Архангельск (8182)63-90-72 Астана (7172)727-132 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Волгоград (844)278-03-48 Волоград (8142)278-03-48 Волоград (8142)278-03-48 Волоград (8142)278-03-48 Волоград (8142)278-03-48 Волоград (8142)378-03-88 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Краснодар (861)203-40-90 Краснозрск (391)204-63-61 Киргизия (996)312-96-26-47 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новосибирск (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16 Казахстан (772)734-952-31 Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Симферополь (3652)20-67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Таджикистан (992)427-82-92-69 Сургут (3462)77-98-35 Тверь (4822)63-31-35 Томск (3822)98-41-53 Тула (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Черялбинск (351)202-03-61 Череповец (8202)49-02-64 Ярославль (4852)69-52-93

https://alaval.nt-rt.ru || avb@nt-rt.ru

УСТРОЙСТВА ДЛЯ ОЧИСТКИ РЕЗЕРВУАРОВ



Бочка / Drum / IBC

Устройства для очистки вращающихся струйных головок Alfa Laval GJ 7, Alfa Laval GJ BB и Alfa Laval GJ 9 представляют собой значительный технологический прорыв, предлагая самые мощные результаты очистки в компактном, простом в обращении размере. Alfa Laval GJ 7 и Alfa Laval GJ BB специально разработаны для очистки небольших бочек и бочек, а Alfa Laval GJ 9 предлагает быструю очистку ваших промежуточных контейнеров для массовых грузов (IBC). Все устройства доступны в широком диапазоне размеров и конфигураций сопел.



GJ

Линейка продуктов Alfa Laval GJ предлагает широкий спектр машин для очистки резервуаров для промышленного применения, таких как краски, сталь, целлюлоза и бумага, химикаты, нефть и газ. Диапазон варьируется от возможности очистки небольших резервуаров для хранения / обработки до крупных промышленных ферментеров и резервуаров объемом более 5678 м3 (1,5 миллиона галлонов). Линия также включает в себя специальное устройство для очистки подземных резервуаров через одно отверстие.

GJ A



Линия продуктов Alfa Laval GJ A предлагает устройства для очистки резервуаров, которые обеспечивают мощную, эффективную, гигиеническую очистку для предприятий пищевой промышленности, производства напитков и средств личной гигиены. Они идеально подходят для модифицированных применений для замены ресурсоемких статических распылительных шаров и дорогостоящей ручной очистки. Особенности GJ A включают возможности самоочистки и самоосушения, а также возможность очистки резервуаров через отверстия размером всего 5 см (2 дюйма).

MultiJet

Линейка очистки резервуаров Alfa Laval MultiJet с вращающейся струйной головкой обеспечивает исключительную чистоту, лучшее качество конечного продукта, большую общую производительность и снижение эксплуатационных расходов. Они предназначены для промышленного применения, такого как краска, сталь, целлюлоза и бумага, химическое применение. Доступный в различных размерах и различных конфигурациях, охватывающих любой размер бака.



SaniJet

Alfa Laval SaniJet предназначен для гигиенических, биотехнологических и фармацевтических применений и обеспечивает исключительную чистоту, лучшее качество конечного продукта, более высокую общую производительность и сниженные эксплуатационные расходы.





T / TZ

Линейка очистки резервуаров Alfa Laval T / TZ с вращающейся струйной головкой обеспечивает исключительную чистоту, лучшее качество конечного продукта, большую общую производительность и сниженные эксплуатационные расходы. Они предназначены для гигиенических применений, таких как продукты питания, молочные продукты и напитки, а также для морской среды. Доступный в различных размерах и различных конфигурациях, охватывающих любой размер бака.



Быстрый и эффективный СІР для увеличения ценного производственного времени



Ассортимент устройств для очистки резервуаров с вращающейся струйной головкой Alfa Laval обеспечивает исключительную чистоту, лучшее качество конечного продукта, большую общую производительность и снижение эксплуатационных расходов до 70%. Они предназначены для гигиенических применений, таких как продукты питания, молочные продукты, средства личной гигиены и напитки.

