HYDROMX
Energy Saving Solution

CASE STUDY

SCHOOLS

PROJECT NAME: Madison and McKinley Elementary Schools

LOCATION: Fargo, ND

TYPE: School

Madison Elementary School in Fargo, North Dakota adopted Hydromx heat transfer fluid for their 75-ton capacity chiller.

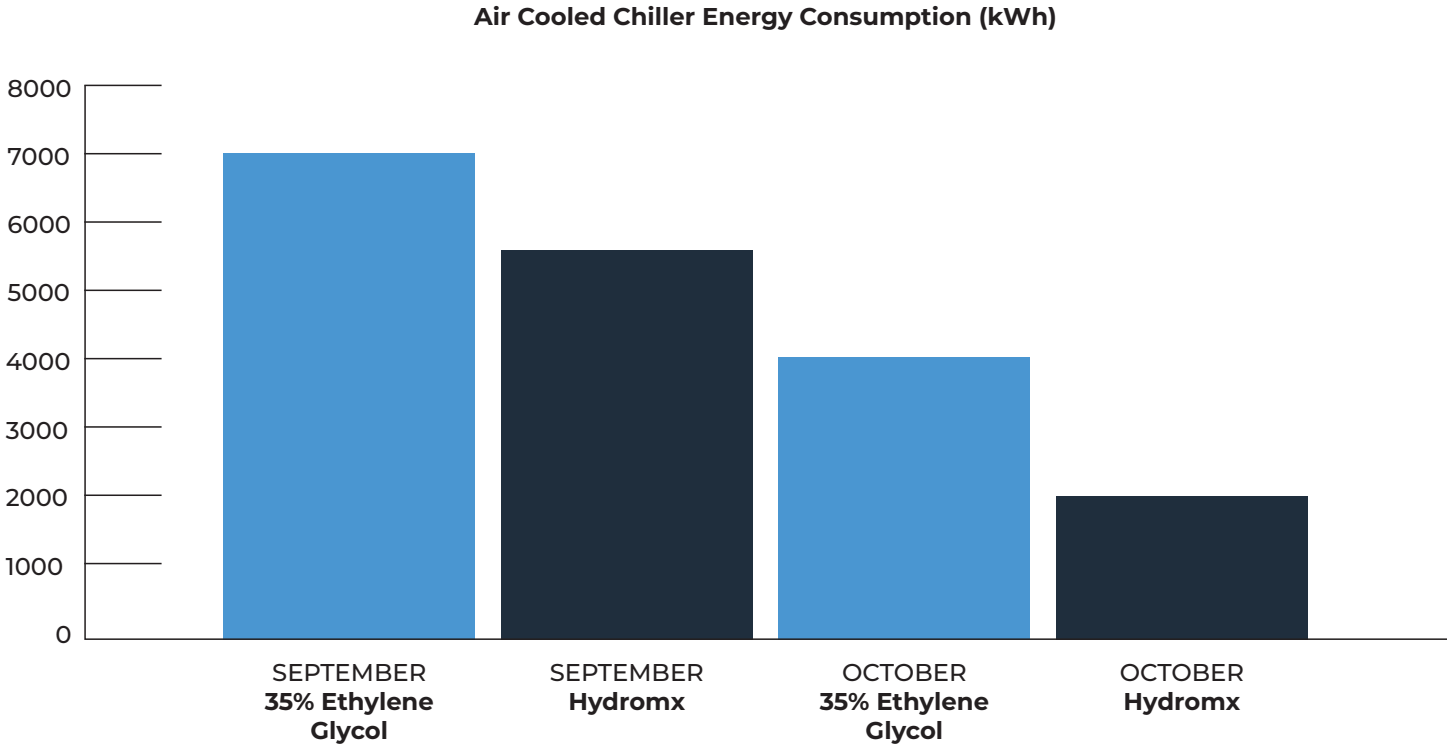
The chiller at McKinley Elementary, also in Fargo, remained unchanged at 35% ethylene glycol as a test control.

BACKGROUND

Madison and McKinley are two elementary schools in Fargo, North Dakota. The schools were built in the 1960s with similar construction, floor plans, and identical east-west exposures. Both schools were remodeled in 2014 with the same HVAC systems and brands of HVAC equipment to ensure that all buildings in the district have optimal heating and cooling capabilities. The chiller located at Madison Elementary is a nominal 75-ton capacity and the chiller located at McKinley Elementary is a nominal 70-ton capacity. This size difference favors the ethylene glycol system in this side-by-side energy consumption comparison of the two air-cooled scroll compressor chillers.

CHALLENGE

Fargo Public School Facility Managers are always looking for innovative ways to save energy, reduce carbon emissions, and save on utility bills. Hydromx was the best option on the market to achieve the desired results.



This comparison shows significant energy savings for the chiller using Hydromx, even despite its larger capacity.

RESULTS

IN August 2017, Madison and McKinley Elementary agreed to measure the energy savings of the Hydromx nano-technology heat transfer fluid side-by-side with ethylene glycol. The heat transfer fluid in the chilled water system in Madison Elementary School was changed from 35% ethylene to 50% Hydromx. Meanwhile, the chilled water system in McKinley Elementary School remained unchanged at 35% ethylene.

The graph above indicates the difference in energy consumption between the slightly smaller McKinley chiller (using 35% ethylene glycol) and the slightly larger Madison chiller (running on 50% Hydromx.) This comparison shows a 23% energy savings in September and a 54% energy savings in October by using Hydromx.

In conclusion, both Madison and McKinley Schools are excited to see the results with Hydromx and the efficiencies it could have on the other properties located in the Fargo Public School System.

ABOUT HYDROMX®

Hydromx® is a nanotechnology heat transfer fluid that saves a significant amount of energy. Hydromx ethylene-based or propylene-based fluid outperforms not only other glycols, but also outperforms water. Hydromx has been proven in multiple installations to save 20–35% energy in heating and cooling systems around the world.

FOR MORE INFORMATION, VISIT **HYDROMX.COM**.

HYDROMX®

HEADQUARTERS

58-75 57th Road, Maspeth, NY 11378

+1 (718) 381 0351
TOLL FREE +1 (844) 449 3766
(+1 (844) 4HYDROMX)

info@hydromx.com