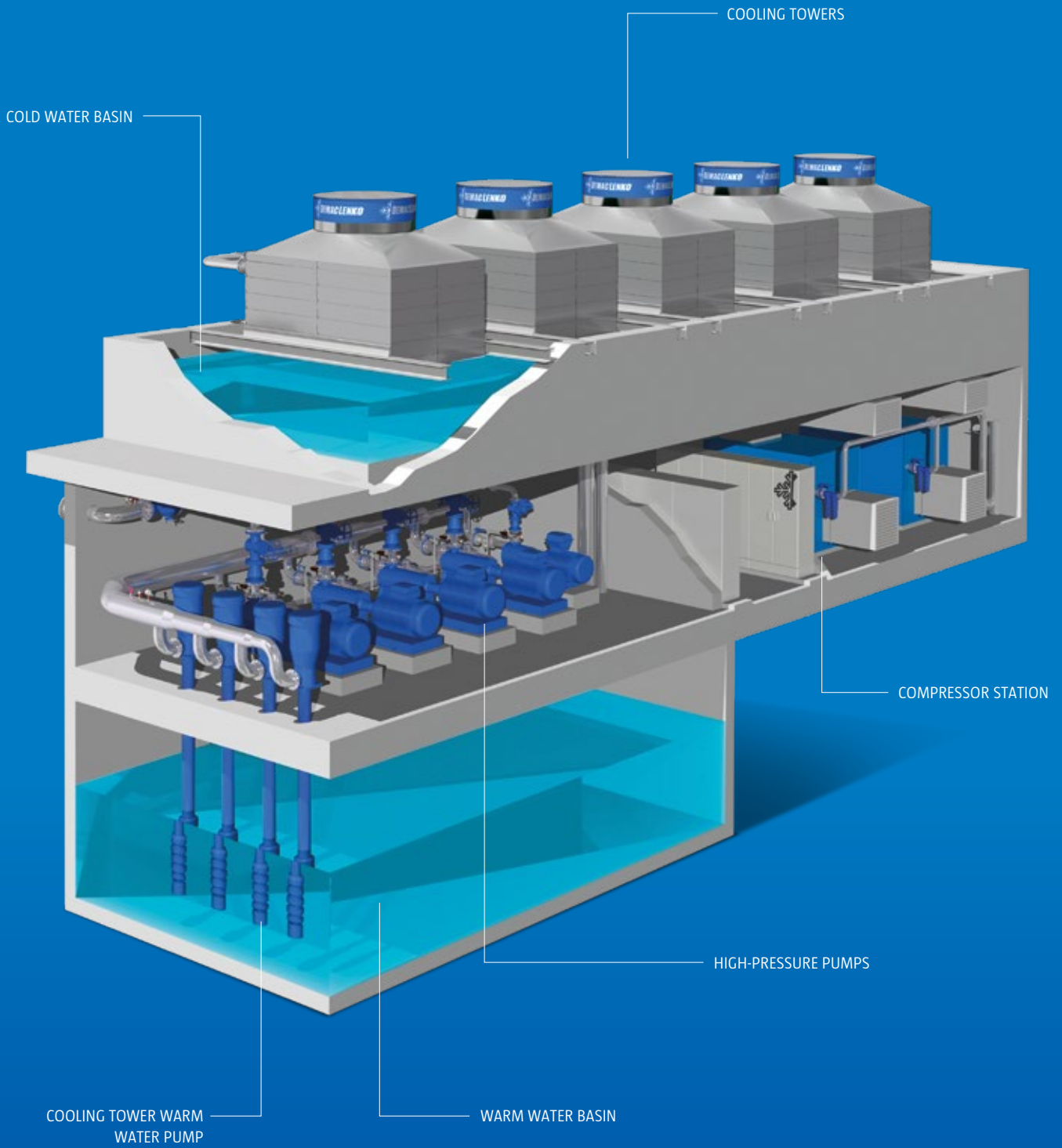


# COOLING SYSTEM





# IDEAL WATER TEMPERATURE FOR EFFICIENT SNOW MAKING

## **COOLING SYSTEM**

A cooling system lowers the water temperature and increases the efficiency of the snowmaking system. The colder water enhances snow production and the snowguns' efficiency, therefore optimising energy efficiency. The solutions developed by Demaclenko, such as the layout and positioning of the cooling towers close to the basin, have proven their effectiveness in all systems around the world.

