VERDER LIQUIDS

Wastewater treatment | Sludge treatment

VERDER
passion for pumps

Wastewater treatment

Sludge treatment

Verder pumps for water treatment

Water and wastewater treatment plants are usually continuous flow operations, with additional treatments at certain points in the process such as vacuum filtration, dosing of chemicals, sedimentation, storage and disposal of the treated sludge. In addition to these processes there are water treatments that have a periodical operation; running once a week or once every day.

A professional waste treatment system combines a number of processes that are either:

- Physical (e.g. filtration & flotation)
- Chemical (e.g. chlorination & coagulation)
- Biological (aerobic & activated sludge processes)
- A combination of these three.

It is through our comprehensive range of pump solutions that we can offer you a result that is right for your facility. Verder pumps are perfectly designed for pumping wastewater through all stages of treatment with high efficiency and reliability.

Applications include...

Sludge treatment

- Dewatered sludge pumping
- Stabilized sludge pumping
- Thickened sludge pumping
- Pumping of primary sludge
- Secondary sludge pumping
- Tertiary sludge treatment

Wastewater treatment

- Pumping wastewater
- Odor control
- pH correction
- Dosage of flocculants
- Determination of polymer
- Feeding filter press

Application areas

Water purification
Verder pumps are designed for various applications pumping wastewater through the many process stages in the purification. Highly efficient and highly reliable

Industrial wastewater
Slurries & residues are highly corrosive, abrasive and need pumps that are able to handle highly viscous fluids. The Verderflex, Verderpro and Verderhus ranges are designed to handle difficult to pump media, require low maintenance and are relatively low in cost to operate.

Stabilization
The injection of lime is essential during the storage of sludge. Verderflex, Verderpro and Verderhus pumps are very good for pumping and dosing lime. The pump models are leak-free, deliver precise dosing and can operate sterile to the environment.

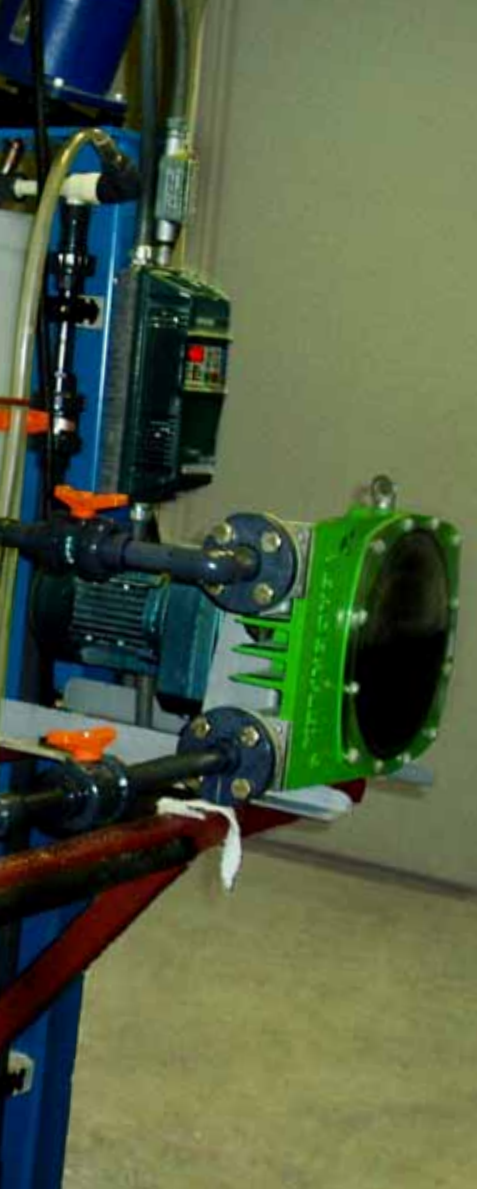
Filter Press Feed
An imbalance of low and high pressures can occur as a result of injecting the fluid for a chamber filter press system. With their extended range of accessories, Verderflex and Verderpro pumps ensure a trouble-free, controlled operation. The Verderair AODD range is suitable for the delivery of media into a press system as it is self-regulating in accordance to the build-up of pressure from the filters clogging and slowing down the flow rate through the chamber.

Liquid sludge
Verderflex Dura and Verderhus are compact units for pumping intense media such as liquid sludge in the transfer of floating material and dewatering.

Thickening
The thickening treatment process requires pumps capable of transferring viscous fluids. Verderflex, Verderpro and Verderhus pumps are suitable for the transport of corrosive fluids, fibers and particles, whilst adjusting to changes in viscosity and minimizing energy consumption.

The dosage of polymers
The dosing of liquid polymers into sludge during the separation and dehydration process requires precise measurement at all stages of the treatment.
Verder pumps can dose the fluids precisely at high pressure and without shear.

Lime milk / activated carbon
The transfer of lime milk or activated carbon is an essential step in the treatment of wastewater. Verderflex peristaltic pumps are designed to provide the highest performance whilst having the smallest footprint. Maximum efficiency, reliability and reduced maintenance costs are ensured when using Verder pumps.



