



Facet's sewage treatment plants Model STP 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, the STP plants consist of a single-built module of closed steel. This modular design allows to increase treatment capacity by installing multiple units in parallel, while providing transportation, re-location and installation (enabling installation in a single day).

The container interior is divided into three chambers (aeration, settling and discharge/disinfection), each of them with their respective inspection access.

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 a anti-vandal 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/EC regulation
- Sound level < 55 dB(A) (6 meters from the cabinet)
- No sludge generation
- No odour generation
- Automatic operation driven by PLC
- Inner protection: 250 micron epoxy paint
- External protection: three layers of 250 micron paint 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 in every chamber
- Anti-vandal resistant cabin, with inner sound insulation and the same external finish as the plant. Self-supporting baseframe for direct installation onto the floor and lifting lugs
- IP-55 electric control panel, including operation synoptic panel below

STP Series

Sewage Treatment Plants

Materials

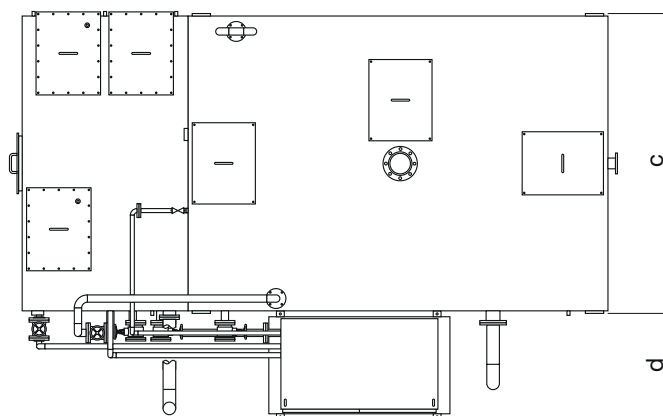
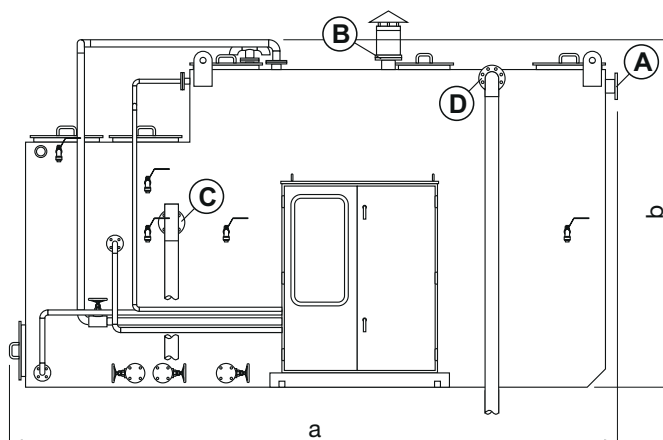
- Vessel: S-275-JR carbon steel
- Cabin and baseframe: S-275-JR carbon steel
- Air diffusers: AISI-304 stainless steel
- Air diffusers pipe: AISI-304 stainless steel
- Ozonization circuit piping: AISI-304 stainless steel (optional)

Standard Connections

- Inlet: DIN 2576 PN10
- Outlet: DIN 2576 PN10
- Air vent: DIN 2576 PN10
- Overflow: DIN 2576 PN10
- Sampling: 1/2" NPT

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 ozonization, 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
- Ladder and handrails



