

HIGH- EFFICIENCY IN-LINE PUMPS



WITH TP/TPE GRUNDFOS OFFERS A COMPREHENSIVE RANGE OF HIGH EFFICIENCY IN-LINE PUMPS DESIGNED FOR USE IN A VARIETY OF APPLICATIONS

A wide range of applications covered

Use the TP and TPE pumps for maximum efficiency and reliability in the following application areas:

- Heating
- Cooling
- District energy
- Industrial cooling
- Industrial processes
- Water supply

Energy efficiency in every detail

We have looked at every detail of the TP/TPE pumps to increase efficiency. Optimised flow geometry and cataphoresis surface treatments are two examples of how we've succeeded.

Optimised flow geometry

With our unique high-precision machinery, we have minimised the tolerances used in the manufacture of the impeller and pump casing, and optimised the flow geometries of these two crucial components. The result: minimal backflow and increased energy efficiency.

The perfect surface

Sometimes, looking at the surface is a good thing. Grundfos TP/TPE pumps are given cataphoresis surface treatments, consisting of Powercron® cathodic electrocoating and zinc phosphate coating. Cataphoresis on the inside of the pump means a longer lasting inside surface that keeps efficiency high.



Grundfos Blueflux® technology included
The Grundfos Blueflux® technology label is your guarantee for the best-in-class pump motor solution from Grundfos in terms of performance and energy consumption.

Pumps for life: TP and TPE

TP and TPE are the ultimate choice in In-line pumps. These highly adaptable, intelligent pumps are extremely efficient and built to match your needs perfectly.

TP: Comes with the highly efficient IE3 Grundfos Blueflux® motor as standard.

TPE: Features both the IE3 Grundfos Blueflux® motor as well as an integrated frequency converter that ensures maximum efficiency at all times. All TPE components are tailor-made and mutually optimised, resulting in energy savings of up to 50% compared to conventional pumps.

TPD/TPED: Twin-head pump variants of the TP and the TPE.

Advantages of an integrated frequency converter

- Easy commissioning
- Easy installation – no need for cabling
- Preset solution for quick and safe installation
- Space saving
- Motor, frequency converter and motor protection in one
- Software optimised for pump operation – low operation costs
- One supplier, one warranty

BIG benefits for small TPEs

All our TPEs sized 0.12 - 2.2 kW, 2-pole and 0.12 - 1.1 kW, 4-pole feature some very big benefits. This particular part of our range as been fitted with advanced motors – permanent-magnet motors with an efficiency that exceeds IE4 demands: Efficiency levels in IEC60034-30-1 Ed. 1 (CD); even when you include the energy consumption of the integrated frequency converter.

Benefits

- Efficiency exceeds IE4 demands
- Up to 4 pumps in parallel operation/cascade
- No need for external control unit – the pump communicates via radio frequency
- Improved user interface – easy commissioning, trouble-shooting and maintenance
- Fully compatible with Grundfos GO
- Advanced functional module featuring more inputs and outputs – digital as well as analog



TP/TPE THE DETAILS

Integrated frequency converter in TPE

The integrated frequency converter in the TPE ensures easy commissioning, easy installation and low operation costs.

The all-in-one solution

In Grundfos TP/TPE pumps, coupling and shaft have been friction-welded together to create a completely stable mechanical unit, which drastically reduces the vibration levels. The stability of this all-in-one solution prolongs the lifetime of both shaft seal and bearings.

Anti-corrosion surface

Cataphoresis surface treatment consisting of Powercron® cathodic electrocoating and zinc phosphate coating.

- Maximal protection against corrosion
- Cataphoresis on the inside of the pump means a longer lasting inside surface that keeps efficiency high

Renewable neck rings

All TP and TPE pumps come with renewable neck rings, making it possible to upgrade your pump when necessary.

Compact perfection

The proportion between the length and width of the shaft in the pump is extremely important. Large shaft diameters and a short distance from impeller to motor maximise stability and ensure lower maintenance costs. Grundfos pumps always strive for the most optimal proportion between the length and width of the shaft.

- Maximal shaft seal lifetime
- Especially well suited for frequency converter operation

Unique design of shaft seal chamber

- No need for external piping
- Ensures optimal water circulation, thereby prolonging the lifetime of the shaft seal

Mechanically and hydraulically balanced impeller

- Minimised vibration levels and axial forces
- Maximised motor bearing and shaft seal lifetime

Advanced fan design

Advanced axial fan design means dramatically reduced noise levels.

Grundfos Blueflux® IE4

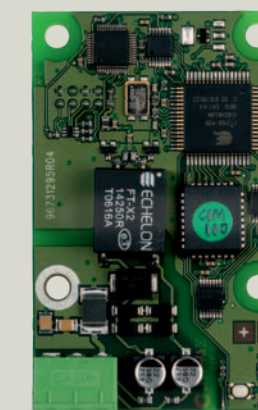
Grundfos Blueflux® motors come as standard in both TP and TPE pumps. The motor on small TPEs easily meets IE4 demands – even if you include the energy consumption of the integrated frequency converter.

ACCESSORIES



Grundfos GO

Grundfos GO gives you intuitive handheld pump control and full access to the Grundfos online tools on the go.



CIM/CIU modules

For connection to BMS, CIM/CIU modules with the following field-bus standards can be added: LON, Profibus, Modbus, SMS/GSM/GPRS and BACnet. In addition, the GENIBus is also available.



OUR COMPREHENSIVE RANGE

You can have all the benefits of the TP/TPE series whether you are looking for a small- or large-scale solution.

