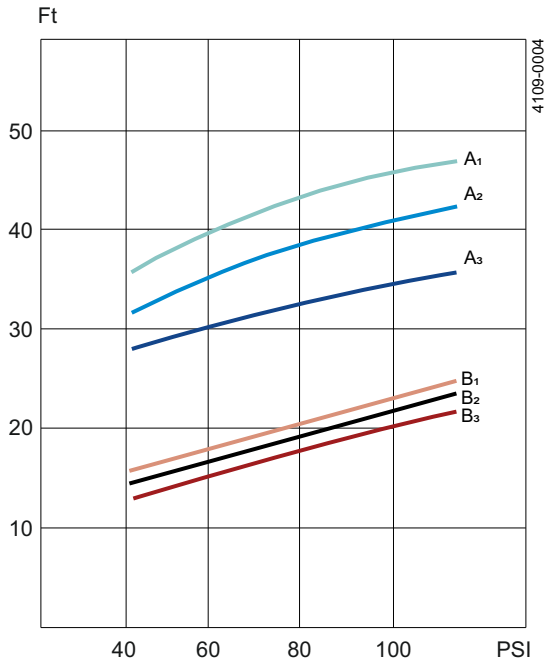
Documentation specification	
ATEX	ATEX approved machine for use in explosive atmospheres Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU II 1G Ex h IIC 185 °F ... 347 °F Ga II 1D Ex h IIIC T185 °F ... T284 °F Da

Flow rate



A = 4 x Ø5.5
B = 4 x Ø4.6
C = 4 x Ø3.9

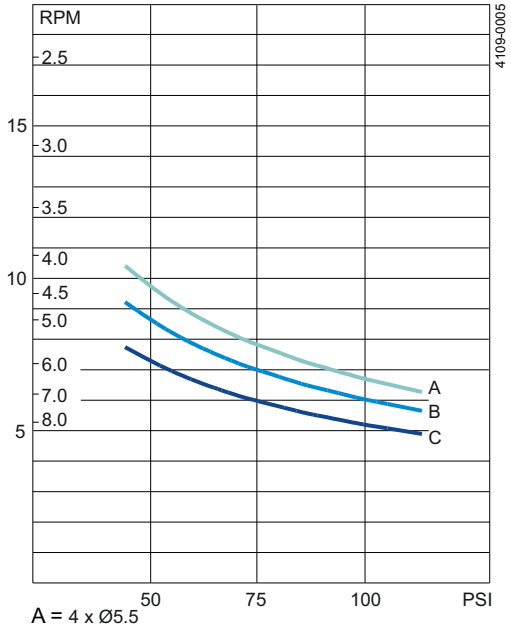
Impact throw length



A: Wetting
A₁ = 4 x Ø5.5
A₂ = 4 x Ø4.6
A₃ = 4 x Ø3.9

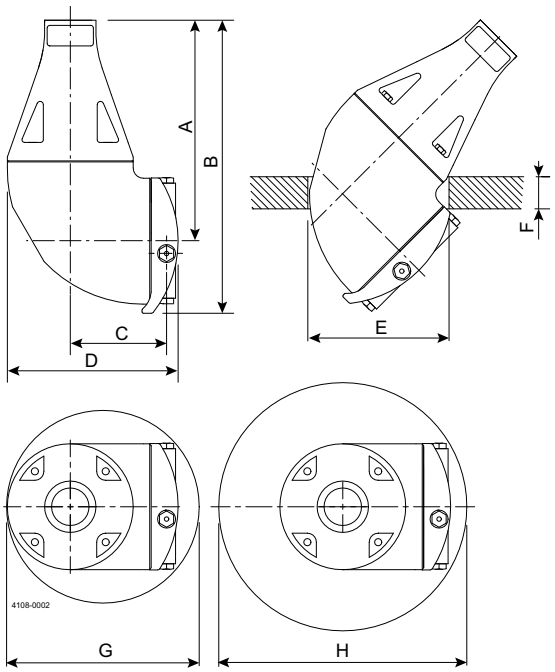
B: Impact cleaning
B₁ = 4 x Ø5.5
B₂ = 4 x Ø4.6
B₃ = 4 x Ø3.9

Cleaning time, complete pattern



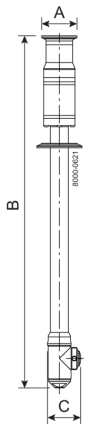
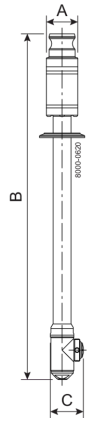
A = 4 x Ø5.5
B = 4 x Ø4.6
C = 4 x Ø3.9

Dimensions (inch)



A	B	C	D	E	F	G	H
6.81	9.06	2.95	5.24	Ø4.33	Max. 0.98	Ø5.91	Ø7.87

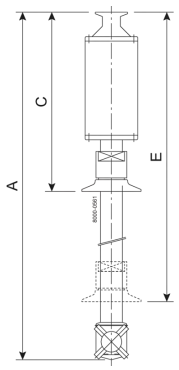
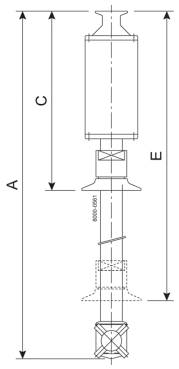
ALSIS Code: 5660 Surface finish: Bright

Item no.	Flow at 7 bar	No. of nozzles	Guide	Dimension (mm)			
	m3/h	Dimension		A	B	C	
1½" Clamp / Clamp (ISO2852) - Stainless Steel/EPDM							
9614691303	1.1	2 x Ø2.5	LV	50.8	502.9	45.7	
9614691308	1.6	2 x Ø3.4	LV	50.8	502.9	45.7	
9614691323	2.0	2 x Ø3.8	STD	50.8	502.9	45.7	
9614691333	2.5	2 x Ø4.2	STD	50.8	502.9	45.7	
9614691348	2.7	2 x Ø4.8	STD	50.8	502.9	45.7	
9614691363	4.1	2 x Ø5.1	STD	50.8	502.9	45.7	
9614691408	2.7	4 x Ø3.2	STD	50.8	502.9	45.7	
9614691423	3.0	4 x Ø3.4	STD	50.8	502.9	45.7	
9614691438	3.2	4 x Ø3.8	STD	50.8	502.9	45.7	
9614691448	3.4	4 x Ø4.2	STD	50.8	502.9	45.7	
9614691453	3.4	4 x Ø4.2	HV	50.8	502.9	45.7	
9614691458	3.6	4 x Ø4.8	STD	50.8	502.9	45.7	
9614691463	3.6	4 x Ø4.8	HV	50.8	502.9	45.7	
3/4" NPT(F)-Camlock / Clamp ISO2852 - Stainless Steel/EPDM							
9614691301	1.1	2 x Ø2.5	LV	50.8	502.9	45.7	
9614691306	1.6	2 x Ø3.4	LV	50.8	502.9	45.7	
9614691311	1.6	2 x Ø3.4	STD	50.8	502.9	45.7	
9614691316	2.0	2 x Ø3.8	LV	50.8	502.9	45.7	
9614691321	2.0	2 x Ø3.8	STD	50.8	502.9	45.7	
9614691326	2.5	2 x Ø4.2	LV	50.8	502.9	45.7	
9614691331	2.5	2 x Ø4.2	STD	50.8	502.9	45.7	
9614691336	2.5	2 x Ø4.2	HV	50.8	502.9	45.7	
9614691341	2.7	2 x Ø4.8	LV	50.8	502.9	45.7	
9614691346	2.7	2 x Ø4.8	STD	50.8	502.9	45.7	
9614691351	2.7	2 x Ø4.8	HV	50.8	502.9	45.7	
9614691356	4.1	2 x Ø5.1	LV	50.8	502.9	45.7	
9614691361	4.1	2 x Ø5.1	STD	50.8	502.9	45.7	
9614691366	4.1	2 x Ø5.1	HV	50.8	502.9	45.7	
9614691401	2.7	4 x Ø3.2	LV	50.8	502.9	45.7	
9614691406	2.7	4 x Ø3.2	STD	50.8	502.9	45.7	
9614691411	2.7	4 x Ø3.2	HV	50.8	502.9	45.7	
9614691416	3.0	4 x Ø3.4	LV	50.8	502.9	45.7	
9614691421	3.0	4 x Ø3.4	STD	50.8	502.9	45.7	
9614691426	3.0	4 x Ø3.4	HV	50.8	502.9	45.7	
9614691431	3.2	4 x Ø3.8	LV	50.8	502.9	45.7	
9614691436	3.2	4 x Ø3.8	STD	50.8	502.9	45.7	
9614691441	3.2	4 x Ø3.8	HV	50.8	502.9	45.7	
9614691446	3.4	4 x Ø4.2	STD	50.8	502.9	45.7	
9614691451	3.4	4 x Ø4.2	HV	50.8	502.9	45.7	
9614691461	3.6	4 x Ø4.8	HV	50.8	502.9	45.7	
9614691456	3.6	4 x Ø4.8	STD	50.8	502.9	45.7	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5481

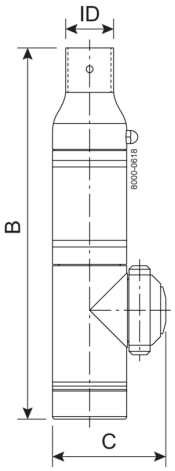
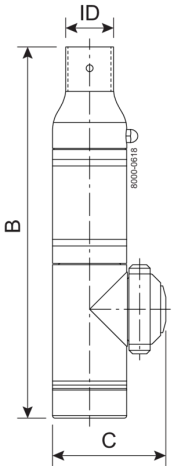
Surface finish: Bright
Standard certificate: 2.1

Item no.	Flow at 5 bar	No. of nozzles	Media/ tank	Dimension (mm)				
	m3/h	Dimension		A	DPL	C	E	
Clamp / Clamp (1" x 3" ISO2852) - Stainless Steel								
TE20A080	1.9	2 x Ø2.5	1" / 3"	350.0	62 to 96	254.0	288.0	
TE20A081	1.9	2 x Ø2.5	1" / 3"	500.0	62 to 246	254.0	438.0	
TE20A082	1.9	2 x Ø2.5	1" / 3"	750.0	62 to 496	254.0	688.0	
TE20A006	1.9	2 x Ø2.5	1" / 3"	1020.0	62 to 766	254.0	958.0	
TE20A050	3.5	4 x Ø4	1" / 3"	350.0	62 to 96	254.0	288.0	
TE20A051	3.5	4 x Ø4	1" / 3"	500.0	62 to 246	254.0	438.0	
TE20A052	3.5	4 x Ø4	1" / 3"	750.0	62 to 496	254.0	688.0	
TE20A003	3.5	4 x Ø4	1" / 3"	1020.0	62 to 766	254.0	958.0	
TE20A053	3.5	4 x Ø4	1" / 3"	1270.0	62 to 1016	254.0	1208.0	
TE20A054	3.5	4 x Ø4	1" / 3"	1500.0	62 to 1246	254.0	1438.0	
Clamp / Clamp (1" x 4" ISO2852) - Stainless Steel								
9618290384	1.9	2 x Ø2.5	1" / 4"	350.0	62 to 96	254.0	288.0	
9618291385	1.9	2 x Ø2.5	1" / 4"	500.0	62 to 246	254.0	438.0	
TE20A157	1.9	2 x Ø2.5	1" / 4"	750.0	62 to 496	254.0	688.0	
TE20A055	3.5	4 x Ø4	1" / 4"	350.0	62 to 96	254.0	288.0	
TE20A057	3.5	4 x Ø4	1" / 4"	750.0	62 to 496	254.0	688.0	
TE20A007	3.5	4 x Ø4	1" / 4"	1020.0	62 to 766	254.0	958.0	
TE20A058	3.5	4 x Ø4	1" / 4"	1270.0	62 to 1016	254.0	1208.0	
TE20A059	3.5	4 x Ø4	1" / 4"	1500.0	62 to 1246	254.0	1438.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5653

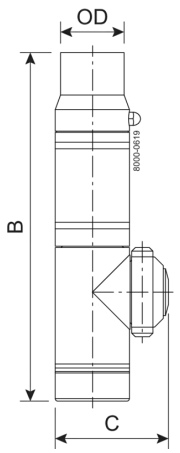
Surface finish: Bright
Standard certificate: 2.1

Item no.	Flow at 5 bar	No. of nozzles	Guide	Dimension (mm)				
	m3/h	Dimension		ID	OD	B	C	
1" Slip Fit - Stainless Steel/EPDM								
9614618801	2.8	2 x Ø3.2	LV	27.9	50.8	223.5	45.7	
9614618813	3.3	2 x Ø3.8	STD	27.9	50.8	223.5	45.7	
9614618905	3.3	3 x Ø3.2	STD	27.9	50.8	223.5	45.7	
9614618821	3.9	2 x Ø4.2	STD	27.9	50.8	223.5	45.7	
9614618825	3.9	2 x Ø4.8	STD	27.9	50.8	223.5	45.7	
9614618913	3.9	3 x Ø3.8	STD	27.9	50.8	223.5	45.7	
9614618917	4.1	3 x Ø4.2	STD	27.9	50.8	223.5	45.7	
9614618829	4.3	2 x Ø4.8	MV	27.9	50.8	223.5	45.7	
9614618833	4.3	2 x Ø5.7	STD	27.9	50.8	223.5	45.7	
9614618929	4.4	3 x Ø4.8	MV	27.9	50.8	223.5	45.7	
9614618937	4.9	3 x Ø5.7	MV	27.9	50.8	223.5	45.7	
1" Slip Fit - Stainless Steel/FPM								
9614619001	2.8	2 x Ø3.2	LV	27.9	50.8	223.5	45.7	
9614619013	3.3	2 x Ø3.8	STD	27.9	50.8	223.5	45.7	
9614619105	3.3	3 x Ø3.2	STD	27.9	50.8	223.5	45.7	
9614619021	3.9	2 x Ø4.2	STD	27.9	50.8	223.5	45.7	
9614619025	3.9	2 x Ø4.8	STD	27.9	50.8	223.5	45.7	
9614619113	3.9	3 x Ø3.8	STD	27.9	50.8	223.5	45.7	
9614619117	4.1	3 x Ø4.2	STD	27.9	50.8	223.5	45.7	
9614619033	4.3	2 x Ø5.7	STD	27.9	50.8	223.5	45.7	
9614619037	4.3	2 x Ø5.7	MV	27.9	50.8	223.5	45.7	
9614619129	4.4	3 x Ø4.8	MV	27.9	50.8	223.5	45.7	
9614619137	4.9	3 x Ø5.7	MV	27.9	50.8	223.5	45.7	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5653

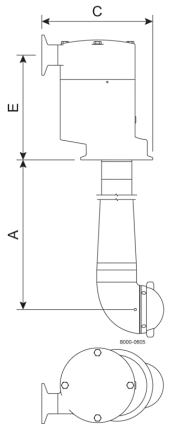
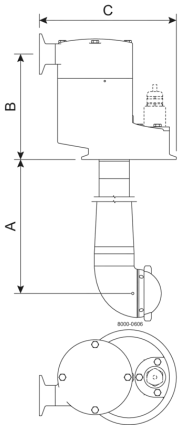
Surface finish: Bright
Standard certificate: 2.1

Item no.	Flow at 5 bar	No. of nozzles	Guide	Dimension (mm)				
	m3/h	Dimension		ID	OD	B	C	
								1½" Weld - Stainless Steel/EPDM
9614618802	2.8	2 x Ø3.2	LV		50.8	223.5	45.7	
9614618814	3.3	2 x Ø3.8	STD		50.8	223.5	45.7	
9614618906	3.3	3 x Ø3.2	STD		50.8	223.5	45.7	
9614618822	3.9	2 x Ø4.2	STD		50.8	223.5	45.7	
9614618826	3.9	2 x Ø4.8	STD		50.8	223.5	45.7	
9614618914	3.9	3 x Ø3.8	STD		50.8	223.5	45.7	
9614618918	4.1	3 x Ø4.2	STD		50.8	223.5	45.7	
9614618834	4.3	2 x Ø5.7	STD		50.8	223.5	45.7	
9614618838	4.3	2 x Ø5.7	MV		50.8	223.5	45.7	
9614618930	4.4	3 x Ø4.8	MV		50.8	223.5	45.7	
9614618938	4.9	3 x Ø5.7	MV		50.8	223.5	45.7	
								undefined
9614629901								
9614629902								
9614629903								
9614629905								
9614629906								
9614630001								
9614630002								
9614630003								
9614630004								
9614630005								
9614630301								
9614630901								
9614631001								
9614631101								
9614631201								
9614631301								

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5541

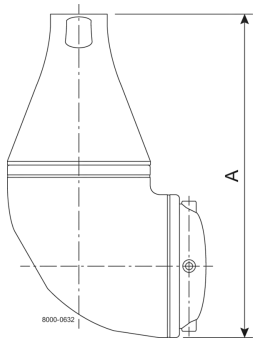
Surface finish: 0.8 µm Ra on media contact parts
Material: Stainless Steel/EPDM
Standard certificate: 2.2

Item no.	Flow at 6.5 bar	No. of nozzles	Inlet/tank	Dimension (mm)				
	m3/h	Dimension		A	B	C	E	
Clamp / Clamp (1" x 3" ISO2852) - Stainless Steel								
TE24B04100	3.3	2 x Ø3.8LS	1" / 3"	350.0	132.0	139.0	132.0	
TE24B04000	3.3	2 x Ø3.8LS	1" / 3"	500.0	132.0	139.0	132.0	
TE24B04200	3.3	2 x Ø3.8LS	1" / 3"	700.0	132.0	139.0	132.0	
TE24B04400	3.3	2 x Ø3.8LS	1" / 3"	1000.0	132.0	139.0	132.0	
9618290849	3.3	2 x Ø3.8LS	1" / 3"	1200.0	132.0	139.0	132.0	
9618291389	3.3	2 x Ø3.8LS	1" / 3"	1500.0	132.0	139.0	132.0	
TE24B06100	6.9	4 x Ø4.2	1" / 3"	350.0	132.0	139.0	132.0	
TE24B06000	6.9	4 x Ø4.2	1" / 3"	500.0	132.0	139.0	132.0	
9618290425	6.9	4 x Ø4.2	1" / 3"	700.0	132.0	139.0	132.0	
TE24B06400	6.9	4 x Ø4.2	1" / 3"	1000.0	132.0	139.0	132.0	
9618290646	6.9	4 x Ø4.2	1" / 3"	1200.0	132.0	139.0	132.0	
Clamp / Clamp (1" x 4" ISO2852) - Stainless Steel								
TE24F04190	3.3	2 x Ø3.8LS	1" / 4"	350.0	132.0	172.0		
TE24G04100	3.3	2 x Ø3.8LS	1" / 4"	350.0	132.0	172.0		
TE24F04090	3.3	2 x Ø3.8LS	1" / 4"	500.0	132.0	172.0		
TE24G04000	3.3	2 x Ø3.8LS	1" / 4"	500.0	132.0	172.0		
TE24F04290	3.3	2 x Ø3.8LS	1" / 4"	700.0	132.0	172.0		
TE24G04200	3.3	2 x Ø3.8LS	1" / 4"	700.0	132.0	172.0		
9618291390	3.3	2 x Ø3.8LS	1" / 4"	1000.0	132.0	172.0		
9618291387	3.3	2 x Ø3.8LS	1" / 4"	1200.0	132.0	172.0		
9618291393	3.3	4 x Ø4.2	1" / 4"	1200.0	132.0	172.0		
9618291388	3.3	2 x Ø3.8LS	1" / 4"	1500.0	132.0	172.0		
9618291392	3.3	2 x Ø3.8LS	1" / 4"	1500.0	132.0	172.0		
9618290309	6.9	4 x Ø4.2	1" / 4"	350.0	132.0	172.0		
9618290504	6.9	4 x Ø4.2	1" / 4"	350.0	132.0	172.0		
TE24G06000	6.9	4 x Ø4.2	1" / 4"	500.0	132.0	172.0		
9618290587	6.9	4 x Ø4.2	1" / 4"	500.0	132.0	172.0		
TE24G06200	6.9	4 x Ø4.2	1" / 4"	700.0	132.0	172.0		
9618290426	6.9	4 x Ø4.2	1" / 4"	700.0	132.0	172.0		
TE24F06490	6.9	4 x Ø4.2	1" / 4"	1000.0	132.0	172.0		
TE24G06400	6.9	4 x Ø4.2	1" / 4"	1000.0	132.0	172.0		
9618291386	6.9	2 x Ø3.8LS	1" / 4"	1000.0	132.0	172.0		
TE24G06600	6.9	4 x Ø4.2	1" / 4"	1200.0	132.0	172.0		
9618291391	6.9	2 x Ø3.8LS	1" / 4"	1200.0	132.0	172.0		
TE24G06800	6.9	4 x Ø4.2	1" / 4"	1500.0	132.0	172.0		
9618291394	6.9	4 x Ø4.2	1" / 4"	1500.0	132.0	172.0		

