

Dehumidifying Dryers DP 640 - DP 644 flexibility and energy savings

The two models of Dehumidifying Dryers DP 640 and DP 644 provide 1000 m³/h and 1400 m³/h of dried air respectively. They are designed to work within a production range from 450 to 600 kg/h in the case of the DP 640 unit, and from 600 to 800 kg/h for the DP 644, in the injection moulding, extrusion and PET preform fields. The whole drying system works in closed loop so as to guarantee a process independent from the environmental conditions, with a Dew Point of -50°C or lower.

The benefits of the new models

- > **Versatility of usage:** the DP 640 and the DP 644 dryers can be used in different production processes. They can also treat materials with particular characteristics, such as PET and PETG.
- > **High energy efficiency;** the patented devices for consumption management - **IES** (*Intelligent Energy Supervisor*) and **IMD** (*Intelligent Material Drying*), self-adjust the drying parameters to the real production conditions of the processing machines. They allow the costs for energy to be kept in a range from **0.05 kWh/kg** up to **0.08 kWh/kg** max.
- > **Optimised consumption of cooling water,** thanks to the EMK Kit which permits the operator to manage the water flow according to the set temperature.
- > **Wide variety of configurations;** the models are available in the MT (max. temperature 150°C), and HT (for a temperature range up to 200°C) versions, PTU multi-hopper version and specific configuration for PET.
- > Simplified access to all components, for **minimised times for ordinary maintenance operations.**
- > **Minimum footprint;** the DP 640 and DP 644 offer the best ratio performance/dimensions.



The two units can be combined with one or multiple drying hoppers (PTU version), with a **maximum volume of 3000 litres** for the DP 640 and of **4500 litres** for the DP 644 model. The single-hopper configuration allows for the centralised management of all the functions in the dryer, while the PTU versions are equipped with an independent control for every single drying hopper to set the correct process temperature according to the material to be processed.

PET configuration

In the case of **PET application**, the dryers DP 640 and DP 644 can be used both in the solution with the main hopper on the injection moulding machine and in the split version for those systems requiring a primary hopper on the floor and a secondary hopper on the IMM. They cover a production range **from 400 to 650 kg/h**.

The PET configuration includes two **additional special functions**, to manage:

- > the material loading system to one or two receivers of the system
- > various functions of the main drying hopper and of the secondary one (level sensors, probes etc.).



Options

- > PLC electronic control with colour touch screen panel
- > Serial interface Modbus RS 485 or PROFIBUS
- > Visual-acoustic alarm
- > Weekly timer (on/off)
- > Dew Point indication with alarm
- > Desiccant bed exchange with Dew Point control
- > Filter clogging pressure switch
- > Closed loop regeneration
- > EMK system
- > Electric board fan
- > Conditioning kit for the electric board

Standard features

- > Two stainless steel desiccant beds
- > Stainless steel heating chambers
- > High pressure side channel blowers
- > Blower and molecular sieve filtration system
- > Microprocessor control with multi-language alphanumeric display
- > Temperature-controlled regeneration
- > Precise electronic control of the process temperature with self-tuning PID algorithm
- > Solid state relays (SSR) for the process heater control
- > Independent process air temperature safety control
- > Automatic setting of the safety temperature of the process air
- > Warnings for the correct functioning of the coolers

TECHNICAL DATA		DP 640	DP 644
Process airflow	m ³ /h	1000/1200*	1400/1500*
Process temperature max.	°C	180	
Regeneration airflow	m ³ /h	220	
Process blower	kW	12.5/14.5*	15/17.5*
Heating capacity	kW	37.8**/50.4***	50.4**/63***
Regeneration blower	kW	1.6/2.1*	
Regeneration heating elements	kW	17.1	
Max. noise level	d(B)A	<80	
Cooling capacity with cooling battery	kcal/h	30,000	35,000
Dimensions LxWxH	mm	1300 x 1485 x 2250	
Weight max.	kg	1100	1200

*60 Hz version

** MT version

*** PET configuration and HT version