4 Boreholes

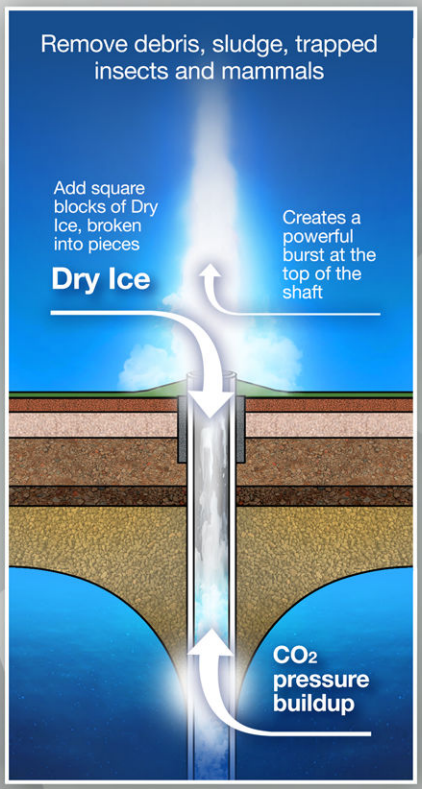
HOW CAN DRY ICE SOLVE BOREHOLE PROBLEMS?

Dry ice is a unique product with multiple uses in many industries. One such innovative application is the cleaning of boreholes and dislodging of pumps. Instead of turning to traditional methods, simply use dry ice to clear a blocked borehole by removing the debris inside the shaft.

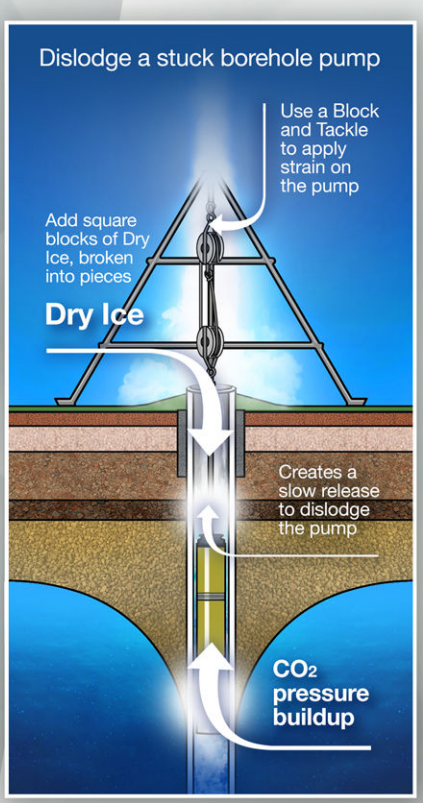
When the dry ice hits the water, it creates a CO_2 pressure buildup. As this pressure has no escape route, it creates a powerful burst at the top of the shaft, removing debris, sludge and trapped insects/mammals that can contaminate the water.

You can also use dry ice to dislodge a stuck borehole pump. How? By putting strain on the pump with a block and tackle and then increasing the strain by placing dry ice down the shaft. The CO_2 gas causes a strong “boiling water” effect, which, together with the strain on the pump, will cause it to slowly release and dislodge.

Clean boreholes



Dislodge pumps



ADVANTAGES OF DRY ICE FOR BOREHOLE ISSUES

- Extremely effective
- Inexpensive
- Easy to use
- Powerful when added to water
- Safe
- Water can be used immediately afterwards
- Available countrywide

HOW MUCH DRY ICE DO I NEED 4 BOREHOLES?

APPLICATION	DEPTH	DRY ICE	ACTION	DURATION
Removal of debris/sludge	Less than 50 m	100 kg	Add dry ice all at once as quickly as possible.	5-15 min
Removal of debris/sludge	More than 50 m	200 kg	Add dry ice all at once as quickly as possible.	10-30 min
Dislodging of borehole pump	Less than 50 m	150 kg	Place pump under strain - add 70% of dry ice and the remaining 30% within 15 minutes.	30 min - 1 h
Dislodging of borehole pump	More than 50 m	250 kg	Place pump under strain - add 70% of the dry ice and the remaining 30% within 15 minutes.	30 min - 1 h

- Use 2 kg square blocks of dry ice, broken into pieces (no smaller than half a brick).
- Place dry ice into 110 mm drainpipes or on top of corrugated iron sheets so it can be put down the shaft as quickly as possible – the quicker, the better!

SAFETY PRECAUTIONS

- Use safety goggles and gloves when handling dry ice.
- Keep a safe distance from the borehole shaft after administering the dry ice to avoid being hit by flying debris and dry ice.

Important: the use of dry ice for boreholes is entirely at your own risk.
Dry Ice International cannot be held liable for any equipment failure or injury.

4 Boreholes

HOW DO I STORE DRY ICE?

Use an insulated cooler, polystyrene container or order the perfect size on demand. Wrap the dry ice in paper or blanket to extend the life of the product if necessary. Do not store dry ice in your home freezer!

WHAT ABOUT SAFETY?

Dry ice is not for human consumption. Handle only with protective gloves or mitts. Transport only in complete isolation from the driver. Do not place dry ice in any gas-tight container - it sublimates and expands! Keep away from children (adult supervision is required).

WHAT IS DRY ICE?

Dry ice is frozen carbon dioxide (CO_2) at a temperature of -79 °C. It is a non-toxic, non-flammable food-grade product, which sublimates directly from a solid to a gas resulting in no liquid/water remaining behind. Sublimation of dry ice creates the cooling effect, of which the energy value is 570 kJ/kg.

DELIVERY

Dry Ice International delivers countrywide on a 24-48 hour basis. Dry ice may be ordered on the website to be delivered at your doorstep, or collected at any of our retail outlets.

MORE ABOUT US

Dry Ice International has been providing the South African industry with innovative dry ice technology and solutions since 1994. We are known for our dedicated national client service, creativity, innovation and team of highly qualified and experienced personnel.

Dry ICE INTERNATIONAL

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