



## Highlights

### Description:

Fabrication and installation of refrigeration piping for the luge/bobsled run at the 2010 Vancouver Olympic Games

### Key Points:

- Modular shop fabrication
- Field installation
- Over 110 km of welded pipe embedded in 1.7 km of track
- Recognized by VANOC as "Gold Medal Contractor" for excellent performance in venue construction

### Benefits:

- \$2 million in capital savings
- Completed 2 years ahead of schedule

## Whistler Sliding Centre, Vancouver Olympic Committee Whistler, BC, Canada

### The Project

Due to our unique modular capabilities, Ideal Welders was selected to provide the fabrication and installation expertise for the Whistler Sliding Centre being constructed for the Vancouver 2010 Olympic and Paralympic Games.

The project included the fabrication and installation of more than 110 km of 1-inch refrigeration piping required to keep the sliding surface frozen. Ideal Welders also fabricated and installed the refrigerant supply lines and all piping associated with the main refrigeration plant, which is large enough to keep the sliding centre frozen year round.

### The Concept

The refrigeration system for the luge/bobsled run required an elaborate system of refrigeration piping set within the concrete of the foundation. Field fabrication of this system has traditionally been extremely costly.

Ideal Welders developed a concept in which the piping system could be fabricated in our shop in modules and transported to the site in sections for installation. This concept minimized field welds, shortened the project schedule and substantially reduced capital costs.



Whistler Sliding Centre





Module Delivery

## Implementation

Traditionally, bobsled runs require about 60,000 man-hours in the field. Our modular approach moved 45,000 of those hours into the shop where the elements were no longer a concern.

The 1.7 km track was broken into over 130 modules, which were fabricated in-house and then shipped to the site for installation. Once our field crews had completed the field welding, a civil contractor encased the pipe frame in mesh and concrete to create the track.

The project required more than 1.1 million pounds of piping and over 27,000 pressurized pipe welds. The improved quality control enabled by shop construction eliminated field rework. Installation of the track modules, refrigerant header piping, and the refrigeration plant piping was all performed by Ideal Welders.

## Completion

The installation of the refrigeration plant and the luge/bobsled refrigeration tubing was completed two years ahead of schedule and under budget. Fabricating much of the system in modules in our shop saved over \$2 million in construction costs and earned Ideal Welders a Gold Medal of Appreciation from the Vancouver Olympic Committee.

“For the first time in Olympic history, through your good work, our sport venues will be finished before the start to the Olympic Games.” **Vancouver Olympic Committee**



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