

Environmental Systems Product - Info No. 11

Non – Entry Automatic Tank Cleaning



Advantages:

Constant high efficiency

- Tank cleaning by use of water, diesel, gasoil, crude oil
- Cleaning pressure up to 35 bar and 55 m³/h

Maximum safety

- No entry during cleaning process (only for fine-cleaning and high amount of sediments)
- O₂ & LEL-values will be checked permanently before & during cleaning process
- Automatic shut down of system if maximum value exceed
- Control & documentation by video camera

Environmental technology

- Closed system means less emissions like H₂S or toxic gases
- Waste reduction and Crude Oil recycling

Fast cleaning

- Cleaning of tanks with diameter up to 90m
- For floating-roof tanks and fixed-roof tanks
- Short installation time
- By use of special Spray Cannons the cleaning time will be reduced
- Replaces manual cleaning
- Dozer for final cleaning & for high amount of sediments



Control Room with Manway Cannon ready for operation



Special Manway Cannon



Twin Filter & Suction Pump ready for operation

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Short description

The automated process of the inside cleaning of the tanks using a modern spraying cannon replaces the previous manual method connected with high risk to safety and a significant physical and mental burden for the cleaning staff.

The so-called spraying cannon is a unit consisting of a cleaning nozzle, a video camera and a spotlight. It is installed on the outside of a tank, to a cleaning hole (man-hole). The cannon can be adjusted both vertically and horizontally by 180°.

The tank interior is constantly monitored by a monitoring and warning system, which detects oxygen, gases and explosive fumes.

A pumping unit is permanently fixed inside a 20-foot container.

A six-stage centrifugal impeller pump is powered by a diesel engine through a pneumatically connected coupling. Additional drive of the diesel engine powers a hydraulic pump, in what way the working movements of the pressure cannon and of a drum for rubber hoses are realised. The diesel engine also powers a generator which ensures supply voltage for the entire unit with all its subassemblies. Additionally, external power supply can be connected. The pump room is gas-tight separated from the engine room. So the system is able to work with inflammable liquids.

The high pressure system is designed to TRBF 20 (2002) respectively TRBS 2152 Part 1, Part 2 (2006) and TÜV confirmed.

The container offers sufficient storage space for the transport of the cannon and the necessary cleaning equipment. The entire cleaning process is monitored and controlled from a control room inside the container. It can be also recorded on a HDD as video stream or snap shot.

