Alfa Laval GJ PF

Fast, Effective Impact Cleaning

Application

The field-proven Alfa Laval GJ PF is part of the world-renowned range of Gamajet high impact tank cleaning devices. It has been proven to provide companies with up to 85% in water, time, energy, and resource savings compared to static spray balls. This device is capable of cleaning tanks with capacities between 18.9 m³ - 94.6 m³. The Alfa Laval GJ PF fits through openings as small as 10 cm and operates at low pressures and flows, cleaning tanks in the ethanol, paper, pulp, chemical, steel, industrial fermentation industry, and many other applications that require high impact cleaning. By implementing this device into their tank cleaning process, companies spend less time cleaning and more time producing.

Working principle

The Gamajet range of high impact tank cleaning devices combine pressure and flow to create high impact cleaning jets. Cleaning occurs at the point at which the concentrated stream impacts the surface. It is this impact and the tangential force that radiates from that point which blasts contaminants from the surface, scouring the tank interior. In conjunction with this impact, the device is engineered to rotate in a precise, repeatable and reliable, 360° pattern. This full-coverage, global indexing pattern ensures the entire tank interior is cleaned, every time.

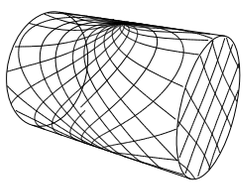
TECHNICAL DATA

Lubricant . . . . . Food grade
Max. throw length . . . . . 14 - 20 m

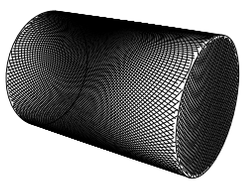
Pressure

Working pressure . . . . . 3 - 28+ bar
Recommended pressure . . . . . 4 - 20 bar

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, PPS, PTFE, EPDM (FKM and FFKM available).

Temperature

Max. working temperature . . . . . 90°C
Max. ambient temperature . . . . . 140°C

Weight . . . . . 4.5 kg
Surface finish . . . . . 0.8 µm

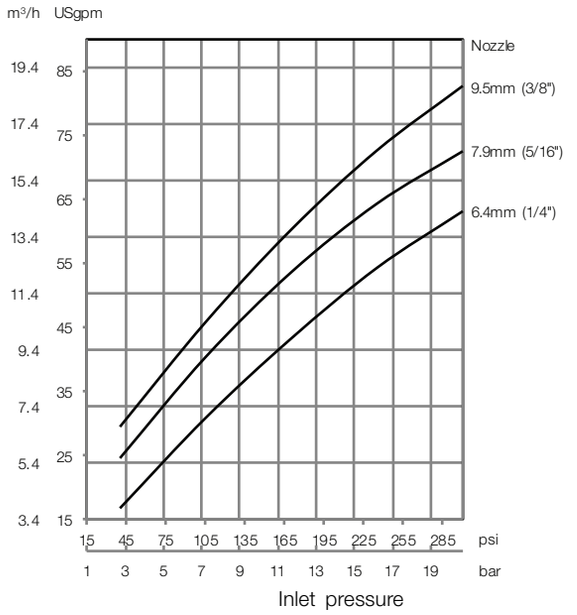
Connections

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

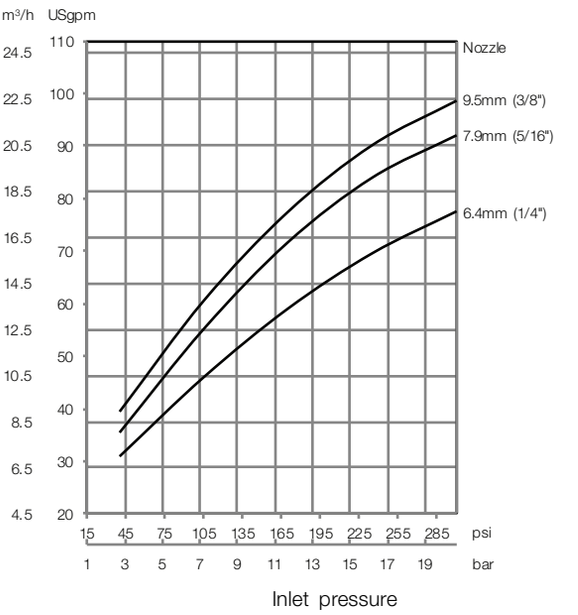
Caution

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.

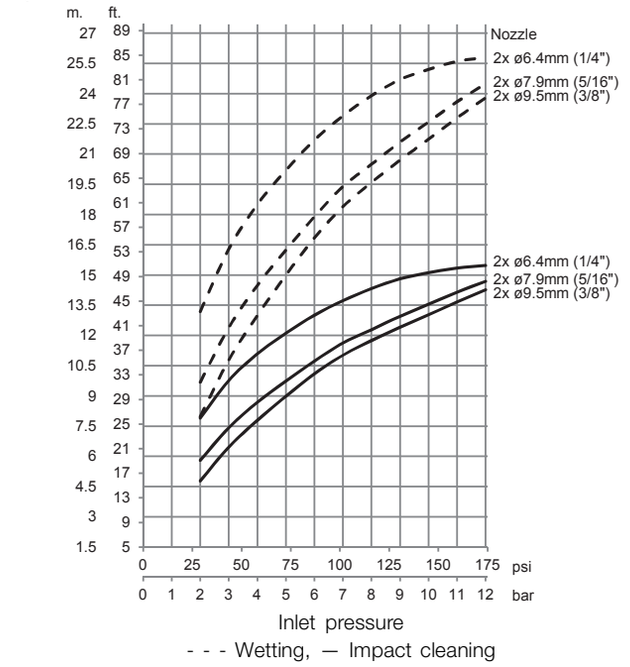
Flow Rate 2-nozzle



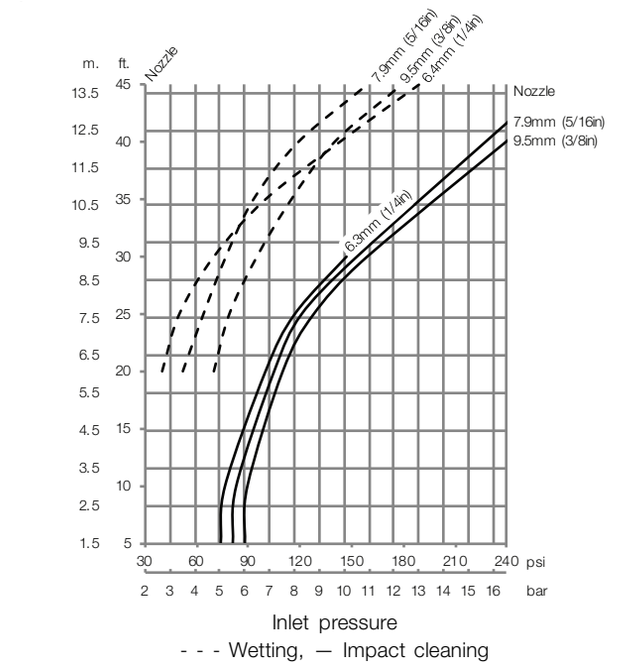
Flow Rate 4-nozzle



Impact 2-nozzle

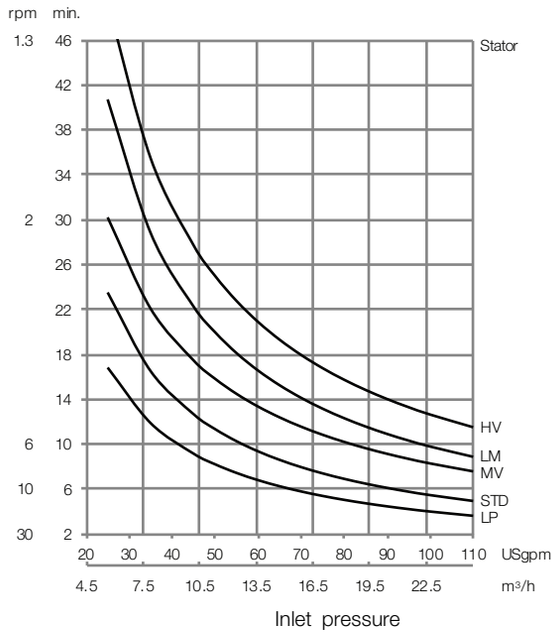


Impact 4-nozzle

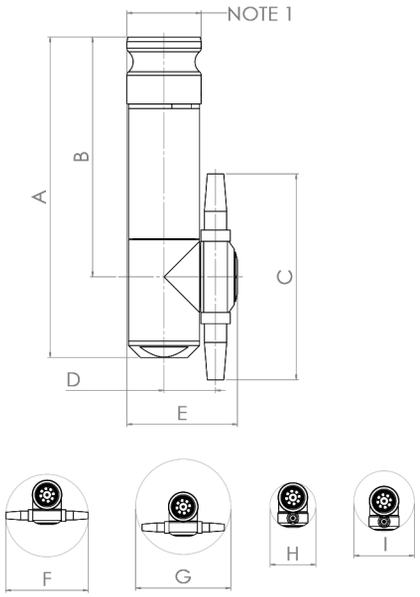


Custom inlets available. Contact your local Alfa Laval representative for details.

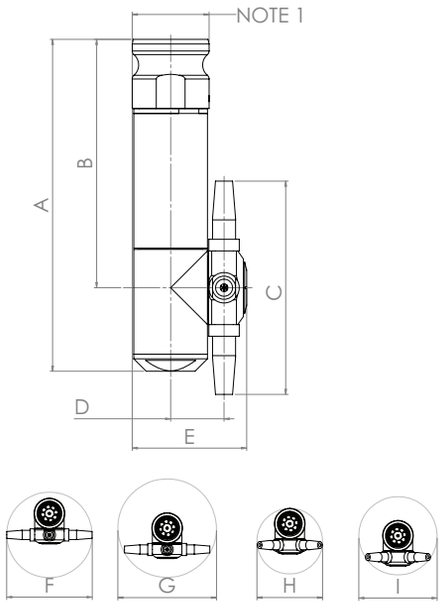
Cleaning Time



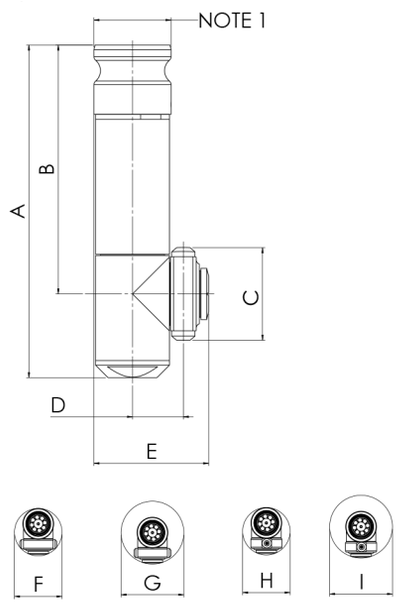
Dimensions 2-nozzle



Dimensions 4-nozzle



Dimensions low-profile



Dimensions 2-nozzle (mm)

A	B	C	D	E	F	G	H	I
272	204	175	44	94	176	202	98	129

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

Dimensions 4-nozzle (mm)

A	B	C	D	E	F	G	H	I
272	204	175	44	94	176	202	134.47	160.35

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

Dimensions low-profile version (mm)

A	B	C	D	E	F	G	H	I
272	204	76	42	94	97	129	97	129

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

1.3

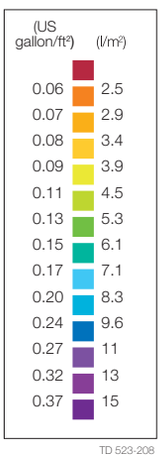
Standard Design

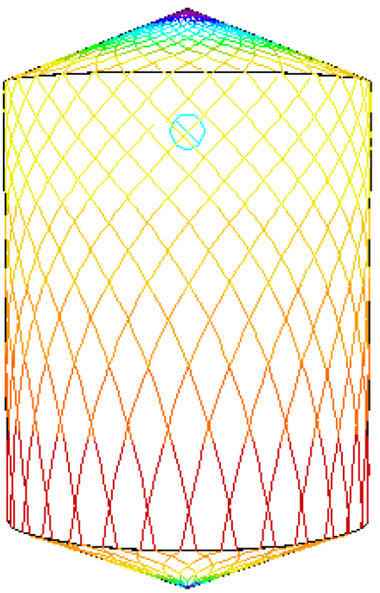
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ PF can be supplied with a “Declaration of Conformity” for material specifications.

TRAX simulation tool

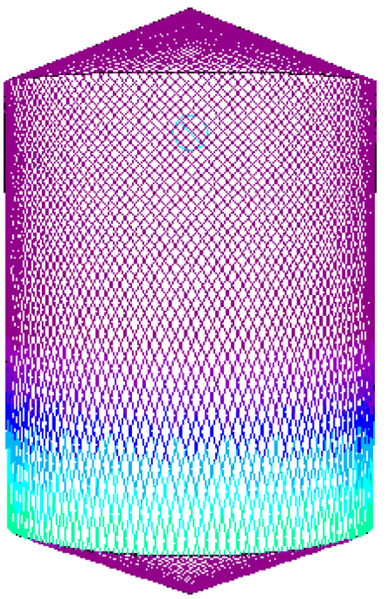
TRAX is a unique software that simulates how the Alfa Laval GJ PF performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct 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





D9.1m, H14.7m, 2xØ7.94mm Time = 4.25 min.



D9.1m, H14.7m, 2xØ7.94mmTime = 17 min.

Alfa Laval GJ PF FT

Powerful tank cleaning at a range of pressures and flows

Application

The Alfa Laval GJ PF FT tank cleaning device provides companies with up to 85% savings in water, time, energy, and resources compared to static spray ball tank cleaning. It is ideal for retrofit applications in tanks with capacities between 18.9 m³ - 94.6 m³ (5,000-25,000 gallons) in hygienic applications, such as food and beverage and personal care environments. The Alfa Laval GJ PF FT fits through openings as small as 10 cm (4") and operates at low pressures and flows.

Working principle

The GJ range of high impact tank cleaning devices combine pressure and flow to create high impact cleaning jets. Cleaning occurs at the point at which the concentrated stream impacts the surface. It is this impact and the tangential force that radiates from that point which blasts contaminants from the surface, scouring the tank interior. In conjunction with this impact, the device is engineered to rotate in a precise, repeatable and reliable, 360° pattern. This full-coverage, global indexing pattern ensures the entire tank interior is cleaned, every time.

