

Coulson Ice Blast



Our History

Coulson Group is a safety first company consisting of 5 separate divisions founded in 1960 with a current employee base of over 300 employees.

Coulson Forest Products

- * Manage an annual harvest of approx. 50 million board feet of timber in British Columbia, Canada

Coulson Manufacturing

- * Operates 3 facilities and manufactures over 40 million board feet annually

Coulson Rim Rock

- * Owns and operates gaming centers

Coulson Aviation

- * Operates and owns 16 aircraft, operating in 5 countries.

Coulson Ice Blast

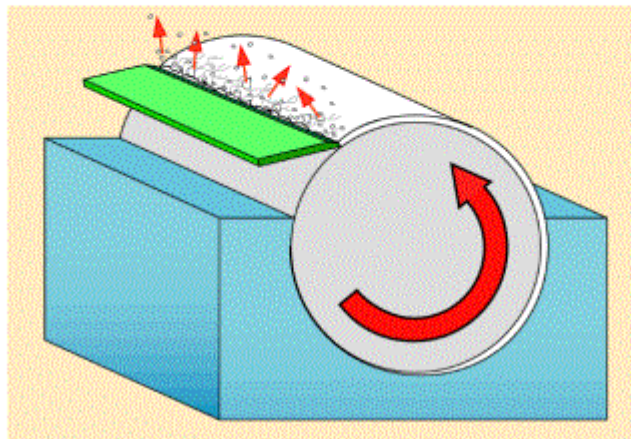
- * Acquired in 2012 as the newest addition to the group of companies.

What is Ice Blast?

- * Coulson Ice Blast is a 3 phase process which uses crystalline water ice as its primary blasting media.
- * This is NOT a dry ice process.
- * The Ice Blast machine consists of two major components:
 - * A compressor to supply 300 cubic feet/min of air at approx. 90~150 psi
 - * An Ice Making machine to supply very thin ice chips to be placed in the air stream
- * Hoses are used to supply ice and air to a blast nozzle.

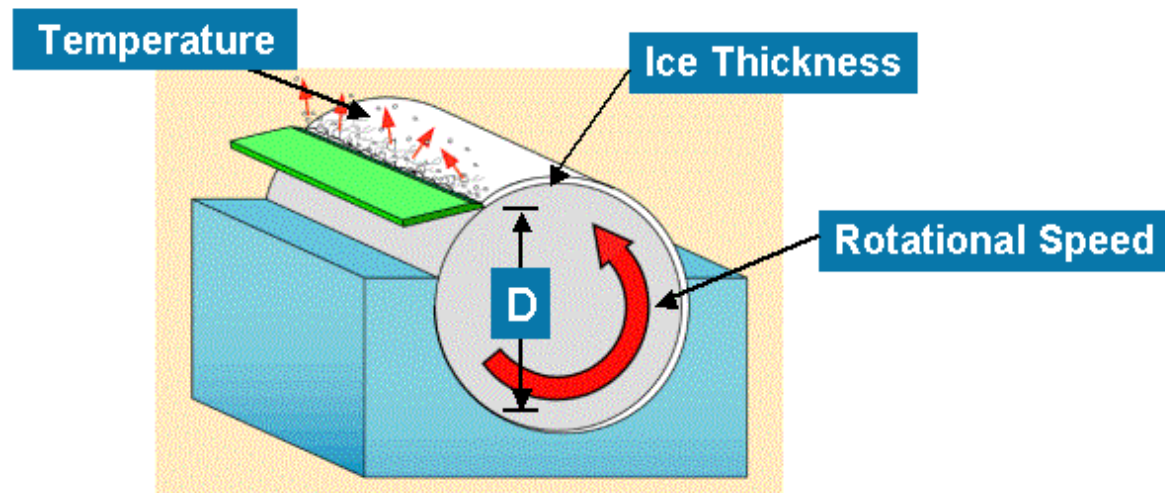
How does it work?

The most reliable continuous ice making process is the “immersed rotating cold drum” technology.



