

How DE-ICERS Work

Protecting boats and docks from winter freeze

How Ice Damages Boats and Docks

HULL DAMAGE

Ice grinding against the hull can tear at the gel-coat of fiberglass boats.

BOAT LEAKS

Water can freeze inside the bilge or plank seams of wooden boats and cause a leak.

FLOATING ICE

When driven by the wind or current, loose ice can act as a battering ram.

DOCK LIFTING

Changes in water level due to ice formation can shift dock pilings or pull them out of their footings entirely.

ICE EXPANSION

As water freezes and expands, its pressure can crush a hull or dock.

WINTER KILL

Thick ice and a heavy snow pack can cause fish to die off due to low oxygen levels.

Structures Most Affected

HARBORS

DOCKS

BRIDGES

MARINAS

PONDS

\$20,000

Estimated cost of building a basic private dock

\$50,000

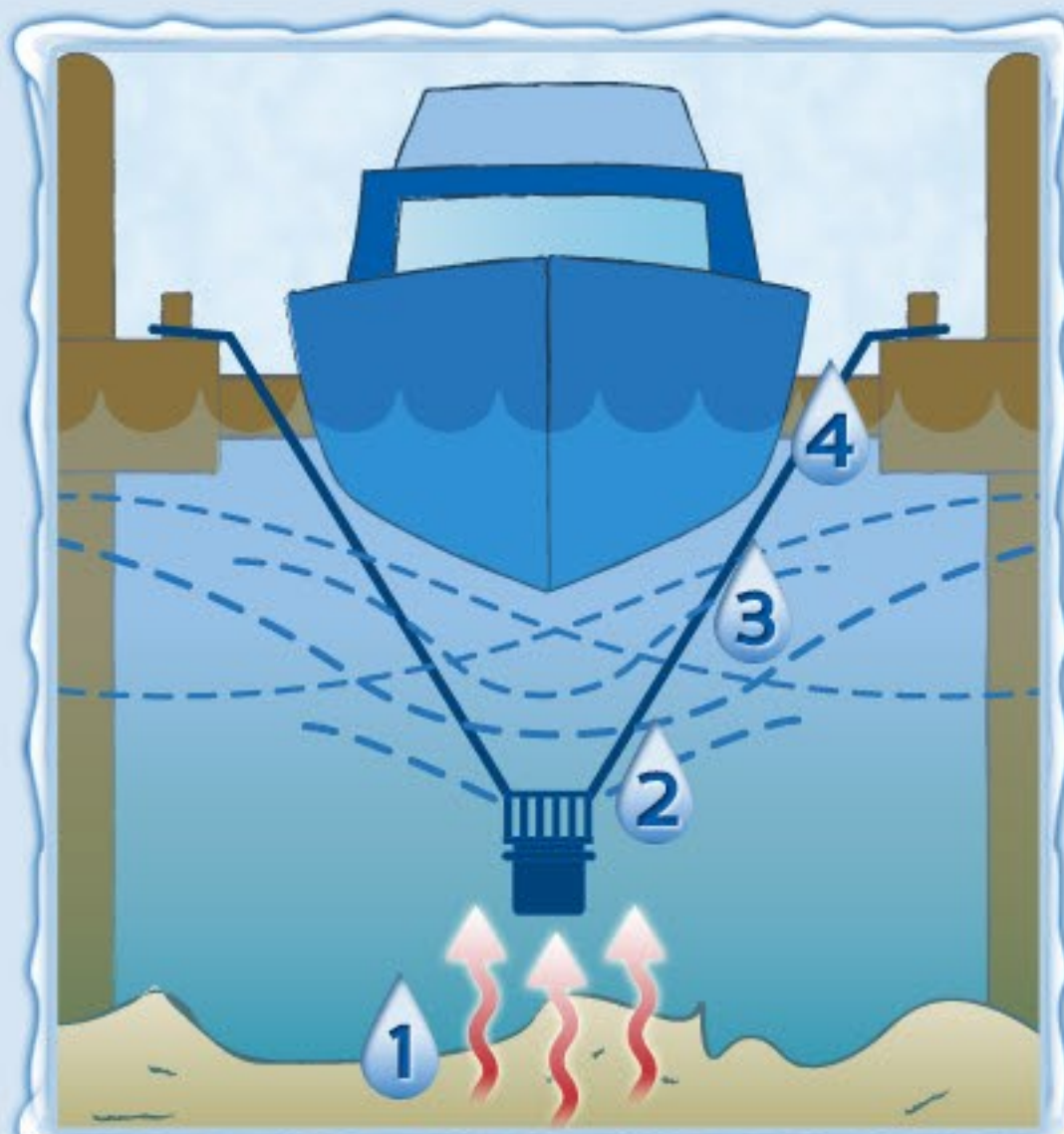
Roughly the cost per slip to build a new marina

For every **1** boat that sinks at sea,

4 go down in their slips.

How De-Icers Work

- 1 Water near the bottom is heated by the earth.
- 2 This water is drawn up to the surface by the de-icer's propeller.
- 3 The warmer water and constant motion prevents ice from forming.
- 4 An area of clearance is created around the boat or dock.



Mounting Options

SLING

(vertical suspension)



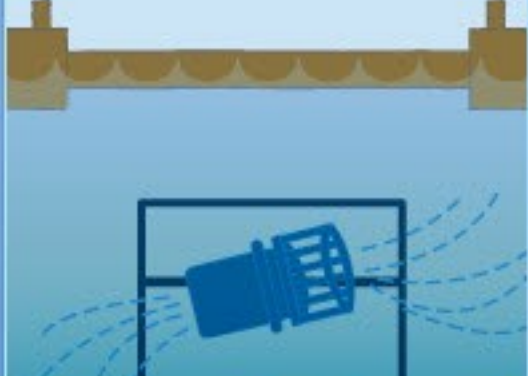
Most stable
Ropes must be spread 8-10 feet apart
Mounts in vertical position

UNIVERSAL DOCK MOUNT



Extends up to 10 ft. from mounting bracket
Mounts at an angle for maximum clearance

SHALLOW WATER STAND



Ideal for shallow water (18-48 in.)
Adjustable angle

FLOTATION MOUNT



Ideal for shallow water
Moves up and down with the water level
Mounts in horizontal position



How Angle Affects Performance

The angle at which a de-icer is mounted determines the shape of its area of coverage.



Off-Season Uses for De-Icers

- Create currents
- Funnel debris
- Prevent algae buildup