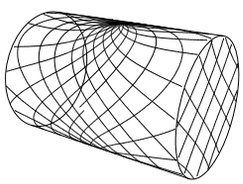
TECHNICAL DATA

Lubricant	Self-lubricating with the cleaning fluid
Max. throw length	14 - 20 m

Pressure

Working pressure	3 - 28+ bar
Recommended pressure	4 - 20 bar

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

PHYSICAL DATA

Materials

316L, PPS*, PTFE*, EPDM* (FKM* and FFKM* available)
* FDA compliance 21CFR§177

Temperature

Max. working temperature	90°C
Max. ambient temperature	140°C

Weight	4.5kg
Surface finish	0.8 µm

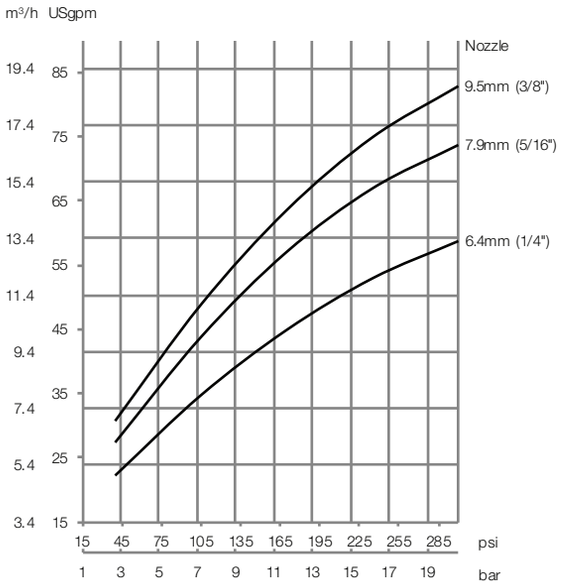
Connections

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

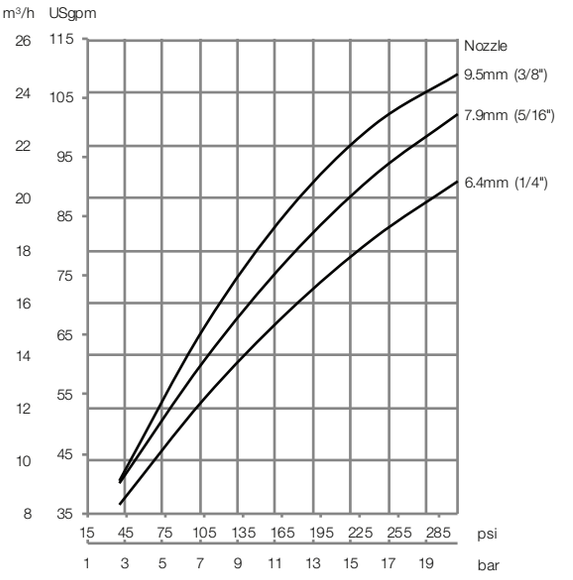
Caution

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.

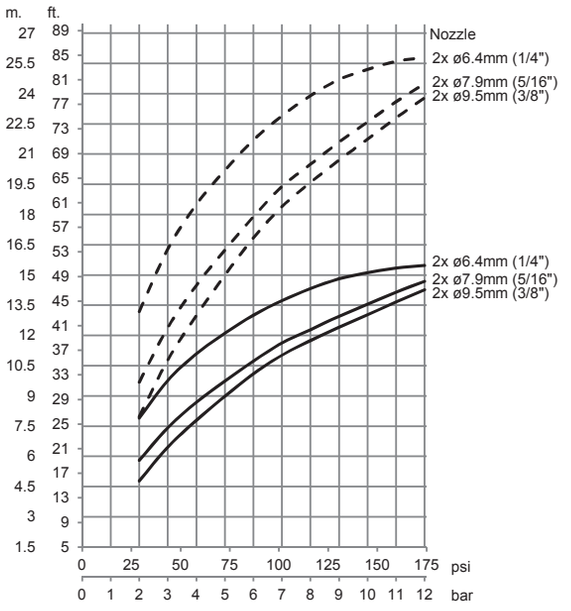
Flow Rate 2-nozzle



Flow Rate 4-nozzle

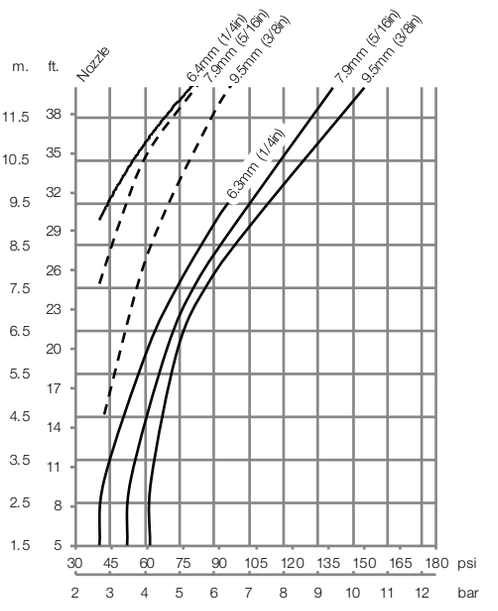


Impact 2-nozzle



- - - Wetting, — Impact cleaning

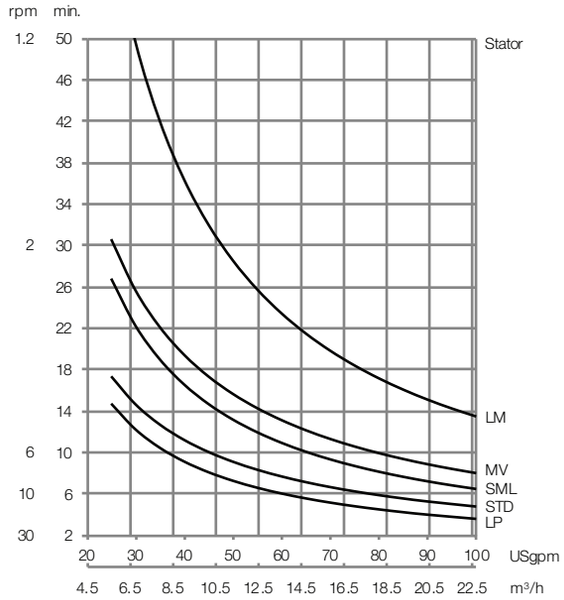
Impact 4-nozzle



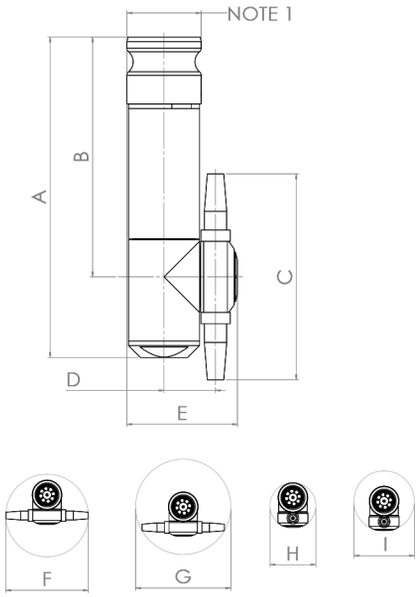
- - - Wetting, — Impact cleaning

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

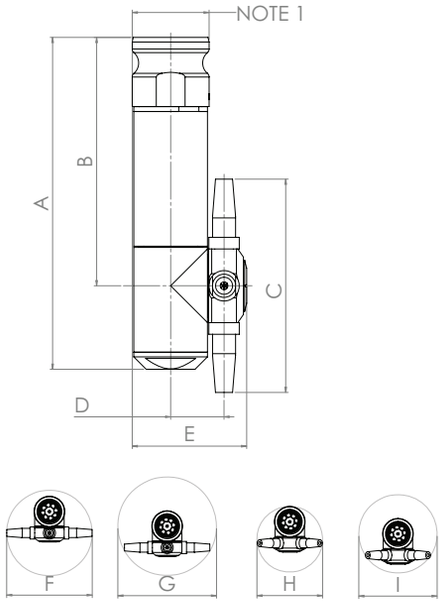
Cleaning Time



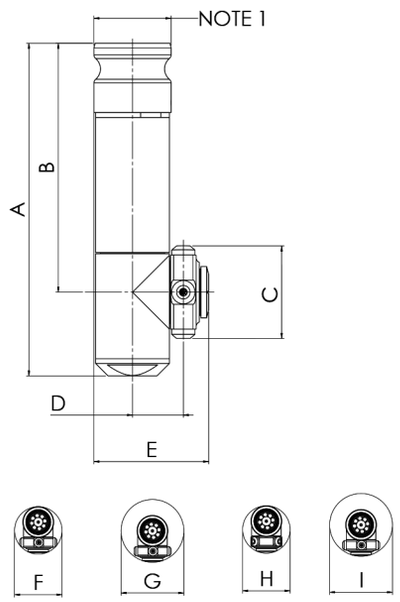
Dimensions 2-nozzle



Dimensions 4-nozzle



Dimensions low-profile



Dimensions 2-nozzle

	A	B	C	D	E	F	G	H	I
mm	272	204	175	44	94	176	202	98	129

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

Dimensions 4-nozzle

	A	B	C	D	E	F	G	H	I
mm	272	204	175	44	94	176	202	134.47	160.35

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

Dimensions low-profile version

	A	B	C	D	E	F	G	H	I
mm	272	204	76	42	94	97	129	97	129

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

Standard Design

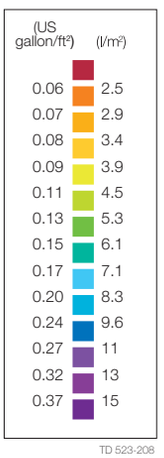
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ PF FT version can be supplied with a “Declaration of Conformity” for material specifications.

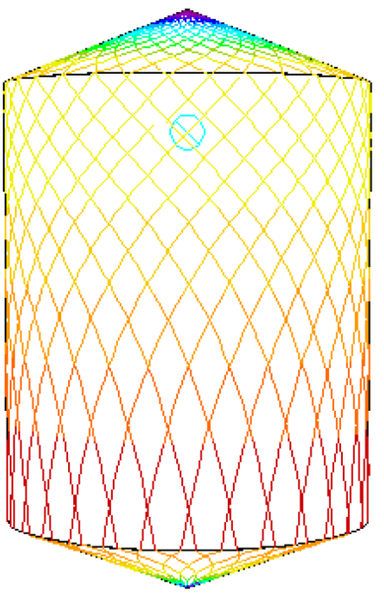
1.3

TRAX simulation tool

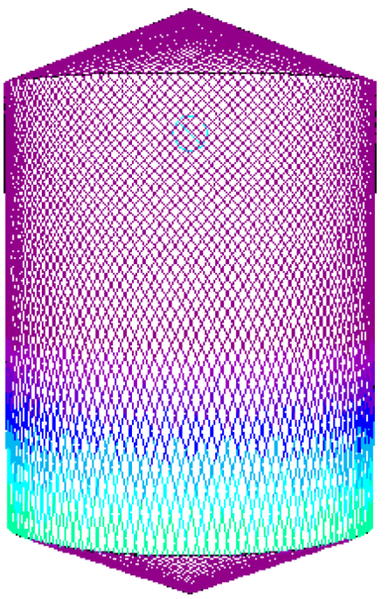
TRAX is a unique software that simulates how the Alfa Laval GJ PF FT version performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device 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





D9.1m (360”), H14.7m (580”), 2xØ7.94mm (2xØ5/16”) Time = 4.25 min.



D9.1m (360”), H14.7m (580”), 2xØ7.94mm (2xØ5/16”) Time = 17 min.

Alfa Laval MultiJet 25

Fast, Effective Impact Cleaning

Application

The Toftejorg MultiJet 25 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is ideal for applications where cost-effective impact cleaning with rotary jet heads is needed, but where compliance with hygienic design standards is not a requirement. The device is suitable for process, storage and transportation tanks between 15 and 150 m^3. It is designed to work under conditions where finer particles, etc. in the cleaning media may be re-circulated through the machine.

Working principle

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 surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 8 cycles.

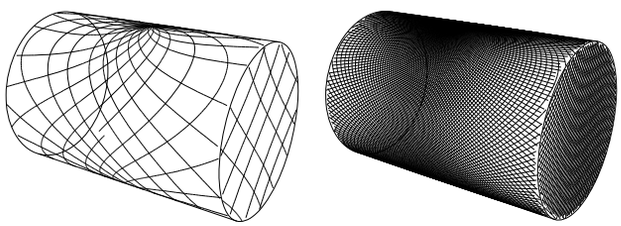
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Max throw length: . . . . . 9 - 14 m
Impact throw length: . . . . . 4 - 8 m

Pressure

Working pressure: . . . . . 3 - 8 bar
Recommended pressure: . . . . 5 - 6.5 bar

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 and ATEX.

PHYSICAL DATA

Materials

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

Surface finish: . . . . . Exterior finish: Glass blasted

Temperature

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

Weight: . . . . . 5.1 kg

Connections

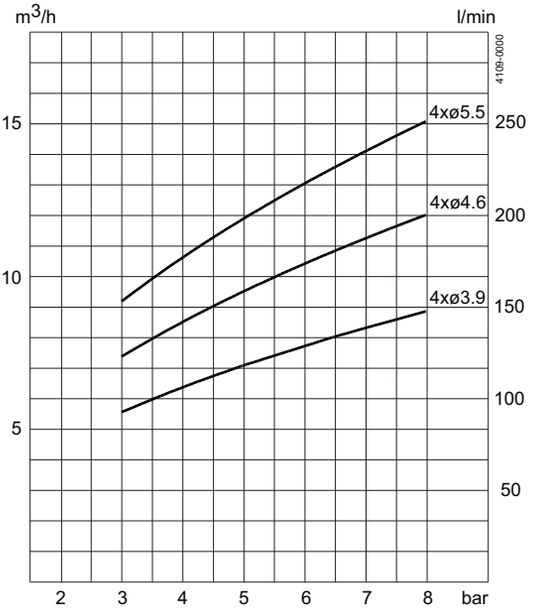
Standard female thread: . . . . . 1” Rp (BSP) or NPT

Caution

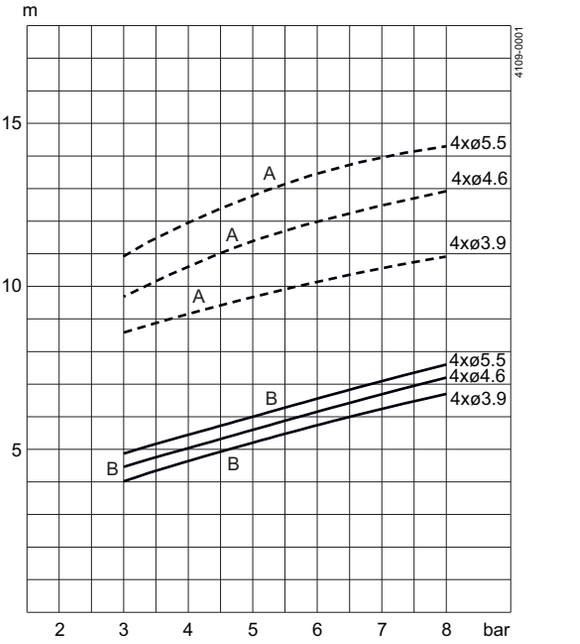
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

