Construction at Cypress Mountain

(see more photos of this and other projects at www.snowmakers.com/gallery/gallery.html)

Customer Successes

Mount Snow, VT
www.mountsnow.com
100 tower and carriage fans on wide and critical trail areas

Attitash, NH
www.attitash.com
90 tower and carriage fans on wide and critical trail areas

Snow Summit, CA
www.bigbearmountainresorts.com
25 full auto fans

Konjiam, Korea
80 full auto and manual carriage fans for this new resort including two pump stations, water cooling and SMI engineering

Yabuli, China
www.yabuliski.com
New snowmaking system with 30 fans and new pumping stations

Alyeska, AK
www.alyeskaresort.com
Revitalized snowmaking system with 30 fans and new piping and pumping and SmartSnow® weather and controls

Construction Update

Deer Valley
www.deervalley.com

BrianHead
www.brianhead.com

Cypress Mountain
www.cypressmountain.com

Holiday Tip #29

Never catch snowflakes with your tongue until ALL the birds have gone south for the winter.

Return Service Requested

1512 N. Rockwell Drive
Midland, Michigan 48642
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Tel: +989-631-6091
Fax: +989-631-3162

SMI Snow Makers
WWW.SNOWMAKERS.COM

SnowNews

FALL 2007

FOR OWNERS AND OPERATORS OF SNOWMAKING EQUIPMENT WORLDWIDE

www.snowmakers.com

INSIDE:

Editorial

SMI continues to grow and keep pace with the global demand for energy efficient snowmaking.

Energy efficiency continues to make good business and personal sense, and we can all embrace this goal, both individually and within our respective organizations. We can make a difference in this day and age when energy security is so important and supply is so scarce. You may need to change your strategies to take advantage of new snowmaking technologies and water optimization concepts.

SMI's fan products continue to gain global market share, and our commitment to SmartSnow® automation has resulted in well over 500 auto PoleCat and Wizzard fan and Viking SnowTower™ machines sold this year. SMI's flexible approach to automation accommodates lots of snowmaking solutions from on/off, to blended semi-automatic, to full automation of plant and snowguns controlled by fiber optic communications. And SMI's Low E Viking SnowTower continues to add resorts to the growing list of satisfied customers.

We have added more people and more production facilities to keep pace with the demands of the snowmaking industry, while continuously focusing our investments on our products and on our people.

Snowmaking trends are moving toward making more snow in shorter and more condensed time frames. Snowmaking temperatures are rising as well. Working with experienced and knowledgeable snowmaking resources can be most helpful in developing a quick opening, energy efficient snowmaking plan.

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SMI COVERS THE WORLD
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TECHNOLOGY :: LONGEVITY :: SERVICE

Carriage Lift Tower

The SMI® Carriage Lift Tower has been developed to meet the needs of customers wanting more flexibility for their snowmaking machines. Imagine a single piece of equipment that delivers the enhanced productivity of a tower, with the outstanding flexibility of a carriage mount! The SMI® Carriage Lift Tower now makes it possible to combine the advantages of both into ONE snowmaker!

Simply load an SMI® carriage fan gun onto the Carriage Lift Tower, secure it in place, hook up power and water, raise the machine and you're ready to go. It's that easy.

The SMI Carriage Lift Tower is 20 feet (6 m) high and constructed of hot dip galvanized steel. The 860 pound (390 kg) tower uses a winch motor and stainless steel cable to lift up to 3,200 lbs (1450 kg), while the built-in safety system ensures a secure operation.

The SMI Carriage Lift Tower is easy to install and simple to maintain and operate. Call SMI today or for more information, go to www.snowmakers.com/products/carriagelifttwr.html.

Carriage Lift Tower

Technology of Snowmaking:

Snowgun Choices and Selection Factors

There are lots of ways to convert water into snow. When developing their snowmaking plans, resorts should consider all of their options. Some water conversion options include newer technologies, some recycled older technologies, and some long time existing older technologies that continue to work today.

Today's snowmaking conversion methods can be defined by the following categories:

TRADITIONAL AIR/WATER.
- Uses more than 200 cfm (5.67 cmm) of compressed air per snowgun
- Internal mix nucleation
- Typical short tower or sled mount
- High energy and noise
- Good in marginal conditions with decent snow throw

LOW AND MODERATE ENERGY TOWERS.
- Uses less than 180 cfm (5.0 cmm) of compressed air per snowgun
- Typical 6m to 9m tower mount or 3m to 5m sled mount
- Internal or external mix nucleation
- Good energy usage
- Possible limited marginal and cold condition production
- Possible limited throw
- SMI's Viking at 20 cfm to 180 cfm

FANS.
- Simple nozzle PoleCats to multi-nozzle Wizzards
- Various carriage and tower mounts
- Excellent overall snow production
- Excellent throw
- Good energy usage and low noise levels

