



Gunclean Toftejorg i65 D

Dual-nozzle tank cleaning machine

Alfa Laval's Gunclean Toftejorg i65 D is a high-efficiency tank cleaning machine with a dual nozzle. Developed to meet the toughest tank cleaning requirements, it is the first dual-nozzle tank cleaning machine on the market to feature a hysteresis clutch with built-in speed adjustment.

This innovative clutch construction not only eliminates a shaft penetration between the turbine and gearbox, but also prevents slippage and false starts. In combination with optimized design and new, wear-resistant materials, it makes the Gunclean Toftejorg i65 D a simple and reliable choice for cost-effective operation.

Application

The Gunclean Toftejorg i65 D is designed for use in fixed installations aboard chemical carriers 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.



Features and benefits

Hysteresis clutch.

The patented clutch of the Gunclean Toftejorg i65 D, which comprises a hysteresis plate on one side and supermagnets on the other, eliminates a shaft penetration between the turbine and gearbox. Unlike a standard magnetic clutch, in which two opposing magnets must be synchronized, it will not slip during water hammering – thus eliminating false starts. The clutch works as a soft starter, making sure that the tank cleaning machine always begins to operate.

Topside speed adjustment.

Speed can be adjusted above deck without changing the drive media flow, simply by increasing or decreasing the distance between the magnets and the hysteresis plate.

No speed adjustment shaft.

The patented hysteresis clutch does away with speed adjustment at the turbine. This removes the need for a shaft penetration on the turbine side, taking away a potential source of seal leakage and cross-contamination.

Optimized turbine.

The turbine of the Gunclean Toftejorg i65 D is specially designed for better power transmission, which contributes to increased machine lifetime.

High-tech ceramics.

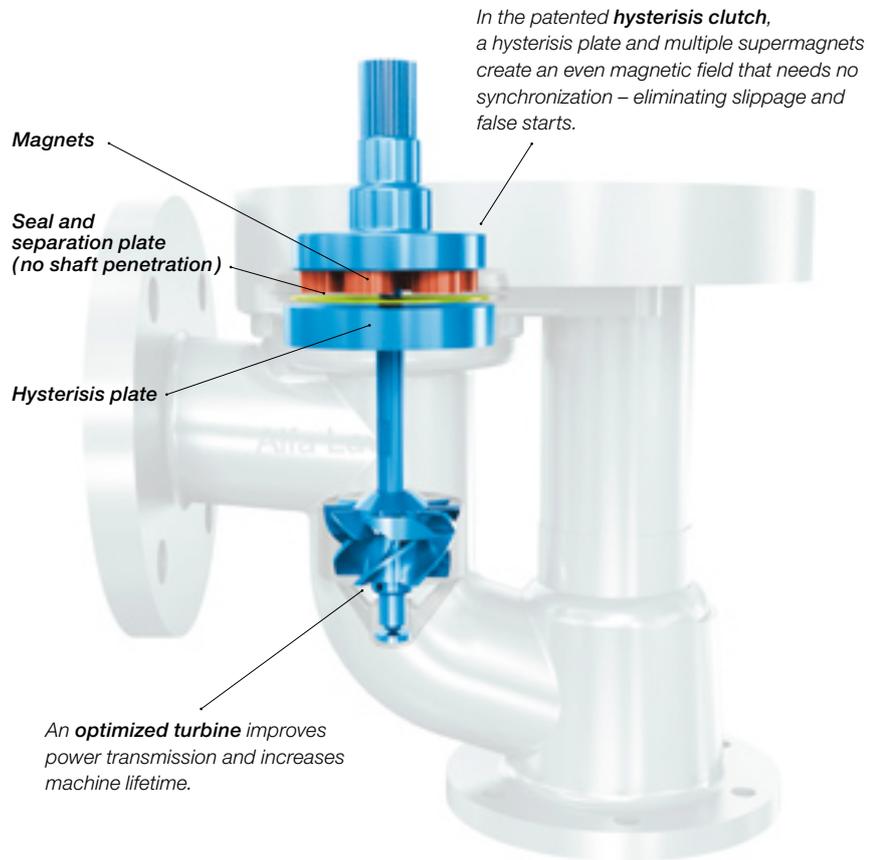
Balls of high-tech, wear-resistant ceramics have been used in the turbine construction. These reduce friction in the gear system and reduce the consumption of spare parts.

Isolated gearbox.

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

Robust construction.

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



Operation

A flow of cleaning media is used to drive a turbine connected to the Gunclean Toftejorg i65 D gear unit. Rotation speed can be adjusted during operation, thus making it possible to optimize the cleaning cycle.

During the first cycle, the nozzles lay out a coarse pattern over the tank surface. During the following cycles, the density of the pattern is gradually increased, reaching a full criss-cross cleaning pattern after four cycles.

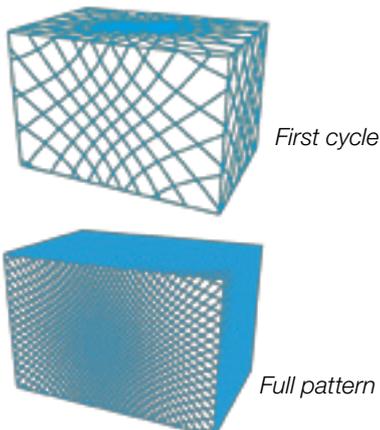
Options

- Deck and inlet flange with customized dimensions.
- 2" ball valve with strainer and CAM lock coupling (male) with dust cap.
- Sensor connection for all cargo control systems.

Regulations

The Gunclean Toftejorg i65 D is fully compliant with IMO regulations and the requirements of the classification societies.