## **TECHNICAL HIGHLIGHTS**

- > The cooling towers can be modular extended in order to suit every system
- > Water flow rate from 15 l/s (238 gpm) to 80 l/s (1,268 gpm) each unit
- > Ventilation through axial fan protected by a steel wire grid
- > All components have been developed in order to withstand extreme ambient temperature
- > A selective heating system guarantees that the cooling fan works perfectly
- > Maintenance-free operation
- > Electronics and control via the pumping station





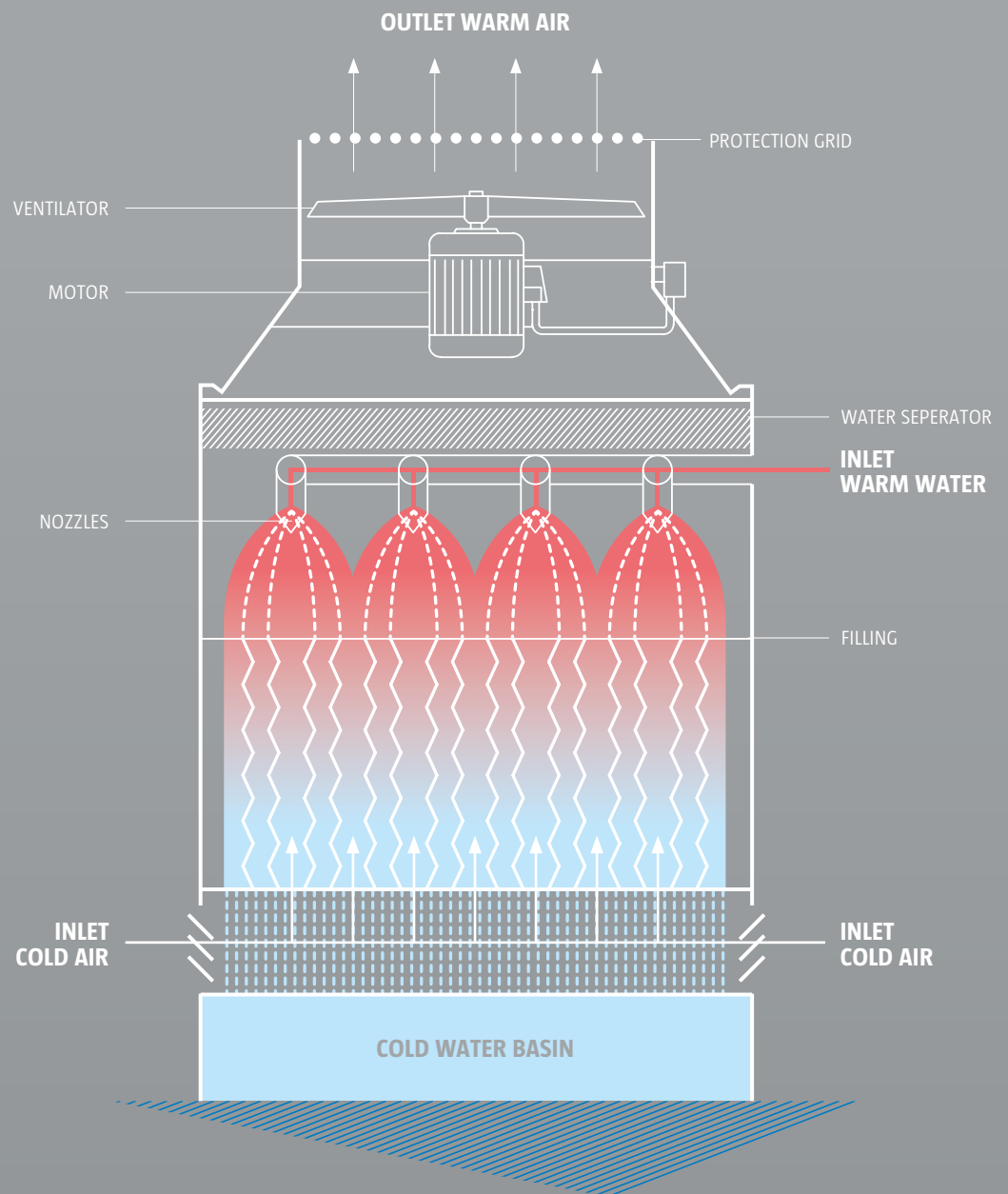
# ***COOLING SYSTEM***

KEY FACTOR AT  
**MARGINAL TEMPERATURES**

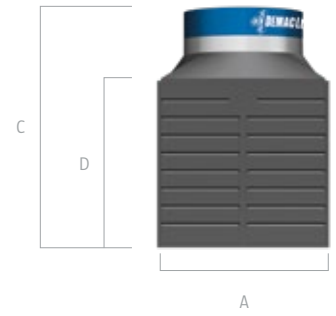


# HIGHLIGHTS

- 1 **AXIAL FAN** with pitch control and low rotation speed for noise reduction
- 2 **HIGH EFFICIENCY DRIFT ELIMINATOR**
- 3 **BLOCKAGE FREE NOZZLE DISTRIBUTION SYSTEM**
- 4 **HEATING ANTIFREEZING ELEMENTS**
- 5 **SPEED CONTROLLED ASYNCHRONOUS MOTOR** with special anticondensate resistor



# TECHNICAL DATA



## SINGLE TOWER COOLING SYSTEM

	FS	HS	LS	PS	RS
Water flow rate (l/s / gpm)	<b>7,5 / 119</b>	<b>15 / 238</b>	<b>20 / 317</b>	<b>25 / 396</b>	<b>30 / 476</b>
