Low Flow Impact Cleaning

Alfa Laval TJ TZ-89 Rotary Jet Head

Application

The Toftejorg TZ-89 rotary jet head provides 3D indexed low flow impact cleaning over a defined time period. It is suitable for processing, storage and transportation tanks and vessels between 0.5 and 50 m^3 within e.g. the food, ingredient, heath care and pharmaceutical industry.

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. The drive mechanism is located outside the tank or process equipment, leaving a minimum of parts to be submerged into the product.

TECHNICAL DATA

Lubricant: . . . . . Self-lubricating with the cleaning fluid

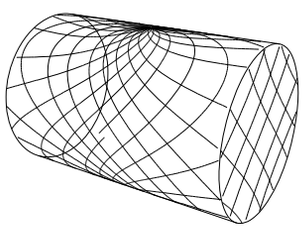
Standard Surface finish:
Product contact parts: . . . . . Ra 0.8µm

Max throw length: . . . . . 4-7 m
Impact throw length: . . . . . 2.5-4 m

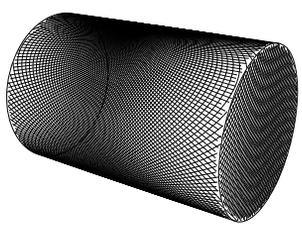
Pressure

Working pressure: . . . . . 2-7 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

PHYSICAL DATA

Materials

316L (UNS S61603), Duplex steel (UNS N31803), PTFE, PEEK, FEP/Silicone

Temperature

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

Weight: . . . . . 5.5 - 8.5 kg

Connections

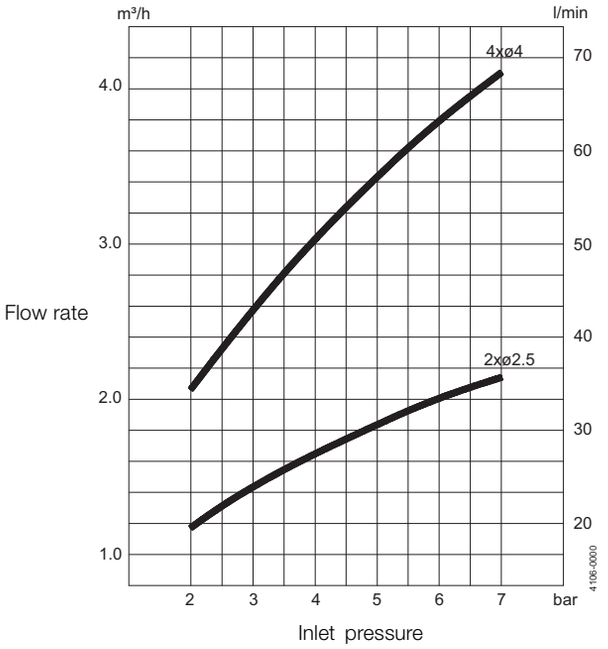
Inlet connections: . . . . . Thread: 3/4" Rp (BSP) or NPT, male or
Clamp: 1" ISO 2852

Tank connection: . . . . . Flange: 50 DN6 DIN 2501, or 3" ANSI B 16.5 or
Clamp: 3" or 4" ISO2852

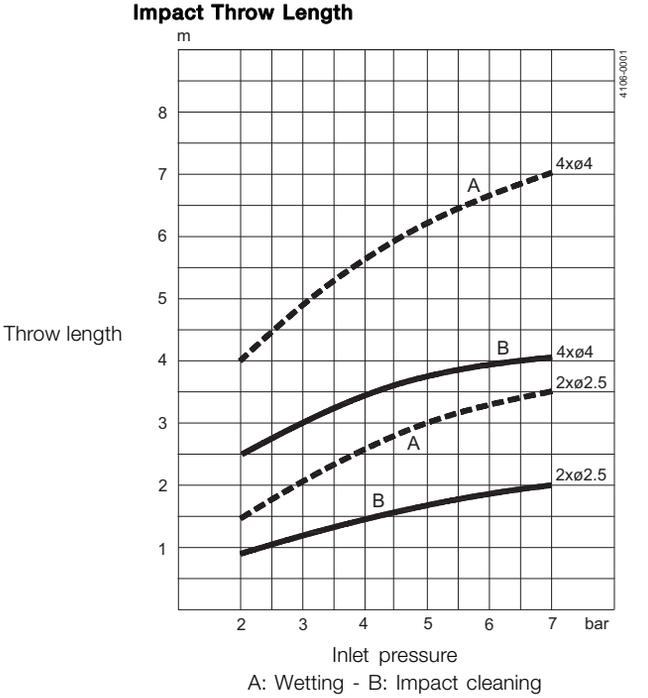
Options

Rotation sensor to verify 3D coverage.

Flow Rate

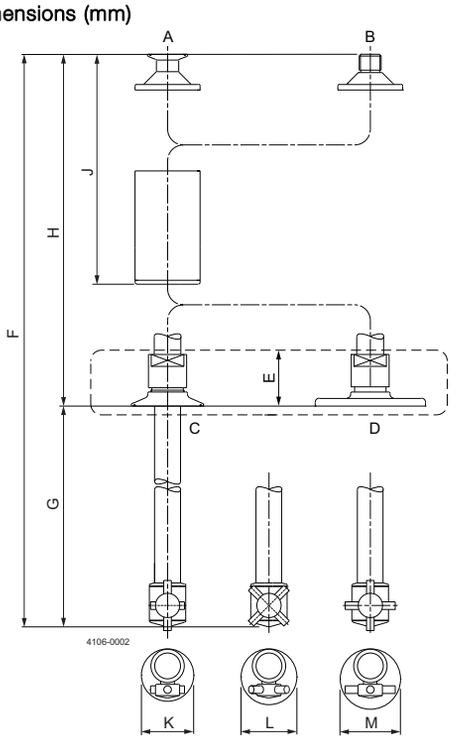


Impact Throw Length



A: Wetting - B: Impact cleaning

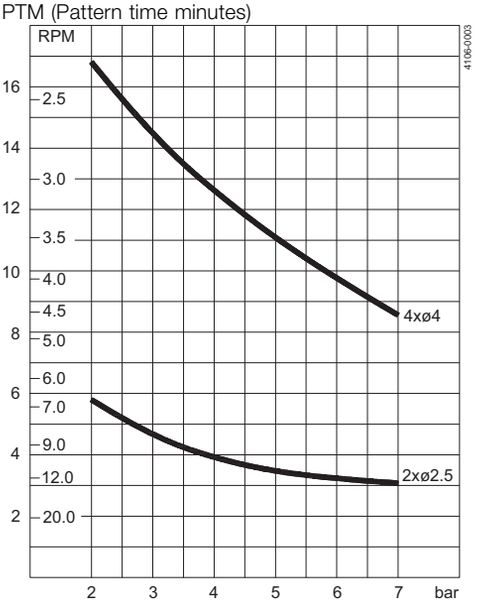
Dimensions (mm)



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

Cleaning Time, Complete Pattern

PTM (Pattern time minutes)



D: Flange 50ND6, DIN2501 Do=140/PC=110/Db=4xø14 Flange 3" ANSI 16.5 1991 Do=190.5/PC=152.4/Db=4xø19
E: Adjustable

