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As the 2006 Olympic Winter Games got underway in Turin, Italy, two very special ice events were already taking place in the Italian Alps that had their origins in Victoria.

In keeping with the theme of the winter games, the Turin Olympic Committee initiated a project that would display art forms illustrating various themes of ice. The overall cultural event was called "People of Ice". Gordon Halloran, a Canadian artist from Sechelt, British Columbia was commissioned to display a unique art form that he had developed involving the creation of 3 dimensional abstract paintings imbedded in ice. Halloran's icy exhibition is called "Pitture Sotto Zero" (Paintings Below Zero) In the past, Hallorans artistic pieces were limited to short term displays at local hockey arenas around North America.

However, the Turin Olympic Committee wanted a display that would run for six weeks and it was to be placed inside an ancient cathedral in the Italian Alps for thousands of Olympic attendees to visit on a daily basis. The art work was to be displayed in the Cathedral at La Fortezza di Fenestrelle in the Italian Alps outside of Turin. The fortress is the largest in Europe and second in size only to the Great Wall of China. Built, starting in 1727, it spans 4 kilometers of mountain range and increases in elevation by 600 meters over its course.

Not having the expertise or equipment to sustain such a large scaled exhibition, Halloran turned to Victoria based ice rink specialists, Accent Refrigeration Systems whose motto and mantra reverberates "Creators of Perfect Ice".

Eager to take on the challenge, this was not Accent Refrigeration's first venture into the Olympic limelight. Accent constructed three ice surfaces for the 2002 Salt Lake City Olympics and trained many of the ice rink operators from the 1998 Nagano Olympics.

Art Sutherland of Accent Refrigeration spent a great deal of time working with Gordon Halloran reviewing the process of creating his artistic pieces in ice. He went to Italy early in 2005 to get a feel for the job site. It immediately became apparent that there were a lot of challenges posed by this incredibly unique project. The Cathedral itself was constructed out of block walls that were over 8' thick. Once cooled, this would provide an excellent thermal well, but the pull down in temperature would take days due to the amount of stored heat in the mass of rock.

Unlike an ice rink with a single horizontal refrigerated zone, the ice paintings, many weighing hundreds of pounds were to be placed on various elevations and several thousand square feet of them would actually be standing vertically. The entire floor of the Cathedral would also be covered with ice. The convoluted configuration of ice dictated that 39 individually refrigerated zones be installed. To add to the complexity, thirty kilowatts of accent lighting would be bombarding the display from all angles. In order to maintain the pristine ambiance of the cathedral, the refrigeration had to be silent with no equipment visible to attendees.

Over the year leading up to the project, Accent designed and tested a custom manufactured prototype refrigeration system that did exactly what the artist hoped for, to be silent and maintain ice in an uncontrolled environment under all ambient conditions. Once the technical aspects were proven, full size refrigeration systems were manufactured at Accent Refrigeration's shop in Victoria and shipped to location in Torino.

Multiple compressor packages were custom built utilizing special compressors, chosen for their low sound levels and near zero vibration. Each system was designed to fit into a chosen nook within the cathedral. Upon completion, there was no audible evidence of them running while patrons were viewing the exhibit.

The large horizontal refrigerated floor and multiple artistic freeze plates were designed by Accent Refrigeration. They were manufactured out of extruded aluminum with integral heat transfer piping. The aluminum plates have an incredible rate of heat transfer and could handle any heat load thrown at them. The high level of heat transfer permitted the ice display to be fairly thick while maintaining great ice on the surface. This is Accent's fourth ice project using the extruded aluminum plates. A low temperature secondary coolant was used and distributed through strategically placed piping systems hid out of eye site. Due to the important nature of the project every system had a backup.

During the month long installation process Accent Refrigeration had three workers on site working alongside a lighting specialist, two set designers and three artists. "Much of the work was done over the Christmas holidays while the fort was closed. We had this incredible piece of history all to ourselves and with the Alps as a backdrop it was breathtaking. Getting up and going to work was pretty easy each day" Sutherland's two oldest daughters, Christina 13 and Sarah 14 also came along to lend a hand. They have followed their ice making father to projects on four continents this year.

When the switch was thrown, the specialized refrigeration system designed by Accent Refrigeration Systems ran like a charm, and the entire floor and many of the walls of the Cathedral became an icy canvas ready to display the vibrant art work.

Since the first day of the exhibit there have been line ups to view the icy and beautiful wonder and like any good refrigeration system, nobody even knows it is there.

More about the project can be found on the Internet at www.paintingsbelowzero.com

Will Accent Refrigeration Systems be involved with the 2010 winter games in Vancouver? Well as a matter of fact they have already made the first ice for the event. On February 8th there was an unveiling of an ice-wall hanging of the Vancouver 2010 Inukshuk Logo at the BC-Canada Place exhibit in Turin, Italy. What kept the artistic impression frozen? Another innovation by Accent Refrigeration Systems of Victoria, the Creators of PERFECT ICE.