- Inlet temperature (C / F)	<b>7° / 44.6°</b>	<b>7° / 44.6°</b>	<b>7° / 44.6°</b>	<b>7° / 44.6°</b>	<b>7° / 44.6°</b>
- Outlet temperature (C / F)	<b>1° / 33.8°</b>	<b>1° / 33.8°</b>	<b>1° / 33.8°</b>	<b>11° / 33.8°</b>	<b>1° / 33.8°</b>
Wet bulb temperature (C / F)	<b>-5° / 23°</b>	<b>-5° / 23°</b>	<b>-5° / 23°</b>	<b>-5° / 23°</b>	<b>-5° / 23°</b>
Thermic power (kcal / h)	<b>162.000</b>	<b>324.000</b>	<b>432.000</b>	<b>540.000</b>	<b>648.000</b>
Electric power (kW / HP)	<b>4 / 5.4</b>	<b>11 / 14.7</b>	<b>11 / 14.7</b>	<b>15 / 20.1</b>	<b>15 / 20.1</b>

## DOUBLE TOWER COOLING SYSTEM

	LD	PD	RD
Water flow rate (l/s / gpm)	<b>40 / 634</b>	<b>50 / 793</b>	<b>60 / 951</b>
- Inlet temperature (C / F)	<b>7° / 44.6</b>	<b>7° / 44.6</b>	<b>7° / 44.6</b>
- Outlet temperature (C / F)	<b>1° / 33.8°</b>	<b>1° / 33.8°</b>	<b>1° / 33.8°</b>
Wet bulb temperature (C / F)	<b>-5° / 23°</b>	<b>-5° / 23°</b>	<b>-5° / 23°</b>
Thermic power (kcal / h)	<b>864.000</b>	<b>1.080.000</b>	<b>1.296.000</b>
Electric power (kW / HP)	<b>22 / 29.5</b>	<b>30 / 40.2</b>	<b>30 / 40.2</b>

