# **Dry Ice Production**

# **ASCO Dry Ice Pelletizer P28i-D3**



The **ASCO** Dry Ice Pelletizer P28i is a compact and powerful dry Ice machine from our **i-Series line**. Having a production capacity of 280 kg/h (617 lb/h) it meets the demands for higher dry ice quantities plus quality and flexibility in the daily working process.

As a model of **ASCO**'s i-Series, it is equipped with state-ofthe-art remote control devices and thus is ready for a wide range of services in the areas of **Remote Access, Remote Data, Remote Management.** 

Be it for fast and efficient trouble shooting and maintenance or for gathering production and performance data - the **ASCO** i-Series offers a wide range of possibilities to **link Industry 4.0 with dry ice production.** 

The **ASCO** Dry Ice Pelletizer P28i is driven by a powerful hydraulic unit featuring instant push button start. All functions are controlled by a Siemens PLC with touch screen. A fully automatic control of oil temperature and dry ice snowing process guarantees continuous dry ice production without any supervision right from pushing the start button.

To maximise the  $CO_2$  to dry ice conversion ratio the dry ice pelletizer can be connected to an **ASCO** Revert Gas Recovery System.

#### Benefits of an in-house dry ice production:

- if for dry ice blasting: more efficient cleaning results, because: the fresher the dry ice, the more efficient the cleaning
- shorter production stops
- reduction of dry ice lost due to sublimation
- · decreased logistics expense connected with purchasing and disposing of dry ice



#### Extruder plate for 3 mm (1/8 ") pellets

The ASCO Dry Ice Pelletizer P28i is standardly equipped with an extruder plate for the production of pellets with a diameter of 3 mm (1/8 ").

#### Specifications

Production capacity:

Voltage:

Max. power consumption: Dimensions (L x W x H): Weight net:

Weight packed: CO<sub>2</sub> inlet connection: CO<sub>2</sub> source: Connectivity and remote access: 280 kg/h (617 lb/h)  $\pm$  5% at 16 - 20 bar (232-290 psi) CO<sub>2</sub> inlet pressure 480 VAC  $\pm$  5 %/60 Hz/3 Ph + PE (other voltages and frequencies on request) 5.6 kW (7.5 HP) 1'560 x 800 x 1'450 mm (61 x 32 x 57 in) 440 kg (970 lb) (without hydraulic oil) 500 kg (1'100 lb) (with hydraulic oil) 300 kg (1'100 lb) (with hydraulic oil) approx. 550 kg (1'213 lb) (without hydraulic oil) 1" BSP female CO<sub>2</sub> storage tank, liquid phase (16-20 bar) (232-290 psi) LAN, Ethernet, WiFi, 3G (other data services on demand)



# ASCO Dry Ice Pelletizer P28i-D3: Function and applications

The **ASCO** Dry Ice Pelletizer P28i requires a liquid  $CO_2$  supply (pressure 16-20 bar) (232-290 psi) and power supply of 480 V / 60 Hz /3 Ph + PE (other voltages available on request). The machine features instant push button start and all functions are controlled by an inbuilt PLC. Dry ice snow is produced in the snowing chamber, pressed and then extruded by a powerful hydraulic unit. Hard, dense dry ice pellets are produced shortly after pushing the start button.

To ensure continuous, reliable operation of the pelletizer, oil temperature, oil level, cycle time, injection time, operation hours, due date of service, motor overload, amount dry ice produced since last start, CO<sub>2</sub> inlet pressure and hydraulic pressure are all monitored and displayed on the touch screen of the P28i's PLC.

#### Options

The **ASCO** Dry Ice Pelletizer P28i is standardly equipped with an extruder plate for the production of pellets with a diameter of 3 mm (1/8 "). Such pellets are used especially for dry ice blasting purposes. Optional extruder plates for the production of 1.7 mm (1/16 "), (for blasting purposes), 10 mm (3/8 ") and 16 mm (5/8 ") pellets (for cooling purposes) are also available. The P28, however, can also be delivered standardly equipped with such an extruder plate.

Pellet size				
	1.7 mm (1/16 ")	3 mm (1/8 ")	10 mm (3/8 ")	16 mm (5/8 ")
Operating range	Dry Ice Blasting (structured surfaces)	Dry Ice Blasting	Cooling purposes	Cooling purposes

## ASCO Dry Ice Pelletizer P28i-D3: Key features

- PLC SIEMENS-S7-1200 controls the complete process, injection and hydraulic
- Siemens touch screen 7" with different access levels and information regarding the started production
- Remote control devices offers a wide range of possibilities to link Industry 4.0 with dry ice production.
- **Independent performance**-very constant production, independent of pressure and temperature in the range of 16 20 bar (232 290 psi).
- · Integrated production control system definition and supervision of production quantity
- High process reliability optimised process monitoring provides optimal performance and increases process reliability
- Easy maintenance / optimal service planning-comprehensive error history, indication on touch screen when next service is due
- Minimum floor space for high production performance



## ASCO Dry Ice Pelletizer P28i-D3: Standard scope of delivery



