



LOCATION

World-class gymnastic training facility. Devlin Gymnastics in the Northeast, USA

Challenge

The front office areas and locker rooms of this facility had IAQ issues and lacked fresh air make-up. The main gym area trapped unpleasant odors outgassed from the many thick neoprene workout mats. Providing additional heating, ventilation, and cooling (via HVAC) would have been quite expensive on a first-cost basis due to the purchase and installation of HVAC equipment. In fact, such a traditional fix could have doubled the energy bills of this gymnastics facility every year for the life of the HVAC system.

Solutions

Haglid Engineering and Associates designed a solution that improved air quality, brought in fresh outdoor air, and was far more affordable. Six BPE X-Type heat exchangers of various sizes with hardwired inline high-efficiency fans were installed (note the photo depicting the white ceiling-mounted energy recovery unit with two metal ducts attached). The BPE X-Type heat exchangers were efficient enough to condition the outdoor air to within 5°F of room temperature (without adding heating and cooling coils), and greatly simplified the fresh air ventilation system. This solution will pay for itself within three years at an installation cost of less than half of a traditional heating and cooling system. By recovering exhaust energy, the direct counter-flow heat exchangers will recover enough heating and cooling energy to work as stand-alone units, yet another benefit over traditional HVAC equipment.

