

# Snow



# SMI NEWS

WINTER 2017 - 2018



# Editorial

Your SMI Snowmaking Team continues to grow and expand around the world. We now have SMI subsidiary companies in New Zealand, Austria, France, Sweden and China. Along with offices in Michigan, Pennsylvania, Nevada, Vermont and Wisconsin.

SMI is expanding our Pennsylvania Automation group to add 40% more factory and office space for our expanding technology group.

Let us help your resort with snow-

A long snowmaking theme we hear regularly is to add more water and more snowguns. Adding appropriate infrastructure for pipes, transformers, water supply and other requirements can drive investment costs quickly skyward. Your challenge remains providing the best snow at the optimal value for your guests.

Let SMI help you. Call your SMI Snow Makers representative today to discuss smart ways to make more snow for less money at your resort.



**Joe VanderKelen**

*President, Snow Machines, Inc.*

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making plans and strategies to intelligently expand into faster and more efficient water to snowmaking processes.



## Contents

**Snowmaking Successes:** 3-4

**Snow University:** 5-6

**Technology of Snow:** 7

**SMI Training:** 8

**Customer Story:** 9-10

**Featured Service:** 11-12

**Team Focus:** 13

**Vintage SnowNews:** 14

# Off the Hill

Hundreds of brand new Super PoleCats, Wizards and Super Pumas arrived timely all the way from the US to China to our SMI customers! Notice something different about these PoleCats?!



A customer of ours took the side pumper to a new level. Completely cordless and the customer can move the gun while sitting on his couch.



In last year's SnowNews we shared how we presented a customer with a Puma themed cake. This year, Beaver Creek visited our Headquarters for training and presented the team with a SMI themed cake Thanks again!



# SMI 2017 Photo Contest

You voted and our 2016/2017 photo contest winner was from Boston Mills/Brandywine Ski Resort. Make sure to submit to our 2017/2018 contest to win some swag!



## SMI 2017 - 2018 SNOWMAKING SUCCESSES

Turn Key Project: Treble Cone, Wanaka, New Zealand



SMI is proud to share our 2017 turn-key construction project at Treble Cone, New Zealand. The project included upgrades to the pump station, retrofitting valves and piping, and additional snowmaking to Upper Easy Rider. Newly installed snowmaking included 5 Super Pumas with vaults and SmartSnow 6.0 with Main Pumping integration. Thank you Treble Cone for choosing SMI again as your snowmaking partner.



### Additional 2017 Success Stories

**Granite Peak, WI**  
Added 19 fully automated Super Puma Towers, 11 Super PoleCat Towers, 9 Standard Polecat Towers and 2 Viking V2s to their fleet.

**Hakuba Happo-One, Japan**  
Added 11 Super PoleCats to their snow-making fleet. Although Japan receives over 400 inches of snow annually, the past winters have had late starts and this additional equipment will allow their resort to open earlier.

**Damüls, Austria**  
Added 10 Kid PoleCat Towers, 5 Super Puma carriages and 10 Auto Viking V2s to their fleet. SmartSnow software and 80% of on site pump stations were rebuilt as well.

**Snow Basin, UT**  
Added a new SMI system with 23 Super PoleCat Towers, 15 Super PoleCats on Delta Chassis and 6 Manual to Full Auto conversions. They also added state of the art SmartSnow 6.0 automation to control their new fleet.

**Crystal Mountain, WA**  
Added 28 Super Pumas with vaults and the latest SmartSnow 6.0 software to control both the snowmaking and pumping. 13,500 feet of cable and 15 Pedestals and hydrants were added to support the new system.

# SMI TEAMS FIRST TO FIRE UP AND FIRST TO OPEN



## Walles Snow Cross Track

SMI Snow Makers are the first guns to fire up in Sweden! The team at Walles Snow Cross Track in Bruksvallarna fired up in mid-October with the SMI Puma.

## Thaiwoo Ski Resort

Our Team in China is proud to share that Thaiwoo Ski Resort was the first to open in the region! This season, Thaiwoo added 67 Fully Automated Super PoleCats that integrated into their existing SmartSnow system. These upgrades allowed Thaiwoo to bring on the fire power when and where they needed it. Congratulations to the team in China on another successful project!



# SMI NEW EUROPEAN OFFICES

## SMI Snow Makers GmbH

SMI Snow Makers GmbH is the latest European facility created by SMI Snow Machines Inc. Founded in 2015, this company was created to provide



world-class service for our Austrian and German customers.

