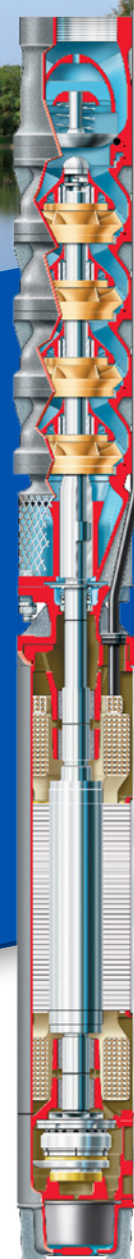


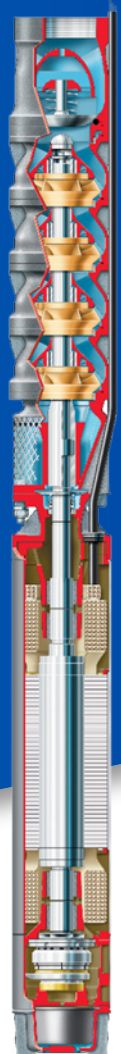
The source of
every solution

Pumps and submersible motors



Optimal quality and reliable in extremely demanding conditions

Pleuger Water Solutions is leading specialist in the field of submersible motors and pumps. Our submersible motors are (some of) the best in the world and have already been used for 50 years in a wide range of applications. Our pumps are maintenance free and we guarantee problem-free usage in even the most extreme operating circumstances. This is something we are proud of! It is partly thanks to our clients that we are able to continue to excel. We are keen to give you the chance to reap the benefit of our achievements. That way you will be able to have complete faith in perfect performance and 24-hour accessibility in the event of calamities.





Pleuger supplies submersible motors based on durability and a high yield. Consequently, the environment-friendly, water-filled motors are of the highest quality with a guaranteed long life cycle and extremely low operating costs. By continually using the latest technologies, the Pleuger team is always able to offer you the most suitable solution which meets the highest demands regarding quality.

If you have any questions or would like any additional information, please do not hesitate to contact the Pleuger team! You can contact us on tel. +31 (0)40 251 68 74 or you can send an email to info@pleuger.nl

Pleuger submersible motors: high quality and long operating life

A solution in all circumstances

The Pleuger submersible motors are high quality and can be used in a wide range of applications. Our customers opt for Pleuger motors because of their proven reliability, durability, low operating costs and high yield. Thanks to the **standardised NEMA connection**, our motors can be used in all kinds of circumstances as a deep sea drive mechanism and in mining, geothermal and industrial applications. They can also be used in conjunction with **various makes of pump**. All our maintenance-free motors are manufactured using top quality materials which guarantee a high level of reliability in demanding operating circumstances. In addition to the standard range, Pleuger also supplies motors designed to customer specifications.

Usable at any depth

The submersible motors are **water-filled** and **pressure-compensated**, meaning they can be used at any depth and can pump liquids at temperatures of up to 90°C. We also have oil-filled motors for special applications in temperatures of up to 160°C. Both types of motor



Photo: Swift drilling.com

are fitted with high-quality winding wire which is encased in special PVC or polyethylene insulation. The **internal cooling system** with internal circulation ensures that the motors are adequately cooled even in the severest operating circumstances. The motor is available in various materials such as cast iron, stainless steel, zinc-free bronze, NiAlBz, duplex and super-duplex. The shaft seal consists of a mechanical ceramics/carbon seal which guarantees an optimal seal and a long working life. Silicon carbide is available as an alternative. Our experts would be only too pleased to advise you.

Technical specifications,* advantages and properties

Water-filled motors

Diameter:	4" to 48"
Frequency:	50 Hz / 60 Hz
Capacity:	5.5 kW-5,000 kW
Voltage:	200 V-6,600 V
Number of poles:	2 / 4 / 6 / 8
Temperature to:	90°C
Starting methods:	DOL / star-delta



Oil-filled motors

Diameter:	8" to 21"
Frequency:	50 Hz / 60 Hz
Capacity:	7.5 kW-1,650 kW
Voltage:	200 V-6,600 V
Number of poles:	2 / 4 / 6 / 8
Temperature to:	160°C
Starting methods:	DOL / star-delta



Advantages and properties of Pleuger submersible motors

- Very high motor yield (permanent magnet motors available)
- Standardised NEMA connection for universal use
- Usable in conjunction with various makes of pump
- Water-filled environmentally-friendly motor
- Oil-filled motors available for special high temperature applications
- Ventilation diaphragm for pressure compensation as a result of which the motors can be used at great depths
- Perfect cooling and lubrication properties
- Internally connected electric cable
- Available in various materials
- Very durable pe²+pa motor windings (rewindable)
- Durable and reliable mechanical seal
- High-tech polymer bearings
- Certification: CSA / EMV / KTV / CE / VDE / Norsok / ABS / DNV
- Optional: 'Plug&play' PT100 temperature sensor
- Both vertical and horizontal installation possible



*The specifications referred to relate to the standard Pleuger range. For other specifications/ requirements 'Specials' can be supplied which can be produced entirely to customer specifications. Our experienced engineers would be only too pleased to advise you on the options.

Pleuger pumps: maintenance-free and the most efficient pumps in the world

Pleuger pumps comply with the highest quality requirements and are some of the most efficient pumps worldwide. The **maintenance-free** design guarantees problem-free use in even the most extreme operating circumstances. The modular design means **(custom-made) solutions** can easily be created from the extensive range. The pump components are cast and can be produced to various material specifications to ensure an optimal result.

