

STP-HA Series Population Area

Watertec STP-HA 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 additivation.

The Plant consists of a single-built prefabricated steel module (settling and disinfection chamber) outside an aboveground steel tank/concrete pit (aeration chamber). This configuration has been developed to facilitate its transport inside a standard 40' container and their installation. 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 pipes that recirculate sludge and grease towards the aeration chamber are located, also, in the prefabricated steel module. The settling is pressurized in the settling chamber facilitating the deposition of solids.

All the instruments and control elements of the plant are housed on a prefabricated steel frame and located inside a steel housing close to the steel tank/concrete pit. The connections between the instruments which are inside the room and the prefabricated steel module are throughout the pipes of the corresponding section.

Watertec STP-HA Series Sewage Treatment Plants meet the spillage requirements of 91/271/CE regulation EPA requirements. The sound level is lower than 55 dB (A) at 6 meters from the room where the instruments are located.

The Plants do not generate sludge, and do not generate odour either due to their modular construction. The Plants are supplied fully preassembled and tested.

STANDARD FEATURES

- Meet the performance requirements of EPA and 91/271/CE regulation.
- Sound Level <55 dB (A) at 6 m from the room limit.
- No sludge generation.
- No odour generation.
- Automatic operation driven by PLC.
- Inside protection of prefabricated steel module: 250 micron epoxy paint.
- Outside protection of prefabricated steel module: 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.
- Equipments in a self supporting soleplate and hoisting eyes for their direct installation inside the concrete room. Soleplate protection: 3 layers of 250 micron paint and RAL 6016 finish.
- IP-55 electric control panel, including operation synoptic panel.

MATERIALS

- Prefabricated steel module: S-275-JR Carbon Steel
- Soleplate: S-275-JR Carbon Steel
- Air Diffusers: AISI-304 Stainless Steel
- Air diffuser pipe (within the aeration chamber): AISI-304 Stainless Steel

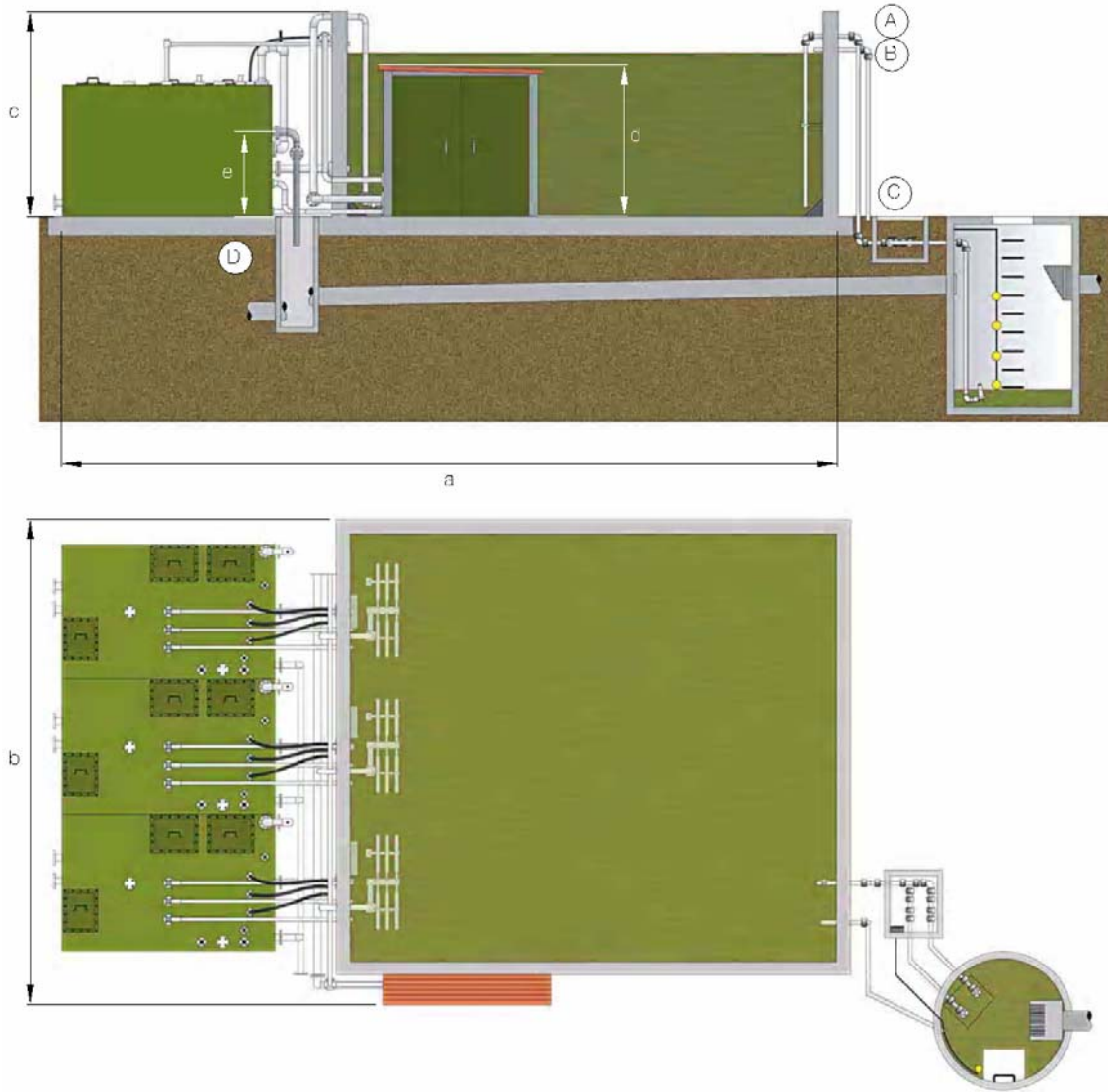
STP-HA Series	Sewage Treatment Plants Population Areas	Watertec Engineering
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OPTIONS

