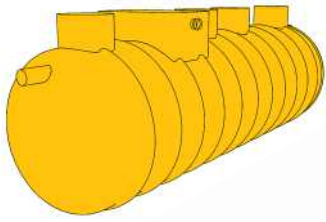


NSAF range



the conder **NSAF range** of package sewage treatment plants

clereflo™ NSAF 25-50



demand special treatment

Conder Environmental Solutions (Conder) has further developed its range of package sewage treatment plants utilising proven Submerged Aerated Filter (SAF) technology for optimum performance and dependability. Using reliable, cost effective and energy efficient blowers for aeration with an integral flow management system, the range is packaged for installation completely below ground.

In standard configuration the plants offer treatment to a 20mg/l BOD; 30mg/l SS; 20mg/l NH₃ effluent quality standard.

Designed in accordance with BSEN12566-3:2005 (applicable for plants up to 50 population size) and with the British Water Code of Practice for Flows and Loads, the Conder NSAF range will serve a population range from 25-50 PE.



PRODUCT RANGE

Clereflo NSAF 25-50 is the solution for housing developments and other smaller scale projects where access to mains drainage is not available. Typical applications include small communities or developments in rural areas.

For larger applications, Conder's Technical Solutions division offers a range of modular sewage treatment systems up to 1800PE, utilising SAF technology. This modular system might include flow balancing, primary settlement/sludge storage, SAF Biozone (BOD removal and nitrification) and humus settlement as discrete stages. This design flexibility means that we can offer a bespoke solution within a package format. Please call our sales office for more information: 08702 640004.

The combination of features, benefits, high performance, reliability and quality assurance makes the Conder SAF range the product choice for 'off mains' drainage solutions.

FEATURES AND BENEFITS

- Proven SAF technology with reliable performance
- Completely below-ground installation
- Low running cost air-blower
- Easy to install – reduced costs
- Compact unitank design with no below ground moving parts
- Deeper inverts available
- Option for pumped influent or effluent
- Effluent Standard: 20mg/l BOD; 30mg/l SS; 20mg/l NH₃
- High Rate nitrification options available

PRODUCT SELECTOR

All applications should be specified to comply with the British Water Code of Practice for Flows and Loads. Further advice and assistance is available from our experienced internal and external sales teams. Site visits and assessments are recommended to ensure the correct equipment is proposed for each application.

The correct plant should be selected to meet the requirements of any discharge consent granted by the Environment Agency, SEPA or EHS (NI).

PRODUCT REFERENCE (pe)	MAX FLOW PER DAY (m ³)	MAX LOAD PER DAY		MINIMUM DESUDGE PERIOD
		BOD kg	NH ₃ kg	
Clereflo NSAF 25	5	1.5	0.2	120
Clereflo NSAF 30	6	1.8	0.24	120
Clereflo NSAF 35	7	2.1	0.28	120
Clereflo NSAF 40	8	2.4	0.32	120
Clereflo NSAF 50	10	3	0.4	120

* Desludge period is at maximum loading, plants not loaded to maximum will have longer desludge periods

