



SCOTT VICKERS

CLEARTEC



wastewater treatment systems



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CLEARTEC wastewater treatment equipment

CLEARTEC wastewater treatment units are specifically designed to remove suspended solids from both construction site rainwater runoff and selected industrial wastewater. The chemical process reduces the suspended solids content below 50 mg/litre so that the treated water can be either discharged into the public drainage system or recycled for further use. The residual sludge which is formed by the reaction between the suspended solids and the dosed chemicals are removed.



The latest models have now been upgraded and the specification of each one now specifies maximum discharge rate rather than discharge range.

Each model only requires single phase power and is driven by a submersible pump (supplied separately) located in a sedimentation tank. For the smaller models (SVC10 to SVC40), the submersible pump power line can be connected directly into the single phase power Control Panel of the **CLEARTEC**. The submersible pumps for the larger models, SVC60 & SVC80 require 3-phase power and would therefore be connected to a separate power supply.

The treated water can be reused of vehicular washing bays, recharge of wells, toilets, cube curing, ponding tests etc therefore reducing the cost of water.

There are several models available with treatment capacities ranging between 10-80m³/hour and are fully automatic including chemical injection & sludge discharge



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STANDARD FITTINGS



1. Automatic sludge discharge



2. Automatic chemical mixing & dosing system



3. Hinged walkways & removable railing



4. Security gates & hinged roof

For those who would prefer a more basic model we can offer the units without items 2-4.

In addition all models are constructed in steel and are painted internally with epoxy coating which provides an extremely robust and long-lasting surface

ADVANTAGES

- Simple setup
- Small foot print
- Easy to transport
- Few mechanical parts
- Low maintenance cost
- No foundation required
- Uses single phase power
- Uses powder chemicals

Powder chemicals are supplied, as all **CLEARTEC** models incorporate automatic mixer systems. The use of powder is more cost effective than liquid supply for not only logistical reasons but also to provide longer shelf life.



KEY FEATURES



POWDER CHEMICALS – The system incorporates simple but extremely efficient automated chemical mixers for both chemicals allowing dosing to be continued even whilst mixing is carried out. This operation does not require the need for any particularly skilled operator. The complete mixing cycle takes less than 15 minutes.

DESLUDGE VALVES – These are electrically operated and their high torque capacities are designed to handle high viscosity sludge which may include any solids that may have inadvertently been introduced into the system.



NO PRIMARY TANK CHEMICAL MIXER – The chemicals are injected into the influent via a Static Mixer eliminating the need for any moving parts, such as an electric motor in the filtration tank therefore reducing the number of mechanical parts.

ALL STEEL CONSTRUCTION – All models are completely self-contained and extremely robust. The internal surfaces of the Primary and Secondary Treatment Chambers are coated in marine-grade epoxy paint and together, these two features provide a very long service life.



LAMELLA BLOCKS, located in the Secondary Chamber are made of Acrylonitrile Butadiene Styrene (ABS), an extremely robust material which gives an extremely long service life with little maintenance other than occasional washing.

HINGED WALKWAYS & SAFETY RAILINGS – provided on all models except the SVC5. The walkways not only reduce the possibility of mosquito breeding during periods of no rainfall with the walkways covering the stagnant water in the unit but are also very useful during maintenance periods, enabling the operator to move around safely on the top. In addition, easily removable slot-in railings make relocation from site to site simple. Together, these are an environmental MUST.





SECURITY GATES – These are provided on all models except the SVC5 to prevent tampering with equipment by unauthorised personnel and can be padlocked. In addition, a hinged roof is also provided for protection from the elements for the operative when recharging the chemical drums.

CONTROL PANEL – Extremely simple layout and method of operation. Each push button lights up for either start or stop functions. The system provides for either fully automatic or manual control of the complete system.

A built-in pH control relay is included and only requires the connection of an additional dosing pump and sensor.

SINGLE PHASE POWER – The mixing, dosing and sludge discharge are of such low power consumption that 3-phase power is unnecessary which will reduce running cost and simplify installation.



