



HYGIENE AND SERVICE

The DRAABE water treatment system Pur



 **condair**
systems

THE BENEFITS TO YOU

THE DRAABE SYSTEM PUR

Innovative technology and outstanding ease of maintenance have made the DRAABE solutions the world's leading systems for direct room air humidification. Thanks to the modular design and combinability of DRAABE systems, along with our full-service approach, hygiene, efficiency and the highest technical standards at all times are guaranteed.



The modular exchange system

All DRAABE systems can be dismantled and replaced in seconds. This unique exchange system guarantees 100% reliability and cost-effectiveness.

100% hygiene and reliability

Pure water systems are always subject to considerable wear. The accumulation of substances in the water and its gradual contamination is unavoidable. Full performance and the required quality of the pure water can only be achieved through regular preventive maintenance and disinfection. That's why all DRAABE Pur systems are installed in modern, portable small containers. These containers can be disconnected from the wall bracket and exchanged in a few simple steps.

The full-service rental system

Thanks to the full-service rental system, the DRAABE Pur systems are automatically maintained every six months. Every 6-8 months, users of DRAABE air humidification receive a fully inspected and disinfected replacement device without having to take care of maintenance themselves.

VDI certification

DRAABE systems and components are certified to VDI Standard 6022 Sheet 6, proving that they use the best available technology. In addition, the installed systems are checked on site by VDI engineers in accordance with VDI requirements and recertified every year. Users of DRAABE air humidification are therefore protected against liability risks.

The benefits to you:

- 100% hygiene
- Absolute reliability
- Integrated maintenance approach
- Always state-of-the-art technology
- Confidence in business planning
- Compliance with VDI guidelines





FULL SERVICE

THE DRAABE SYSTEM PUR

Any humidification system is only as reliable, hygienic and environmentally sound as the approach to service and maintenance underlying it. The DRAABE full-service approach is based on the modular design principle of DRAABE systems, ensuring both cost-effective and professional maintenance and disinfection. The semi-annual replacement of containers guarantees all rental customers DRAABE Systems that are always in mint condition, with the latest technology in compliance with VDI guidelines.

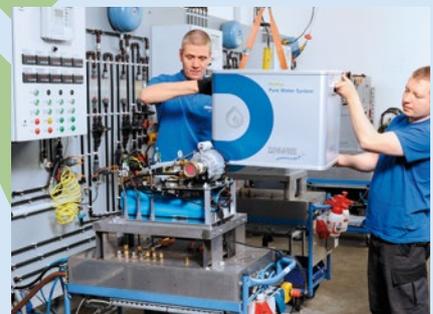
1. Cleaning and disinfection

Each system is completely disassembled. All components are checked and thoroughly cleaned. Wear parts are replaced. Special rinsing processes clean and disinfect the systems.



2. Special test benches

Specially trained technicians use special test benches to set the systems exactly to the individual performance profile.



3. Atomiser check-up

As part of the DRAABE check-up (optional every 2 years), the pure water atomisers are also exchanged and cleaned, wear parts are replaced and all functions are tested. Check-up customers receive a 2-year warranty renewal.



6. Container-exchange

In just a few simple steps, the used system is replaced by the fully-maintained DRAABE Pur container and re-connected to the pipe system with quick-release couplings. The used system is returned to the laboratory workshop for comprehensive maintenance after 6 months.



5. Express shipping & service hotline

When maintenance is complete, the systems are packaged securely for transport and shipped to the customer. In the event of complete failure, the customer is guaranteed a replacement unit within 24 hours.



4. Documented hygiene

In the laboratory, water samples are tested for total bacterial count and moulds. Only after this test is the system released and the maintenance documented in the maintenance book – which means that the last maintenance can always be reviewed.



OVERVIEW

THE DRAABE PUR SYSTEMS

The right water treatment system for every application: the five DRAABE Pur systems produce germ-free, demineralised water individually adapted to the local water values, the required amounts of water and the desired water quality. As part of the DRAABE full-service rental system, all DRAABE Pur systems are replaced every six months, guaranteeing 100% hygiene, reliability and cost-effectiveness.



or



2-in-1 DRAABE DuoPur

DRAABE DuoPur combines the functions of the pure water system and the high-pressure system in a compact device with a maximum capacity of 80 litres per hour.