VERDERFLEX
Peristaltic pumps

Verderflex peristaltic hose pumps are used in the environmental sector for the treatment of water and waste. They are recommended for dosing chemicals and reagents such as ferric chloride, sodium hypochlorite, chlorinated water, milk of lime, caustic soda and polymers. Applications include sludge transfer and filter press feeding. Downtime is reduced because maintenance is quick and easy.

VERDERFLEX VF

Flow	10 l/h - 90 m³/h
Discharge Pressure	up to 16 bar
Hose materials	EPDM, NR, NBR, CSM, NBR food grade, Hypalon

VERDERFLEX DURA

Flow	5 l/h – 5,5 m³/h
Discharge Pressure	up to 12 bar
Hose materials	EPDM, NR, NBR, CSM, NBR food grade , Hypalon

VERDERPRO
Progressing cavity pumps

Verderpro is a comprehensive range of progressing cavity pumps, of which the models are robust and meet many applications of water treatment such as the transfer of viscous and abrasive media such as sludge, lime milk and polymers. Progressing cavity pumps have low installation costs and a long service life with easy maintenance for optimal performance.

VERDERPRO

Flow	500 m³/h
Pressure	up to 48 bar
Materials	SS 316, SS 316 Ti, SS 304, Steel, Cast Iron, GG25, PEHD
Rotor	SS 316 Ti, Steel AISI D6, Steel AISI C45,
Stator	Buna N, Silicone, EPDM, Hypalon, Buna Light

VERDERHUS®
Screw centrifugal pumps

Verderhus pumps are suitable for the transfer of liquids containing solids of up to 55%, sludge or paste-like products. The Verderhus pump is of a simple and effective design using a very large impeller type, which allows larger solids to be pumped with minimal wear and use of energy. Screw-channel pumps are applied in the waste water industry in the harshest conditions and ensure high performance in most applications of sewage treatment plants or industries.

Flow range	max 1500 m³/h
Head	max 55 mwc

Model B *Close coupled*

Type BH *Base plate mounted*
close coupled on horizontal base plate

Type BV *Vertical execution*
Close coupled on a duck foot standard

Model T *Submersible*

Type TA *Submersible pump*
For water purification with an automatic coupled pedestal

Type TP *Portable submersible pump on foot*

Type TV Vertical Spindle pump / cantilever
sealless pump with base plate

Model L *Long coupled*

Type L *Standard long coupled*

Type LV *Long coupled with V belt drive*

VERDERMIX®
Mixers

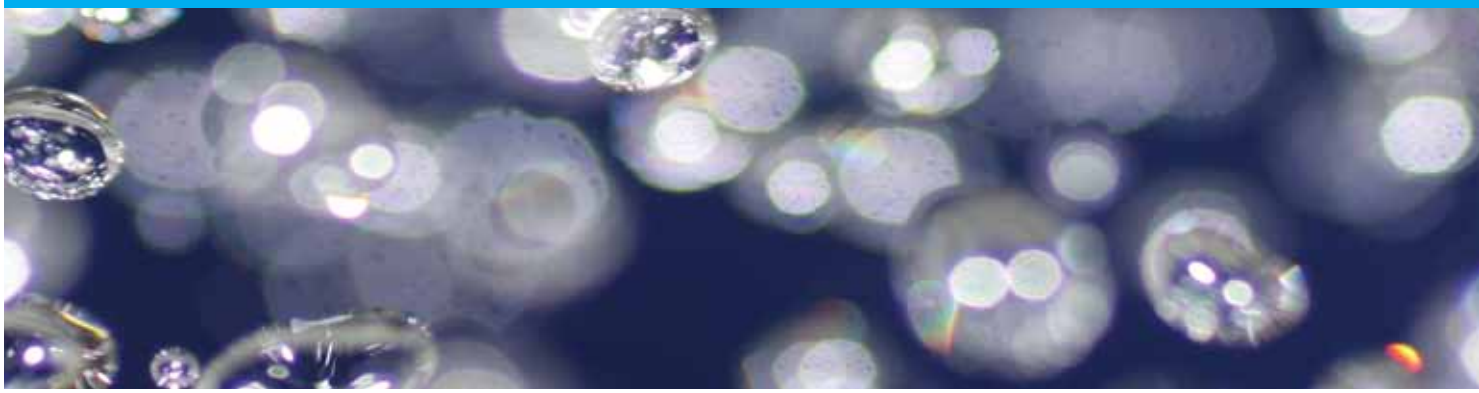
Verdermix offer a wide range of models to suit many water treatment applications. The Verdermix models come in two formats: Static mixers are designed for mixing and homogenization of difficult fluids and gases, directly in canalizations reducing congestion in a facility. Dynamic mixers are used for dilution of polymers in water, or to mix chemicals in the neutralization process of clean water. Each Verdermix mixer is custom-made to ensure the desired mixture state is accurate.

VERDERMIX *Static mixers*

Diameter	4 – 1600 mm
Materials	SS, SS 316, etc.

VERDERMIX *Dynamic mixers*

Vitesse	30 – 1800 tr/min
Construction	VNF – VSM – VPM – VFG – VWM/VKG
Materials	SS, SS 316, etc.



Any questions? You may still have questions and/or comments after reading this brochure. Please feel free to contact us on +44 (0)1924 221 001. You can also contact us via email: info@verder.co.uk Visit our site at: **www.verder.co.uk**

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