

## Spencer's Gas Booster Skid Package is the Cool Choice for a Rooftop Ice Rink

The Spencer Turbine Company is helping to put a client's dreams on ice. With this particular client, that's not just a good thing – it's the whole point.

Spencer provided a duplex [hermetic gas booster](#) skid package to supply natural gas to chillers that keep the ice frozen in a new rooftop ice skating rink in Long Island City, N.Y. The facility is a National Hockey League (NHL)-regulation size, 85-foot x 200-foot ice rink on the roof of a converted warehouse. It now gives schools, independent hockey teams, and organizations a place to practice or play.

When the client – who had himself been a hockey player and fan since he was a boy – first went up to the roof of the former mattress warehouse on Van Dam Street, he immediately envisioned a new place for neighborhood youth to gather. It would be a facility that got them off the streets – literally.

The client was attracted to the many benefits of going with a Spencer gas booster, including short lead time, which helped meet tight scheduling requirements, and the company's technical expertise. Spencer engineered a skid package that not only included the gas booster with a 1-1/2 HP motor



**All-in-one.** Spencer designed a gas booster package with all components mounted on one skid to help reduce installation time.

capable of handling natural gas at 0.6 SG (specific gravity), but also various accessory components. Everything was pre-piped and shipped on a single skid for easy installation by the contractor: Gas booster and motor, plus expansion joints, check valves, NEMA 7 (i.e., explosion proof) components including a low discharge pressure switch, actuator/bypass valve and inlet pressure switch, as well as a pressure gauge, shutoff valves, and an air-cooled heat exchanger.

Ice rinks rely on chillers with very large reciprocating compressors and evaporators beneath the ice to keep it frozen at all times. These chillers use boosted natural gas for power, and this is where the Spencer gas booster package comes into play.

The Spencer Turbine Company introduced the first [UL Listed hermetically sealed multistage natural gas boosters](#) in 1975. These boosters utilize Spencer's standard overhung blowers, with multiple impellers of spark-resistant aluminum alloy mounted directly on heavy-duty extended motor shafts. Each blower/motor combination is sealed within a hermetic vessel to eliminate shaft leakage.

The leaktight hermetic design, simple direct drive arrangement and generous internal clearances add up to long-term reliability and quiet operation – well within OSHA limits. The unique Spencer design also provides a continuous flow of natural gas around the explosion-proof motor, cooling the motor and extending its life.

In addition to standard commercial tests for volume, pressure and power input, Spencer's quality assurance team carefully leak-tests natural gas booster casings for gas-tight construction and performance. Electrical connections are made through a terminal box on the outside of the casing.



**Leak-tight design.** At the heart of the skid package are two Spencer UL Listed hermetically sealed gas boosters.

The rooftop ice rink opened this fall, offering a full range of skating programs for all ages, including public skating, lessons, hockey prep classes, youth and adult hockey leagues, and clinics – all with a breathtaking view of the Manhattan skyline.

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600 Day Hill Road, Windsor, CT 06095-4706 ♦ 800-232-4321 ♦ 860-688-8361 ♦ Fax 860-688-0098 ♦ [www.spencerturbine.com](http://www.spencerturbine.com)

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