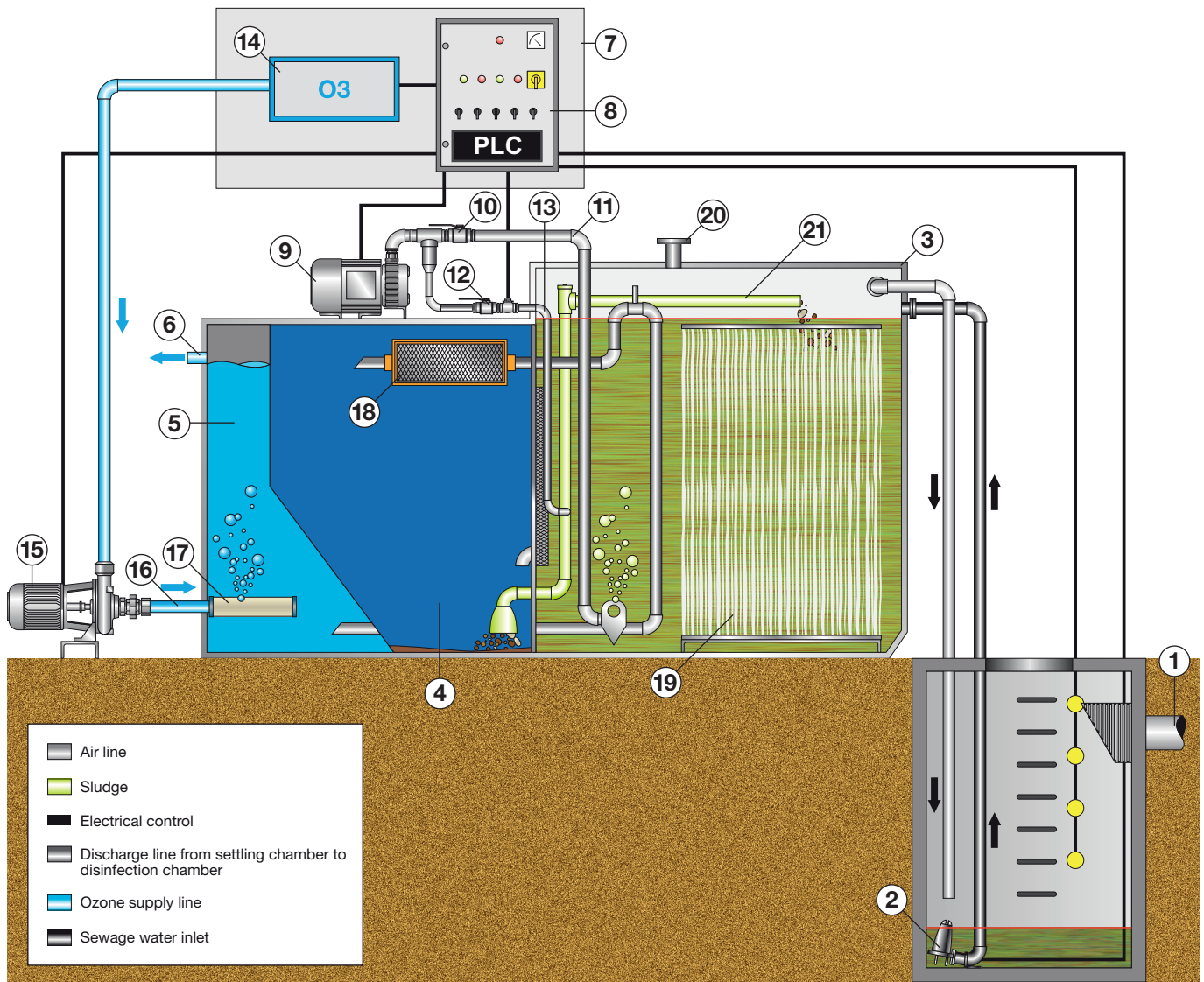
MODEL	DIMENSIONS							
	A		B		C		D	
	in	mm	in	mm	in	mm	in	mm
STP-10	179¼	4553	93⅝	2379	88	2235	31½	800
STP-16	216⅞	5508	101⅞	2575	95¼	2430	31½	800
STP-25	216⅞	5508	117⅞	2988	100	2540	31½	800
STP-50	363	9220	131¾	3345	83⅞	3130	31½	800

MODEL	CONNECTIONS			
	A (Inlet)	B (Air Vent)	C (Discharge)	D (Overflow)
STP-10	DN100	DN150	DN80	DN100
STP-16	DN100	DN150	DN80	DN100
STP-25	DN100	DN150	DN100	DN100
STP-50	DN100	DN200	DN150	DN100

MODEL	MAXIMUM DAILY FLOW RATE (m ³ /day)	INSTALLED POWER ⁽¹⁾ (kW)	EFFLUENT CHARACTERISTICS ⁽²⁾				MINIMUM PUMPING WELL VOLUME (m ³)
			pH	BOD ₅ (mg/l)	COD (mg/l)	TSS (mg/l)	
STP-10	25	4.5	6.8 - 8	<25	<125	<35	4
STP-16	40	4.5	6.8 - 8	<25	<125	<35	4
STP-25	62.5	4.5	6.8 - 8	<25	<125	<35	7.5
STP-50	125	8	6.8 - 8	<25	<125	<35	12

(1) Without options

(2) According to directive 91/271/EEC



ITEM	DESCRIPTION
1	Black water inlet
2	Submersible elevating grinding-pup
3	Aeration chamber
4	Settling chamber
5	Discharge-disinfection chamber
6	Discharge
7	Anti-vandal control cabinet
8	PLC
9	Air blower
10	Manual valve (air supply)
11	Air supply line
12	Manual valve (sludge recirculation)
13	Air injection in sludge return
14	Ozone generator (optional)
15	Ozone blower (optional)
16	Ozone supply line (optional)
17	Ozone diffuser (optional)
18	Lamellar biological filter
19	BioFAS (optional)
20	Vent
21	Recirculation line