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5482

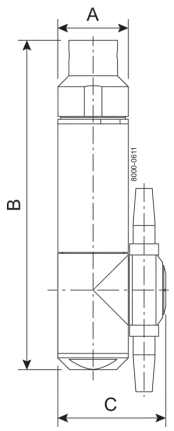
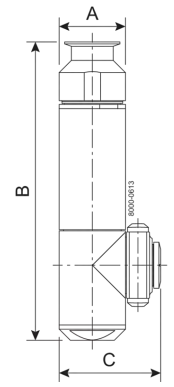
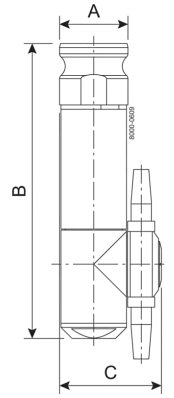
Surface finish: Bright
Standard certificate: 2.2

Item no.	Flow at 5 bar	No. of nozzles	Dimension (mm)	
	m3/h	Dimension	A	
				For adaptor
9618290026	9.7	4 x Ø4.2	243.0	
9618290030	11.8	4 x Ø5.2	243.0	
9618290033	13.8	4 x Ø6.2	243.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5661

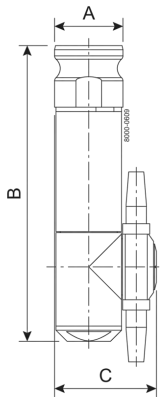
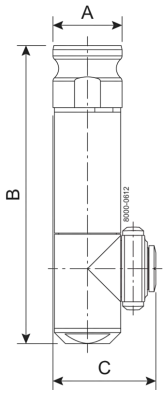
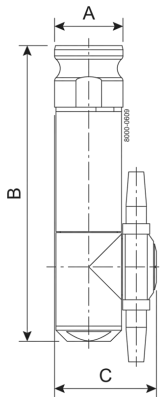
Surface finish: Bright
Standard certificate: 2.2

Item no.	Flow at 5 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
1" Slip Fit - Stainless Steel/EPDM								
9614648705	5.7	2 x Ø6.4	LP	Pin	61.0	272.0	94.0	
9614648805	5.7	2 x Ø6.4	LP	Clutch	61.0	272.0	94.0	
9614648726	7.9	2 x Ø7.9	LP	Pin	61.0	272.0	94.0	
9614648733	7.9	2 x Ø7.9	STD	Pin	61.0	272.0	94.0	
9614648826	7.9	2 x Ø7.9	LP	Clutch	61.0	272.0	94.0	
9614648833	7.9	2 x Ø7.9	STD	Clutch	61.0	272.0	94.0	
9614648747	9.1	2 x Ø9.5	LP	Pin	61.0	272.0	94.0	
9614648754	9.1	2 x Ø9.5	STD	Pin	61.0	272.0	94.0	
9614648847	9.1	2 x Ø9.5	LP	Clutch	61.0	272.0	94.0	
9614648854	9.1	2 x Ø9.5	STD	Clutch	61.0	272.0	94.0	
9614649012	9.5	4 x Ø6.4	STD	Pin	61.0	272.0	94.0	
9614649112	9.5	4 x Ø6.4	STD	Clutch	61.0	272.0	94.0	
9614649040	11.4	4 x Ø7.9	STD	Pin	61.0	272.0	94.0	
9614649140	11.4	4 x Ø7.9	STD	Clutch	61.0	272.0	94.0	
9614649068	12.7	4 x Ø9.5	STD	Pin	61.0	272.0	94.0	
9614649168	12.7	4 x Ø9.5	STD	Clutch	61.0	272.0	94.0	
1-1/2" TRI-CLAMP Low Profile - Stainless Steel/EPDM								
9614648903	5.7	2 x Ø6.4	LP	Pin	61.0	271.8	91.4	
9614649210	5.7	4 x Ø6.4	STD	Pin	61.0	271.8	91.4	
9614648924	7.9	2 x Ø7.9	LP	Pin	61.0	271.8	91.4	
9614648931	7.9	2 x Ø7.9	STD	Pin	61.0	271.8	91.4	
9614649238	7.9	4 x Ø7.9	STD	Pin	61.0	271.8	91.4	
9614648945	9.0	2 x Ø9.5	LP	Pin	61.0	271.8	91.4	
9614648952	9.0	2 x Ø9.5	STD	Pin	61.0	271.8	91.4	
9614649266	9.0	4 x Ø9.5	STD	Pin	61.0	271.8	91.4	
9614649273	9.0	4 x Ø9.5	LV	Pin	61.0	271.8	91.4	
1-1/2" BSP - Stainless Steel/EPDM								
9614648702	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	94.0	
9614648802	5.7	2 x Ø6.4	LP	Clutch	63.5	271.8	94.0	
9614648723	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	94.0	
9614648730	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614648823	7.9	2 x Ø7.9	LP	Clutch	63.5	271.8	94.0	
9614648830	7.9	2 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614648744	9.1	2 x Ø9.5	LP	Pin	63.5	271.8	94.0	
9614648751	9.1	2 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614648844	9.1	2 x Ø9.5	LP	Clutch	63.5	271.8	94.0	
9614648851	9.1	2 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
9614649009	9.5	4 x Ø6.4	STD	Pin	63.5	271.8	94.0	
9614649109	9.5	4 x Ø6.4	STD	Clutch	63.5	271.8	94.0	
9614649037	11.4	4 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614649137	11.4	4 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614649065	12.7	4 x Ø9.5	STD	Pin	63.5	271.8	94.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5661

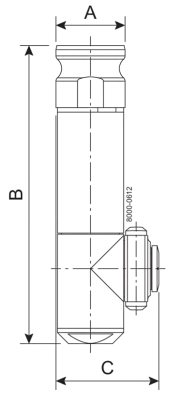
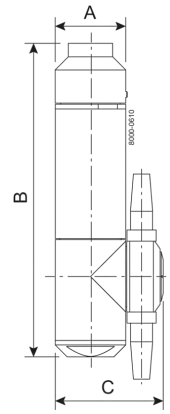
Surface finish: Bright
Standard certificate: 2.2

Item no.	Flow at 5 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
1-1/2" BSP - Stainless Steel/EPDM								
9614649165	12.7	4 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
1-1/2" BSP Low Profile - Stainless Steel/EPDM								
9614648902	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	93.9	
9614649209	5.7	4 x Ø6.4	STD	Pin	63.5	271.8	93.9	
9614648923	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	93.9	
9614648930	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	93.9	
9614649237	7.9	4 x Ø7.9	STD	Pin	63.5	271.8	93.9	
9614648944	9.0	2 x Ø9.5	LP	Pin	63.5	271.8	93.9	
9614648951	9.0	2 x Ø9.5	STD	Pin	63.5	271.8	93.9	
9614649265	9.0	4 x Ø9.5	STD	Pin	63.5	271.8	93.9	
9614649272	9.0	4 x Ø9.5	LV	Pin	63.5	271.8	93.9	
1-1/2" NPT - Stainless Steel/EPDM								
9614648701	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	94.0	
9614648801	5.7	2 x Ø6.4	LP	Clutch	63.5	271.8	94.0	
9614648722	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	94.0	
9614648729	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614648822	7.9	2 x Ø7.9	LP	Clutch	63.5	271.8	94.0	
9614648829	7.9	2 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614648743	9.1	2 x Ø9.5	LP	Pin	63.5	271.8	94.0	
9614648750	9.1	2 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614648843	9.1	2 x Ø9.5	LP	Clutch	63.5	271.8	94.0	
9614648850	9.1	2 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
9614649008	9.5	2 x Ø6.4	STD	Pin	63.5	271.8	94.0	
9614649108	9.5	2 x Ø6.4	STD	Clutch	63.5	271.8	94.0	
9614649036	11.4	2 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614649136	11.4	2 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614649064	12.7	2 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614649164	12.7	2 x Ø9.5	STD	Clutch	63.5	271.8	94.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5661

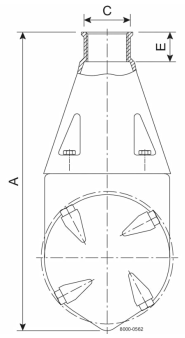
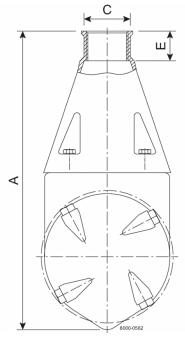
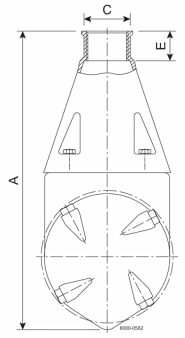
Surface finish: Bright
Standard certificate: 2.2

Item no.	Flow at 5 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
1-1/2" NPT Low Profile - Stainless Steel/EPDM								
9614648901	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	93.9	
9614649208	5.7	4 x Ø6.4	STD	Pin	63.5	271.8	93.9	
9614648922	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	93.9	
9614648929	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	93.9	
9614649236	7.9	4 x Ø7.9	STD	Pin	63.5	271.8	93.9	
9614648943	9.0	2 x Ø9.5	LP	Pin	63.5	271.8	93.9	
9614648950	9.0	2 x Ø9.5	STD	Pin	63.5	271.8	93.9	
9614649264	9.0	4 x Ø9.5	STD	Pin	63.5	271.8	93.9	
9614649271	9.0	4 x Ø9.5	LV	Pin	63.5	271.8	93.9	
1½" Weld - Stainless Steel/EPDM								
9614648704	5.7	2 x Ø6.4	LP	Pin	61.0	266.7	94.1	
9614648804	5.7	2 x Ø6.4	LP	Clutch	61.0	266.7	94.1	
9614648725	7.9	2 x Ø7.9	LP	Pin	61.0	266.7	94.1	
9614648732	7.9	2 x Ø7.9	STD	Pin	61.0	266.7	94.1	
9614648825	7.9	2 x Ø7.9	LP	Clutch	61.0	266.7	94.1	
9614648832	7.9	2 x Ø7.9	STD	Clutch	61.0	266.7	94.1	
9614648746	9.1	2 x Ø9.5	LP	Pin	61.0	266.7	94.1	
9614648753	9.1	2 x Ø9.5	STD	Pin	61.0	266.7	94.1	
9614648846	9.1	2 x Ø9.5	LP	Clutch	61.0	266.7	94.1	
9614648853	9.1	2 x Ø9.5	STD	Clutch	61.0	266.7	94.1	
9614649011	9.5	4 x Ø6.4	STD	Pin	61.0	266.7	94.1	
9614649111	9.5	4 x Ø6.4	STD	Clutch	61.0	266.7	94.1	
9614649039	11.4	4 x Ø7.9	STD	Pin	61.0	266.7	94.1	
9614649139	11.4	4 x Ø7.9	STD	Clutch	61.0	266.7	94.1	
9614649067	12.7	4 x Ø9.5	STD	Pin	61.0	266.7	94.1	
9614649167	12.7	4 x Ø9.5	STD	Clutch	61.0	266.7	94.1	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5544

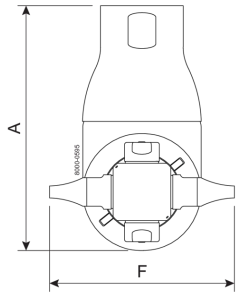
Surface finish: Bright
Standard certificate: 2.2
Material: PVDF (standard)

Item no.	Flow at 5 bar	No. of nozzles	Dimension (mm)			
	m3/h	Dimension	A	C	E	
						Thread (1" Rp/BSP female)
TE20G000	7.0	4 x Ø3.9	230.0	36.0	16.0	
TE20G002	9.5	4 x Ø4.6	230.0	36.0	16.0	
TE20G004	12.0	4 x Ø5.5	230.0	36.0	16.0	
						Thread (1" Rp/BSP female) - Hygienic
TE20G050	7.0	4 x Ø3.9	230.0	36.0	16.0	
TE20G052	9.5	4 x Ø4.6	230.0	36.0	16.0	
TE20G054	12.0	4 x Ø5.5	230.0	36.0	16.0	
						Thread (1” NPT-female)
TE20G020	7.0	4 x Ø3.9	230.0	36.0	16.0	
TE20G022	9.5	4 x Ø4.6	230.0	36.0	16.0	
TE20G024	12.0	4 x Ø5.5	230.0	36.0	16.0	
						undefined
TE20G288						

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

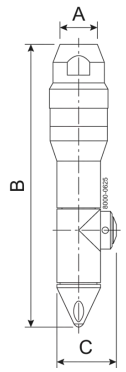
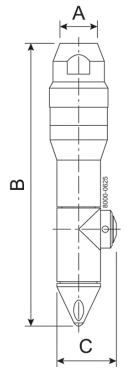
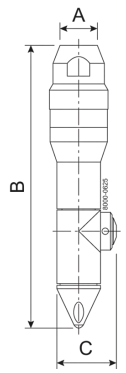
ALSIS Code: 5563

Surface finish: Bright
Standard certificate: 2.2

Item no.	Flow at 5 bar	No. of nozzles	Dimension (mm)		
	m3/h	Dimension	A	F	
9690000339	19.2	2 x Ø10.0	233.0	155.0	
9690000340	22.4	2 x Ø11.2	233.0	155.0	
9690000302	15.8	4 x Ø6.0	233.0	155.0	
9690000301	15.8	4 x Ø6.0	233.0	155.0	
9690000303	18.2	4 x Ø6.6	233.0	155.0	
9690000304	20.9	4 x Ø7.3	233.0	155.0	
9690000305	24.9	4 x Ø8.1	233.0	155.0	
9690000306	29.1	4 x Ø9.0	233.0	155.0	
9690000307	33.8	4 x Ø10.0	233.0	155.0	
9690000308	39.0	4 x Ø11.2	233.0	155.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5654 Surface finish: Mat

Item no.	Flow at 42 bar	Flow at 7 bar	No. of nozzles	Guide	Dimension (mm)			
	m3/h	m3/h	Dimension		A	B	C	
7 bar - 1/2" BSP- Stainless Steel/EPDM								
9614680018		0.8	2 x Ø2.5	SV	12.7	177.8	38.1	
9614680017		0.8	2 x Ø2.5	SV	12.7	177.8	38.1	
9614680019		0.8	2 x Ø2.5	MV	12.7	177.8	38.1	
9614680020		0.8	2 x Ø2.5	MV	12.7	177.8	38.1	
9614680021		0.8	3 x Ø2.5	SV	12.7	177.8	38.1	
9614680022		0.8	3 x Ø2.5	SV	12.7	177.8	38.1	
9614680023		0.8	3 x Ø2.5	MV	12.7	177.8	38.1	
9614680024		0.8	3 x Ø2.5	MV	12.7	177.8	38.1	
42 bar - 1/2" BSP - Stainless Steel/EPDM								
9614680002	0.7		2 x Ø1.8	4.0	12.7	177.8	38.1	
9614680004	0.9		2 x Ø1.8	4X	12.7	177.8	38.1	
9614680006	1.0		2 x Ø1.9	4H	12.7	177.8	38.1	
9614680008	1.1		2 x Ø2.0	LP	12.7	177.8	38.1	
9614680010	1.8		2 x Ø2.5	LV	12.7	177.8	38.1	
9614680012	1.8		2 x Ø2.5	LP	12.7	177.8	38.1	
9614680016	1.9		3 x Ø2.5	STD	12.7	177.8	38.1	
9614680014	1.9		3 x Ø2.5	LV	12.7	177.8	38.1	
42 bar - 1/2" NPT - Stainless Steel/EPDM								
9614680001	0.7		2 x Ø1.8	4.0	12.7	177.8	38.1	
9614680003	0.9		2 x Ø1.8	4X	12.7	177.8	38.1	
9614680005	1.0		2 x Ø1.9	4H	12.7	177.8	38.1	
9614680007	1.1		2 x Ø2.0	5H	12.7	177.8	38.1	
9614680009	1.8		2 x Ø2.5	SV	12.7	177.8	38.1	
9614680011	1.8		2 x Ø2.5	MV	12.7	177.8	38.1	
9614680013	1.9		3 x Ø2.5	SV	12.7	177.8	38.1	
9614680015	1.9		3 x Ø2.5	MV	12.7	177.8	38.1	
undefined								
9614688001								
9614688002								
9614688003								
9614688004								
9614688101								

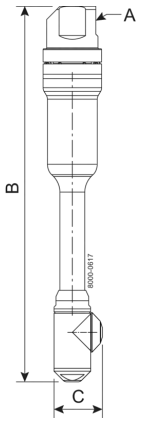
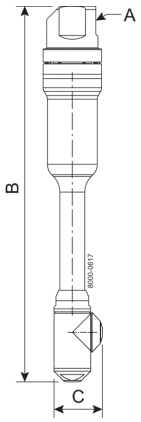
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5654 Surface finish: Mat

Item no.	Flow at 42 bar	Flow at 7 bar	No. of nozzles	Guide	Dimension (mm)		
	m3/h	m3/h	Dimension		A	B	C
undefined							
9614688102 9614688103 9614688201 9614688301 9614688302							

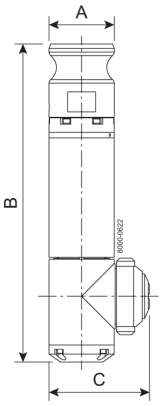
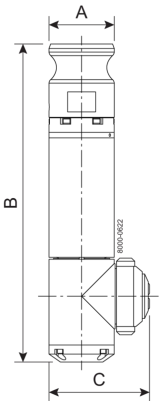
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5655 Surface finish: Mat

Item no.	Flow at 42 bar	No. of nozzles	Guide	Dimension (mm)			
	m3/h	Dimension		A	B	C	
							3/8" BSP - Stainless Steel/FKM
9614631602	0.7	2 x Ø1.8	3.0	9.5	325.0	43.0	
9614631604	0.8	2 x Ø1.8	3.5	9.5	325.0	43.0	
9614631606	0.9	2 x Ø1.9	4.0	9.5	325.0	43.0	
9614631608	1.0	2 x Ø2.0	4.5	9.5	325.0	43.0	
9614631610	1.1	2 x Ø2.2	5.0	9.5	325.0	43.0	
9614631612	1.2	2 x Ø2.2	5.5	9.5	325.0	43.0	
							3/8" NPT - Stainless Steel/FKM
9614631601	0.7	2 x Ø1.8	3.0	9.5	325.0	43.0	
9614631603	0.8	2 x Ø1.8	3.5	9.5	325.0	43.0	
9614631605	0.9	2 x Ø1.9	4.0	9.5	325.0	43.0	
9614631607	1.0	2 x Ø2.0	4.5	9.5	325.0	43.0	
9614631609	1.1	2 x Ø2.2	5.0	9.5	325.0	43.0	
9614631611	1.2	2 x Ø2.2	5.5	9.5	325.0	43.0	
							undefined
9614638801							
9614638802							
9614638901							
9614638902							
9614639001							
9614639101							

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

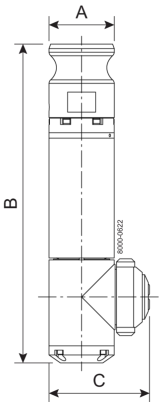
ALSIS Code: 5663 Surface finish: Mat

Item no.	Flow at 10 bar	No. of nozzles	Guide	Dimension (mm)			
	m3/h	Dimension		A	B	C	
1.5 Tube - Stainless steel/FKM							
9614612903	2.0	2 x Ø3.2	LP	46.0	224.0	71.0	
9614612906	2.0	2 x Ø3.2	LV	46.0	224.0	71.0	
9614612909	2.0	2 x Ø3.2	STD	46.0	224.0	71.0	
9614612912	2.3	2 x Ø3.4	LP	46.0	224.0	71.0	
9614612915	2.3	2 x Ø3.4	LV	46.0	224.0	71.0	
9614612918	2.3	2 x Ø3.8	LP	46.0	224.0	71.0	
9614612921	2.7	2 x Ø3.8	LV	46.0	224.0	71.0	
9614612924	2.7	2 x Ø3.8	STD	46.0	224.0	71.0	
9614612927	2.7	2 x Ø3.8	MV	46.0	224.0	71.0	
9614612930	3.0	2 x Ø4.2	LV	46.0	224.0	71.0	
9614612933	3.0	2 x Ø4.2	STD	46.0	224.0	71.0	
9614612936	3.0	2 x Ø4.2	MV	46.0	224.0	71.0	
9614612939	3.9	2 x Ø4.7	STD	46.0	224.0	71.0	
9614612942	3.9	2 x Ø4.7	MV	46.0	224.0	71.0	
9614612945	3.9	2 x Ø4.7	HV	46.0	224.0	71.0	
9614612948	4.1	2 x Ø5.1	STD	46.0	224.0	71.0	
9614612951	4.1	2 x Ø5.1	MV	46.0	224.0	71.0	
9614612954	4.1	2 x Ø5.1	HV	46.0	224.0	71.0	
9614612960	4.8	2 x Ø5.7	HV	46.0	224.0	71.0	
9614612967	4.8	2 x Ø5.7	MV	46.0	224.0	71.0	
3/4" BSP - Stainless steel/FKM							
9614612905	2.0	2 x Ø3.2	LV	46.0	224.0	71.0	
9614612902	2.0	2 x Ø3.2	LP	46.0	224.0	71.0	
9614612908	2.0	2 x Ø3.2	STD	46.0	224.0	71.0	
9614612914	2.3	2 x Ø3.4	LV	46.0	224.0	71.0	
9614612911	2.3	2 x Ø3.4	LP	46.0	224.0	71.0	
9614612917	2.7	2 x Ø3.8	LP	46.0	224.0	71.0	
9614612920	2.7	2 x Ø3.8	LV	46.0	224.0	71.0	
9614612923	2.7	2 x Ø3.8	STD	46.0	224.0	71.0	
9614612926	2.7	2 x Ø3.8	MV	46.0	224.0	71.0	
9614612929	3.0	2 x Ø4.2	LV	46.0	224.0	71.0	
9614612932	3.0	2 x Ø4.2	STD	46.0	224.0	71.0	
9614612935	3.0	2 x Ø4.2	MV	46.0	224.0	71.0	
9614612938	3.9	2 x Ø4.7	STD	46.0	224.0	71.0	
9614612941	3.9	2 x Ø4.7	MV	46.0	224.0	71.0	
9614612944	3.9	2 x Ø4.7	HV	46.0	224.0	71.0	
9614612947	4.1	2 x Ø5.1	STD	46.0	224.0	71.0	
9614612950	4.1	2 x Ø5.1	MV	46.0	224.0	71.0	
9614612953	4.1	2 x Ø5.1	HV	46.0	224.0	71.0	
9614612959	4.8	2 x Ø5.7	HV	46.0	224.0	71.0	
9614612956	4.8	2 x Ø5.7	MV	46.0	224.0	71.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

