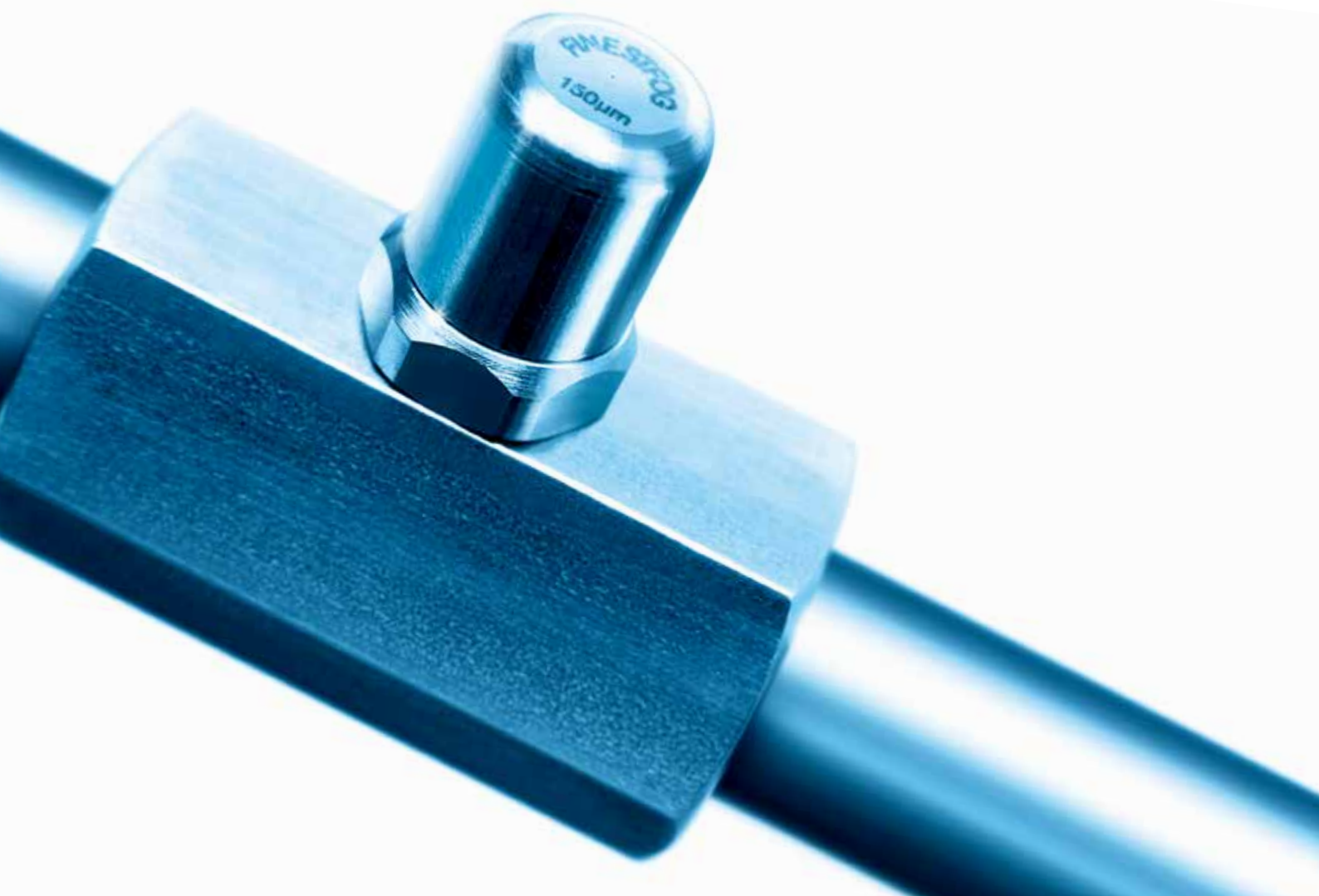


HUMIDIFICATION

 **FINESTFOG**[®]
AIR + WATER



FINESTFOG climate control for every type of building

High-pressure air humidification "Made in Germany" for industry and trade.

- Automotive
- Printing
- Painting and coating
- Wood processing
- Electronics
- Textile production
- Food processing

Innovation "Made in Germany": FINESTFOG high-pressure systems atomize water directly. Directly means no detours via compressed air or fans. This allows for efficient humidification of virtually any room volume. Healthy humidity levels can be provided in up to eight different zones via a fully automated control unit, if necessary via air conditioning or air intake systems. Hour meter, service display, hose rupture protection and many other features guarantee safety, reliability and longevity. Over 1300 FINESTFOG systems have been installed in Europe to date.



Improve manufacturing quality

Material shrinkage, quality drop-off, electrostatic charge – accompanied by machine stoppages or high wastage – are indications of insufficient air humidity. Especially in winter, heating and dry outside air tend to lower humidity inside to a worrying level. A FINESTFOG air humidification system keeps air humidity constant at about 50% relative humidity. Electrostatic charge is dissipated. Hygroscopic materials such as wood, paper and textiles can be processed more easily and precisely.

