

# **Coolnet®-Application Recommendations**

#### Cooling with Netafim Coolnet®

- Netafim has developed a unique emitter, which sprays droplets of 30-90µ at a standard irrigation pressure of 3-4 Bars.
- Cooling effect is being achieved through water evaporation into the air, a process that absorbs 560 calories per each gram of water.
- Coolnets® are spread for maximum distribution effectiveness. A sensor determines activation temperature whereas a programmer is activates the units for short pulses followed by evaporation intervals.
- Length of pulse and interval are subject to local conditions such as external temperature, humidity, size and type of construction and crop.
- In order to maximize the cooling effect, exhaust-fans are recommended in order to exchange the air about 20 times per hour (about 2x48" fans per 1000 M<sup>2</sup>).

#### Humidifying with Netafim Coolnet®

- Using an identical technique as in the cooling, Coolnet® could serve as a humidifier.
- Several crops require elevation of humidity in the air with or without wetting the vegetation. Working with identical pulse technique provides here identical results.
- In heated greenhouses, where air is dry due to the heating system, in mushroom habitats, Tropical pot nurseries etc, the Coolnet® humidifies perfectly.

#### **Rooting with Netafim Coolnet®**

 Rooting cuttings and shoots requires highly precise humidified environment. Coolnet® is perfect for this purpose.









### **Technical information**

Configuration	Flow rate	Flow rate	Flow rate	Nozzle	Matorial
	At 3 Bar At 4 Bar		At 5 Bar	Size mm	Material
Single 1x7	<b>6.75</b> L/H	<b>7.5</b> L/H	<b>8.5</b> L/H	<b>0.62</b> mm	AA*
Tee 2x7	<b>13.5</b> L/H	<b>15</b> L/H	<b>17</b> L/H	<b>0.62</b> mm	AA*
Cross 4x7	<b>27</b> L/H	<b>30</b> L/H	<b>34</b> L/H	<b>0.62</b> mm	AA*
Single 1x16		<b>16</b> L/H			AA*
Tee 2x16		<b>32</b> L/H			AA*
Cross 4x16		<b>64</b> L/H			AA*

AA\* Anti Acid Gray Nylon based Plastics

## **General Application Recommendations:**

		Mts.	Mts.	Mts.	Mts.	Mts.	Mts.
Dist between units		1.00	1.50	2.00	3.00	2.00	3.00
Dist between lines		2.00	3.20	3.00	3.00	4.00	4.00
Units per 1000 M <sup>2</sup>		500	208	167	111	125	83
Single Coolnet 1X7.5 L/H	Pulse*	3	5	10	20	30	40
	Interval*	50	30	50	60	111	85
Tee Coolnet 2X7.5 L/H	Pulse*	2	5	10	20	30	40
	Interval*	70	70	115	145	251	210
Cross Coolnet 4X7.5 L/H	Pulse*	1	3	5	10	20	30
	Interval*	74	91	120	150	355	345

\*Pulse- Duration of operation in seconds, Interval- Duration of pause in seconds

- These recommendations are general and should be applied in accordance with local conditions and limitations.
- Duration of pulse and interval is to be finally tuned according to local conditions (i.e.- trial and error)
- Try to maximize length of pulse while making intervals sufficiently long to enable proper vaporization.
- For cooling, make sure there is proper air exchange either natural or with fans.
- For crops that are not sensitive for getting wet, pressure could be dropped down to 2-3 Bar and length of pulses and intervals could be prolonged.