F	G-DPL	H	J	K	L	M
350	Min. 62 Max. 96	Max. 288 Min. 254	190	¢69	ø72	ø79.5
500	Min. 62 Max. 246	Max. 438 Min. 254	190	¢69	ø72	ø79.5
750	Min. 62 Max. 496	Max. 688 Min. 254	190	¢69	ø72	ø79.5
1020	Min. 62 Max. 766	Max. 958 Min. 254	190	¢69	ø72	ø79.5
1270	Min. 62 Max. 1016	Max. 1208 Min. 254	190	¢69	ø72	ø79.5
1500	Min. 62 Max. 1246	Max. 1438 Min. 254	190	¢69	ø72	ø79.5

Standard Design

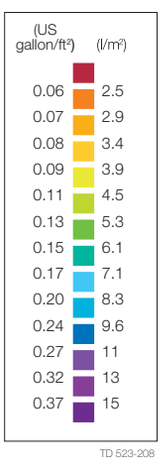
Special versions include Tri-Clamp connections and ultra-low flow with fast rotation. As standard documentation, the Toftejorg TZ-89 can be supplied with a “Declaration of Conformity” for material specifications.

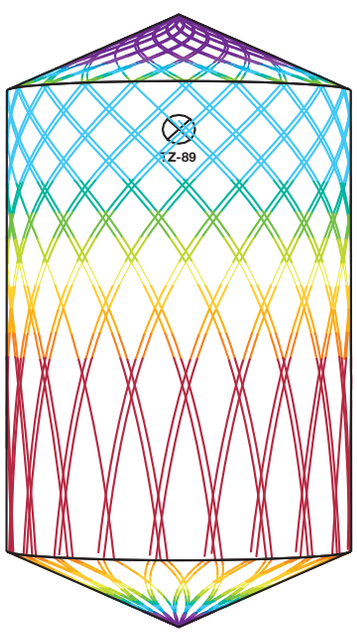
TRAX simulation tool

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.

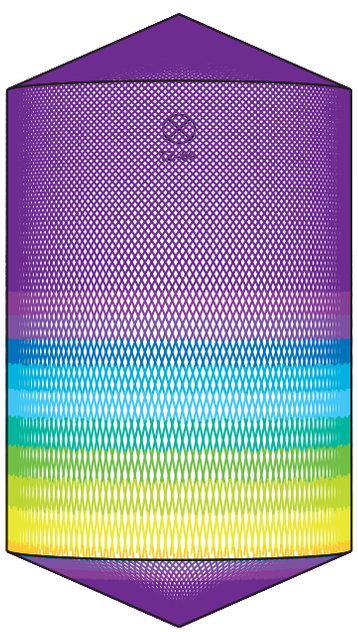
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D2m H3m, Toftejorg TZ-89, 4 x ø4 mm Time = 2.8 min., Water consumption =159 l



D2m H3m, Toftejorg TZ-89, 4 x ø4 mm Time = 11.1 min., Water consumption = 637 l

Fast, Effective Impact Cleaning

Alfa Laval TJ TZ-74 Self Cleaning Version Rotary Jet Head

Application
The Toftejorg TZ-74 Self Cleaning Version 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 50 and 500 m^3. Used in breweries, food and dairy processes and many other industries with a strict demand for self cleaning of the machine and the downpipe. The Toftejorg TZ-74 Self Cleaning Version rotary jet head has been particularly successful in the brewing industry worldwide.

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.

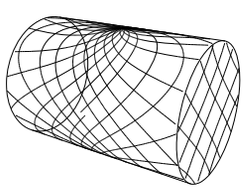
TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Standard Surface finish:	Ra 0.5µm exterior
Max throw length:	7 - 15 m
Impact throw length:	4 - 9 m

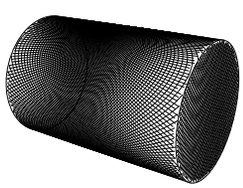
Pressure

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, TFM

Temperature

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

Weight: 6.1 kg

Connections

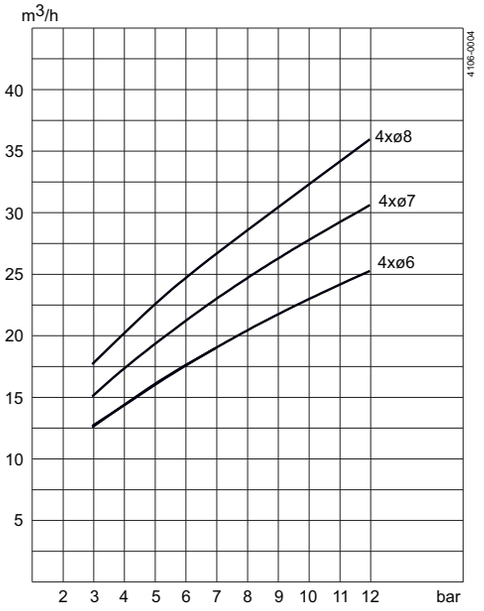
Standard female thread:	1 ½" Rp (BSP) or NPT, 2" NPT

Options
Electronic rotation sensor to verify 3D coverage.

Caution
Do not use for gas evacuation or air dispersion.

Flow Rate

Nozzles mm

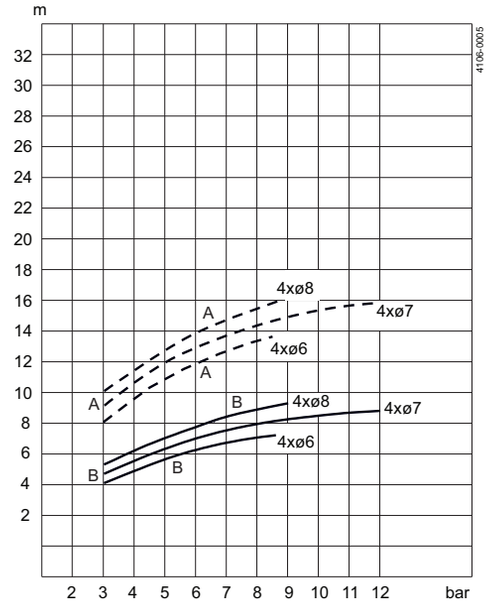


Flow rate

Inlet pressure

Impact Throw Length

Nozzles mm

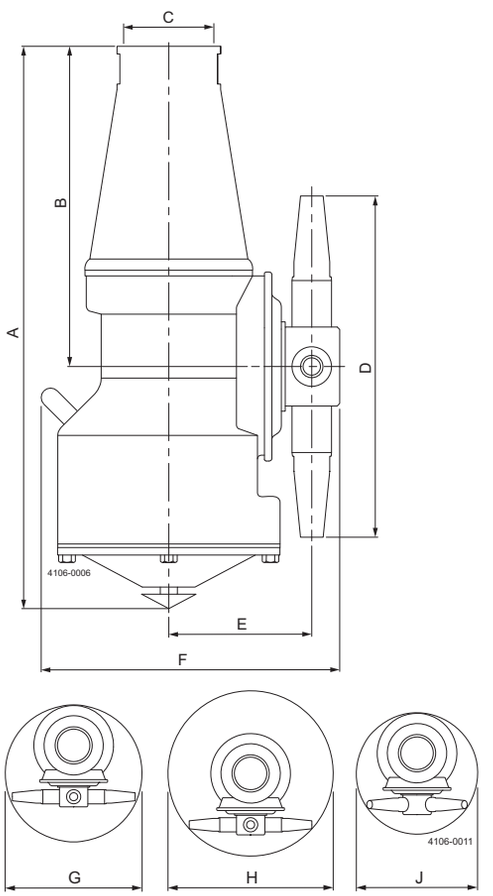


Throw length

Inlet pressure

A: Wetting - B: Impact cleaning

Dimensions (mm)