1.3

Flow Rate Nozzles mm

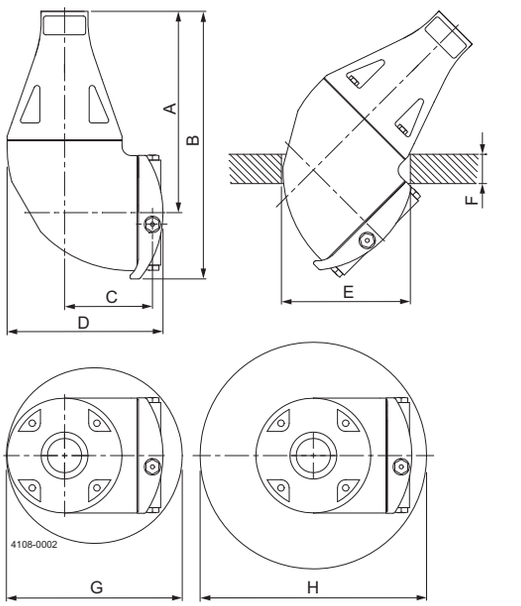


Impact Throw Length Nozzles mm



A: Wetting - B: Impact cleaning

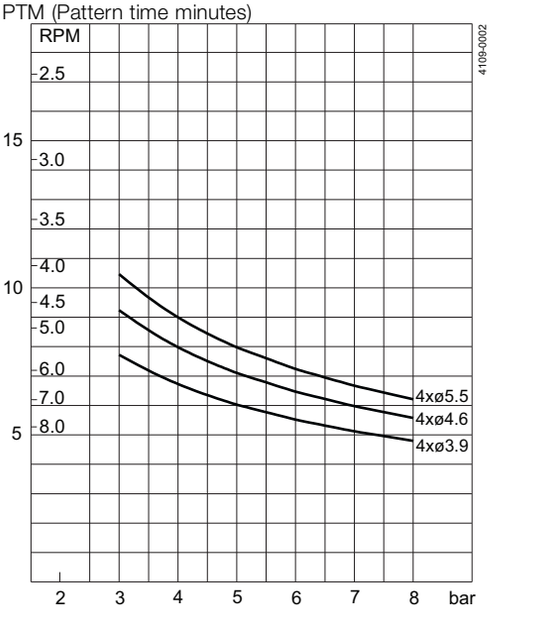
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



A	B	C	D	E	F	G	H
173	230	75	133	ø110	max. 25	ø150	ø200

Standard Design

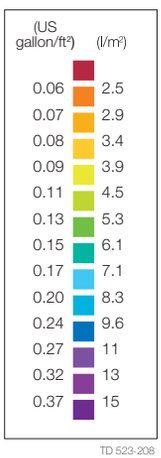
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. The Toftejorg MultiJet 25 is also available with PEEK impeller. A welding adaptor with sealing for 1" ISO, 1" ANSI, 1 1/2" ISO Dairy Pipe or 1 1/2" SWG Pipe is available as an accessory.

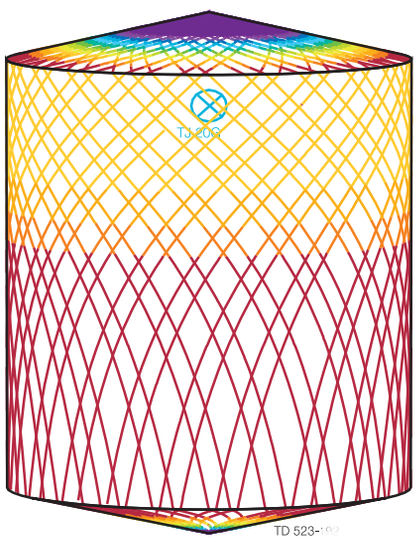
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg MultiJet 25 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.

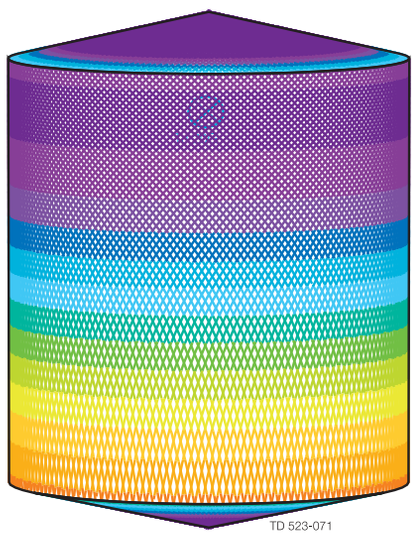
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D4.6m H5.5m, Toftejorg MultiJet 25. 4 x ø5.5 mm, Time = 2.08 min., Water consumption = 403 l



D4.6m H5.5m, Toftejorg MultiJet 25. 4 x ø5.5 mm, Time = 8.3 min., Water consumption = 1612 l

Alfa Laval TJ20G

Award-Winning Design

Application

The Toftejorg TJ20G rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in breweries, food and dairy processes and many other industries, the device is suitable for processing, storage and transportation tanks and vessels between 15 and 150 m^3. The award-winning design is particularly suitable for hygienic industries that follow European Hygienic Equipment Design Group guidelines.

Working principle

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 surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 8 cycles.

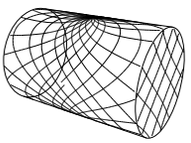
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Standard Surface finish: . . . . . Exterior surface finish Ra 0.8µm
Max throw length: . . . . . 9 - 14 m
Impact throw length: . . . . . 4 - 8 m
Standard thread: . . . . . 1” Rp (BSP) or NPT, female Top cone.
1” Rp (BSP) with hygienic seal

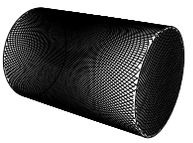
Pressure

Working pressure: . . . . . 3-8 bar
Recommended pressure: . . . . 5-6.5 bar

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*, PEEK*, PVDF*, PFA*
* FDA compliance 21CFR§177

Temperature

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

Weight: . . . . . 5.1 kg

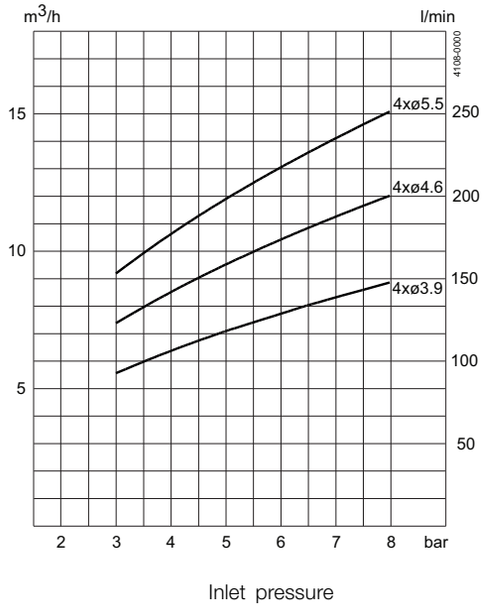
Caution

Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. 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.

Certificates

2.2 material certificate, Q-doc, ATEX

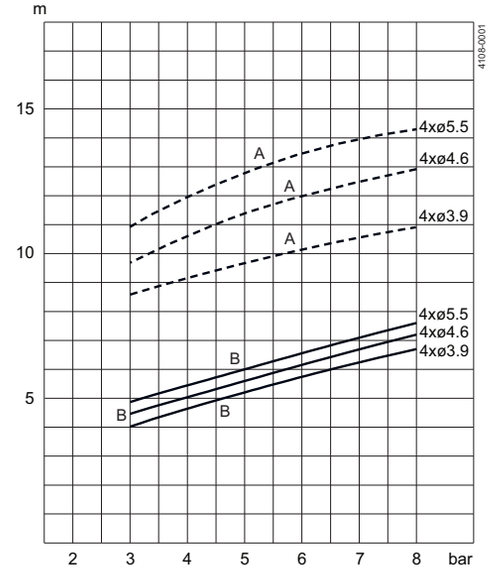
Flow Rate Nozzles mm



Flow rate

Inlet pressure

Impact Throw Length Nozzles mm



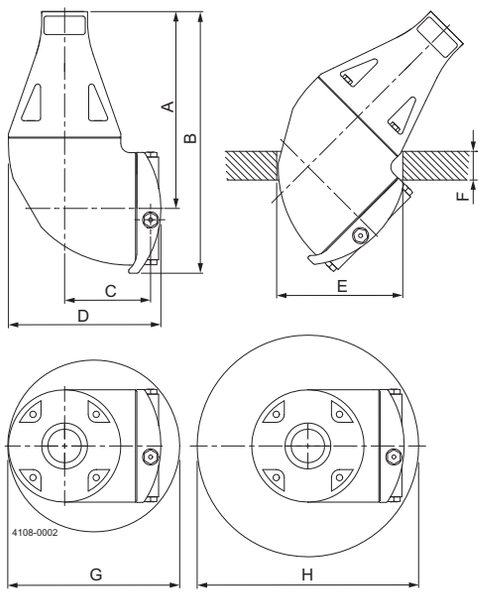
Throw length

Inlet pressure

A: Wetting - B: Impact cleaning

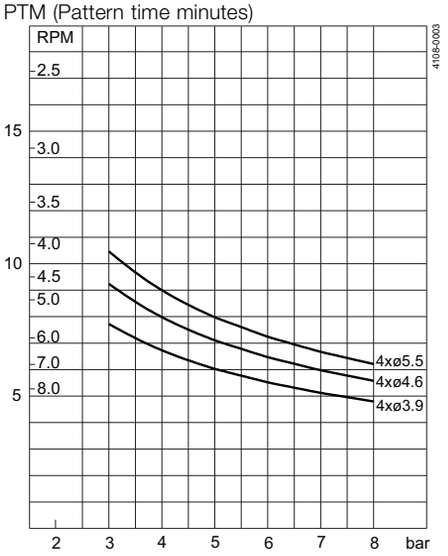
Distillery version - flow at 5 bar / 72.5 PSI
4 x ø3.9 = 10 (m^3/h)
4 x ø4.6 = 12.4 (m^3/h)
4 x ø5.5 = 13.9 (m^3/h)

Dimensions (mm)



Min. RPM of machine body
PTM (Pattern time minutes)

Nozzles mm



Inlet pressure

A	B	C	D	E	F	G	H
173	230	75	133	ø110	max. 25	ø150	ø200

1.3

Standard Design

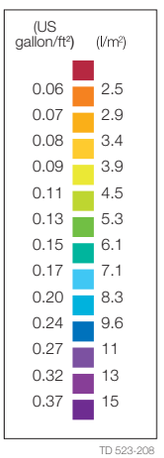
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. The Toftejorg TJ 20G is also available with PEEK impeller. A welding adaptor with sealing for 1" ISO, 1" ANSI, 1 1/2" ISO Dairy Pipe or 1 1/2" SWG Pipe is available as an accessory. As standard documentation, it can be supplied with a "Declaration of Conformity" for material specifications. Special distillery version available - see Price lists.

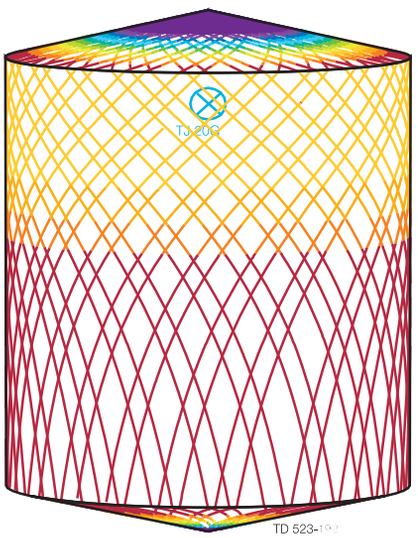
TRAX simulation tool

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.

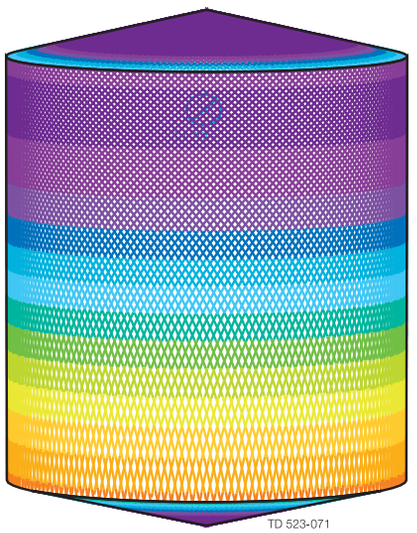
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D4.6m H5.5m, Toftejorg TJ 20G, 4 x ø5.5 mm, Time = 2.08 min., Water consumption = 403 l



D4.6m H5.5m, Toftejorg TJ 20G, 4 x ø5.5 mm, Time = 8.3 min., Water consumption = 1612 l

Qualification Documentation (q-doc)

Documentation specification	
Q-doc	Equipment Documentation includes: - EN 10204 type 3.1 Material Inspection certificate - USP Class VI certificate - FDA Declaration of Conformity - TSE Declaration - QC Declaration of Conformity
ATEX	ATEX approved machine for use in explosive atmospheres. Media driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T 140°C. Air driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T140°C. Air driven unit: Catagory 2 for installation in zone 1/21 in accordance to Ex II 2 GD c IIC T4 Tamb -20°C to +40°C

Alfa Laval SaniJet 25

The only EHEDG certified Rotary Jet Head on the market

Application

The Toftejorg SaniJet 25 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in food and dairy processes industries, the device is suitable for processing, mixing and storage tanks/vessels between 15 and 150 m^3. The design is particularly suitable for ultra-hygienic industries that follow European Hygienic Engineering & Design Group Guidelines.

Working principle

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 surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 8 cycles.

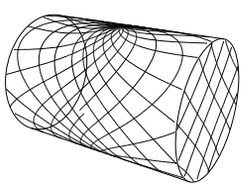
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Standard Surface finish: . . . . . Ra 0.5µm exterior / Ra 0.8µm internal
Max throw length: . . . . . 12.5- 17 m
Impact throw length: 5.5- 10m

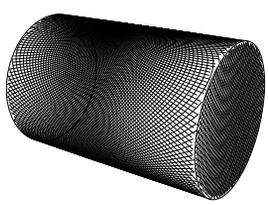
Pressure

Working pressure: . . . . . 3 - 8 bar
Recommended pressure: . . . . 5 - 6.5 bar

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, ATEX and EHEDG.

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

Weight: . . . . . 6.3 kg

Options

Declaration of Conformity with ATEX approved, Category 1 for installation in zone 0/20.

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.

1.3

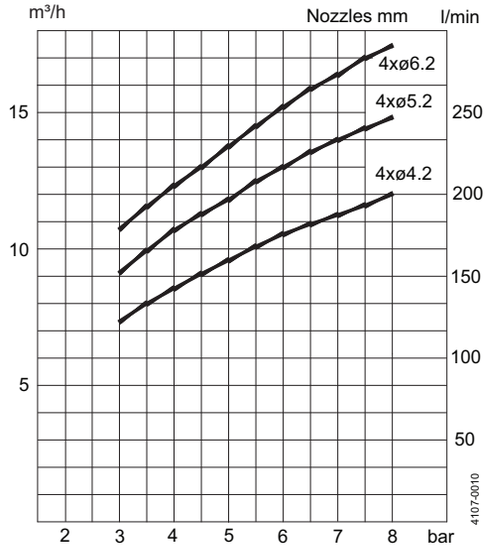
Standard Design

The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. To maintain the hygienic state of the machine a welding adaptor matching a specific pipe size comes with the machine together with the necessary gaskets. The Toftejorg SaniJet 25 is designed, tested and approved according to EHEDG guidelines on design (guidelines 8), cleanability (guidelines 2) and in-line steam sterilisability (guidelines 5).

