# Bucceri Snow Hybrid

**Including: The World's First 0°C (32F) Fog Snowmaker: Redefining Efficiency**

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# Bucceri Snow Hybrid: Technical Information Sheet

## 1. Product Overview:

The Bucceri Snow Hybrid is a patented, all-temperature snowmaking system designed to provide consistent, high-quality snow in a wide range of environmental conditions. It operates in three distinct modes, automatically transitioning based on ambient temperature.

## 2. Operational Modes:

- **All Temperature Mode (Ice System):**
    - Operates in temperatures above 0°C and designed and used for optimal snow quality in warmer conditions.
    - Utilizes a modular integrated ice-making system.
    - Employs a patented grinder/blower snow making machine for producing finely textured, high-quality snow that can be distributed up to 150 metres (475 feet) from source.
- **0°C Mode (Fog System):**
    - Operates at or around 0°C (32°F).
    - Combines a directed airflow, manmade super-cooled snow and a fine "fog" mist.
    - Maximizes heat transfer for efficient snow production at the critical 0°C range.
    - Uses a controlled airstream for particle deposition.
- **Sub-Zero Mode (Fan Gun):**
    - Operates below -3°C (27°F) wet bulb.
    - Functions as a traditional fan gun, utilizing a powerful fan, additional nozzles, and ice nuclei.
    - Designed for maximum snow output in cold temperatures, matching competitor fan gun performance when air/water and ice nuclei are prevalent.

## 3. Key Technical Features:

- Patented Grinder/Blower System: Ensures superior snow quality in plus temperature operation.
- Adjustable Manmade Snow Temperature: Allows for precise control of heat transfer and snow consistency in Fog mode.
- "Fog" Integration: Enhances heat transfer and ice crystal formation for efficient snow production.
- Controlled Airstream: Optimizes particle freezing and deposition.
- Automatic Mode Transition: Seamlessly switches between operational modes based on ambient temperature.
- High-Efficiency Nozzles: For optimal atomization and ice nuclei production.
- Robust Fan System: Delivers high-volume airflow for maximum snow output at freezing or at below freezing operations.
- Customizable Configurations: Machines can be tailored to specific output requirements and environmental conditions and come in smaller modules or containerized systems.

## 4. Performance Specifications:

- Snow production rates vary based on ambient temperature and operational mode.
- Energy consumption optimized for each operating mode.
- Water consumption optimized for each operating mode.
- Snow quality customizable through temperature and airflow adjustments.
- Same snow output as competitor fan guns in subzero mode when all elements are matched.

## 5. Advantages:

- All-temperature operation, eliminating the need for multiple snowmaking systems.
- Consistent, high-quality snow production across all temperature ranges.
- Increased efficiency and reduced operational costs.
- Adaptable to various terrain and weather conditions.
- Fills the gap between plus temperature ice production, and sub-zero fan gun technology.

## 6. Applications:

- Existing Ski resorts and Snow parks.
- New Existing Ski resorts and Snow parks.
- Indoor snow facilities.
- Snowmaking for vehicle and drone testing.
- Snowmaking for small or large winter events.

## 7. Maintenance:

- The modular construction of the Bucceri Hybrid Ice machine modules allows for simple maintenance procedures that are readily available to ensure optimal performance.
- Technicians are readily available all around the world to ensure that any issues with the machines are quickly resolved.
- Remote monitoring and diagnostics are available.

## 8. Patents:

- Patented grinder/blower system.
- Patented fog system.
- Patented Fan Gun System

# The Future of Snowmaking at Any temperature: Proven, Efficient, Reliable, and Affordable