



Electricity Required	Yes
Internal Moving Parts	No
Safe For Discharge To Watercourse	Yes
Average Desludge Interval	6 Months
Average Service Interval	12 Months
Tank Warranty	25 Years

# **ADVANTAGES**

- No internal moving parts
- Excellent effluent quality
- Low running costs
- Small visual footprint
- Easy to install

- Simple and reliable operation
- Low electricity demand
- 12 monthly servicing
- CE marked
- EN 12566-3 certified

# INTRODUCTION

# The Falcon is a Submerged Aerated Filter (SAF) sewage treatment plant.

It is designed to receive wastewater from buildings not connected to mains drainage and processing it until only a clear effluent is discharged into the environment.

The Falcon has been tested and certified to **EN 12566-3**.

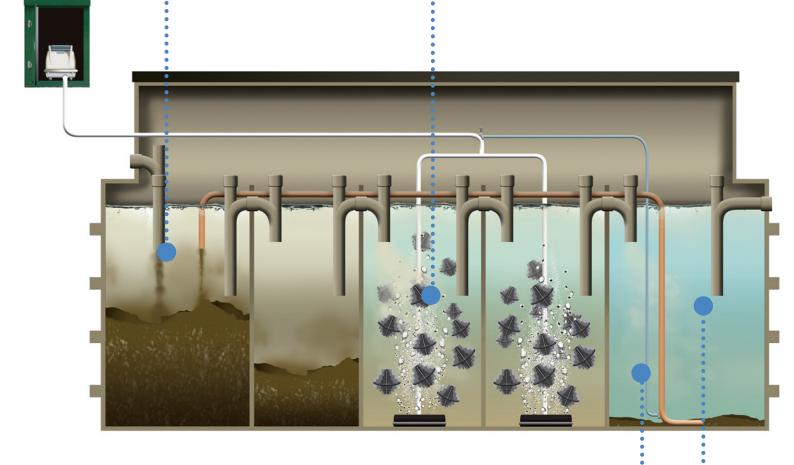




## **HOW THE SYSTEM WORKS**

#### The Falcon Treatment Process

- 1. Wastewater from the building(s) enters the Primary Tank. Here solids and liquids are separated with the solids being retained for periodic removal by a tanker and the liquids flowing through to the Aeration Chamber.
- 2. The Aeration Chamber (Biozone) is the heart of the treatment process. Here bacteria and microorganisms clean the wastewater by feeding on the pollutants. The bacteria must have a constant oxygen supply and this is provided by an external air blower.



- **3.** The wastewater then flows into the Clarification Chamber where any remaining fine solids settle, at the base of the tank, forming sludge. The clear effluent is discharged into the environment (drainage field or watercourse).
- **4.** The settled sludge is returned to the Primary Tank via a non-mechanical air lift system. This keeps the bacteria supplied with food even when there is little or no wastewater coming from the building(s) and keeps the system working during low use and holiday periods.

#### **PERFORMANCE**

Due to the high efficiency of the Falcon sewage treatment plant it exceeded the Royal Commission Standard and achieved the following average effluent quality during EU testina.

$BOD_5$	11 mg / L
Suspended Solids	16 mg / L
Ammonia	7 mg / L

### TECHNICAL DETAILS

Model	PE	Length (m)	Width (m)	In Ground Depth (m)	Inlet Invert (m)*	Outlet Invert (m) †	Power (Kw)
Falcon 6	6	Ø 1.500		2.100	0.550	0.750	0.06
Falcon 9	9	Ø 1.	700	2.100	0.550	0.750	0.06
Falcon 12	12	Ø 1.	900	2.100	0.550	0.750	0.08
Falcon 18	18	Ø 2.500		2.100	0.550	0.750	0.12
Falcon 25	25	4.710	1.500	2.174	0.600	0.862	0.12
Falcon 30	30	4.010	2.124	2.174	0.600	0.862	0.37
Falcon 40	40	5.060	2.124	2.174	0.600	0.862	0.37
Falcon 50	50	5.610	2.124	2.174	0.600	0.862	0.37

The Falcon range extends up to 5,000 PE. Please contact our sales office for details.

#### INSTALLATION

The Falcon is simple to install and has been certified as suitable for use in high ground water sites.

Every Falcon is made from high density engineering grade plastic sheet which allows each tank to be tailor made to suit individual site requirements. Standard **Falcon** tanks are designed for underground installation and are suitable for high groundwater sites.

Falcon C tanks are specially made to fit into shipping containers for ease of export. Falcon M tanks are permanently built into shipping containers when a mobile sewage treatment plant is required.

# **SERVICING**

The Falcon sewage treatment plant requires servicing every 3-12 months depending on model.

Falcon 6-25	12 Monthly
Falcon 30-150	6 Monthly
Falcon >150	3 Monthly

The servicing is done by trained service engineers to ensure that the system functions correctly giving the owner piece of mind.

Please contact our service partner **Sapphire Environmental** for details on servicing.

www.sapphireservicing.com

# CONTACT



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<sup>\*</sup> Other inlet options available

<sup>†</sup> Pump stations available