



**WESNOW
SNOWMAKING SYSTEM**

ULTIMATE 4

FOR SKI RESORTS

wesnow



4 Functions

Seventeen years of R&D and field experience enable WeSnow to present its snow-making solution

4 in 1 for ski resorts.

True to its commitments WeSnow offers today a technology that integrates 4 functions for snow production:

1 "ICS"
snow at positive
temperature

2 "SPS"
"Soft Powder Snow"
at negative temperature

3 "HRS"
recovery of the heat
energy from the machines

4 "CWA"
Cooling of water & air for
high pressure system



1. "ICS" snow at positive temperature

Since 2004, the WeSnow team has been perfecting the "ICS" Ice Crushed System technology.

"ICS" snow is obtained by freezing pure water, without any chemical additives, inside WeSnow machines.

The snow produced is very cold and very dry offering a very low TEL (Liquid Water Level). It can be used in its production without draining needs.

This snow production system offers a guarantee regardless of the weather conditions.

It is ideal for producing stocks intended for snow-making strategic areas such as "front de neige", beginner areas, children's play areas, returns to the resorts, links...

	WS70	WS100	WS130
Min. air temperature		-15°C	
Max. air temperature		+15°C	
Snow production min/24h*	43m ³	65m ³	86m ³
Snow production max/24h*	65m ³	97m ³	130m ³
Min. water flow	0,8 m ³ /h	1,2 m ³ /h	1,5 m ³ /h
Max. water flow	1,0 m ³ /h	1,5m ³ /h	2,0m ³ /h
Water temperature		+5°C	
Min. water inlet pressure		3,5 Bar	
Max. water inlet pressure		6,0 Bar	
Operation on mains water		Yes	
Operation on lake or collinear storage		Yes	
Number of distribution snow outlets	2	3	4
Outlet diameter		160 mm	
Total electrical power	105kW	157kW	209kW
Number of independent refrigeration units	2	3	4
Number of snow generators	6	9	12
General water supply diameter	DN25 (1")	DN25 (1")	DN32 (1"1/4)
Refrigerant		R449A	
Number of power supplies	1	to be defined (1 or 2)	to be defined (1 or 2)
Hot water production (operating +30°C/+35°C)	209kW	312kW	415kW
Hot water production (operating +50°C/+55°C)	31kW	45kW	62kW
Weight	8 500 kgs	14 000 kgs	17 000 kg
Dimensions (L x l x h)	6 036 x 2 436 x 2 930 mm	12 072 x 2 436 x 2 930 mm	12 072 x 2 436 x 2 930 mm
Power supply**	380/400V - 3Ph + N + PE - 50Hz		



(*) La quantité de neige produite peut varier en fonction des réglages de la machine, de la température extérieure, de l'hygrométrie extérieure et de la distance de convoyage.
 (***) other power supplies available on request (460/600V - 3Ph +PE - 60Hz)

2. "SPS" snow at negative temperature

ULTIMATE 4 incorporates the "SPS" option : Snow Powder System.

The WeSnow snow gun "ULTIMATE 4" is a response to the snow deficit caused by climate change. This is the future solution for snow-making in ski resorts. This option incorporates high-pressure pumps and air compressors that feed mono- or bi-fluid systems that allow the production of culture snow when temperatures become negative. For better conservation, this snow comes to accumulate on the snow heaps "ICS" made in positive temperature. This snow crop intended for strategic areas is produced in pre-season without starting snow plants.

This integration of traditional snow production allows a simplification of the networks.
Our Canadian partner HKD provides us with terminals: poles and fans of high reliability.

	SPS
Min. air temperature	-2°C
Min. water supply pressure	3,0 Bar
Max. water supply pressure	10,0 Bar
Min. water flow	200,0 l/min
Max. water flow	400,0 l/min
Min. water outlet pressure	25,0 Bar
Max. water outlet pressure	35,0 Bar
Airflow at 8Bar	7,3 m³/min
Airflow at 10Bar	6,5 m³/min
Total electrical power	30 à 75kW
Number of « snowgun » type equipment	2 to 4
Number of « fan » type equipment	1 to 2
General water supply diameter	DN80 (3")
Weight	2 325 kgs
Dimensions (L x l x h)	3 036 x 2 436 x 2 930 mm
Power supply*	380/400V - 3Ph + N + PE - 50Hz

(*) other power supplies available on request (460/600V - 3Ph +PE - 60Hz)



3. "HRS" energy recovery converted into heating

WeSnow snow guns offer the heat recovery option that is used for heating buildings at the bottom of the resorts.

WeSnow snow guns equipped with this option return energy in the form of a 35°C hot water loop.

