

EDMONTON JOURNAL

Snow Dragon a fire-breathing cost saver; Equipment melts snow, so piles don't have to be hauled away

Thu Dec 11 2008

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SHERWOOD PARK - It seems like a winter-time Canadian fantasy: sending out the pet snow dragon to melt away all that pesky snow after a blizzard.

In Sherwood Park on Wednesday, the snow dragon admittedly looked more like a fancy trailer.

The trailer is called the Snow Dragon Snowmelter and it hails from Cleveland, Ohio.

The first one was brought to Western Canada by Phil McElheran and Jeff Fraser of a local maintenance and snow removal company called Yard Worx.

The trailer has a coat-of-arms-type logo emblazoned on its side with a fierce black dragon on a yellow backdrop. It attracted a lot of attention as it was hauled up to Canada.

"On the way up, every time we stopped people would come up to us and ask, 'What the heck is that?' " Fraser said. "They were surprised that this technology exists."

Diesel-powered burners fire into large heat exchanger tubes and heat water to almost 50 C. Snow and ice are dumped into the back of the trailer, a kind of melting hopper.

When it's running, it looks a bit like a hot tub from the top, with five water jets on each side of the trailer spraying water on top of the steaming mix to speed up the melting process.

After everything melts, it runs through filters, which capture dirt, gravel and trash. It then runs out two pipes at the back and into the nearest storm drain.

The clean water that comes out is at about 15 C, McElheran said, so it doesn't form an instant ice rink.

The Snow Dragon can burn through 24 dump trucks of snow an hour, he said.

McElheran and Fraser believe this is the future of snow removal and they wanted to get in on it "at the front end."

Despite its use of fuel - about 180 to 270 litres an hour when running at full capacity - the snowmelter is a more environmentally friendly option of snow disposal than the train of trucks required to haul the snow away from wherever it's causing an inconvenience, they say.

The emissions it puts out when running full steam are the equivalent of what two idling dump trucks would put out, Fraser said.

The snowmelter is scaled to handle everything from strip malls to airports and is priced from \$175,000 US to \$1 million US.

Fraser and McElheran managed to snag the first and last one in Alberta before a Sherwood Park company called All Season Equipment locked up the distribution rights.

Yard Worx intends to contract out the Snow Dragon's services.

All Season Equipment had a variety of tire kickers out Wednesday to look at the device, including the University of Alberta, the Edmonton Regional Airports Authority, and the cities of Edmonton, Leduc and St. Albert.

Traci Bednard, of the airports authority, said they had been researching snowmelters for the last four years. She said the Toronto airport uses one.

As the terminal building expands, a snowmelter could potentially play a role in the airport's future, though not this year or the next, Bednard said. "Right now, we still have the staff, positions and equipment to dump the snow on site."

As for the City of Edmonton, "We always have to look at ideas to save money," said Don Turenne, a general supervisor of equipment and training.

"Trucking costs have been a big factor in the last couple of years."

Turenne looked at the machine and thought it was plausible that it could save money.

City snow dumps have also been receiving more snow in the last few years, as shopping malls and condominium complexes increasingly get rid of the liability caused by snow piles on their properties, Turenne said.

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