- 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

TECHNICAL SPECIFICATIONS – SETTLING & DISINFECTION CHAMBERS

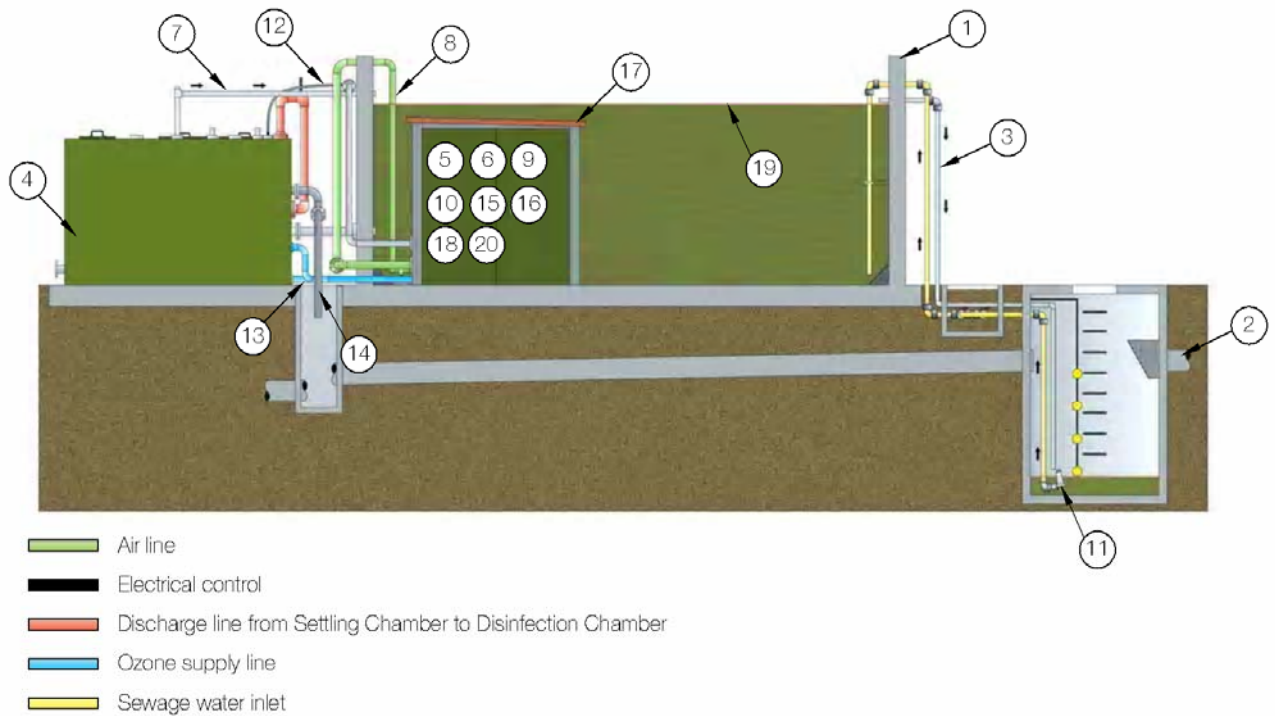
MODELS									
Equivalent Inhabitants	160	250	350	500	750	1000	1200	1500	2000
Model	STP-16HA	STP-25HA	STP-35HA	STP-50HA	STP-75HA	STP-100HA	STP-120HA	STP-150HA	STP-200HA
DIMENSIONS of MODULES									
Lenght (mm)	1380	1380	3450	3450	3450	3450	3450	3450	3450
Width (mm)	2330	2440	2200	2200	2x2200	2x2200	3x2200	3x2200	4x2200
Height (mm)	1720	2136	2200	2200	2200	2200	2200	2200	2200
ELECTRICAL POWER CONSUMPTION									
Installed Power (Kw)	8.1	9.7	9.7	11.7	16.7	22.9	23.6	32.9	46.8
EFFLUENT CHARACTERISTICS (*)									
pH	6.8 - 8								
BOD5 (mg/l)	<20								
COD (mg/l)	<125								
TSS (mg/l)	<35								
Aspect	Odourless and Transparent								



CONNECTION LIST

MARK	A	B	C	D
SERVICE	inlet	overflow	emptying	gravity discharge
MODEL	TYPE			
STP-16HA	DN32	DN80	DN100	DN100
STP-25HA	DN32	DN80	DN100	DN100
STP-35HA	DN50	DN100	DN100	DN150
STP-50HA	DN50	DN100	DN100	DN150
