

Facet's sewage treatment plants STP-HB Series for inland applications have been designed for gravity or pumping treatment of domestic sewage, and built to be installed underground.

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/EEC, Facet STP-HB 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, fixed to the steel module, 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.

To facilitate the control of the operation of the unit, all control elements and instruments are supplied on a prefabricated steel structure to be installed inside a concrete cabin built in situ.

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/external protection of prefabricated steel module: 250 micron epoxy paint
- 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 its installation inside of the concrete cabin. Baseframe protection: three layers of 250 micron paint and RAL 6002 finish
- IP-55 electric control panel, including operation synoptic panel

STP-HB 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

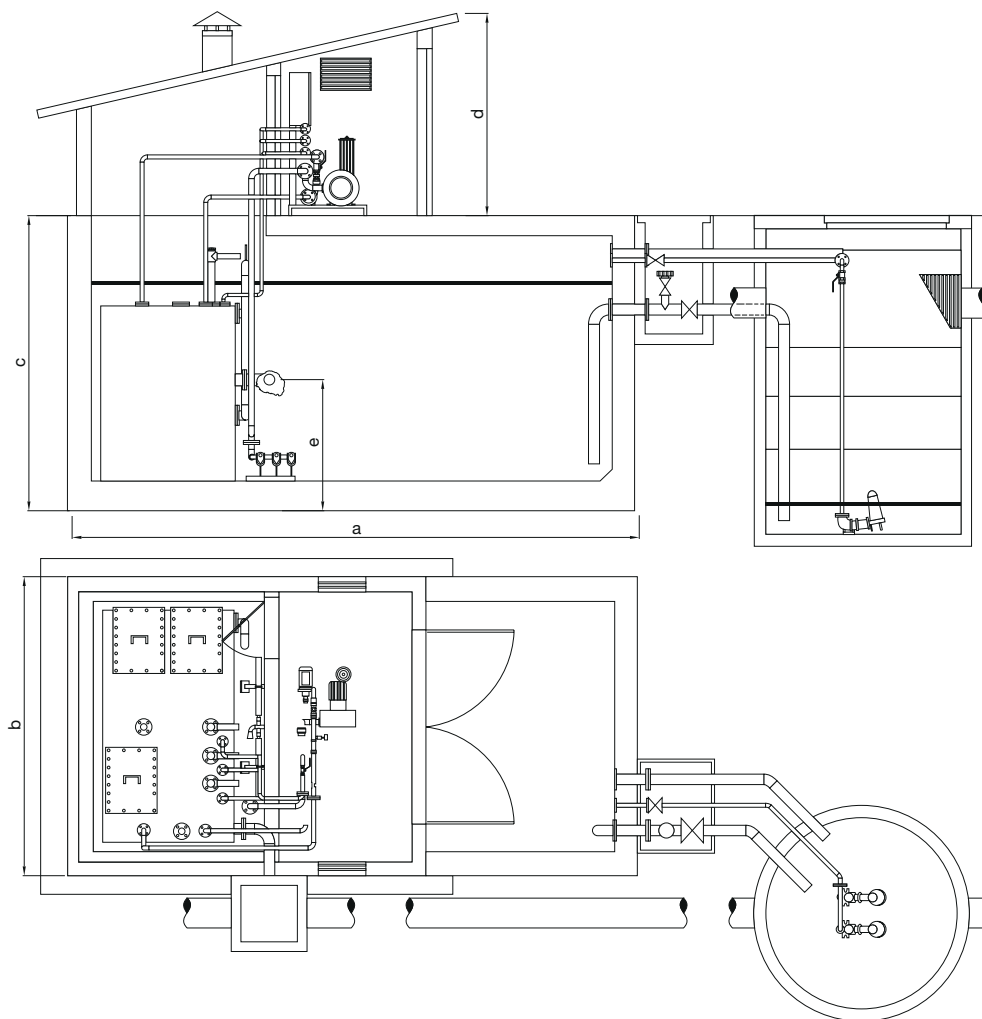
- Prefabricated steel module: S-275-JR carbon steel
- Baseframe: S-275-JR carbon steel
- Air diffusers: AISI-304 stainless steel
- Air diffusers pipe: AISI-304 stainless steel

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-16HB	40	1380	2330	1720	4.5	6.8 - 8	< 25	< 125	< 35
STP-25HB	62.5	1380	2440	2136	4.5	6.8 - 8	< 25	< 125	< 35
STP-35HB	87.5	3450	2200	2200	4.5	6.8 - 8	< 25	< 125	< 35
STP-50HB	125	3450	2200	2200	8	6.8 - 8	< 25	< 125	< 35
STP-75HB	187.5	3450	2x2200	2200	8	6.8 - 8	< 25	< 125	< 35
STP-100HB	250	3450	2x2200	2200	15.5	6.8 - 8	< 25	< 125	< 35
STP-120HB	300	3450	3x2200	2200	15.5	6.8 - 8	< 25	< 125	< 35
STP-150HB	375	3450	3x2200	2200	23	6.8 - 8	< 25	< 125	< 35
STP-200HB	500	3450	4x2200	2200	30.5	6.8 - 8	< 25	< 125	< 35

