CCAD-U Compressed Air Dryers

Removes moisture, water, oil, solid air particles, and other contaminants from compressed air.

Comet's CCAD-U series compressed air dryer series integrates plastic drying and conveying into one compact unit making it ideally suited for vertical and stand-alone injection molding machines where space is limited due to factory height. The CCAD-U series is perfect for small batch drying of commonly engineered plastics like ABS and PS or as a pre-heating treatment before molding.

The CCAD-U is portable and can easily move from one injection molding machine to the next, and has both low noise and energy consumption levels.

CCAD-6U

Standard Features

- Cost effective, compact, portable, and easy to install and operate.
- PID temperature controller reaches ±1°C.
- Drying is not influenced by ambient temperatures or humidity.
- **CCAD-1U ~ CCAD-6U** is equipped with a dual-layer, thermostable glass tube to easily view material levels.
- **CCAD-12U ~ CCAD-40U** is equipped with a contamination free stainless steel storage hopper.
- Compressed air pressure sensor ensures safe, reliable operation.
- Voltage outlet-type temperature controller is coupled with an SSR control loop prolonging service life.
- Overheat protection to avoid high temperatures.
- Air outlet filter reduces pollutants to the environment.
- Warning light monitors operation.

CCAD-12U

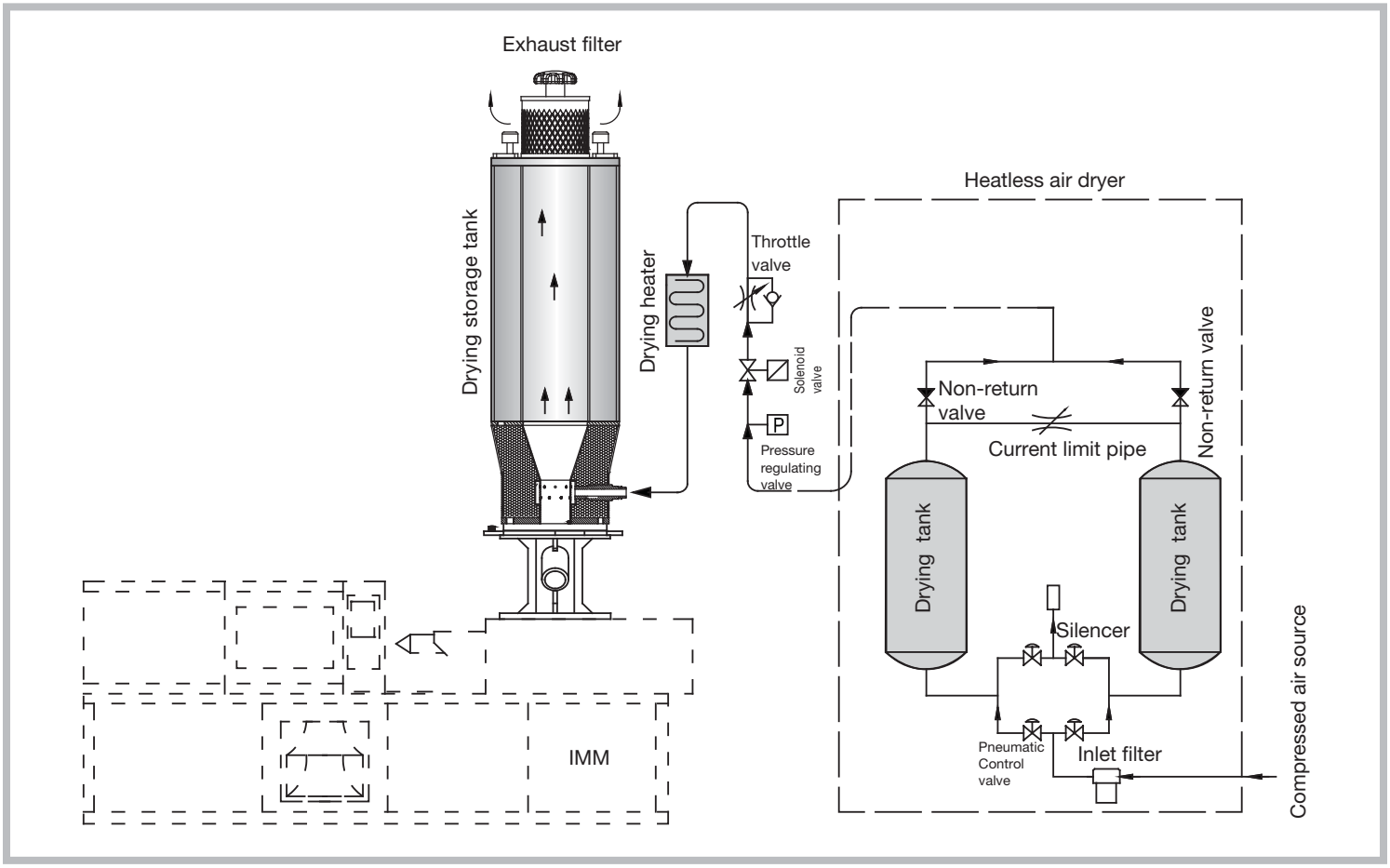
Options

- HAD heatless air dryer will enhance efficiency and reach dewpoints under -40°F.
- Couple the CCAD-1U ~ CCAD-6U with a Comet VL-50 venturi loader for automatic material feeding.
- Couple the CCAD-12U ~ CCAD-40U with a Comet SAL-1U vacuum loader for automatic material feeding.
- 24-hour auto start/stop timer for CCAD-1U ~ CCAD-6U.

CCAD-U Series

Application

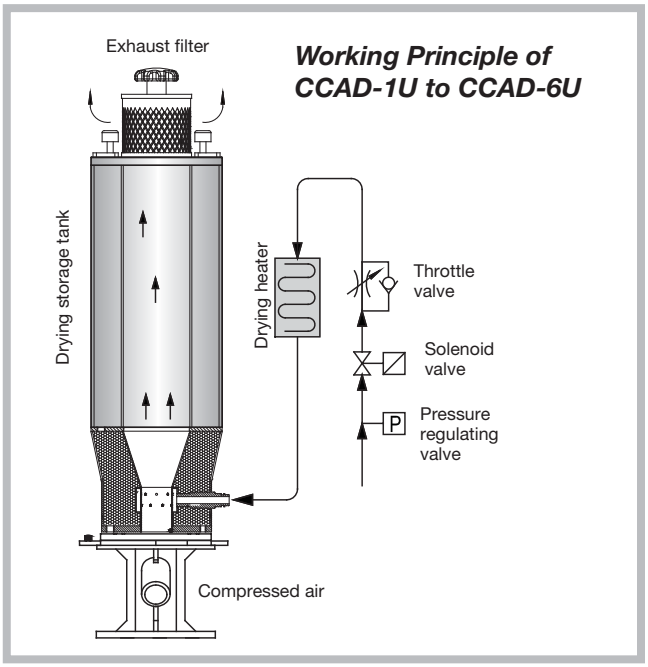
Hot, dry air is created by sending the compressed air into a pipe-type heater. This unique up-blowing design enables hot air to evenly distribute and dry the plastic resin.



Working Principle

Clean, low pressure air expands as it passes through the pressure regulating valve and solenoid valve to reduce the dewpoint temperature. It then passes through a drying heater where the temperature is precisely controlled by a closed-loop PID temperature controller. Simultaneously, a partial vacuum is generated inside the body of the dryer. Rapid heating will then cause the moisture, trapped within the plastic pellet, to be forced to the pellet surface. This moisture is carried away by dry air injected into the resin hopper and released through a filter basket into the atmosphere.

The moisture is removed by the time the plastic resin is processed though the body of the dryer into the screw of the molding machine.

