Dry Ice
Pelletisers

CIP-5Li

CRYONOMIC®
DRY ICE CLEANING SOLUTIONS

400 V

CIP-5 & CIP-5i SERIES

pelletisers for any dry ice need

Efficient dry ice production!

Dry ice is the solid form of CO₂ with a temperature of -79°C.
At ambient conditions, dry ice sublimates directly from solid to gas.
Dry ice can be used for a lot of applications in different industries:

› dry ice cleaning
› refrigerated transport
› catering industry
› transport of medical goods
› process cooling
› loosen clamped parts
› smoke generation for show effect
› carbonic maceration
› inerting storage tanks

We offer a variety of pelletisers ranging from XS-L to cater to any dry ice needs:

› **CIP-5XS:** produces up to **35 kg dry ice/hour**
› **CIP-5Si:** produces up to **100 kg dry ice/hour**
› **CIP-5Mi:** produces up to **180 kg dry ice/hour**
› **CIP-5Li:** produces up to **320 kg dry ice/hour**

The CIP-5 series can be delivered with different extrusion plates, producing different formats of dry ice:

› 3 mm dry ice pellets for dry ice cleaning
› 10 mm and 16 mm dry ice sticks for cooling and other applications

To produce your own dry ice, you will need:

› Pressure tank of 200 - 50.000 liters to store liquid CO$_2$
› CRYONOMIC dry ice **pelletiser**
› CRYONOMIC dry ice **containers**: info on these containers, see leaflet. "Dry ice containers CIC-Series"

Unique characteristics of the CIP-5 series

› **Continuous measurement** and auto-tuning of key process parameters to ensure safe and reliable operation
› **Integrated pressure regulator** ensures safe operation and constant pellet quality and production rate, independent of changes in supply pressure
› Visual and audible alarm with **error recording and operation stop** when these process parameters are out of spec
› All functionalities are displayed on an **ergonomic touchscreen**
› **Three ways to stop production:** manual, on time or by external trigger such as scale or CO$_2$ detector.
› **Remote start/stop** possible
› **Production pause function** to avoid production waste when changing containers
› **Delayed production stop** that allows the CO₂ supply line to be emptied after closing the supply valve
› Changing dry ice size can be done in a few minutes (extrusion plates fixed with only 4 bolts)
› **Hydraulic silent motor** with fast start-up protocol

Benefits of our intuitive touchscreen controller

Equipped for Industry 4.0 ✓

Next generation of CIP-5Si, CIP-5Mi and CIP-5Li are equipped for Industry 4.0 and ideally suited for automated pellet production and autonomic robotised blasting [1]

1. Large 10" touchscreen & Browser based interface
› Intuitive menus **on large touchscreen** for easy operation
› Possibility to **operate from PC, Tablet or Smartphone** (through free software)
› Intelligent software for balance based production
› Integration with CRYONOMIC® blast equipment is optional

2. Extensive user management
› **Different logins** and access rights for different users: Operator, Technician, Supervisor, …
› HMI automatically adapt its screens in relation to logged-in user
› Possibility to integrate RFID reader to avoid logins and passwords

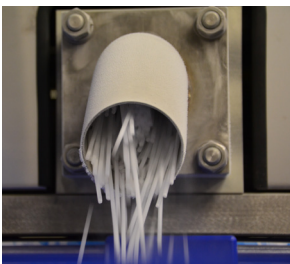### 3. Notification on HMI for preventive maintenance and trouble shooting
› Clear error messages on HMI
› Notification on HMI when it is recommended to perform **preventive maintenance**
› Logging of key production parameters for fast and efficient analysis or AI

4. Remote access [2]
› **Fast customer support** by remote analysis of key production parameters
› Significant **reduction of downtime**
› Save money on unnecessary service trips

Extra options:

Quick change of dry ice stick size thanks to extrusion dies fixed with only 4 bolts

CIP5Li pelletiser with integrated scale and CIC550 dry ice container

Dry ice blaster feeded directly with dry ice from a CIP5Si pelletiser

[1] All CIP pelletisers are available in the CIP-5i series with these extra features, expect the smallest CIP-5XS.

[2] Custumor can limit access to their interal network or even unplug the internet cable if they do not want external monitoring.

Technical information

CIP-5 SERIES	CIP-5XS art. P22800	CIP-5Si art. P22710	CIP-5Mi art. P22610	CIP-5Li art. P22510
Production capacity [1]	Up to 35 kg/h	Up to 100 kg/h	Up to 180 kg/h	Up to 320 kg/h
Pellet diameter	3 mm, 10 mm, 16 mm			
Dimensions excl. socket in mm (L x W x H)	1.000 x 400 x 880	1.000 x 705 x 1.035	1.380 x 710 x 1.785	1.600 x 830 x 1.805
Weight (excl. hydraulic oil)	130 kg	310 kg	530 kg	800 kg
Oil content	18 liter	36 liter	54 liter	90 liter
Max. power consumption	3 kW	3 kW	7,5 kW	9 kW
Power supply	400V/ 50Hz/ 3Ph+N+PE	400V/ 50Hz/ 3Ph+PE		
Liquid CO_2 supply	Liquid CO_2 moisture: < 65 ppm and completely oil free			
Pressure liquid CO_2	16 - 21 bar			
Inlet connection liquid CO_2	1/2" BSP	1/2" BSP	3/4" BSP	3/4" BSP
Outlet gas CO_2	1" BSP	1" 1/4 BSP	2" BSP	2" BSP

[1] Production capacity depends on pellet diameter, gas tank pressure, liquid CO_2 temperature, atmospheric condition and user settings.

How to store and transport dry ice?

In order to store dry ice as long as possible, we have designed special thick walled dry ice containers: the **CRYONOMIC isolated Containers** or CIC series. These robust and well insulated containers combine quality and hygiene of the monobloc structure in polyethylene with stainless steel reinforcements. **All food grade certified. CRYONOMIC dry ice containers are used under extreme temperatures worldwide.**

SMALL CIC-FAMILY

3 small containers, ideal for companies that regularly need to transport or store smaller quantities of dry ice.
These containers are ideal for labs, transport of small goods, catering, smoke machines...

Capacity: from 26 kg to 73 kg dry ice[2]

BIG CIC-FAMILY

3 large containers, used very much by companies that transport or store large quantities of dry ice. These containers are suitable for dry ice blasting machines for industrial cleaning, transport of vaccines and medical products, ...

Capacity: from 125 kg to 440 kg dry ice[2]

[2] For technical details see leaflet "CRYONOMIC dry ice containers CIC-Series"

For more information, visit our website

Contact your local distributor
for technical advice or for a demonstration:

Check your local contact on www.cryonomic.com