

Facet's sewage treatment plants STP-HA for inland applications have been designed for gravity or pumping treatment of domestic sewage, and built to be installed above the ground.

The purification mechanism is based on a biological process of active sludge with extended aeration: the microorganisms in the biomass purify the water, so that no additional chemical treatment throughout the process is necessary.

Manufactured in compliance with the requirements of the standard 97/271/EC, Facet STP-HA plants consist of a prefabricated steel module closed (settling and disinfection chambers) with a concrete structure built in situ (aeration chamber). This modular design allows to increase treatment capacity by installing multiple units in parallel, while eases their transportation in standard 40' containers.

In the aeration chamber are housed the air diffusers which provide the necessary oxygenation for the microorganisms and generate the agitation that homogenizes the content of the reactor.

The settling chamber, pressurized to improve the process of deposition of solids, contains the biological filter and the sludge recirculation connections and greases toward the aeration chamber.

The system also features an annexed cabin, connected to the plant, where all the elements and control instruments are included in order to facilitate the proper operation of the unit.

The low records of noise in operation (less than 55 dB (A) to 6 meters from the cabin) and that they do not generate odors or sludge that should be removed, make our plants one of the equipment with less environmental impact of the market.

Standard Features

- Meet the performance requirements of 91/271/EEC regulation
- Sound level < 55 dB(A) (6 meters from the cabin)
- No sludge generation
- No odour generation
- Automatic operation driven by PLC
- Inner protection of prefabricated steel module: 250 micron epoxy paint
- External protection of prefabricated steel module: three layers of 250 micron protection and RAL 6002 finish
- Aeration system composed by blower, air supply pipe, bubble diffusers, filter and air relief valve
- Automatic sludge recirculation system
- Access and inspection manholes
- Self-supporting baseframe with lifting lugs for installation in the inside of the cabin. Baseframe protection: three layers of 250 micron paint and RAL 6002 finish
- IP-55 electric control panel, including operation synoptic panel

STP-HA Series

Sewage Treatment Plants

Population Areas

Options

- Two elevating grinding-pumping group of submersible type, with level start up/stop automatic control
- Electromagnetic flow rate meter and flow totalizer
- Disinfection circuit by ozonation, composed by air refrigerated ozone generator, blower, and ceramic diffusers
- BioFAST™
- Variable speed drive (VSD) for air blower
- Uninterruptible power supply (UPS) for PLC
- Remote communication system
- Anoxic chamber

Materials

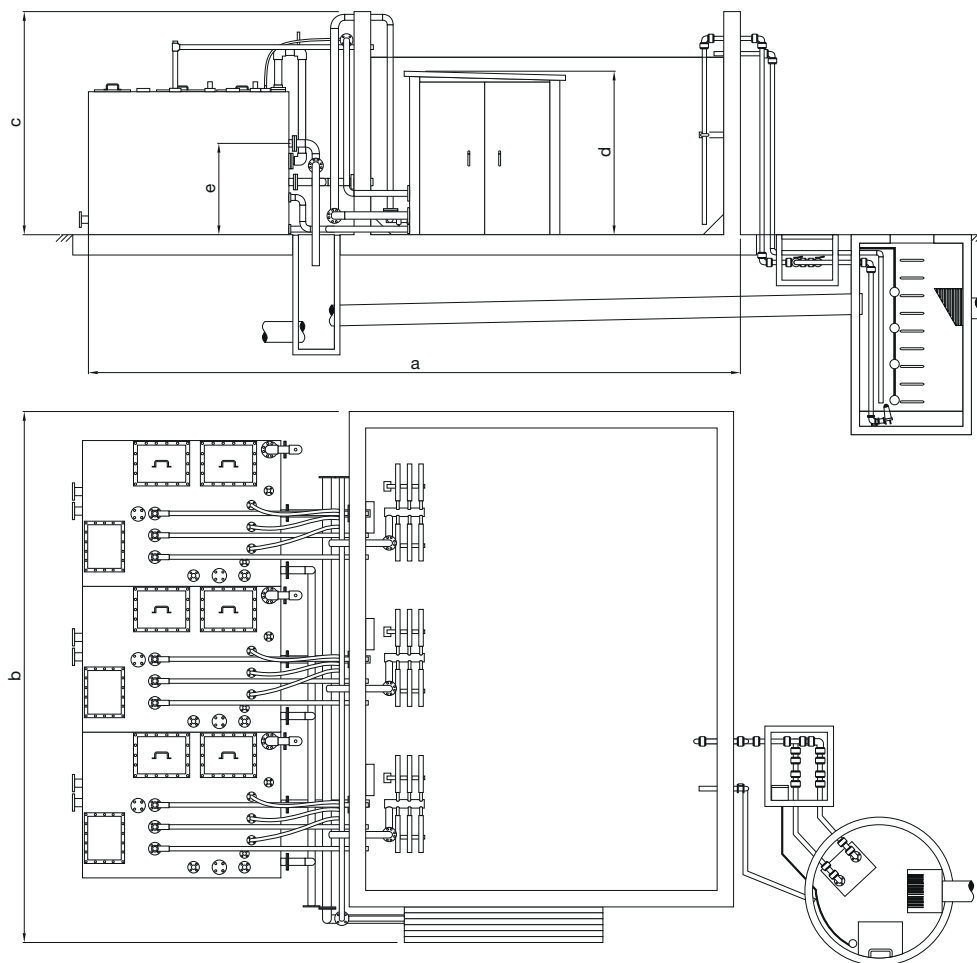
- Prefabricated steel module: S-275-JR carbon steel
- Baseframe: S-275-JR carbon steel
- Air diffusers: AISI-304 stainless steel
- Air diffusers pipe: AISI-304 stainless steel