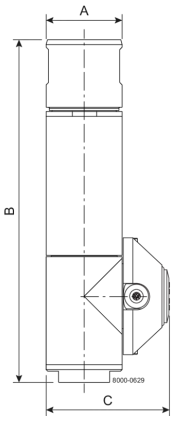
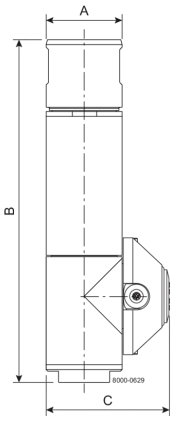
ALSIS Code: 5663 Surface finish: Mat

Item no.	Flow at 10 bar	No. of nozzles	Guide	Dimension (mm)			
	m3/h	Dimension		A	B	C	
							3/4" NPT - Stainless steel/FKM
9614612901	2.0	2 x Ø3.2	LP	46.0	224.0	71.0	
9614612904	2.0	2 x Ø3.2	LP	46.0	224.0	71.0	
9614612907	2.0	2 x Ø3.2	STD	46.0	224.0	71.0	
9614612910	2.3	2 x Ø3.4	LP	46.0	224.0	71.0	
9614612913	2.3	2 x Ø3.4	LV	46.0	224.0	71.0	
9614612916	2.7	2 x Ø3.8	LP	46.0	224.0	71.0	
9614612919	2.7	2 x Ø3.8	LV	46.0	224.0	71.0	
9614612922	2.7	2 x Ø3.8	STD	46.0	224.0	71.0	
9614612925	2.7	2 x Ø3.8	MV	46.0	224.0	71.0	
9614612928	3.0	2 x Ø4.2	LV	46.0	224.0	71.0	
9614612931	3.0	2 x Ø4.2	STD	46.0	224.0	71.0	
9614612934	3.0	2 x Ø4.2	MV	46.0	224.0	71.0	
9614612937	3.9	2 x Ø4.7	STD	46.0	224.0	71.0	
9614612940	3.9	2 x Ø4.7	MV	46.0	224.0	71.0	
9614612943	3.9	2 x Ø4.7	HV	46.0	224.0	71.0	
9614612946	4.1	2 x Ø5.1	STD	46.0	224.0	71.0	
9614612949	4.1	2 x Ø5.1	MV	46.0	224.0	71.0	
9614612952	4.1	2 x Ø5.1	HV	46.0	224.0	71.0	
9614612955	4.8	2 x Ø5.7	MV	46.0	224.0	71.0	
9614612958	4.8	2 x Ø5.7	HV	46.0	224.0	71.0	
							undefined
9614618201							
9614618301							
9614618401							
9614618501							
9614618601							
9614618701							
9614618702							



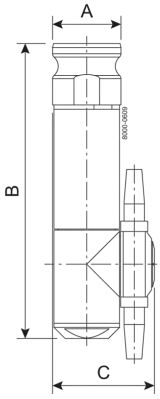
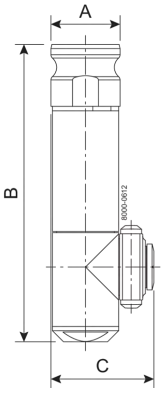
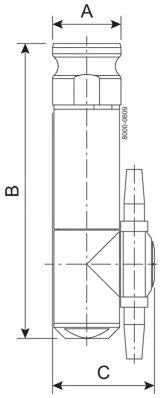
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

Finish: Mat

Item no.	Flow at 5 bar	No. of nozzles	Guide	Dimension (mm)			
	m3/h	Dimension		A	B	C	
							1-1/2" BSP - Stainless Steel/FKM
9614688402	5.5	2 x Ø6.4	LP	61.0	271.8	99.1	
9614688404	5.5	2 x Ø6.4	STD	61.0	271.8	99.1	
9614688406	7.3	2 x Ø7.9	LP	61.0	271.8	99.1	
9614688408	7.3	2 x Ø7.9	STD	61.0	271.8	99.1	
9614688412	7.3	2 x Ø7.9	MV	61.0	271.8	99.1	
9614688410	7.3	2 x Ø7.9	LV	61.0	271.8	99.1	
9614688414	9.1	2 x Ø9.5	LP	61.0	271.8	99.1	
9614688416	9.1	2 x Ø9.5	STD	61.0	271.8	99.1	
9614688418	9.1	2 x Ø9.5	LV	61.0	271.8	99.1	
9614688420	9.1	2 x Ø9.5	MV	61.0	271.8	99.1	
9614688422	9.1	2 x Ø9.5	LM	61.0	271.8	99.1	
9614688424	9.1	2 x Ø9.5	HV	61.0	271.8	99.1	
							1-1/2" NPT - Stainless Steel/FKM
9614688401	5.5	2 x Ø6.4	LP	61.0	271.8	99.1	
9614688403	5.5	2 x Ø6.4	STD	61.0	271.8	99.1	
9614688407	7.3	2 x Ø7.9	STD	61.0	271.8	99.1	
9614688405	7.3	2 x Ø7.9	LP	61.0	271.8	99.1	
9614688411	7.3	2 x Ø7.9	MV	61.0	271.8	99.1	
9614688409	7.3	2 x Ø7.9	LV	61.0	271.8	99.1	
9614688413	9.1	2 x Ø9.5	LP	61.0	271.8	99.1	
9614688415	9.1	2 x Ø9.5	STD	61.0	271.8	99.1	
9614688417	9.1	2 x Ø9.5	LV	61.0	271.8	99.1	
9614688419	9.1	2 x Ø9.5	MV	61.0	271.8	99.1	
9614688423	9.1	2 x Ø9.5	HV	61.0	271.8	99.1	
9614688421	9.1	2 x Ø9.5	LM	61.0	271.8	99.1	
							undefined
9614689001							
9614689101							
9614689301							
9614689401							

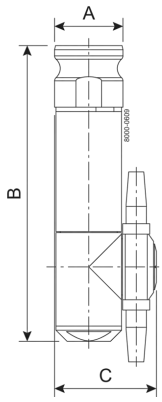
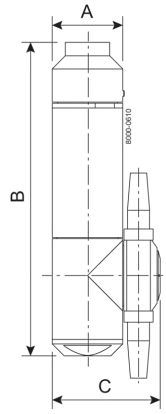
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

Finish: Bright

Item no.	Flow at 5 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
1-1/2" BSP - Stainless Steel/EPDM								
9614639202	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	94.0	
9614639302	5.7	2 x Ø6.4	LP	Clutch	63.5	271.8	94.0	
9614639223	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	94.0	
9614639230	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614639323	7.9	2 x Ø7.9	LP	Clutch	63.5	271.8	94.0	
9614639330	7.9	2 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614639244	9.1	2 x Ø9.5	LP	Pin	63.5	271.8	94.0	
9614639251	9.1	2 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614639344	9.1	2 x Ø9.5	LP	Clutch	63.5	271.8	94.0	
9614639351	9.1	2 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
9614639509	9.5	4 x Ø6.4	STD	Pin	63.5	271.8	94.0	
9614639609	9.5	4 x Ø6.4	STD	Clutch	63.5	271.8	94.0	
9614639537	11.4	4 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614639637	11.4	4 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614639565	12.7	4 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614639665	12.7	4 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
1-1/2" BSP Low Profile - Stainless Steel/EPDM								
9614639402	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	94.0	
9614639423	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	94.0	
9614639430	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614639444	9.1	2 x Ø9.5	LP	Pin	63.5	271.8	94.0	
9614639451	9.1	2 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614639709	9.5	4 x Ø6.4	STD	Pin	63.5	271.8	94.0	
9614639737	11.4	4 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614639765	12.7	4 x Ø9.5	STD	Pin	63.5	271.8	94.0	
1-1/2" NPT - Stainless Steel/EPDM								
9614639201	5.7	2 x Ø6.4	LP	Pin	63.5	271.8	94.0	
9614639301	5.7	2 x Ø6.4	LP	Clutch	63.5	271.8	94.0	
9614639222	7.9	2 x Ø7.9	LP	Pin	63.5	271.8	94.0	
9614639229	7.9	2 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614639322	7.9	2 x Ø7.9	LP	Clutch	63.5	271.8	94.0	
9614639329	7.9	2 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614639243	9.1	2 x Ø9.5	LP	Pin	63.5	271.8	94.0	
9614639250	9.1	2 x Ø9.5	STD	Pin	63.5	271.8	94.0	
9614639343	9.1	2 x Ø9.5	LP	Clutch	63.5	271.8	94.0	
9614639350	9.1	2 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
9614639508	9.5	4 x Ø6.4	STD	Pin	63.5	271.8	94.0	
9614639608	9.5	4 x Ø6.4	STD	Clutch	63.5	271.8	94.0	
9614639536	11.4	4 x Ø7.9	STD	Pin	63.5	271.8	94.0	
9614639636	11.4	4 x Ø7.9	STD	Clutch	63.5	271.8	94.0	
9614639564	12.7	4 x Ø9.5	STD	Pin	63.5	271.8	94.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

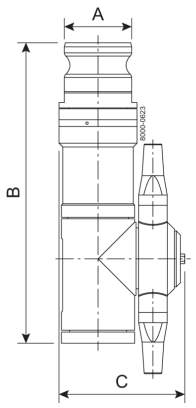
Finish: Bright

Item no.	Flow at 5 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
								1-1/2" NPT - Stainless Steel/EPDM
9614639664	12.7	4 x Ø9.5	STD	Clutch	63.5	271.8	94.0	
								1½" Weld - Stainless Steel/EPDM
9614639204	5.7	2 x Ø6.4	LP	Pin	61.0	271.8	94.0	
9614639304	5.7	2 x Ø6.4	LP	Clutch	61.0	271.8	94.0	
9614639225	7.9	2 x Ø7.9	LP	Pin	61.0	271.8	94.0	
9614639232	7.9	2 x Ø7.9	STD	Pin	61.0	271.8	94.0	
9614639325	7.9	2 x Ø7.9	LP	Clutch	61.0	271.8	94.0	
9614639332	7.9	2 x Ø7.9	STD	Clutch	61.0	271.8	94.0	
9614639246	9.1	2 x Ø9.5	LP	Pin	61.0	271.8	94.0	
9614639253	9.1	2 x Ø9.5	STD	Pin	61.0	271.8	94.0	
9614639346	9.1	2 x Ø9.5	LP	Clutch	61.0	271.8	94.0	
9614639353	9.1	2 x Ø9.5	STD	Clutch	61.0	271.8	94.0	
9614639511	9.5	4 x Ø6.4	STD	Pin	61.0	271.8	94.0	
9614639611	9.5	4 x Ø6.4	STD	Clutch	61.0	271.8	94.0	
9614639539	11.4	4 x Ø7.9	STD	Pin	61.0	271.8	94.0	
9614639639	11.4	4 x Ø7.9	STD	Clutch	61.0	271.8	94.0	
9614639567	12.7	4 x Ø9.5	STD	Pin	61.0	271.8	94.0	
9614639667	12.7	4 x Ø9.5	STD	Clutch	61.0	271.8	94.0	
								undefined
9614648001								
9614648101								
9614648201								
9614648301								
9614648401								
9614648501								
9614650501								
9614650601								
9614650701								
9614650801								
9614650901								
9614651001								

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

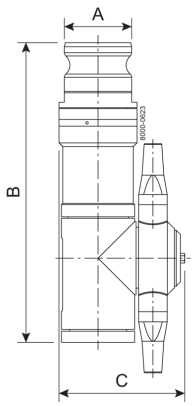
Finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
								1-1/2" BSP - Stainless Steel/FKM
9614600004	7.7	2 x Ø6.4	SML	Pin	63.5	287.0	114.3	
9614600002	7.7	2 x Ø6.4	LV	Pin	63.5	287.0	114.3	
9614600024	7.7	2 x Ø6.4	LV	Clutch	63.5	287.0	114.3	
9614600026	7.7	2 x Ø6.4	SML	Clutch	63.5	287.0	114.3	
9614600006	9.5	2 x Ø7.1	LV	Pin	63.5	287.0	114.3	
9614600008	9.5	2 x Ø7.1	SML	Pin	63.5	287.0	114.3	
9614600028	9.5	2 x Ø7.1	LV	Clutch	63.5	287.0	114.3	
9614600030	9.5	7.1	SML	Clutch	63.5	287.0	114.3	
9614600222	10.9	3 x Ø6.4	SML	Clutch	63.5	287.0	114.3	
9614600010	11.4	2 x Ø7.9	SML	Pin	63.5	287.0	114.3	
9614600012	11.4	2 x Ø7.9	LRG	Pin	63.5	287.0	114.3	
9614600032	11.4	2 x Ø7.9	SML	Clutch	63.5	287.0	114.3	
9614600034	11.4	2 x Ø7.9	LRG	Clutch	63.5	287.0	114.3	
9614600204	11.4	3 x Ø6.4	LRG	Pin	63.5	287.0	114.3	
9614600224	11.4	3 x Ø6.4	LRG	Clutch	63.5	287.0	114.3	
9614600206	12.7	3 x Ø7.1	LV	Pin	63.5	287.0	114.3	
9614600208	12.7	3 x Ø7.1	SML	Pin	63.5	287.0	114.3	
9614600228	12.7	3 x Ø7.1	SML	Clutch	63.5	287.0	114.3	
9614600226	12.7	3 x Ø7.1	LV	Clutch	63.5	287.0	114.3	
9614600014	13.6	2 x Ø9.5	SML	Pin	63.5	287.0	114.3	
9614600036	13.6	2 x Ø9.5	SML	Clutch	63.5	287.0	114.3	
9614600016	15.4	2 x Ø9.5	LRG	Pin	63.5	287.0	114.3	
9614600038	15.4	2 x Ø9.5	LRG	Clutch	63.5	287.0	114.3	
9614600040	15.4	2 x Ø9.5	LM	Clutch	63.5	287.0	114.3	
9614600210	15.9	3 x Ø7.9	LRG	Pin	63.5	287.0	114.3	
9614600212	15.9	3 x Ø7.9	LM	Pin	63.5	287.0	114.3	
9614600232	15.9	3 x Ø7.9	LM	Clutch	63.5	287.0	114.3	
9614600230	15.9	3 x Ø7.9	LRG	Clutch	63.5	287.0	114.3	
9614600022	18.2	2 x Ø11.1	LM	Pin	63.5	287.0	114.3	
9614600020	18.2	2 x Ø11.1	LRG	Pin	63.5	287.0	114.3	
9614600042	18.2	2 x Ø11.1	LRG	Clutch	63.5	287.0	114.3	
9614600044	18.2	2 x Ø11.1	LM	Clutch	63.5	287.0	114.3	
9614600214	19.5	3 x Ø9.5	LRG	Pin	63.5	287.0	114.3	
9614600216	19.5	3 x Ø9.5	LM	Pin	63.5	287.0	114.3	
9614600234	19.5	3 x Ø9.5	LRG	Clutch	63.5	287.0	114.3	
9614600236	19.5	3 x Ø9.5	LM	Clutch	63.5	287.0	114.3	
9614600218	21.8	3 x Ø11.1	LRG	Pin	63.5	287.0	114.3	
9614600220	21.8	3 x Ø11.1	LM	Pin	63.5	287.0	114.3	
9614600238	21.8	3 x Ø11.1	LRG	Clutch	63.5	287.0	114.3	
9614600240	21.8	3 x Ø11.1	LM	Clutch	63.5	287.0	114.3	



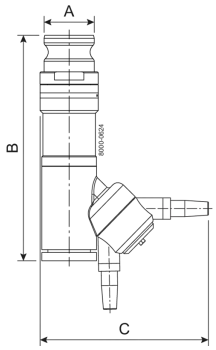
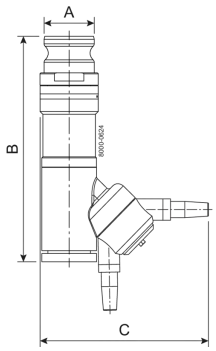
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

Finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
								1-1/2" NPT - Stainless Steel/FKM
9614600001	7.7	2 x Ø6.4	LV	Pin	63.5	287.0	114.3	
9614600003	7.7	2 x Ø6.4	SML	Pin	63.5	287.0	114.3	
9614600025	7.7	2 x Ø6.4	SML	Clutch	63.5	287.0	114.3	
9614600023	7.7	2 x Ø6.4	LV	Clutch	63.5	287.0	114.3	
9614600005	9.5	2 x Ø7.1	LV	Pin	63.5	287.0	114.3	
9614600007	9.5	2 x Ø7.1	SML	Pin	63.5	287.0	114.3	
9614600027	9.5	2 x Ø7.1	LV	Clutch	63.5	287.0	114.3	
9614600029	9.5	2 x Ø7.1	SML	Clutch	63.5	287.0	114.3	
9614600201	10.9	3 x Ø6.4	SML	Pin	63.5	287.0	114.3	
9614600221	10.9	3 x Ø6.4	SML	Clutch	63.5	287.0	114.3	
9614600009	11.4	2 x Ø7.9	SML	Pin	63.5	287.0	114.3	
9614600011	11.4	2 x Ø7.9	LRG	Pin	63.5	287.0	114.3	
9614600031	11.4	2 x Ø7.9	SML	Clutch	63.5	287.0	114.3	
9614600033	11.4	2 x Ø7.9	LRG	Clutch	63.5	287.0	114.3	
9614600203	11.4	3 x Ø6.4	LRG	Pin	63.5	287.0	114.3	
9614600223	11.4	3 x Ø6.4	LRG	Clutch	63.5	287.0	114.3	
9614600207	12.7	3 x Ø7.1	SML	Pin	63.5	287.0	114.3	
9614600205	12.7	3 x Ø7.1	LV	Pin	63.5	287.0	114.3	
9614600225	12.7	3 x Ø7.1	LV	Clutch	63.5	287.0	114.3	
9614600227	12.7	3 x Ø7.1	SML	Clutch	63.5	287.0	114.3	
9614600013	13.6	2 x Ø9.5	SML	Pin	63.5	287.0	114.3	
9614600035	13.6	2 x Ø9.5	SML	Clutch	63.5	287.0	114.3	
9614600015	15.4	2 x Ø9.5	LRG	Pin	63.5	287.0	114.3	
9614600037	15.4	2 x Ø9.5	LRG	Clutch	63.5	287.0	114.3	
9614600039	15.4	2 x Ø9.5	LM	Clutch	63.5	287.0	114.3	
9614600209	15.9	3 x Ø7.9	LRG	Pin	63.5	287.0	114.3	
9614600211	15.9	3 x Ø7.9	LM	Pin	63.5	287.0	114.3	
9614600231	15.9	3 x Ø7.9	LM	Clutch	63.5	287.0	114.3	
9614600229	15.9	3 x Ø7.9	LRG	Clutch	63.5	287.0	114.3	
9614600021	18.2	2 x Ø11.1	LM	Pin	63.5	287.0	114.3	
9614600019	18.2	2 x Ø11.1	LRG	Pin	63.5	287.0	114.3	
9614600041	18.2	2 x Ø11.1	LRG	Clutch	63.5	287.0	114.3	
9614600043	18.2	2 x Ø11.1	LM	Clutch	63.5	287.0	114.3	
9614600213	19.5	3 x Ø9.5	LRG	Pin	63.5	287.0	114.3	
9614600215	19.5	3 x Ø9.5	LM	Pin	63.5	287.0	114.3	
9614600233	19.5	3 x Ø9.5	LRG	Clutch	63.5	287.0	114.3	
9614600235	19.5	3 x Ø9.5	LM	Clutch	63.5	287.0	114.3	
9614600217	21.8	3 x Ø11.1	LRG	Pin	63.5	287.0	114.3	
9614600219	21.8	3 x Ø11.1	LM	Pin	63.5	287.0	114.3	
9614600237	21.8	3 x Ø11.1	LRG	Clutch	63.5	287.0	114.3	
9614600239	21.8	3 x Ø11.1	LM	Clutch	63.5	287.0	114.3	