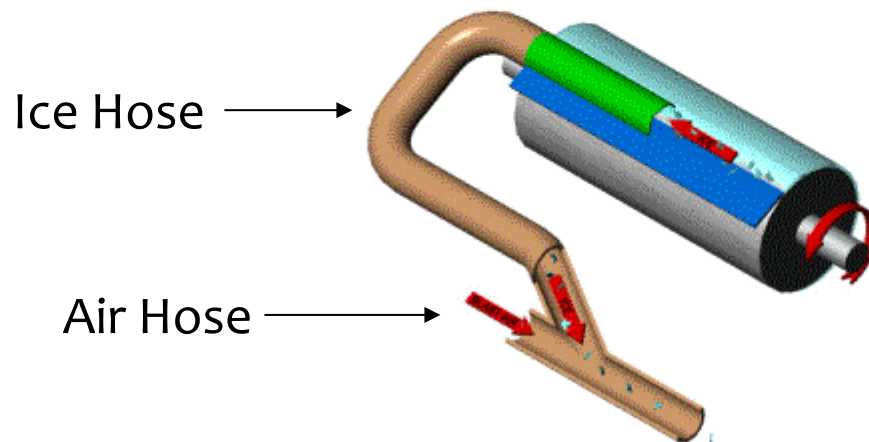
How does it work?

Under proper conditions of drum diameter, temperature, ice thickness and rotational speed, the formed ice sheet has sufficient internal stress to self-fracture.



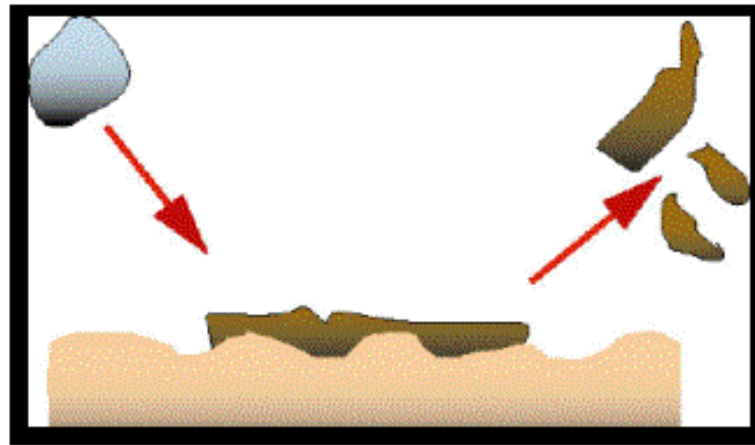
Ice Blast Technology

In **Ice Blast** Technology, the fractured ice chips are continuously suctioned away to a blast nozzle, then propelled towards a work piece.



Ice Blast Cleaning Mechanism

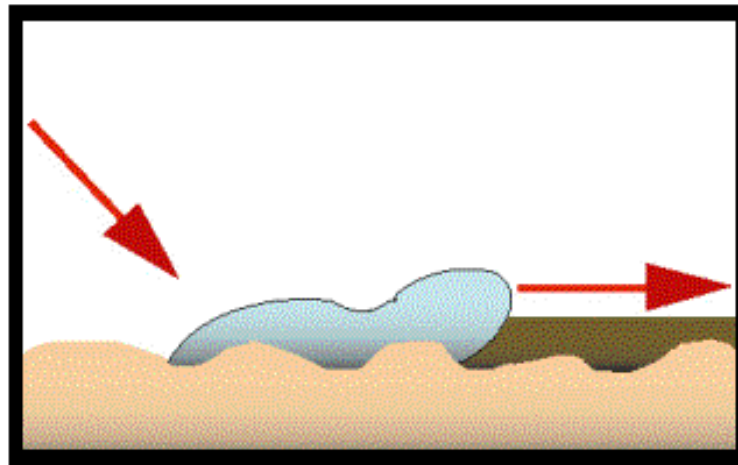
Displacement Work (Bulk Removal)



Ice Blast is superior to water blast for displacement work because ice particles provide discrete impacts. Jack hammers work better for digging up tough dirt. Water flows around obstacles.

