

CASE STUDY

McQuay Chillers Cool Home Arena of the Calgary Flames

Two McQuay 375-ton centrifugal chillers helped save the ice and the season for the Calgary Flames of the National Hockey League. In April 2004, the battle for the Stanley Cup was really heating up — and unfortunately so was the temperature at Calgary's Pengrowth Saddledome.

Built in 1983, the Calgary Saddledome is the home of the Flames, as well as the Hitmen of the Western Hockey League. In addition, it also plays host to numerous other sporting and entertainment events throughout the year.

Two new McQuay 375-ton single compressor centrifugal water chillers were selected to replace two 21-year old Carrier chillers as part of a planned multimillion dollar upgrade of the arena.

Consultants for the upgrade project, Stantec Consulting Ltd., were instrumental in convincing the Pengrowth Saddledome management team that McQuay



chillers provided the best overall value based on energy efficiency, reliability and sustainable refrigerant.

With energy efficiency a priority, McQuay's chiller performance and efficiency stood out, especially at part load. The chillers selected for the Saddledome were equipped with variable frequency drives and offered one of the lowest part load operating efficiencies in the industry, at 0.35 kw/ton IPLV.

Stantec also liked the fact that the McQuay centrifugal compressor water chillers used environmentally friendly HFC-134a refrigerant with no ozone depletion potential and no phase-out schedule.

The chiller replacement was scheduled for June 2004, after the hockey season ended. In a normal season that would have been fine, but 2004 was anything but a normal season, with the Flames making the NHL playoffs for the first time in eight years.

With the playoff excitement, the sell-out crowds and the warm spring weather, the old chillers couldn't keep the arena cool enough. The ice became too soft and the players were at risk for injury.

That's when McQuay and its representatives, Olympic International, stepped in to cool things down. They moved up the original chiller delivery schedule by two months to get the two



McQuay units to the 'Dome in time for the playoff series with the Detroit Red Wings which started on April 22, 2004.

The chillers were delivered and installed—just in time for the Flames' home playoff game against Detroit. The McQuay chillers were quickly installed and started up. Within a few hours, the building was at the perfect temperature and the ice was in peak condition for one of the

more important events held at the Saddledome.

One of the reasons why the installation went so smoothly is that each McQuay chiller is fully load tested before it leaves the factory. As result, the contractors, S.E. Johnson Management Ltd. , were able to install and start up both chillers without a problem.

The extraordinary support provided by McQuay and Olympic International in getting

the chillers expedited to the job site influenced the Pengrowth Saddledome management to choose McQuay Factory Service as their planned maintenance and service provider.

And even though the Flames fell short of their goal for a Stanley Cup in the 2004 season, the McQuay Chillers meet their goal of energy efficiency, reliability and superior performance in every season.