process and plant description

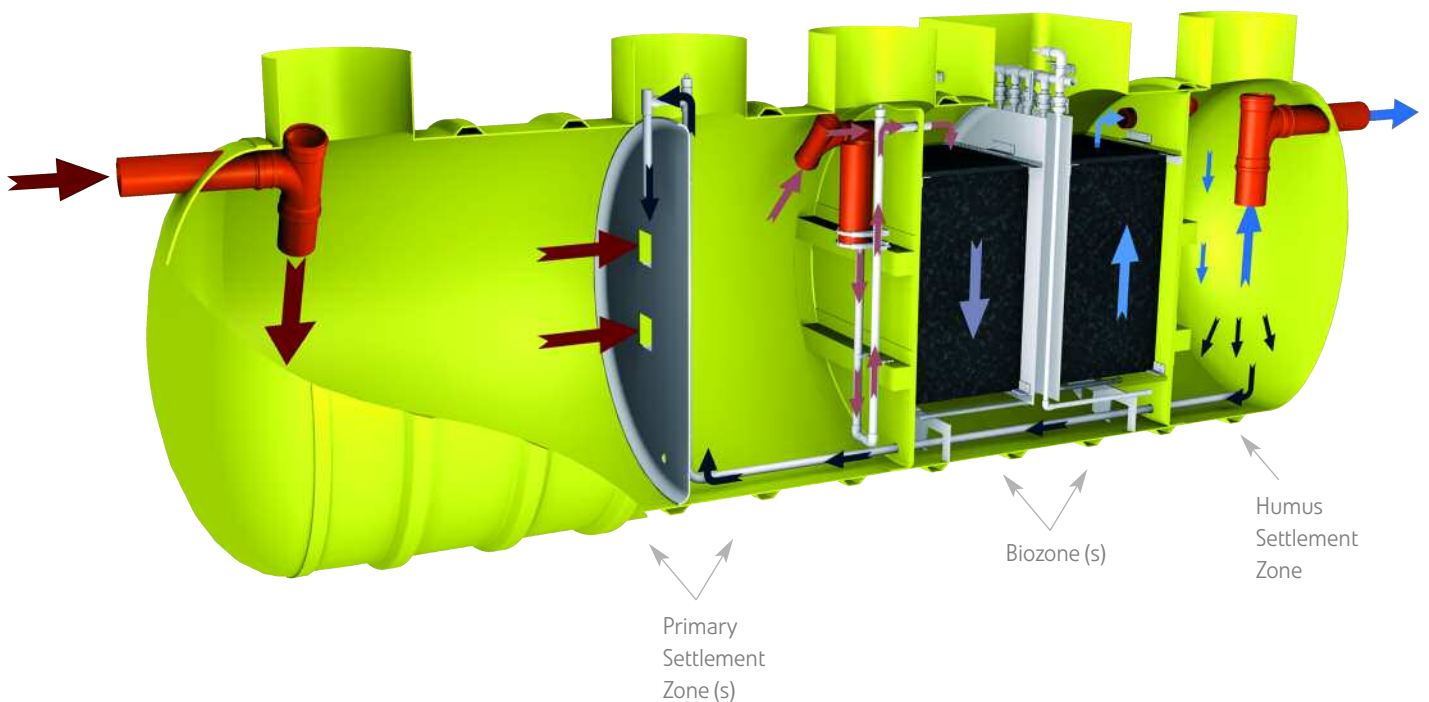
The Conder NSAF 25-50 treatment plant comprises a single tank (unitank). Within the tank there are three treatment stages: primary settlement; biological treatment (biozone) and humus settlement. The flow from inlet to outlet is by gravity.

The incoming wastewater is received in the primary settlement zone. The purpose of the zone being twofold; to remove the majority of the incoming settleable material reducing the biological load passing forward to the biozone; and to store this material (primary sludge) along with humus sludge (returned from the humus zone) until it is periodically removed by desludging. The primary zone has two compartments to ensure efficient operation. The primary zone also incorporates a flow balancing facility where, periodically, the liquid level is lowered by an airlift transferring some of the contents forward into the biozone. This creates a storage volume which is filled before gravity flow into the biozone continues.

Flow from the primary zone passes forward into the biozone. The biozone contains a number of sections (depending on the plant size and required discharge consent), which contain structured plastic media. The high surface area of the media encourages growth of the bacteria and other organisms (biomass) which treat the wastewater. Air, by means of above ground blower(s), is introduced below the media. The air fulfils two functions: supplying the oxygen required by the biomass; scouring the media, removing excess biomass.

The combination of treated wastewater and excess humus solids is transferred forward into the humus settlement zone. In this zone the humus solids settle to the bottom of the tank with the treated water (final effluent) being discharged at the top. The humus solids (humus sludge) which settle to the bottom of the tank are transferred to the primary zone by means of an airlift pump, where they are ultimately removed by the desludging operation.