(1) Prefabricated steel modules

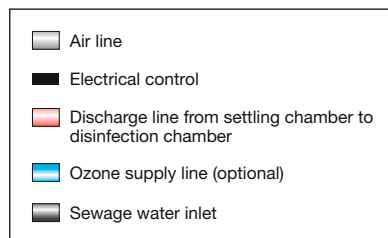
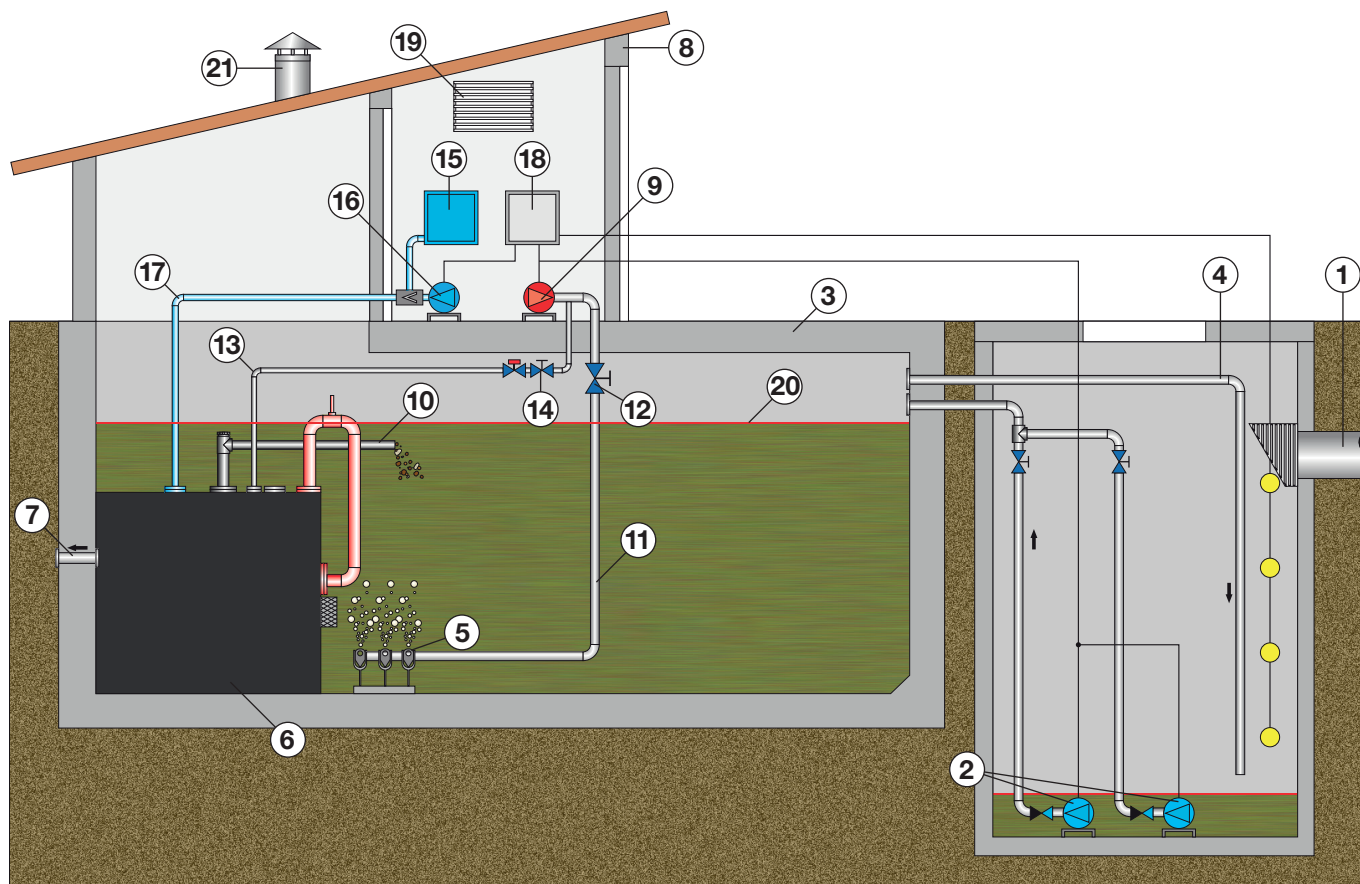
(2) Without options

(3) According to directive 91/271/EEC



MODEL	DIMENSIONS					MINIMUM PUMPING WELL VOLUME (m ³)
	a	b	c	d	e	
STP-16HB	6700	3030	2940	2500	963	4
STP-25HB	6700	3140	3350	2500	1376	7.5
STP-35HB	12000	2900	3700	2500	1400	12
STP-50HB	12000	2900	3700	2500	1400	12
STP-75HB	12000	5200	3700	2500	1400	12
STP-100HB	12000	5200	3700	2500	1400	12
STP-120HB	12000	7500	3700	2500	1400	12
STP-150HB	12000	7500	3700	2500	1400	12
STP-200HB	12000	9800	3700	2500	1400	12

STP-HB 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	Air diffusers
6	Steel module
7	Discharge
8	Concrete cabin
9	Air blower
10	Recirculation line
11	Air supply line
12	Manual valve (air supply)
13	Air injection in sludge return
14	Manual valve (sludge recirculation)
15	Ozone generator (optional)
16	Ozone blower (optional)
17	Ozone supply line (optional)
18	PLC (Program Logic Controller)
19	Aeration grid
20	Liquid level
21	Vent