SPARE POWER SOCKET – A single phase electrical socket is fitted as standard on the Control Panel so that a submersible pump (if single phase) can be connected directly to the unit. If not, this socket may be used for any additional single phase item.

A **LIGHT** is provided in all models except the SVC10 to facilitate the recharging of chemicals during inclement weather or at night



EFFLUENT SAMPLING POINT is incorporated to enable visual checks to be made on the quality of the water which is being discharged without the need to take any sample from the outlet point.

TSS CONTINUOUS MONITORING SYSTEM – The control panel of this optional extra is mounted within the Chemical Processing Chamber and enables real-time monitoring to be accessed from a remote computer in addition to providing notification by SMS if the TSS limit is exceeded. The system is also protected from unauthorised use by locating it behind the security gates.





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CLEARTEC SVC80



The **SVC80** is waste water treatment system designed to cater for either relatively large sites such as civil engineering projects or large building projects. This model has automatically-controlled mixers, dosing pumps and desludge valves. The detachable ladder allows access to the top where hinged walkways are fitted as standard for ease of inspection inside the unit. Slot-in railings are also provided. **The SVC80** is easy to set up or relocate and can be loaded onto a lorry fitted with a crane.

SPECIFICATIONS



| DESCRIPTION | | SVC80 |
|-------------------|--------------------|--------------------|
| Primary Volume | m ³ | 8.9 |
| Secondary Volume | m ³ | 18.2 |
| Influent diameter | mm | 75 |
| Effluent diameter | mm | 100 |
| Max Discharge | m ³ /hr | 80 |
| Dimensions | mm | 6200 x 2250 x 2500 |
| Weight | kg | 4,800 |



FULL SPECIFICATIONS AT A GLANCE

| DESCRIPTION | SVC10 | SVC20 | SVC30 | SVC40 | SVC60 | SVC80 |
|------------------------------------|---|------------------|-------------------------|------------------|-----------------|-----------------|
| Chemical Processing Unit | | | | | | |
| Dosing Pumps | 2 No. | | | | | |
| Chemical Tank | 2 No. 80 litres | 2 No. 200 litres | | 2 No. 500 litres | | |
| Chemical Mixers | 2 No. | | | | | |
| Level Sensor | 1 No. | | | | | |
| Flocculent Dispenser | 1 No. | | | | | |
| Chemicals | Flocculent F1 in powder form | | | | | |
| | Coagulant C2 in powder form | | | | | |
| Automatic Desludging System | | | | | | |
| Desludge Valves | Manual | 1 No. Electric | 2 No. Electric | | | |
| pH System (Optional) | | | | | | |
| Dosing Pump | - | | 1 No. c/w pH controller | | | |
| Chemical Tank | - | | 1 No. 200 litres | | | |
| Control System | | | | | | |
| Control Panel | Waterproof Steel Cabinet with manual/automatic control of:- | | | | | |
| | Chemical Dosing Pumps | | | | | |
| | Chemical Mixers | | | | | |
| | Primary Chamber Level Sensor | | | | | |
| | Chemical Tank Level Sensors | | | | | |
| | Desludging Valves c/w timer system | | | | | |
| | pH Dosing pump (if fitted) | | | | | |
| General | | | | | | |
| Primary Volume m ³ | 1.0 | 1.5 | 2.2 | 2.2 | 5.3 | 8.9 |
| Secondary Volume m ³ | - | | 4.0 | 5.1 | 7.2 | 18.2 |
| Influent diameter mm | 50 | 75 | | | 100 | |
| Effluent diameter mm | 75 | | 100 | | 150 | |
| Discharge m ³ /hr | Website | 10-20 | 20-30 | 30-40 | 40-60 | 60-80 |
| Dimensions l x w x h m | 1.4 x 1.2 x 2.0 | 2.0 x 1.6 x 2.5 | 3.0 x 1.8 x 2.5 | 4.0 x 1.8 x 2.5 | 5.2 x 2.3 x 2.5 | 6.2 x 2.3 x 2.5 |
| Weight kg | 600 | 1,000 | 2,500 | 3,500 | 4,000 | 4800 |