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3-in-1 DRAABE TrePur

In addition to the pure water and high-pressure functions, the DRAABE TrePur combines a conductance synthesis for full demineralisation and requirements for 100% dust-free air.

► Page 10

Capacity in l/h

1 l/h

< 80 l/h



and



and if required



Pure water system DRAABE PerPur

For smooth and 100% hygienic operation of the DRAABE humidification system, the pure water system produces pure water.

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High-pressure system DRAABE HighPur

With an operating pressure of more than 75 bar, DRAABE HighPur generates a pulsating water flow that makes micro-fine atomisation possible.

► Page 14

Conductance synthesis DRAABE SynPur

As an optional add-on module, DRAABE SynPur completely demineralises the feed water for applications with sensitive requirements for 100% dust-free air.

► Page 16

> 80 l/h

unlimited

2-IN-1 SYSTEM

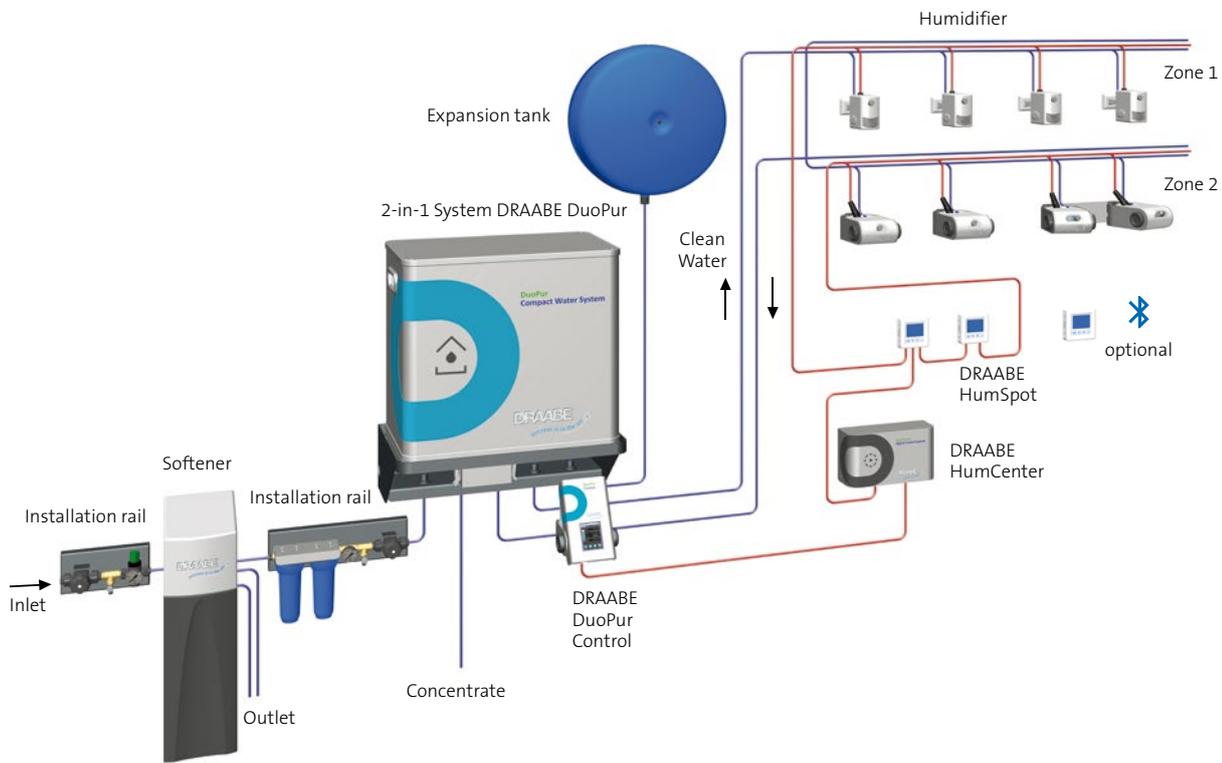
DRAABE DUOPUR

The 2-in-1 System DRAABE DuoPur combines two functions in a single device: the integrated water treatment demineralises the water and cleanses it of impurities, bacteria and germs, ensuring trouble-free and 100% hygienic operation of the humidification system. In addition, the frequency-controlled high-pressure pump creates an operating pressure of at least 75 bar, enabling micro-fine and absolutely droplet-free atomisation of the pure water. With its compact design, it can achieve a maximum capacity of 80 litres per hour. For full-service maintenance, the DRAABE DuoPur can be easily replaced in just a few minutes, with no tools required.