MODEL	MAXIMUM DAILY FLOW RATE (m ³ /day)	DIMENSIONS (mm) ⁽¹⁾			INSTALLED POWER ⁽²⁾ (kW)	EFFLUENT CHARACTERISTICS ⁽³⁾			
		Length	Width	Height		pH	BOD ₅ (mg/l)	COD (mg/l)	TSS (mg/l)
STP-16HA	40	1380	2330	1720	4.5	6.8 - 8	< 25	< 125	< 35
STP-25HA	62.5	1380	2440	2136	4.5	6.8 - 8	< 25	< 125	< 35
STP-35HA	87.5	3450	2200	2200	4.5	6.8 - 8	< 25	< 125	< 35
STP-50HA	125	3450	2200	2200	8	6.8 - 8	< 25	< 125	< 35
STP-75HA	187.5	3450	2x2200	2200	8	6.8 - 8	< 25	< 125	< 35
STP-100HA	250	3450	2x2200	2200	15.5	6.8 - 8	< 25	< 125	< 35
STP-120HA	300	3450	3x2200	2200	15.5	6.8 - 8	< 25	< 125	< 35
STP-150HA	375	3450	3x2200	2200	23	6.8 - 8	< 25	< 125	< 35
STP-200HA	500	3450	4x2200	2200	30.5	6.8 - 8	< 25	< 125	< 35

(1) Prefabricated steel modules

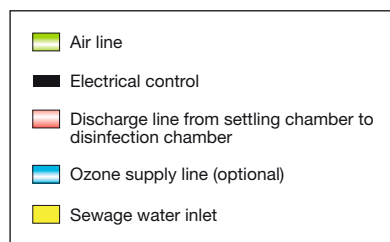
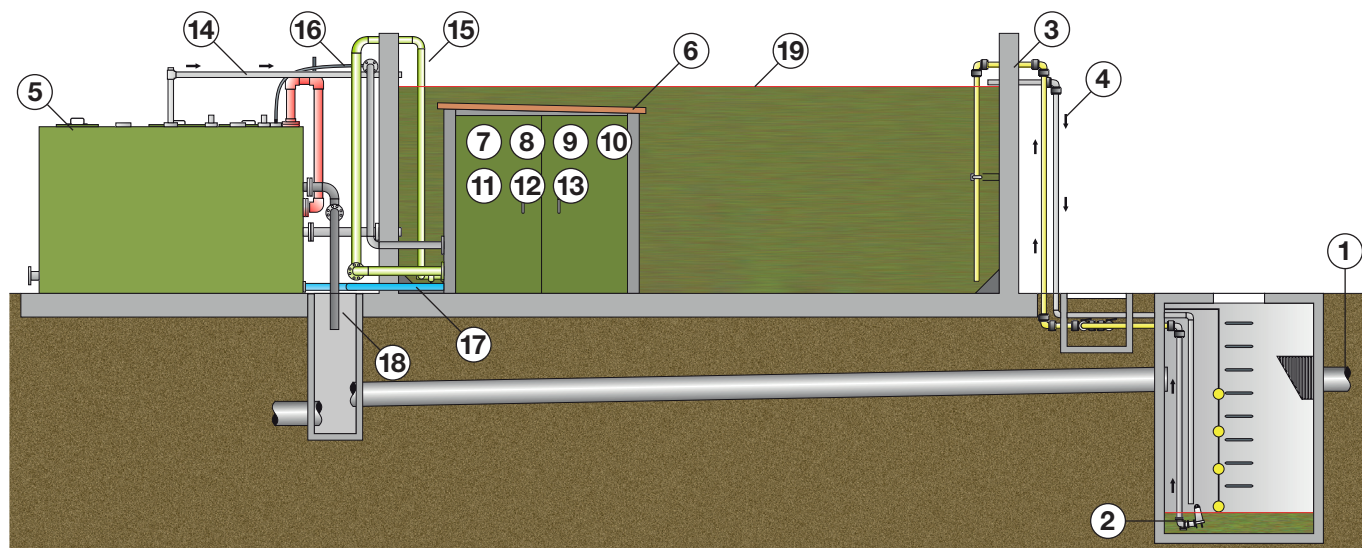
(2) Without options

(3) According to directive 91/271/EEC



MODEL	DIMENSIONS					MINIMUM PUMPING WELL VOLUME (m³)
	a	b	c	d	e	
STP-16HA	9750	3030	2940	2500	963	4
STP-25HA	9750	3140	3350	2500	1376	7.5
STP-35HA	12700	3000	3500	2500	1400	12
STP-50HA	12700	3000	3500	2500	1400	12
STP-75HA	12700	5300	3500	2500	1400	12
STP-100HA	12700	5300	3500	2500	1400	12
STP-120HA	12700	7600	3500	2500	1400	12
STP-150HA	12700	7600	3500	2500	1400	12
STP-200HA	12700	9900	3500	2500	1400	12

STP-HA Series
Sewage Treatment Plants
Population Areas



ITEM	DESCRIPTION
1	Black water inlet
2	Submersible elevating grinding-pump (one operation, one stand by)
3	Aeration chamber
4	Overflow
5	Steel module
6	Control shed
7	Air blower
8	Manual valve (air supply)
9	PLC (Program Logic Controller)
10	Manual valve (sludge recirculation)
11	Aeration grid
12	Ozone blower (optional)
13	Ozone generator (optional)
14	Recirculation line
15	Air supply line
16	Air injection in sludge return
17	Ozone supply line (optional)
18	Discharge
19	Liquid level