

NEW LOW PRESSURE PNEUMATIC SYSTEM FOR EVAPORATIVE COOLING APPLICATIONS

Ingeniatics' proprietary technology, **Flow Blurring**, has proven to be **the most energy efficient pneumatic technology** that there it exists when it comes to generating fine aerosols. Using low pressures, it can nebulize water jets into tiny droplets of less than 15 microns in diameter. For instance, every nozzle can atomize either a jet of 1 lph using less than 2 bars or a larger one of 18 lph with approximately 3'5 bars.

Apart from this main advantage, its radically new perspective to the atomization problem results in some other important advantages that can be listed as follows:

- Much **cheaper system components** (namely pumps, pipes, connections and nozzles) when compared to those in the high pressure systems.
- Much **higher robustness** of the system as a whole → on the one hand, the lower pressure puts the system into much less stressful conditions; on the other hand, the much wider orifice used in Ingeniatics' nozzles makes them much stronger against the risk of clogging.
- **Modularity** → The system makes it feasible to control in real time the flow rate of atomized water into the ambience. Thus, in a very reliable way humidity and cooling can be kept within the desired margins.
- **Cleanable** → The Flow Blurring technology allows the system to be designed so that it can be emptied out and cleaned after every use in order to prevent the installation from potential hygienic problems.
- **No white dust effect** → high pressure systems generate what is commonly known as white dust effect. The aerosol beams become a kind of an opaque fog which is said to be found unpleasant by users. Ingeniatics' evaporative cooling technology does not have such effect.
- **No final jet "spiting"** → high pressure systems tend to "spit" a final short water jet when they are shut down as a result of the decrease in pressure. This issue makes the system unfit to many applications where these "short jets" may fall from above people who would probably feel uncomfortable with it.



EVAPORATIVE COOLING with FLOW-BLURRING TECHNOLOGY