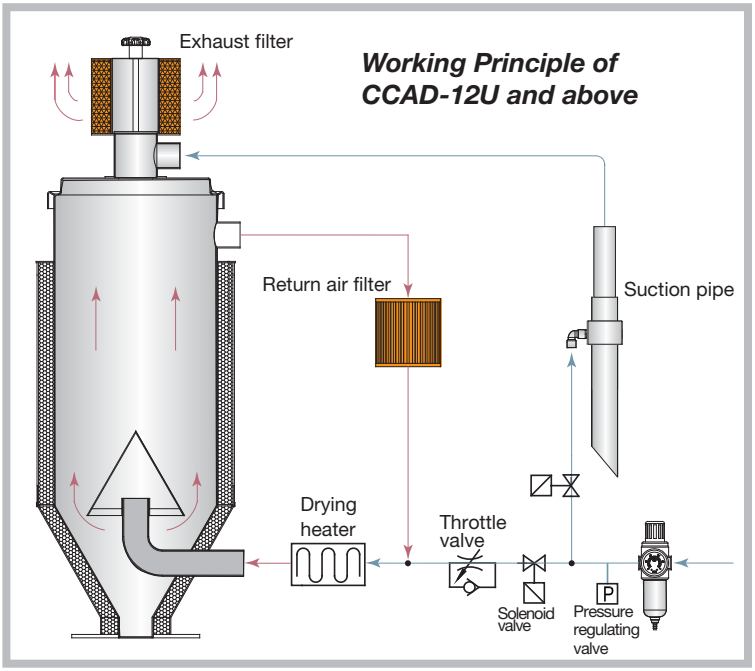


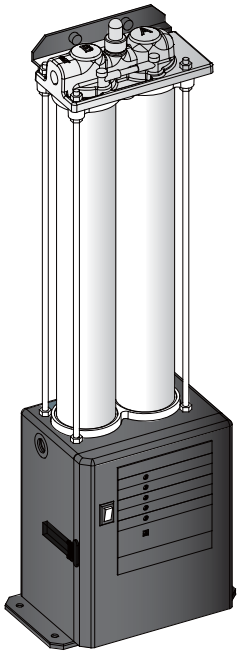
Drying Principle

High pressure air blows into the drying heater via the pressure regulating valve, solenoid valve and throttle valve. It continues into the drying hopper where the moisture from the plastic pellets is removed. Air is discharged through the return air filter for recycling.

Loading Principle

High pressure air, controlled by the solenoid valve, is blown into the suction pipe. This accelerates the airflow and generates negative pressure to drive material feeding and capture the pellets into the drying hopper. Air then discharges through the exhaust filter into the atmosphere.





HAD – Heatless Air Dryer

Optional HAD Heatless Air Dryer

Function

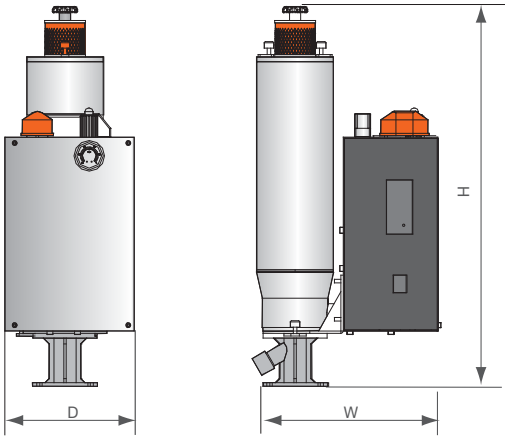
The optional HAD heatless air dryer is the easiest way to provide a factory with clean, dry compressed air. The membrane acts as a refrigerant air conditioner reducing the dewpoint to 40°F (4°C), the requirement for drying materials and molding plastics.

Installation

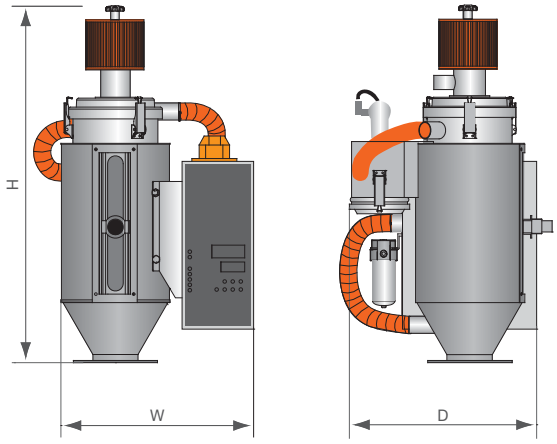
The HAD can be attached to the processing machine or stand mounted. The air inlet and outlet of CCAD-U's are connected with air pipelines.

Please note: For optimal performance, filters must be cleaned regularly to prevent water and oil from entering the drying hopper and damaging the molecular sieve.

Outline Drawings



CCAD-6U and below



CCAD-12U and above

Specifications

Model	Drying Temp. Max (C°)	Drying Hopper Capacity (L)	Heater Power (W)	Air Pressure		Dimensions (mm) (H x W x D)	Weight (kg)
				Pressure (kgf/cm²)	Air Consumption (m³/hr)		
CCAD-1U	160°C	1	300	6~10	0.7	650 x 310 x 220	10
CCAD-3U		3			1.9	680 x 320 x 220	13
CCAD-6U		6			3.75	870 x 350 x 220	15
CCAD-12U		12	600		4.25	780 x 430 x 455	25
CCAD-20U		20	600		7	882 x 467 x 460	30
CCAD-40U		40	1200		14	1000 x 530 x 430	45

Note: 1) Compressed Air: oil content ≤ 3mg/m³
2) Power supply: 1ϕ, 230VAC, 50Hz / 60HZ

We reserve the right to change specification without prior notice.

COMET PLASTIC EQUIPMENT, LLC
6555 Garden Rd. Unit 16 • Riviera Beach FL 33404
800-328-5088
Fax: (561) 841-0044