

# Dry Ice Production

## ASCO Dry Ice Reformer R70i

part no. 901511



The **ASCO** Dry Ice Reformer R70i has been developed for producing dense dry ice blocks in various sizes by compressing dry ice pellets. **Be it in combination with an existing or with a new dry ice pelletizer, the ASCO Dry Ice Reformer R70i is a very convenient tool to complement the dry ice pellet business with dry ice blocks.**

The compact machine is driven by a powerful and unique hydraulic unit featuring instant push button start. All functions are controlled by a Siemens PLC S7-1200. A touch screen provides good overview and easy operation, a comprehensive monitoring, easy maintenance and optimal service planning. An integrated production control system allows to define and supervise the amount of blocks or weight to be produced.

### Specifications

Production capacity*:	300 to 700 kg/h (661 - 1543lb) (depending on block size)
Voltage:	480 VAC ± 5 %/60Hz/3Ph + PE (other voltages and frequencies on request)
Dimensions (L × W × H):	1'140 × 1'140 × 1'620 mm (45 x 45 x 64 in)
Weight net:	approx. 510 kg (1122lb) (without hydraulic oil) approx. 580 kg (1276 lb) (with hydraulic oil)
Weight packed:	680 kg (1'499 lb)
Total power installed:	9.5 kW (12.7 HP)
Max. average power consumption:	< 3kW (4 HP)
Standby mode:	0.6 kW (0.8 HP)
Connectivity and remote access:	LAN, Ethernet, 3G (other data services on demand)
Basis media:	3 mm (1/8 ") dry ice pellets
Dry ice density blocks:	≥ 1.54 kg/dm <sup>3</sup> (96 lb/ft <sup>3</sup> )
Standard block/slice sizes:	210 × 125 mm (8.3 x 4.9 in), thickness 16 to 60 mm (0.6 to 2.3 in) resp. weight 650 to 2'430 g (1.4 to 5.4 lb) (thickness and weight stepless adjustable)

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Thickness in mm** (Thickness in in)	16 (0.6)	18 (0.7)	20 (0.8)	22 (0.9)	25 (1)	30 (1.2)	40 (1.6)	50 (2)	60 (2.4)
Weight in g/block approx. (Weight in lb/block approx.)	650 (1.4)	730 (1.6)	810 (1.8)	890 (2)	1'010 (2.2)	1'220 (2.7)	1'620 (3.6)	2'030 (4.5)	2'430 (5.4)
Performance in kg/h approx. (Performance in lb/h approx.)	300 (661)	320 (705)	336 (741)	370 (816)	400 (882)	460 (1014)	562 (1'239)	649 (1'431)	700 (1'543)

\* The indications regarding production capacity are based on the use of 3 mm pellets, freshly produced on ASCO dry ice pelletizers.

\*\* This choice of sizes is only an extract and helps as production indication. The thickness or the weight of the blocks is alternatively stepless adjustable.

## ASCO Dry Ice Reformer R70i: Function and applications

The **ASCO** Dry Ice Reformer R70i is started on the 7" Siemens comfort touch screen panel. All functions are controlled by the inbuilt PLC. Dry ice pellets with a diameter of 3 mm (1/8 ") are filled into the dry ice hopper. From there they are conveyed to the pressing chamber automatically, where they are predosed and compressed into high-quality dry ice blocks.

To ensure continuous, reliable operation of the reformer, oil level, cycle time, operation hours, due date of service, motor overload, amount of produced dry ice blocks since last start and hydraulic pressure are all monitored and displayed on the touch screen of the R70i's PLC.

### Dry Ice Reformer R70i: Key features

- **SIEMENS PLC** - controls the complete process, filling of the pressing chamber and the hydraulic with its main and side cylinder.
- **Siemens comfort touch screen 7" HMI**- Multilingual 7" Touch-Screen with different access levels and adjustable parameters.
- **Integrated production control system**-definition and supervision of amount of blocks or weight to be produced.
- **Alternatively thickness or weight of blocks stepless adjustable** (16 to 60 mm (0.6 to 2.4 in) resp. 650 to 2'430 g (1.4 to 5.4 lb). Corresponding calculation happens automatically.
- **Integrated block thickness control and fill level monitoring**-if the required amount of dry ice pellets in the hopper falls short, the machine automatically goes into a waiting mode until the correct fill level is reached again.
- **High process reliability** -optimal process monitoring provides optimal performance and high process reliability.
- **Remote control devices** -offers a wide range of possibilities to link Industry 4.0 with dry ice production.
- **System integration** - can be combined with all ASCO pelletizer and ASCO packaging machines APM120.

## Automatic Dry Ice Reformer R70i: Options

Pos. 001

### Podium for Dry Ice Pelletizer

Customized podium to elevate a dry ice pelletizer to directly charge the ASCO Dry Ice-Reformer R70i with pellets.

part no. 4063845



Pos. 002

### ASCO Pellet Feeder for Dry Ice Reformer R70i

Conveyor belt for automatic filling of the R70i dry ice reformer with pellets from an ASCO P15i or P28i dry ice pelletizer.

part no. 4063846



Pos. 003

### ASCO Pellet Feeder for Dry Ice Reformer R70i

Universal conveyor belt for automatic filling of the R70i dry ice reformer with pellets from all ASCO dry ice pelletizers.

part no. 4070858



Pos. 004

### Set of spares

Recommended set of spare parts for approx. one to two years normal operation.

part no. 4068310



Sample image