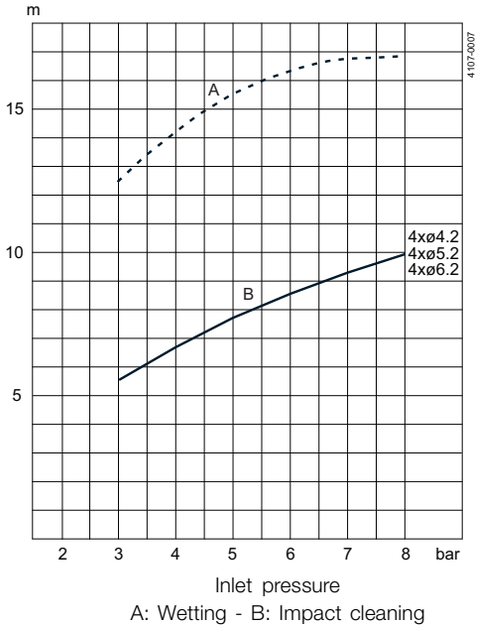
Qualification Documentation (Q-doc)

Documentation specification	
Q-doc	Equipment Documentation includes: - EN 10204 type 3.1 Material Inspection certificate - USP Class VI certificate - FDA Declaration of Conformity - TSE Declaration - QC Declaration of Conformity
ATEX	ATEX approved machine for use in explosive atmospheres. Media driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T 140°C. Air driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T140°C. Air driven unit: Catagory 2 for installation in zone 1/21 in accordance to Ex II 2 GD c IIC T4 Tamb -20°C to +40°C

Flow Rate Nozzles mm

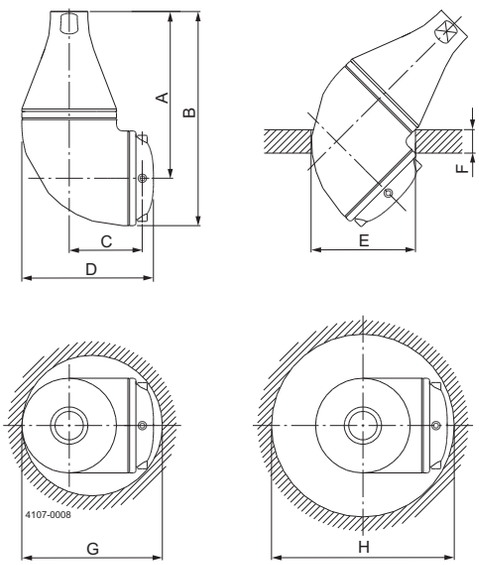


Impact Throw Length All Nozzle sizes



A: Wetting - B: Impact cleaning

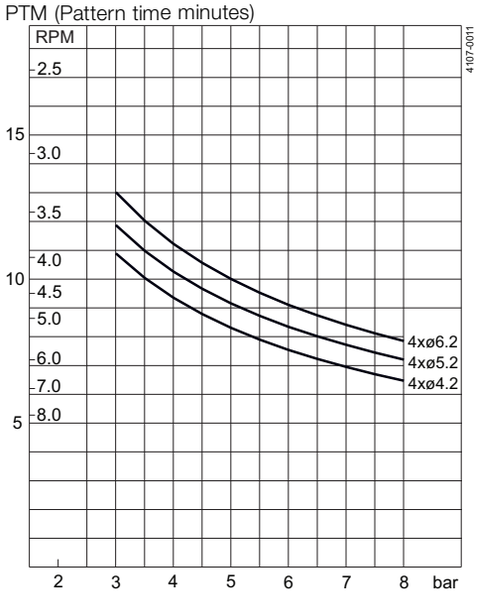
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



A	B	C	D	E	F	G	H
178	228.5	80	140	ø110	max. 25	ø150	ø195

Alfa Laval SaniJet 25 UltraPure

The only EHEDG certified Rotary Jet Head on the market

Application

The Toftejorg SaniJet 25 UltraPure rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in pharmaceutical and biotechnology industries, tanks/vessels between 15 and 150 m^3. The design is particularly suitable for ultra-hygienic industries that follow European Hygienic Engineering & Design Group Guidelines.

Working principle

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 surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 8 cycles.

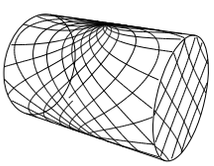
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Standard Surface finish: . . . . . Ra 0.5µm exterior / Ra 0.8µm internal
Max throw length: . . . . . 12.5- 17 m
Impact throw length: 5.5- 10m

Pressure

Working pressure: . . . . . 3 - 8 bar
Recommended pressure: . . . . 5 - 6.5 bar

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

Q-doc, Q-doc incl. FAT/SAT, EHEDG and ATEX

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

Weight: . . . . . 6.3 kg

Options

Declaration of Conformity with ATEX approved, Category 1 for installation in zone 0/20.

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.

Standard Design

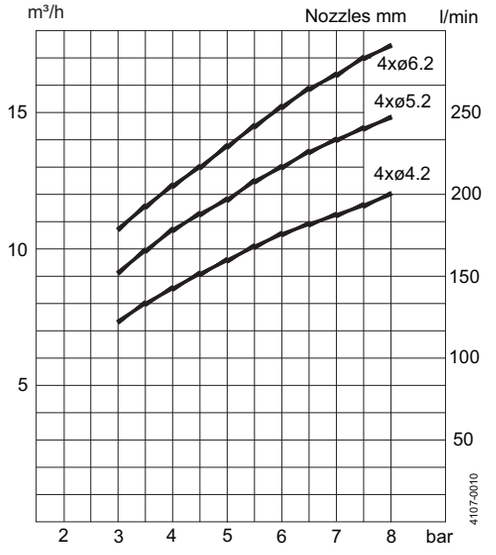
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. To maintain the hygienic state of the machine a welding adaptor matching a specific pipe size comes with the machine together with the necessary gaskets. The Toftejorg SaniJet 25 UltraPure is designed, tested and approved according to EHEDG guidelines on design (guidelines 8), cleanability (guidelines 2) and in-line steam sterilisability (guidelines 5).

Qualification Documentation (Q-doc)

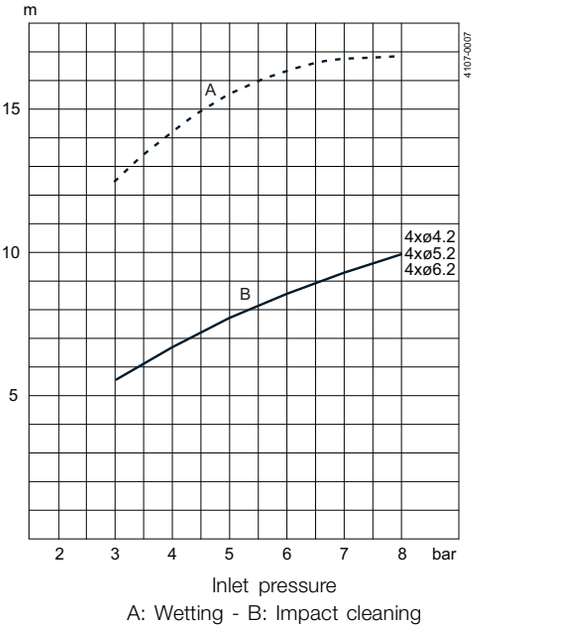
Documentation specification	
Q-doc	Equipment Documentation includes: - EN 10204 type 3.1 Material Inspection certificate - USP Class VI certificate - FDA Declaration of Conformity - TSE Declaration - QC Declaration of Conformity
ATEX	ATEX approved machine for use in explosive atmospheres. Media driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T 140°C. Air driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T140°C. Air driven unit: Catagory 2 for installation in zone 1/21 in accordance to Ex II 2 GD c IIC T4 Tamb -20°C to +40°C
Q-doc + FAT-SAT	Qualification Documentation includes - Q-doc: 3.1 , USP Class VI, FDA, TSE and QC Declaration of Conformity - RS, Requirement Specification - DS, Design specification incl. Traceability Matrix - FAT, Factory acceptance Test incl. IQ and OQ - SAT, Site Acceptance Test protocol incl. IQ and OQ for End-User Execution

1.3

Flow Rate Nozzles mm

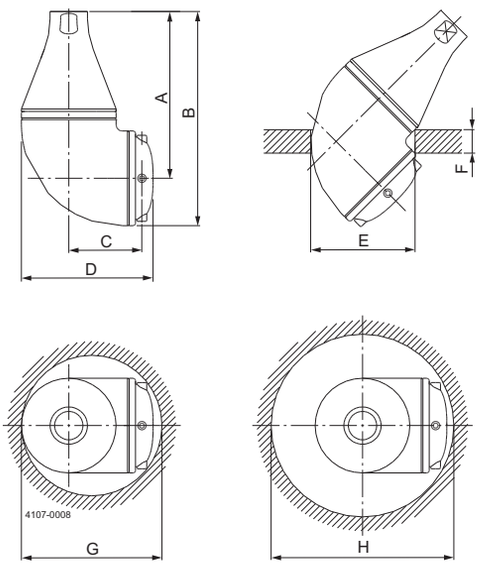


Impact Throw Length All Nozzle sizes



A: Wetting - B: Impact cleaning

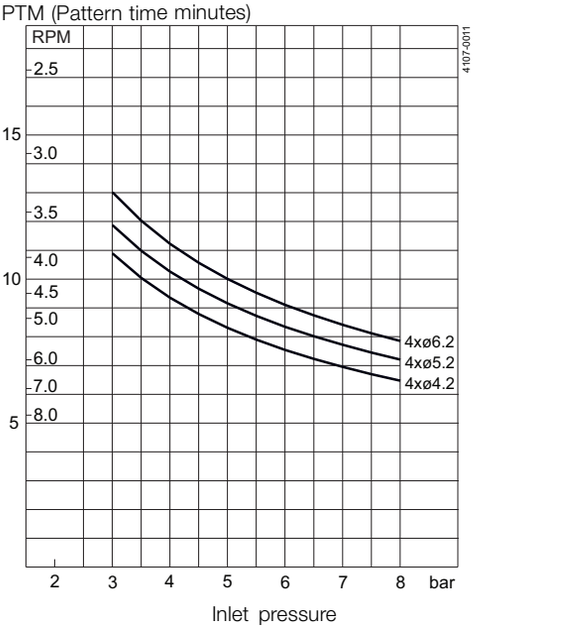
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



A	B	C	D	E	F	G	H
178	228.5	80	140	ø110	max. 25	ø150	ø195

Alfa Laval TJ40G

TJ40G best in class in hygienic design

Application

The TJ40G rotary jet head provides 3D indexed impact cleaning over a defined period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in breweries, food and dairy processes and many other industries with a strict demand for hygienic tank cleaning. The device is suitable for processing, storage tanks and vessels between 50 and 500 m^3 and industries that require a certain level of hygienic design.

The TJ40G is the best-in-class in hygienic design and tank cleaning performance.

Working principle

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 surface. The subsequent cycles continually bisects the coarser pattern into a denser pattern, until a full pattern is reached after 8 cycles.

Unique features

Self cleaning : The TJ40G is designed with numerous of features that ensure self cleaning of the machine, such as directional flow from small jest in the hub that cleans the exterior of the machine.
Low pressure drop : A low pressure loss over the machine provides increased cleaning efficiency compared with other tank cleaning machine running at same inlet pressure.
This result in lower cleaning cost as the unit can run at lower pressure/flow compared to other tank cleaning machines.
Burst cleaning : The special nozzle design on the TJ40G Burst is designed for fast chemical wetting of the tank, this way of cleaning reduces time, water and chemical. For more information see the datasheet TJ40G Burst

Available versions

- TJ40G
- TJ40G Burst cleaning
- TJ40G-HD for Heavy Duties

TECHNICAL DATA

Lubricant: . . . . . Cleaning liquid
Standard Surface finish: . . . . . Exterior surface finish Ra 0.5µm
Interior surface finish: . . . . . Ra 0.8µm
Max throw length (5 bar): . . . . 21.5 m
Impact throw length (5 bar): . . 10.5 m

Pressure

Working pressure: . . . . . 3-12 bar
Recommended pressure: . . . . 5-7 bar

PHYSICAL DATA

Materials

AISI 316, SAF 2205, PFA*, PEEK*, EPDM*
* FDA compliance 21CFR§177

Temperature

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

Weight: . . . . . 6.3 kg

Caution

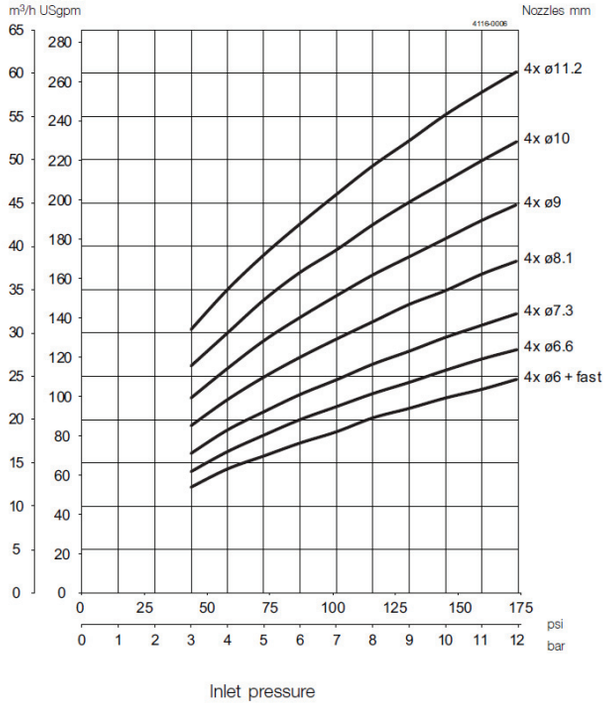
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. For low amount of particles in the cleaning media a 3mm strainer is recommend for both the TJ40G and TJ40G-HD For high amount of particles in the cleaning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

