

# DENVER WATER OPERATIONS COMPLEX

DENVER | CO



## 1 NRL HEAT PUMP & 4 NRK HEAT PUMPS

Denver Water's Operations Complex has undergone a redevelopment project to provide higher efficiency operation. The water utility operations have been located on this site since 1881 and was in need of an upgrade. Since the city wanted to be carbon friendly they decided to use Aermec heat pumps although natural gas is available at a low rate in Denver. This project has an Aermec NRL2250 heat pump installed providing 1,116 MBH to heat the inlet city water which is then piped to 4 Aermec NRK0700 heat pumps. NRK units are optimized to operate at great efficiencies at low temperatures (down to  $-4^{\circ}\text{F}$ ) and uses a gas injection compressor that allows the heat pump to produce hotter water than a standard heat pump (up to  $149^{\circ}\text{F}$ ). The units boost the hot water from the NRL which produces great efficiency and higher temperature water.

Why is this change important? The buildings in the complex were outdated, inefficient, and inadequate to support future demands of providing water service the community. The overall goal was to build a state of the art modern site that improves the efficiency and functionality of all operations.

Denver Water is leading the way in environmental stewardship by creating an efficient operations complex. The complex has been designed to incorporate LEED certification and presents educational demonstrations of net zero energy and leading edge concepts. This facility will feature educational components about water and its efficient use. A large part of this can be attributed to the Aermec heat pumps.