The benefits to you:

- Compact, space-saving system
- No deposits in pipes or nozzles
- 100% germ-free through extensive hygiene functions
- Micro-fine pure water atomisation through a pulsating hydraulic flow
- Very energy efficient
- Full-service approach



| Technical details | DRAABE DuoPur 10 | DRAABE DuoPur 80 |
|----------------------|--------------------------------|------------------|
| Max hyd. performance | 10 l/h | 80 l/h |
| Min inlet pressure | | 2 bar |
| Max inlet pressure | | 5 bar |
| Operating pressure | | 75 bar |
| Dimensions | 578 x 383 x 542 mm (L x W x H) | |
| Weight | 47 kg | 54 kg |
| Operating voltage | 230 V AC 50/60 Hz | |
| Electrical power | 1.08 kW | 1.15 kW |



Extensive hygiene functions

Automatic rinsing cycles and UV-C irradiation monitored for effectiveness guarantee complete and permanent sterilisation of the feed water.

Optimised efficiency

For efficient humidification, 80% of the water fed in is discharged into the room air by the pure water atomiser.

Efficient

A frequency controller adjusts the pump performance at all times to the level of humidification that is actually needed. This saves resources and reduces operating costs.

3-IN-1 SYSTEM

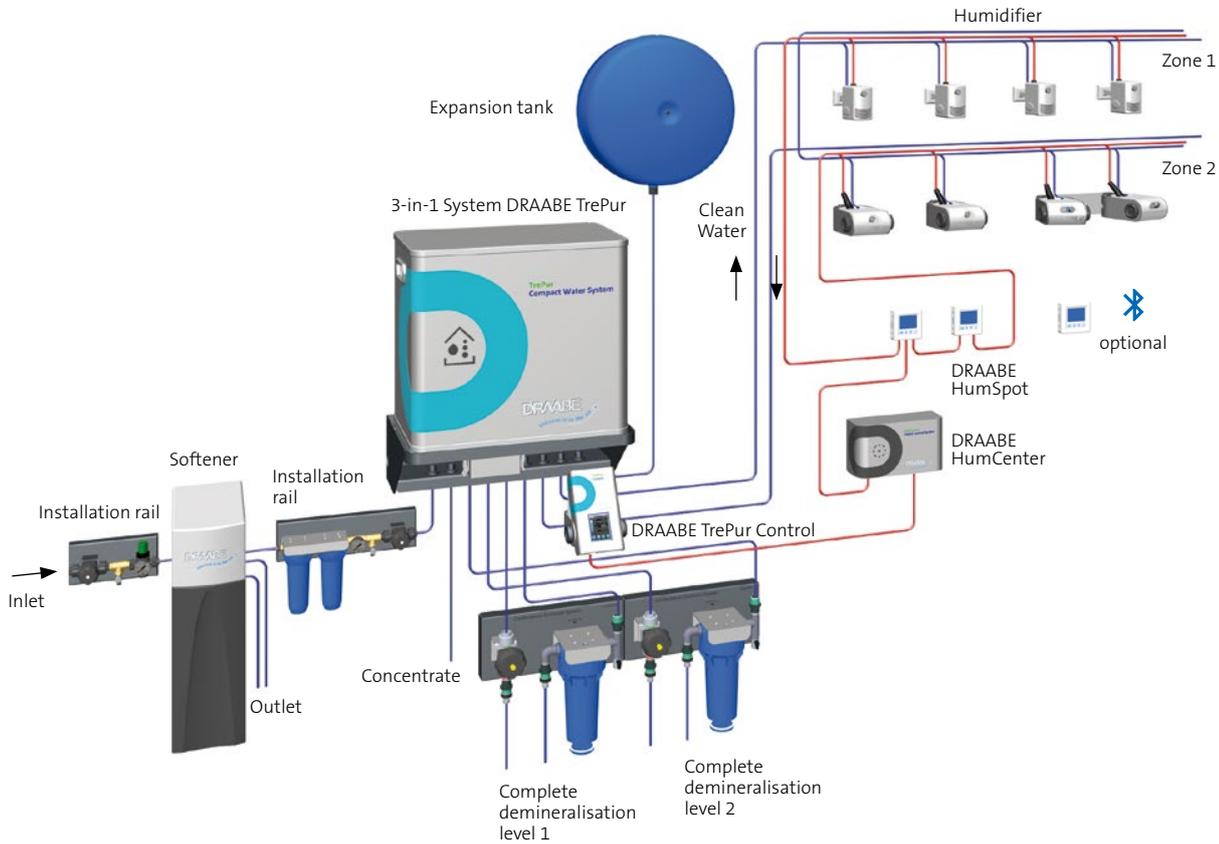
DRAABE TREPUR

In addition to its water treatment and high-pressure pump, the 3-in-1 System DRAABE TrePur also integrates a conductance synthesis as a third function that specially conditions the feed water with a maximum capacity of 80 litres per hour. It completely extracts all dissolved residual minerals, guaranteeing that there is no additional mineral discharge into the room to be humidified, allowing it to meet clean room requirements in sensitive application areas such as the electronics industry, in museums or in offices. The system DRAABE TrePur is compact and built into a portable container that is easily replaced during servicing in just a few minutes.



The benefits to you:

- Compact, space-saving system
- Complete demineralisation for sensitive applications
- 100% germ-free through extensive hygiene functions
- Micro-fine pure water atomisation through a pulsating hydraulic flow
- Very energy efficient
- Full-service approach



| Technical details | DRAABE TrePur 10 | DRAABE TrePur 80 |
|----------------------|--------------------------------|------------------|
| Max hyd. performance | 10 l/h | 80 l/h |
| Min inlet pressure | | 2 bar |
| Max inlet pressure | | 5 bar |
| Operating pressure | | 75 bar |
| Dimensions | 578 x 383 x 542 mm (L x W x H) | |
| Weight | 50 kg | 57 kg |
| Operating voltage | 230 V AC 50/60 Hz | |
| Electrical power | 1.08 kW | 1.15 kW |



Patented humidification of clean rooms

Patented DRAABE synthesis technology completely extracts all residual minerals from the feed water, guaranteeing that there is no additional mineral discharge into the room to be humidified.

Extensive hygiene functions

Automatic rinsing cycles and UV-C irradiation monitored for effectiveness guarantee complete and permanent sterilisation of the feed water.

Efficient

A frequency controller adjusts the pump performance at all times to the level of humidification that is actually needed. This saves resources and reduces operating costs.