Certificates

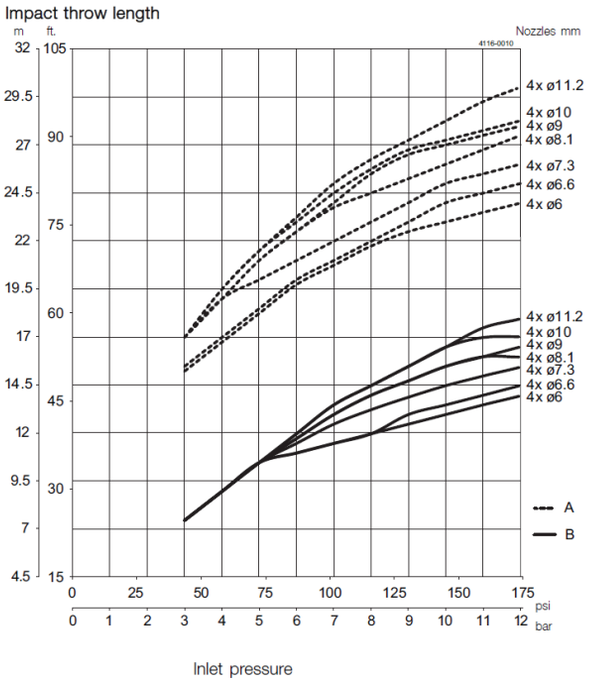
2.2, Q-doc and ATEX

1.3

Flow rate



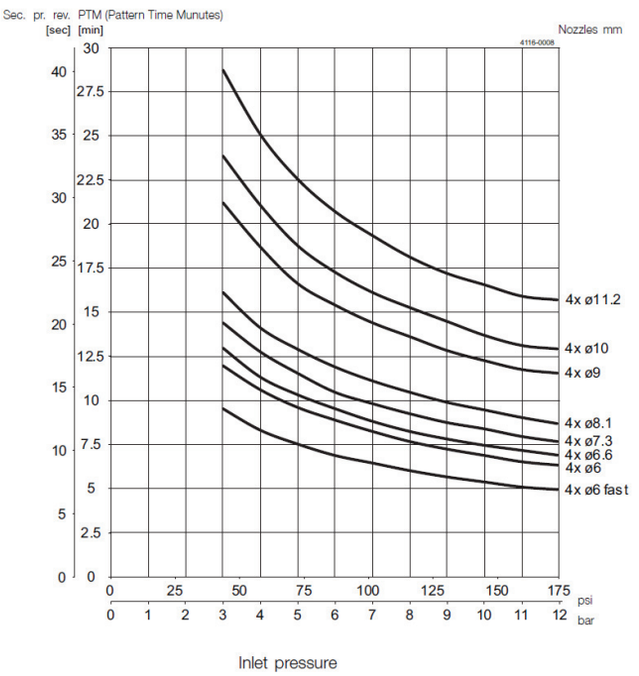
Impact throw length



Throw length measured according to tech. specification 93P003

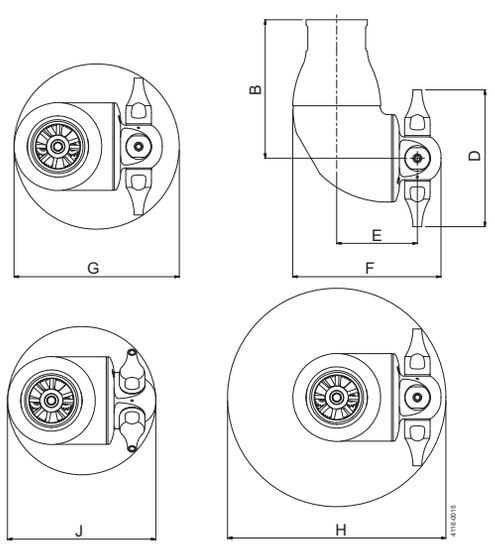
	TJ40G	TJ40G Burst	TJ40G-HD	TJ40G-HD Burst
4xø6 fast	15.8	20.8	17.5	22.5
4xø6	15.8	20.8	17.5	22.5
4xø6,6	18.2	23.2	20.0	25.0
4xø7,3	20.9	25.9	22.5	27.5
4xø8,1	24.9	29.9	26.5	31.5
4xø9	29.1	34.1	31.0	36.0
4xø10	33.8	38.8	35.5	40.5
4xø11	39.0	44.0	41.0	46.0
2xø10	19.2	21.7	20.3	22.8
2xø11	22.4	24.9	23.4	25.9

Cleaning time for complete pattern (= 8 cycles)



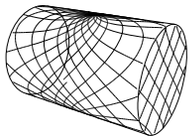
Burst cleaning version has a 20-25% faster complete pattern

Dimensions (mm)



B	D	E	F	G	H	J
156	155	90.8	167	187	246	167

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.

Standard Design

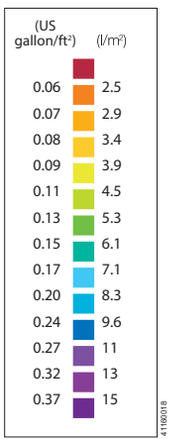
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.
A Hygienic welding, female or male adaptor is available for following connections :
Welding adaptors : 2" / 2½" dairy pipes, 1½" / 2" ISO pipe, DN40 / DN50 / DN65
Female adaptors :
1½" BSP, 1½" / 2" NPT
Male adaptors : 1½" / 2" BSP, 1½" / 2" NPT
The hygienic design of the TJ40G makes it the best in class for hygienic design. As standard documentation, it can be supplied with a "Declaration of Conformity" for material specification.

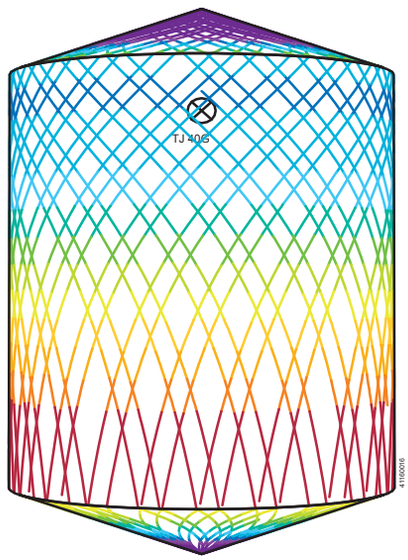
Qualification Documentation (Q-doc)

Documentation specification	
Q-doc	Equipment Documentation includes: - EN 10204 type 3.1 Material Inspection certificate - USP Class VI certificate - FDA Declaration of Conformity - TSE Declaration - QC Declaration of Conformity
ATEX	ATEX approved machine for use in explosive atmospheres. Media driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T 140°C. Air driven version: Catagory 1 for installation in zone 0/20 in accordance to Ex II 1 GD c T140°C. Air driven unit: Catagory 2 for installation in zone 1/21 in accordance to Ex II 2 GD c IIC T4 Tamb -20°C to +40°C

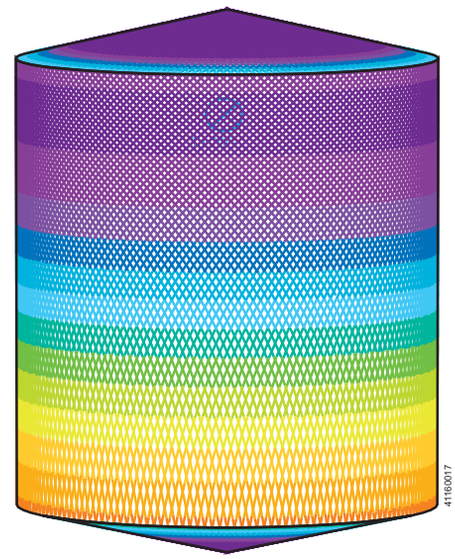
TRAX simulation tool

Wetting Intensity





D4.6m H5.5m, Toftejorg TJ40G, 4 x ø7.3 mm, Time = 2 min., Water consumption = 700 l



D4.6m H5.5m, Toftejorg TJ40G, 4 x ø7.3 mm, Time = 16 min., Water consumption = 5600 l

Alfa Laval GJ 8

Fast, Effective Impact Cleaning

Application

Designed with ergonomics in mind, the Alfa Laval GJ 8 provides the same high impact clean as traditional, larger tank cleaners but is lighter, shorter, and narrower. This device is part of the world-renowned Gamajet range of high impact tank cleaning devices, and is the perfect alternative to heavy impingement cleaners, time-intensive spray balls, and costly manual tank cleaning. Compact and efficient, the Alfa Laval GJ 8 allows for space saving while maintaining the impact, durability, and range required for optimal impingement tank cleaning. This device is fluid-driven, eliminating the need for power assistance and is ideal for cleaning stubborn residues in large tanks in a variety of industries such as ethanol, paper, pulp, chemical, steel, industrial fermentation and many more applications requiring high impact cleaning.

Working principle

The Gamajet range of high impact tank cleaning devices combine pressure and flow to create high impact cleaning jets. Cleaning occurs at the point at which the concentrated stream impacts the surface. It is this impact and the tangential force that radiates from that point which blasts contaminants from the surface, scouring the tank interior. In conjunction with this impact, the device is engineered to rotate in a precise, repeatable and reliable, 360° pattern. This full-coverage, global indexing pattern ensures the entire tank interior is cleaned, every time.

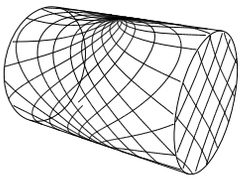
TECHNICAL DATA

Lubricant	Food grade
Max. throw length	14 - 26 m

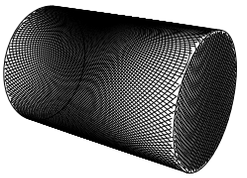
Pressure

Working pressure	3 - 28+ bar
Recommended pressure	4 - 20 bar

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

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

Temperature

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

Weight . . . . . 6.5 kg

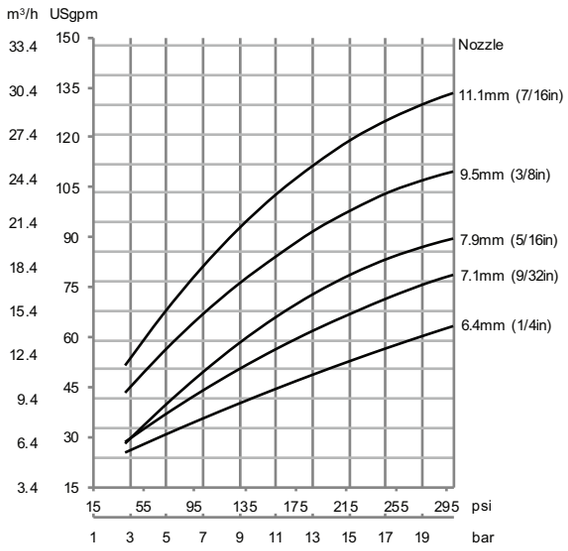
Connections

Standard thread	1½” Rp (BSP) or NPT, female
Available option	2” Rp (BSP) or NPT, female

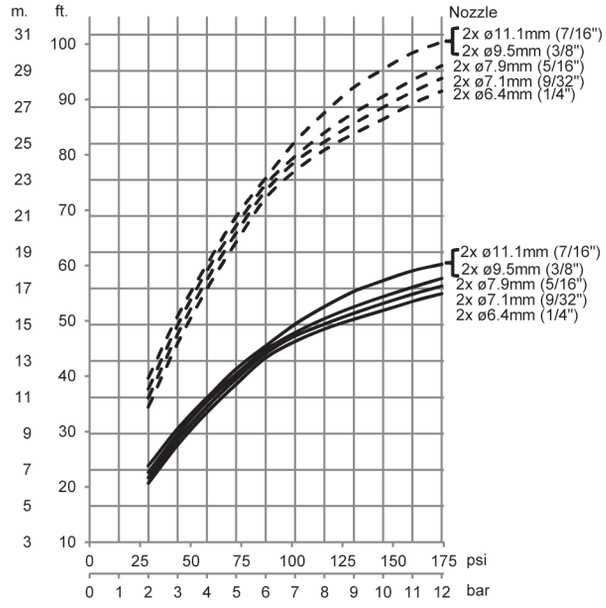
Caution

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.

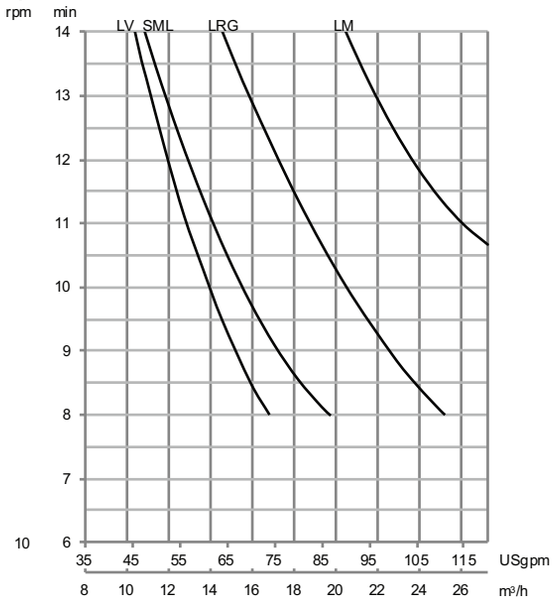
Flow Rate



Impact Throw Length

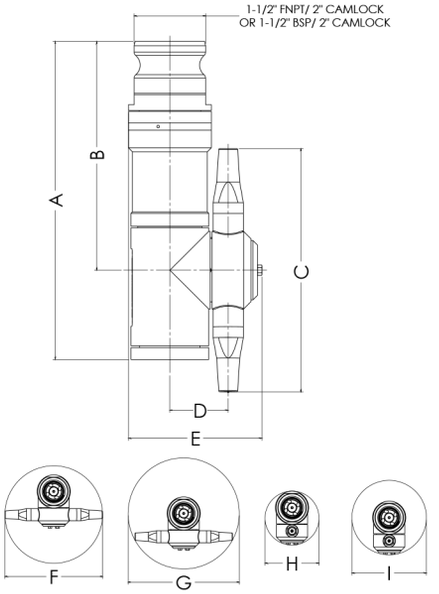


Cleaning Time



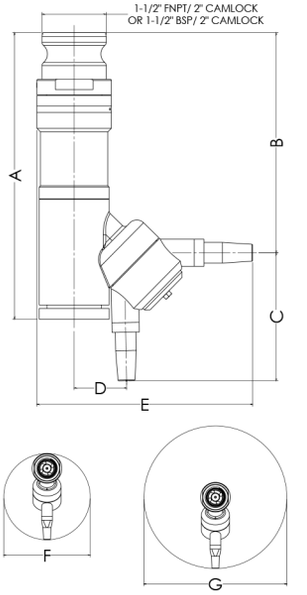
1.3

Dimensions(mm)



A	B	C	D	E	F	G	H	I
281	202	215	51	118	216	248	121	165

Dimensions 180° directional version



Dimensions 180° directional version

A	B	C	D	E	F	G
281	217	126	51	211	350	248

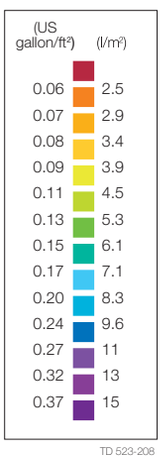
Standard Design

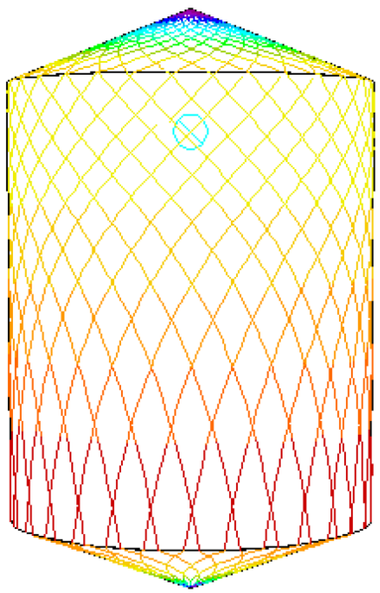
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ 8 can be supplied with a “Declaration of Conformity” for material specifications.

