

▶ Digitemp Thermorefrigerators for high standards of performance

The new Piovan Digitemp Thermorefrigerators of the DT Series have the function to heat and cool the process circuit of injection and blow moulding machines. The range is composed of three models of water-cooled chillers, available in the single and dual circuit versions; the standard configuration integrates both temperature control and free-cooling functions. Piovan Digitemp models ensure the highest quality of the production process, providing water to every single circuit at specific temperature, pressure and water flow.

▶ The distinctive features of the new range



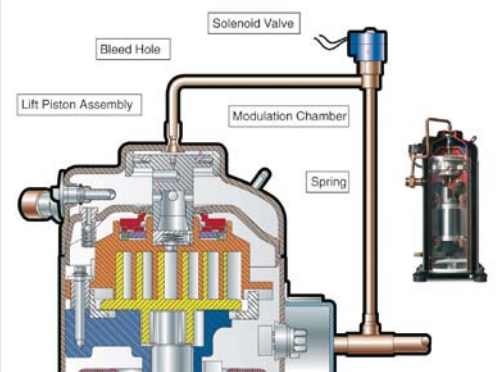
- > **Wide range of temperatures from -5°C to +90°C** for every single circuit; this feature makes the Digitemp models ideal for multiple applications in the injection moulding and blow moulding sectors.
- > **Significant reduction of energy consumption.** The combination of compressors with digital technology and the electronic expansion valve - installed in all the Digitemp models in their standard version - ensures the greatest energy efficiency. Moreover, the exclusive Piovan solution which does not require an internal recirculating pump further increases energy savings.
- > **Maximum operational flexibility of the working island.** The Digitemp models represent the ideal solution whenever it is necessary to manage the demands of different temperatures of every single processing machine, with no waste.
- > **Reduced running costs,** thanks to the possibility to use the free-cooling system included in the standard unit, which permits to provide water coming from the dry cooler or the evaporation tower.

- > **Operational reliability and long life of the unit:** the possibility of power modulation from 10 to 100% allows the compressor to function continuously, thus eliminating the risk of breakdowns and ensuring long duration of the motor.
- > **Ultra-compact design.** With a floor dimension of only 0.4 m² and a height of 108 cm, these models are the most compact units present on the market at the moment.
- > **Wide variety of configurations:** the models are available in the single and dual circuit versions and they can be equipped with medium or high pressure pumps, which guarantee adequate water flow and thermal exchanges, in any application.
- > **Complete respect of the environmental concerns,** with the choice of the R410a gas, anticipating the EU legislation.

Compressors with digital technology

All models are equipped with digital scroll compressors which have the feature of working continuously, thanks to the possibility to modulate their functioning from 10 to 100% step by step. This solution results into these additional advantages:

- > reduction of the electrical energy consumptions
- > precise temperature control
- > longer duration of the compressor's life.



User-friendly operator interface



The Piován Digitemp Thermo-refrigerators are equipped with a **microprocessor electronic control**

which guarantees

the setting and monitoring of all the working parameters. A keyboard with alpha-numeric display indicates the functioning status and possible alarm signals with clear messages in the operator's language, which can be selected in a range of **10 languages**.

The temperature is controlled with a PID algorithm which automatically calculates the required working parameters at any given moment, in any operational condition.

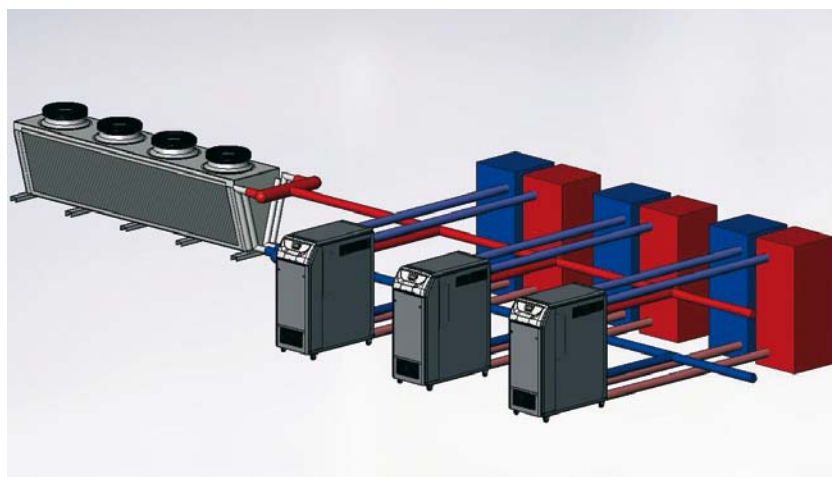
On request, the control can be provided with serial interface, for connection with a supervisory system such as Piován **SVS** or **Win Factory**, which permit to manage the thermorefrigerator within a complete system of Piován auxiliaries.

Standard features

- > Digital scroll compressor
- > Brazed plate evaporator
- > Brazed plate condenser
- > Medium or high pressure pump in stainless steel
- > Precise electronic control of the temperature with self-adjusting PID algorithm
- > Electronic expansion valve
- > Valve for condensation control
- > Non-ferrous rust-free hydraulic circuit
- > Automatic water filling system
- > R410a refrigerant gas

Options

- > Automatic water emptying device
- > Free cooling with separated circuit (to avoid glycol in the moulds)
- > In-mould temperature control (not on water)
- > ModBus serial interface for connection with Piován SVS and Win Factory



Example of installation of Digitemp thermorefrigerators with a dry cooler

TECHNICAL DATA			DT161H	DT221H	DT381H	DT162H	DT222H	DT382H
			single circuit			dual circuit (**)		
Min/max cooling capacity	kW		2/16.5	3/22.5	4/38.5	2/16.5	3/22.5	4/38.5
Heating capacity	kW		6	6	12	6+6	6+6	6+6
MP pump*	flow pressure	m ³ /h bar	1.2-6.6 3-1.9		3-9.6 2.9-1.9	1.2-6.6 3-1.9		
HP pump	flow pressure	m ³ /h bar	2.4-9 5.1-3.6		3.6-12.6 5.2-3.9	2.4-9 5.1-3.6		3.6-12.6 5.2-3.9
Installed power	kW		12.6	15	26.2	19.4	21.8	26.8
Dimensions LxWxH	mm		450x895x1080					
Weight	kg		194	197	242	216	219	260

*Standard pump

** The dual circuit models are equipped with 2 pumps