STP-75HA	DN50	DN100	DN100	DN150
STP-100HA	DN50	DN100	DN100	DN150
STP-120HA	DN50	DN100	DN100	DN150
STP-150HA	DN50	DN100	DN100	DN150
STP-200HA	DN63	DN100	DN100	DN150

MODEL	DIMENSIONS (mm.)					Minimum pumper well volume(m3)
	a	b	c	d	e	
STP-16HA	5396	2440	2940	2500	963	4
STP-25HA	6896	2440	3350	2500	1376	7.5
STP-35HA	13470	3160	3500	2500	1400	12
STP-50HA	13470	3160	3500	2500	1400	12
STP-75HA	12600	5200	3500	2500	1400	12
STP-100HA	12600	5200	3500	2500	1400	12
STP-120HA	12600	7500	3500	2500	1400	12
STP-150HA	12600	7500	3500	2500	1400	12
STP-200HA	12600	9800	3500	2500	1400	12



ITEM	DESCRIPTION
1	Aeration chamber
2	Black water inlet
3	Overflow
4	Steel module
5	Blower
6	Ozone ejector
7	Recirculation line
8	Air supply
9	Manual valve (air supply)
10	PLC (Program Logic Controller)
11	Submersible elevating grinding-pump (one operation, one stand by)
12	Air Injection in return of sludge
13	Ozone supply line
14	Discharge
15	Manual valve
16	Aeration Grid (in Control Cabin)
17	House / Control Cabin
18	Circulation pump
19	Liquid level
20	Ozone generator