COMPACT DRYER / CD-SERIES

The CD-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 CD-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 ID-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 colored touch screen**
- **Easy to clean**

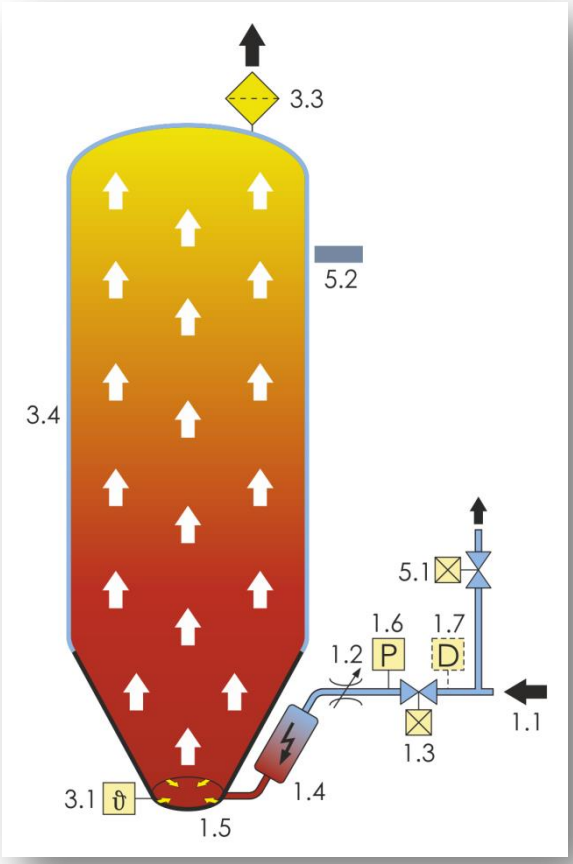
TECHNICAL DATA		CD2.5	CD4.5	CD7	CD11
Drying hopper	[liter]	2.5	4.5	7	11
Power supply	[V / Hz]	1N 230 / 50 … 60			
Installed power	[W]	350	350	350	350
Compressed air consumption	[Nm³/h]	1.5	2.5	3.5	4.5
Compressed air supply	[bar]	6 to 10			
Compressed air quality		dew point: 3 to 5°C at 7bar / residual 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 (no condensation)			
Height *(without / with integrated Venturi-Loader)*	[mm]	380 / 410	450 / 510	570 / 630	750 / 800
Width	[mm]	255	255	255	255
Depth	[mm]	350	350	350	365
Weight *(without integrated Venturi-Loader)*	[kg]	12	14	16	18

DRYING DATA

	Time [h]	Temp. [°C]	Material throughput [kg/h] bulk density 0.65kg/liter; for PET 0.8kg/liter			
			CD2.5	CD4.5	CD7	CD11
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

COMPACT DRYER / CD-SERIES

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.

A sensor (3.1) measures the air inlet temperature at the bottom of the drying hopper and arranges – if needed – a correction of the drying temperature to guarantee a proper drying process.

An optional dew point sensor (1.7) may be used to check the humidity of the compressed air and to alarm the operator in case of a bad value.

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).

An integrated microprocessor controller with colored display and touch screen regulates the drying process and allows the additional control of a Vacuum- or Venturi-loader for one or two components.

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.

Multiple interface connections (TTY, RS485, RS232, USB, Ethernet, etc.) may be used to communicate with and get controlled by various production machines, for data and alarm recording, for implementation into PDA-systems (production data acquisition systems) and for access through web-client to monitor and control dryer's operation. An optional alarm signal may be used for simple alarming on external devices or applications.

Available features:

- Microprocessor controller with colored display and touch screen
- Pre-programmed and freely programmable drying data base
- Weekly timer for drying and/or loading process
- Automatic Standby-Mode to avoid resin degradation
- Integrated control for Vacuum- or Venturi-loader for one or two components
- 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
- USB-port for data recording as a standard
- TTY-, RS485-, CAN- and Ethernet port to communicate with production machines and PDA-systems (product data acquisition systems)
- ModbusTCP-protocol available as a standard
- Alarm indication through integrated strobe light and optional alarm contact
- No air inlet pipe in drying hopper
- Removable hopper lid fixed with quick fastener
- 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