driSteem

New Balance Sports Research Lab

BOSTON, MA

One of the most prominent brands in Boston Landing is New Balance. The neighborhood is home to the company's world headquarters, two retail stores, a fitness club, the TRACK at New Balance, and the New Balance Sports Research Lab.

Measuring and improving performance

The New Balance Sports Research Lab is equipped with 3D dynamic motion capture arrays and force plates that record athletes' directional forces as they explode out of starting blocks, sprint around left track corners, and shoot free throws and three-pointers on a hardwood basketball court.

New Balance athletes share their insights in a broadcast-quality recording studio, where sports scientists receive streams of inspiration for shoe and apparel innovations. The lab is equipped with 3D foot and body scanners and other devices that cobblers could not imagine in 1906 when the flexible arch insert perfected by New Balance made its debut.

Athletes entering the lab feel right at home following a synthetic rubber track lane.

Chamber simulates un-Boston-like environments

Beyond the track and hardwood court is a 400-square-foot room with a gasket-sealed door and reinforced windows. This is the environmental chamber, where temperature, relative humidity, and oxygen concentration can be adjusted to simulate any climate and any elevation up to 17,000 feet above sea level. Training for Pikes Peak in June? Dial up 14,000 feet, 52 °F, 33% relative humidity, and go to work.

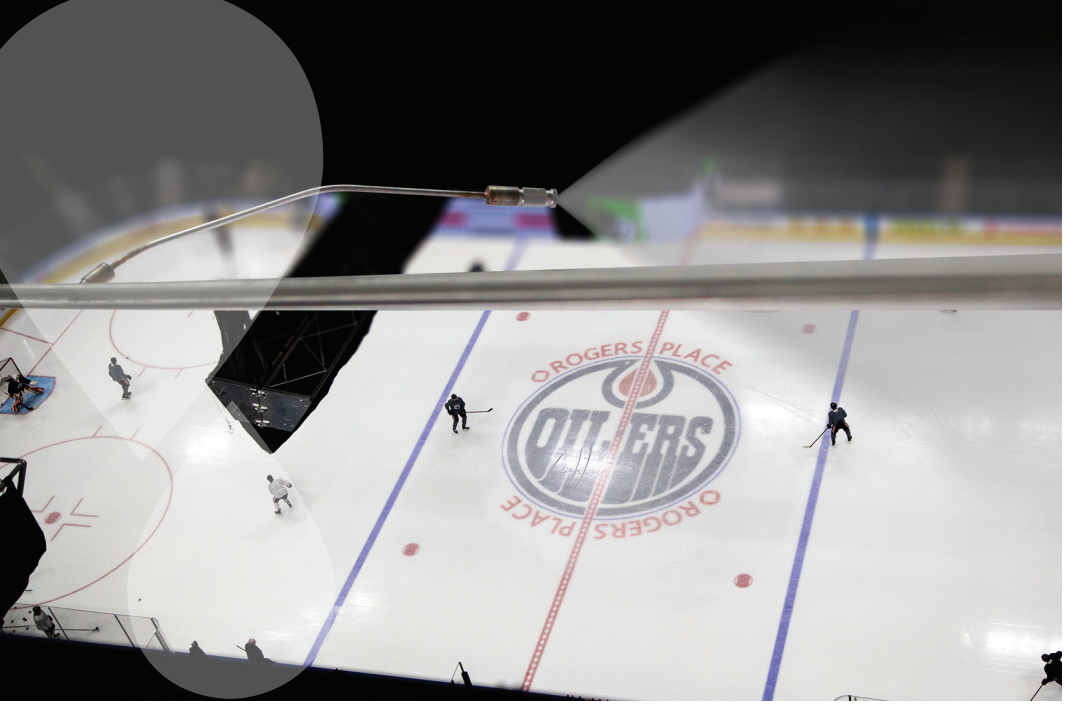
New Balance is constantly striving to make products that keep athletes comfortable regardless of the weather. The chamber allows New Balance to test shoes and apparel in any climate year round.

It is worth noting that not all test subjects in the chamber are human.

Thermal Manikin poses with New Balance Lead Physiologist Barry Spiering in the environmental chamber.

A manikin moves in

The chamber has a permanent resident — a 70-pound manikin that can sweat and regulate its own body temperature. Wearing shoe and apparel prototypes, the manikin works out in the chamber



The performance business

Sports facilities choose DriSteem to preserve building materials and protect the respiratory health of their athletes and fans.

Performance tests

DriSteem tests humidification, dehumidification, evaporative cooling, and water treatment systems for top performance in all applications from comfort to critical.

RESOURCES

Find your local DriSteem representative:
https://www.dristeem.com/find-a-rep

Steam-generating humidifiers:
https://www.dristeem.com/products/steam-generation

DriCalc®, DriSteem's free sizing and selection software:
http://www.dristeem.com/register-for-dricalc

The Track at New Balance PR Newswire release:
https://www.prnewswire.com/news-releases/new-balance-opens-doors-to-a-world-class-multi-sport-facility-the-track-at-new-balance-301526148.html

while its exertion and skin temperature provide thousands of data points from dozens of sensors in its skin. The commercial name for the apparatus, a product of Thermetrics, is Thermal Manikin.

Chamber requires precise, consistent relative humidity

New Balance chose Minus-Eleven, Inc., a Massachusetts firm that specializes in controlled environment rooms, to design and build the chamber. It would need to hold relative humidity at set point through air changes and fluctuating temperatures. Minus-Eleven specified pure steam humidification for the chamber and requested a humidification system from Emerson Swan, DriSteem's rep for Massachusetts.

Since April of 2022, a DriSteem Vapormist® electric humidifier has been humidifying the chamber with pure steam and holding the relative humidity at set point for the duration of every test.

DRI-STEEM Corporation

A subsidiary of Research Products Corporation.

DriSteem U.S. operations are ISO 9001:2015 certified.

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