

# ***LUBING*** *GreenTec*

## ***Top-Climate-Systems*** *for greenhouses*



*Cooling and humidifying  
without any formation of drops*

# At a glance: LUBING GreenTec Top-Climate-Systems

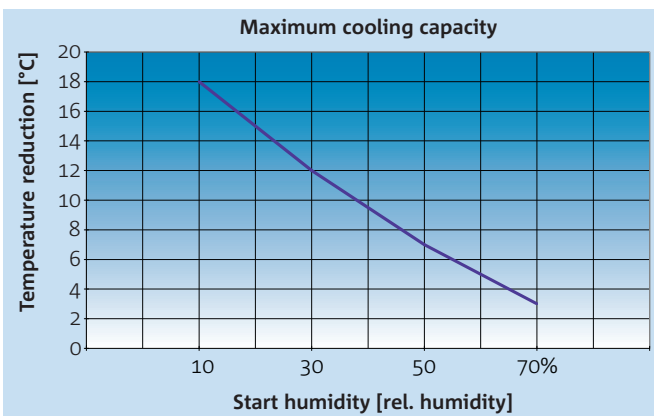
**The Principle:** The LUBING Top-Climate-System was developed for the effective cooling and humidification of ambient air. Water at a pressure of 70 bar is supplied to the air as fog via high-pressure nozzles. The fog evaporates and withdraws heat energy from the air so that two effects can be achieved simultaneously: Cooling and humidification.

**Cooling:** Cooling the air in summer can achieve higher cooling capacities with an adapted ventilation rate. The droplet sizes of the mist must be smaller than 20 micrometers for good cooling performance, so that they can evaporate quickly. At our system we work with nozzles that produce droplets of less than 5 micrometers for optimum cooling performance.

**Humidification:** The Top-Climate-System can be used to increase humidity, especially in summer when the supply air has low humidity. A stable air humidity in the greenhouse helps the plants to keep the stomata open, which serves for a stable nutrient supply of the plant. In addition, dry heating air can be humidified in winter, thus reducing the air rate and reducing the exchange of heated air and CO<sub>2</sub>.

## Maximum Cooling capacity

Start temperature	36°C	36°C	36°C	36°C
Start humidity	10%	30%	50%	70%
End temperature	18°C	24°C	29°C	33°C
End humidity	85%	85%	85%	85%
Cooling capacity	18°C	12°C	7°C	3°C



**For further information:**

[www.lubing-greentec.com](http://www.lubing-greentec.com)

Technical modifications reserved.

## Your advantages:

- Yield in crease
- Reduction of irrigation
- Reduction of energy costs
- Cooling effect
- Easy to install
- Homogeneous distribution of moisture
- Small drops - less than 5 microns
- Possibility to control greenhouse areas separately

## Components:



**Pump unit** D-Line with direct drive.



**Touch Controller:** The interactive controller for the control and monitoring of the pump unit.



**Filter unit:** Central filter unit for particle-free water.



**Nozzle line** with stainless steel nozzles.



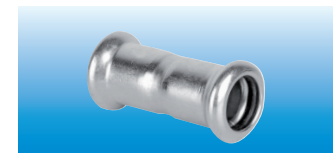
**Nozzle:** Stainless steel tube (6 m) with welded adapter and stainless steel nozzle.



**Valve** Solenoid valve for separate activation of different areas.



**Cutting ring coupling** made of stainless steel for secure connection of the nozzle lines.



**Press fix** is a joint unit made of stainless steel. Just set in and press to fit.

## Pump types:

### Flow rate

- 5 l/min. (60 nozzles)
- 12 l/min. (150 nozzles)
- 21 l/min. (250 nozzles)
- 30 l/min. (350 nozzles)

Other pump sizes on request.



# LUBING GreenTec

LUBING Maschinenfabrik GmbH & Co. KG

Lubingstraße 6 · 49406 Barnstorf (Germany)

Tel.: +49 (0) 54 42 - 98 79-0 · Fax: +49 (0) 54 42 - 98 79-33

[www.lubing-greentec.com](http://www.lubing-greentec.com) · [info@lubing-greentec.com](mailto:info@lubing-greentec.com)

**Climate-Systems**  
**Conveyor-Systems**