Ударопрочное качество гарантируется при о повторяющейся очистке на 360

Линейка ТЈ обеспечивает автоматическую Избегайте загрязнения благодаря документы Смежные отрасли эффективной очистке и превосходным функциям самоочистки Экономичное и устойчивое решение из-за снижения требований к воде и химикатам Более доступное время производства из-за сокращения времени очистки Простота обслуживания и обслуживания - не требуется специальных инструментов Контроль CIP через проверенную очистку

3D-индексированную очистку от ударов в течение определенного периода времени для обработки, хранения и транспортировки резервуаров и других емкостей от 15 до 500 м3. Удостоенный наград дизайн подходит для очистки пивоваренного оборудования, а также для пищевых и молочных процессов и является экономически эффективным средством достижения гигиенически безопасной и качественной очистки резервуаров.

i40 D

Gunclean Toftejorg i40 D - это машина для очистки резервуаров с двойным соплом второго поколения. Он предназначен для использования в стационарных установках на танкерах для перевозки химикатов и продуктов, а также на морских установках.

i40 S

Gunclean Toftejorg i40 S - это полностью программируемая машина для очистки бака с одним соплом второго поколения, предназначенная для установки на борту цистерн для химикатов и продуктов, а также для морских работ.



i65 S

Gunclean Toftejorg i65 S - это полностью программируемая машина для очистки бака с одним соплом, оснащенная инновационной гистерезисной муфтой.



Alfa Laval GJ BB

Save time and water with single-insertion barrel cleaning

Application

The Alfa Laval GJ BB is part of the world-renowned Gamajet range of tank cleaning devices. With a single insertion of the Alfa Laval GJ BB, barrels and 208.2 l drums are cleaned in only 2-3 minutes while using only 30-45 l of water. This device offers high-performance cleaning combined with maximum durability. A heavy-duty stainless steel gear train remains outside the barrel or drum during cleaning, ensuring a long service life. The Alfa Laval GJ BB saves companies substantial amounts of time, water, and money.

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 l	en	g	th	1								2.5 m

Pressure

Working pressure										5.5	- 8	33	ba
Recommended p	res	รเ	Jr	е						5.5	- {	55	ba

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, PFTE, EPDM

Temperature

Weight	 2.5 kg.
Max. ambient temperature	 140°C
Max. working temperature	 95°C

Connections

Standard thread								⅔"	NPT		
Available option								3⁄4"	NPT,	³ /4"	BSF

Caution

Fast, effective impact cleaning for small tanks and IBCs

Application

The Alfa Laval GJ 9 is part of the world-renowned Gamajet range of high impact tank cleaning devices. The device offers compact cleaning for small tanks, totes and intermediate bulk containers (IBCs) in both industrial and hygienic applications. With fewer parts and a highly durable design, the Alfa Laval GJ 9 provides superior performance and is the most versatile rotary jet head available. This device readily passes through 76 mm openings and can handle high pressures and temperatures, enabling quick and easy cleaning of small totes/IBCs, tanks, trash carts, and much more. Companies are able to clean in-house and in half the time, saving a substantial amount of time, water, and money.

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							1.2 - 6 m

Pressure

Working pressure3 - 70 barRecommended pressure4 - 40 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
Weight 2.2kg
Connections Standard thread

Caution

First choice in fuel storage tank cleaning

Application

The Alfa Laval GJ 10 tank cleaning device fits through a 10.16 cm (4") opening and is capable of cleaning a 113.56 liter (30,000 gal) underground fuel storage tank with one insertion. This device blasts away contaminants and breaks up dirt and sludge in minutes. The Alfa Laval GJ 10 easily converts the contaminant-laden sludge into a solution which allows for complete liquid extraction and thorough tank cleaning. The device is part of the world-renowned Gamajet range of tank cleaning devices.

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	len	gt	h								10.5 m

Pressure

Working pressure2.75 - 20 barRecommended pressure3.5 - 18.5 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

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

Temperature

Max. working temperature	 95°C
Max. ambient temperature	 140°C
Weight	 4.3 kg

Connections

Caution



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 **fl**uid-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

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	 11/2" Rp (BSP) or NPT, female
Available option	 2" Rp (BSP) or NPT, female

Caution



Alfa Laval Gunclean Toftejorg i40 S

Single-nozzle tank cleaning machine

Alfa Laval's single-nozzle Gunclean Toftejorg i40 S is a second-generation high-impact, fully programmable tank cleaning machine.

