STP Plant

Sewage treatment plants for housing, hotels and institutions

Overview

A sewage treatment plant (STP) treats domestic sewage from homes, apartments, hotels, hospitals and institutions. Bacteria in an aerated tank digest the organic matter and the water is then settled, filtered and disinfected.

Treated water can be reused for flushing, gardening, cooling and washing, which cuts fresh water use. Arukal supplies STPs in MBBR, SBR, MBR and extended aeration types, with the tanks, blowers, pumps, filters and controls.

5 – 1,000+ KLD	MBBR / SBR / MBR / ASP	< 10 – 30 mg/L	Flushing, gardening
Capacity	Process	Treated BOD	Reuse

Key features

Meets discharge norms Designed for BOD, COD, TSS and coliform limits that apply to you.	**Low odour** Aerobic process with proper aeration and covers.
Several processes MBBR, SBR, MBR and ASP, chosen for space and quality.	**Automatic operation** Timers or PLC controls for low operator effort.
Water for reuse Clear, odour-free water for flushing and gardening.	**Support** Commissioning, training and AMC.

Applications

Apartments and housing societies • Hotels and resorts • Hospitals • Schools and colleges • Offices and malls • Townships

How it works

1. Screening and equalisation A screen removes rags and plastics. The tank evens out the flow.	**2. Aeration** Blowers supply air; bacteria digest the organic matter.	**3. Settling** A clarifier or membrane separates the treated water from the bacteria.	**4. Filter and disinfect** Pressure sand and carbon filters polish the water, then chlorine or UV disinfects it.

Care and handling

Screen. Clean the bar screen daily so rags do not choke the plant.
Aerate. Keep blowers running as designed so bacteria get enough oxygen.
Desludge. Remove excess sludge on schedule to keep the settling zone clear.

Typical values. Values are typical for the product family and given for guidance. Exact figures depend on the make and model supplied; ask us for the data sheet of the specific model.

Plant (typical)

Capacity	5 – 1,000+ KLD
Process	MBBR, SBR, MBR or extended aeration
Raw sewage	BOD 200 – 350 mg/L, COD 400 – 700 mg/L, TSS 200 – 350 mg/L
Treated water	BOD < 10 – 30, TSS < 10 – 30 mg/L, pH 6.5 – 8.5 (to local norms)
Disinfection	Chlorination or UV

Construction

Tanks	RCC or MS / FRP packaged
Aeration	Blowers and fine-bubble diffusers
Polishing	Pressure sand and activated carbon filters
Controls	Timer panel or PLC

Typical plant sizes

Size	Capacity	Typical site	Notes
Small	5 – 25 KLD	Villas, small offices	Packaged unit
Medium	25 – 100 KLD	Apartments, hotels	MBBR or SBR
Large	100 – 500 KLD	Large housing, hospitals	MBBR / MBR, with reuse
Extra large	500 – 1,000+ KLD	Townships, campuses	Custom design

Capacity in kilolitres per day (1 KLD = 1 m³/day). Treated quality depends on the process chosen.

To receive a recommendation, send us:

- Number of residents or users, or sewage flow in KLD
- Space and site conditions
- Discharge norms or reuse requirement
- Power supply and whether the plant must run unattended