TRAX simulation tool

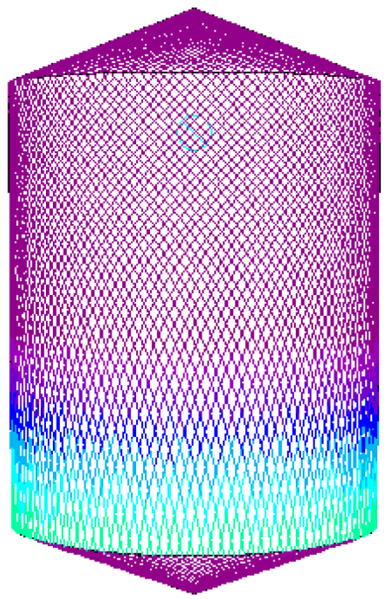
TRAX is a unique software that simulates how the Alfa Laval GJ 8 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct 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





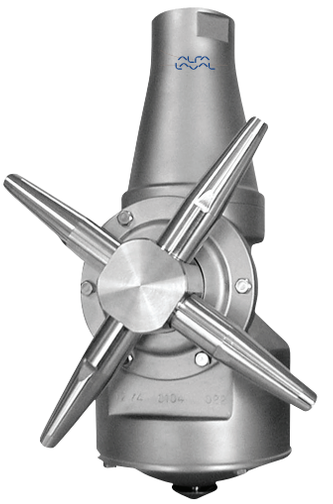
D12.2m, H19.6m, 2xØ7.94mmTime = 3.1 min.



D12.2m, H19.6m, 2xØ7.94mm Time = 12.5 min.

Alfa Laval MultiJet 40

Fast, Effective Impact Cleaning



Application

The Toftejorg MultiJet 40 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is ideal for applications where cost-effective impact cleaning with rotary jet heads is needed, but where compliance with hygienic design standards is not a requirement. The device is suitable for process, storage and transportation tanks between 50 and 500 m^3. It is designed to work under conditions where fibres, finer particles, etc. in the cleaning media may be re-circulated through the machine.

Working principle

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 surface. The following cycles make the pattern gradually more dense, until a full pattern is reached after 8 cycles.

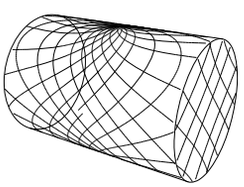
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Max. throw length: . . . . . 8 - 17 m
Impact throw length: . . . . . 4 - 10 m

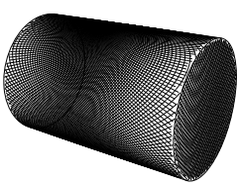
Pressure

Working pressure: . . . . . 3 - 12 bar
Recommended pressure: . . . . . 5 - 6.5 bar

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 and ATEX.

PHYSICAL DATA

Materials

316L (UNS S31603), PTFE, PEEK, ETFE, FPM, TFM

Surface finish: . . . . . Exterior finish: glass blasted

Temperature

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

Weight: . . . . . 6.1 kg

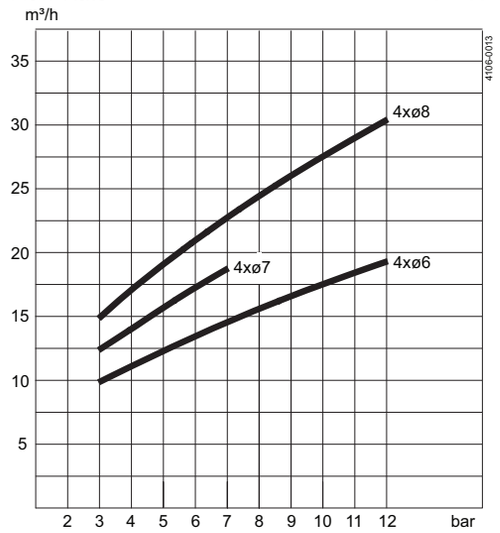
Connections

Standard female thread: . . . . . 1½" Rp (BSP) or 1½" NPT

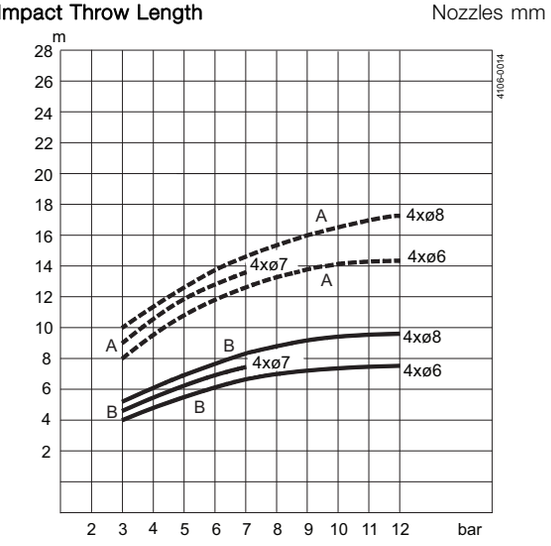
Caution

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.

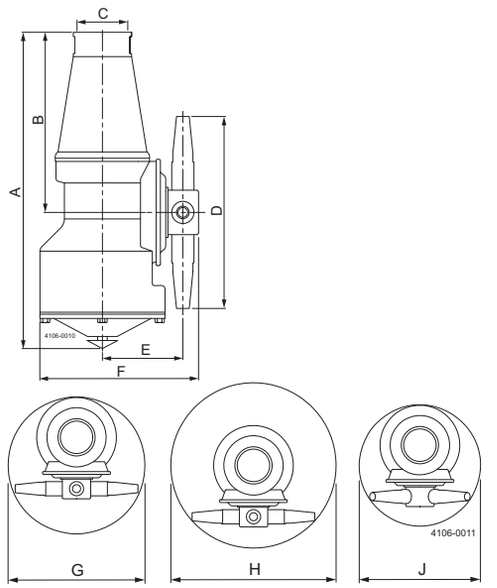
Flow Rate Nozzles mm



Impact Throw Length Nozzles mm



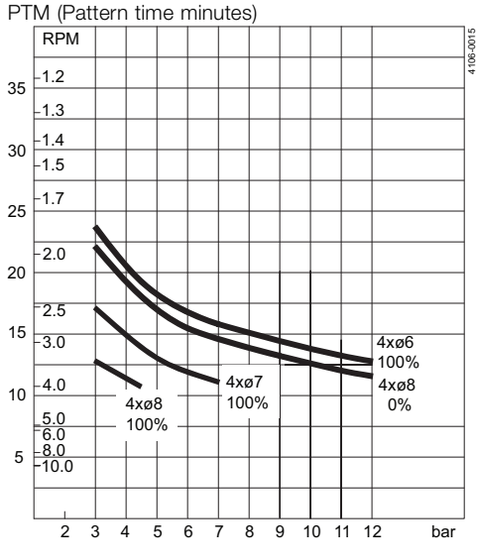
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



A	B	C	D	E	F	G	H	J
297	170	1½" BSP or 1½" NPT	204	78	152	ø216	ø264	ø180

1.3

Standard Design

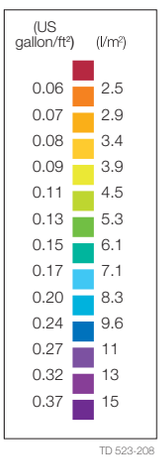
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. As standard documentation, the Toftejorg MultiJet 40 can be supplied with a “Declaration of Conformity” for material specifications.

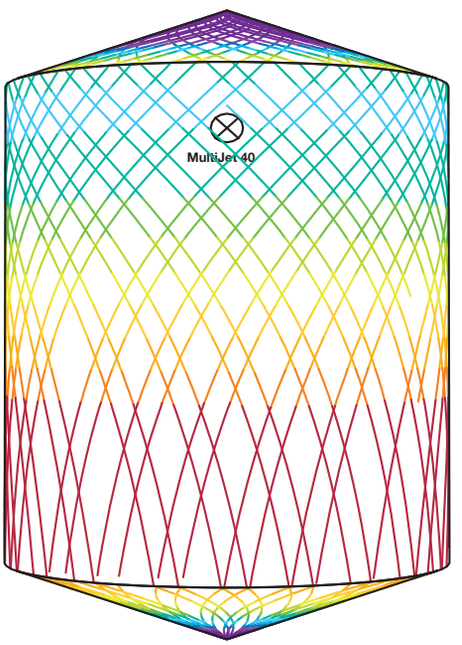
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg MultiJet 40 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.

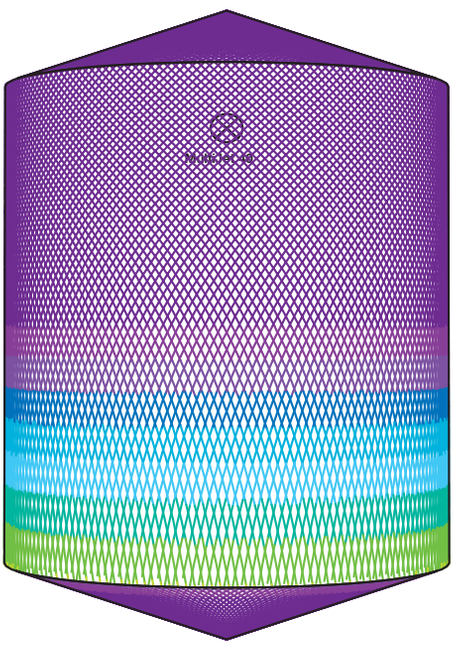
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D5m H6m, Toftejorg MultiJet 40, 4 x ø6 mm, 100% Time = 4.3 min., Water consumption = 887 l



D5m H6m, Toftejorg MultiJet 40, 4 x ø6 mm, 100% Time = 18.2 min., Water consumption = 3760 l

Alfa Laval GJ 4

Superior tank cleaning for industrial environments

Application

The Alfa Laval GJ 4 is part of the world-renowned Gamajet range of high impact tank cleaning devices. The device provides high-impact cleaning for large-sized tanks. This device is fully capable of high-concentration chemical recirculation cleaning and high-pressure, low-volume water jet scrubbing in fixed, automated CIP systems. The Alfa Laval GJ 4 is designed to remove the toughest residues from large tanks in numerous industries and is customizable in a wide variety of ways. The Alfa Laval GJ 4 allows companies to spend less time cleaning and more time producing.

Working principle

The Gamajet range of high impact tank cleaning devices combine pressure and flow to create high impact cleaning jets. Cleaning occurs at the point at which the concentrated stream impacts the surface. It is this impact and the tangential force that radiates from that point which blasts contaminants from the surface, scouring the tank interior. In conjunction with this impact, the device is engineered to rotate in a precise, repeatable and reliable, 360° pattern. This full-coverage, global indexing pattern ensures the entire tank interior is cleaned, every time.

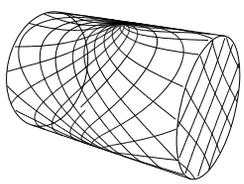
TECHNICAL DATA

Lubricant . . . . . Food grade
Max. throw length . . . . . 30.5 m

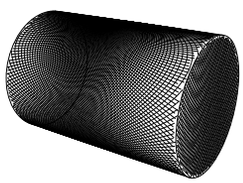
Pressure

Working pressure . . . . . 3 - 21 bar
Recommended pressure . . . . . 3.5 - 14 bar

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

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

Temperature

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

Weight . . . . . 12.7 - 13.2kg

Connections

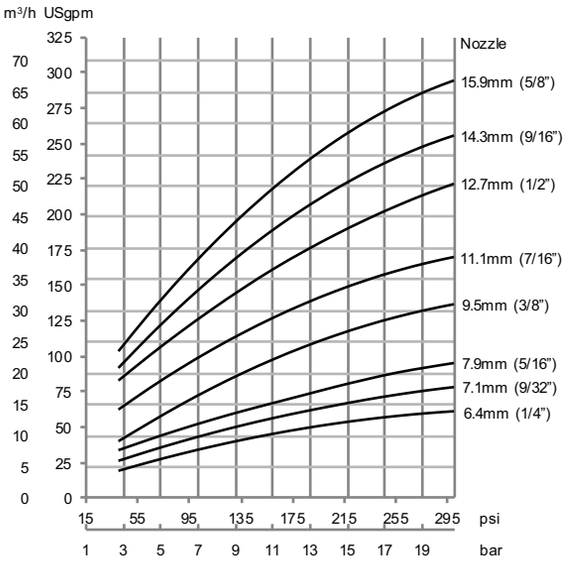
Standard thread . . . . . 2” NPT, 2” BSP

Caution

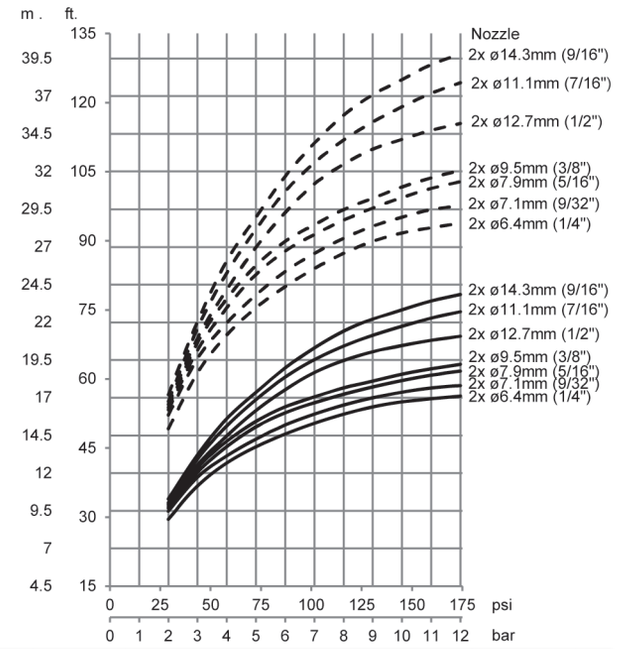
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