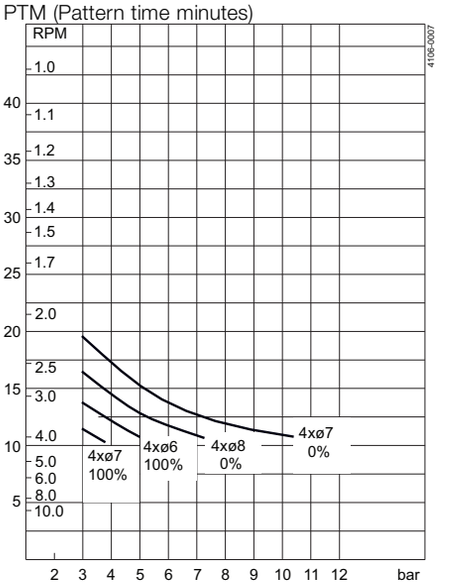


Cleaning Time, Complete Pattern

Min. RPM of machine body

Nozzles mm

PTM (Pattern time minutes)



Inlet pressure

A	B	C	D	E	F	G	H	J
297	170	1½" BSP or 1 ½" / 2" NPT	204	78	152	ø225	ø264	ø190

Standard Design

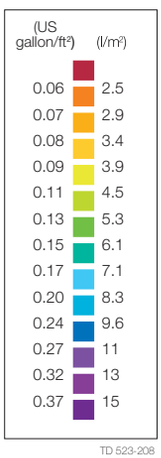
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. As standard documentation, the Toftejorg TZ-74 Self Cleaning Version can be supplied with a “Declaration of Conformity” for material specifications.

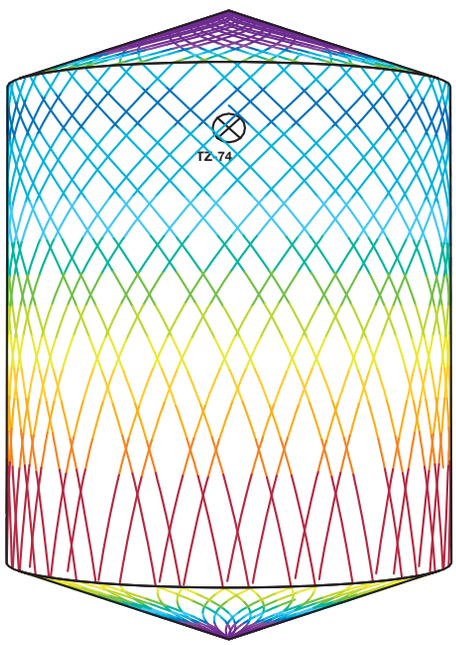
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-74 Self Cleaning 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 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 TZ-74 Self Cleaning version, 4 x ø7 mm, 0% Time = 3.8 min., Water consumption = 1192 l

D5m H6m, Toftejorg TZ-74 Self Cleaning version, 4 x ø7 mm, 0% Time = 15.3 min., Water consumption = 4853 l

Fast, Effective Impact Cleaning

Alfa Laval TJ TZ-74 Brew Kettle Version Rotary Jet Head

Application
The Toftejorg TZ-74 Brew Kettle Version is a special version of the Toftejorg TZ-74 rotary jet head. It 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 50 and 500 m^3. The Toftejorg TZ-74 Brew Kettle Version is equipped with special sealings, which makes it particularly well-suited to work under rough conditions e.g. in brew kettles, where fibres, 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.

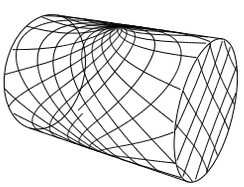
TECHNICAL DATA

Lubricant:	Self-lubricating with the cleaning fluid
Standard Surface finish:	Ra 0.5µm exterior
Max throw length:	8 - 17 m
Impact throw length:	4 - 10 m

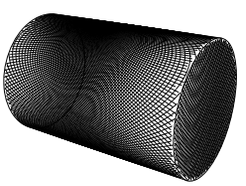
Pressure

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.

Certificate
2.1 material certificate and ATEX.

PHYSICAL DATA

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

Temperature

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

Weight: 6.1 kg

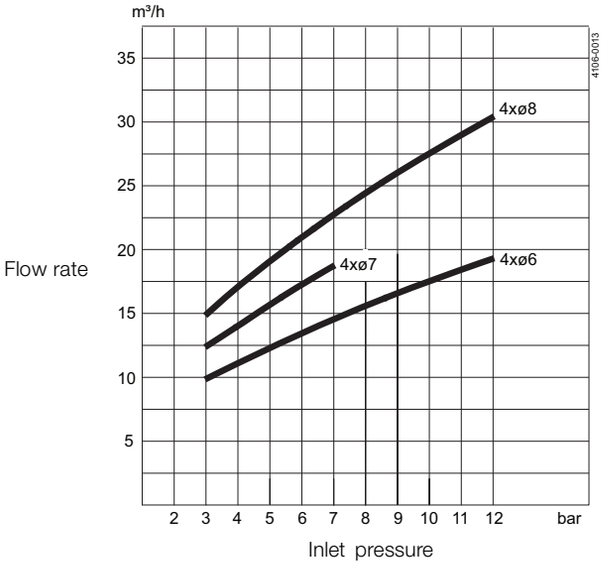
Connections

Standard female thread:	1 1/2” Rp (BSP) or NPT, 2" NPT

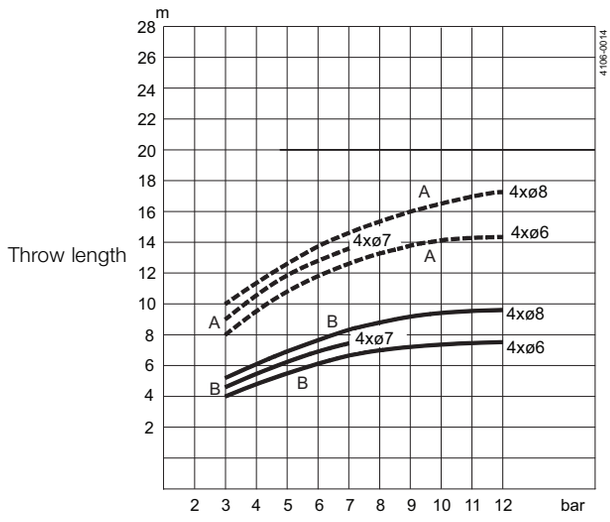
Options
Electronic rotation sensor to verify 3D coverage.