Developed to meet the toughest tank cleaning requirements with optimized design and wear resistant materials, the Gunclean Toftejorg i40 S is a simple and reliable choise for cost effective operation.

Application

The Gunclean Toftejorg i40 S is designed for use in fixed installations aboard chemical and product carriers as well as in offshore applications. Its reliable operation and wear-resistant design make it suitable for use in all types of tank cleaning applications. With a required deck opening of only 145 mm, the i40 S machine is the optimal machine for upgrading older tank cleaning machines on chemical tankers.

Energy Efficient Design

Energy efficient design With Alfa Laval's optimized design of the cleaner head and nozzle, the i40S machine outperforms any other single nozzle machine on the market. The design ensures high impact cleaning with the least possible water consumption, leading to savings in both time and costs.

Reduced maintenance Due to high-tech, wear-resistant ceramics and stainless ball bearings in the cleaner head inside the tank, the need for lifting out the machines for maintenance is practically eliminated.

Optimized turbine

The turbine of the Gunclean Toftejorg i40 S is specially designed for better power transmission, which contributes to increased machine lifetime.

Isolated gearbox

The oil-free gearbox is located above deck and can be removed without exposing the tank to the atmosphere. This facilitates service.

Robust construction

The gearbox has a stronger construction than previous tank cleaning machines and involves fewer wear parts.





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

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	140°C
Weight	

Connections

Standard thread 2" NPT, 2" BSP

Caution



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 m³. 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 ba

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

Weight: 6.1 kg

Connections

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

Caution



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 m³.

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

Pressure

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

Weight: 12.2 kg

Connections

Caution



Toftejorg TZ-75 Rotary Jet Head - Portable

with the

Fast, Effective Impact Cleaning

Application

The Toftejorg TZ-75 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 from cleaning tanks. Storage and transportation tanks between 1,000 and 5,000 m³. Used in petro-chemical and chemical processing industries.

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 4 cycles.



TECHNICAL DATA

Lubricant:	Self-lubricating with
	cleaning fluid
Standard Surface finish:	Ra 0.5µm exterior
Flow rate:	18-48 m ₃ /hour

Pressure

Cleaning Pattern





First cycle

Full pattern

Certificates

2.1 material certificate and ATEX.

PHYSICAL DATA

Materials

316L (UNS S31603), Duplex steel (UNS S21800), PTFE, PVDF, Carbon, EFTE

Temperature

Max. working temperature: 95°C

Weight 11.3 kg

Connections Standard thread:

Options

Optional hose saddle, deck cover plate, hose winch etc. are available.



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 m³. 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

Pressure

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

Cleaning Pattern





Full pattern

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

Certificates

2.1 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

Weiaht:																					5.1 ka
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Connections

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

Caution



Alfa Laval Gunclean Toftejorg i40 D

Dual-nozzle tank cleaning machine

Alfa Laval's dual-nozzle Gunclean Toftejorg i40 D is a second-generation high-impact tank cleaning machine.

Developed to meet the toughest tank cleaning requirements with optimized design and wear resistant materials, the Gunclean Toftejorg i40 D is a simple and reliable choise for cost effective operation.

Application

The Gunclean Toftejorg i40 D is designed for use in fixed installations aboard chemical and product carriers, as well as in offshore applications. Its reliable operation and wear-resistant design make it suitable for use in all types of tank cleaning applications.

Energy efficient design

With Alfa Laval's optimized design of the cleaner head and nozzle, the i40D machine outperforms any other dual nozzle machine on the market.

The design ensures high impact cleaning with the least possible water consumption, leading to savings in both time and costs.

Reduced maintenance

Due to high-tech, wear-resistant ceramics and stainless ball bearings in the cleaner head inside the tank, the need for lifting out the machines for maintenance is practically eliminated.

Optimized turbine

The turbine of the Gunclean Toftejorg i40 D is specially designed for better power transmission, which contributes to increased machine lifetime.

Isolated gearbox

The oil-free gearbox is located above deck and can be removed without exposing the tank to the atmosphere. This facilitates service.

