

# NESSy Short

## New Energy-efficient Snowgun System

**The patented NESSy technology combines the latest scientific findings with proven snowtechnology and is the result of years of research and development. The system still stands for the basic technology of the highly efficient Bachler snow lances.**

Field tests, experiments in a climatic wind tunnel and detailed theoretical modeling made it possible to analyze, understand and massively optimize the technical snow production in its basic steps. The collaboration between the Institute of Thermal and Fluid Engineering at the University of Applied Sciences and Arts Northwestern Switzerland, the Swiss Federal Institute for Snow and Avalanche Research SLF Davos and Bachler laid the foundation for the new technology in the three-year research and development period.

The result is a snow head that uses up to 80% less compressed air, enables to start the snow production earlier and produces less noise. In the NESSy Short version, the snow head has 2 instead of 4 snowing levels and achieves maximum performance from  $-5^{\circ}$  WBT and produces up to  $24 \text{ m}^3$  per hour. As with the entire NESSy family, the limit temperature is  $-1.5^{\circ}$  WBT.



# Technical Specifications

Lance lengths	10 m, 8.5 m, 7 m, 5 m
Type of control	manual, automatic, fully automatic
Snowing levels	2
Weight incl. lifting device	135 kg (at 10 m Lance length)
Energy requirement	0.7 kW (central air), 1.5 kW (Onboard-Compressor)
Air supply	max. 150 NI/min at 10 bar
Water flow rate	52 to 180 l/min
Working pressure	10 - 60 bar
Throw	5 - 20 m
Noise level	61.2 dB at 20 m
Fast change system BTT	available, for optimized handling
Nozzle assembly	6 water- und 3 nucleator-nozzles
Start marginal temperature	-1.5° WBT
Maximum performance from	-5° WBT
Snowing performance	up to 24 m <sup>3</sup> /h
Specific snow weight	400 - 450 kg/m <sup>3</sup> , adjustable
Foundation	Pit constructions, Concrete- and Screw-Foundations, Mobile solutions
Retrofit/Conversion	easily possible, for existing Bachler lances as well for other providers

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