Ice Blast Cleaning Mechanism

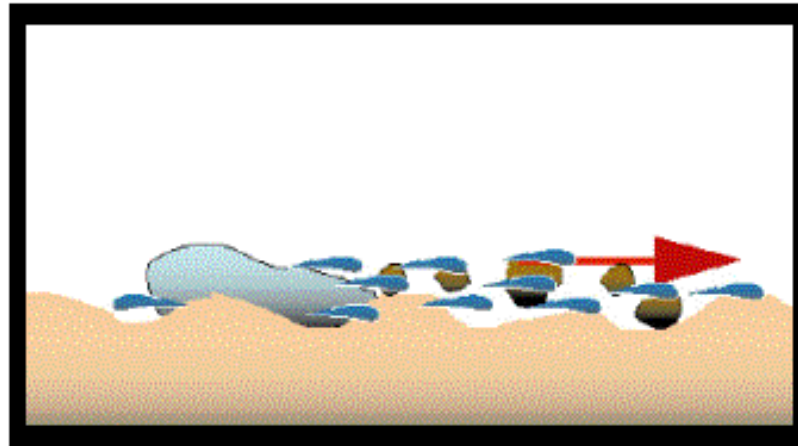
Scrubbing Work (Detail Cleaning)



Ice Blast is superior to rotating brushes for scrubbing work because each ice particle acts like a new, clean bristle. Ice particles deform on impact to scrub. Dry ice pellets are not physically stable, therefore do not deform to scrub.

Ice Blast Cleaning Mechanism

Rinsing Work (Final Rinse)



Many contamination matters are ionic in nature. Water is a universal solvent for rinsing away ions. In ice blast only a small amount of water is used to rinse away the small amount of ionic contamination.

Applications

- * Aero Space
- * Automotive
- * Contract Cleaning
- * Electric motor
- * Oil & Gas
- * Lead Paint removal
- * Asbestos abatement
- * Fire Restoration
- * Historical Restoration
- * Rubber
- * Power Generation
- * Nuclear
- * Engineered Wood
- * Food and Beverage
- * General Maintenance & cleaning
- * Marine



Environmentally friendly

- * Uses only 27 gallons of water/ Hr
- * After blasting, depending on ambient conditions, the ice media will evaporate leaving just the contaminated residue behind.
- * No Chemicals used
- * Virtually dust free – There are less than 0.011mg/m³ airborne contaminants with Ice Blast
- * Easy to operate
- * Can operate in confined spaces without supplied breathing air.

Coulson Ice Blast Comparison

	Coulson Ice Blast	Dry Ice Blast	Sand Blast
Media	<ul style="list-style-type: none">- Self contained, no media required- Garden hose- Uses 27 gallons of water per hour	<ul style="list-style-type: none">- Media required	<ul style="list-style-type: none">- Media required
Airborne contaminates	<ul style="list-style-type: none">- Very minimal - 0.011 mg/m3	<ul style="list-style-type: none">- Yes	<ul style="list-style-type: none">- Yes
Phases	<ul style="list-style-type: none">- Three phase – Solid/liquid/gas- The ice traps all potential Airborne Contaminants and pulls it to the ground.	<ul style="list-style-type: none">- Two phase – Solid/gas	<ul style="list-style-type: none">- One phase - Solid
Residual waste	<ul style="list-style-type: none">- Once moisture dries, Can be vacuumed up	<ul style="list-style-type: none">- Contaminated filters	<ul style="list-style-type: none">- Contaminated filters,- Contaminated media
Process	<ul style="list-style-type: none">- One Process- Decontaminates and cleans	<ul style="list-style-type: none">- Two Processes- Decontaminates and then have to re clean surface.	<ul style="list-style-type: none">- Two Processes- Decontaminates and then have to re clean surface.
Containment	<ul style="list-style-type: none">- Only minimal moisture ground containment required	<ul style="list-style-type: none">- Full Containment including respirators	<ul style="list-style-type: none">- Full Containment including respirators

Thank you for your time

- * Please let us know if you have any questions.
- * Machine financing is available.