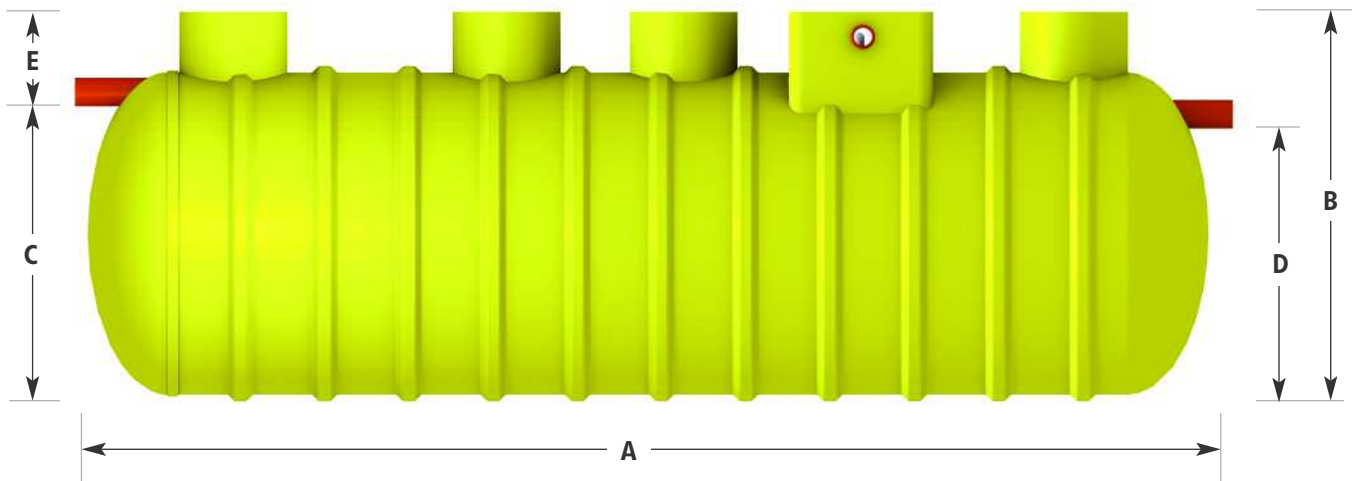
THE CONDER NSAF 25-50 TREATMENT PLANT



specification and installation

INSTALLATION

Conder advises the use of a suitably experienced and qualified installation company to install any of its products. For suggested installers in your area, please contact our sales team on: 08702 640004. Care should be taken to fully assess the site ground conditions prior to commencement of installation. Detailed installation guidelines are provided for each product. All electrical work should be carried out in accordance with current regulations (for example NIC EIC / building regulations).



PRODUCT REFERENCE (PE)	GROSS CAPACITY (L)	TANK DIA (mm)	INLET/OUTLET PIPE DIA (mm)	A (mm)	B* (mm)	C* (mm)	D* (mm)	E* (mm) STANDARD INVERT DEPTH
NSAF 25	9500	1.8	160	4060	2625	1625	1500	1000
NSAF 30	11400	1.8	160	4790	2625	1625	1500	1000
NSAF 35	13000	1.8	160	5400	2625	1625	1500	1000
NSAF 40	16800	1.8	160	6100	2625	1625	1500	1000
NSAF 50	18300	1.8	160	7500	2625	1625	1500	1000

* Deeper inverts can be accommodated with extension shafts.

SERVICE

Conder recommends that a maintenance agreement is taken out to service the plant as indicated in the Environment Agency Guideline PPG4. Desludging of the Primary Tank should take place at the stated intervals depending on the size of the plant and the plant loading. Through a nationwide network of British Water accredited engineers, Conder's service partner, Pims Service, offers a comprehensive range of services including commissioning and ongoing service contracts.