At this facility our team works with potential customers to design new

installations and build their snow making dreams.

The location holds full time employees and a warehouse for maintenance and parts stock to have items when customers need them.

Guenther Steindl leads the team and congratulations to the success and positive future in this part of the Alps.

## SMI Sweden

The Team at SMI Sweden has also moved into their new office at Frösön, Sweden. With over 2,000 m<sup>2</sup> of space, this team focuses on providing service and expertise in snowmaking planning and design in the Swedish market while housing spare parts to keep customer equipment up and running.



## SMI COVERS THE WORLD'S LONGEST SKI TUNNEL

**MidSweden 365 opened September 23rd, 2017 to become the world's longest ski tunnel in a mountain.**

The tunnel is located in the very middle of Sweden, Gallo in Jamtland county, and offers a unique skiing experience where the path extends deep inside the mountain. The course is hilly and has two classic tracks and a skate track. Even the biathlon course is in the tunnel with six lanes.

In order to provide a year-round ski experience, MidSweden 365 partnered with SMI Snow Makers to provide guidance in constructing the course. The venue has a year-round temperature of around -4 °C (25°F) but faces a warm mountain surface, making it difficult to retain snow. To

provide a cool base, the first layer provides insulation against the heat that the hill generates. On top of the base, are cooling coils installed in a bed of sand. The sand has been drowned in water that freezes together into a solid cake that SMI Standard Pumas cover with eight inches of snow. All together the tunnel requires 4,000m<sup>3</sup> or 141,250 ft of snow.

Every detail was planned such as the ventilation, which is automatically controlled by the carbon dioxide content in the air as air flow is needed to keep the temperature consistent.

Even the lighting was carefully selected with LED luminaires to not emit heat.

The arena offers 6 courses with 7 meters (23ft) of elevation and a maximum incline of 8 degrees. Designed for up to 1.4 km classic and skate tracks, the majority of the tunnel is about 8 meters wide. The arena is designed for 200 skaters and allows 2,000 visits per day or up to 730,000 annual visitors.

SMI is proud to help contribute to the success of MidSweden 365 and provide year round training to cross country athletes across Sweden.



# SNOW FARMING



The secret is out: how Snow Farming can be used to open earlier in an economic way.



Snow Farming is a method that enables the storage and conservation of produced snow from one season to the next. Using snow produced in the prior season to open earlier means that athletes in the region have a longer training season and can establish themselves as a top player in snow sports while being a more economical route for our customers.

Snow Makers has designed and installed three Snow Farms in Jamtland county in Sweden. The ski areas are located in Östersund, Bruksvallarna and Vålådalen. Östersund started its first snow-farming project in 2005. 60,000m<sup>3</sup> of produced snow is made every year from January to March and then covered

with a layer of saw dust for protection from sunshine and rain. Thanks to this innovative concept, these three ski arenas offer full length ski tracks from early October which is two months before temperatures would permit traditional snow making.

**All three snow farms use the new SMI Super Puma to produce the piles. The big throw from the Super Puma is perfect for creating high piles of snow that are appropriate for snow farming.**

But snow farming isn't the only solution that we provide these customers. Bruksvallarna, who utilizes snow farming to open earlier, also has the biggest snow system in the Nordic for cross country skiing. Last summer SMI Snow Makers installed 70 Axis and

Viking V2 sticks, a feeding pipe and a 500kW high pressure pump station. For this coming season Snow Makers just finished installing 2,400 km of pipeline and 80 Axis guns. All 80 guns are the new Axis Narrow Trail which is optimal for snow production throughout the season.



**Henrik Skoglund,**  
*Snow Makers AB*

# Technology of Snow

## NEW SMI MARGINAL NOZZLES



The SMI PoleCat family of Super, Standard and Kid products now has new nozzle sizes, providing even more flexibility in flow possibilities.