PURE WATER

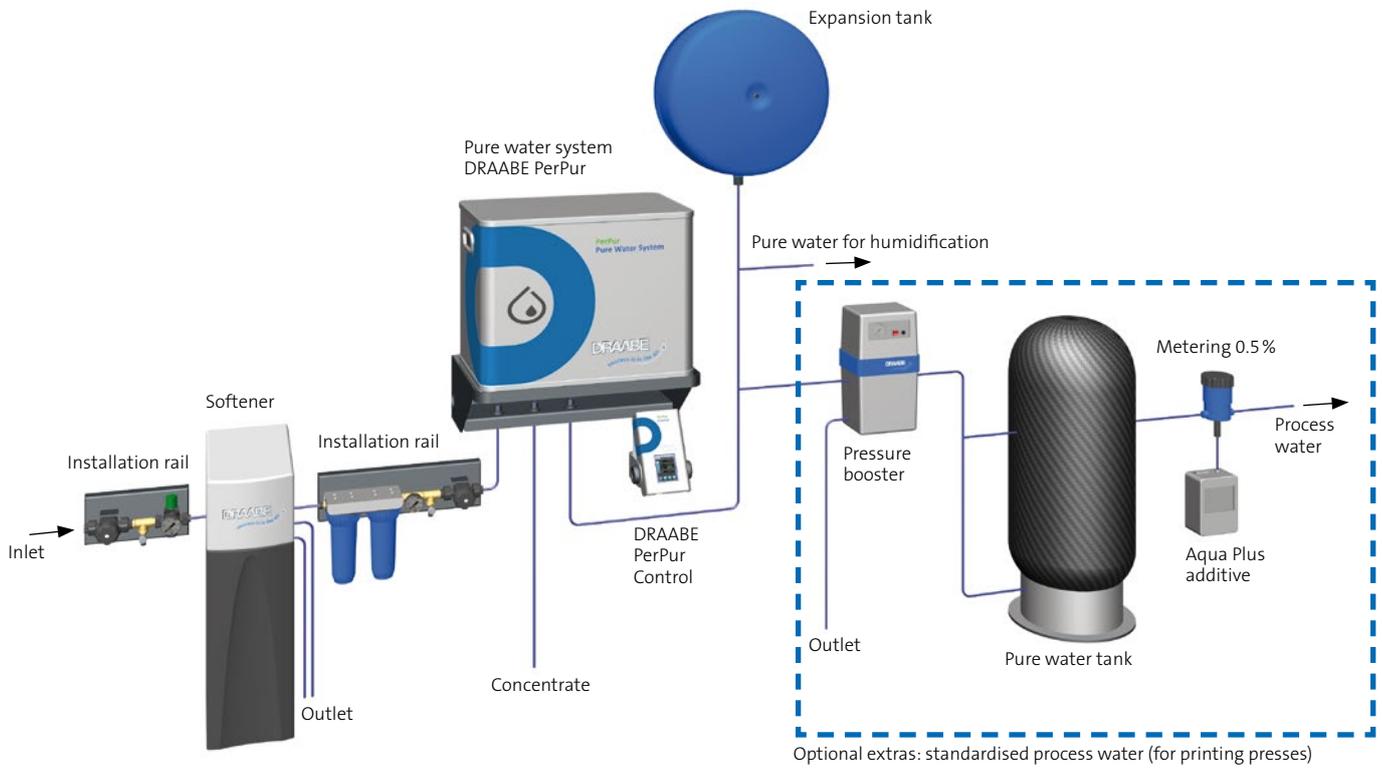
DRAABE PERPUR

Tap water contains a whole host of substances, including for example minerals such as lime and salts. Water is only suitable for humidification if it contains very few minerals and is completely germ-free. Even in medium hard water, the substances present can cause significant problems. For smooth and 100% hygienic operation of the humidification system, the DRAABE PerPur system produces pure water. Minerals and the finest impurities, bacteria and germs are filtered out and the concentrate is discarded. The DRAABE pure water (permeate) is almost completely demineralised and germ-free!



The benefits to you:

- No deposits in pipes or nozzles
- Minimised mineral discharge into the air
- Consistent performance of the system
- Maintenance-free for the operator
- Optional: Production of standardised process water for machines
- 100% hygienic due to automatic rinsing



| Technical details | DRAABE PerPur 60 | DRAABE PerPur 120 | DRAABE PerPur 200 | DRAABE PerPur 300 |
|----------------------|--------------------------------|-------------------|-------------------|-------------------|
| Max hyd. performance | 60 l/h | 120 l/h | 200 l/h | 300 l/h |
| Min inlet pressure | 3 bar | | | |
| Max inlet pressure | 5 bar | | | |
| Operating pressure | 2 – 3.5 bar | | | |
| Dimensions | 578 x 383 x 467 mm (L x W x H) | | | |
| Weight | 30 kg | 30 kg | 34 kg | 38 kg |
| Operating voltage | 230 V AC 50/60 Hz | | | |
| Electrical power | 750 W | | | |



High performance

Up to three membrane units for filtering the water can be used in the DRAABE PerPur unit. This guarantees pure water production of up to 300 l/h per container.

Optimised water consumption

Up to 80% of the inlet water is used for humidification. Only 20% is discarded after water treatment, ensuring optimised water consumption and cost effectiveness.

Automated pure water hygiene

An automatic rinsing function with integrated automatic fresh water prevents contamination of the system and downstream pure water tanks through stagnation.

