

Lyle Hallman Pool



The Challenge

The main challenge when replacing any existing equipment is access and spatial considerations. This project was no exception, with access at first limited to a single man door, along with an undersized mechanical room littered with ductwork and electrical panels.

The O'Dell Solution

We selected a DRY-O-TRON dehumidification unit to deliver on the customer requirements and address project challenges. To facilitate field assembly and deliver on energy efficiency, it was determined that the best choice would be the field-assembled model DSFA-162 with LEEDeR design, Smart Saver air-to-air heat recovery and an auxiliary hot water heating coil.

To avoid excessive field assembly, the City increased the single man door to a double. The larger access allowed us to design the unit in five sections to fit through the door. The splits were strategically selected to minimize the labour to assemble the sections on site.

DRY-O-TRON[®] LEEDeR units have a simplified refrigeration circuit, thus reducing the refrigerant charge. The heat of evaporation is transferred into a glycol system where it is recovered for pool water heating or space heating. Excess heat is rejected via a dry cooler located outdoors. The LEEDeR internal piping configuration also facilitated simplified field assembly.

Further energy savings were realized with Smart Saver, a heat pipe solution that delivers 50% sensible heat recovery on outdoor air. With outdoor air connection at the top of the unit and the exhaust near the bottom, the unit was configured ideally for this solution.

O'Dell provided full factory start-up and commissioning to ensure a smooth project turnover and optimal system operation. Due to the flexibility of the DRY-O-TRON model, we were able to design a very efficient unit while addressing the physical challenges of the project.





Lyle Hallman pool was first opened on September 16, 1990. The original mechanical system serving the natatorium was a combination of an air handling unit and heat recovery ventilator. In early 2017, the City of Kitchener contracted MNE Engineering to design a replacement system that would deliver improved space conditioning, indoor air quality and energy efficiency. MNE then asked O'Dell to help support their design with DRY-O-TRON.



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