Caution
Do not use for gas evacuation or air dispersion.

Flow Rate Nozzles mm

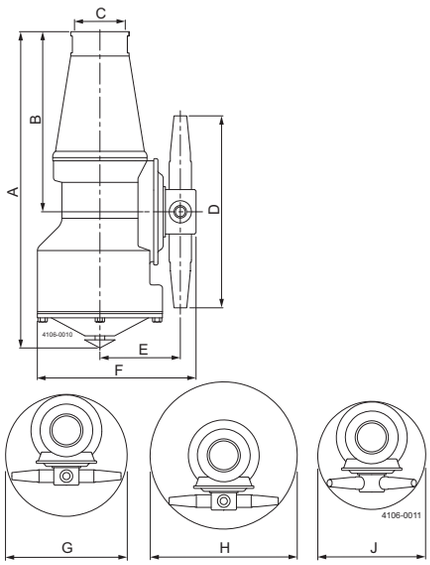


Impact Throw Length Nozzles mm



A: Wetting - B: Impact cleaning

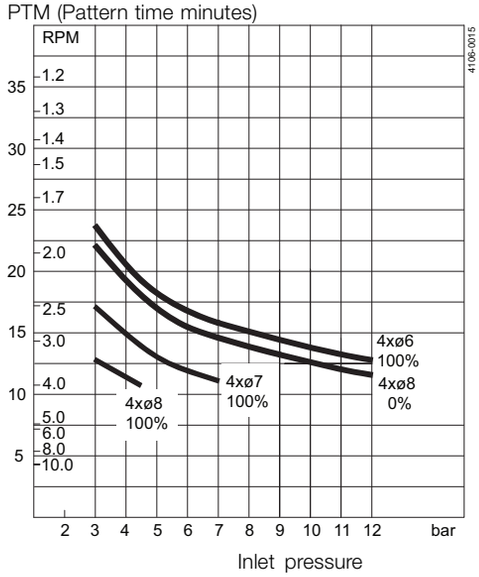
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



A	B	C	D	E	F	G	H	J
297	170	1½" BSP, 1½" NPT or 2" NPT	204	78	152	ø216	ø264	ø180

5.3

Standard Design

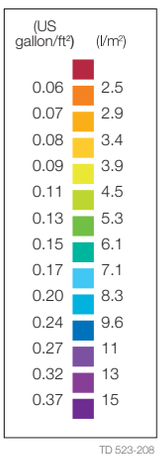
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure.

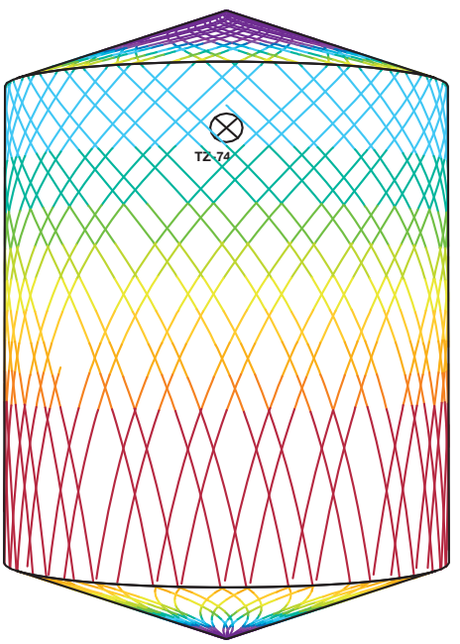
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-74 Brew Kettle 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 machine and the correct combination of flow, time and pressure to implement.

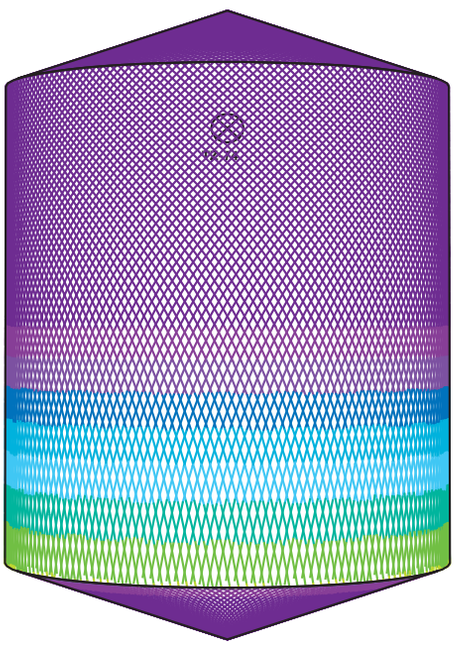
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D5m H6m, Toftejorg TZ-74 Brew Kettle Version, 4 x ø6 mm, 100% Time = 4.4 min., Water consumption = 907 l



D5m H6m, Toftejorg TZ-74 Brew Kettle Version, 4 x ø6 mm, 100% Time = 18.2 min., Water consumption = 3760 l

Fast, Effective Impact Cleaning

Alfa Laval TJ TZ-67 Rotary Jet Head - Portable

Application
The Toftejorg TZ-67 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 50 and 500 m^3. Used in breweries, food and dairy processes and many other industries, the Toftejorg TZ-67 is particularly well-suited to portable applications where high impact is required.

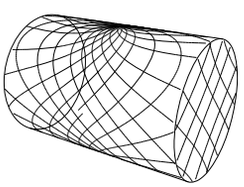
Working principle
The flow of the cleaning fluid makes the nozzles perform a geared rotation around the vertical and horizontal axes. In the first cycle, the nozzles lay out a coarse pattern on the tank surface. The subsequent cycles gradually make the pattern more dense, until a full pattern is reached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

TECHNICAL DATA

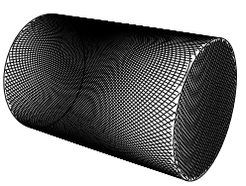
Lubricant: . . . . . Self-lubricating with the cleaning fluid
Standard Surface finish: . . . . . Ra 0.5µm exterior
Max. throw length: . . . . . 7 - 17 m
Impact throw length: . . . . . 4 - 10 m

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, PVDF, PEEK, ETFE, TFM

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

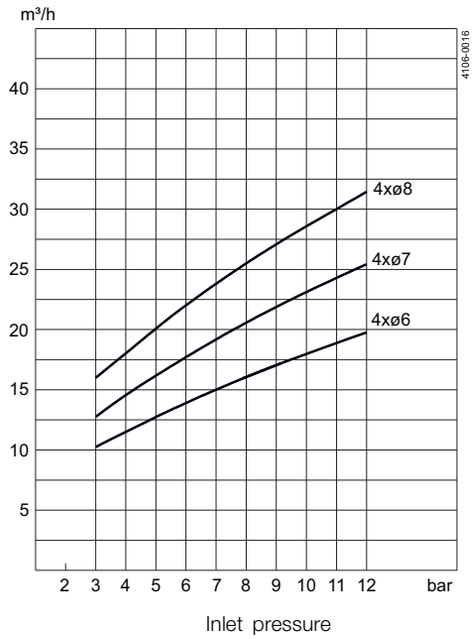
Weight: . . . . . 6 kg

Connections
Standard thread: . . . . . 1 1/2” Rp (BSP) or NPT, male

Options
- Electronic rotation sensor to verify 3D coverage
- Hose saddle, deck cover plate, hose winch, hose, etc. are available.

