

Automatic Tank Cleaning* (ATC*)



FEATURES

- Automatic cleaning procedures
- Multiple Tank Cleaning Machines (TCMs) operate simultaneously
- Optimally positioned TCMs
- Custom-designed cleaning pattern
- Portable to dock side and offshore
- Customized cleaning chemistry
- Wash-water recycling

BENEFITS

- Saves time quick rig-up
- Reduces risk little or no confinedspace entry
- Decreases cleaning time by as much as 70%
- Easy to operate with a small crew
- Minimizes waste

Tanks need to be cleaned as solids build up or as fluids need to be changed without crosscontamination.

Until now, tank cleaning has typically involved laborers equipped with hoses, pressure washers, shovels and squeegees. The task has been slow, labor-intensive, dirty, and potentially dangerous. Having people working inside a filthy tank is not only time-consuming, but it poses an unnecessary risk. The economic and QHSE needs for automatic tank cleaning are obvious.

M-I SWACO* has answered this need with a system that is completely automatic, designed to reduce cleaning time and manpower, and to minimize, or even eliminate, confined-space entry. Within the industry's more stringent QHSE environment, the ATC system improves safety, reduces the number of personnel onboard, significantly reduces waste generation and minimizes downtime during the cleaning process.

Features

Automatic cleaning procedure. Tank Cleaning Machines (TCMs) are installed and configured to each tank's contours. The cleaning jets follow the pre-programmed paths, requiring no human intervention. A separate, portable slop pump inside the tank either pumps the dirty cleaning water overboard, if such discharge is permitted, or pumps it to a wash-water recycling unit. ATC reduces cleaning time by as much as 70%.

Multiple TCMs operate simultaneously. The automatic tank-cleaning process can involve a number of tank-cleaning machines, which allows work to be completed quickly while reducing downtime and saving money.

Optimally positioned TCMs. With a one-time installation inside the tank, the necessary equipment remains in place for future use.

Custom-designed cleaning pattern. These cleaning tools deliver a higher-density cleaning pattern, directing concentrated cleansing energy at the specific areas where the tank is dirtiest.

Portable to dockside and offshore. The largest ATC skid from M-I SWAC0 is 94.5 W x 122 H x 165.4 L in. (2,400 x 3,100 x 4,200 mm) and is crane-lifted aboard the rig, boat or dock. This equipment connects to the TCMs, using lightweight flexible hoses.

Customized cleaning chemistry. M-I SWACO lab tests cleaning fluids to determine the best chemicals to use for each mud. These environmentally acceptable chemicals are tested for biodegradability and deliver optimal results while ensuring operator safety.



Features (continued)

Wash-water recycling. The closed-loop system reuses fluid by separating solids from the liquid. The 30 bbl of water/cleaning liquid prepared at the outset of the cleaning operation is used to clean several tanks before it becomes so contaminated with fine solids that it has to be pumped to a waste container and replaced with clean water/cleaning liquid. Once the fine solids have settled out in the waste container (typically overnight), the liquid can be reused again.

How It Works

M-I SWACO optimally positions its Tank Cleaning Machines inside the tank based on the cleaning pattern and analysis of tank geometry. Aportable AutoMATIC TANK CLEANING unit is brought onboard when the cleaning job is going to take place. The TCMs are connected to the ATC skid containing pumps, which send a mixture of surfactant and water to the TCMs. Powerful water jets clean every surface inside the tank following a specially programmed cleaning pattern. A portable slop pump or rig tank pumps transfer the slop back to a washwater recycling unit inside the ATC unit, where the liquid phase is separated from the solids. Liquid is directed back to the TCMs to be reused as cleaning fluid until it becomes too contaminated by the fine solids. At the end of the operation, cleaning fluid and solid waste, predominantly barite, are safely removed from the installation or reused to build new mud volume. In cases where an overboard permit is in place, the process is simplified.

Specifications

Since each configuration is customized for a specific project, specifications vary. Contact your local M-I SWACO representative to receive additional information on how the Automatic TANK CLEANING system can save you time and money.



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