



ASCO Automatic Dry Ice Machine BP420i

Art.-Nr.901190



The automatic ASCO BP420i dry ice machine produces 10 different slice thicknesses and 2 different pellet sizes at the touch of a button.

The tools for producing the different dry ice sizes do not need to be changed manually, but are integrated into the machine and controlled via a touch screen. The BP420i automatically produces dense dry ice slices in ten different thicknesses. In addition, two different pellet sizes with diameters of 3, 6, 10, or 16 mm can be produced. The standard disc dimensions are 210×125×20–70 mm. Other disc/pellet sizes are available on request. Depending on the settings, the production capacity is 240–400 kg/hour.

As standard, the BP420i impresses with its low noise level.

The ASCO BP420i automatic dry ice machine is part of the ASCO i-Series line. It is equipped with state-of-the-art remote maintenance technology, offering a wide range of options in the areas of remote access, remote data, and remote management.

Whether for fast and efficient troubleshooting and machine maintenance or for recording production and performance data, the ASCO i-Series offers a range of options for combining Industry 4.0 and dry ice production.

The conversion rate of the dry ice machine can be significantly increased by using an ASCO CO₂ recovery system.

Benefits:

- Pellets and blocks
- Automatic Extruderplate Change
- High production capacity
- Remote maintenance/support
- Intuitive control

Specifications:

Production capacity:	Pellets 400kg/h (880 lb/h) Blocks 240–390 kg/h (530–860 lb/h)
Voltage:	480VAC± 5 %/60Hz/3Ph + PE
Dimension (L×W×H):	2'540×1'100×3'750mm (100×44×148in) (Height without exhaust pipe)
Weight net:	1'700kg (3'740lb) (without hydraulic oil & options) 1'900kg (4'180lb) (with hydraulic oil)
Weight packed:	2'300kg (5'060lb) (without hydraulic oil)
Ø power consumption:	6 kW (8HP)
Noise level BP420i:	< 82 dB (A)
CO₂ inlet connection:	1 × 1/2" BSP female CO ₂ liquid 1 × 1/4" BSP female CO ₂ gas
CO₂ source:	CO ₂ storage tank, liquid phase (15–20 bar) (218–290psi)
Network connection:	LAN, Ethernet, 4G

Information about discs, blocks, and pellets

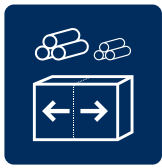
Dry Ice Products	Standard block/disc sizes 210×125 mm										Pellets
Block thickness in mm (Thickness in in)	20 (0.8)	22 (0.9)	25 (1)	30 (1.2)	35 (1.4)	40 (1.6)	45 (1.8)	50 (1.9)	60 (2.4)	70 (2.8)	all Ø
Weight in g/slice (Weight in lb/slice)	820 (1.8)	900 (2.0)	1'020 (2.2)	1'210 (2.7)	1'410 (3.1)	1'620 (3.6)	1'820 (4.0)	2'020 (4.5)	2'420 (5.3)	2'830 (6.2)	-
Capacity in kg/hour (Capacity in lb/h)	240 (529)	250 (551)	300 (661)	240 (529)	270 (595)	300 (661)	330 (728)	350 (772)	330 (728)	390 (860)	400 (882)

This selection of sizes is only an excerpt and serves only to indicate performance; the thickness of the blocks can be adjusted in mm increments from 20 to 70 mm. Upon request, our machines can be manufactured to produce almost any disc/block size. Please let us know if you have any special requests.

Possible block sizes in mm (in)	210×125 (Standard) (8.3×4.9)	122×122 (4.8×4.8)	150×110 (5.9×4.3)	175×150 (6.9×5.9)	150×150 (5.9×5.9)
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Standard pellet sizes are diameters of 3, 6, 10, or 16 mm. Other sizes are available on request.

BP420i Automatic Dry Ice Machine: Features



10 different disc thicknesses and 2 pellet sizes — switchable at the touch of a button (must be specified when ordering)



Automatic extruder plate change — Enables quick switching between two different pellet sizes at the touch of a button – for maximum production flexibility.



