

Deep well pumps

Pumping water from great depths

Our submersible pressure pumps have been specially designed for pumping water from great depths – which can be well over 50 metres, depending on the model. Typical applications of these very powerful pumps include watering with water from wells or cisterns and sprinkler operation.

Some water resources lie too deep to be usable with conventional pumps.

For example, the suction head of surface pumps – garden pumps, automatic domestic water systems and domestic waterworks – as a rule does not exceed nine metres. This means that the height difference between the surface of the pumped liquid and the pump drawing it cannot be over nine metres. This suction head is enough to allow surface pumps to be used for typical practical applications effectively and without any problem. Pumping water from greater depths however requires the capacities of submersible pressure pumps such as deep well pumps and cistern pumps.

Normal pumps soon show their limitations at great depths

For both clear water and dirty water submersible pumps, the usual maximum possible static head is 10 metres. Submersible pumps are installed in water for pumping liquid upwards. Here static head refers to the height difference between the surface of the pumped liquid and the water outlet. If, for example, water is pumped from a well to operate a sprinkler, the static head is equal to the height difference between the well water surface and the sprinkler. When you need to overcome large height differences, the best choice is a high-powered submersible pressure pump.

Submersible pressure pumps with exceptional static head and high maximum pressure

Our submersible pressure pumps have been specially designed to make water available for use from great depths. These very powerful pumps are lowered into wells, cisterns and similar deep places, and then submerged in liquid. Their exceptional maximum static head and very high maximum pressure ensure that they can pump water from a depth of well over 50 metres, depending on the model. Our top-of-the-range models achieve a maximum pressure of 7.0 bar and feature a maximum static head of 70 metres.

High pressure for a broad spectrum of applications

Liquid drawn by submersible pressure pumps is sent on under high pressure, which is great for running watering systems including sprinklers, domestic use, or effective rinsing of patios or footpaths. Another typical application is direct watering of lawns or garden beds from wells or storage containers.

Deep well pumps - specially developed for narrow drilled wells

Our deep well pumps are highly efficient submersible pressure pumps equipped with high-quality technology and specially designed for use in very narrow drilled wells as little as 10 centimetres in diameter. For pumping water from great depths without any problem, equipment supplied as standard for these pumps includes a long connection cable and a special rope for lowering them into wells, cisterns, drainage shafts and similar deep places. Like all submersible

pressure pumps, deep well pumps give you the option of mobile use, for when they have to be moved from site to site, or stationary installation.

The convenience of water from the mains – with automation

A major advantage of all T.I.P. submersible pressure-, deep well- and cistern pumps is that they can be automated. All models generate the 1.5 bar minimum pressure required for this purpose. Automation means that pumped liquid can be used just like water from the mains – for example by turning taps or other consumers on and off. All you need for this convenient solution is an electronic or mechanical control system; this can be installed quickly and with minimal effort.

The electronic Brio 2000-M electronic control system automatically activates the pump when the tap is opened or a minimum pressure is reached. When water discharge ceases, the pump cuts out. Electronic control systems also provide effective protection from damage due to dry running, as the pump cuts out when there is too little water.

Mechanical control systems with pressure switches can be automated using a pressure compensating tank – also called a pressure vessel – together with the power supply. Water discharge activates the power supply, causing the pump to cut in. When a consumer or tap is turned off, the power supply is interrupted and the pump cuts out.

Choosing the right deep well pump

We offer a range of submersible pressure pumps that has been carefully graded with practical use in mind. This allows you to choose a pump that meets your individual requirements down to the smallest details.

AJ 4 Plus series - deep well pumps ideal for household use

With its excellent technical characteristics, the AJ 4 Plus series of deep well pumps is perfect for household use. A typical application is pumping water from deep wells, streams and cisterns to be sent on under high pressure. The extra-compact design of these pumps enables their use in very narrow wells as little as ten centimetres in diameter. As these models are often used at great depths, their convenient standard accessories include a 20-metre- long connection cable and a special rope for lowering the pumps. The built-in check valve supplied as standard protects the unit from damage due to pressure surges. A patented hydraulic system protects the pump against damage from running when there is too little water and from the corrosive effect of sand in quantities up to 50 grams per cubic metre of water.

The AJ 4 Plus 95/40 is the ideal starter model in this series. With a maximum static head of 40 metres, maximum pressure of 4.0 bar and maximum flow rate of 5,500 litres per hour, it meets the requirements for effective use in all typical deep well pump applications. Its impressive performance figures combine with relatively low energy use, as this six-stage pump features a motor with economical 900 watts power consumption.

If a higher flow rate and higher maximum pressure are required for a planned application, the significantly more powerful AJ 4 Plus 100/57 is available. Besides the high maximum flow rate of 6,000 litres per hour, this very high-powered pump also features a high maximum pressure of 5.7 bar, which corresponds to a maximum static head of 57 metres. For such high performance, this eight-stage pump requires a rather more powerful motor with 1,100 watts power consumption.



SMC series - professional deep well pumps with outstanding technology and equipment

MSC series professional deep well pumps are distinguished by their outstanding technical characteristics and extra-high-quality equipment. An external capacitor box allows you to adjust the cable length to the desired submersion depth of the pump. Standard accessories for this very sand-resistant model include a durable lowering rope, built-in check valve and long connection cable. With an external diameter of 98 millimetres, this pump is ideal for extremely narrow deep places.

Driven by a powerful 1,300 watt motor and high-quality brass impeller, the one-stage MSC 4/1 M achieves a high maximum pressure of 5.6 bar, with a maximum static head of 56 metres and a maximum flow rate of 3,000 litres per hour. In addition, the high-powered peripheral pump system ensures exceptionally high resistance to the effects of sand. This model can pump liquid containing up to 150 grams of sand per cubic metre with particle sizes up to 2 millimetres in diameter, so it can also be used for dirty water.

The core of the eleven-stage MSC 4/11 is an extra-high-quality Franklin electric motor. Its 1,200 watts power consumption in conjunction with eleven floating impellers ensures exceptionally high capacity. Maximum pressure of 7 bar, maximum static head of 70 metres and maximum flow rate of 5,000 litres per hour testify to its impressive performance. This pump is therefore recommended for extra-high-pressure applications such as pumping water from unusually great depths or rapid pumping of large amounts of liquid. High resistance to sand – it can pump water with up to 100 grams of sand per cubic metre – is another feature of this highly professional model, which stands out from the crowd among deep well pumps.

High-quality materials and no compromise on the technology: the keys to the high quality of our submersible pressure-, deep well- and cistern pumps.

- High-quality stainless steel or robust die-cast aluminium housing.
- Strong protection against damage from running when there is too little water.
- Highly efficient AJ 4 Plus series hydraulic system.

The patented AJ series hydraulic system is equipped with floating impellers which are extremely resistant to the corrosive effect of sand. The pressed ceramic ring in the diffuser and the graphite ring ensure high resistance to damage from running when there is too little water while also dramatically reducing friction losses.

T.I.P. submersible pressure pumps are not suitable for pumping salt water or flammable, corrosive, explosive or other hazardous liquids.