Caution
Do not use for gas evacuation or air dispersion.

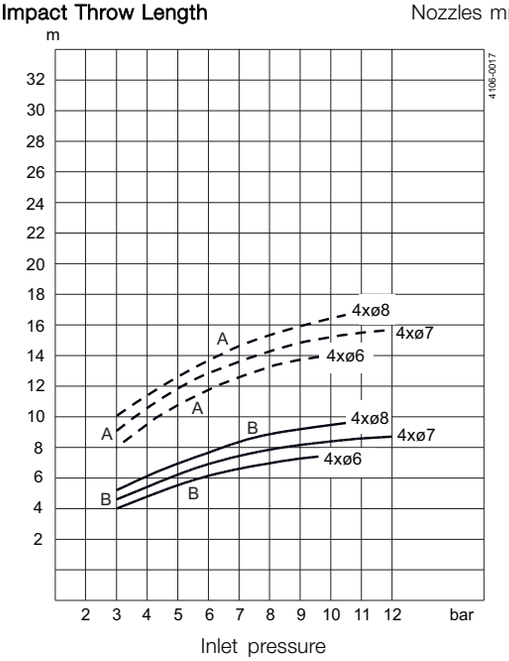
Flow Rate Nozzles mm



Flow rate

Inlet pressure

Impact Throw Length Nozzles mm

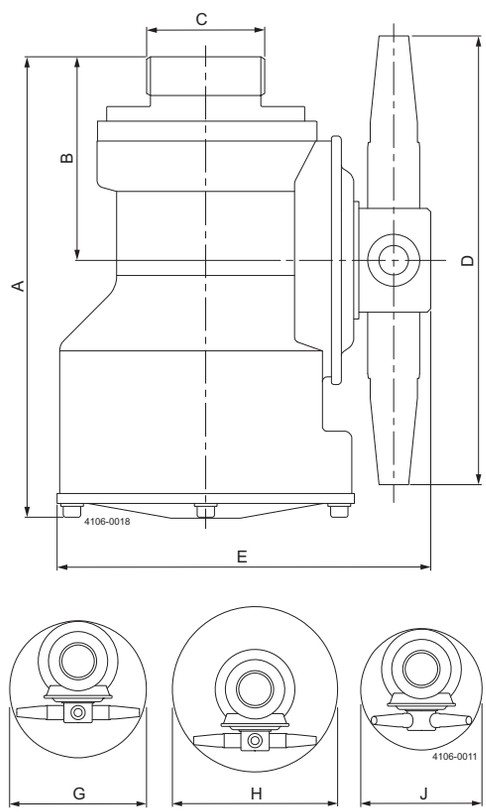


Throw length

Inlet pressure

A: Wetting - B: Impact cleaning

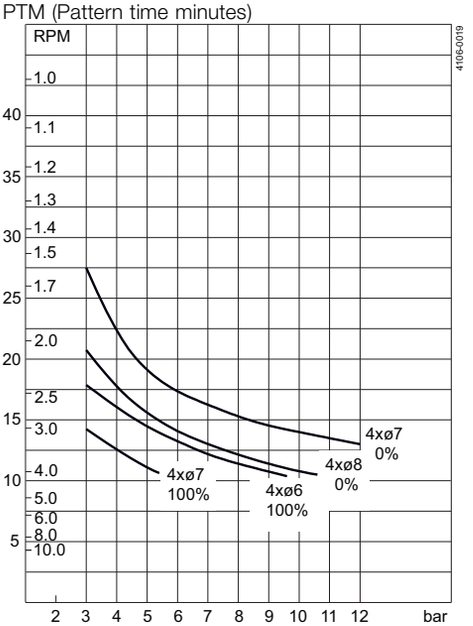
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



Inlet pressure

A	B	C	D	E	G	H	J
186	82	1½" BSP / 1½" NPT	204	152	ø216	ø264	ø180

Standard Design

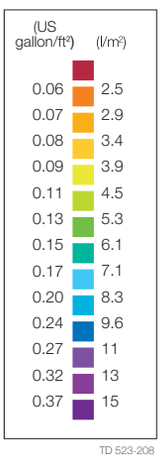
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. Complete portable systems can comprise a four-wheel carriage and hose winch. As standard documentation, the Toftejorg TZ-67 can be supplied with a “Declaration of Conformity” for material specifications.

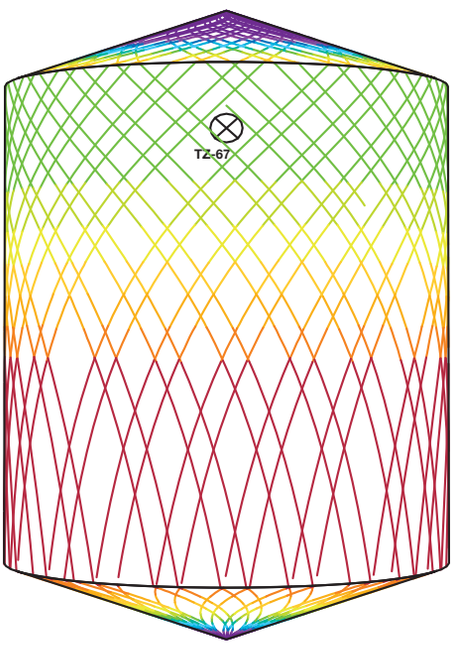
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-67 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.

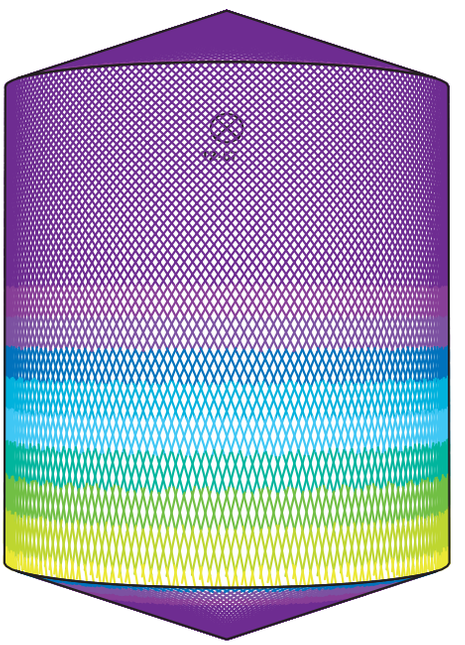
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D2.5m H6m, Toftejorg TZ-67, 4 x ø6 mm Time = 3.5 min., Water consumption = 727 l



D2.5m H6m, Toftejorg TZ-67, 4 x ø6 mm Time = 14.7 min., Water consumption = 3097 l

Fast, Effective Impact Cleaning

Alfa Laval TJ TZ-79 Rotary Jet Head

Application

The Toftejorg TZ-79 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. Used in breweries, food and dairy processes and many other 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 8 cycles.