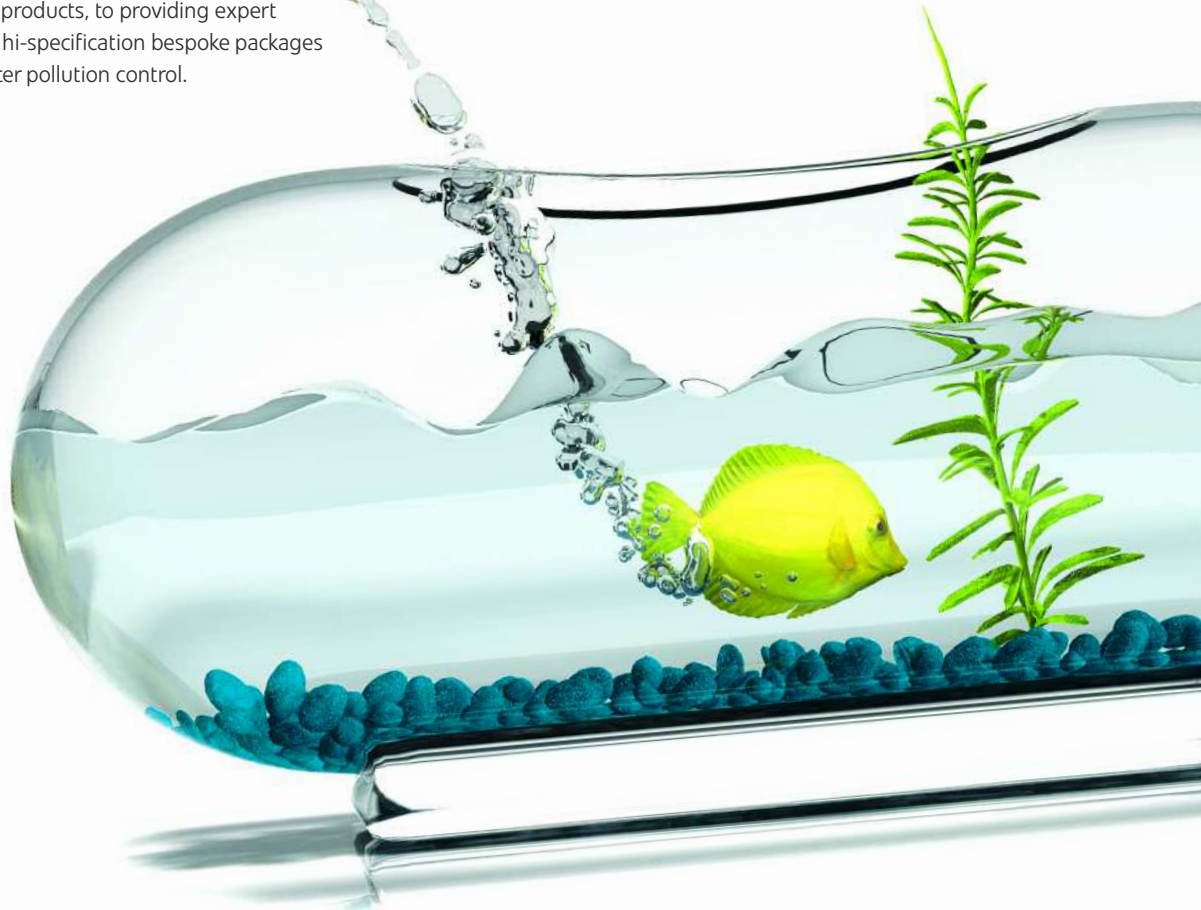
OPTIONAL EXTRAS

- Access shafts (for deeper pipework inverts)
- Acoustically lagged control kiosks
- Sample chamber
- Final effluent pump station to overcome discharge level issues

about conder environmental solutions

Protecting the water environment has been the mission of Conder Environmental Solutions, since it was established in the early 1970s. The business is organised into specialist divisions: Conder Products, Conder Technical Solutions, Conder Pumping Solutions. Our full capability extends beyond our successful range of 'sealed-design' commodity products, to providing expert consultancy and design for hi-specification bespoke packages across all areas of wastewater pollution control.

Conder works closely with engineers, architects, specifiers, developers and self-builders. Providing support from detailed site surveys, plant selection, full technical proposals and liaison with regulatory bodies where necessary, we will ensure that our client achieves the most environmentally sound and cost-effective solution.



CONDER PRODUCTS

Our specialist commodity division offers a portfolio of products ranging from oil/water separators and small sewage treatment plant, to pumping stations and attenuation or storm water balancing tanks. Our Clereflo range of small-scale domestic sewage treatment plants serve 6-50 population equivalents, utilising either Activated Sludge Plant (ASP) or Submerged Aerated Filter (SAF) technology. Highly price-competitive, with minimal running costs, the Clereflo range is the low energy solution for applications where access to mains drainage is not available.

CONDER TECHNICAL SOLUTIONS

The capability of Conder's Technical Solutions division illustrates the breadth of the company's expertise and has established Conder as the authority in hi-specification projects. As a solutions provider our expertise extends across a product range that includes SAF technology unitank and modular sewage treatment systems up to 1800pe, Membrane BioReactor package sewage treatment up to 5000pe, attenuation, engineered vessels and other specialist tanks.

CONDER PUMPING SOLUTIONS

We offer a range of water and wastewater pumping solutions for domestic, commercial and industrial applications from off the shelf packages, through to custom-built pumping solutions.

SERVICE

Products installed to protect the environment must be maintained and serviced regularly to ensure that they continue to operate efficiently and effectively. Failure to do this will undoubtedly lead to pollution of the water environment, which is an offence and may result in prosecution. Through a nationwide network of British Water accredited engineers, Pims Service, Conder's service partner, offers a full service and technical package which can include product support, commissioning, waste management and ongoing service and maintenance programmes.

let us make your environment
a better place to be...
demand special treatment



ASP 6-20pe Package Sewage Treatment Plant



NSAf 25-50pe



Techflo SAF 60-600pe
single-stream and
multi-stream up to 1800pe



MBR Membrane Technology
Package Sewage Treatment
Systems (up to 5000pe)



General Underground
Storage Tanks



Attenuation & Storm
Water Balancing



Class 1&2 Bypass & Full
Retention oil/water separators



Package Pump Stations

For product enquiries, specification advice, project assessments
or further information, please contact the Conder team on:



t: 08702 640004 f: 08702 640005 e: sales@conderproducts.com

www.conderproducts.com

Conder Solutions Ltd, 2 Whitehouse Way,
South West Industrial Estate, Peterlee, Co Durham SR8 2RA

For nationwide service enquiries please contact:



Pims (Services) Ltd

t: 0870 405 0902 f: 01252 516404 e: sales@pimsgroup.co.uk

www.pimsgroup.co.uk

Plus:

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- Sprinkler Tanks

A member of



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We reserve the right to alter specification without prior notice.

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