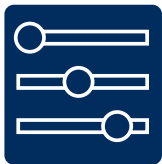
SIEMENS PLC — controls the entire process, injection, and hydraulics for continuous automatic production. The system is equipped with a 10" color touch screen and a 10" color monitor.



ASCO HMI—multilingual 7" touch screen with various access levels, adjustable parameters, online production and product information, and complete process file for the supervisor



State-of-the-art remote maintenance technology—offers a range of possibilities for combining Industry 4.0 and dry ice production.



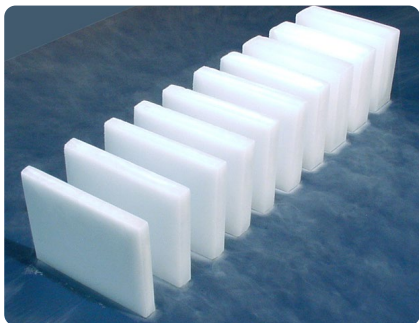
High production capacity—Enables reliable and efficient dry ice production of up to 400 kg/h— even for demanding applications and high-volume needs.



System Integration—Can be seamlessly integrated into existing production and processing systems using predefined interfaces and flexibly expanded.

Automatic ASCO BP420i dry ice machine: Applications

Aircraft catering (20–25 mm thick), transport cooling (thicker blocks), or pellets for other cooling purposes or dry ice blasting: The automatic ASCO BP420i dry ice machine produces top-quality dry ice blocks, discs, and pellets for all market needs.



Catering-Services

10 different disc thicknesses

- Airline Trolleys
- Transport cooling
- etc.



Cooling

6, 10 and 16 mm Pellets

- Food transportation
- Fishing industry
- Ice cream industry
- Laboratories
- Wineries
- etc.



Dry Ice Blasting

3 mm Pellets

- Foundries
- Tyre production
- Rubber-, Food, and Printing industry
- etc.

ASCO BP420i Automatic Dry Ice Machine: Options

Ice Loader for Dry Ice Blocks/Slices

Art.-Nr. 901370

Pos. 001

For reasons of weight and occupational safety, the use of the Ice Loader instead of the standard block brake is recommended for controlled and synchronized transfer of blocks/slabs weighing 1.2 kg (2.7 lb) or more and with a thickness of 30 mm (1.2 in) or more.

The Ice Loader is tailored to the production capacities of the BP420i and designed for standard block/slab sizes of 210 × 125 mm (8.3×4.9 in). It has its own electrical control cabinet with Logo control and is controlled and protected via the main control cabinet of the BP420i. For mechanical operation, a pneumatic connection is required (min. 6 bar).

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For the production of dry ice pellets, the Ice Loader can be manually decoupled from the dry ice machine.



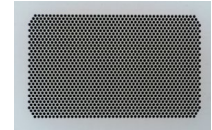
Upgrade D3mm

Art.-Nr. 22858

Pos. 002

To produce 3mm (1/8 ") pellets in addition to blocks with the same machine at the press of a button.

Capacity with 3mm (1/8 ") pellets = 400kg /h (882lb /h)



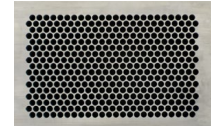
Upgrade D6mm

Art.-Nr. 22861

Pos. 003

To produce 6mm (1/4 ") pellets in addition to blocks with the same machine at the press of a button.

Capacity with 6mm (1/4 ") pellets = 400kg /h (882lb /h)



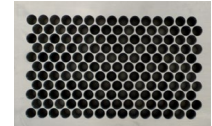
Upgrade D10mm

Art.-Nr. 22859

Pos. 004

To produce 10mm (3/8 ") pellets in addition to blocks with the same machine at the press of a button.

Capacity with 10mm (3/8 ") pellets = 400kg /h (882 lb/h)



Upgrade D16mm

Art.-Nr. 22860

Pos. 005

To produce 16mm (5/8 ") pellets in addition to blocks with the same machine at the press of a button.

Capacity with 16mm (5/8 ") pellets = 400kg /h (882lb /h)



Spare Parts Package

Art.-Nr. 4066340

Pos. 006

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



sample image

Exhaust pipe set 250-160

Art.-Nr. 4045163

Pos. 007

For discharging exhaust gas into the atmosphere.

Height approx. 300 cm / 100"



sample image