TINY DRYER / TD SERIES

The TD series of qip GmbH represent the next generation of compressed air resin dryers. Beside the major advantage that no desiccant is required to generate dry air for the drying process, the TD series offer a total round drying hopper made up of high-quality stainless-steel and a transparent, heat-resistance borosilicate glass-tube and without any air inlet pipe. This minimizes the cleaning effort in case of material changes and releases further possibilities for material processing. The heated air is lead into the drying hopper at the bottom along the outer perimeter and causes an efficient and consistent heat-up process. A very compact design and the possibility to install the unit directly on the production machine turns the TD series into an excellent and preferential system to dry small material throughputs. If desired, the system can also be mounted on a mobile frame for highest flexibility.

Benefits:

- **Free of desiccant**
- **3-years full warranty on parts and workmanship**
- **Maintenance-free**
- **Constant drying performance for life time**
- **Low operating costs**
- **Space-saving and optimized design for mounting directly on extruder**
- **Drying hopper made up of transparent, heat-resistance borosilicate glass-tube**
- **High-quality stainless-steel metal parts**
- **Simple to install and to start-up**
- **Intuitive and self-explanatory operation through simple controller**
- **Easy to clean through hinged lid on drying hopper**

TECHNICAL DATA		TD2.5	TD4.5	TD7	TD11
Drying hopper	[liter]	2.5	4.5	7	11
Power supply	[V / Hz]	1N 230 / 50 … 60			
Installed power	[W]	350	350	350	350
Compressed air consumption	[Nm³/h]	1.5	2.5	3.5	4.5
Compressed air supply	[bar]	6 to 10			
Compressed air quality		dew point: 3 to 5°C at 7bar / residual oil content max. 0.1ppm			
Drying temperature	[°C]	20 to 180 (higher drying temperatures on request)			
Permitted ambient temperature and humidity	[°C / % RH]	+20 to +60 / 80 (without condensation even higher values)			
Height	[mm]	410	510	690	810
Width	[mm]	255	255	255	255
Depth	[mm]	350	350	350	365
Weight	[kg]	12	14	16	18

DRYING DATA

	Time [h]	Temperature [°C]	Material throughput [kg/h] bulk density 0.65kg/liter; for PET 0.8kg/liter			
			TD2.5	**TD4.5**	**TD7**	**TD11**
ABS	2	80	0.80	1.45	2.30	3.60
ASA	3	80	0.55	1.00	1.50	2.40
CAB	2	75	0.80	1.45	2.30	3.60
CP	4	75	0.40	0.75	1.15	1.80
EVA	2	80	0.80	1.45	2.30	3.60
EVOH	5	120	0.35	0.60	0.90	1.40
LCP	4	150	0.40	0.75	1.15	1.80
PA	4	80	0.40	0.75	1.15	1.80
PBTP	3	140	0.55	1.00	1.50	2.40
PC	2	120	0.80	1.45	2.30	3.60
PE	2	85	0.80	1.45	2.30	3.60
PEEK	3	150	0.55	1.00	1.50	2.40
PET	4	180	0.50	0.90	1.40	2.35
PET G	6	75	0.30	0.50	0.80	1.20
PI	3	120	0.55	1.00	1.50	2.40
PMMA	3	80	0.55	1.00	1.50	2.40
POM	3	100	0.55	1.00	1.50	2.40
PP	3	90	0.55	1.00	1.50	2.40
PPS	2	150	0.80	1.45	2.30	3.60
PS	2	80	0.80	1.45	2.30	3.60
PUR/TPU	3	90	0.55	1.00	1.50	2.40
SAN	2	80	0.80	1.45	2.30	3.60
TPE	3	100	0.55	1.00	1.50	2.40

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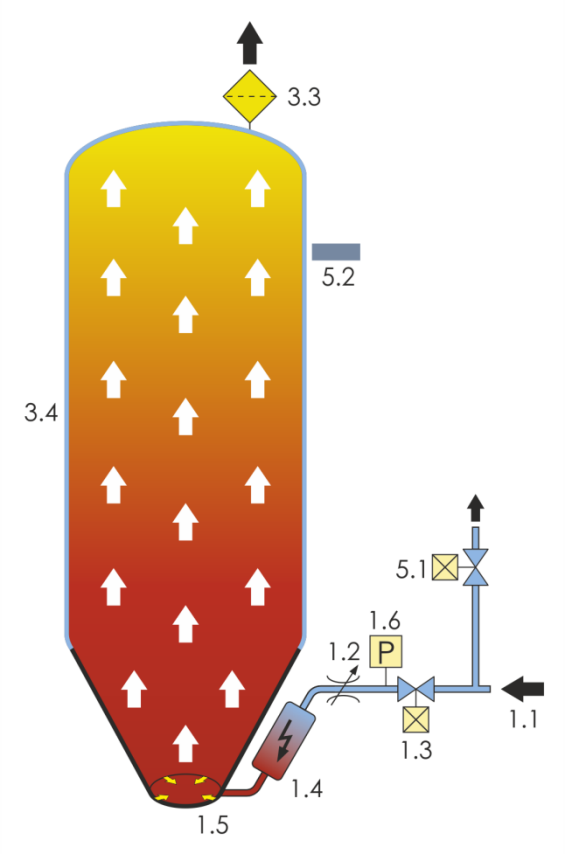
How it works:



Pre-dried compressed air (1.1) is supplied by a quick connector and flows through a solenoid valve (1.3) and pressure regulator (1.2) into the dry air heater (1.4) where it is heated up to drying temperature. Due to the expansion to atmospheric level, the air becomes very dry. The hot and dry air streams through the distributor ring (1.5) into the lower part of the hopper, rises from bottom to top, thereby heating up and drying the resin inside the dryer to finally leave through the air outlet filter (3.3) to the ambient.

A pressure switch (1.6) monitors the air supply and immediately shuts down the heater in case of a fault to protect it against thermal overloads.

The material level in the drying hopper may visually be checked from top to bottom through the transparent drying hopper made up of a heat-resistant glass-tube (3.4).

A simple temperature controller and two pushbuttons regulate the drying process and allow the additional control of a Venturi-loader for one component.

A Venturi-loader can easily be added to the system. An already integrated solenoid valve (5.1) controls the compressed air supply for the loading process. The proximity sensor (5.2) can be mounted on the outside of the glass-tube at any positon from top to bottom to adjust the desired material level.

An optional alarm signal may be used for simple alarming on external devices or applications.

Available features:

- Simple temperature controller
- Automatic Standby-Mode to avoid resin degradation
- Integrated control for Venturi-loader (one component)
- Equipment for easy implementation of a Venturi-loader already integrated
- Installation of proximity sensor for Venturi-loader on outside allows stepless adjustment of desired material level
- Alarm indication through integrated strobe light and optional alarm contact
- No air inlet pipe in drying hopper
- Hinged lid on top of drying hopper for easy access for cleaning
- Drying hopper made up of transparent, heat-resistance borosilicate glass-tube
- High-quality stainless steel metal parts
- High-class insulation on the funnel of the drying hopper
- Transparent drying hopper for visual monitoring of material level
- Sturdy handle for manual lifting
- Comprehensive accessories available