These new nozzles sizes include the 050, 058 and 063. Here is a summary table for SMI Nozzle sizes available and their flow rates:

WATER FLOW (GPM / LPM)						
Nozzles	300 psi	20 bar	400 psi	28 bar	500 psi	35 bar
50	1.1	4.2	1.3	4.9	1.4	5.3
58	1.5	5.7	1.7	6.4	1.9	7.2
63	2.5	9.4	2.8	10.6	3.2	12.1
78	2.7	10.2	3.1	11.7	3.5	13.2
92	4.8	18.1	5.5	20.8	6.2	23.4
125	6.5	24.6	7.5	28.4	8.4	31.8
140	9.1	34.4	10.3	38.9	11.7	44.2

To provide a better understanding, below are a few examples of how changing your nozzles can help with marginal snow production and flow rates:

- A Super PoleCat tower at 400 psi/28 bar traditionally has a steady flow with 10 nozzles at the 078 size of 31 gpm/117 lpm. If the always on nozzles are changed to 10x 058's then the flow drops to 17 gpm/ 64 lpm.
- Another example would be a Standard PoleCat tower could go from 19 gpm/ 72 lpm to 11 gpm/42 lpm.

These changes to smaller flow nozzles will increase the startup temperature and create drier snow across the performance range of the machine. The downside is decreased production across the full temperature range.

We hope you are thinking about flow rates versus snow quality when evaluating snow quality. We also encourage you to explore water nozzles in your snow-making equipment. Good nozzles and spray patterns are always important in snow making. Check your nozzles!



# SMI Training

## VEGAS TRAINING



Snow Machines Inc. recognizes the importance of having your equipment ready when you need it. Which is why it is important to provide your team with the tools and knowledge to deliver the performance required to succeed.

This past September, SMI hosted over 70 snowmakers from around the world in Las Vegas, NV at our 2017 SMI Service Clinic and brought in our expert staff from China, New Zealand and the United States. The clinic covered topics from machine service and maintenance to SMI automation.

Outside of the training, the attendees met and talked with snowmakers from around the world. Sharing best practices and tips and tricks.

SMI would like to thank everyone in attendance for their enthusiasm and positive spirit that made this event successful.



## INTERNATIONAL TRAINING



Never Stop learning! Always get better! SMI's training with new and old customers from dozens of resorts in magical Southwest China share experiences together. Where marginal conditions and super high tropical humidity converts this Panda's Forest land in some of the most difficult places to make snow on earth!



**Are you interested in having a customized training at your resort? Contact us for more information.**



# JEONGSEON ALPINE CENTRE PYEONGCHANG 2018



Honor. Glory. Fame. These words describe the Olympic athletes who bring home the Gold medal. But before the games start, large investments of time and money are required to host the games and medal the winners.

The region developed the Jeongseon Alpine Centre in the Gangwon Province to host the 2018 men's and women's alpine speed events of Downhill, Super-G and Downhill Combined Olympic Events this upcoming February. SMI Snow

Machines, Inc. is proud to have been selected as the exclusive snowmaking provider for the Jeongseon Alpine Centre Olympic venue, marking our seventh Olympic partnership to date.

Jeongseon, located on the Gariwang Mountain, is roughly 30km west of the Sea of Japan. Typically, the climate is cold and dry with little natural snow-

fall. In order to ensure enough snow for the Olympic events, the Centre enlisted the expertise of the Snow Machines, Inc. team to help develop a plan, oversee construction and provide industry leading snowmaking equipment.

The terrain at the Alpine Centre is very steep and rugged. From grading the slopes to determining gun location, every step was carefully examined. A total of 110 fully automated Super PoleCat Snowmakers, mounted on towers and carriages were determined to allow snow production in all areas. 10 mobile Kid PoleCats are also

