tBOX

Thermal Control Unit for industrial applications

EUROCHILLER®
Part of Atlas Copco Group

Find out more

New Eurochiller **tBOX** range

High end Thermal Control Unit for industrial applications

Introducing the **tBOX – Thermal Control Unit**, a next-generation solution designed to deliver precise, reliable, and efficient temperature regulation for demanding applications.
Built with advanced thermal management technology, the **tBOX** ensures **optimal performance** and **precision**, even in the most demanding applications. Compact yet powerful, the **tBOX** combines **intelligent PLC control**, robust hardware, and **versatile connectivity** to integrate seamlessly into your operations. With its **intuitive interface**, **configurable settings**, and **durable design**, the **tBOX** sets a new standard in thermal management — helping you to save energy, extend system life, and maintain peak performance with confidence.

Adaptivity

tBOX is designed to adapt to each environment, with an ease of maintenance.
Built into a resistant steel frame, covered in a high-strength epoxy powder coating, the machine is equipped with **automatic water filling**, **automatic air discharge**, air overflow on filling by solenoid valve

Customization

The unit is fully customizable:

- Heating capacity: **3 – 18 kW**
- Cooling type: **direct** or **indirect**
- Max water temperature: **90°C -140 °C**
- Flowrate: **90 – 120 l/min**
- Options for: **3-way valve**, magnetic-driven pump, peripheral pump and reversible pump.

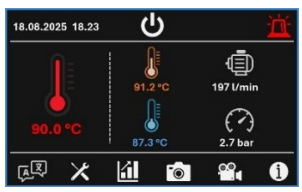
Precision & Connectivity

tBOX thermoregulators offer extremely precise temperature regulation, essential for the quality of industrial processes. With advanced technology and **integrated connectivity through its PLC**, it is possible to control and monitor the TCU remotely, ensuring flexibility and responsiveness in managing operations, thanks to MODBUS/ Ethernet/ OPC-UA protocols.

PLUG&PLAY

≥ 60 CONFIGURATIONS

ADVANCED PLC



New Eurochiller **tBOX** range

Cutting-Edge Technology and Premium Components

Ready for **Industry 5.0**

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Robust frame structure
Epoxy coating protection

Heaters
Low intensity submersible heaters

Heat Exchanger
High efficiency SS plates heat exchanger

Centrifugal water pump
60/ 120 liter pump configurations

CE

Hydraulic circuit
Rusty-free tank and pipes

PLC controller
Industrial Touch screen display interface

Automatic Start&Stop
Start & Stop included, with degassing feature

Communication Protocols
Up to 10 available communication protocols

The **tBOX PLC interface** enables seamless integration with the most widely used industrial communication protocols, including Ethernet and Profibus. This feature supports the digital transformation of manufacturing environments by ensuring full connectivity within modern factory.

Modbus RTU · Modbus TCP/IP · CAN · EtherNet/IP · OPC · PROFIBUS · PROFINET

tBOX High End Water Thermal Control Unit for industrial applications

Technical Data						
tBOX 400V/ 50Hz		**3**	**6**	**9**	**12**	**18**
Heating	[kW]	**3**	**6**	**9**	**12**	**18**
Cooling*	[kW]	**105**				
Range	[°C]	20-140				
Storage Vessel	[l]	10				
Model Pump P1	[l/min]	60				
Model Pump P2	[l/min]	120				
Net pressure P1/P2	[bar]	3,0				
Water Connections	[-]	**PROCESS** IN/OUT:3/4" | **COOLING** IN/OUT:1/2"				
Length	[mm]	800				
Width	[mm]	350				
Height	[mm]	740				
Net Weight	[kg]	55				

Applications of tBOX TCUs in the Plastics Industry

- Plastic Molding Machines
- Chill Rolls
- Shredder Recycling
- Wrap Recycling
- Bag, Bottle, and Film Production
- Injection Molding
- Blown Film Molding
- Stretch Blow Molding
- Profile Extrusion

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