Robust construction

The gearbox has a stronger construction than previous tank cleaning machines and involves fewer wear parts.





Alfa Laval T-82P Rotary Jet Head - Portable

Fast, Effective Impact Cleaning

Application

The Toftejorg T-82 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 from cleaning tanks. Storage and transportation tanks up to 3,000 m3 (800,000 US gallons). Used in petrochemicals and chemical processing industries. The T-82 is grease lubricated (FDA approved) and designed to clean tanks in a rough environment.

Sizing/selection and installation drawing are available in Alfa Laval CAS tool for Tank cleaning equipment.

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 4 cycles.

Cleaning Pattern



First cycle

Materials

1.4404 (316L)

Technical Data

Weight:	7.0 kg (15.4 lbs)
Lubricant:	Grease-lubricating (FDA approved)
Working pressure:	5 - 12 bar (72 - 174 psi)
Recommended	
pressure:	5 - 10 bar (72 - 145 psi)
Flow rate:	8-23 m3/hour
Max. working	
temperature:	78 °C (173 °F)
Standard thread:	1 1/2" Rp (BSP) / 1 1⁄2" NPT

Full pattern

Certificate:

2.1

Options

Hose saddle, deck cover plate, hose winch extension pipe etc. are available.





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 m³. 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:
Recommended pressure: 5–10 bar
Capacity;
Installation
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

Certificates

2.1

Caution



TZ-82P Rotary Jet Head - Portable

Fast, Effective Impact Cleaning

Application

The Toftejorg TZ-82P portable rotary jet head provides 3D indexed impact cleaning over a defined time period. It is automatic and represents a guaranteed means of achieving quality from cleaning tanks. Storage and transportation tanks up to 3,000 m³. Used in petro-chemicals and chemical processing industries.

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 4 cycles.



TECHNICAL DATA

Lubricant:	Self-lubricating with the
	cleaning fluid
Standard Surface finish:	Ra 0.5µm exterior

Pressure

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

Cleaning Pattern





First cycle

Full pattern

PHYSICAL DATA

Materials

316L (UNS S31603), Duplex steel (UNS S21800), PTFE, PEEK, EFTE

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

Connections

Standard thread: 1 1/2" Rp (BSP) / 1 1/2" NPT

Certificates

2.1 material certificate and ATEX.

Options

Hose saddle, deck cover plate, hose winch extension pipe etc. are available.



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 m³. 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

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. ambient temperature: 140°C

Weight:

Connections

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.



Optimal tank cleaning for hygienic applications

Application

Setting high standards for cleanliness is critical for product quality and plant productivity. The Alfa Laval GJ A6 tank cleaning device delivers powerful tank cleaning with reliable, repeatable, and verifiable results to meet the stringent hygienic demands of the food, beverage and personal care industries. Designed to fit through a 7.62 cm (3") sanitary fitting, the Alfa Laval GJ A6 is ideal for retrofit applications to replace resource-heavy static spray balls and costly manual cleaning.

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
Max. throw	len	g	th								2 - 6 m

Pressure

Working pressure 2 - 27+ bar Recommended pressure 2 - 10 bar

Cleaning Pattern



First Cycle



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

1.4404 (316L), PEEK*, EPDM* (FKM* and FFKM*), PPS* * FDA compliance 21CFR§177

Temperature

Max. working temperature	95°C 140°C
Weight	1.8 kg 0.8 µm
Connections Standard thread Available option	1" US BPE SCH 5/IDØ25,7 Clip-on DN25 Clip-on DIN 11850 range 1, DN25 Clip-on DIN 11850 range 2, 11/2" ASME BPE Weld-on

Caution



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 m³. 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 fl uid
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



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

Caution





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 m³. 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

Pressure

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

Connections Standard three

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.



Optimal tank cleaning through 2" openings

Application

Designed to fit through a 5.08 cm (2") sanitary fitting, the Alfa Laval GJ A2 is ideal for retrofit applications to replace resource-heavy static spray balls and costly manual cleaning. Compact and efficient, the Alfa Laval GJ A2 can accommodate typical opening sizes while delivering the improved cleaning effectiveness and range of rotary impingement. The efficient and durable design is ideal for tank cleaning in hygienic environments such as food and beverage and personal care applications.