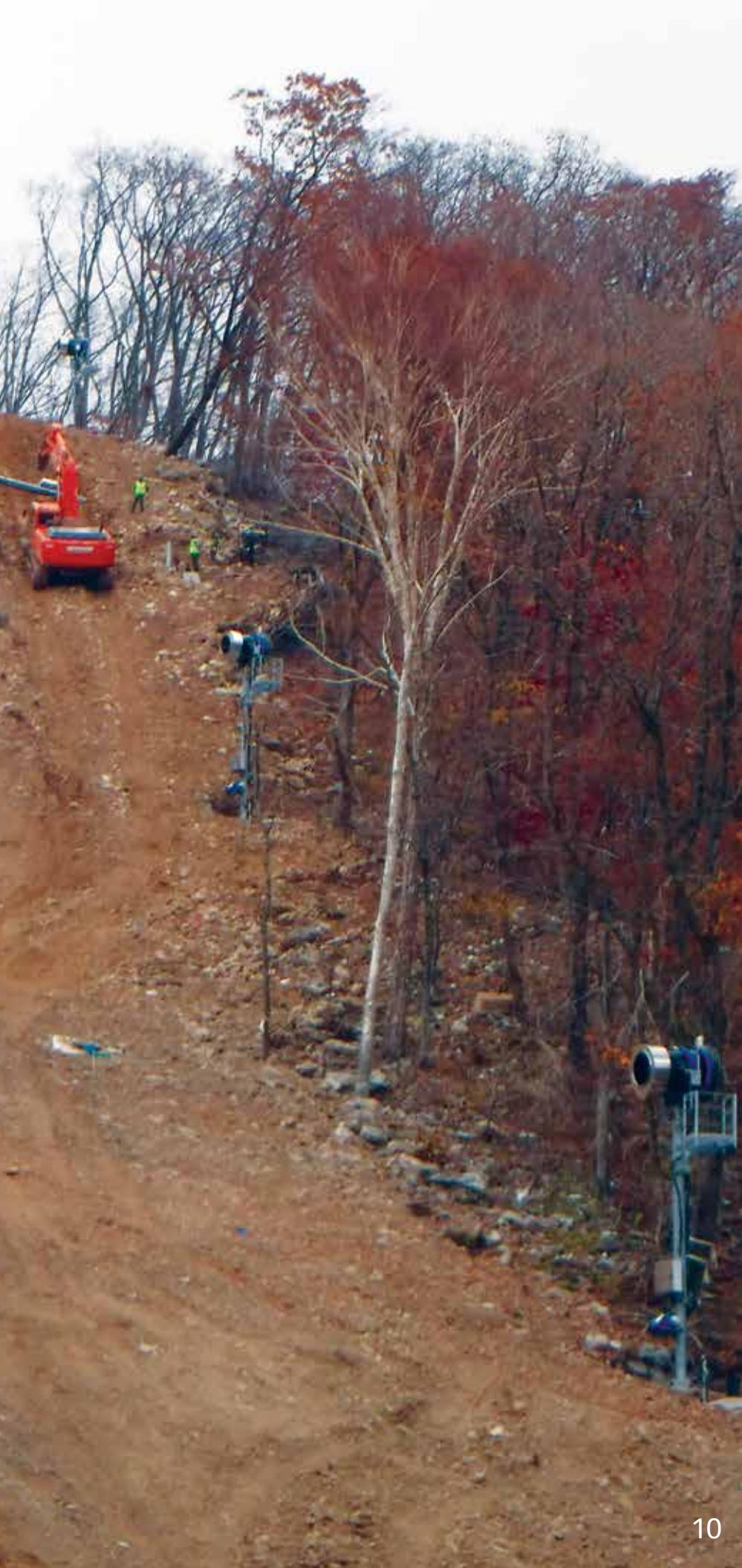
available for portable use around the mountain where needed.

The Jeongseon system features a fiber-optic back-bone. This infrastructure provides fast and reliable communications to each of the hardwired pods and portable radio snowguns and allows them to be interconnected in real time.

To support the system, a 128,000 cubic meter lined lake was construction with 510 cubic meters per hour of water cooling capacity. The water is supplied by a beautiful local river and water pumping of 850 cubic meters per hour was also supplied.

The entire snowmaking system is controlled by SMI's state of the art SmartSnow Automation software. From the pump house, the entire system and pumping can be controlled with the click of a mouse. The company's local partner R&R Trading assisted with the project and provided local support.

In January of 2016, the Jeongseon Alpine Center officially opened and hosted the first Olympic qualifying event for the 2018 Olympics. We are proud to again be chosen for the Winter Olympics, and look forward to cheering on the athletes.



# Featured Service

# SMI SMART PARTS

SMI is excited to launch our SmartParts portal. This portal offers our fan, stick, control panel, compressor and automation manuals so you have the information you need when and where you need it.

We have also added a request for quote feature with our top 100 parts. Have a part number that is not yet listed? Add it as a note to your quote and we will add it. It's as easy as that. For any questions or comments email brooke@snowmakers.com.



Register today at  
[snowmakers.com/  
smartparts](http://snowmakers.com/smartparts)

## OPERATING & PARTS MANUALS

1

### SMI Fan Snowmakers

- Super Puma & Puma Series
- Super PoleCat
- Standard PoleCat
- Silent PoleCat
- Kid PoleCat
- Super Wizard
- Kid Wizard
- PoleCat and Wizard Series Mobile Mounts
- Fixed Position Mounts
- Specialized Mounts
- Conversion Kit Documents
- Legacy Fan Snowmaker Documents

#### Operating & Parts Manuals

- [Fan Snowmakers](#)
- [Stick Snowmakers](#)
- [Control Panels](#)
- [Compressors](#)
- [Automation Gear](#)

Have a Part # that's not listed?

