PRODUCT DATA SHEET:

WPL HiPAF Eco Midi

60 to 150 population equivalent

Product Overview

The compact WPL Eco HiPAF Midi off mains drainage sewage treatment plant is designed to reduce whole life costs without compromising the robust process performance of the HiPAF range.

The low maintenance eco models are built for light pedestrian usage. Heavy duty applications can be achieved subject to a structural engineers advice. The access is via turrets with light duty lids for ease of de-sludging.

Specification options are available to design build your own plant based on preferred maintenance or a demanding, individual site requirement.

The treatment system can be specified for a diverse range of applications from housing and commercial developments such as campsites, restaurants, hotels, care homes and retirement villages.

The eco models are designed to exceed Royal Commission Standards. Tighter standards can be achieved making the WPL HiPAF the preferred choice for sensitive locations such as a Site of Special Scientific Interest (SSSI) ensuring Environmental Agency consent to discharge standards are met.

The plant is CE marked, designed to BS EN 12255 – 1/15 and is fully compliant with UK Building Regulations. WPL use the British Water Code of Practice Flows and Loads, to ensure plants are correctly sized.

Features and Benefits

- **Small footprint and ease of installation**
  - One of the smallest units on the market. Through extensive research and development WPL use high surface area random plastic media offering optimum improved performance, minimising footprint and power consumption.
  - The rectangular tank shape utilises the full base area of the treatment zone for aeration arrays ensuring total circulation, without "dead zones" offering a highly efficient treatment.
  - Flexible inverts with a depth up to 2m.
  - High specification weatherproof kiosk made in GRP situated above ground to house the control panel.
- **Energy efficient**
  - Eco kiosk with independent blowers as standard to significantly reduce power consumption.
  - Designed to use minimum possible power requirements in a submerged aerated filter (SAF) unit.
  - Duty standby blower arrangement is available.
- **Robust process**
  - Proven WPL SAF technology is based on 25 years empirical data. The reliability is underpinned by the selection of high quality blowers and pumps.
  - Internal recirculation leads to increased process performance.
- **Low maintenance**
  - No internal mechanical or electrical moving parts, therefore the plant requires minimal annual maintenance.
  - Low energy compressors, with adjustable timers, ensure minimal running, maintenance and servicing costs.
  - Simple tankering operation as the primary sludge and sludge generated from final clarification are stored in one place.
- **Variable flows and loads**
  - During low flow conditions the level in the primary tank is reduced utilising forward feed air lift pumps. This creates a buffering volume that reduces the impact during high flows.
  - WPL can design the plant to continue to operate well during seasonal variations reducing total power consumption.
- **Minimal visual impact**
  - Below ground installation does not impede views.
- **Tank 25 years life**
  - GRP is UV stabilised with an external gel coat finish which extends the asset life to 25 years.
  - WPL HiPAF plants and kiosks are produced in a quality controlled environment at the WPL factory.

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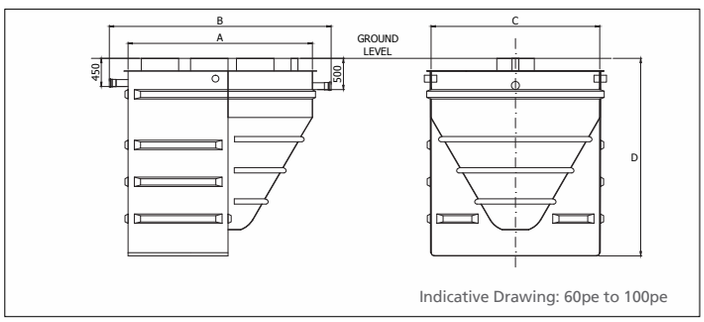
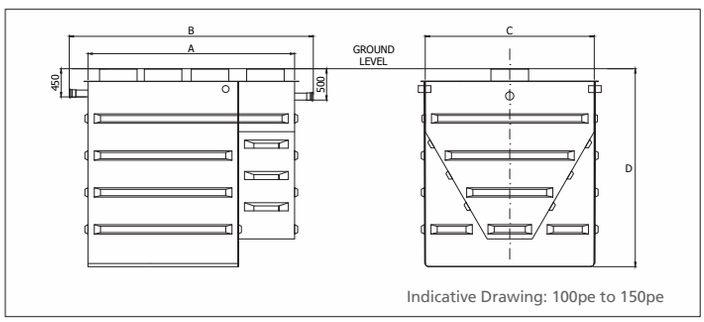
Design Parameters

Design Criteria	As per British Waters flows and loads 4
Peak Flow Treatment	Generally 3-6 dry weather flow
Discharge Standards	As specified. The WPL Eco HiPAF Midi will attain typically: BOD 20mg/l: SS 30mg/l: Ammonia Nitrogen 20mg/l as standard, however significantly tighter discharge requirements imposed by the EA can also be achieved.



Indicative Drawing: 60pe to 100pe



Indicative Drawing: 100pe to 150pe

Model PE	Standard Consent*	A Tank Length (m)	B Length w/pipes (m)	C Width (m)	D Height (m)	600mm Hatch	Rodding point	Inlet Invert (mm)	Outlet Invert (mm)	Power Requirements (KW)
60PE	20:30:20	2.95	3.55	2.7	3.16	3	1	450	500	0.550
70PE	20:30:20	3.15	3.75	2.7	3.16	3	2	450	500	0.550
80PE	20:30:20	3.35	3.95	2.7	3.16	3	2	450	500	0.663
90PE	20:30:20	3.65	4.25	2.7	3.16	4	1	450	500	0.663
100PE	20:30:20	3.30	3.90	2.7	3.16	4	0	450	500	0.663
110PE	20:30:20	3.70	4.30	2.7	3.16	4	0	450	500	0.825
120PE	20:30:20	4.00	4.60	2.7	3.16	4	1	450	500	0.825
130PE	20:30:20	4.40	5.00	2.7	3.16	4	1	450	500	0.825
140PE	20:30:20	4.70	5.30	2.7	3.16	4	1	450	500	1.100
150PE	20:30:20	5.10	5.70	2.7	3.16	4	1	450	500	1.100

*Tighter consent standards available

Optional Extras

- Inverts: 0.45m as standard and can go up to 2m.
- External pump chamber.
- Kiosks: medium.
- Pumped flow controller.
- Energy saving duty stand by blowers.
- Alarms: GSM telemetry, flashing beacons and battery backup.
- Lids: turret extensions, heavy duty lids for car parks and large easy access gas strut lids.
- Removable air diffusers.
- Sampling point: based on environmental agency requirement.

Process Options

- **WPL RADS** (sludge storage and reduction) significantly extend de-sludge intervals by 75%, reducing tankering costs.
- **WPL Balancing Tanks** when sites have variable occupancy levels, such as sporting and wedding facilities, ensuring a consistent flow to the plant.
- **WPL Sand Filters** can improve final effluent for strict consent requirements.

About WPL Limited