

## Pump Repair Saves the Winter for a Local Michigan Ski Area



Efficient snow making is essential for the livelihood of this local ski hill.

*A local ski hill alerted Kennedy Industries that one of their 150 HP high-pressure snow making pumps was running poorly.*

### PROBLEM:

The 8-stage vertical pump pulls water from the ski area's retention pond and pumps the water uphill over 300 feet vertically to the snow making system. The pump normally operates at 300 psi, so any damaged or worn parts are revealed quickly. The client decided to send the entire pump to Kennedy Industries for a complete evaluation and overhaul. Kennedy's field service team promptly pulled the pump during the summer months and brought it to the repair shop in Wixom, MI.

### SOLUTION:

Upon arrival and disassembly, all pump components were glass bead blasted and precision inspected, along with non-destructive testing, shaft run-out checks, and concentricity checks on major components. Kennedy's repair team quickly found that 4 of the 8 pump impellers were damaged and that the bowl clearances were outside of factory specification. After completion of impeller welding, numerous machining processes, impeller balancing, critical component replacement, final cleaning, and an "as-built" inspection, the pump was reassembled in our 100,000 sq. ft. facility with all new hardware.

The field service team assisted the client with the installation of the pump and motor ensuring that the motor, coupling, and shaft were put in properly. They also aided the customer in starting up the pump and pressurizing the snow making system. The local ski hill was up and running well before cold temperatures returned. With the repaired pump in place, they soon made enough snow to cover their complete ski hill.

*The rebuilt vertical turbine pump will be operating within this snow making system for many ski seasons to come.*



The rebuilt 8-stage vertical pump.



Damaged impellers needed repair.

### Pump Specs

*Flow Rate: 150 GPM at 693' TDH  
Discharge size: 6"  
Weight: 1,600 lbs.  
Length: 11 ft.  
Horsepower: 150  
RPM: 3560*