HIGH-PRESSURE

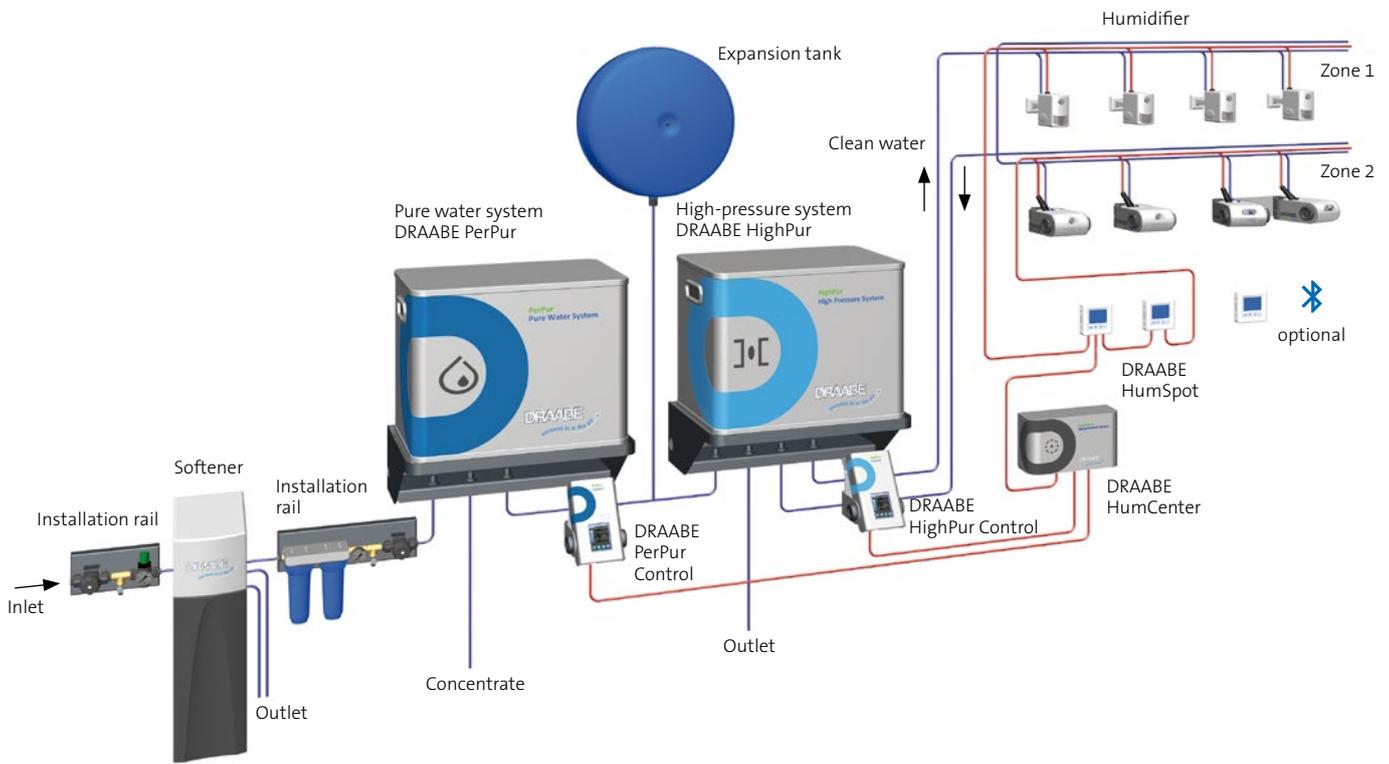
DRAABE HIGHPUR

With an operating pressure of 75 bar, the frequency-controlled high-pressure system DRAABE HighPur creates a pulsating hydraulic flow which in turn creates the micro-fine, completely droplet-free atomisation of the pure water. Compared to other humidification technologies (such as compressed air, steam, ultrasound), it generates only a fraction of the energy costs. The high-pressure system DRAABE HighPur is also completely built into a portable container that is easily replaced during servicing.