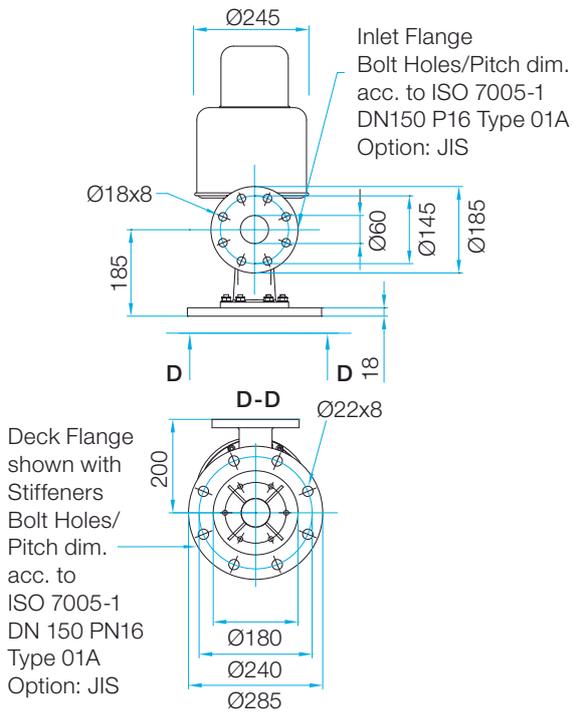
Cleaning pattern



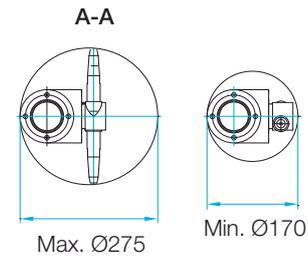
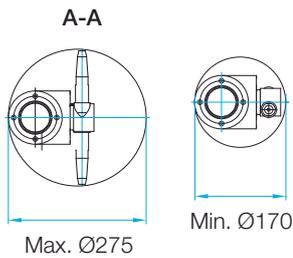
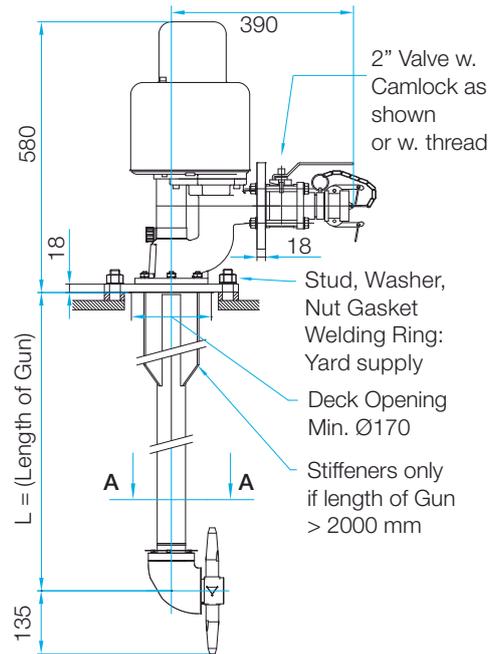
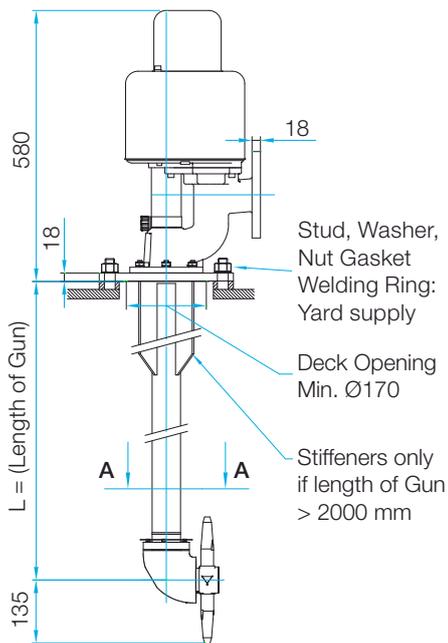
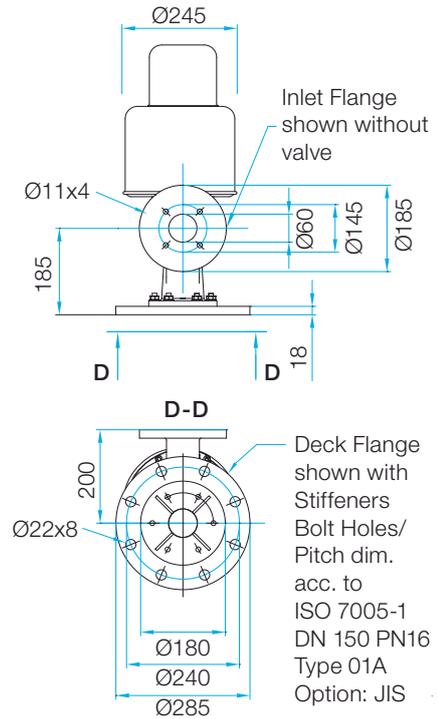
Specifications

Materials, main parts	AISI 316 as standard
Sealings	Oil, product and chemical resistant
Lubricant	Grease
Working pressure	5–12 bar
Max. working temperature	0–95°C (32-203°F)
Capacity	5–65 m³/h
Effective design jet length	Up to 33 m
Sealings	
Inert gas	0–0.7 bar (0-10 psi)
Cleaning fluid	0–12 bar (0-174 psi)

Gunclean Toftejorg i65 D with inlet flange



Gunclean Toftejorg i65 D with inlet ball valve



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Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com/marine to access the information direct.