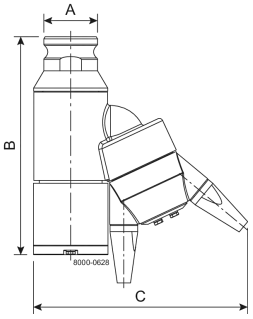
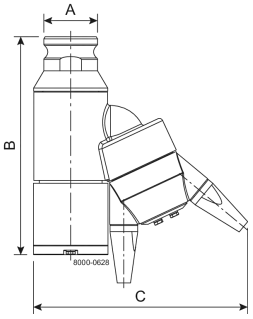
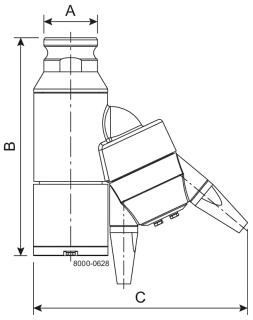
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

Finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
								1½" BSP 180° Down
9614600046	7.7	2 x Ø6.4	LV	Pin	2.5	11.3	9.0	
9614600048	7.7	2 x Ø6.4	SML	Pin	2.5	11.3	9.0	
9614600050	11.4	2 x Ø7.9	SML	Pin	2.5	11.3	9.0	
9614600052	11.4	2 x Ø7.9	LRG	Pin	2.5	11.3	9.0	
9614600054	13.6	2 x Ø9.5	SML	Pin	2.5	11.3	9.0	
9614600056	15.4	2 x Ø9.5	LRG	Pin	2.5	11.3	9.0	
9614600058	15.4	2 x Ø9.5	LM	Pin	2.5	11.3	9.0	
9614600060	18.2	2 x Ø11.1	LRG	Pin	2.5	11.3	9.0	
9614600062	18.2	2 x Ø11.1	LM	Pin	2.5	11.3	9.0	
								1½" NPT 180° Down
9614600047	7.7	2 x Ø6.4	SML	Pin	2.5	11.3	9.0	
9614600045	7.7	2 x Ø6.4	LV	Pin	2.5	11.3	9.0	
9614600049	11.4	2 x Ø7.9	SML	Pin	2.5	11.3	9.0	
9614600051	11.4	2 x Ø7.9	LRG	Pin	2.5	11.3	9.0	
9614600053	13.6	2 x Ø9.5	SML	Pin	2.5	11.3	9.0	
9614600055	15.4	2 x Ø9.5	LRG	Pin	2.5	11.3	9.0	
9614600057	15.4	2 x Ø9.5	LM	Pin	2.5	11.3	9.0	
9614600059	18.2	2 x Ø11.1	LRG	Pin	2.5	11.3	9.0	
9614600061	18.2	2 x Ø111.1	LM	Pin	2.5	11.3	9.0	
								undefined
9614696002								
9614696102								
9614612001								
9614612101								
9614612205								
9614612206								
9614612207								
9614612210								
9614612301								
9614612401								
9614612501								
9614612601								
9614612701								
9614612801								

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" BSP 105° Down - Stainless Steel/FKM - 273:1 FT								
9614652306	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652312	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652318	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652320	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652328	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652336	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652342	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652350	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" BSP 105° Down - Stainless Steel/FKM - 273:1 OIL								
9614652406	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652412	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652420	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652418	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652428	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652436	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652442	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652450	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" BSP 105° Down - Stainless Steel/FKM - 655:1 FT								
9614652506	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652512	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652518	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652528	23.8	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652534	29.5	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652542	35.2	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652550	39.7	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	

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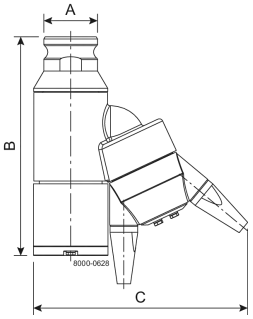
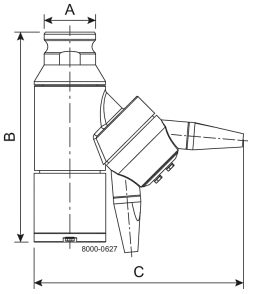
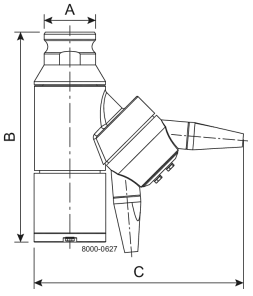
ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" BSP 105° Down - Stainless Steel/FKM - 655:1 OIL								
9614652606	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652612	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652618	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652628	23.8	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652634	29.5	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652642	35.2	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652650	39.7	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652905	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	
2" BSP 180° Down - Stainless Steel/FKM - 273:1 FT								
9614651906	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653506	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614651912	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653512	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614651918	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614651920	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614653518	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614651928	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653528	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614651936	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653536	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614651942	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614651950	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653542	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653550	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653556	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
2" BSP 180° Down - Stainless Steel/FKM - 273:1 OIL								
9614653606	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614653612	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614651620	18.2	2 x Ø9.5	LM	Clutch	76.2	307.3	152.4	
9614652020	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614653618	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652028	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653628	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652036	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653636	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652042	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652050	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653642	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653650	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653656	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	152.4	

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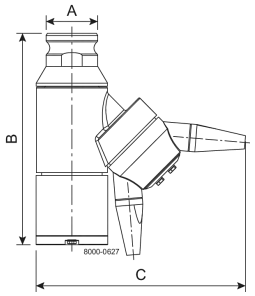
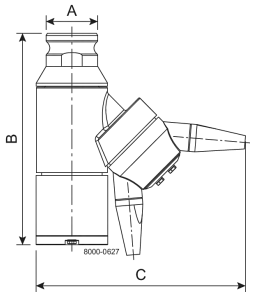
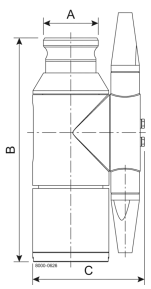
ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" BSP 180° Down - Stainless Steel/FKM - 655:1 FT								
9614652106	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653702	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614652112	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653712	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652118	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614653718	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652128	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653728	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652134	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	307.3	
9614653736	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652142	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652150	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653742	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653750	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653756	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" BSP 180° Down - Stainless Steel/FKM - 655:1 OIL								
9614652206	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653806	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614652212	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653812	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652218	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614653818	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652228	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653828	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652234	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	307.3	
9614653836	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652242	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652250	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653842	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653850	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653856	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" BSP - Stainless Steel/FKM- 273:1 FT								
9614651106	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651502	11.4	2 x Ø7.1	LV	Clutch	76.2	307.3	152.4	
9614651504	11.4	2 x Ø7.1	LP	Clutch	76.2	307.3	152.4	
9614651506	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651112	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651512	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651118	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651120	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	152.4	
9614651518	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651520	18.2	2 x Ø9.5	LM	Clutch	76.2	307.3	152.4	
9614651128	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651528	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651136	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	152.4	
9614651536	29.5	2 x Ø12.7	HV1	Clutch	76.2	307.3	152.4	
9614651142	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	

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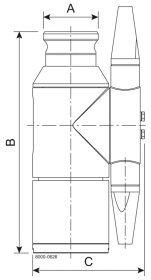
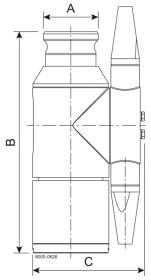
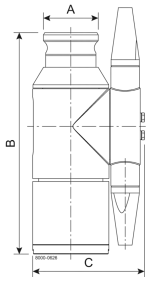
ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
								2" BSP - Stainless Steel/FKM- 273:1 FT
9614651542	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651146	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651550	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	
								2" BSP - Stainless Steel/FKM- 273:1 OIL
9614651206	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651602	11.4	2 x Ø7.1	LV	Clutch	76.2	307.3	152.4	
9614651606	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651604	11.4	2 x Ø7.1	LP	Clutch	76.2	307.3	152.4	
9614652006	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614651212	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651612	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614652012	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614651218	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651220	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	152.4	
9614651618	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614652018	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614651228	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651628	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651236	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	152.4	
9614651636	29.5	2 x Ø12.7	HV1	Clutch	76.2	307.3	152.4	
9614651242	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651642	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651246	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651650	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	
								2" BSP - Stainless Steel/FKM- 655:1 FT
9614651306	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651706	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651312	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651712	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651318	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651718	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651328	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651728	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651334	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	152.4	
9614651734	29.5	2 x Ø12.7	LM	Clutch	76.2	307.3	152.4	
9614651342	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651742	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651346	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651750	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	

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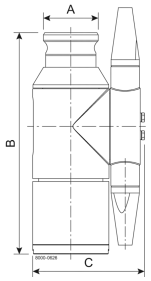
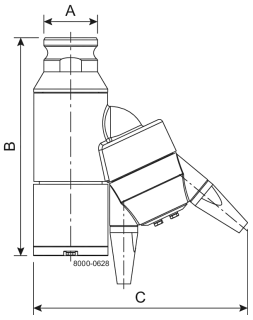
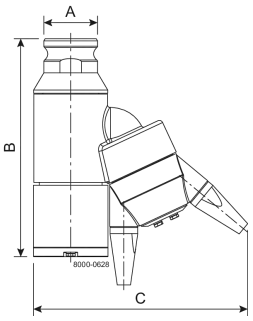
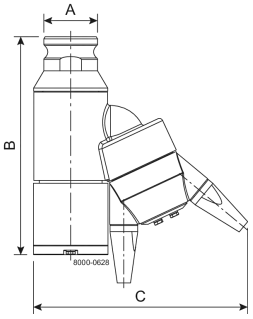
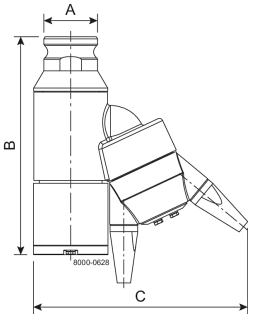
ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" BSP - Stainless Steel/FKM- 655:1 OIL								
9614651406	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651806	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651412	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651812	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651418	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651818	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651428	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651828	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651434	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	152.4	
9614651834	29.5	2 x Ø12.7	LM	Clutch	76.2	307.3	152.4	
9614651442	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651842	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651446	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651850	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	
2" NPT 105° Down - Stainless Steel/FKM - 273:1 FT								
9614652301	11.4	2 x Ø7.1	LV	Pin	76.2	307.3	307.3	
9614652305	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652303	11.4	2 x Ø7.1	LP	Pin	76.2	307.3	307.3	
9614652307	13.6	2 x Ø7.9	LV	Pin	76.2	307.3	307.3	
9614652309	13.6	2 x Ø7.9	LP	Pin	76.2	307.3	307.3	
9614652311	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652313	13.6	2 x Ø7.9	LM	Pin	76.2	307.3	307.3	
9614652317	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652315	18.2	2 x Ø9.5	LP	Pin	76.2	307.3	307.3	
9614652319	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652321	18.2	2 x Ø9.5	HV1	Pin	76.2	307.3	307.3	
9614652323	18.2	2 x Ø9.5	HV2	Pin	76.2	307.3	307.3	
9614652329	23.8	2 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652325	23.8	2 x Ø11.1	STD	Pin	76.2	307.3	307.3	
9614652327	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652331	23.8	2 x Ø11.1	HV2	Pin	76.2	307.3	307.3	
9614652333	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	307.3	
9614652335	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652337	29.5	2 x Ø12.7	HV2	Pin	76.2	307.3	307.3	
9614652339	35.2	2 x Ø14.3	LM	Pin	76.2	307.3	307.3	
9614652341	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652343	35.2	2 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614652345	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614652349	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614652347	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" NPT 105° Down - Stainless Steel/FKM - 273:1 OIL								
9614652405	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652411	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652419	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652417	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652427	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652435	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652441	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652449	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" NPT 105° Down - Stainless Steel/FKM - 655:1 FT								
9614652505	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652605	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652517	18.2	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652527	23.8	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652533	29.5	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652541	35.2	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652549	39.7	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
2" NPT 105° Down - Stainless Steel/FKM - 655:1 OIL								
9614652511	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652611	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652617	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652627	23.8	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652633	29.5	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614652641	35.2	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614652649	39.7	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	

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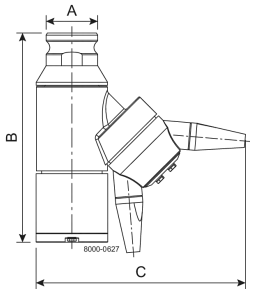
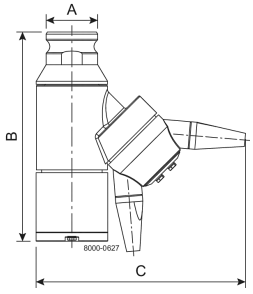
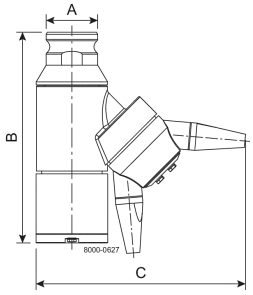
ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" NPT 180° Down - Stainless Steel/FKM - 273:1 FT								
9614651905	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653505	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614651911	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653511	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614651917	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614651919	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614653517	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614651927	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653527	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614651935	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653535	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614651941	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614651949	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653541	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653549	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653555	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
2" NPT 180° Down - Stainless Steel/FKM - 273:1 OIL								
9614652005	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653605	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614652011	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653611	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652017	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614652019	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614653617	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652027	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653627	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652035	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653635	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652041	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652049	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653641	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653649	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653655	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
2" NPT 180° Down - Stainless Steel/FKM - 655:1 FT								
9614652105	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653705	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614652111	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653711	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652117	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614653717	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652127	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653727	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652133	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	307.3	
9614653735	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652141	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652149	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653741	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	

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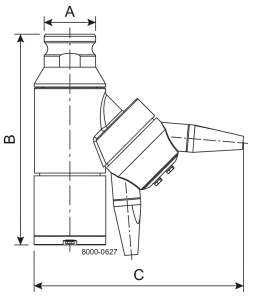
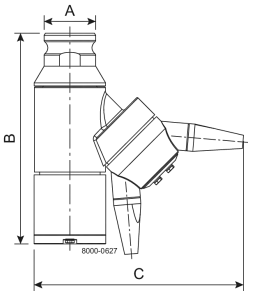
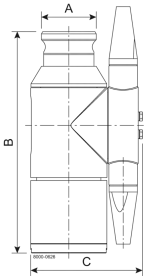
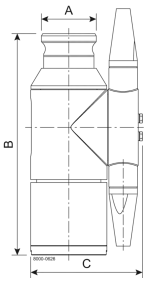
ALSIS Code: 5650 Surface finish: Mat

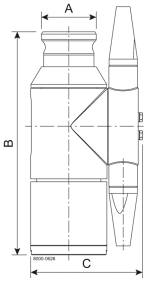
Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
2" NPT 180° Down - Stainless Steel/FKM - 655:1 FT								
9614653749	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653755	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" NPT 180° Down - Stainless Steel/FKM - 655:1 OIL								
9614652205	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614653805	12.5	3 x Ø6.4	STD	Pin	76.2	307.3	307.3	
9614652211	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614653811	14.8	3 x Ø7.1	STD	Pin	76.2	307.3	307.3	
9614652217	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	307.3	
9614653817	19.3	3 x Ø7.9	STD	Pin	76.2	307.3	307.3	
9614652227	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	307.3	
9614653827	27.3	3 x Ø9.5	LM	Pin	76.2	307.3	307.3	
9614652233	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	307.3	
9614653835	34.1	3 x Ø11.1	HV1	Pin	76.2	307.3	307.3	
9614652241	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	307.3	
9614652249	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
9614653841	39.7	3 x Ø12.7	HV1	Pin	76.2	307.3	307.3	
9614653849	47.7	3 x Ø14.3	HV2	Pin	76.2	307.3	307.3	
9614653855	52.2	3 x Ø15.9	HV2	Pin	76.2	307.3	307.3	
2" NPT - Stainless Steel/FKM - 273:1 FT								
9614651105	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651501	11.4	2 x Ø7.1	LV	Clutch	76.2	307.3	152.4	
9614651503	11.4	2 x Ø7.1	LP	Clutch	76.2	307.3	152.4	
9614651505	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651111	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651511	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651117	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651119	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	152.4	
9614651517	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651519	18.2	2 x Ø9.5	LM	Clutch	76.2	307.3	152.4	
9614651127	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651527	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651135	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	152.4	
9614651535	29.5	2 x Ø12.7	HV1	Clutch	76.2	307.3	152.4	
9614651141	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651541	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651149	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651549	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	

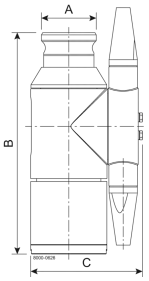
NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)			
	m3/h	Dimension			A	B	C	
								2" NPT - Stainless Steel/FKM - 273:1 OIL
9614651205	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651601	11.4	2 x Ø7.1	LV	Clutch	76.2	307.3	152.4	
9614651603	11.4	2 x Ø7.1	LP	Clutch	76.2	307.3	152.4	
9614651605	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651211	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651611	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651217	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651219	18.2	2 x Ø9.5	LM	Pin	76.2	307.3	152.4	
9614651617	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651619	18.2	2 x Ø9.5	LM	Clutch	76.2	307.3	152.4	
9614651227	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651627	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651235	29.5	2 x Ø12.7	HV1	Pin	76.2	307.3	152.4	
9614651635	29.5	2 x Ø12.7	HV1	Clutch	76.2	307.3	152.4	
9614651241	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651641	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651245	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651649	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	
								2" NPT - Stainless Steel/FKM- 655:1 FT
9614651305	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651711	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651311	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651717	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651317	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651723	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651327	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651733	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651333	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	152.4	
9614651739	29.5	2 x Ø12.7	LM	Clutch	76.2	307.3	152.4	
9614651341	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651747	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651705	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
								2" NPT - Stainless Steel/FKM- 655:1 OIL
9614651405	11.4	2 x Ø7.1	STD	Pin	76.2	307.3	152.4	
9614651805	11.4	2 x Ø7.1	STD	Clutch	76.2	307.3	152.4	
9614651411	13.6	2 x Ø7.9	STD	Pin	76.2	307.3	152.4	
9614651811	13.6	2 x Ø7.9	STD	Clutch	76.2	307.3	152.4	
9614651417	18.2	2 x Ø9.5	STD	Pin	76.2	307.3	152.4	
9614651817	18.2	2 x Ø9.5	STD	Clutch	76.2	307.3	152.4	
9614651427	23.8	2 x Ø11.1	LM	Pin	76.2	307.3	152.4	
9614651827	23.8	2 x Ø11.1	LM	Clutch	76.2	307.3	152.4	
9614651433	29.5	2 x Ø12.7	LM	Pin	76.2	307.3	152.4	
9614651833	29.5	2 x Ø12.7	LM	Clutch	76.2	307.3	152.4	
9614651441	35.2	2 x Ø14.3	HV1	Pin	76.2	307.3	152.4	
9614651841	35.2	2 x Ø14.3	HV1	Clutch	76.2	307.3	152.4	
9614651447	39.7	2 x Ø15.9	HV2	Pin	76.2	307.3	152.4	
9614651849	39.7	2 x Ø15.9	HV2	Clutch	76.2	307.3	152.4	







NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

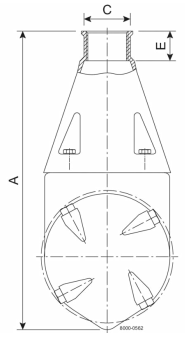
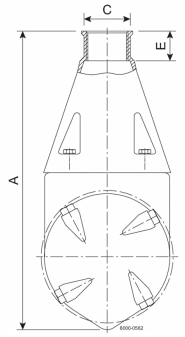
ALSIS Code: 5650 Surface finish: Mat

Item no.	Flow at 7 bar	No. of nozzles	Guide	Pin/clutch	Dimension (mm)		
	m3/h	Dimension			A	B	C
undefined							
9614667201							
9614667301							
9614667401							
9614667501							
9614667601							
9614667602							
9614667603							
9614667701							
9614667702							
9614667703							
9614667801							
9614667901							
9614667902							
9614667903							
9614668308							
9614668305							

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5475

Surface finish: Mat
Standard certificate: 2.2
Material: PVDF (standard)

Item no.	Flow at 5 bar	No. of nozzles	Dimension (mm)			
	m3/h	Dimension	A	C	E	
						Thread (1” NPT-female)
TE20G120	7.0	4 x Ø3.9	230.0	36.0	16.0	
TE20G122	9.5	4 x Ø4.6	230.0	36.0	16.0	
TE20G124	12.0	4 x Ø5.5	230.0	36.0	16.0	
						Thread (1” Rp-female (BSP))
TE20G100	7.0	4 x Ø3.9	230.0	36.0	16.0	
TE20G102	9.5	4 x Ø4.6	230.0	36.0	16.0	
TE20G104	12.0	4 x Ø5.5	230.0	36.0	16.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5546

Item no.	Description
	Female thread adaptor for TJ40G and TJ40G-HD
9690006604	2" NPT female. Gasket included
9690006609	1½"NPT female. Gasket included
9690006610	1½"BSP female. Gasket included
	Male thread adaptor for TJ40G and TJ40G-HD
9690006611	1½"BSP male. Gasket included
9690006612	2" BSP male. Gasket included
9690006613	1½"NPT male. Gasket included
9690006614	2" NPT male. Gasket included
	Welding adapter for MultiJet 25
TE52D030	1” Rp-male (BSP)/1” ISO thread pipe (OD = 33.7 mm). Gasket included
TE52D032	1” Rp-male (BSP)/1½” dairy pipe (OD = 38 mm). Gasket included
	Welding adaptor for TJ40G and TJ40G-HD
9690006601	2" ISO pipe (OD=60.3 mm)
9690006602	DN65 DIN pipe (OD=70 mm)
9690006603	2½" dairy pipe (OD=63.5 mm)
9690006605	DN50 DIN pipe (OD=53 mm)
9690006606	DN40 DIN pipe (OD=40 mm)
9690006607	2" dairy pipe (OD=51 mm)
9690006608	1½" ISO pipe (OD=48.3 mm)
	undefined
8010003083	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

Rotary spray heads

Alfa Laval SaniMicro

Rotary Spray Head

For futher information regarding this product, please contact Alfa Laval

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 264-2,640 US gallons.