If you would like to request a quote for a part # that is not yet listed on SmartParts, include the part # and quantity in the "Add a Note" section at the bottom of the RFQ form\*

#### Search for part

Search for: Search products...

#### Part categories

Select a category:

2

### SMI Fan Snowmakers

- Super Puma & Puma Series
  - Puma Operating Manual
  - Puma Auto Valve Operating Manual
- FAN, SPRAY AND NUCLEATOR COMPONENTS
  - Super Puma Head Assembly
  - Puma Head Assembly
  - Puma Spray Manifold Assembly
  - Puma 1hp (4kW) Nucleator Nozzle
  - Puma 10hp (7.5kW) Nucleator Nozzle
- VALVE MANIFOLD COMPONENTS
  - Puma Auto Valve Assembly
  - Puma Valve 1 Sub-Assembly
  - Puma Valve 2 Sub-Assembly
  - Puma Valve 3 Sub-Assembly
  - Puma Valve 4 Sub-Assembly
  - Super Puma Water Hoses
  - Puma Water Hoses
- MOUNTS, OSCILLATION AND ACCESSORIES
  - Puma Enclosure Assembly
  - Puma Oscillator Assembly
  - Puma Chassis
  - Puma Chassis Drain Sub-assembly
  - Puma Tower Drain Block Assembly

#### Operating & Parts Manuals

- [Fan Snowmakers](#)
- [Stick Snowmakers](#)
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#### Search for part

Search products...

#### Part categories

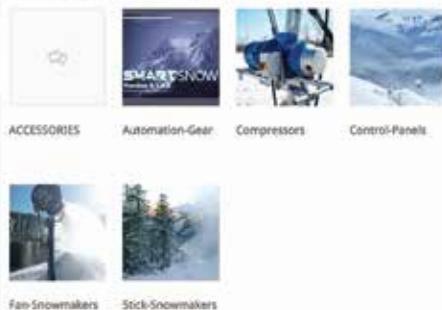
Select a category:

3



## REQUEST FOR QUOTE

### Request for Quote



#### Operating & Parts Manuals

- [Fan Snowmakers](#)
- [Stick Snowmakers](#)
- [Control Panels](#)
- [Compressors](#)
- [Automation Gear](#)

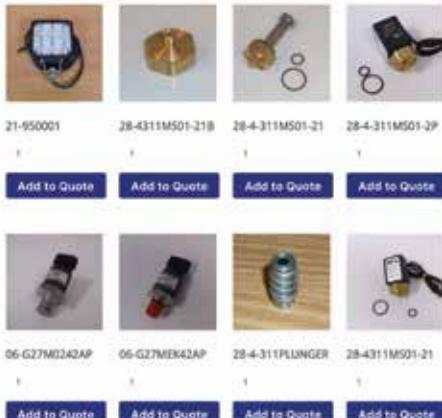
Have a Part # that's not listed?

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4

### Stick-Snowmakers

Showing all 9 results



#### Operating & Parts Manuals

- [Fan Snowmakers](#)
- [Stick Snowmakers](#)
- [Control Panels](#)
- [Compressors](#)
- [Automation Gear](#)

Have a Part # that's not listed?

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5



Manuals

Request for Quote

Profile

Products > Automation-Gear > Weather Station > 06-KPC3/9-S15



06-KPC3/9-S15

GALLTEC RH/TEMP -22F TO +158F

[Add to Quote](#)

Category: Weather Station

#### Operating & Parts Manuals

- [Fan Snowmakers](#)
- [Stick Snowmakers](#)
- [Control Panels](#)
- [Compressors](#)
- [Automation Gear](#)

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6



**Eric Haapala**  
Inside Sales & Parts Coordinator  
[parts@snowmakers.com](mailto:parts@snowmakers.com)

# Team Leader Focus

## GLENN GRASHIUS SERVICE TECHNICIAN

Based out of Reno, Nevada, Glenn has been a part of the SMI Team for over 7 years. Some of you may recognize him from stopping by your hill or have seen him at trade shows across the United States. I recently sat down with Glenn and asked him about his work at SMI.

