



Diamond Sewage Treatment Plant For Domestic Applications

The Diamond range of package sewage treatment plants is specifically designed for properties not connected to mains drainage, in a range of sizes for population equivalents from 1-55 persons.

The unique design has no internal moving parts and therefore requires minimal annual maintenance, and has low running costs.

The Diamond uses a treatment process which does not require any chemicals and is kind to the environment. The continuous bacterial digestion cleans the wastewater to a standard which meets normal Environment Agency Consents

The final effluent is discharged into a watercourse, ditch or a suitably constructed soakaway.

Features and Benefits

- Outstanding **value for money**
- **Reliable operation** with its simple design and no internal moving parts
- **Low running cost** of the small, quiet air blower
- Continuous bacterial digestion gives the DMS range up to **3year de-sludging intervals** (the DMC range generally requires annual de-sludging)
- **No odours** as the process does not require primary settlement
- **Excellent performance** meeting normal environment agency consent standards
- **Easy installation** as the unique design minimises labour and materials
- **5 Year warranty** on parts and labour for DMS models installed in the UK
- **Low visual impact** with small lid, flush with the ground
- **Robust construction** reduces the need for concrete backfill where ground conditions permit
- **Compact design** does not require large plant for excavation or handling
- **Reduces soakaway requirements** compared with other types of plants
- Over **40,000 units installed** world wide
- **CE marked**



Optional items:

Pump chamber:

To transfer the effluent to a remote discharge point.

Sampling chamber:

To allow easy sampling of the final effluent.



Loading and Power Consumption:

Model	DMS2	DMS3	DMS4	DMS5	DMC6	DMC7	DMC8	DMC9
Population range (persons)	1-6	5-11	10-15	14-20	21-27	28-35	36-45	46-55
Maximum organic loading BOD/day (grams) A WPL/British Water Loading Guide providing further information for non-domestic applications is available	360	660	900	1200	1620	2100	2700	3300
Maximum blower power consumption (kw) ** (depending on blower model)	0.12	0.13	0.17	0.24	0.55/0.9*	0.75/0.9*	0.75/0.9*	0.75/0.9*

*For DMC Models using 3 Phase electrics, maximum blower power consumption 0.9 kw

(Blower manufacturer's data for power consumption is approximate and based on normal plant conditions.)

Process performance is subject to strict adherence to the manufacturers Installation Manual, User Guide/Operation & Maintenance Manual, & a start up period of 6-12 weeks

depending on plant loadings and water temperature.

WPL provides a full brochure that details consents to discharge and how to calculate whether

Dimensions:

Model	Outside diameter	Height to inlet	*Inlet invert depth	Height to outlet	In ground depth	Weight empty	Total capacity
DMS2	1.85m	1.71m	570mm	1.61m	2.29m	120 Kg	2271 ltr
DMS3	2.1m	1.84m	700mm	1.74m	2.6m	160 Kg	3028 ltr
DMS4	2.1m	2.05m	700mm	1.93m	2.8m	210 Kg	3974 ltr
DMS5	2.1m	2.05m	700mm	1.93m	2.8m	210 Kg	3974 ltr
DMC6	3.2m	2.77m	590mm	2.67m	3.5m	380 Kg	9056 ltr
DMC7	3.2m	2.77m	590mm	2.67m	3.5m	380 Kg	9056 ltr
DMC8	3.2m	3.14m	590mm	3.04m	3.86m	460 Kg	15038 ltr
DMC9	3.2m	3.14m	590mm	3.04m	3.86m	460 Kg	15038 ltr

* Deeper inverts can be accommodated with our standard invert extensions; contact Penstar for further information.

Blower Installation

Each blower is supplied complete with an alarm and an enclosure to protect it from outdoor conditions.

It should be connected to a single-phase supply (240v) via a suitable IP55 rated weatherproof socket or fused spur (not supplied) by a competent electrician.

Included is 10m of airline to connect between the blower and the tank, however, blower installations of up to 30m from the tank can be accommodated. Please contact your Penstar for advice.

Regular Maintenance & Servicing

Each Diamond is supplied with a User Guide/Operation & Maintenance Manual which provides useful information to ensure the plant operates effectively.

A Maintenance Log Book is also supplied to record regular maintenance which should be carried out by a qualified service engineer.

Penstar offers service and maintenance contracts carried out by their team of service engineers.

The manufacturers claim that the DMS range will require de-sludging every 1-3 years, and the DMC range will generally require annual de-sludging.

Diamond Sewage Treatment Plants are supplied and maintained by:

Penstar

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