## TRIPLE TOWER COOLING SYSTEM

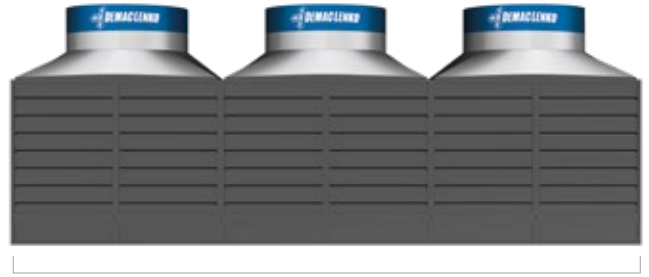
	NT	PT
Water flow rate (l/s / gpm)	<b>70 / 1,109</b>	<b>80 / 1,268</b>
- Inlet temperature (C / F)	<b>7° / 44.6</b>	<b>7° / 44.6</b>
- Outlet temperature (C / F)	<b>1° / 33.8°</b>	<b>1° / 33.8°</b>
Wet bulb temperature (C / F)	<b>-5° / 23°</b>	<b>-5° / 23°</b>
Thermic power (kcal / h)	<b>1.500.000</b>	<b>1.710.000</b>
Electric power (kW / HP)	<b>45 / 60.3</b>	<b>45 / 60.3</b>



B SINGLE TOWER



B DOUBLE TOWER



B TRIPLE TOWER

	FS	HS	LS	PS	RS
Weight loadless (kg / lbs)	<b>590 / 1,300</b>	<b>1.370 / 3,020</b>	<b>1.635 / 3,605</b>	<b>1.960 / 4,321</b>	<b>2.300 / 5,071</b>
Weight operating (kg / lbs)	<b>900 / 1,984</b>	<b>2.550 / 5,622</b>	<b>3.050 / 6,724</b>	<b>3.700 / 8,157</b>	<b>4.600 / 10,141</b>
Height D (mm / ft)	<b>2.050 / 6.9</b>	<b>2.050 / 6.9</b>	<b>2.050 / 6.9</b>	<b>2.050 / 6.9</b>	<b>2.050 / 6.9</b>
Height total C (mm / ft)	<b>2.350 / 7.7</b>	<b>3.050 / 10</b>	<b>3.050 / 10</b>	<b>3.100 / 10.2</b>	<b>3.150 / 10.4</b>
Width B (mm / ft)	<b>1.820 / 6</b>	<b>2.220 / 7.3</b>	<b>2.220 / 7 ft 3</b>	<b>2.420 / 7.11</b>	<b>2.420 / 7.11</b>
Lenght A (mm / ft)	<b>1.820 / 6</b>	<b>2.420 / 7.11</b>	<b>2.920 / 9 ft 7</b>	<b>3.320 / 10.11</b>	<b>4.220 / 14.6</b>

	LD	PD	RD
Weight loadless (kg / lbs)	<b>3.050 / 6,724</b>	<b>3.635 / 8,014</b>	<b>4.390 / 9,678</b>
Weight operating (kg / lbs)	<b>5.880 / 12,963</b>	<b>7.140 / 15,741</b>	<b>8.790 / 19,379</b>
Height D (mm / ft)	<b>2.050 / 6.9</b>	<b>2.050 / 6.9</b>	<b>2.050 / 6.9</b>
Height total C (mm / ft)	<b>3.050 / 10</b>	<b>3.100 / 10.2</b>	<b>3.150 / 10.4</b>
Width B (mm / ft)	<b>2.220 / 7.3</b>	<b>2.420 / 7.11</b>	<b>2.420 / 7.11</b>
Lenght A (mm / ft)	<b>5.840 / 19 2</b>	<b>6.640 / 21 9</b>	<b>8.440 / 29</b>

	NT	PT
Weight loadless (kg / lbs)	<b>4.200 / 9,260</b>	<b>4.650 / 10,251</b>
Weight operating (kg / lbs)	<b>7.750 / 17,085</b>	<b>8.580 / 18,915</b>
Height D (mm / ft)	<b>2.050 / 6.9</b>	<b>2.050 / 6.9in)</b>
Height total C (mm / ft)	<b>3.150 / 10.4</b>	<b>3.150 / 10.4in)</b>
Width B (mm / ft)	<b>2.420 / 7.11</b>	<b>2.420 / 7.11in)</b>
Lenght A (mm / ft)	<b>9.000 / 29.6</b>	<b>9.900 / 32.6</b>

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