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
Max. throw	len	ŋg	th	1								4 - 5 m.

Pressure

Working pressure 2.75 - 14 bar Recommended pressure 4 - 10 bar

Cleaning Pattern



First Cycle



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*) * FDA compliance 21CFR§177

Temperature

Max. working temperature	95°C
Max. ambient temperature	140°C
Weight	2.26 kg
Surface finish	Ra 0.8 µm

Connections

Standard thread 3/4" Rp female Thread ODØ38,1/11/2" ISO 2037 Weld-on

Caution

Alfa Laval SaniJet 20

Meets the Highest Standards in Hygienic Cleaning

Application

The device is designed for use in pharmaceutical, biotechnological, food and dairy processing applications and is suitable for tanks and vessels between 0.5 and 30 m³. It is especially well-suited to processing highly viscous, foaming or thixotropic products and to chemical processing applications where product cross-contamination is unacceptable.

Working principle

The Toftejorg SaniJet 20 is a hygienic, rotary jet head device that cleans in a 3D indexed "Golden Section" pattern. It has an integrated self-cleaning (patented solution) and self-draining downpipe. The drive mechanism is located outside the tank, leaving a minimum of parts inside the vessel or to be submerged into the product. The distance between the tracks of the jets ensures efficient removal of residual product from the tank surface, from the start of the cleaning sequence, allowing for quick jet effective cleaning.



TECHNICAL DATA

Lubricant:	Machine: Self-lubricating with the cleaning fluid Air motor: Can operate non-lubricated
Surface finish:	
Product contact parts:	Ra 0.8µm
Impact throw length:	1.5 - 4 m
Min. tank opening:	4" Clamp w. rotacheck
	3" clamp - rotacheck N/A

Pressure

CIP media working pressure: 3-13 bar CIP media recommended pressure: ... 5-8 bar

Air driven

Air quality:	
Clean, filtered max	40µm
Dry, dew point max.:	5°C Non-lubricated possible
Air supply pressure:	max. 7 bar
Free air consumption:	Max. 2 l/sec. (8 m ³ /h)
Adjustable speed:	5 - 16 RPM
Cleaning time:	3 - 10 min

Certificates

2.2 material certificate, Q-doc and ATEX.





PHYSICAL DATA

Materials

316L (UNS S31603), PEEK*, Titanium Ti-GL Sealing: EPDM* (standard), FPM* FFKM* * FDA compliance 21CFR§177

Temperature

Weight

Connections

Inlet connection: Clamp: 1" ISO 2852	
Tank connection: Clamp: 4" ISO 2852	
Tank connection: Clamp: 3" ISO 2852	
Note: 3" Tank connection has no possibbility of integrated rotacheck	ĸ.

Options

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

Caution



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

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 140°C
Weight Surface finish	4.5 kg 0.8 µm
Connections Standard thread Available option	1½" Rp (BSP) or NPT, female 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



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

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	140°C
Weight	

Connections

Standard thread 2" NPT, 2" BSP

Caution



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

Cleaning Pattern



First Cycle



Full Pattern

PHYSICAL DATA

Materials

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

Temperature

Max. working temperature	
Max. ambient temperature	140°C
Weight	4.5kg
Surface finish	0.8 µ m

Connections

Standard thread

Архангельск (8182)63-90-72 Астана (7172)727-132 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Волгоград (844)278-03-48 Вологда (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калининград (4012)72-03-81 Киров (332)68-02-04 Киров (8332)68-02-04 Краснодар (861)203-40-90 Краснодар (861)203-40-90 Краснодар (861)203-40-90 Краскодар (861)203-40-90 Краскода Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новосибирск (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (352)37-68-04 Пенза (8412)22-31-16 Казахстан (772)734-952-31 Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санатов (845)249-38-78 Севастополь (8692)22-31-93 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Таджикистан (992)427-82-92-69 Сургут (3462)77-98-35 Тверь (4822)63-31-35 Томск (3822)98-41-53 Тула (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Хабаровск (421)92-98-04 Черяповец (8202)49-02-64 Череповец (8202)49-02-64 Ярославль (4852)69-52-93

https://alaval.nt-rt.ru || avb@nt-rt.ru