

Super Trident sewage treatment plant

Large STC-14 series

For over four decades the Wärtsilä Super Trident sewage treatment plant has been widely regarded as standard specification on all types of vessels. The Wärtsilä Super Trident plant is certified to meet the new IMO MEPC 227(64) effluent quality standards, which introduced a dilution compensation factor.

This sewage treatment plant is a cost-effective and safe answer to disposal of waste at sea, maintaining the quality of the world's oceans and complying with regulations for operational peace of mind.

The large STC-14 sewage treatment plants are fully compatible with gravity and vacuum collection systems and uses the activated sludge system, which accelerates natural biological processes.

Chemical chlorination and dechlorination are employed to produce a clean, safe, effluent suitable for discharging overboard.



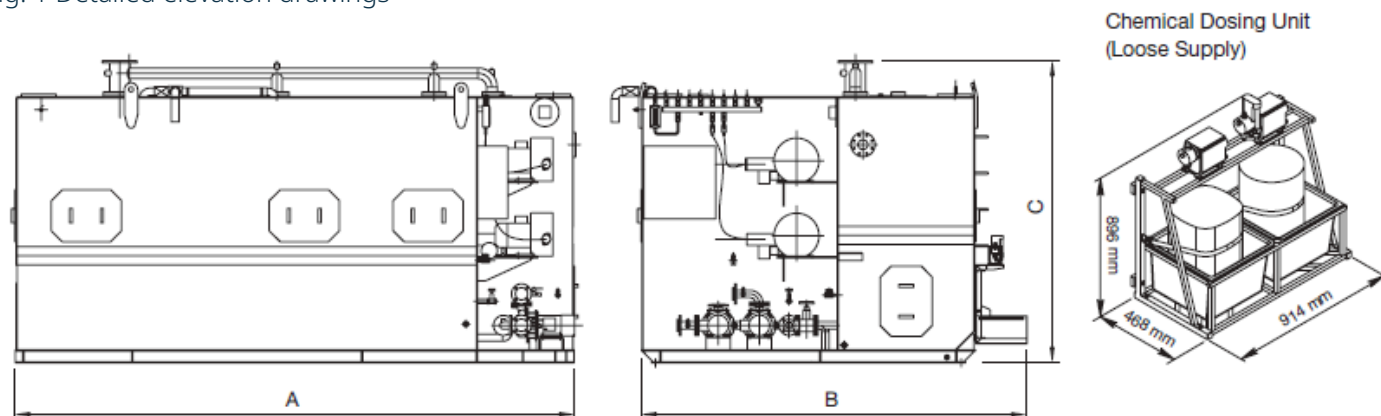
STANDARD FEATURES

- IMO & MED certified
- Unitary construction
- Single power supply input point
- Minimal maintenance requirement
- Solids handling centrifugal discharge pump
- Chemical disinfection and dechlorination
- Central settling tank to minimize effect of movement

OPTIONAL FEATURES

- Fitted vacuum sewage collection equipment
- Conditioning water flow meter
- Standby blower (mounted)
- Standby discharge pump (mounted)
- Maceration
- Separate sewage feed system

Fig. 1 Detailed elevation drawings



WEIGHTS & DIMENSIONS

Model No.	IMO Certified* (litres/day)	Dimensions** (mm)			Weight Full** (kg)
		A	B	C	
STC08-14	11,840	3,000	2,670	2,000	9,294
STC10-14	15,810	3,400	2,750	2,000	11,314
STC13-14	20,830	4,400	2,750	2,000	15,036
STC15-14	25,704	3,700	3,215	2,300	17,836
STC20-14	33,974	4,620	3,215	2,300	22,422
STC25-14	40,778	4,620	3,490	2,500	27,446
STC30-14	47,422	5,012	3,470	2,700	30,898
STC40-14	64,150	6,012	3,915	2,680	43,614
STC50-14	80,182	7,000	4,145	2,900	55,526
STC60-14	100,800	7,000	4,180	3,500	69,754

*IMO certificate issued by LLOYD's Register

**Weights and dimensions based on two pump and two compressor variant

DETAILED SPECIFICATION

Main tank

The main tank consists of integral aeration, settling, and disinfecting compartments and is coated with a heavy application of a proven finish internally, and with a rust resistant primer and gloss finish externally. All air pipework and tank connections are supplied as standard.

Air blower

One or more rotary air blowers (duty/stand-by) can be supplied, to provide air to the aerators. STC15-14 and above have two blowers fitted as standard.

Discharge Pump

One or more discharge pumps (duty/stand-by) can be supplied. These are also suitable for routine desludging. STC15-14 and above have two pumps fitted as standard.

Electrical control panel

The electrical controls are housed in a steel enclosure to IP55 standards. The door of the control cabinet is fitted with a triple pole interlocked isolator. A volt free contact is provided for connection to the ship's main control panel or to any indicators or alarms.

Chlorination and dechlorination

Separate dosing systems for chlorination and dechlorination each include a solenoid-diaphragm dosing pump and a 25 litre tank, all mounted, piped and wired to sewage treatment plant.

Macerator (optional)

For certain applications, such as passenger ships and ferries with gravity collection, a macerator can be fitted in the sewage inlet pipeline to macerate non-biodegradable solids.