

ICEBLAST

ENVIRONMENTAL CLEANING EQUIPMENT

Industrial Cleaning and Blasting with Ice Cubes

This innovative environmentally friendly technology of cleaning and blasting with regular ice cubes was introduced on the market only two years ago.

Coulson Iceblast from Canada managed over the past few years to implement this technology into an all-rounder industrial cleaning unit.

In a very short time it has proven itself in countless applications.

Icestorm90 and 45

The ICESTORM90 blasting machine is the most efficient and environmentally friendly industrial cleaning tool in the industry.

The design basis focused on simplicity, which translates through to the exterior, operation controls, and internal workings of the unit. The ICESTORM90 uses regular ice cubes as medium.



Icestorm90 specs:

Hopper content:	42kg Ice cubes
Consumption:	0,5 – 2,5kg/min
Work Pressure:	5 – 14 bar
Air Volume:	5.000 – 12.000 liter/min
Dimension:	1.020 x 660 x 1.140 mm
Empty Weight:	180 kg
Suitable for heavy duty applications	

Icestorm45 specs:

Hopper content:	25kg Ice cubes
Consumption:	0 – 2,5kg/min
Work Pressure:	5 – 14 bar
Air Volume:	3.800 – 8.000 liter/min
Dimension:	990 x 590 x 915 mm
Empty Weight:	85 kg
Suitable for confined spaces and all mobile applications	

How does it work

On the top of the machine there is a lid to open the medium container to fill the hopper with natural ice cubes.

When you switch on the machine the ice-cubes are fed into a crushing mechanism that crushes the ice cubes into fine granulate.

This granulate falls into a feeder mechanism and is transported into the compressed air system, to the blasting gun with nozzle

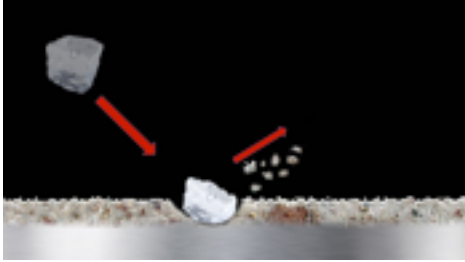
The particles are leaving the nozzle with a speed of approximately 800km/h, and the intensity of nozzles depends on the feed rate (between 0 and 2,5kg/min), the temperature of the granulate, and the kind of nozzle you are using. The nozzles allow you to clean fine thin critical surfaces, but also to blast off corrosion from checkered platform plates or tar, bitumen and grease, even paint can be removed.

Three Phases.

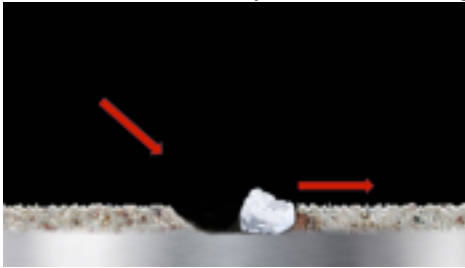
Ice cubes convert into three phases (Solid, Liquid and Gas) during blasting.
The Solid Phase provides sufficient hardness to hit with maximum impulse.
The Liquid Phase traps airborne contaminates and makes containment easy.
The Gas Phase helps minimizing waste streams.

Ice Cleaning Mechanism.

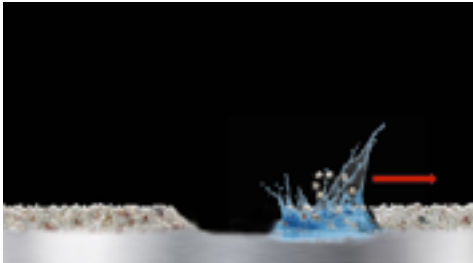
- **Bulk Removal:** each ice particle provides a discrete impact.



- **Detail Cleaning:** each particle acts like a new clean bristle. Ice deforms on impact and follows the contour of object. The kinetic energy makes the ice particle a scrub.



- **Final Rinse:** water is a universal solvent for rinsing away ionic compounds.



Advantages

- Dramatic saving on medium cost like dry ice, grit or water.
- Reduced use of chemical agents, with high water pressure cleaning chemicals are required to achieve good result, with ice the frozen particles are cracking the contamination effectively so no chemicals are required.
- Saving on water consumption up to 95% compared with pressure water cleaning. In average the ice cube consumption is 40 kg/hour which means a water consumption of 40 liter/hour.
- Substantial reduction of airborne contaminants.
- No need to conceal the area.
- Cost for disposal and recycling of medium and waste is minimum. Only and average of 30liter/hour, (some part of the used water evaporates as gas.)
- No floods of water on the floors.
- Working pressure only around 10 bar so no extreme precautions required.

Applications:

- Petro Chemical Industry
- Food and Beverage Industry
- Metal Industry
- Marine
- Manufacturing Industry for Mold Cleaning
- Paper, Printing, Pulp and Packaging
- Remediation after Fires, and Asbestos Removal.
- Public Areas like Graffiti Removal

**Dual Function, Dry ice – Wet Ice**

The Icestorm units can also use Dry ice as medium, for those application where no moisture is allowed, so one machine for all applications.

**More Info**

<http://www.ice-blastgroup.com/>

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