

STP Series Population Areas



Watertec STP Series Sewage Treatment Plants for inland applications have been designed for gravity or pumping treatment of domestic sewage, and built to be installed aboveground. These Plants carry out the sewage treatment by biological means. The Plants are of the active sludge, aerobic and extended aeration type, without requiring any other kind of dosing or addition.

The Plant consist of a single-built prefabricated closed steel module inside which 3 chambers (aeration, settling and discharge-disinfection) have been arranged, facilitating their transport and installation. Every chamber has been provided with the necessary access and inspection registers. This modular construction allows the increase of the processing capacity by placing more plants in parallel.

The air diffusers responsible for the oxygenation and agitation of the water to be treated are placed within the aeration chamber. The biological filter and the pipes that re-circulate sludge and grease towards the aeration chamber are located in the settling chamber. The settling is pressurized in this chamber facilitating the deposition of solids.

All the instruments and control elements of the plant are housed inside an anti-vandal cabinet. The connections between the instruments which are inside the cabinet are throughout the pipes of the corresponding section.

Watertec STP Series Sewage Treatment Plants meet the spillage requirements of 91/271/CE regulation and EPA requirements. The sound level is lower than 55 dB (A) at 3 meters from the limit of the parcel where it is located. These plants do not generate sludge, and do not generate odours

either due to their closed modular construction. The Plants are supplied fully preassembled and tested, so they can be installed in their definite location in one day.

STANDARD FEATURES

- Meet the performance requirements of EPA guidelines and 91/271/CE
- Sound Level <55 dB (A) at 3 m from the parcel limit.
- No sludge generation.
- No odour generation.
- Automatic operation driven by PLC.
- Inside protection: 250 micron epoxy paint
- Outside protection: 3 layers of 250 micron paint and RAL 6016 finish.
- Aeration system composed by a blower, an air supply pipe, bubble diffusers, a filter and air relief valves.
- Automatic sludge recirculation system.
- Access and inspection registers.
- Anti-vandal Control Cabinet internally covered with sound insulating material and with the same outer finish as the Plant. It includes a self-supporting soleplate and hoisting eyes, for their direct installation in the open air.
- IP-55 electric control panel, including operation synoptic panel.

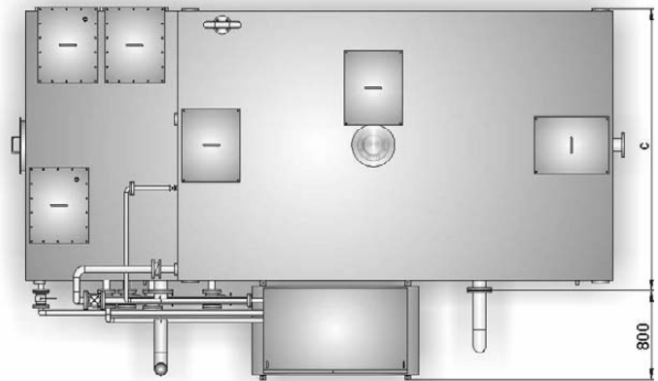
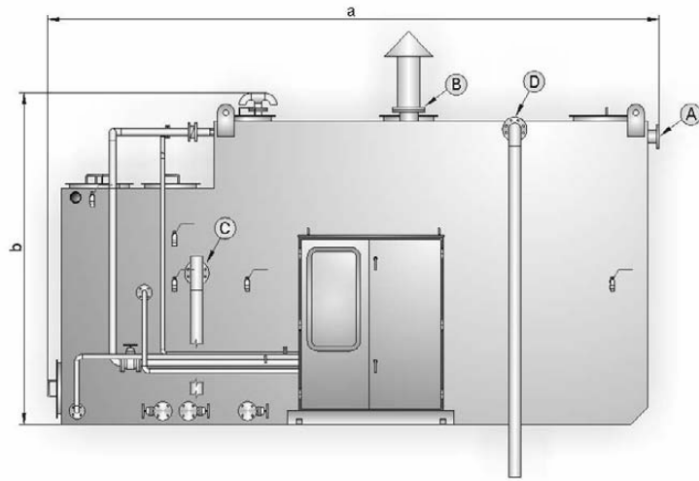
MATERIALS

- Vessel: S-275-JR Carbon Steel
- Cabinet & soleplate: S-275-JR Carbon Steel
- Air Diffusers: AISI-304 Stainless Steel
- Air diffuser pipe (within the aeration chamber): AISI- 304 Stainless Steel
- Ozonation Circuit piping: AISI-304 Stainless Steel

OPTIONS

- Flow rate electromagnetic meter.
- Flow Totaliser.
- Transmission confirmation about plant status via GSM modem
- Additional disinfection by Ozone/UV/Sand Filter for required water quality

PAT NO: 22507182807, 2338047919, 23435262



The dimensions are approx.