1.3

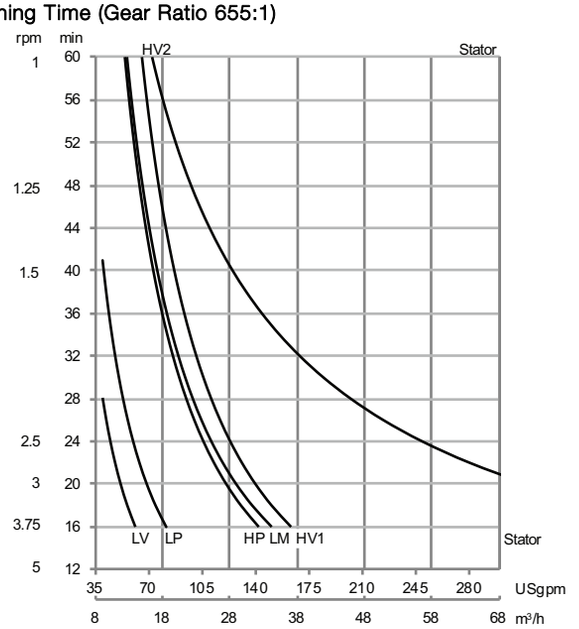
Flow Rate



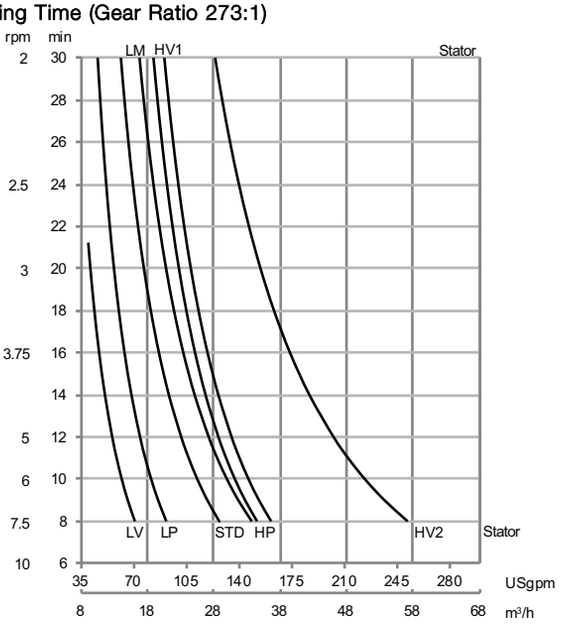
Impact Throw Length



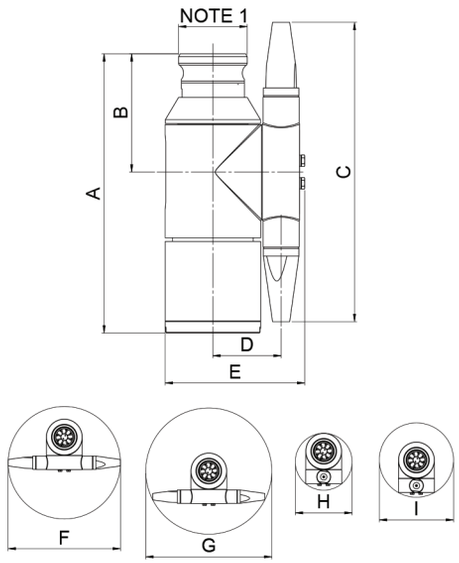
Cleaning Time (Gear Ratio 655:1)



Cleaning Time (Gear Ratio 273:1)



Dimensions (mm)



A	B	C	D	E	F	G	H	I
308	131	331	76	155	331	372	168	219

NOTE 1: 2" NPT FEMALE/ 2-1/2" CAMLOCK. 2" NPT FEMALE/ 2-1/2" NST

1.3

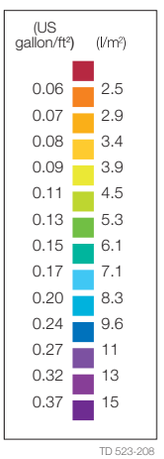
Standard Design

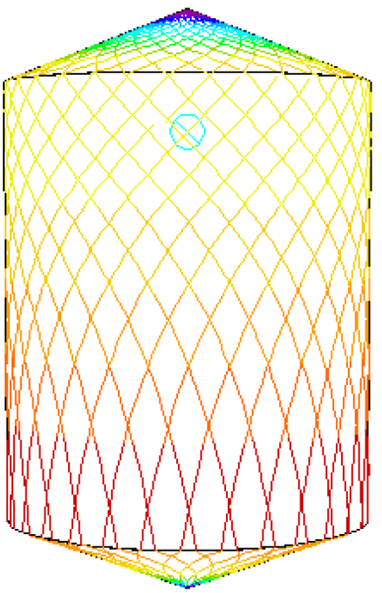
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure. As standard documentation, the Alfa Laval GJ 4 can be supplied with a “Declaration of Conformity” for material specifications.

TRAX simulation tool

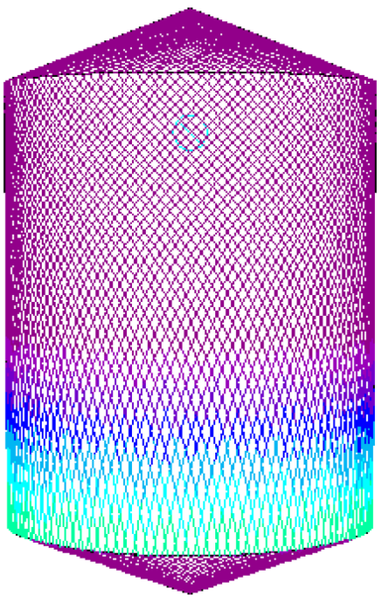
TRAX is a unique software that simulates how the Alfa Laval GJ 4 performs in a specific tank or vessel. The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning device and the correct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





D21.3m, H34m, 2xØ11.11mm Time = 6 min.



D21.3m, H34m, 2xØ11.11mm Time = 24 min.

Alfa Laval MultiJet 50

Fast, Effective Impact Cleaning

Application

The Toftejorg MultiJet 50 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. The device is suitable for processing, storage and transportation tanks and vessels between 250 and 1,250 m^3.

Working principle

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 surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 8 cycles.

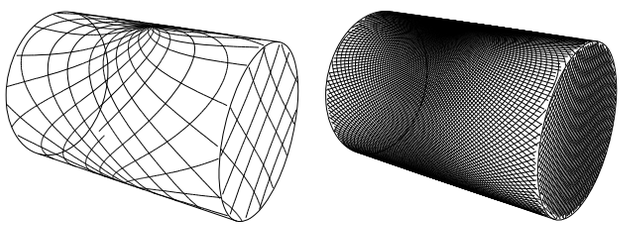
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Max throw length: . . . . . 9 - 26 m
Impact throw length: . . . . . 5 - 14 m

Pressure

Working pressure: . . . . . 3 - 12 bar
Recommended pressure: . . . . 5 - 6.5 bar

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

PHYSICAL DATA

Materials

1.4404 (316L), PTFE, PVDF, PEEK, Carbon, ETFE, TFM.

Surface finish: . . . . . Mat

Temperature

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

Weight: . . . . . 12.2 kg

Connections

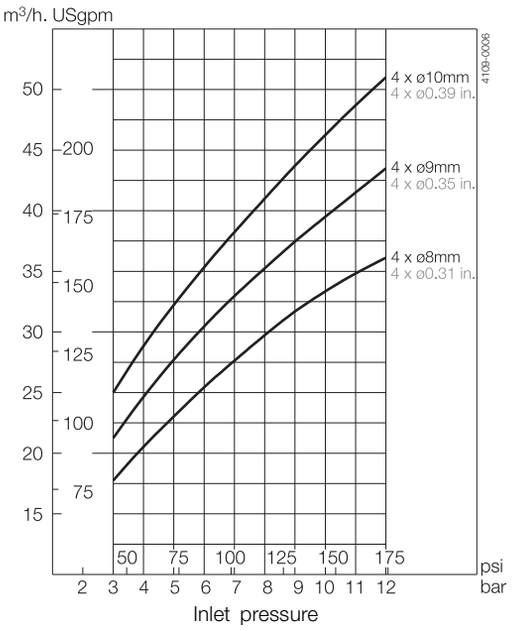
Standard female thread: . . . . . 2” Rp (BSP) NPT, female

Caution

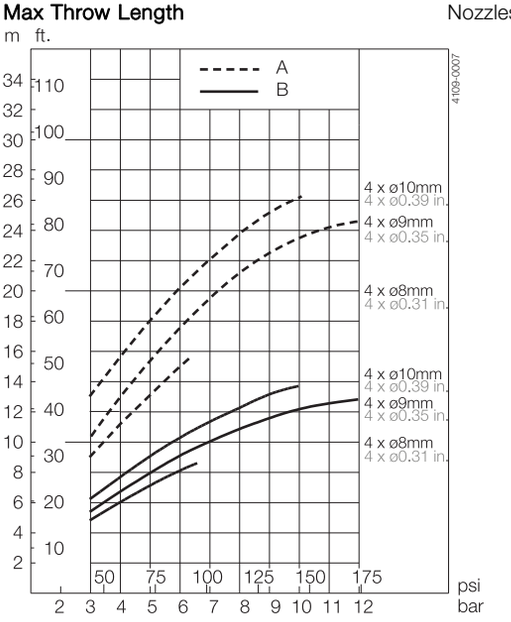
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

1.3

Flow Rate Nozzles mm



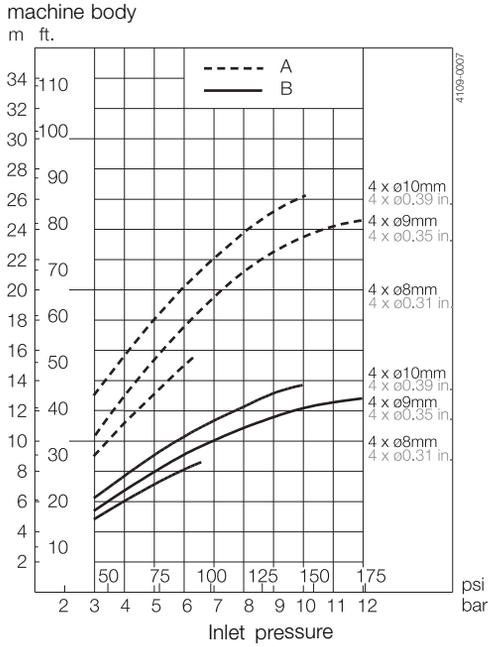
Max Throw Length Nozzles mm



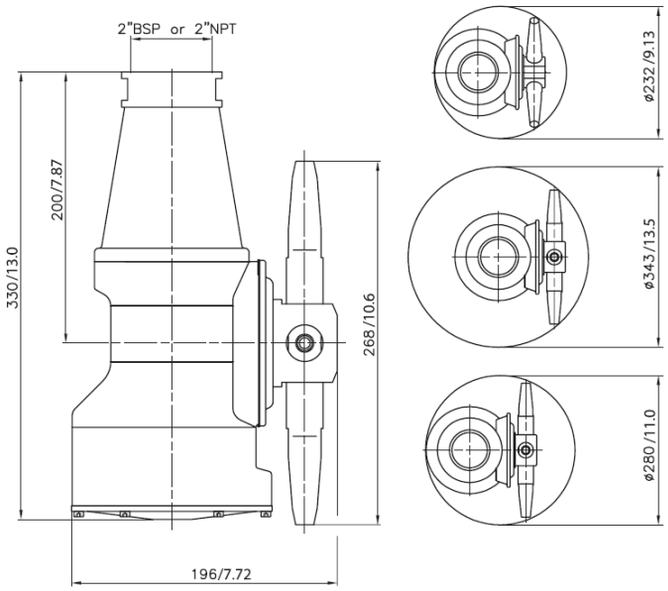
A: Wetting - B: Impact cleaning

Flow rate

Cleaning Time, Complete Pattern Nozzles mm



Dimensions (mm / inch)



Standard Design

The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. The Toftejorg MultiJet 50 is also available with PEEK impeller. A welding adaptor with sealing for 1" ISO, 1" ANSI, 1 1/2" ISO Dairy Pipe or 1 1/2" SWG Pipe is available as an accessory.

Ordering

Please specify nozzle size, inlet/guide configuration and connections and confirm application suitability Sizing/selection and installation drawings are available in Alfa Laval's Selection Tools for Tank Cleaning Equipment

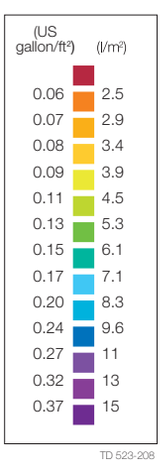
TRAX simulation tool

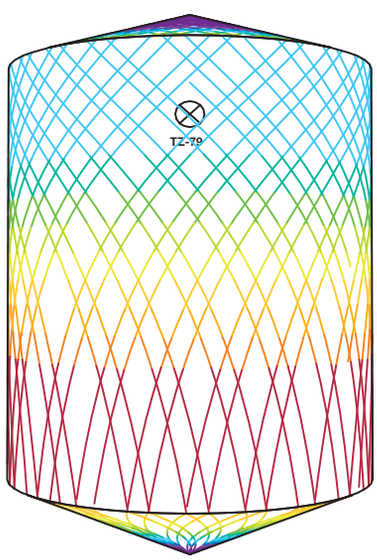
TRAX is a unique software that simulates how the Toftejorg MJ50 performs in a specific tank or vessel.

The simulation PPI00381EN 0910 Alfa Laval reserves the right to change specifications without prior notification. How to contact Alfa Laval Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com. 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





D8m H10m, Toftejorg MultiJet 50, 4 x ø10mm 0 % Time = 5.5 min., Water consumption = 2565 l

D8m H10m, Toftejorg MultiJet 50, 4 x ø10 mm, 0 % Time = 23.3 min., Water consumption = 10868 l

Alfa Laval MultiJet 65

Fast, Effective Impact Cleaning

Application

The Toftejorg MultiJet 65 rotary jet head provides 360° indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance from cleaning tanks. Storage and transportation tanks between 3,000 and 7,000 m^3. Used on tankers and in petro-chemical and chemical processing industries. The MultiJet 65 is widely used in product carriers.

Working principle

The flow of the cleaning fluid makes the nozzles perform a geared rotation around the vertical and horizontal axis. In the first cycle, the nozzles lay out a coarse pattern on the tank surface. The following cycles make the pattern gradually more dense until a full pattern is reached after 8 cycles.