The whole range features:

- Liquid temperature range up to +150°C
- Ambient temperature up to +60°C
- Operating pressure up to 25 bar

TP/TPE 50 Hz:

- From 0.12 kW to 630 kW – TPE up to 22 kW
- Capacities of up to more than 4500 m³/h
- Head up to 170 m

TP/TPE 60 Hz:

- From 0.37 kW to 315 kW – TPE up to 22 kW
- Capacities of up to 1250 m³/h
- Head up to 235 m

Choose between the 1000 or the 2000

Grundfos offers two concepts within E-pumps: The TPE Series 1000 and the TPE series 2000.

TPE Series 1000:

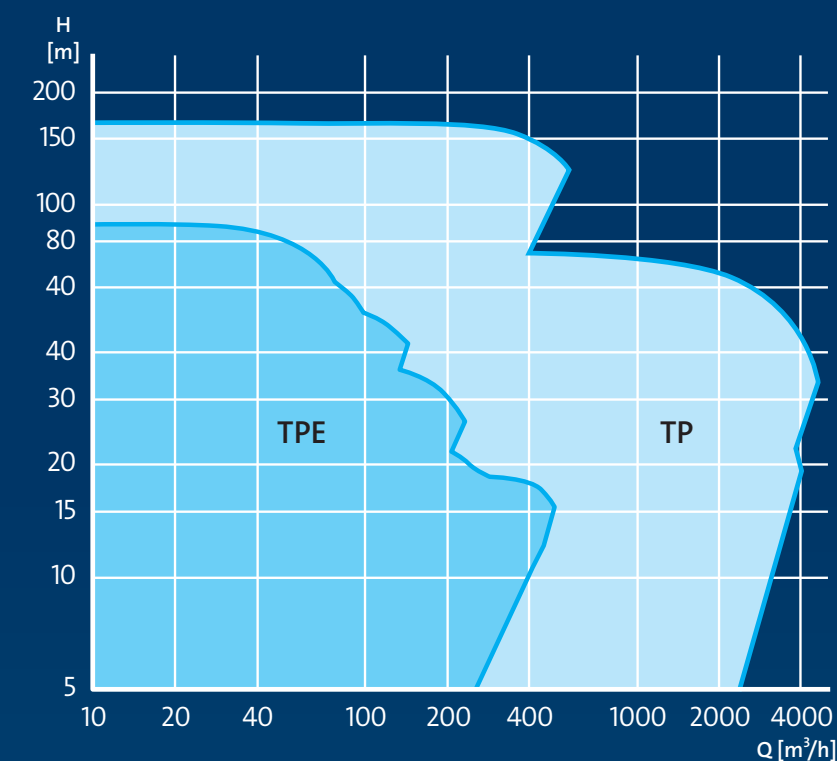
- Suitable for applications where a sensor in the system controls the pressure, temperature or flow rate
- Very suitable for larger systems and customised systems

TPE Series 2000:

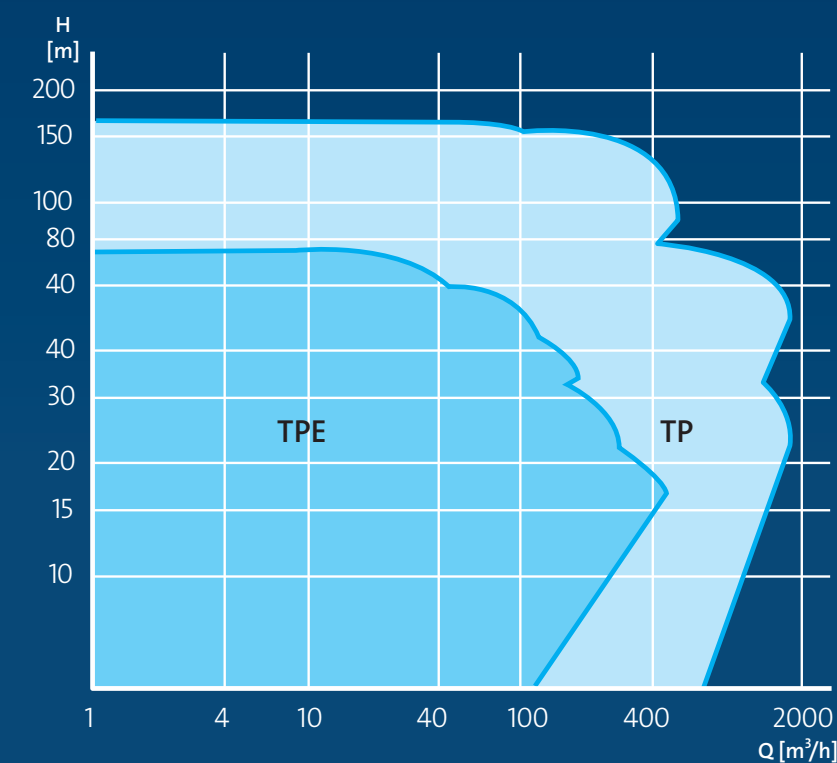
- Easily commissioned and installed – plug and pump solution
- Have a factory-fitted differential sensor
- Are factory-set to proportional pressure control
- Continuously adjust the pressure to fit the current demand

PERFORMANCE CURVES

TP/TPE 50 Hz



TP/TPE 60 Hz



Grundfos TP/TPE is a comprehensive range of high efficiency In-line pumps. They feature the world-renowned Grundfos Blueflux® motor as standard and the TPE has an integrated frequency converter that ensures maximum efficiency at all times.

Application areas

- Heating
- Cooling
- District energy
- Industrial cooling
- Industrial processes
- Water supply

Learn more and see our full product programme at www.grundfos.com

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