**Q: Let's kick it off with giving us a little background on when you got started in the ski industry?**

**A:** I learned how to ski at Sky Tavern and when I got older I moved over to Mt. Rose. Mt. Rose was only 20 minutes from my house so I was there almost every weekend. It has been pretty cool since Mt. Rose has been ordering guns and it's like going home at that resort.

**Q: So what brought you to SMI?**

**A:** I realized when I was skiing how much I loved being in the mountains and enjoying snow. I figured out that I could make money being out there and started in the industry making snow at Loveland for 2 years. Then during the off season I would help Nic Horgan (one of SMI's western sales reps) out on the side whether it was watching demos or teaching basic maintenance. So that's how I slowly got started with SMI was with those odd jobs. I ended up enjoying it and became one of SMI's western sales techs when a spot opened up.

**Q: What's kept you with SMI?**

**A:** I've been off and on for like 7 years now, but this is my 4th year as a full-time employee. I've stuck around because I love the industry and the people.

What's fun about this job is that you never know when a curve ball is going to be thrown your way. For instance, Nic and I were going to check on a few guns at the top of Squaw at Gold Coast. We were only supposed to be gone for like an hour and of course I got a snowmobile stuck in the snow. It was freezing cold and an hour trip ended up taking 3 hours. By the time we got back down the mountain we were one big icicle and had a good laugh about it.

**Q: What are you most proud of?**

**A:** I think that I'm proud of meeting new people and acquiring new friendships. My goal is to give everyone a fair service. We don't charge people an arm and a leg and we try to help them and make their system as good as it can be. At the end of the day it's more than just selling a gun or a part, it's about the relationship and making sure that everyone walks away happy.

**Q: Outside of work what do you enjoy doing?**

**A:** I still love being up in the mountains... skiing, snowmobiling, hunting, etc. Pretty much anything outdoors. I love to be outside.

**Q: What's your dream?**

**A:** To stay on with SMI as long as I can. I love working for this company and I love this industry. It's a great job to have for a guy like myself so I'll be around as long as I can.



# Vintage SnowNews



# Snow News

A TIMELY NEWSLETTER FOR OWNERS AND OPERATORS  
OF SNOWMAKING EQUIPMENT HERE AND ABROAD



WINTER 1987



## Editorial

All areas in North America (except those in the Cascade Mountains, some in Colorado, and maybe a few others), many in Europe and most in Japan needed snowmaking to have good conditions for the Christmas holidays. Even Mammoth Mountain had snow problems in late December — and this only happens about once every 10 years, for crying out loud.

So here we go again. Skiing is absolutely dependent on SNOW. What good are lifts, lodging, ski patrol, ski instructors, parking, food, beverage without SNOW. Is your snowmaking adequate to cover what you want to cover, WHEN you want to cover it? Are your snow-

makers appreciated, loved, recognized? Maybe snow-making suppliers don't sell hard enough (could this be true?), or maybe you thought expansion was too expensive. But maybe a little creativity, some interesting financing and maybe help from the "locals" (who seem to cry the loudest when the mountain isn't open or SNOW is not "perfect") would make it possible for your area to get open early, stay open and have "great" conditions.

SMI will again take on a limited number of projects, but talk to them early!! An expansion for under \$12,000 per acre, a new system for under \$15,000 per acre (roughly 200 feet by 200 feet) is possible, sometimes for a lot less. There is no charge to talk to SMI who

has satisfied (repeat) clients all over the world. By working together a way can be found so you will have SNOW where, when and how you want it.



## SMI Has Another Record Year

1986 was an excellent year for SMI. After a "blip" in 1985 caused, we claim, by improper activities of a competitor, SMI's steady growth continued in 1986. With over 60% repeat business (for the 10th consecutive year), ex-

cellent products, fair pricing, and a team dedicated and committed only to snowmaking, SMI continues to be the world leader in snowmaking gun sales.

As a consultant AND supplier to the Calgary Olympics (in snowmaking SMI is the only one to do both), and the exclusive supplier to the Sarajevo Olympics, SMI's worldwide reputation for quality, service

and expertise has been enjoyed by over 300 ski areas on four continents.

Why not join those ski areas who are in the forefront of snowmaking technology and make your snowmaking system the state of the art by drawing on SMI knowledge?





Snow  
makers

WEATHER PROOF™

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