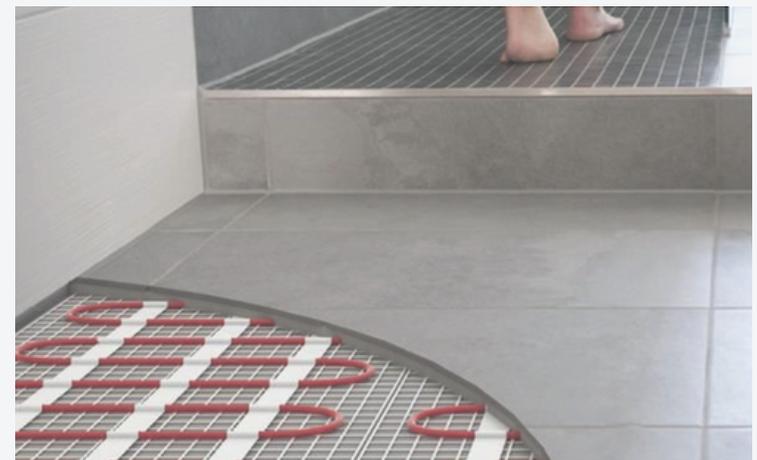
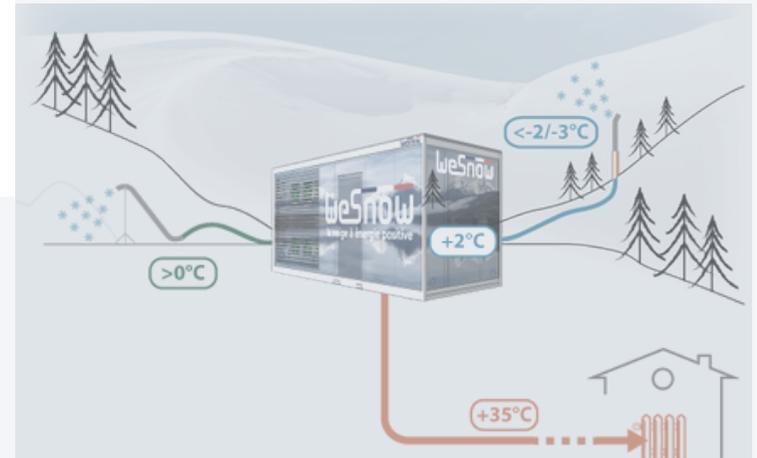
This device works on the principle of the heat pump (PAC).

The WeSnow technology has a performance coefficient of 2, so it gives back twice as much energy spent on heating as it uses for snow production.

It is free and virtuous energy.

This free energy is ideal for heating a spa centre.

The ski resorts that have opted for the WeSnow "ULTIMATE 4" technology guarantee the snowing of their "fronts de neige" and heat with the energy returned, some buildings located at the bottom of the slopes.



4. "CWA" cooling of water & air for high pressure system



"CWA" option : Cooling Water/Air.

When the snow gun produces in configuration "SPS" (snow culture in negative temperature), the cooling capacity of "ULTIMATE 4" is then used by the "CWA" option to cool the water to +2°C. This cooled water is distributed to the poles or fans in order to obtain an optimum yield at marginal temperature.

	CWA
Number of independent refrigeration units	2
Water cooling capacity	83 à 166kW
Reducing the water inlet temperature	-6°C
Air cooling capacity	3 à 6kW
Water outlet temperature	5,0°C
Total electrical power	42 à 85kW
Module empty weight	950 kgs
Dimensions (L x l x h)	Included in the SPS module
Power supply*	380/400V - 3Ph + N + PE - 50Hz
(*) other power supplies available on request (460/600V - 3Ph +PE - 60Hz)	



Smart-Vision

"ULTIMATE 4" incorporates the "Smart-Vision". This is the management interface developed by WeSnow.

The WeSnow "Smart-Vision" allows easy and intuitive local and remote access over the Internet.

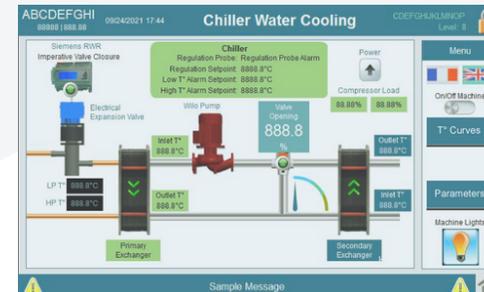
It allows you to easily select the production method, adjust the temperature of water and air, program production ranges...

"Smart-Vision" helps establish a remote diagnosis and facilitates general maintenance.

Connected by a web server, "Smart-Vision" allows remote control of snow production setups.

This interface calculates water and energy consumption.

It is an indispensable tool for optimising snowmaking.



Snowmaking system 4 fonctions



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