

## **Automatic domestic water systems**

### **Just like a water supply from the mains**

Automatic domestic water systems are suitable for pumping clear water out of wells and cisterns, using service- or rainwater, garden watering and running watering systems. Pumped water is sent on under pressure and can be used just like water from the mains – for example by turning taps on and off.

In terms of its design and functioning, an automatic domestic water system is essentially an automated garden pump. Automation means that pumped liquid can be used just like water from the mains – by turning taps or other consumers on and off. This convenient form of use usually requires an electronic control system with a set cut-in pressure. This cut-in pressure, which cannot be changed, is approximately 1.5 bar in most models. If pressure in the piping system falls below the set cut-in pressure when a consumer is turned on, the pump starts up. In most cases cut-out occurs when maximum pressure is reached. Once the appliance is turned off, the pump keeps running until system pressure ceases to rise, and then cuts out. The piping system is now at the maximum pressure the pump is capable of.

Automated operation using an electronic control system offers a further advantage: it protects the pump from damage due to dry running, as the pump cuts out when there is too little water.

### **Flexible options for watering and drainage**

Automatic domestic water systems are ideal for a broad spectrum of watering and drainage purposes. Classic applications are pumping water from wells and cisterns as well as filling or emptying storage containers, pools and ponds. The spectrum also includes efficient use of service- and rainwater. Another typical area of application is watering gardens and garden beds, possibly with watering systems such as sprinklers. Automatic domestic water systems send on liquid under pressure, so they can also be used for highly efficient cleaning of patios and footpaths.

With their compact design and practical carrying handle, these easily transportable systems are ideal for uses requiring changes of site. Where necessary – if they are needed permanently in the same place – they can also be permanently installed in a few easy steps. A sturdy metal plate ensures high stability – whether the system is in mobile use or installed in a stationary position.

### **Limitations of automatic domestic water systems**

Automatic domestic water systems are highly reliable when used for the tasks for which they were designed. For other applications, different pump types are recommended.

For example, the maximum suction head of automatic domestic water systems is nine metres. Suction head refers to the height difference between the water surface and the location of the system. Here is an example to explain what this means. If water is to be pumped from a well, the well water surface cannot be more than nine metres below the pump. For all common practical applications this maximum value is more than enough. Pumping water from any greater depth is beyond the scope of automatic domestic water systems. Our submersible pressure pumps have been developed

specifically for this purpose. Like automatic domestic water systems, this pump type is suitable for automation, allowing liquid pumped from a great depth to be used like water from the mains.

Another limitation concerns domestic water supply with service- or rainwater. This is possible to a certain extent, but not recommended, because automatic domestic water systems do not give the user the option of setting either the cut-in or the cut-out pressure. For the same reason, these systems are not suitable for use as booster stations. For this kind of application, the use of domestic waterworks is recommended.

*With automatic domestic water systems you can use pumped water just like water from the mains - by turning taps on and off.*

## **Choosing the right automatic domestic water system**

An automatic domestic water system is basically a combination of a garden pump with an electronic control system. Our diverse and carefully graded range of garden pumps offers numerous variants to cater to individual requirements effectively. In addition, our product line-up includes two high-quality classic automatic domestic water systems as well as a professional model.

Our classic models – the HWA 3000 INOX and HWA 4400 INOX Plus – along with the DHWA 4000/5 LED professional model offer reliable performance in all common automatic domestic water system applications. In addition, where necessary, a custom combination of a garden pump and an electronic control system will allow you to assemble an automatic domestic water system with exactly the right performance and specifications for the intended purpose.