The pump components can, for example, be supplied in cast iron, zinc-free bronze, NiAlBz, duplex and super-duplex. Custom-made and customer-specific pumps can be produced for special applications. It is also possible to position the suction side of the pump beneath the motor (bottom intake) so that, for example, tanks can be pumped to a minimum level.

Smart and practical solutions

The dynamic well-balanced vanes ensure minimal vibrations and quiet operations. The pump shaft runs

along high-quality radial bearings which are lubricated with water. The renewed bearings are manufactured from a high-tech polymer and are therefore more resistant to wear and tear. All the components which are susceptible to wear and tear, such as wearing rings, shaft and bearing rings, are easy to replace. The standard pumps are fitted with a non-return valve which is available in various designs. These extensive options, combined with our experience and expertise, means Pleuger has an optimal solution for anyone!

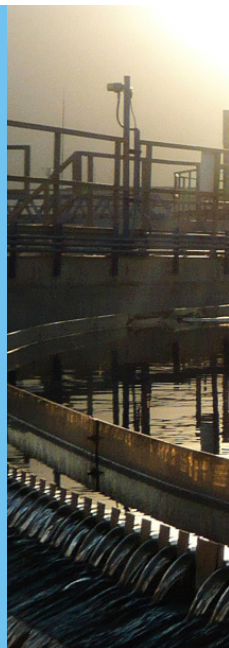
Trend-setting

Pleuger pumps have been trend-setting on the market for decades. The key characteristics are the high degree of **reliability**, the **extensive range**, the **high yield** and the use of **top-quality** materials. This enables our customers to benefit from low operating costs and a long operating life.



Advantages and properties of Pleuger pumps

- Capacities up to 6,000 m³/hr
- Heads of up to 800 metres
- Modular structure which means tailor-made solutions can easily be realised
- Very high yield
- Available in various materials
- 'Bottom intake' design available
- Dynamic well-balanced vanes
- High-tech polymer bearings
- Certification: Lloyds / Norsok / ABS / DNV
- Top-quality materials for extreme operating circumstances



For a wide variety of applications

Extensive programme, something for everyone

The extensive Pleuger programme is ideal for a wide range of applications. The **modular design** of the submersible pumps and the availability of **custom-made specials** make it possible to offer a suitable solution for any project. Pleuger has been a leader in its field for many years partly thanks to our **customer-oriented approach** which means customers stay loyal for the long term.

Heat and cold storage: very high yield and low operating costs

This technology uses a natural underground layer as a storage medium for the temporary storage of heat or cold. The transfer of thermal energy is realized by extracting groundwater from the layer and by re-injecting it at the modified temperature level at a separate location nearby. Pleuger has been supplying pump installations and solutions which can be used for this purpose for twenty-five years. These submersible pumps can be used to pump water from the cold or hot source. The **permanent magnet motors** with a very high yield lead to lower energy costs. High-quality materials guarantee a **long working life** and **low operating costs**.

Geothermics: sustainable results

Geothermal heat is an inexhaustible source, and a sustainable alternative form, of energy. Hot water from various layers of the earth is pumped up and used to heat, among other things, hospitals and greenhouses, or is used in industrial applications. For our geothermal solutions we use **oil-filled motors**. These submersible motors can operate in extreme conditions at depths of even 1,000 metres and in water temperatures of **up to 160°C**.

The top quality materials used guarantee you a **high yield** and low operating costs in the long term.

Offshore

For well over 40 years Pleuger has been supplying solutions for the supply of water to offshore platforms on behalf of fire extinguishing systems, cooling water processes and watermakers. Our submersible pumps have been proven to function **reliably** and **efficiently** in the most extreme circumstances. The fact that we can meet extreme requirements and fulfil our agreements means Pleuger has an excellent reputation in the sector. Customer-oriented expertise has ensured that Pleuger has been very much at home in the offshore sector for the past 40 years.

Other applications

The submersible pumps have already been used successfully for decades for irrigation purposes in the agricultural and horticultural sectors, as well as for sprinkler installations and for a wide range of industrial applications. Our pumps are also used in the mining sector, on dredgers and as ballast pumps on ships and floating platforms. Further on we have oil-filled motors for use at temperatures of up to 160°C.





Pleuger Water Solutions: expert, reliable and customer-oriented

Since as long ago as 1962 Pleuger Water Solutions has offered total solutions for the management and purification of communal and industrial water. Our focus is on the proper operation and long life cycle of our installations. Pleuger offers top-quality (custom-made) solutions based on your requirements. We have our own test bench. By testing we can be 100% certain that our solution works. Of course Pleuger can also carry out the installation, maintenance and renovation of pumps and water purification installations. Furtheron we can be contacted 24 hours a day, 7 days a week in the event of calamities and breakdowns. Thanks to our expertise and customer-oriented approach we are usually able to engage in long-term partnerships. We look forward to getting to know you better so that you too can make the most of the benefits offered by Pleuger Water Solutions:

- For more than 50 years we have been a reliable partner for all the challenges you have faced in relation to water
- A high level of knowledge combined with years of experience
- Innovative due to the continual use of the latest technologies
- Customer-oriented and brand-independent
- Available 24 hours a day, 7 days a week
- We have our own testing bench in our workshop: 100% guaranteed operation
- Short lines of communication and a no-nonsense mentality
- Certification: ISO 9001 / ISO 14001 / BRL K14020-01 / VCA**

Disclaimer - This publication has been compiled with the greatest care. Nevertheless, we would like to apologise for any incorrect information its may contain. No rights may be derived from this publication.