The benefits to you:

- Very energy efficient compared to other humidification technologies
- 100% hygienic due to automated water exchange
- Micro-fine pure water atomisation through a pulsating hydraulic flow
- Full-service approach



| Technical details | DRAABE HighPur 60 | DRAABE HighPur 120 | DRAABE HighPur 200 | DRAABE HighPur 300 |
|----------------------|--------------------------------|--------------------|--------------------|--------------------|
| Max hyd. performance | 60 l/h | 120 l/h | 200 l/h | 300 l/h |
| Min inlet pressure | 0.5 bar | | | |
| Max inlet pressure | 3.5 bar | | | |
| Operating pressure | 75 bar | | | |
| Dimensions | 578 x 383 x 467 mm (L x W x H) | | | |
| Weight | 48 kg | | | |
| Operating voltage | 400 V 3 ph 50/60 Hz | | | |
| Electrical power | 1.5 kW | | | |



Hygiene first



Flexibility



Energy saving

UV-C sterilisation monitored effect

Additional hygiene functions guarantee the complete sterilisation of the inlet water by means of intense UV-C irradiation in specially designed DRAABE bio-reactors.

100% effective

Maximum efficiency: The design of the system ensures that 100% of the water fed in is discharged into the room air by the pure water atomiser.

Automated fresh water function

The cyclic exchange of water eliminates the risk of contamination through stagnation if no humidification is required over an extended period.

Electronic safety control

With a range of continuous internal checks (such as pump monitoring, inlet/outlet pressure checks, leakage indicator), the central control system guarantees maximum operational reliability and performance.

Efficient

A frequency controller adjusts the pump performance at all times to the level of humidification that is actually needed. This saves resources and reduces operating costs.

