## structurally sound

## WINTERIZED STEEL





**SKI JUMPERS** have been flying high at the Swedish Sports Confederation's Lugnet sports complex for four decades—and so has the steel framing for the facility's jumps.

The Falun, Sweden, complex includes two ski jumps, designed by Jack Hansson and built for the 1974 World Championships of Nordic Skiing: the HS 100 normal hill and HS 134 large hill (the numbers refer to the hill size, which is the distance from the take-off point to the landing line in meters).

The support structure of the larger ski jump consists of two legs built by steel plate welded circumferentially into a tube, with a lattice structure between the two legs, creating a 174-ft-tall tower (the top of the large hill) that athletes reach via elevator. The normal hill ski jump is supported by two I-beams with crossbars in between and serviced via stairs. The steel used was Domex 355W weathering steel from SSAB Europe, and a total of 500 tons was used to build both structures.

The facility was renovated in advance of the 2015 World Championships in Nordic Skiing 2015—everything but the steel, that is. Why? Quite simply put, it didn't need to be. Even after 40 years of exposure to Scandinavian winters, the maintenance-free weathering steel is still performing admirably.