TECHNICAL DATA

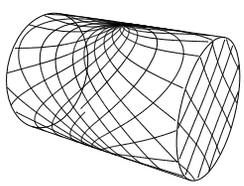
Lubricant:	Self-lubricating with the cleaning fluid
Standard Surface finish:	Ra 0.5µm exterior
Max. throw length:	9 - 26 m
Impact throw length:	5 - 14 m

Pressure

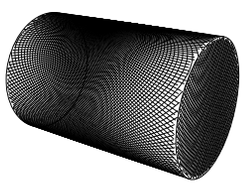
Working pressure:	3 - 12 bar
Recommended pressure:	5 - 6.5 bar*

* Does not apply for 4 x ø9 mm (0.16 x ø0.35 inch) 100%

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, PVDF, PEEK, Carbon, ETFE, TFM.

Temperature

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

Weight: 12.2 kg

Connections

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

Options

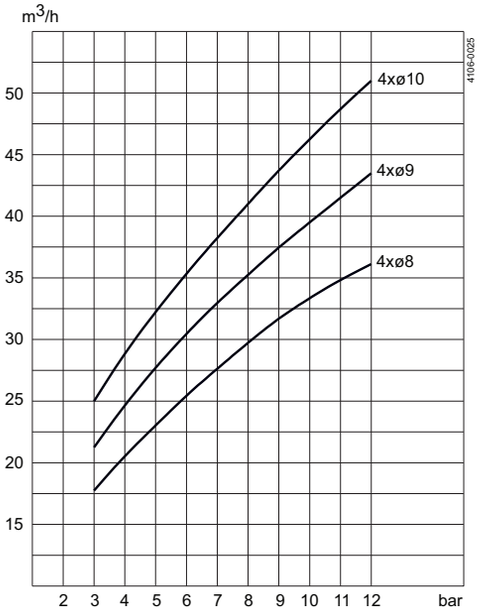
Electronic rotation sensor to verify 3D coverage.

Caution

Do not use for gas evacuation or air dispersion.

Flow Rate

Nozzles mm

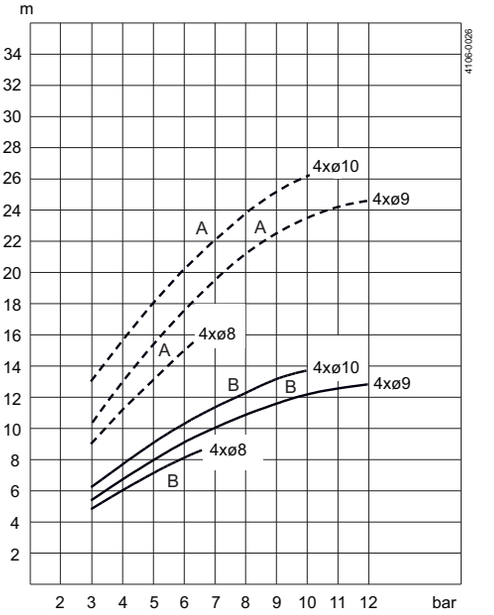


Flow rate

Inlet pressure

Impact Throw Length

Nozzles mm

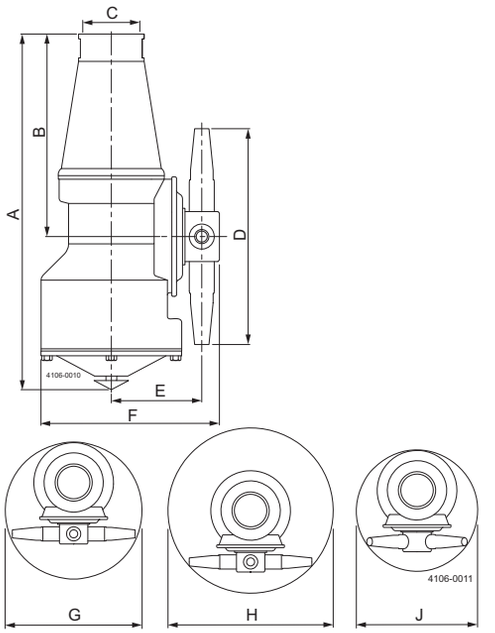


Throw length

Inlet pressure

A: Wetting - B: Impact cleaning

Dimensions (mm)

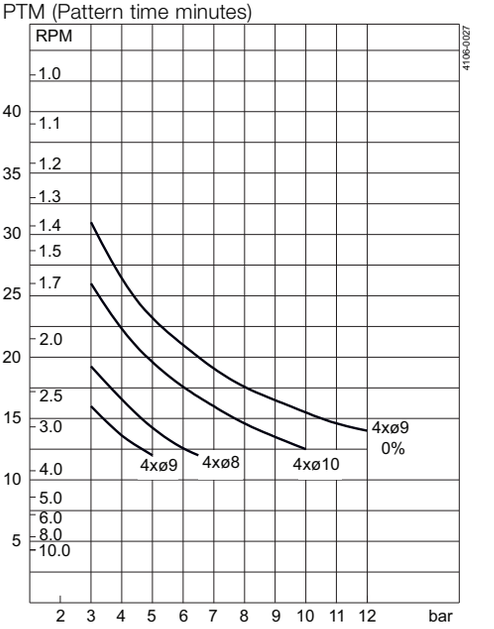


Cleaning Time, Complete Pattern

Min. RPM of machine body

Nozzles mm

PTM (Pattern time minutes)



Inlet pressure

A	B	C	D	E	F	G	H	J
356	220	2” BSP / 2” NPT	268	98	195	ø280	ø343	ø232

Standard Design

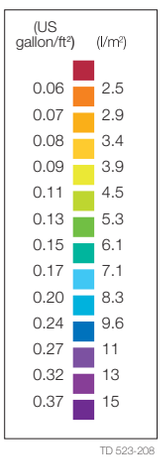
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. Selfcleaning arm available. As standard documentation, the Toftejorg TZ-79 can be supplied with a “Declaration of Conformity” for material specifications.

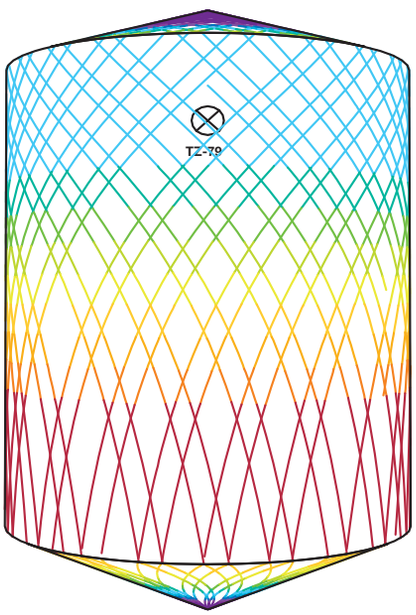
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-79 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.