CONDUCTANCE SYNTHESIS

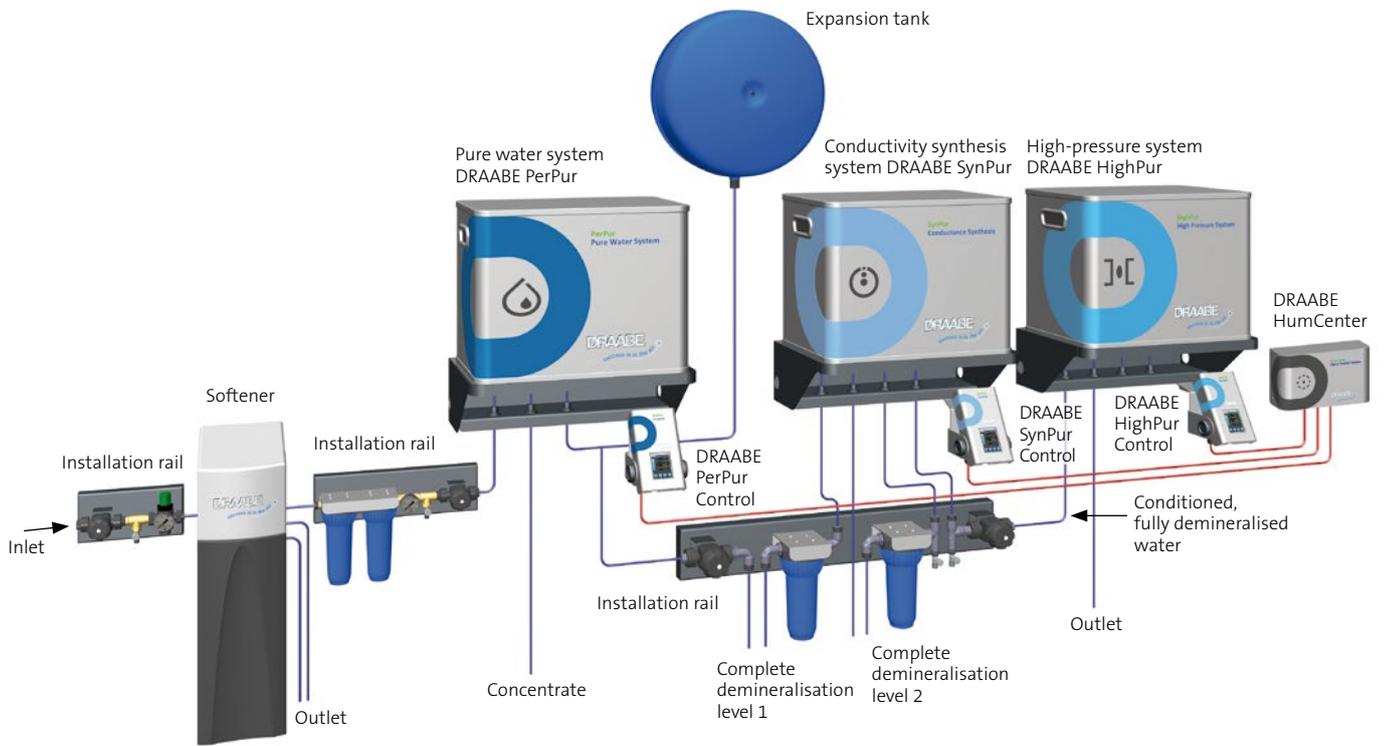
DRAABE SYNPUR

The conductance synthesis unit DRAABE SynPur is designed to meet the additional requirements for clean room humidification in application areas such as the electronics industry, in museums or in offices. As an optional add-on module, the system conditions the inlet water (reverse osmosis water or fully demineralised water) and provides it to the downstream humidification system. Like the other systems, the DRAABE SynPur is built into a modern, portable container for easy exchange during servicing.



The benefits to you:

- For use in sensitive applications (e.g. offices, electronics industry) with complete demineralisation
- No additional mineral discharge
- 100% effective
- Full-service approach



| Technical details | DRAABE SynPur 60 | DRAABE SynPur 120 | DRAABE SynPur 200 | DRAABE SynPur 300 |
|----------------------|--------------------------------|-------------------|-------------------|-------------------|
| Max hyd. performance | 60 l/h | 120 l/h | 200 l/h | 300 l/h |
| Min inlet pressure | 2.5 bar | | | |
| Max inlet pressure | 5 bar | | | |
| Operating pressure | 2.5 – 3.5 bar | | | |
| Dimensions | 578 x 383 x 467 mm (L x W x H) | | | |
| Weight | 22 kg | | | |
| Operating voltage | 230 V AC 50/60 Hz | | | |
| Electrical power | 150 W | | | |



Hygiene first



Flexibility



Energy saving

Patented humidification of clean rooms

Patented DRAABE synthesis technology extracts all residual minerals from the feed water, guaranteeing that there is no additional mineral discharge into the room to be humidified.

100% effective

Optimum determination of conductance ensures that 100% of the feed water (pure water) is conditioned.

Processor-controlled demineralisation

Our microprocessor control technology guarantees complete demineralisation while at the same time minimising the use of consumables.

COMMUNICATION

DRAABE PURCONTROL

The DRAABE PurControl unit is the central communication and information unit for the humidification system. Its continuous status display allows you to read all important operating states at a glance. The intuitive user interface also gives you access to additional information such as pressure level, conductance or performance history. Its long-term data display facilitates additional analysis that can provide detailed information on the factors affecting operation. With its ergonomic design and touchscreen, operating DRAABE PurControl is easy and convenient.