WATER STICKS.
- Water only towers that use additives for nucleation
- Decreased popularity due to limited marginal temperature production
- Limited throw
- Additive cost a factor

SNOWMAKING COSTS TO CONSIDER.
- Initial capital cost for equipment and system
- Energy costs
- Labor costs
- Maintenance costs
- Additive costs
- Transport costs
- Grooming costs to push snow out from piles

Viking SnowTower™

OTHER SNOWGUN SELECTION FACTORS.
- Snow production in various temperatures and humidity levels
- Throw
- Sensitivity to winds
- Ease of operation
- Noise
- Appearance – are towers acceptable
- Tower heights
- Tower positions - trail edge or middle
- Water pressure requirement

We encourage resorts to consider snowgun performance and snow quality under multiple conditions such as: in mild years, typical years, cold years, and under good wind and bad wind conditions. What type of spacing of snowguns is required to connect the piles? What types of throws versus trail widths are needed?

WHAT IS THE RANGE OF PERFORMANCE DIMENSIONS?
- On/Off only - Limited
- Simple – One water valve step
- Multiple – Multiple speeds and steps:
  - Adjust air and water
  - Multiple water adjustments
  - Complexity to adjust
- Snow Quality Issues

WHAT ARE NOZZLE CONFIGURATIONS FOR FLOW STEPS?
- What happens if the temperatures you use for snowmaking planning are raised or lowered 1 or 2 degrees?
- What happens to gun and system performance?
- Balancing temperatures, guns running and water is the objective

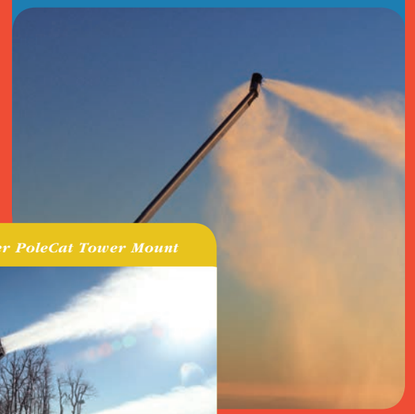
Be careful on using brochures to buy equipment that is normally demonstrated using different nozzles with way less flow. Nozzle selection and water pressure are the keys to most equipment flow rates.

As you can see, there are many factors that go into the snowgun selection process. We encourage you to educate yourself on as many parts of snowmaking as you can to help make a better informed decision.

Super Wizzard Carriage Mount

Super PoleCat Tower Mount

Viking SnowTower™



Super PoleCat Carriage Mount

Super PoleCat Tower Mount

Super PoleCat Carriage Mount

"The best way to predict the future is to create it."

Weather Volatility

Whether or not you believe in global warming and climate change, here are some facts to consider:

- 19 of the 20 hottest years have occurred since 1980.
- Worldwide temperatures have warmed one degree Celsius over the 20th century.
- More than 20% of the Polar Ice Cap has melted in the past 30 years. Climate change can result in more air pollution and problems with water supplies as precipitation patterns change. The effects are much greater at extreme latitudes on both ends of the earth and at higher elevations.

We don't know with certainty what the future will bring, but that doesn't mean you do nothing. Just the opposite. Develop a well thought out and logical plan for your resort.

Intelligent snowmaking investments will continue to help stabilize your mountain resort business. Adapting strategies and practices in anticipation of less natural snow, and less snowmaking time under the condition of higher snowmaking temperatures coming in smaller windows, will force your team to improve. The goal is to improve your energy intensity or the energy used per cubic foot of product produced.

As the famous scientist Pascal claimed,". . . given the possible outcomes, the upside of being prepared and ready for a fearsome event surely beats the alternative."

So, what can you do to improve snowmaking?

Consider the following:
- Secure water rights now.
- Add water supply and storage now.
- Invest in new snowgun technologies that are much more energy efficient.
- Add fans to wide trails to get 100% width, even in "bad years."
- Invest in automation for your plant.
- Invest in automation for snowguns and maybe hydrants as an option.
- Buy a good, reliable, fast-acting weather system like SMI's SmartSnow® using aspirated weather stations.
- Our industry theme for snowmaking should follow NSAA's policy to reduce, educate and advocate for change.
- Promote the fact that snowmaking returns over 80% of the water used. We are not consumptive. Stored water as snow during the winter saves it for future use in the spring.
- New snowmaking technologies have better water-to-snow conversion rates and are much more effective energy users.
- Snowmaking allows health and fitness benefits to millions in winter who go ou side and enjoy.

Weather volatility is here and is not going away, and our ability to forecast the weather remains difficult for more than about seven days out. Your continuing investment in snowmaking and working with companies like SMI that have experienced, talented people and products can only help improve your chances for success.

SmartSnow® Wisp Control Room

SmartSnow® Wisp Control Room

SmartSnow®

Solar Powered Weather Station

SmartSnow® Software & Control