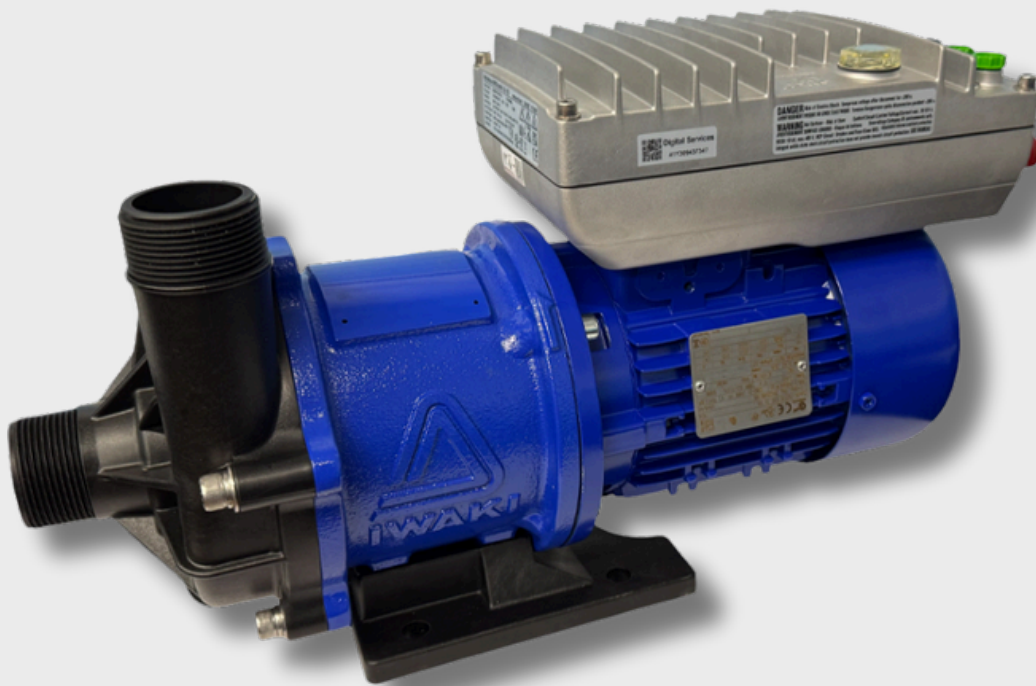




INDUSTRIAL SOLUTIONS  
...we make pumps intelligent



# Electronically Controlled Magnet-Driven Centrifugal Pump

TMC-300 series

For Continuous and Pulsation Free  
Transfer Applications

## Intelligent solutions for the highest demands

IWAKI, a leading Japanese manufacturer, is known for innovative and reliable pump technology for decades. IWAKI has set standards particularly in the field of magnetic driven centrifugal pumps. The quality and performance of these pumps are highly recommended in many sectors, from the chemical and pharmaceutical industries to food processing and industrial processes of all kinds.

The partnership with Schnitzler GmbH takes this established technology to the next level. Schnitzler has been authorised to equip IWAKI pumps with the intelligent IES control system developed in-house in order to expand the application possibilities of the pumps and give them a higher degree of efficiency and flexibility. This market approach, which we summarise under 'Industrial Solutions', is an innovative response to the increasing demands of modern industry.

## The operating principle of the TMC-300

### A powerful technology

Centrifugal pumps work according to a simple but extremely efficient principle. At the centre is a rotating impeller that picks up the liquid and accelerates it by centrifugal force. This movement pushes the liquid in the direction of the pump outlet, resulting in a continuous and consistent flow of liquid. This principle makes it possible to pump large quantities of liquid with relatively low energy consumption - a decisive advantage for many industrial applications.

The TMC-300 works without a direct mechanical connection between the motor and impeller. Instead, the movement of the impeller is transmitted via a strong magnetic field, which means that there is no need for axle seals or valves that could wear out. As a result, magnetic driven pumps are particularly low-maintenance and offer a high level of operational reliability - ideal for challenging environments where long operating times and high reliability are required.

## Ready for every application - the flexibility of the TMC-300

Centrifugal pumps are used in a wide range of industrial sectors:

From pumping liquids in the chemical industry to precise dosing in food processing - the possibilities are virtually unlimited.

The combination of IWAKI pump technology and

Schnitzler IES control system offers an outstanding solution, particularly in processes where maximum precision and reliability are required.

# Perfect control for your processes

## The Schnitzler IES control system

What makes the TMC-300 so special is not only its proven operating principle, but also all the possibilities opened up by the intelligent control system. The Schnitzler IES control system (Intelligent Electronic Control) offers far more than just simple start/stop functions. It transforms the TMC-300 into highly precise and efficient tools that can be easily integrated into complex production processes.

### The advantages of the IES control system at a glance

- **Dry-running protection** A central feature that prevents the pump from running dry and being damaged as a result. If the liquid level drops or the supply is stopped, the pump switches off automatically.
- **Liquid pressure monitoring** The IES controller continuously measures the pressure in the system and can adjust the pump operation if the pressure is too high or too low. This stabilises operation and protects the pump.
- **Adjustable start and stop speed** To prevent foaming or damage to the medium, the start and stop speed of the pump can be finely adjusted. This is particularly important for sensitive media such as food liquids or chemical substances.
- **Adjustable flow rate** The capacity of the pump can be precisely adapted to the specific application, which ensures maximum flexibility.
- **Automatic shut-off in the event of a hose or pipe break** If there is a leak in the system, the IES recognises the fault immediately and switches the pump off to prevent further damage.
- **Operating hours counter** The IES control unit monitors the running time of the pump and thus supports the planning of maintenance intervals.

Thanks to these innovative functions, the TMC-300 with IES control can operate in stand-alone mode without the need for external sensors, pressure switches or additional control electronics. This not only simplifies installation and maintenance, but also significantly reduces operating costs.

## Technical data of the TMC-300 series

The TMC-300 centrifugal pumps are characterised by their high performance and reliability. Here are some important technical parameters:

Material		GFRPP (glass fibre reinforced PP)
Connections	Max.	1 1/2" BSP male thread or DIN flange
Capacity	Max.	up to 400 l/min.
Pressure	Max.	3.5 bar
Viscosity	Max.	1200 cP
Temperature		80°C

Go for sustainability, flexibility and precision with TMC-300 centrifugal pumps. Whether in the food industry, chemicals, pharmaceuticals or any other industrial sector - we supply customised solutions that offer you real added value.

## Come and visit us in our pump workshop



... or on YouTube at <https://www.youtube.com/@schnittzlergmbh8723>

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