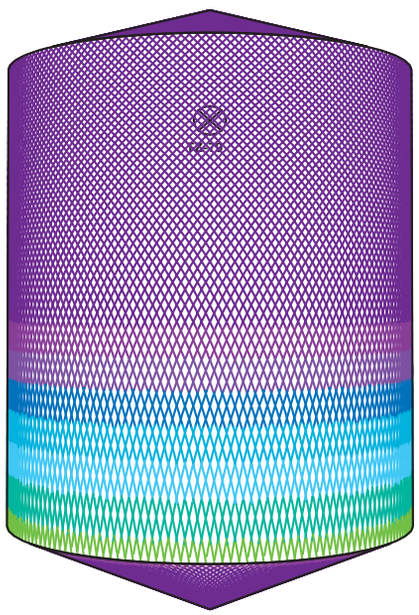
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D8m H10m, Toftejorg TZ-79, 4 x ø10 mm, 0 % Time = 5.5 min., Water consumption = 2565 l



D8m H10m, Toftejorg TZ-79, 4 x ø10 mm, 0 % Time = 23.3 min., Water consumption = 10868 l

Fast, Effective Impact Cleaning

Alfa Laval TJ TZ-66 Rotary Jet Head - Portable

Application
The Toftejorg TZ-66 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. Used in breweries, food and dairy processes and many other industries, the Toftejorg TZ-66 is particularly well-suited to portable applications where high impact is required.

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

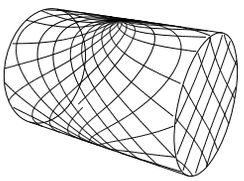
Lubricant:	Self-lubricating with the cleaning fluid
Standard Surface finish:	Ra 0.5µm exterior
Max throw length:	9 - 29 m
Impact throw length:	5 - 15 m

Pressure

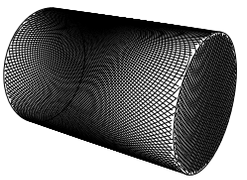
Working pressure:	3 - 12 bar
Recommended pressure:	5 - 6.5 bar*

* Does not apply for 4 x ø9 mm 100%

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, PVDF, PEEK, Carbon, ETFE, TFM.

Temperature

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

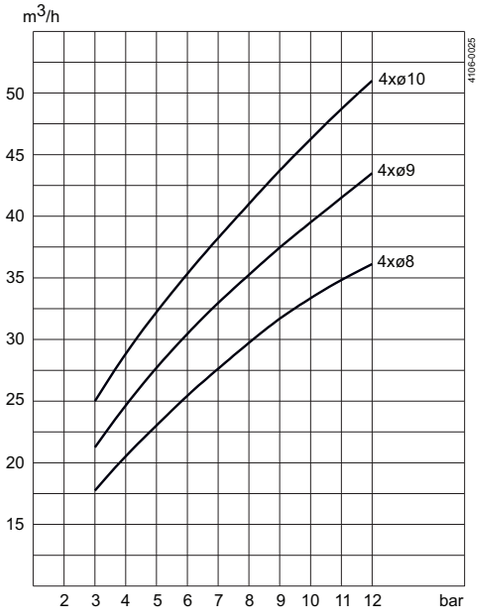
Weight: 11.8 kg

Connections
Standard thread: 2" BSP or NPT, male

Options
- Electronic rotation sensor to verify 3D coverage
- Hose saddle, deck cover plate, hose winch, hose etc. are available

Caution
Do not use for gas evacuation or air dispersion.

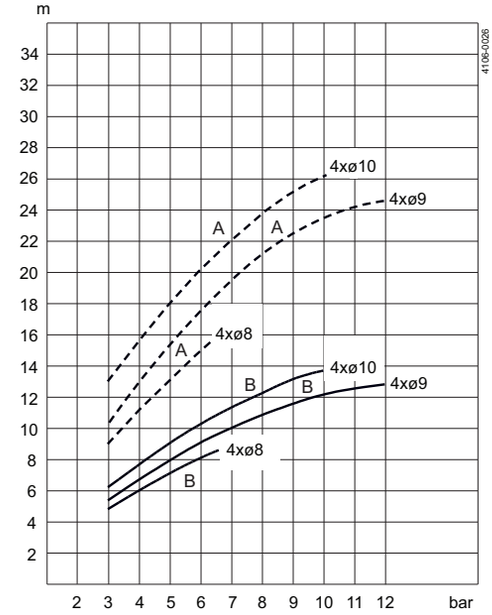
Flow Rate Nozzles mm



Flow rate

Inlet pressure

Impact Throw Length Nozzles mm

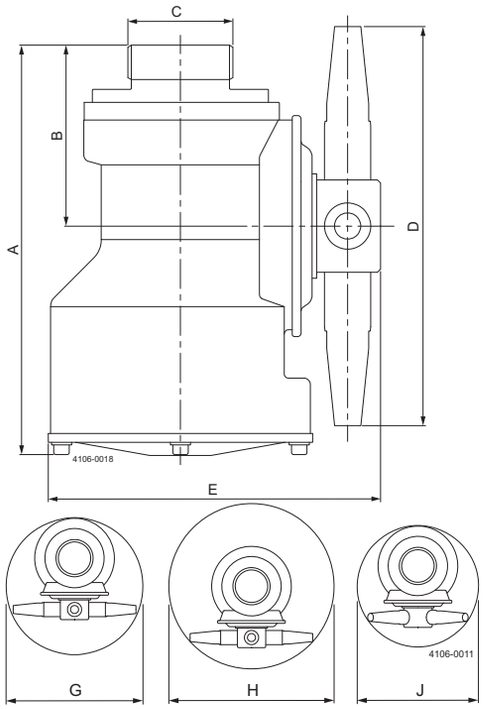


Throw length

Inlet pressure

A: Wetting - B: Impact cleaning

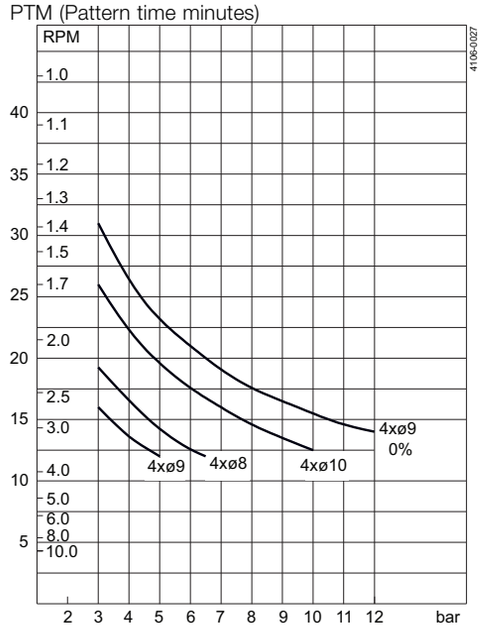
Dimensions (mm)



Cleaning Time, Complete Pattern

Min. RPM of machine body Nozzles mm

PTM (Pattern time minutes)



Inlet pressure

A	B	C	D	E	G	H	J
241	110	2” BSP or 2” NPT	268	196	ø280	ø343	ø232
(ASA=251)	(ASA=120)	2½" ASA					

Standard Design

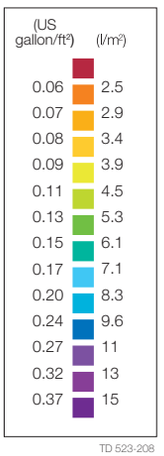
The choice of nozzle diameters can optimise jet impact length and flow rate at the desired pressure. Complete portable systems can comprise a four-wheel carriage and hose winch. As standard documentation, the Toftejorg TZ-66 can be supplied with a “Declaration of Conformity” for material specifications.