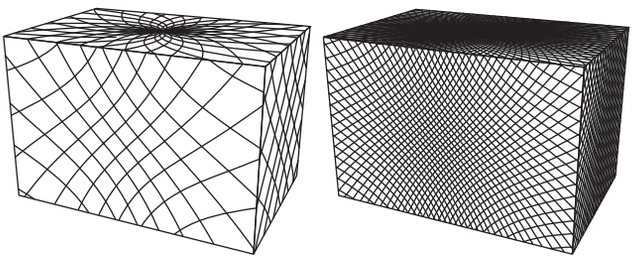
TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid
Max throw length: . . . . . 9 - 26 m
Impact throw length: . . . . . 5 - 14 m

Pressure

Working pressure: . . . . . 5–12 bar
Recommended pressure: . . . . 5–10 bar
Capacity; . . . . . 38–83 m^3/hour
Installation . . . . . 2 ½" BSP/NPT
Minimum required passage . . . See dimension drawings

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

1,4401, 1.4404 (316L) PTFE, PVDF, Carbon

Surface finish: . . . . . Mat

Temperature

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

Weight: . . . . . 13.6 kg

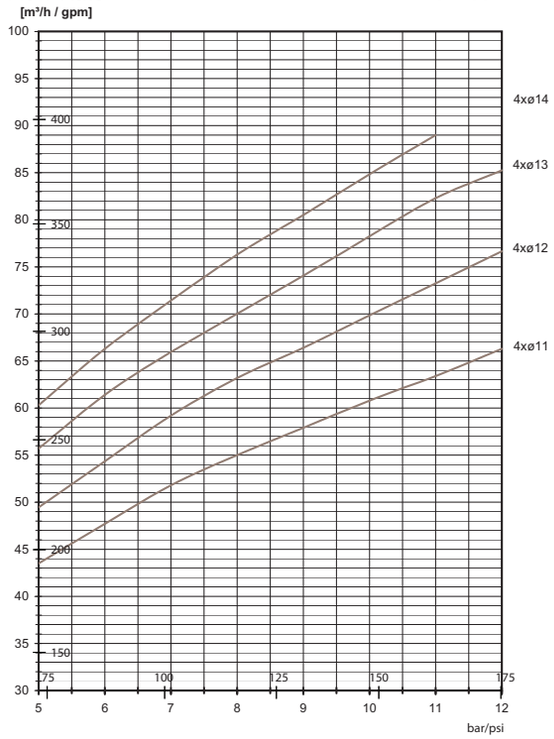
Certificates

2.1

Caution

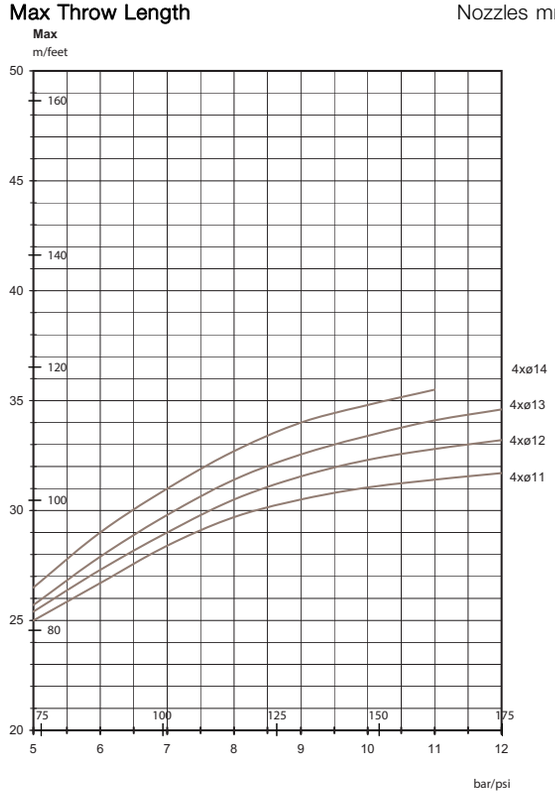
Avoid hydraulic shock, hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanisms. In general, a filter in the supply line is recommended. Do not use for gas evacuation or air dispersion. For steaming we refer to the manual.

Flow Rate Nozzles mm



Inlet pressure

Max Throw Length Nozzles mm

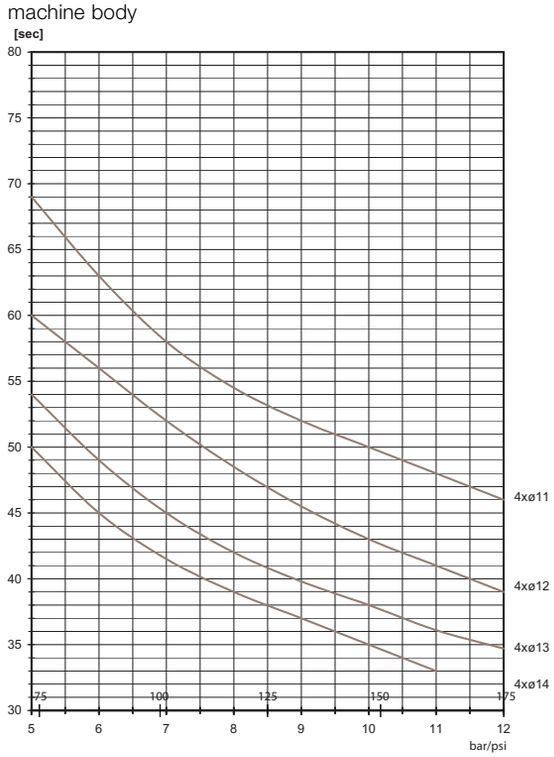


Inlet pressure
A: Wetting - B: Impact cleaning

Flow rate

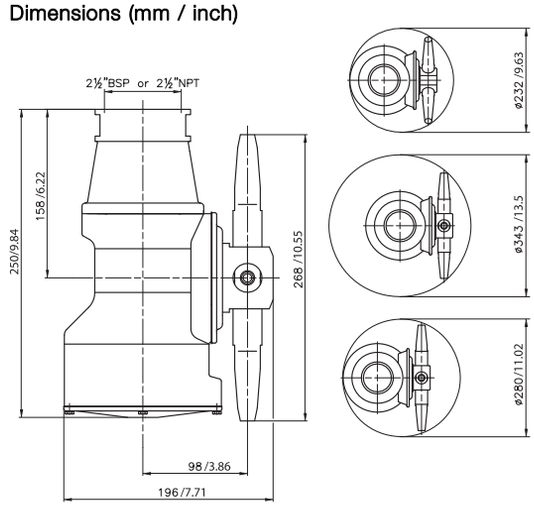
Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm



Inlet pressure

Dimensions (mm / inch)



Alfa Laval TZ-750

Fast, Effective Impact Cleaning

Application
The Toftejorg TZ-750 rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. The device is suitable for storage and transportation tanks and vessels between 3,000 and 7,000 m^3. Used in chemical processing and the pulp and paper industries.

Working principle
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 surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached after 4 cycles.

Standard Design
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. As standard documentation, the Toftejorg TZ-750 can be supplied with a “Declaration of Conformity” for material specifications.

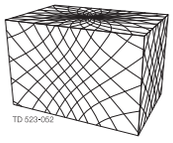
TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Standard surface finish:	Ra 0.5µm exterior
Flow rate:	38 - 83 m^3/h
Max. throw length:	30 - 40 m
Min. required passage:	See dimension drawings

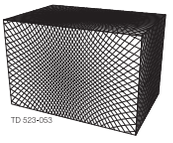
Pressure

Working pressure:	5 - 12 bar
Recommended pressure:	5 - 10 bar

Cleaning Pattern



First cycle



Full pattern

The above drawings show the cleaning pattern achieved on a 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 and ATEX.

PHYSICAL DATA

Materials
316L (UNS S31603), 1.4401, PTFE, PVDF, Carbon, EFTE.

Temperature

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

Weight

Portable:	12.1 kg
Fixed:	3.6 kg

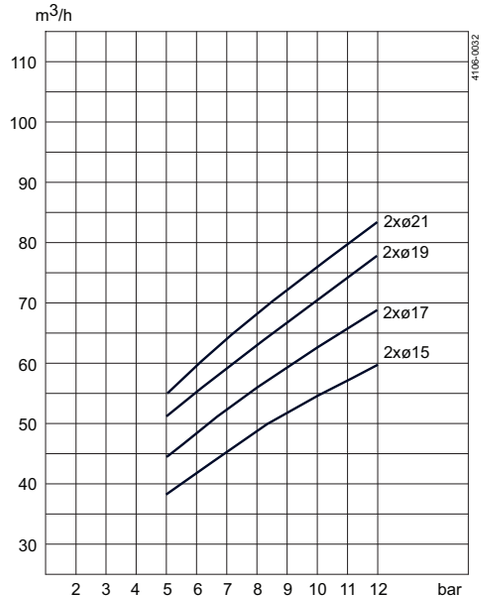
Connections

Standard thread:	2½" Rp (BSP), 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.

Flow Rate

Nozzles mm

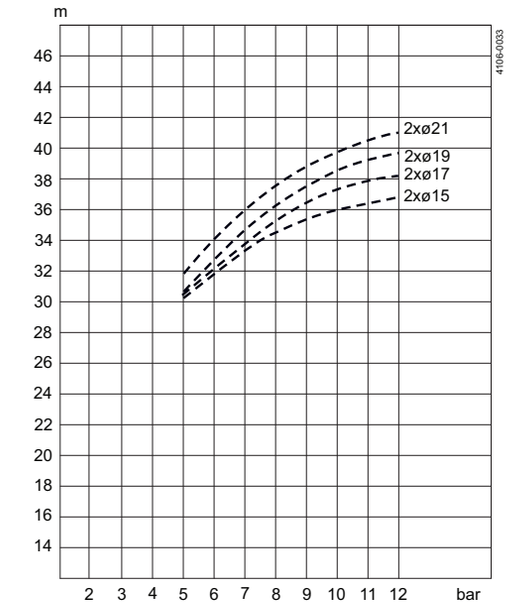


Flow rate

Inlet pressure

Horizontal Throw Length (Wetting Radius) at Static Condition

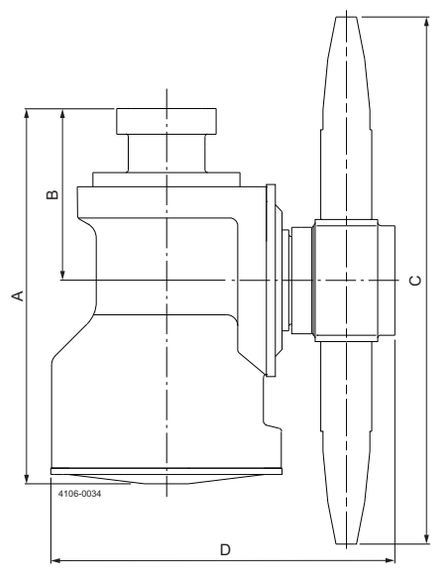
Nozzles mm

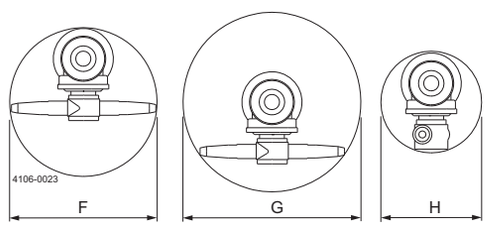


Throw length

Inlet pressure

Dimensions (mm)



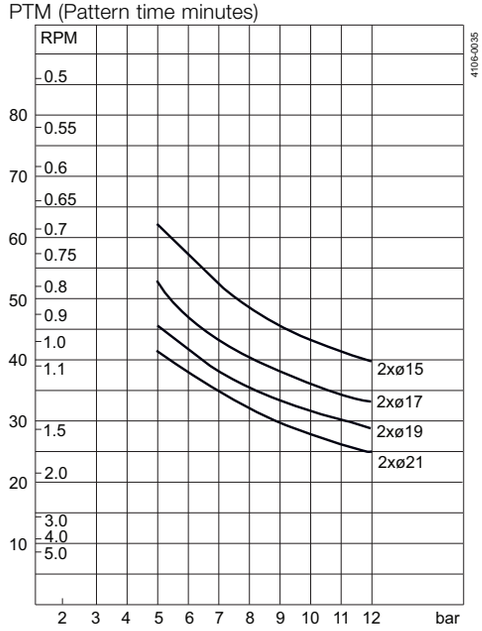


Cleaning Time, Complete Pattern

Min. RPM of machine body

Nozzles mm

PTM (Pattern time minutes)



Inlet pressure

A	B	C	D	F	G	H
242	110	337	220	ø343	ø424	ø223

Three-in-one technology for optimized tank cleaning

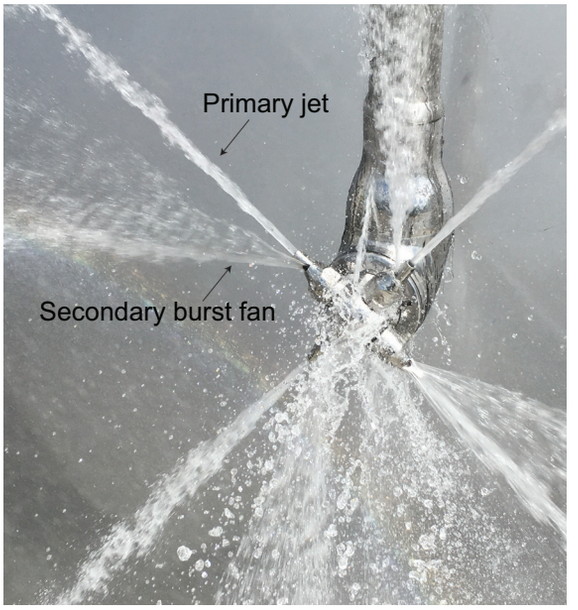
Alfa Laval Burst cleaning technique

What is burst cleaning:
Burst cleaning is a technique to quickly apply chemicals to a soiled surface using as little chemicals as possible in the wash fluid.

In fact, it is the same technique that is used at home to clean dirty bathroom tiles. First, the tiles are sprayed with a cleaning detergent. After five minutes the tiles are rinsed with water. The five-minute wait allows the chemicals to react and loosen the soil, making the entire cleaning job faster and easier.

With Alfa Laval Burst nozzles, the same technique is applied to cleaning a tank. Burst nozzle is mounted on a rotary jet head device, and is designed to quickly distribute the wash fluid via a secondary fan outlet on the side of the burst nozzle. The wash fluid quickly covers the entire tank, enabling 1/3 less wash fluid usage.

Challenging, hard to clean tank residues are therefore soaked in chemicals before the jet head device begins its primary full coverage, high impact tank cleaning.



Application
By combining the best features of our three key tank cleaning technologies - rotary jet heads, rotary spray heads, and static spray balls - we've discovered the answer to softening stubborn residues and quickly removing them from tank interiors. The Alfa Laval Burst nozzle, patent / patent pending solution, maximizes chemical usage while drastically reducing the amount of time and water it takes to clean. The combination of an Alfa Laval rotary jet head and Burst nozzle is ideal for use in fermentation tanks, yeast manufacturing tanks, chemical reactors, jacketed tanks, and many other applications with stubborn, stuck-on residues.

Benefits
- During the tank cleaning cycle, pre-rinses are essentially eliminated with the Alfa Laval Burst cleaning nozzle due to the recommended practice of direct application of chemical or caustic to soiled tank walls.
- With the elimination of pre-rinses, time spent tank cleaning is drastically reduced, resulting in increased production times and a higher number of batches produced.
- Caustic and sanitizing steps are reduced significantly as well as water usage.
- The combination of the chemical spray fan effect and mechanical force water jet cleaning provides the best of three technologies, in a single product.