

# Desiccant dryer GTT 101 EST

# **Application Area**

The GTT 101 EST is a compact one-chamber desiccant dryer. It is suited to dry all plastics fully automatically if they do not emit volatile components\* other than water during the drying process. The dryer works in a temperature range between 60 and 160 °C , +/- 2 °C. Residual moisture of < 0.01 % can be achieved. It consists of a dry air generator, a heatable material container and the automatic control which is situated in the switch box on the side. The functional diagram (see drawing below) shows the principle of the drying process of a desiccant dryer. Partial air flow is directed through two desiccant chambers. One chamber is located in the drying cycle and dehumidifies the air that comes out of the desiccant chamber. The second is regenerated at a temperature of 280 °C. Automatic operation of the regenerating, cooling and drying phases is achieved by the time control which is integrated in the SPS.

\*Please ask the producer of the material for the characteristics of the drying material.



- 1. Fan
  - Regeneration heater
  - Waste air valve
- Molecular sieve
- 5. Engine valve
- Granulate material heating
- 7. Material container
- 8. Air circulation filter
- 9. Air circulation cooler



#### **Standard Features:**

- O Siemens Touchpanel 4,3" mit SPS S7-1200 CPU
- O Mobile compact installation of 100 liter capacity with insulated container
- O Automatic control in the switch cupboard at the side fastened in the device
- O Automatic blower caster on switching off the dryer
- O Time switch
- O Temperable granulate material container regulated by the integrated SPS
- O Loos sieve container from stainless steel 1.4301
- O Easily accessible, replaceable air filter
- O Hand withdrawal equipment and suction conveyor connection admission in the outlet racketeer
- **O** Bicameral dry air aggregate to the continous dry of the granulate material
- O Air-to-air heat exchanger for the retur cooling- no water connection urgently



# **Technical Data**

## **Mechanical Data**

Dimension (H/W/D) mm Cover filling height mm Weight in kg Capacity in liter Dry-bulb temperature in °C Residual moisture in % Drying capacity in kg/h



1530x740x960 1470 200 100 60 - 160 < 0,01 18 - 65



### **Electrical Data**

Connection load V / Hz	3 x 400 / 50
Power consumption in kW	7,36
Current consumption in A	18,7
Regeneration heater in kW	3,5
Granules heating in kW	3,5
Fan power in kW	0,4
Fan flow rate in m <sup>3</sup> / h	132



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The dryer is equipped with RAL 7004 light gray textured paint and the equipment cabinet and cover RAL 7016 dark gray finish.

Other color shades and operating voltage can be selected at an additional charge if required.

#### Accessories Dew point regeneration

The dew point sensor is built into the dryer. The dew point is shown in the SPS touch panel. The regeneration happens depending on the dew point. Due to the dew point dependent regeneration, it only takes a regeneration of the molecular sieve when the dew point rises above a certain value. Because of the extended cycling time of the regeneration a significant saving of energy is occurred.

#### **Overdrying protection**

The over-drying protection protects the material to be dried granules against over-drying and minimizes the energy consumption of the dryer.

The return air of disiccant dryer is monitored in terms of temperature. Achieved the return air temperature a preset limit, the granule heating is switched off. The dry air continues to circulate so that the granules can absorb any moisture. After falling below the fixed limit temperature, the heating is switched on again.