## **HWA 3000 INOX and HWA 4400 INOX Plus - high-quality classic automatic domestic water systems**

Both the HWA 3000 INOX and the HWA 4400 INOX Plus are ideal for all automatic domestic water system applications. These include pumping water from wells or cisterns, using service- and rainwater, watering lawns and garden beds, and filling or emptying pools and ponds. Sending water on under pressure also enables you to run watering systems effectively. Both models are distinguished by their high-quality workmanship and impressive technical characteristics. These self-priming pumps are equipped with an efficient jet hydraulic system, a maintenance-free capacitor motor and a high-quality stainless steel pump housing. A sturdy metal plate ensures stability whether the pump is in mobile use or stationary installation. The pump is equipped with a Brio 2000-M electronic control system. This extremely reliable system not only ensures automatic operation but also offers a further major advantage: protection for the pump. To avoid damage to the pump, it promptly cuts out where there is too little water.

The HWA 3000 INOX combines remarkably economical 550 watts power consumption with impressive capacity – a maximum static head of 42 metres, maximum pressure of 4.2 bar and maximum flow rate of 2,800 litres per hour. This level of performance allows it to run watering systems even with up to two sprinklers. At 7.3 kg, its light weight makes it especially convenient for transport or mobile applications. In contrast, the considerably more high-powered HWA 4400 INOX Plus is suitable for applications requiring higher pressure or larger amounts of water. The powerful 900 watt motor is capable of a maximum flow rate of 4,250 litres per hour, maximum pressure of 4.4 bar or simultaneous operation of up to four sprinklers.

## **DHWA 4000/5 LED - the professional model with innovative technology**

The strikingly modern design suggests that the DHWA 4000/5 LED automatic domestic water system is based on innovative technology. The first thing you'll notice is the clear layout of the control panel with LED display, which is used



for monitoring pump operation and programming the electronic pump control system. A further technical refinement is a built-in washable pre-filter to protect the pump from larger particles and ensure low-wear running. Another convenient feature of this pump is a built-in check valve.

At the core of the pump is the water-cooled low-noise motor with 1,100 watts power consumption. This provides the capacity for a maximum static head of 45 metres, maximum pressure of 4.5 bar and maximum flow rate of 3,900 litres per hour, as well as for operation of up to three sprinklers. Impressive all round, this professional model offers high efficiency in all automatic domestic water system applications.

### **Automatic domestic water system = garden pump + control system**

T.I.P. automatic domestic water systems deliver excellent results in all usual applications. For individual requirements, and where other performance characteristics are desired, we recommend combining a garden pump and an electronic control system as per your own requirements.

An automatic domestic water system is essentially an automated garden pump. In this case automation means that the garden pump is equipped with a Brio 2000-M electronic control system, so that pumped liquid can be used like water from the mains. Assembling an automatic domestic water system is as easy as can be, requiring just a few easy steps. The control system merely needs to be fitted to the available garden pump with a screw connection.

When custom-creating an automatic domestic water system, we recommend that you first choose an appropriate garden pump. Our diverse range of garden pumps runs from robust starter products to perfect all-rounder models and top-of-the-range pumps. This allows you to find the product with the performance and technology you want, quickly.

### **Brio 2000-M electronic control system - automated operation and dry running protection**

The Brio 2000-M electronic control system is distinguished by extremely high reliability and functional safety. Very quick and easy to install, the Brio 2000-M enables you to automate any type of pressure pump capable of at least 1.5 bar. Cut-in pressure is adjustable. However, cut-out pressure is not adjustable, as cut-out is output-dependent and occurs automatically once the tap is turned off. The Brio 2000-M features a gauge for precise pressure control. A further advantage of the Brio 2000-M is that it cuts out when there is too little water, to protect the pump from damage due to dry running.

### **High-quality materials and no compromise on the technology: the keys to the high quality of our automatic domestic water systems.**

- Electronic control system with effective protection against being damaged by running when there is too little water/dry running.
- High-quality stainless steel pump housing.
- Sturdy metal plate for high stability.
- Wide variety of pump and control system combinations.

*T.I.P. automatic domestic water systems are not suitable for pumping salt water or flammable, corrosive, explosive or other hazardous liquids.*