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

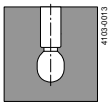
Standard design

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.

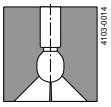
Working principle

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.

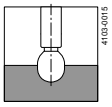
Spray Pattern



360°



270° up



180° down

Certificates

2.2 material certificate, Q-doc and ATEX.

TECHNICAL DATA

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

Pressure	
Working pressure:	14.5 - 44 PSI
Recommended pressure:	29 PSI

PHYSICAL DATA

Materials:	AISI 316L (UNS S31603), PTFE[1]

[1] FDA compliance 21CFR§177

Clip parts:	316

Standard Surface finish	
exterior:	Ra 20 µin
internal:	Ra 20 µin

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Thread and clip-on:	0.66 lbs
On pipe:	1.21/1.98 lbs

Connections

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

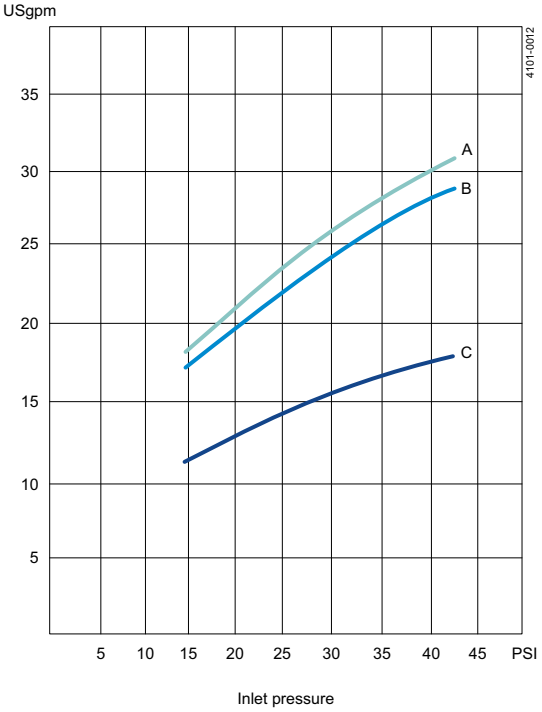
Caution

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	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	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 284 °F ...347 °F Ga II 1D Ex h IIIC T284 °F ...T284 °F Da

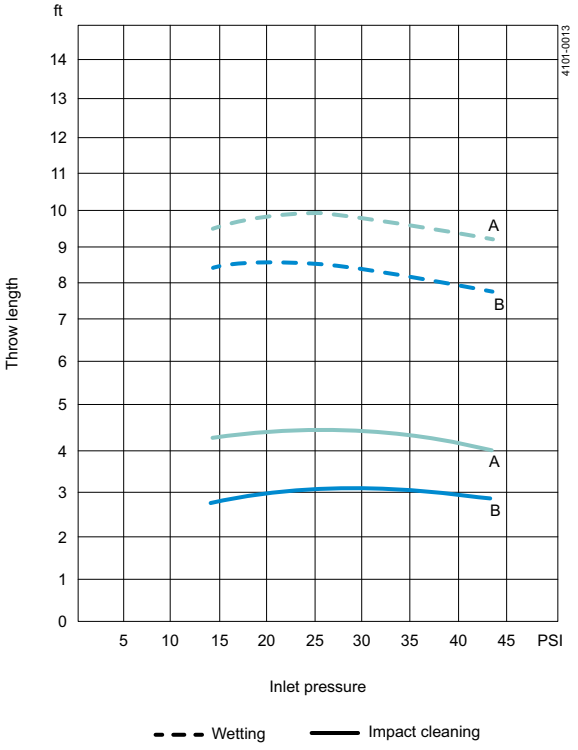
Flow Rate



A = 270° U
B = 360°
C = 180° D

For clip-on models, the flow rate is increased by approx. 0.65 yard^3/h

Cleaning Radius



A = 270° U
B = 360°
180° D

Dimensions (inch)

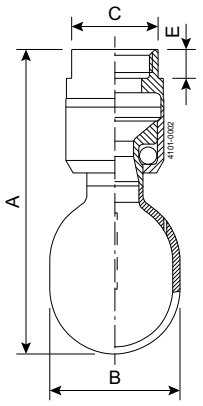


Figure 1. Thread

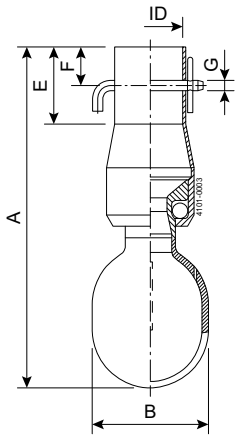


Figure 2. Clip-on

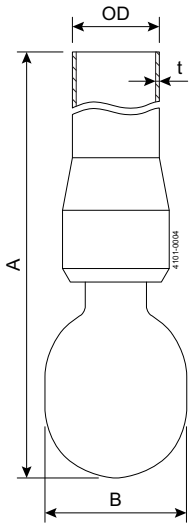


Figure 3. Weld-on

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

ID	
ISO:	Ø0.10 inch
BPE US:	Ø1.01 inch
DIN Range 1:	Ø1.11 inch
DIN Range 2:	Ø1.15 inch

OD x t	
ISO:	Ø0.98 x 0.047 inch
BPE US:	Ø1 x 0.065 inch
DIN Range 1:	Ø1.10 x 0.039 inch
DIN Range 2:	Ø1.14 x 0.059 inch

Type	A	B	C	E	F	G
Tread	4.02	Ø1.77	1.18	0.39		
Clip-on	5.26	Ø1.77			0.59	Ø0.16
Weld-on	4.74 / 19.68 / 39.37	Ø1.77				

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 1,321-10,567 US gallons.

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

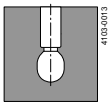
Standard design

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.

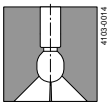
Working principle

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.

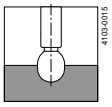
Spray Pattern



360°



270° up



180° down

Certificates

2.2 material certificate, Q-doc and ATEX.

TECHNICAL DATA

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

Pressure	
Working pressure:	14.5 - 44 PSI
Recommended pressure:	29 PSI

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 32 µin
Internal:	Ra 32 µin

Improved Surface finish	
Exterior + Electro polished:	Ra 20 µin
Internal + Electro polished:	Ra 32 µin

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Thread and clip-on:	1.48 lbs
On pipe:	2.14/3.35 lbs

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

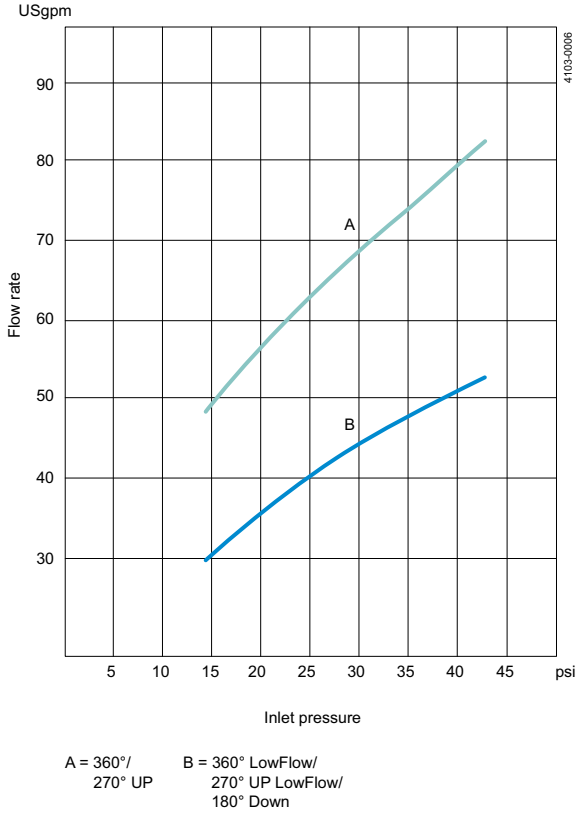
Caution

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	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	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 185 °F ...347 °F Ga II 1D Ex h IIIC T185 °F ...T284 °F Da

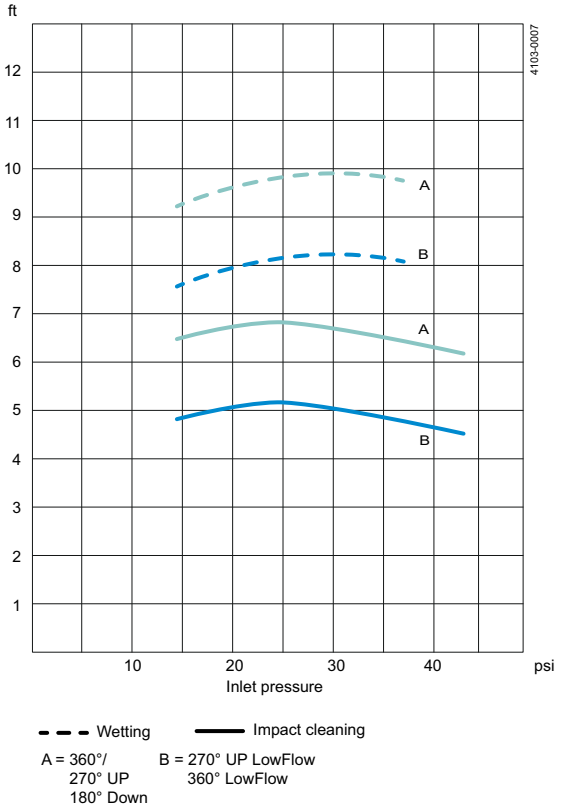
Flow Rate



A = 360°/ 270° UP

B = 360° LowFlow/ 270° UP LowFlow/ 180° Down

Cleaning radius



A = 360°/ 270° UP 180° Down

B = 270° UP LowFlow 360° LowFlow

For Clip-on models, the flow rate is increased by approx. 1.96 yard^3/h

Dimensions (inch)

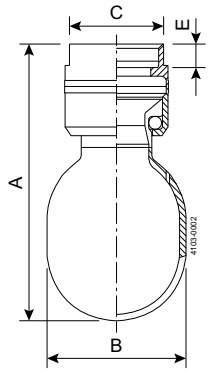


Figure 1. Thread

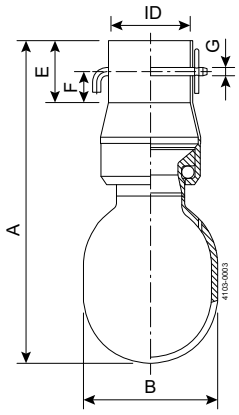


Figure 2. Clip-on

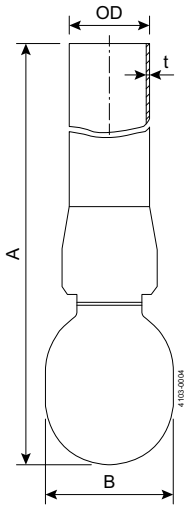


Figure 3. Weld-on

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

ID	
1½"	Ø1.51 inch
2"	Ø2.02 inch
DIN Range 1	Ø1.59 inch
DIN Range 2	Ø1.63 inch

OD x t	
ISO	Ø1.50 x 0.047 inch
BPE US	Ø1.5 x 0.065 inch
BPE US	Ø2 x 0.065 inch
DIN Range 1	Ø1.57 x 0.039 inch
DIN Range 2	Ø1.61 x 0.059 inch

Type	A	B	C	E	F	G
Tread	5.12	Ø2.56	1.73	x		
Clip-on	6.18	Ø2.56		0.39	0.59	Ø0.165
Weld-on	6.18 / 19.68 / 39.37	Ø2.56				

Alfa Laval SaniMidget SB

Rotary Spray Head

Introduction

The Alfa Laval SaniMidget SB is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 264-3963 US gallons.

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

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

Application

The Alfa Laval SaniMidget SB is designed for the removal of residues from hygienic tanks across 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

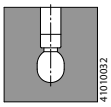
Standard design

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

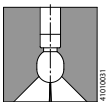
Working principle

The flow of the cleaning media causes the head of the Alfa Laval SaniMidget SB 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



360°



270° up

Certificates

2.2 material certificate, Q-doc, 3-A and ATEX.

TECHNICAL DATA

Lubricant:	Lubrication by rinse/cleaning fluid
Wetting radius:	Max. 9.8 ft
Impact cleaning radius:	Max. effective 4.6 ft

Pressure	
Working pressure:	14.5 - 44 PSI
Recommended pressure:	29 PSI

PHYSICAL DATA

Materials	
Metallic parts:	AISI 316L (UNS S31603)
Non-metallic parts:	PEEK[1] 450G

[1] FDA compliance 21CFR§177

Surface finish:	Ra < 32 µin

Weight:	1": 0.44 lbs. / 1½": 0.97 lbs

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	302 °F

Connections

- Weld-on: 1" ISO 2037, or DN25 DIN11850-R1, or 1" BPE US
- Clip-on: 1 1/2" ISO 2037, or 1" or 1 1/2" BPE US

Clip-on options

Easy-on/off clip (Ø0.16 inch). Clip needed for both clip-on and weld-on versions to assemble the machine

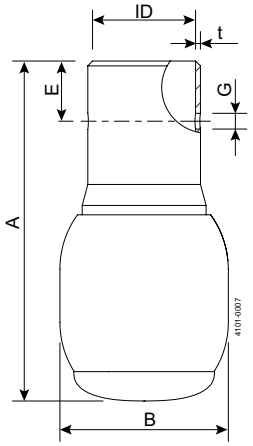
Caution

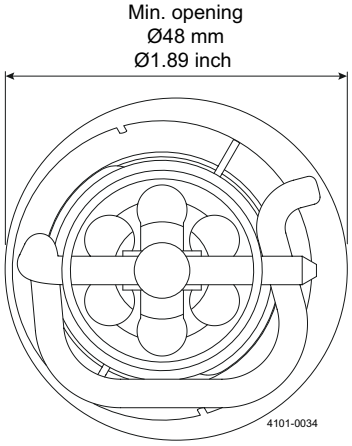
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	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 IIB 185 °F ...347 °F Ga II 1D Ex h IIIC T185 °F ...T284 °F Da
3-A	3-A number: 78-##. Spray Cleaning Devices

Dimensions inch



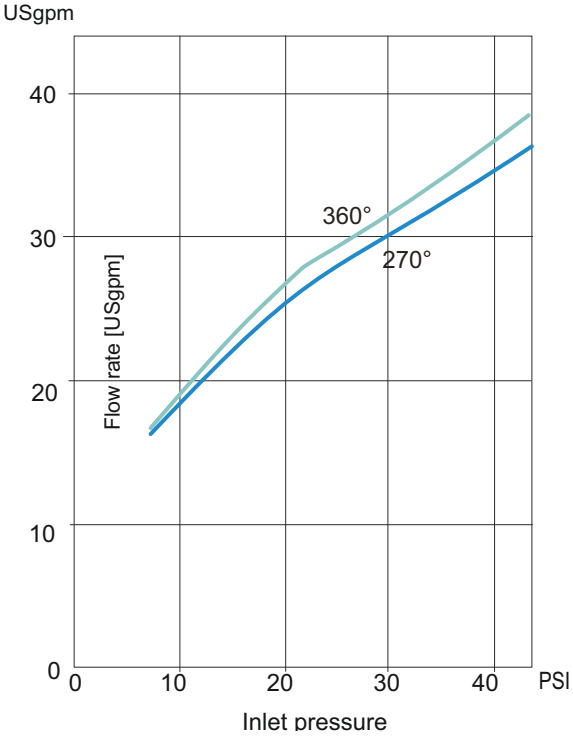


	Clip-on 1" BPE US	Clip-on 1½" BPE US/1½" ISO 2037	Weld-on[1] 1" ISO 2037	Weld-on[1] 1" BPE US	Weld-on[1] DN25 DIN R1
	inch	inch	inch	inch	inch
ID	Ø1.012	Ø1.512	Ø0.890	Ø0.870	Ø1.010
t	0.047	0.047	0.047	0.065	0.047
B	Ø1.653	Ø2.154	Ø1.653	Ø1.653	Ø1.653
A	3.338	4.659	4.126	4.28	3.338
Ø-clip	Ø0.157	Ø0.157	Ø0.157	Ø0.157	Ø0.157
G	Ø0.161	Ø0.161	Ø0.161	Ø0.161	Ø0.161
E	0.590	1.000			

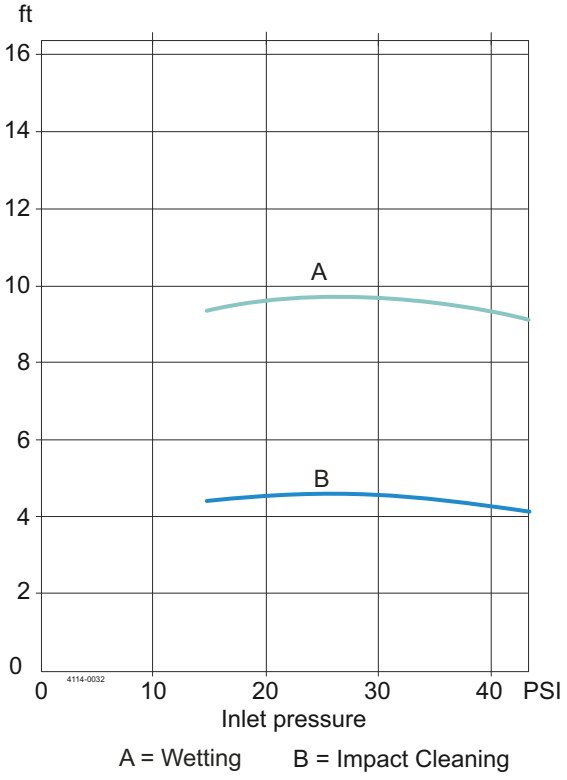
[1] Weld-on version only meets the requirements of the 3-A Hygienic Standard 78-## if installed according to the user manual.

Third Party Verification shows that this machine meets the requirements of the 3-A Hygienic Standard 78-##.

Flow Rate



Cleaning radius



A = Wetting B = Impact Cleaning

For Clip-on models, the flow rate is increased by approx. 132.1 gallon/h.

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.

Alfa Laval SaniMagnum SB

Rotary Spray Head

Introduction

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

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

Application

The Alfa Laval SaniMagnum SB 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

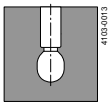
Standard design

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 is lubricated by the cleaning media.

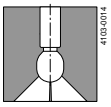
Working principle

The flow of the cleaning media causes the head of the Alfa Laval SaniMagnum SB 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.