Reduce ill-health and absenteeism

Tiredness, lack of concentration, dry mucous membranes, a weakened immune system – dry indoor air makes people sick. FINESTFOG air humidification binds the fine dust in the air. A controlled room climate is not only important in production areas, but also in offices, showrooms or conference rooms. FINESTFOG air humidification systems are VDE- and CE-tested and comply with VDI 6022 standards. A recognized hygiene certificate has also been issued.

Save energy while cooling

High-pressure humidification always goes hand in hand with cooling; at the same time it's an extremely energy-efficient method of cooling. This is because adiabatic cooling exploits a quirk of nature: water changes its aggregate state when it is atomized. The energy required for this is extracted from the air, so that the air cools down. FINESTFOG systems are used to reduce temperature peaks. In heat-intensive production areas, the temperature can be lowered by as much as 5°C.

The FINESTFOG nozzle

The hand-finished original.

The FINESTFOG single-medium nozzle is the heart of every FINESTFOG system. Crafted from high-quality stainless steel and hand finished, each nozzle is engraved to identify it as designed and produced exclusively by FINESTFOG. The ingenious inner workings and a special bore together result in the unique atomization pattern. Without carrier air and almost noiselessly, the nozzle atomizes water into finest aerosols capable of being rapidly taken up by the air. A check spring reliably prevents water dripping. An optional swivel joint points the nozzle into any direction.

Before installation, FINESTFOG advisors will analyse and compute the humidification performance required. Depending on the size and height of the room and the available space, they will recommend one of four specialized nozzles. The different nozzle inserts and nozzle bores ensure that humidification performance will be precisely tailored to requirements. FINESTFOG high-pressure nozzles operate as successfully in low-ceilinged open-plan offices as in lofty production halls or integrated in powerful ventilation systems.



100 µm
1.5 liter/h



150 µm
3.2 liter/h



200 µm
5.4 liter/h



250 µm
8.0 liter/h



The FINESTFOG control unit

Precision control in focus.

The FINESTFOG control unit can be customized for every application. The choice ranges from a PLC and display all the way to a Siemens SPS S7 1200 with a colour Siemens Comfort touchscreen.

The fully automated FINESTFOG Premium Single and Twin (below right) serve one or two zones and can handle up to 250 l/h of pressurized water.

The FINESTFOG Premium 7 (below right) serves up to eight zones and can handle up to 700 l/h of pressurized water.

The FINESTFOG control unit also has the capability to integrate a reverse osmosis system.



Only high-end components are built into FINESTFOG controllers. The Comfort touchscreen gives an immediate overview of the operating state of the whole humidification system.



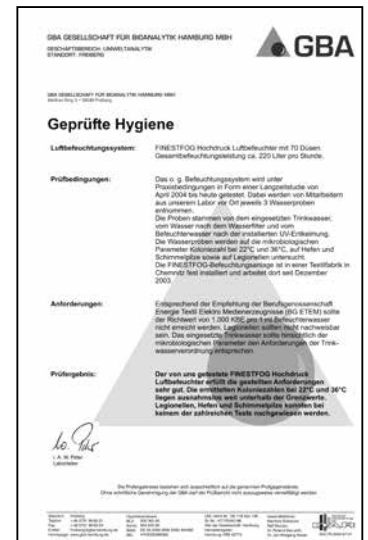
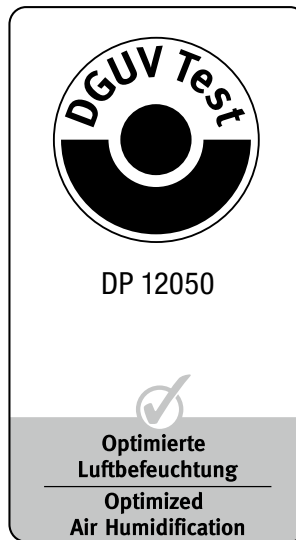
Optimal hygiene – lowest energy input

Healthy air humidity that makes economic sense.

Hygiene

The FINESTFOG hygiene concept is unique. The combination of FINESTFOG water conditioning and UV sterilization ensures the purity of humidifier water. Flushing cycles and hygiene switch-off complete an optimal set of safety features. Various marks and certificates awarded to FINESTFOG systems provide ample proof:

- > Certification mark DGUV Test Optimized Air Humidification from the Deutsche Gesetzliche Unfallversicherung (DGUV), initiated by the ETEM trade association. Hygiene analyses by the Fresenius Institut in Taunusstein Germany.
- > Test certificate GS – Geprüfte Sicherheit, also issued by the DGUV.
- > Hygiene certificate after long-term testing (since 2004) by the Gesellschaft für Bioanalytik Hamburg mbH (GBA).



Energy balance

90% energy savings. FINESTFOG single-medium nozzles atomize water at high pressure. No detours via expensive compressed air, fans or other auxiliary systems.

Comparison

Example: A FINESTFOG high-pressure system atomizes 100 l of water in an hour. Electrical power consumption is approx. 0.5kW. For the same humidification performance dual-medium nozzles (compressed air) require approx. 7.6kW. A steam humidifier would require as much as 80kW of electrical power.