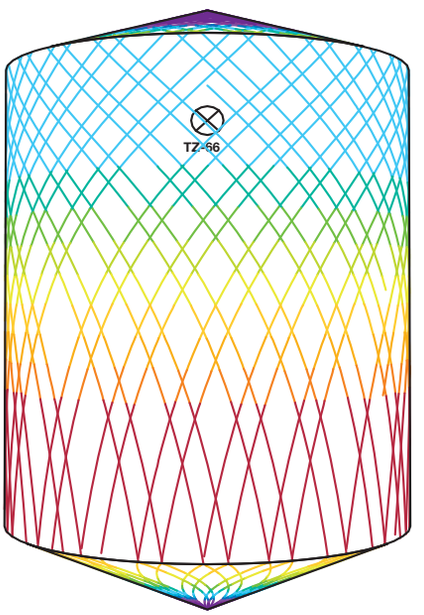
TRAX simulation tool

TRAX is a unique software that simulates how the Toftejorg TZ-66 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.

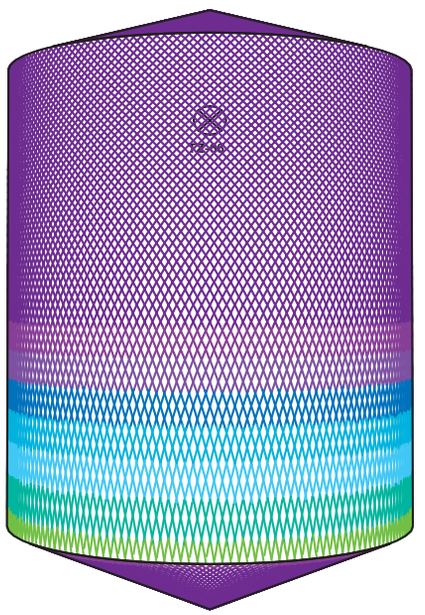
A TRAX demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications. A TRAX simulation is free and available upon request.

Wetting Intensity





D8m H10m, Toftejorg TZ-66, 4 x ø10 mm, 0% Time = 5.5 min., Water consumption = 2565 l



D8m H10m, Toftejorg TZ-66, 4 x ø10 mm, 0% Time = 23.3 min., Water consumption = 10868 l

Fast, Effective Impact Cleaning

Alfa Laval TJ TZ-750 Rotary Jet Head - Portable

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.

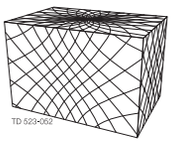
TECHNICAL DATA

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.

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.

PHYSICAL DATA

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

Temperature

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

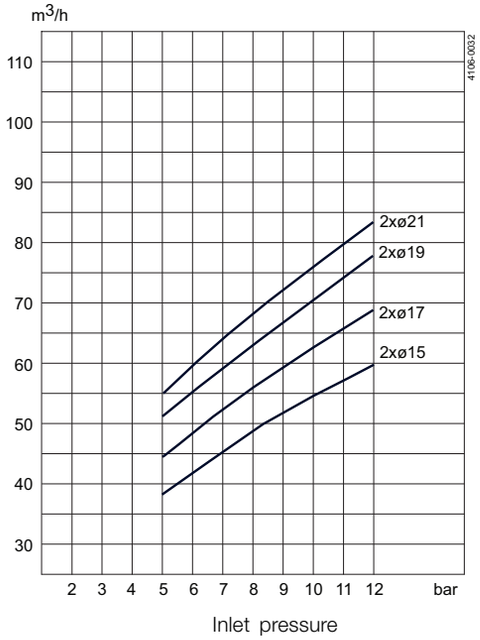
Weight

Portable:	12.1 kg
Fixed:	3.6 kg

Connections

Standard thread:	2½" Rp (BSP), NPT

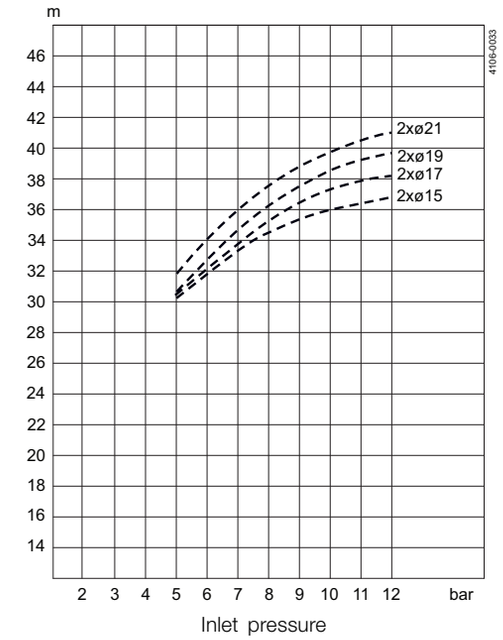
Flow Rate Nozzles mm



Flow rate

Inlet pressure

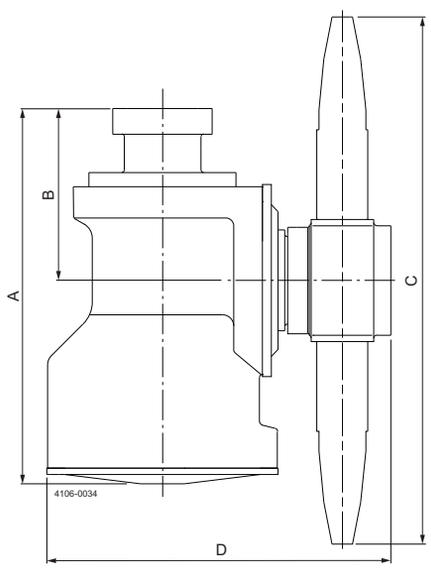
Horizontal Throw Length
(Wetting Radius) at Static Condition Nozzles mm

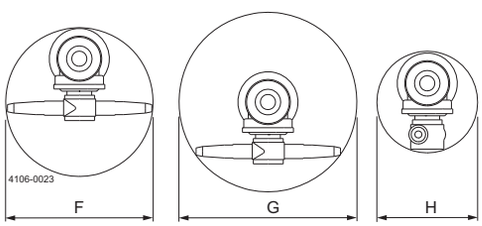


Throw length

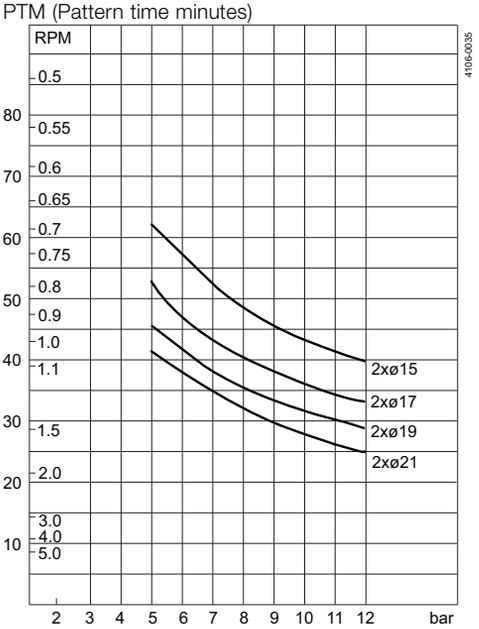
Inlet pressure

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