TECHNICAL DATA

Lubricant:	Lubrication by rinse/cleaning fluid
Wetting radius:	Max. 14.8 ft
Impact cleaning radius:	Max. 7.9 ft

Pressure	
Working pressure:	Max. 14.8 ft
Recommended pressure:	Max. 7.9 ft

PHYSICAL DATA

Materials	
Metalic parts:	316L
Non-metallic parts:	PEEK[1] 450G

[1] FDA compliance 21CFR§177

Surface finish:	Ra 32 µin

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	302 °F

Weight:	0.88 lbs

Connections	
Clip-on:	1½" BPE US, 1½" ISO 2037
Weld-on:	2" BPE US

Clip
Easy-on/off clip (0.157 inch)
Clip needed for both clip-on and weld-on versions to assemble the machine

Recommended tank size:	6.000-18.000 US gallons

Caution

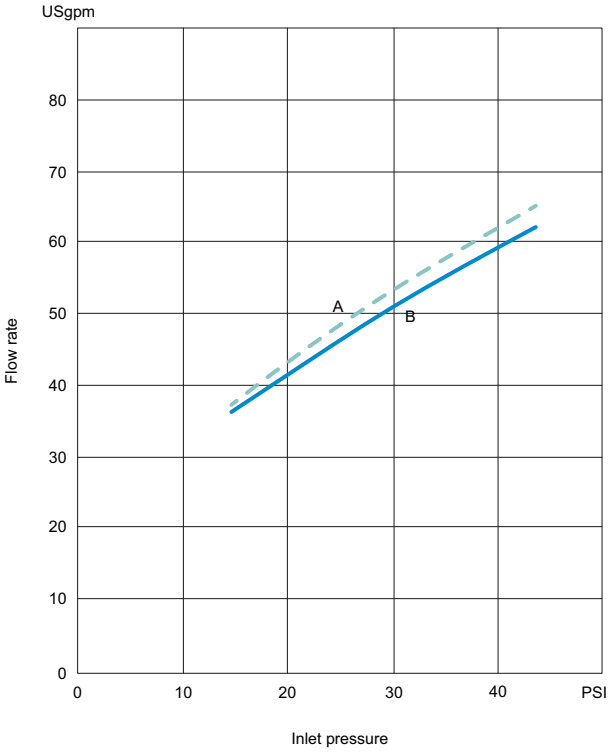
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC

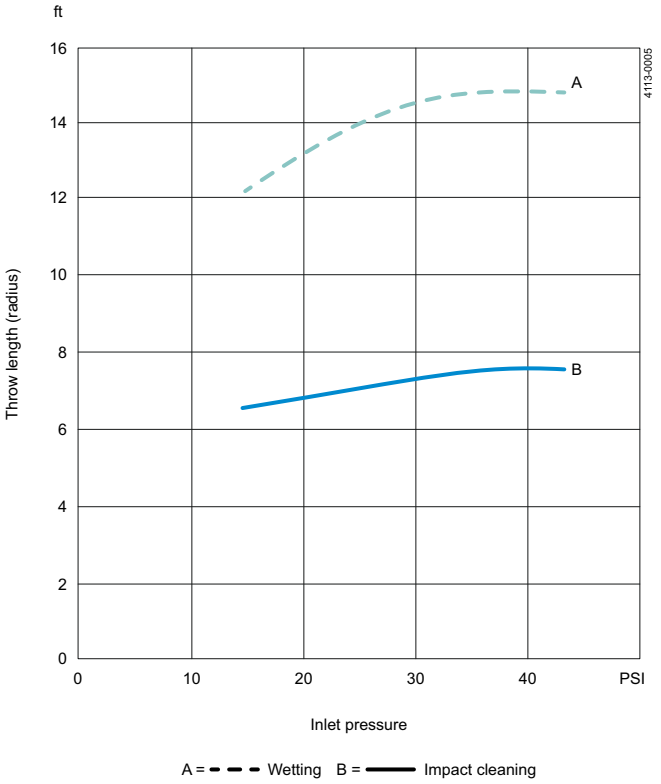
Documentation specification	
	ATEX approved machine for use in explosive atmospheres
ATEX	Catagory 1 for installation in zone 0/20 in accordance with Directive 2014/34/EU II 1G Ex h IIB 185 °F ...347 °F Ga II 1D Ex h IIIC T185 °F ...T284 °F Da
3-A	3-A number: 78-##. Spray Cleaning Devices

Flow Rate



A = 360°
B = 270°

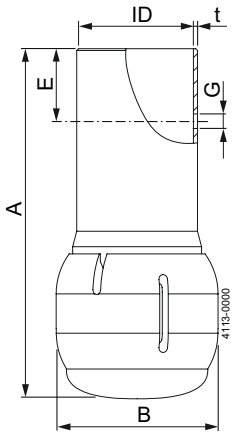
Cleaning radius



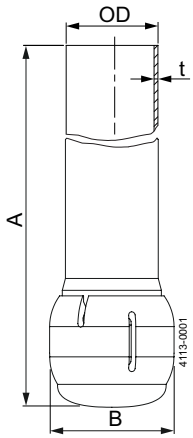
For Clip-on models, the flow rate is increased by approx. 3962.6 Gallon/hour.

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.

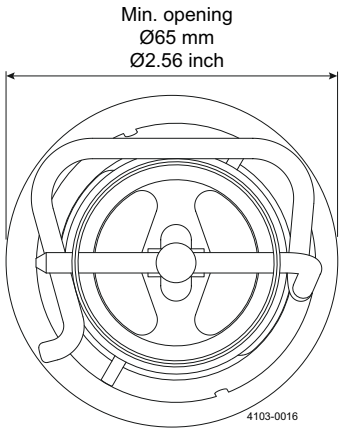
Dimensions (inch)



Clip-on



Weld-on



Type	A	B	E	G	ID	OD	t	Clip
Clip-on	4.66"	Ø2.15"	1"	Ø0.16"	Ø1.51"			Ø0.157"
Weld-on[1]	5.47"	Ø2.15"				Ø1.5"	0.06"	

[1] Weld-on version only meets the requirements of the 3-A Hygienic Standard 78-# # if installed according to the user manual.

Alfa Laval SaniMega SB

Rotary Spray Head

Introduction

The Alfa Laval SaniMega SB is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 10,567-105,667 US gallons.

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

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

Application

The Alfa Laval SaniMega SB 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

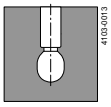
Standard design

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 SaniMega SB is lubricated by the cleaning media.

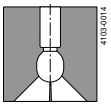
Working principle

The flow of the cleaning media causes the head of the Alfa Laval SaniMega SB 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 materiale certificates, Q-doc, 3-A and ATEX.

TECHNICAL DATA

Lubricant:	Lubrication by rinse/cleaning fluid
Wetting radius:	Max. 18.7 ft
Impact cleaning radius:	Max. 8.9 ft

Pressure	
Working pressure:	14.5 - 58.0 PSI
Recommended pressure:	43.5 PSI

PHYSICAL DATA

Materials	
Metallic parts:	AISI 316L
Non-metallic parts:	PEEK 450G[1]

[1] FDA compliance 21CFR§177

Surface finish:	Ra 32 µin

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	302 °F

Weight:	1.34 lbs

Connections	
Clip-on:	2" BPE US
Weld-on:	2" BPE US

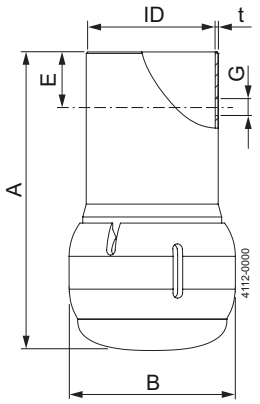
Clip
Easy-on/off clip (0.197 inch). Clip needed for both clip-on and weld-on versions to assemble the machine.

Recommended tank size:	18.000 - 60.000 US gallons

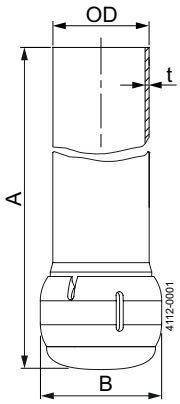
Qualification Documentation

Documentation specification	
Q-doc	Equipment Documentation includes: • EN 1935/2004 DoC • EN 10204 type 3.1 inspection Certificate and DoC • FDA DoC • GMP EC 2023/2006 DoC • EU 10/2011 DoC • ADI DoC • QC DoC
ATEX	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 IIB 185 °F ...347 °F Ga II 1D Ex h IIIC T185 °F ...T284 °F Da
3-A	3-A number: 78-##. Spray Cleaning Devices

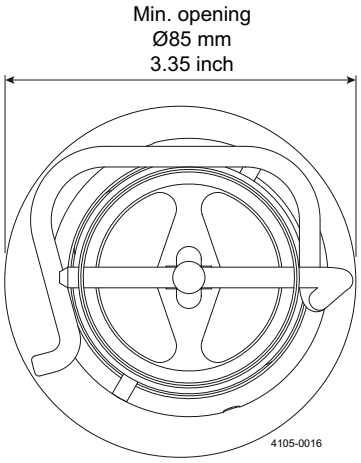
Dimensions (inch)



Clip-on



Weld-on

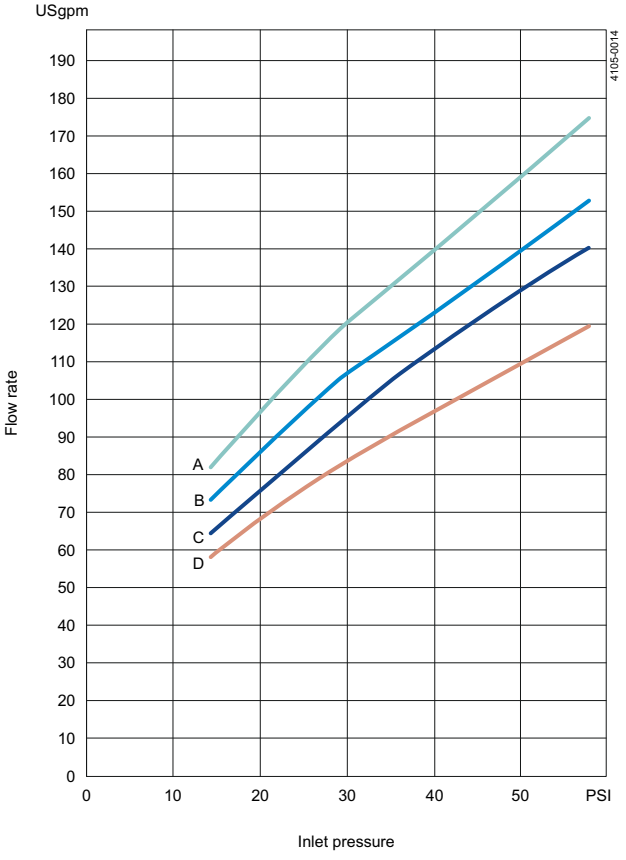


(inch)

Type	A	B	G	E	ID	OD	t	Clip
Clip-on 2" BPE US	4.76"	Ø2.65"	Ø0.20"	1"	Ø2.01"			Ø0.197
Weld-on[1] 2" BPE US	5.57	Ø2.65"				Ø2"	0.06"	

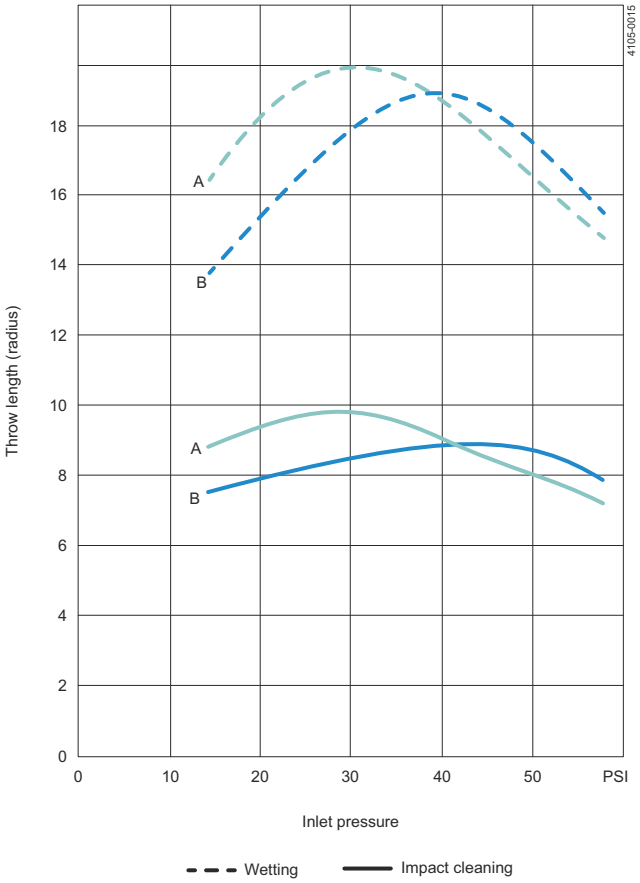
[1] Weld-on version only meets the requirements of the 3-A Hygienic Standard 78-# # if installed according to the user manual

Flow Rate



A = 360° High Flow
B = 270° High Flow
C = 360°
D = 270°

Cleaning radius



A = High flow 270°/360°
B = 270°/360°

For Clip-on models, the flow rate is increased by approx. 528.34 gallon/h

Alfa Laval MultiMidget

Rotary Spray Head

Introduction

The Alfa Laval MultiMidget is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 264-2,640 US gallons.

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

Application

The Alfa Laval MultiMidget 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
- Can be installed at any angle

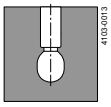
Standard design

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 MultiMidget is lubricated by the cleaning media.

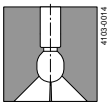
Working principle

The flow of the cleaning media causes the head of the Alfa Laval MultiMidget 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.

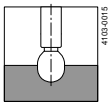
Spray Pattern



360°



270° up



180° down

Certificates

2.1 material certificate.

TECHNICAL DATA

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

Pressure	
Working pressure:	14.5 - 44 PSI
Recommended pressure:	29 PSI

PHYSICAL DATA

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

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Thread:	1.1 lbs
On pipe:	1.98 lbs

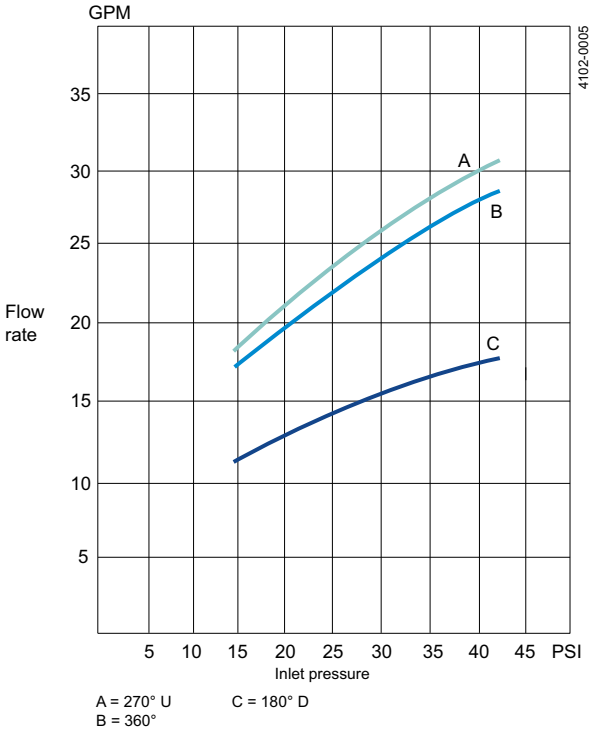
Connections

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

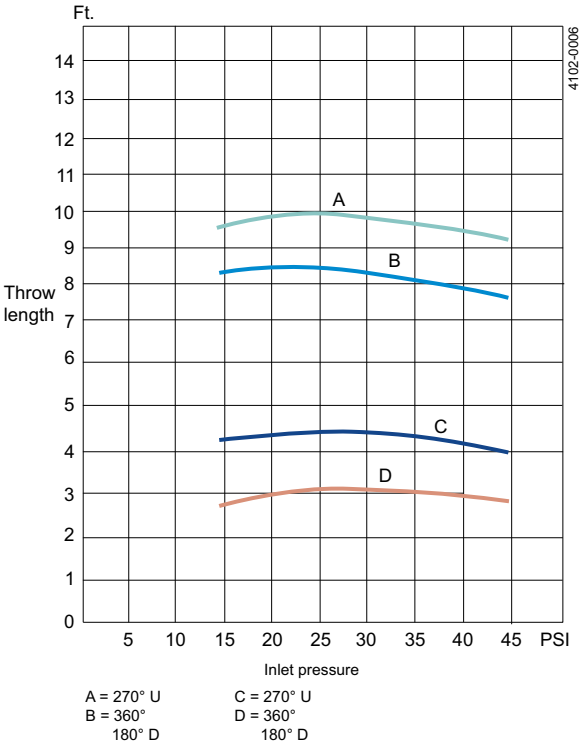
Caution

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.

Flow Rate



Cleaning Radius



For clip-on models, the flow rate is increased by approx. 0.65 yard^3/h

Dimensions (inch)

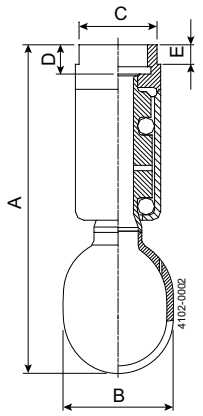


Figure 1. Thread

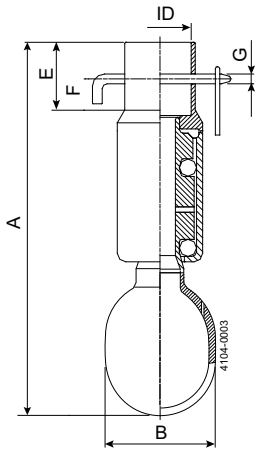


Figure 2. Clip-on

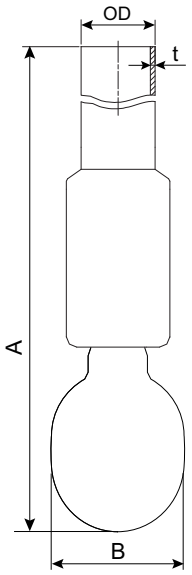


Figure 3. Weld-on

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

ID
ISO : Ø0.1 inch

OD x t
Welded on pipe
ISO: Ø0.98 x 0.05 inch
DIN Range 2: Ø1.14 x 0.06 inch

Type	A	B	C	D	E	F	G
Tread	5.39(BSP), 5.91(NPT)	Ø1.77	1.26	0.47(BSP) 0.98(NPT)	0.35(BSP) 0.89(NPT)		
Clip-on	6.1	Ø1.77			1.18	0.59	Ø0.18
Weld-on	19.68	Ø1.77					

Alfa Laval MultiMagnum

Rotary Spray Head

Introduction

The Alfa Laval MultiMagnum is a rotary spray head tank cleaning machine for hygienic environments. Designed to clean tanks from 1,321-10,567 US gallons.

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

Application

The Alfa Laval MultiMagnum 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
- Can be installed at any angle

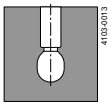
Standard design

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 MultiMagnum is lubricated by the cleaning media.

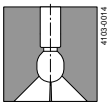
Working principle

The flow of the cleaning media causes the head of the Alfa Laval MultiMagnum 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.

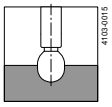
Spray Pattern



360°



270° up



180° down

Certificates

2.1 material certificate.