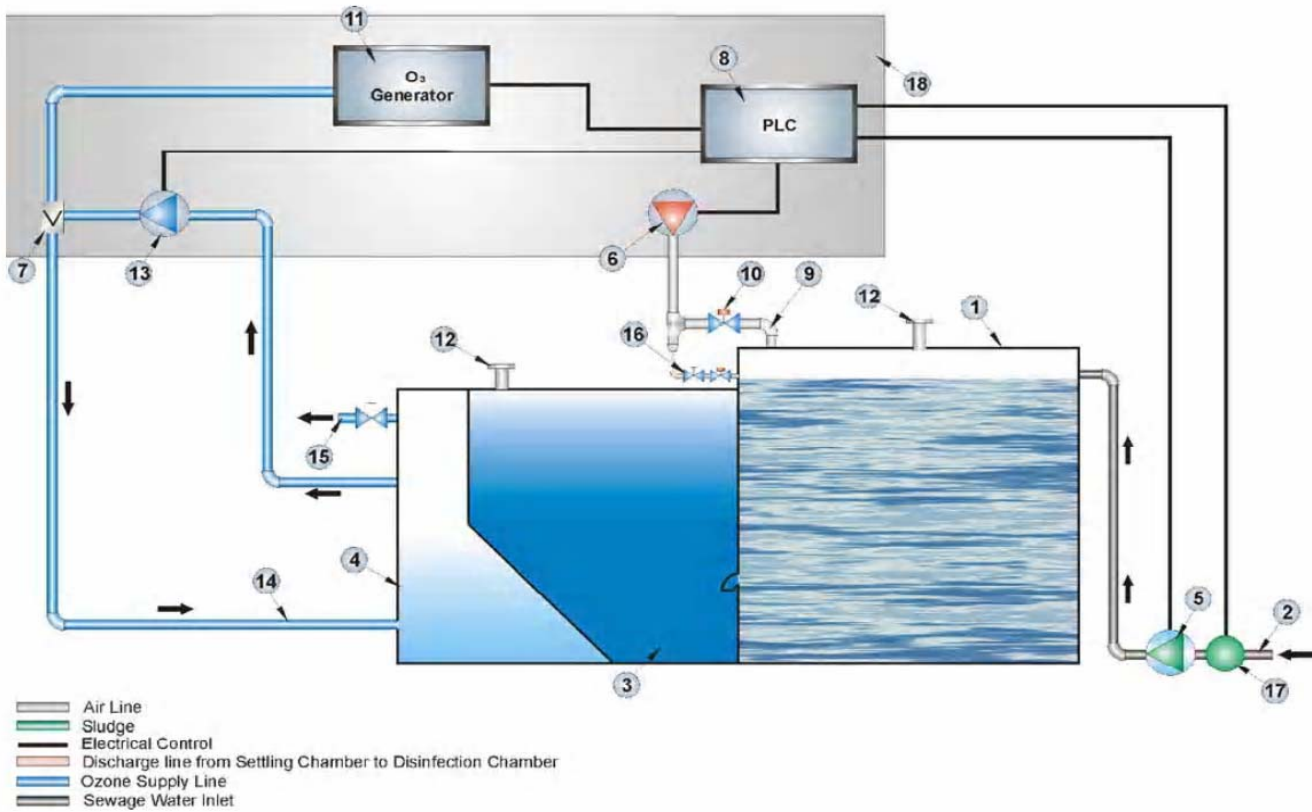
MODEL	DIMENSIONS (mm)		
	a	b	c
STP-10	4553	2379	2234
STP-16	5508	2575	2430
STP-25	5508	2988	2540
STP-50	9220	3345	3132

CONNECTION LIST				
MARK	A	B	C	D
SERVICE	inlet	air vent	discharge	overflow
MODEL	TYPE			
STP-10	DN100	DN150	DN80	DN100
STP-16	DN100	DN150	DN80	DN100
STP-25	DN100	DN150	DN100	DN100
STP-50	DN100	DN200	DN150	DN100

STP Series

Flow Diagram

Watertec Engineering



ITEM	DESCRIPTION
1	Aeration chamber
2	Black water inlet
3	Clarifier chamber
4	Disinfection chamber
5	Suction pump
6	Blower
7	Ozone ejector
8	PLC (Program Logic Controller)
9	Air supply
10	Manual valve (air supply)
11	Ozone generator
12	Vent (to atmosphere)
13	Circulation pump
14	Ozone supply line
15	Discharge
16	Manual valve
17	Macerator
18	Control cabin