The benefits to you:

- All important operating data at a glance
- Detailed analysis function
- Intuitive user interface and ergonomic design

SYSTEM CONTROL

DRAABE HUMSPOT AND DRAABE HUMCENTER



 optional

DRAABE HumSpot

The DRAABE HumSpot controls and monitors the humidification of the individual zones (e.g. rooms and working areas). The simple menu navigation guarantees a high level of operating ease and comfort.

The benefits to you:

- Precise activation of the humidifiers when the humidity falls below the setpoint
- High level of measuring precision thanks to digital, capacitive humidity analysis technology
- Continuous status display of relative humidity and room temperature
- Wireless version (optional) for easy retrofitting

DRAABE HumCenter

As the central data centre for the entire air humidification system, the DRAABE HumCenter monitors and analyses all humidification zones and the functions of all DRAABE Pur containers.

The benefits to you:

- High level of reliability due to continuous status monitoring of all zones and DRAABE Pur systems
- Monitoring of maintenance instructions
- Extensive analysis functions thanks to long-term data storage
- Connection and data transfer to the building services management system (BACnet) is possible



YOUR CUSTOM SOLUTION

THE DRAABE SYSTEM PUR



Expert advice:

In an initial consultation with our specialists, the objectives are defined, the technical alternatives are presented and discussed, and a water analysis is carried out.

Individual planning:

Your individual system is planned and drawn with CAD in our planning department. You then receive your customised quote.

Full service:

Our customer service puts your system into operation. Thanks to our full-service approach, you can be sure that your DRAABE humidification system is safe and hygienic – at all times.



Hygiene first



Flexibility



Energy saving



Green & lean

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