

# Sand Filter

## For tertiary treatment

**WPL offers Sand Filters for tertiary treatment on new and existing sewage treatment plants, to effectively meet stringent discharge consent standards.**

Available for a wide variety of applications WPL's Sand Filters can be supplied as either a temporary or permanent solution.

Manufactured in Glass Reinforced Plastic (GRP), the units are available in a range of sizes.

### Benefits

- ✓ Population equivalents up to 600 PE
- ✓ Tanks can be installed in parallel for population equivalents over 600 PE
- ✓ Acts as a final stage treatment process to remove a minimum of 60% Suspended Solids (TSS) and 40% Biological Oxygen Demand (BOD)
- ✓ Can be installed above or below ground
- ✓ Low cost solution to improve existing sewage treatment plants which fail to meet current or new, more stringent consent standards
- ✓ Tried and tested design which can be incorporated into WPL's successful range of HiPAF sewage treatment plants
- ✓ Timed backwash sequence incorporates air scour, combined air scour and backwash, and final rinse phases

### System design

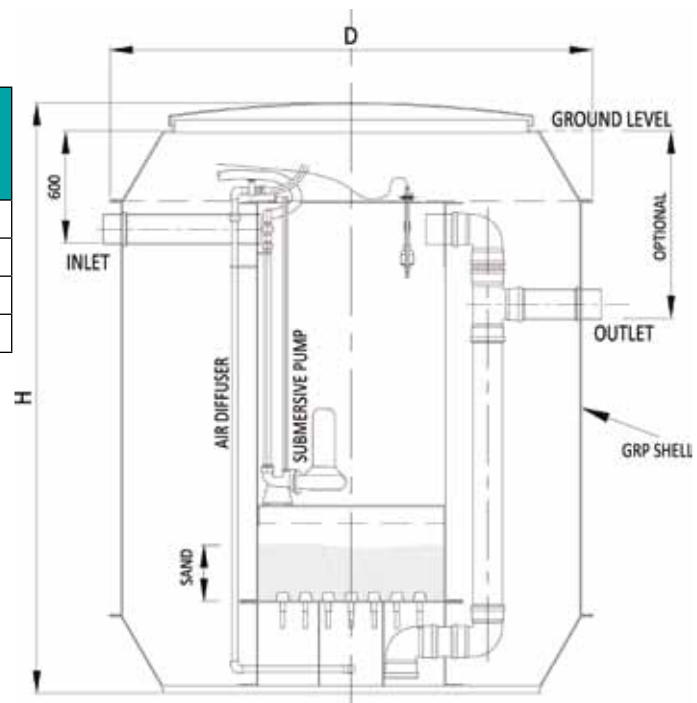
- Influent can flow by gravity or be pumped into the filter unit
- Backwash removes solids trapped in sand filter media and waste backwash water is returned to the plant for co-settlement and re-treatment
- Units are sized to tackle various flow rates
- No need to inhibit inflow to filter during backwash cycle plant sizes



- ✓ Reduces suspended solids
- ✓ Temporary or permanent
- ✓ Low operating costs

## Technical Information

Population Equivalent (PE)	Max. flow (m <sup>3</sup> /day)	Filter area (m <sup>2</sup> )	Tank diameter "D" (m)	Tank height "H" (m)	Backwash flow required (m <sup>3</sup> /h)	Pumps flow (m <sup>3</sup> /h)	Air volume (m <sup>3</sup> /h) (backwash)
70	42	0.28	1.79	3.11	10.2	18	20.4
200	120	0.79	2.61	3.15	28.3	36	56
300	180	1.33	2.86	3.2	47.8	42	95
600	360	2.01	3.20	3.25	72.4	81	145



## Installation, Service and Maintenance

Each WPL Sand Filter is supplied with an installation manual and an operation and maintenance manual. WPL can provide setting to work, commissioning and servicing of the unit. Civil installation of the units can be arranged through a nominated contractor.

## Examples of WPL Sand Filters installed as part of a sewage treatment solution:

Salthome Wildlife Reserve, Visitor Centre, Cleveland.  
Bramshill Police Training College, Hampshire.  
Lasham Private Airport, Hampshire.

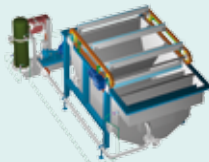
## WPL Wastewater Treatment



Diamond



HIPAF Modular



Industrial Effluent Treatment



Hire Fleet

## Other WPL Products



Grease Guzzler

## WPL Rainwater Harvesting



RainRetain Developers



RainBrain



RainRetain Domestic



RainSustain Commercial

### About WPL Limited

WPL Limited provides innovative and reliable wastewater treatment, rainwater harvesting and grease management systems for domestic, commercial and industrial markets as well as holding a prominent position as a supplier to the water companies. As an internationally recognised leader in the design, manufacture and supply of both standardised, and bespoke environmental solutions, WPL Limited is dedicated to ensure the provision of high quality products and services.

### Environmental Policy

WPL Limited is ISO14001 accredited. WPL Limited rigorously fulfils its vision of protecting the environment by delivering reliable wastewater solutions. A strong focus on quality and compliance ensures that all wastewater treatment systems are designed to work within the guidelines of the British Water Code of Practice and exceed all present and proposed discharge consent standards enforced by the Environment Agency, SEPA and other regulatory authorities.



Call: **+44 (0)23 9224 2600**

Fax: **+44 (0)23 9224 2624**

Email: **enquiries@wpl.co.uk**

Web: **www.wpl.co.uk**

**www.wplinternational.com**

Address: WPL Limited  
Units 1 & 2 Aston Road  
Waterlooville  
Hampshire PO7 7UX  
United Kingdom



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