"How To" Series:

Keeping Pond Ice Open During the Winter

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Heater De-Icer or Diffused Aeration?

With a backyard fish/koi pond, subjected to freezing-over during the winter, keeping the ice open is very important. Keeping a hole open in the ice to allow toxic gases to escape is extremely important to the health of the fish. If toxins from decaying leaves, algae, and fish waste are allowed to build up, they will create long lasting health issues for the fish, and even lead to their loss.

Most Frequently Asked Questions

1. Which is better, a de-icer or diffused aeration?
2. What size diffused aeration do I need for my pond?
3. What size de-icer do I need for my pond?
4. How much does it cost to operate per day or per month?

Part Number LA2

Part Number TP100

Which is Better, a De-Icer or Diffused Aeration?

Either Will Effectively Allow Toxic Gases to Escape

Heated De-Icers	Diffused Aeration
Only useful during the winter months	Provides benefits all year
Costs less upfront with higher operating costs	Costs more upfront but less to operate
Will shut off when the temps warm up	Designed to run non-stop 24/7/365
Only the thermostat or heating element can wear out	Compressors require minor maintenance and replacement of worn diaphragms about every two years

Fact or Fiction?

With prolonged super cold days, diffused aeration stops being effective because the ice completely freezes over.

Fiction

- When air is pumped under the ice, it will come out somewhere and bring toxins with it. Goal achieved.
- The ice above the rising air bubbles is very porous and honey combed. Listen closely and you will hear the air escaping.

My poor fish aren't going to survive the long cold winter unless I keep the pond water warm enough for them.

Fiction

- As long as the pond depth is 18" for goldfish and comets, and at least 3 to 5 feet in depth for koi, they were created to survive winter just like in nature.
- The most important goal is to allow the toxic gases to escape.

It costs less to operate a heated de-icer than a compressor supplied aeration system.

It depends

- It depends on the size of the pond, size of the system, and temperature variations.
- *Refer to formula below to calculate monthly cost

Part Number LA4

Price Comparison

Assuming Both Operate Non-Stop 24/7 for the Entire Month

Diffused Aeration	Heated De-Icers
Up to 1,000 gallon pond 2.7 Watt CAS1 Aeration = **31¢/month**	100 - 400 gallon pond 250 Watt Heated De-icer = **$29.32/month**
1,000 - 7,500 gallon pond 23 Watt LA1/KLC25 Aeration = **$2.69/month**	1,000 - 1200 gallon pond 250 Watt Heated De-icer = **$175.93/month**
3,000 - 22,500 gallon pond 23 Watt LA3/KLC60 Aeration = **$7.04/month**	

*Watts x Hours / 1,000 = number of billable hours kWh
number of billable hours kWh x cost per kWh = price per day
price per a day x 30 =price per a month