

The New Dimension In Industrial Cleaning



dry **IceMaster** / / / / /



mycon



dry IceMaster

Modern Industrial Cleaning With Dry Ice

CO₂

Dry ice blasting has been used for cleaning purposes in numerous industrial sectors for some time now. But high operating costs, complex infrastructure and no possibility of automation confined the technique to a market niche despite good results.

IceMaster revolutionises dry ice blasting. Low operating costs, the possibility of complete automation, constant availability without re-ordering dry ice pellets are only some of the



Procedural technique

Dry ice is carbon dioxide (CO₂) in solid form. Cold dry ice particles (approx. -78 °C) can be blasted onto the surfaces to be cleaned with compressed air. This leads to thermal tension in the deposits causing cracks and embrittlement in turn causing the contaminants to break off. The technique is very gentle and environmentally friendly. No environmentally-harmful blasting agent residue such as waste water or granulate is left behind, as CO₂ goes back into the air in gaseous state. CO₂ either comes from natural sources or is a by-product of chemical processes.

Dry ice blasting is not abrasive and therefore demonstrates excellent properties even when cleaning sensitive surfaces. The technique can be regulated exactly for the particular task on hand.

Innovation

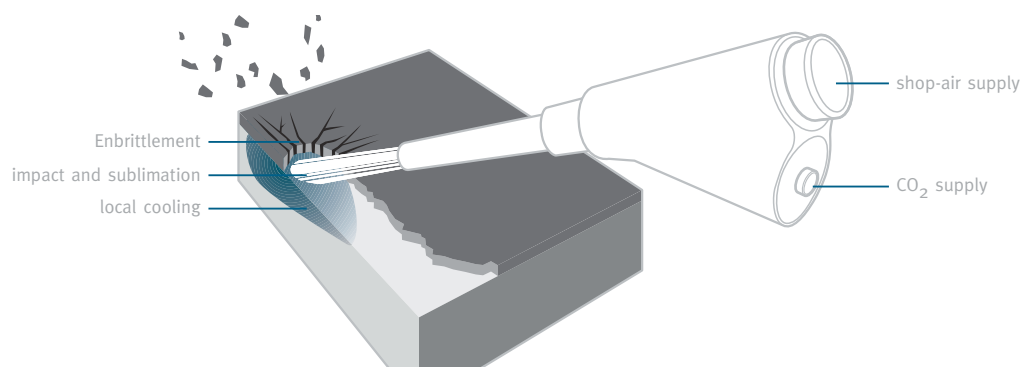
To date, cleaning procedures involving dry ice blasting were relatively expensive and complicated. Dry ice pellets are made out of liquid CO₂ in special devices called pelletizers and transported in special insulated transport containers to the place where they are to be used. The pellets have to be filled manually into conventional blasting units. The blasting units can require a substantial amount of maintenance and the pellets themselves only keep for a few days.

With IceMaster an economic and almost maintenance-free system is now available. The dry ice particles are produced the moment they are needed. There is no need for complicated transportation logistics for dry ice pellets, nor is it necessary to invest in conventional blasting units, maintenance costs and expensive repairs.

Favourably-priced, for fast and flexible use:

Mini-IceMaster and IceMaster 1 + 2

with direct connection to the CO₂ bottle.



Environmentally-sound

Inexpensive

Operator-friendly

Low maintenance

Flexible



The IceMaster can also be used for manual cleaning of a heat exchanger (left), for processing of core boxes in a foundry (centre) or for automated pre-treatment of plastic parts prior to painting (right). You will find further examples at our Internet site www.mycon.info

By adding liquid carbon dioxide, the dry ice particles are formed by an innovative patented procedure directly in the IceMaster pistol and blasted immediately onto the surface to be cleaned by compressed air. As liquid carbon dioxide can be stored for weeks without any loss, unlike the perishable pellets, the cleaning power is always available immediately and without any problems in the desired quantity even if it is not needed very regularly.

Tank supply via ring line with 20 bar of low pressure guarantees perfect results at unbeatably low consumption costs.

High-pressure supply via gas bottles or bundles for smaller surfaces and sporadic cleaning tasks can be installed quickly and easily.

IceMaster can almost always work with the compressed air supply available, working pressure of 4.5 bar is sufficient to produce good cleaning results. A pressure dew point of the compressed air of $-10\text{ }^{\circ}\text{C}$ is recommended for longer application times.

Application

On account of its environmentally-friendly and economic advantages, IceMaster is used for very varied cleaning tasks.

IceMaster can be integrated optimally into automated processes, e.g. within a paint shop for inline pre-treatment of plastic parts immediately prior to painting. Assembly lines, rollers and other conveyors can also be cleaned gently during operation – both continuously and at clocked intervals. IceMaster has already proven itself in heavy-duty 24-hour application in the automatic cleaning of large mould frames in foundries.

As a mobile unit, IceMaster recommends itself for the manual cleaning of moulds or industrial machines and plant, e.g. printing machines. IceMaster is also excellently suited for cleaning tasks in plastic injection moulding, in commercial cleaning or in the food industry.

Mini-IceMaster

Mini-IceMaster is the right device for short-term tasks in the area of plastic injection moulding, for cleaning small parts and moulds, in workshops and for smaller commercial cleaning jobs. As only a small amount of compressed air is required and the noise is relatively low, Mini-IceMaster can be deployed almost everywhere

Advice and Service

IceMaster can be adapted to suit your particular requirements. We would be pleased to advise you on the integration of IceMaster into your production sequence. We also provide your staff with instructions.

Buy or lease

You do not need to invest in the acquisition of the devices – IceMaster can also be leased. We would be pleased to make you a personal offer. You can profit from our know-how which has already led to several patents.

The mycon GmbH is certified acc. to DIN EN ISO 9001:2000.



dry IceMaster Overview of types

Mini-IceMaster

IceMaster 1

IceMaster 2

IceMaster 3

IceMaster 4

Carbon dioxide consumption

Consumption (per hour)	3–5 kg	8–12 kg	10–15 kg	40–50 kg	55–80 kg
Coupling (No. 6 for CO ₂ bottles)	W21, 80 x 1/14	W21, 80 x 1/14	W21, 80 x 1/14	W21, 80 x 1/14	W21, 80 x 1/14

Compressed air supply

Supply pressure	4,5–8 bar	4,5–12 bar	4,5–12 bar	4,5–12 bar	4,5–12 bar
Consumption (per minute)	500–600 l	0,75–1 m ³	1,5–2 m ³	3,5–5 m ³	6–9 m ³

Air quality necessary: Oil and dust free, dew point –10 °C for continuous application

Weight

Blasting pistol without supply lines and handles	0,5 kg	1,25 kg	1,25 kg	3 kg	3 kg
--	--------	---------	---------	------	------

These devices can also be leased

Consumption and supply pressure depend on operating purpose and nozzle used.



As a mobile unit the IceMaster can be used very flexibly

Call us or visit our website for more information

mycon gmbh

Fabrikstrasse 41b
D-33659 Bielefeld

- +49 (0)5 21 . 40 30 90
- +49 (0)5 21 . 40 24 82
- j.kipp@mycon.info

www.mycon.info