TECHNICAL DATA

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

Pressure	
Working pressure:	14.5 - 44 PSI
Recommended pressure:	29 PSI

PHYSICAL DATA

Materials[1]	
Inlet connections/Balls:	316 (UNS S31600)
Bearing race parts:	Duplex steel (UNS S31803)
Head:	316 (UNS S31603)

[1] FDA compliance 21CFR§177

Surface finish	
Standard Surface finish:	Ra 32 µin outside / Ra 32 µin inside
Exterior:	Ra 32 µin
Internal:	Ra 32 µin

Temperature	
Max. working temperature:	203 °F
Max. ambient temperature:	284 °F

Weight	
Thread:	1.98 lbs
On pipe:	5.51 lbs

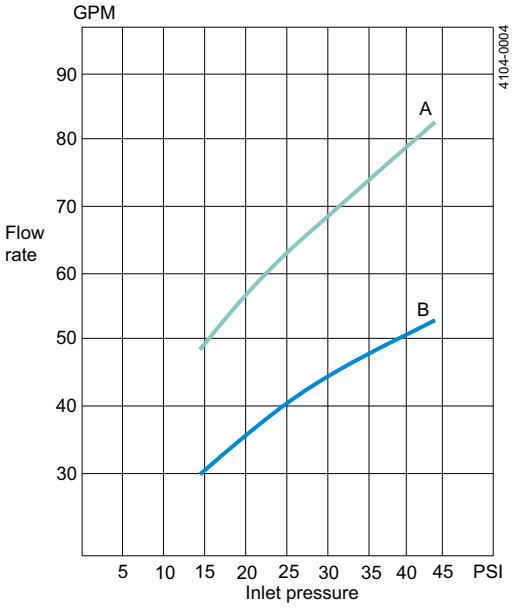
Connections

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

Caution

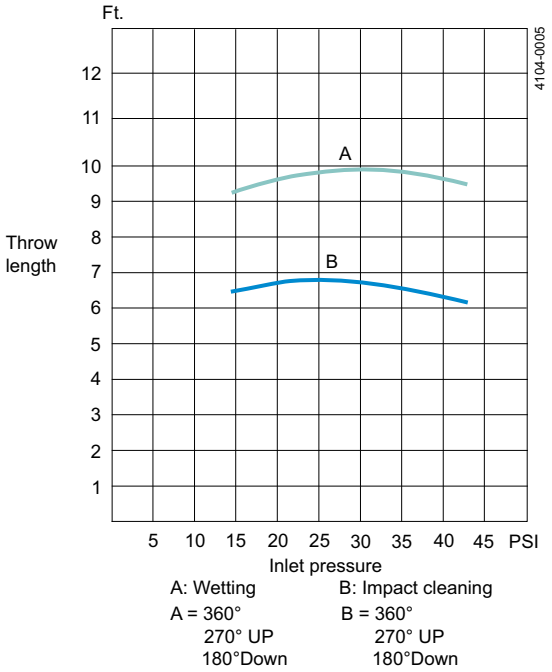
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate



A = 360°, 270° UP B = 180°

Cleaning radius



A: Wetting
A = 360°
270° UP
180°Down

B: Impact cleaning
B = 360°
270° UP
180°Down

Dimensions (inch)

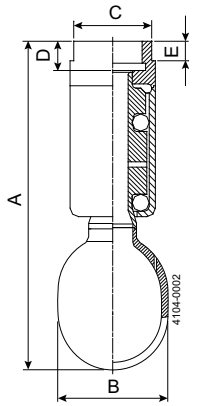


Figure 1. Thread

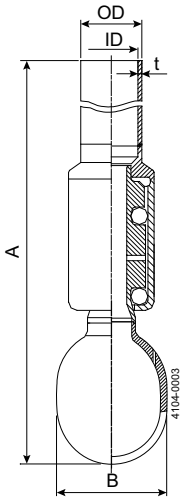


Figure 2. Weld-on

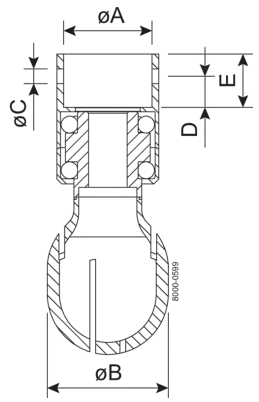
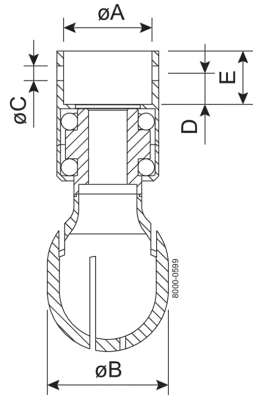
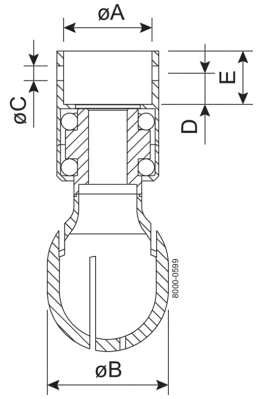
TH
1 1/4" Rp (BSP)
1 1/4" NPT

OD x t
Welded on pipe
ISO: Ø1.50 x 0.047 inch
DN40: Ø1.61 x 0.059 inch

Type	A	B	C	D	E
Thread	7.20	Ø2.56	1.81	0.63	0.59
Weld-on	39.37	Ø2.56			

ALSIS Code: 5470

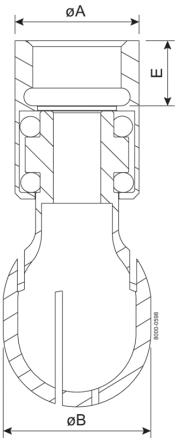
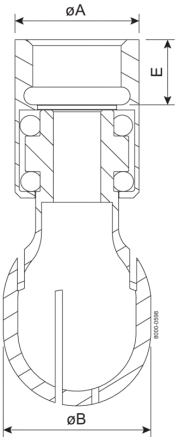
Surface finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Clip-on (DN15 DIN11850-R1)								
TE14B11101	1.8	spp360LOW	38.4	25.0	3.6	5.9	11.0	
TE14B11401	1.8	spp270UPLOW	38.4	25.0	3.6	5.9	11.0	
TE14B11301	2.8	spp270	18.2	25.0	3.6	5.9	11.0	
TE14B11001	2.9	spp360	18.2	25.0	3.6	5.9	11.0	
Clip-on (¾" ISO 2037)								
TE14B10101	1.8	spp360LOW	25.3	25.0	3.6	5.9	11.0	
TE14B10401	1.8	spp270UPLOW	17.4	25.0	3.6	5.9	11.0	
TE14B10301	2.8	spp270	17.4	25.0	3.6	5.9	11.0	
TE14B10001	2.9	spp360	25.3	25.0	3.6	5.9	11.0	
Clip-on (¾" US tube/DN15 DIN11850-R2)								
TE14B12101	1.8	spp360LOW	19.2	25.0	3.6	5.9	11.0	
TE14B12401	1.8	spp270UPLOW	19.2	25.0	3.6	5.9	11.0	
TE14B12301	2.8	spp270	19.2	25.0	3.6	5.9	11.0	
TE14B12001	2.9	spp360	19.2	25.0	3.6	5.9	11.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5470

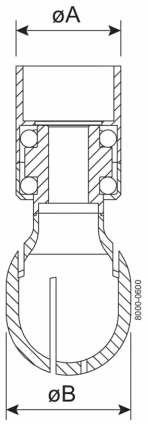
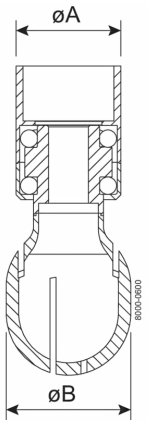
Surface finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
								Thread (3/8” NPT-female (BSP))
TE14B01101	1.6	spp360LOW	21.0	25.0	-	-	11.0	
TE14B01201	1.6	spp18 DOWN	21.0	25.0	-	-	11.0	
9618290915	1.6	spp270UPLOW	21.0	25.0	-	-	11.0	
TE14B01301	2.6	spp270UP	21.0	25.0	-	-	11.0	
TE14B01001	2.7	spp360	21.0	25.0	-	-	11.0	
								Thread (3/8” Rp-female (BSP))
TE14B00101	1.6	spp360LOW	21.0	25.0	-	-	11.0	
TE14B00201	1.6	spp18 DOWN	21.0	25.0	-	-	11.0	
TE14B00401	1.6	spp270UPLOW	21.0	25.0	-	-	11.0	
TE14B00001	2.7	spp360	21.0	25.0	-	-	11.0	
TE14B00301								

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5470

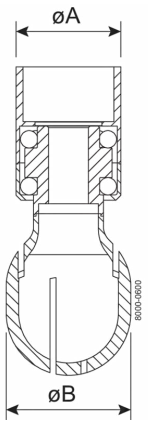
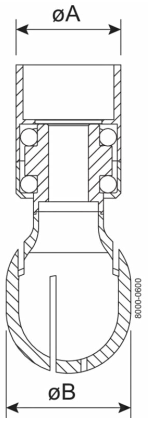
Surface finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Weld-on (DN15 DIN11850-R1)								
TE14B21101	1.6	spp360LOW	18 x 1	25.0	-	-	-	
9618290330	2.6	spp270UPLOW	18 x 1	25.0	-	-	-	
TE14B21301	2.6	spp270UP	18 x 1	25.0	-	-	-	
TE14B21001	2.7	spp360	18 x 1	25.0	-	-	-	
Weld-on (DN15 DIN11850-R2)								
TE14B22101	1.6	spp360LOW	19.0 x 1.5	25.0	-	-	-	
TE14B22401	1.6	spp270UPLOW	19.0 x 1.5	25.0	-	-	-	
TE14B22201	1.6	spp18 DOWN	19.0 x 1.5	25.0	-	-	-	
TE14B22301	2.6	spp270UP	19.0 x 1.5	25.0	-	-	-	
TE14B22001	2.7	spp360	19.0 x 1.5	25.0	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5470

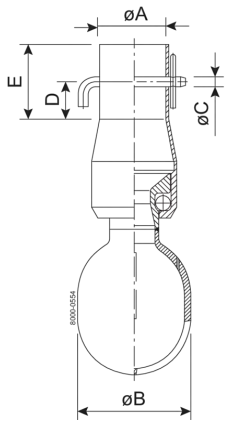
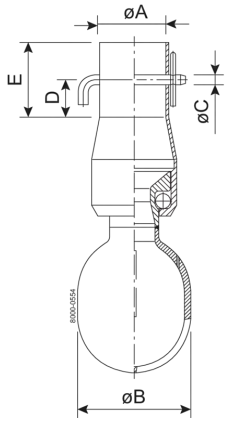
Surface finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Weld-on (¾" ASME BPE tube)								
TE14B23101	1.6	spp360LOW	19.05 x 1.65	25.0	-	-	-	
TE14B23201	1.6	spp18 DOWN	19.05 x 1.65	25.0	-	-	-	
9618291396	1.6	spp270UPLOW	19.05 x 1.65	25.0	-	-	-	
TE14B23301	2.6	spp270UP	19.05 x 1.65	25.0	-	-	-	
TE14B23001	2.7	spp360	19.05 x 1.65	25.0	-	-	-	
Weld-on (¾" ISO 2037)								
TE14B20101	1.6	spp360LOW	17.2 x 1.0	25.0	-	-	-	
TE14B20201	1.6	spp18 DOWN	17.2 x 1.0	25.0	-	-	-	
TE14B20401	1.6	spp270UPLOW	17.2 x 1.0	25.0	-	-	-	
TE14B20301	2.6	spp270UP	17.2 x 1.0	25.0	-	-	-	
TE14B20001	2.7	spp360	17.2 x 1.0	25.0	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5542

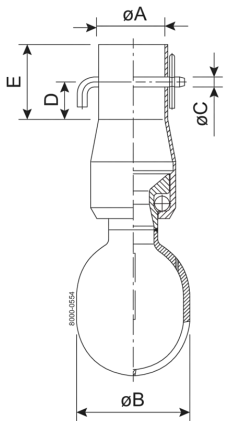
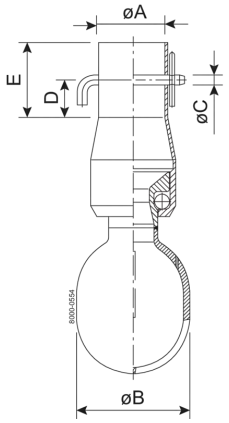
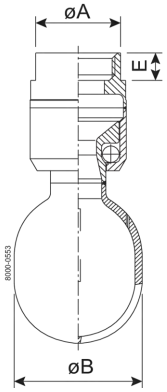
Finish: Bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Clip-on (1" US tube)								
TE10B10201 TE10B13201	6.0 6.5	spp360 spp270UP	25.7 25.7	45.0 45.0	4.2 4.2	15.0 15.0	30.0 30.0	
Clip-on (1” ISO 2037)								
TE10B10001 TE10B13001	6.0 6.5	spp360 spp270UP	25.3 25.3	45.0 45.0	4.2 4.2	15.0 15.0	30.0 30.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5542

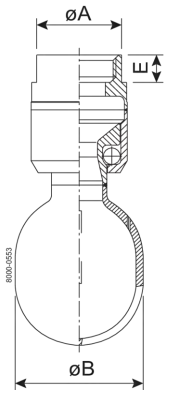
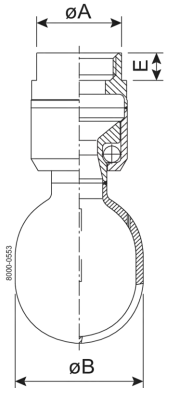
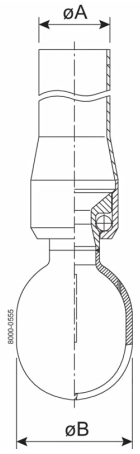
Finish: Bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
								Clip-on (DN25 DIN11850-R1)
TE10B10501 TE10B13501	6.0 6.5	spp360 spp270UP	28.3 28.3	45.0 45.0	4.2 4.2	15.0 15.0	30.0 30.0	
								Clip-on (DN25 DIN11850-R2)
TE10B10601 TE10B13601	6.0 6.5	spp360 spp270UP	29.3 29.3	45.0 45.0	4.2 4.2	15.0 15.0	30.0 30.0	
								Thread (½" NPT-female)
TE10B02201 TE10B00201 TE10B03201	3.5 5.5 6.0	spp18 DOWN spp360 spp270UP	30.0 30.0 30.0	45.0 45.0 45.0	- - -	- - -	10.0 10.0 10.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5542

Finish: Bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
								Thread (¾" Rp-female (BSP))
TE10B02101	3.5	spp18 DOWN	30.0	45.0	-	-	10.0	
TE10B00101	5.5	spp360	30.0	45.0	-	-	10.0	
TE10B03101	6.0	spp270UP	30.0	45.0	-	-	10.0	
								Thread (¾" NPT-female)
TE10B02301	3.5	spp18 DOWN	30.0	45.0	-	-	10.0	
TE10B00301	5.5	spp360	30.0	45.0	-	-	10.0	
TE10B03301	6.0	spp270UP	30.0	45.0	-	-	10.0	
								Weld-on (1" ASME BPE)
TE10B22301	3.5	spp18 DOWN	25.4 x 1.65	45.0	-	-	-	
TE10B20301	5.5	spp360	25.4 x 1.65	45.0	-	-	-	
TE10B23301	6.0	spp270UP	25.4 x 1.65	45.0	-	-	-	

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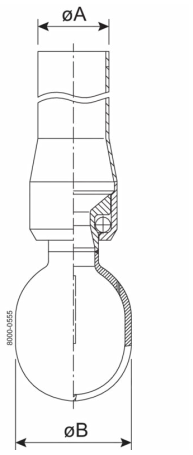
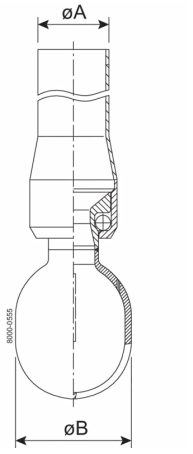
ALSIS Code: 5542

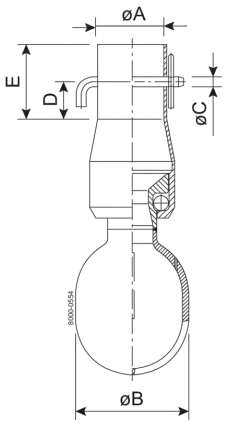
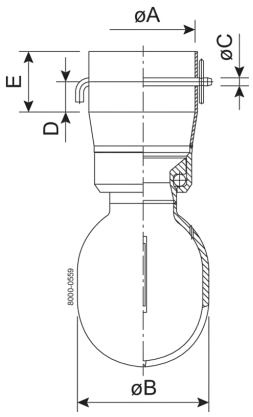
Finish: Bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Weld-on (1" ISO 2037)								
TE10B22201	3.5	spp18 DOWN	25.0 x 1.2	45.0	-	-	-	
TE10B20201	5.5	spp360	25.0 x 1.2	45.0	-	-	-	
TE10B23201	6.0	spp270UP	25.0 x 1.2	45.0	-	-	-	
Weld-on (DN25 DIN11850-R2)								
TE10B22401	3.5	spp18 DOWN	29.0 x 1.5	45.0	-	-	-	
TE10B20401	5.5	spp360	29.0 x 1.5	45.0	-	-	-	
TE10B23401	6.0	spp270UP	29.0 x 1.5	45.0	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5472

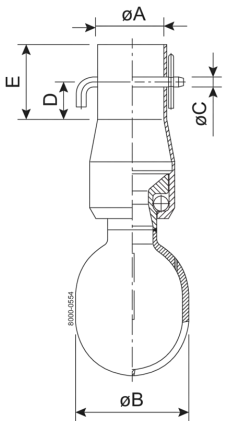
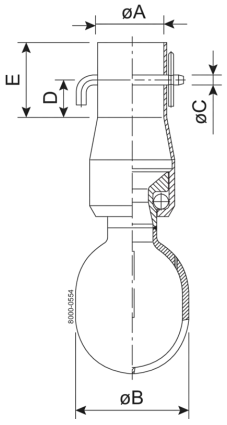
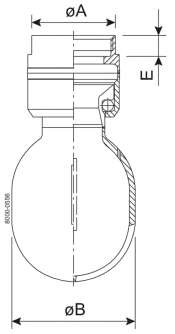
Finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
								Clip-on (1½" ISO 2037/US tube)
TE11B140	12.5	spp360LOW	38.4	65.0	4.2	15.0	30.0	
TE11B150	12.5	spp270UPLOW	38.4	65.0	4.2	15.0	30.0	
TE11B100	17.0	spp360	38.4	65.0	4.2	15.0	30.0	
TE11B130	17.0	spp270UP	38.4	65.0	4.2	15.0	30.0	
								Clip-on (2" ISO 2037/US tube)
TE11B144	12.5	spp360LOW	51.25	65.0	4.2	15.0	30.0	
TE11B154	12.5	spp270UPLOW	51.25	65.0	4.2	15.0	30.0	
TE11B104	17.0	spp360	51.25	65.0	4.2	15.0	30.0	
TE11B134	17.0	spp270UP	51.25	65.0	4.2	15.0	30.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5472

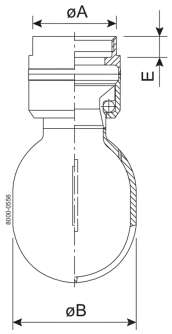
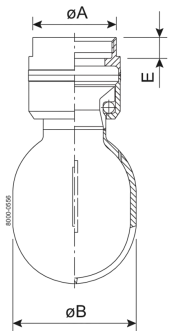
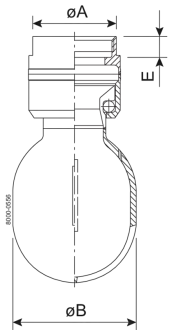
Finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
								Clip-on (DN40 DIN11850-R1)
TE11B145	12.5	spp360LOW	40.4	65.0	4.2	15.0	30.0	
TE11B155	12.5	spp270UPLOW	40.4	65.0	4.2	15.0	30.0	
TE11B105	17.0	spp360	40.4	65.0	4.2	15.0	30.0	
TE11B135	17.0	spp270UP	40.4	65.0	4.2	15.0	30.0	
								Clip-on (DN40 DIN11850-R2)
TE11B146	12.5	spp360LOW	41.4	65.0	4.2	15.0	30.0	
TE11B156	12.5	spp270UPLOW	41.4	65.0	4.2	15.0	30.0	
TE11B136	17.0	spp270UP	41.4	65.0	4.2	15.0	30.0	
TE11B106	17.0	spp360	41.4	65.0	4.2	15.0	30.0	
								Thread (1¼" NPT-female)
TE11B022	10.0	spp18 DOWN	44.0	65.0	-	-	10.0	
TE11B046	11.0	spp270UPLOW	44.0	65.0	-	-	10.0	
TE11B043	11.0	spp360LOW	44.0	65.0	-	-	10.0	
TE11B002	15.5	spp360	44.0	65.0	-	-	10.0	
TE11B032	15.5	spp270UP	44.0	65.0	-	-	10.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5472

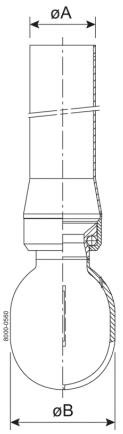
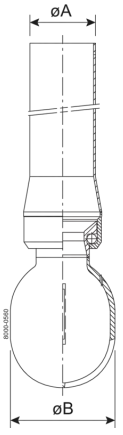
Finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Thread (1¼" Rp-female (BSP))								
TE11B020	10.0	spp18 DOWN	44.0	65.0	-	-	10.0	
TE11B045	11.0	spp270UPLOW	46.0	65.0	-	-	10.0	
TE11B041	11.0	spp360LOW	44.0	65.0	-	-	10.0	
TE11B000	15.5	spp360	44.0	65.0	-	-	10.0	
TE11B030	15.5	spp270UP	44.0	65.0	-	-	10.0	
Thread (1½" NPT-female)								
9618291446	9.8	spp270UPLOW	44.0	65.0	-	-	10.0	
TE11B023	10.0	spp18 DOWN	44.0	65.0	-	-	10.0	
TE11B013	11.0	spp360LOW	44.0	65.0	-	-	10.0	
TE11B003	15.5	spp360	44.0	65.0	-	-	10.0	
TE11B033	15.5	spp270UP	44.0	65.0	-	-	10.0	
Thread (1½" Rp-female (BSP))								
TE11B024	10.0	spp18 DOWN	44.0	65.0	-	-	10.0	
TE11B014	11.0	spp360LOW	44.0	65.0	-	-	10.0	
TE11B054	11.0	spp270UPLOW	44.0	65.0	-	-	10.0	
TE11B004	15.5	spp360	44.0	65.0	-	-	10.0	
TE11B034	15.5	spp270UP	44.0	65.0	-	-	10.0	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5472

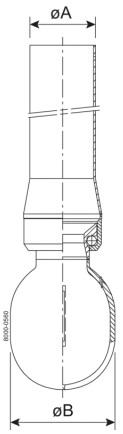
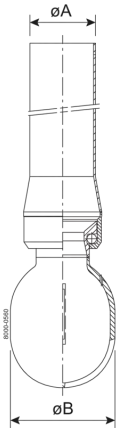
Finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Weld-on (1½" ISO 2037)								
TE11B222	10.0	spp18 DOWN	38.0 x 1.2	65.0	-	-	-	
TE11B242	11.0	spp360LOW	38.0 x 1.2	65.0	-	-	-	
TE11B248	11.0	spp270UPLOW	38.0 x 1.2	65.0	-	-	-	
TE11B202	15.5	spp360	38.0 x 1.2	65.0	-	-	-	
TE11B232	15.5	spp270UP	38.0 x 1.2	65.0	-	-	-	
Weld-on (1½" ISO 2037/ASME BPE tube)								
9618290866	10.0	spp18 DOWN	38.1 x 1.65	65.0	-	-	-	
TE11B262	11.0	spp360LOW	38.1 x 1.65	65.0	-	-	-	
TE11B292	11.0	spp270UPLOW	38.1 x 1.65	65.0	-	-	-	
TE11B252	15.5	spp360	38.1 x 1.65	65.0	-	-	-	
TE11B282	15.5	spp270UP	38.1 x 1.65	65.0	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5472

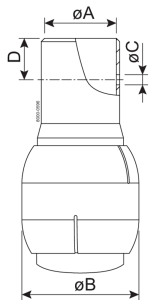
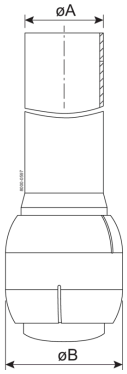
Finish: Semi bright
Standard certificate: 2.2

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Weld-on (2" ISO 2037/ASME BPE tube)								
TE11B273	10.0	spp18 DOWN	50.8 x 1.65	65.0	-	-	-	
TE11B263	11.0	spp360LOW	50.8 x 1.65	65.0	-	-	-	
TE11B293	11.0	spp270UPLOW	50.8 x 1.65	65.0	-	-	-	
TE11B253	15.5	spp360	50.8 x 1.65	65.0	-	-	-	
TE11B283	15.5	spp270UP	50.8 x 1.65	65.0	-	-	-	
Weld-on (DN40 DIN11850-R2)								
TE11B224	10.0	spp18 DOWN	41.0 x 1.5	65.0	-	-	-	
TE11B244	11.0	spp360LOW	41.0 x 1.5	65.0	-	-	-	
TE11B249	11.0	spp270UPLOW	41.0 x 1.5	65.0	-	-	-	
TE11B204	15.5	spp360	41.0 x 1.5	65.0	-	-	-	
TE11B234	15.5	spp270UP	41.0 x 1.5	65.0	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5545

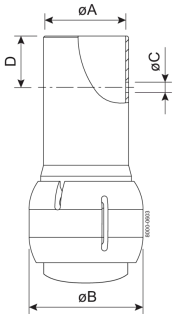
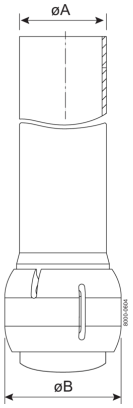
Surface finish: 0.8 µm Ra machined
Standard certificate: 2.2
Material: 3A

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Clip-on - 3-A								
TE16B13200	7.25	spp270UP	25.7	42.0	4.1	15.0	-	
TE16B18200	7.25	spp270UP	38.4	42.0	4.1	25.4	-	
TE16B10200	7.5	spp360	25.7	42.0	4.1	15.0	-	
TE16B15200	7.5	spp360	38.4	42.0	4.1	25.4	-	
Weld-on - 3-A								
TE16B23200	6.8	spp270UP	25.0	42.0	-	-	-	
TE16B23300	6.8	spp270UP	25.4	42.0	-	-	-	
TE16B20200	7.0	spp360	25.0	42.0	-	-	-	
TE16B20300	7.0	spp360	25.4	42.0	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5468

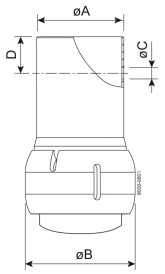
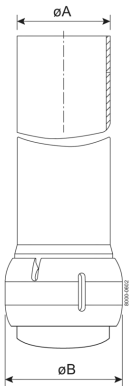
Finish: 0.8µm Ra machined
Standard certificate: 2.2
Material: 3A

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Clip-on 1½" ISO 2037 and 1½" BPE US								
TE17B13200	12.7	spp270UP	38.4	54.7	4.1	25.4	-	
TE17B10200	13.2	spp360	38.4	54.7	4.1	25.4	-	
Weld-on 1½" ISO 2037 and 1½" BPE US								
TE17B23300	12.1	spp270UP	38.00	54.7	-	-	-	
TE17B23200	12.1	spp270UP	38.00	54.7	-	-	-	
TE17B20300	12.6	spp360	38.00	54.7	-	-	-	
TE17B20200	12.6	spp360	38.00	54.7	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5469

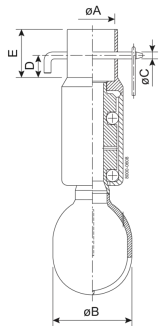
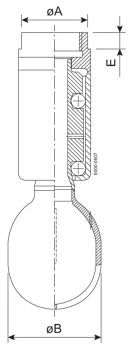
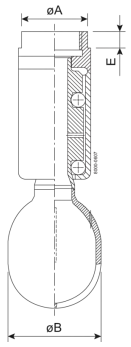
Finish: 0.8µm Ra machined
Standard certificate: 2.1
Material:

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Clip-on 2" BPE US								
TE18B13200	22.5	spp270UP	51.1	67.4	5.1	25.4	-	
TE18B10200	23.0	spp360	51.1	67.4	5.1	25.4	-	
Weld-on 2" BPE US								
TE18B23300	20.5	spp270UP	50.8	67.4	-	-	-	
TE18B20300	21.0	spp360	50.8	67.4	-	-	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5543

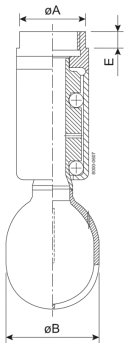
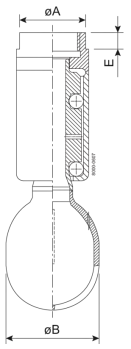
Finish: Semi bright
Standard certificate: 2.1
Material: Stainless steel

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
Clip-on (1" ISO 2037)								
TE10M106	6.0	spp360	25.3	45.0	4.2	15.0	30.0	
TE10M136	6.5	spp270UP	25.3	45.0	4.2	15.0	30.0	
Thread (½" Rp-female (BSP))								
TE10M020	3.5	spp18 DOWN	32.0	45.0	-	-	9.0	
TE10M000	5.5	spp360	32.0	45.0	-	-	9.0	
TE10M030	6.0	spp270UP	32.0	45.0	-	-	9.0	
Thread (½" NPT-female)								
TE10M022	3.5	spp18 DOWN	32.0	45.0	-	-	22.5	
9618290174	3.5	spp18 DOWN	32.0	45.0	-	-	22.5	
TE10M002	5.5	spp360	32.0	45.0	-	-	22.5	
9618290836	6.0	spp270UP	32.0	45.0	-	-	22.5	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5543

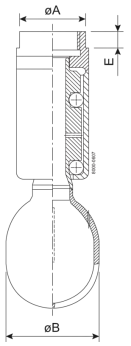
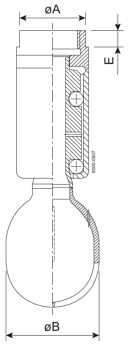
Finish: Semi bright
Standard certificate: 2.1
Material: Stainless steel

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	D	E	
								Thread (¾" Rp-female (BSP))
TE10M021	3.5	spp18 DOWN	32.0	45.0	-	-	9.0	
TE10M001	5.5	spp360	32.0	45.0	-	-	9.0	
TE10M031	6.0	spp270UP	32.0	45.0	-	-	9.0	
								Thread (¾" NPT-female)
TE10M023	3.5	spp18 DOWN	32.0	45.0	-	-	22.5	
TE10M003	5.5	spp360	32.0	45.0	-	-	22.5	
TE10M033	6.0	spp270UP	32.0	45.0	-	-	22.5	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

ALSIS Code: 5473

Finish: Semi bright
Standard certificate: 2.1
Material: Stainless steel

Item no.	Flow at 2 bar	Spray pattern	Dimension (mm)					
	m3/h		øA	øB	øC	E	D	
								Thread (1¼" NPT-female)
TE11M022	10.0	spp18 DOWN	46.0	65.0	-	15.0	-	
TE11M002	15.0	spp360	46.0	65.0	-	15.0	-	
9618291294	15.0	spp270UP	46.0	65.0	-	15.0	-	
								Thread (1¼" Rp-female (BSP))
TE11M020	10.0	spp18 DOWN	46.0	65.0	-	15.0	-	
TE11M000	15.0	spp360	44.0	65.0	-	15.0	-	
TE11M030	15.0	spp270UP	46.0	65.0	-	15.0	-	

NOTE! Other options, material, configuration is available, please check the Anytime configurator or contact your local Alfa Laval office

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Static spray balls

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

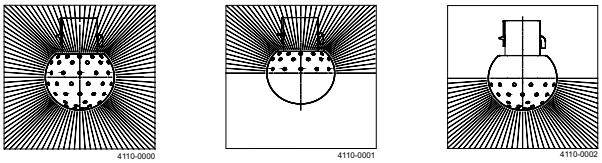
The Alfa Laval LKRK shoots a small jet of fluid in: all directions (version F), upwards (version T) or downwards (version B). This allows the tanks to be cleaned by dousing the interior surfaces with small jets of hot water and/or chemicals which create a falling film of cleaning fluid that runs down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

Cleaning Pattern



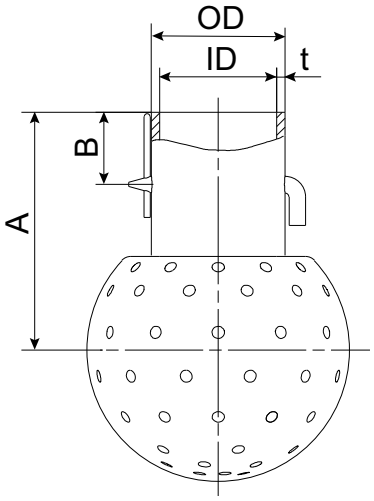
F-version T-version B-version

PHYSICAL DATA

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

Connections LKRK	
Type LKRK 64	
ISO tube:	0.98 inch
DIN tube:	DN25 - pipe range 1 and 2
Type LKRK 94	
ISO tube:	2.01 inch
DIN tube:	DN50 - pipe range 1 and 2

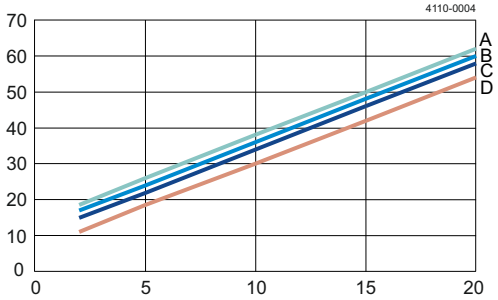
Dimensions (inch)



Size	1"	2"
A	2.28	3.05
B	0.69	0.89
US tube ID	1.01	2.03
ISO tube OD/ID/t	1.12/1.00/0.06	2.14/2.02/0.06
DIN tube OD/ID/t Pipe range 1	1.28/1.12/0.08	2.14/2.06/0.04
DIN tube OD/ID/t Pipe range 2	1.35/1.16/0.09	2.26/2.10/0.08
Weight, lb	0.44	0.66

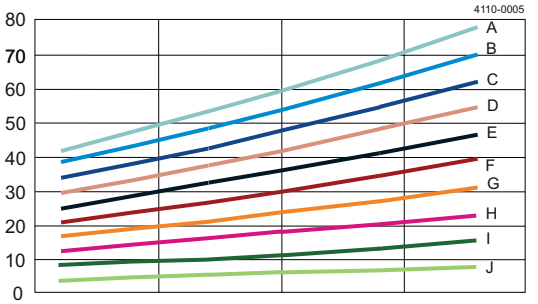
Flow rate demand

Horizontal tank



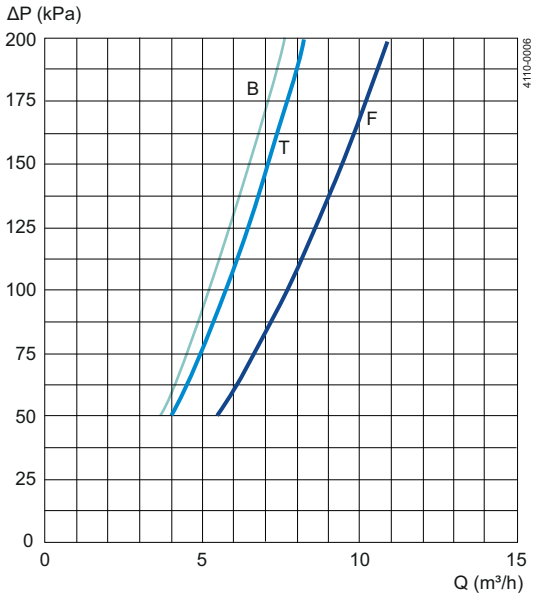
A = ø5.5 m
B = ø4.5 m
C = ø3.5 m
D = ø2.5 m

Vertical tank

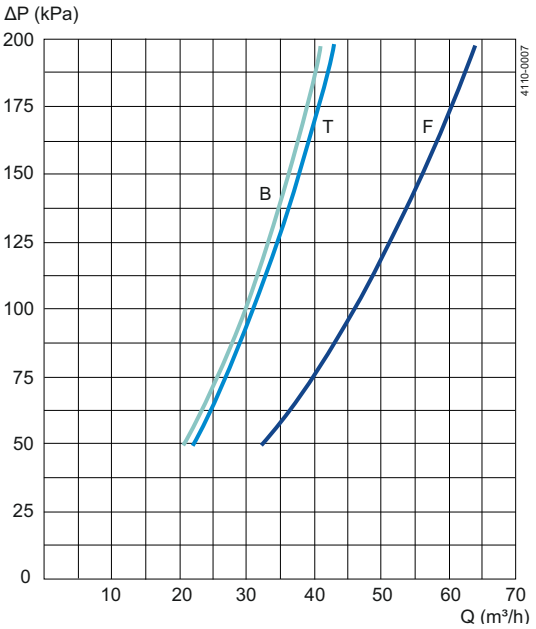


A = ø10 m
B = ø9 m
C = ø8 m
D = ø7 m
E = ø6 m
F = ø5 m
G = ø4 m
H = ø3 m
I = ø2 m
J = ø1 m

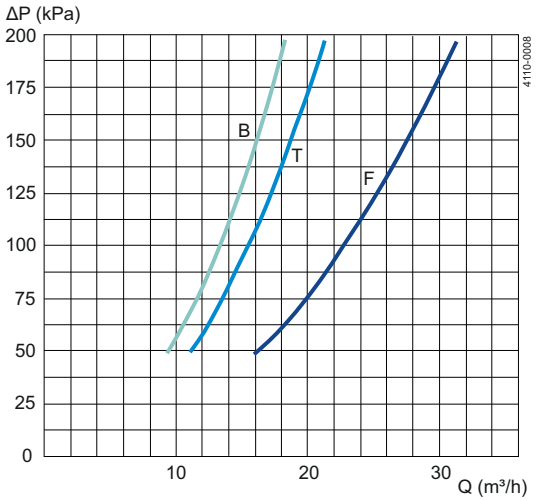
Capacity diagrams - LKRK



Type LKRK 64 with 2 mm holes:
bottom drilled, top drilled, fully drilled
B = Bottom drilled
T = Top drilled
F = Fully drilled

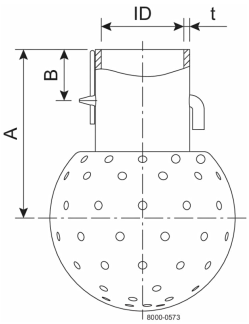
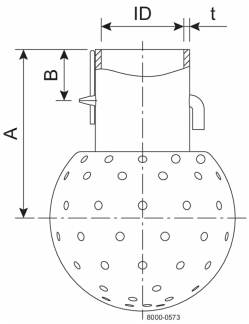
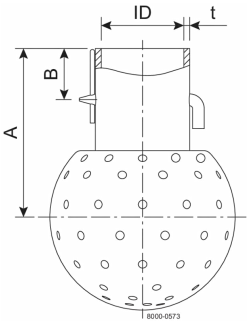


Type LKRK 94 with 3 mm holes, 51 mm (DN50) tube:
bottom drilled, top drilled, fully drilled
B = Bottom drilled
T = Top drilled
F = Fully drilled

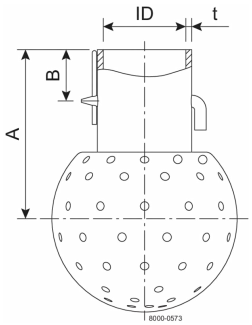
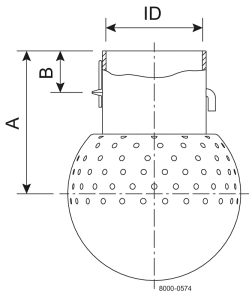
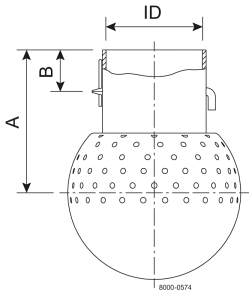


Type LKRK 94 with 2 mm holes, 51 mm (DN50) tube:
bottom drilled, top drilled, fully drilled
B = Bottom drilled
T = Top drilled
F = Fully drilled

Finish: Bright
Standard certificate: 2.1

Item no.	Flow at 2 bar	Type	Dimension (mm)			
	m3/h		A	B	ID	
						Clip-on (1” ISO 2037)
9611710851	7.5	LKRK-2B ø64	58	17.5	25.5	
9611710861	8.5	LKRK-2T ø64	58	17.5	25.5	
9611710871	11	LKRK-2F ø64	58	17.5	25.5	
						Clip-on (2" ISO 2037/US tube)
9611710951	18	LKRK-2B ø94	77.5	22.5	51.4	
9611710961	21	LKRK-2T ø94	77.5	22.5	51.4	
9611710971	31	LKRK-2F ø94	77.5	22.5	51.4	
9611710952	42	LKRK-3B ø94	77.5	22.5	51.4	
9611710962	44	LKRK-3T ø94	77.5	22.5	51.4	
9611710972	64	LKRK-3F ø94	77.5	22.5	51.4	
						Clip-on (DN25 DIN11850-R1)
9611710852	7.5	LKRK-2B ø64	58	17.5	28.5	
9611710862	8.5	LKRK-2T ø64	58	17.5	28.5	
9611710872	11	LKRK-2F ø64	58	17.5	28.5	

Finish: Bright
Standard certificate: 2.1

Item no.	Flow at 2 bar	Type	Dimension (mm)			
	m3/h		A	B	ID	
						Clip-on (DN25 DIN11850-R2)
9611710855	7.5	LKRK-2B ø64	58	17.5	29.5	
9611710865	8.5	LKRK-2T ø64	58	17.5	29.5	
9611710875	11	LKRK-2F ø64	58	17.5	29.5	
						Clip-on (DN50 DIN11850-R1)
9611710953	18	LKRK-2B ø94	77.5	22.5	52.4	
9611710963	21	LKRK-2T ø94	77.5	22.5	52.4	
9611710973	31	LKRK-2F ø94	77.5	22.5	52.4	
9611710954	42	LKRK-3B ø94	77.5	22.5	52.4	
9611710964	44	LKRK-3T ø94	77.5	22.5	52.4	
9611710974	64	LKRK-3F ø94	77.5	22.5	52.4	
						Clip-on (DN50 DIN11850-R2)
9611710955	18	LKRK-2B ø94	77.5	22.5	53.4	
9611710965	21	LKRK-2T ø94	77.5	22.5	53.4	
9611710975	31	LKRK-2F ø94	77.5	22.5	53.4	
9611710966	44	LKRK-3T ø94	77.5	22.5	53.4	
9611710976	64	LKRK-3F ø94	77.5	22.5	53.4	

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Alfa Laval is active in the areas of Energy, Marine, and Food & Water, offering its expertise, products, and service to a wide range of industries in some 100 countries. The company is committed to optimizing processes, creating responsible growth, and driving progress – always going the extra mile to support customers in achieving their business goals and sustainability targets.

Alfa Laval's innovative technologies are dedicated to purifying, refining, and reusing materials, promoting more responsible use of natural resources. They contribute to improved energy efficiency and heat recovery, better water treatment, and reduced emissions. Thereby, Alfa Laval is not only accelerating success for its customers, but also for people and the planet. Making the world better, every day. It's all about Advancing better™.

How to contact Alfa Laval

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