



## High-pressure humidification systems

# Prima Air high-pressure humidifier

Prima Air is the leading supplier of innovative industrial humidifiers for a variety of industries. Our patented humidification systems can provide any room with the desired humid climate.



**Pump unit 'Easy'**

**Pump unit 'Compact'**

**Pump unit 'Advanced'**

Number of rooms  
Room volume  
Capacity liter water / hour  
Number of (Smart) Airjets

1  
up to 10.000 m<sup>3</sup>  
95  
2-4

3  
up to 25.000 m<sup>3</sup>  
180  
4-8

8  
25.000 m<sup>3</sup> +  
600  
8-50



**Low-maintenance**

Very little service and maintenance required.



**Energy-efficient**

Low energy consumption and high capacity.

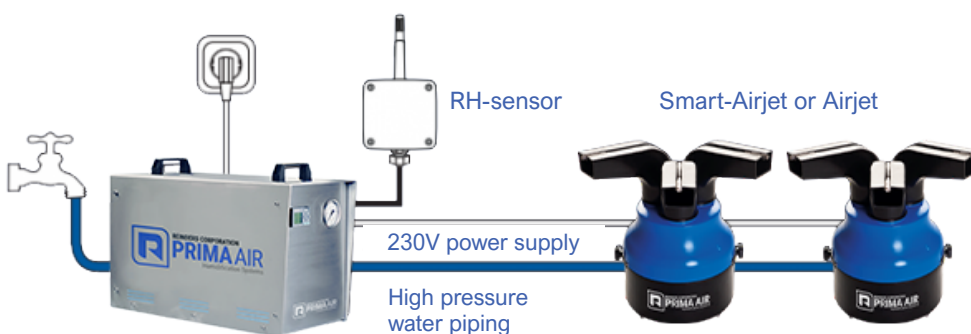


**Multiple rooms**

One control unit can humidify multiple rooms.

## Our solution for air humidification

High-pressure humidification is the **most powerful and energy-efficient** method of humidification in the industrial sector. PrimaAir industrial humidifiers contain a high-pressure pump that transports water to the Airjets that are placed in the room.



The Airjets atomise the water through the nozzles and the built-in fan ensures **homogeneous distribution** of the humidified air. The water droplets in the mist are **smaller than 5 microns** thanks to the specially designed high-pressure humidifier and nozzles.

## Pump unit 'Easy'

The Easy is Prima Air's plug-and-play humidification unit. It is specially designed for smaller spaces where standard humidification systems are too bulky or too expensive. The Easy has a maximum capacity of 95 liters of water per hour.

### Plug-and-play system

- Small and powerful system
- Frequency controlled pump
- High humidification efficiency
- Display for temperature and humidity values
- Simple operation
- Energy efficient due to the 0.55 kW electric motor
- Easy to install and expand
- Lightweight and easy to move
- Integrated legionella protection system



### Specifications

The pump unit comes standard equipped with a high-pressure pump, frequency controller, pressure sensor, switch box, filter, solenoid valve and hour meter.

High-pressure pump:	Type 012051
Power:	0.55 kW
Capacity:	1.6 l/m
Pressure:	Max. 70 bar

# Pump unit 'Compact'

The Prima Air Compact is suitable for humidifying two to three rooms separately. It has a maximum capacity of 180 liters of water per hour. This is distributed over two to three groups.

## Compact system for two to three rooms

High humidification efficiency

Frequency controlled pump

Suitable for several groups

Display for temperature and humidity values per group

Simple operation

Advanced options with touch screen

Energy efficient due to the 1.1 kW electric motor

Easy to install and expand

Operation and readout via company network possible

Integrated legionella protection system

## Specifications

The pump unit comes standard equipped with a high-pressure pump, frequency controller, pressure sensor, switch box, filter, solenoid valve and hour meter.

High-pressure pump:	High-pressure plunger pump
Power:	1.1 kW
Capacity:	3.3 l/m
Pressure:	Max. 70 bar





## Pump unit 'Advanced'

The Prima Air pump unit Advanced is suitable for humidifying up to eight rooms individually. The Advanced pump unit has a maximum capacity of 600 liters per hour. This is distributed over the rooms.

### Powerful system up to a maximum of eight rooms

High humidification efficiency

Display for temperature and humidity values per group

Simple operation

Advanced options with touch screen

Energy efficient due to the 3.0 kW electric motor

Easy to install and expand

Operation and readout via company network possible

Data logging via HMI and network possible

Equipped with water softener

External alarm transmission

The number of Airjets and groups can always be expanded without replacing the pump unit

Integrated legionella protection system



### Specifications

The pump unit comes standard equipped with a high-pressure pump, frequency controller, pressure sensor, switch box, filter, solenoid valve and hour meter.

High-pressure pump:	Electromotor type 010370
Power:	3.0 kW
Capacity:	10 l/m
Pressure:	Max. 80 bar

# Airjet

The Airjet connects to the pump unit and is equipped with nozzles that atomize the water under high pressure into a fine mist. The Airjet is equipped with six nozzles that together provide 360° distribution.



## The unique Prima Air system

Extremely fine atomization, droplet smaller than 5 microns

Anti-drip adapter prevents dripping

Ability to blow in any direction

Insensitive to the quality of the supply water

Low maintenance nozzles made of stainless steel

No expensive compressed air needed

Energy efficient

Very quiet

Easy to assemble

System easily expandable at any time

## Specifications

Type:	010005
Nozzles:	Ring with 6 nozzles
Air flow rate:	1,800 m <sup>3</sup> /hour
Humidification capacity:	15-36 liters/hour
Working pressure:	70 bar
Dimensions (WxH):	580 x 375 mm
Noise:	65 dBA
Connection:	10mm cutting ring coupling
Voltage:	230 V
Power:	105 W
Current:	0.61 A
Frequency:	50 Hz

## Mounting

The Airjet is attached to the ceiling by chains. These should be suspended at a minimum height of 3.5 meters and have a minimum clearance of 0.7 meters at the top. The Airjet must have a free discharge area of 3 meters radius.



# Smart Airjet (Trio)

The Smart Airjet (Trio) connects to the pump unit and is equipped with nozzles that atomize the water under high pressure into a fine mist.

The Smart Airjet (Trio) is equipped with two or three air nozzles with the nozzles attached. These can be adjusted in any direction for optimal humidification.

## Specifications

Type:	015000
Nozzles:	2-3x mouth + nozzle
Air flow rate:	140 m <sup>3</sup> /hour
Humidification capacity:	3-15 liters/hour
Working pressure:	70 bar
Dimensions: (WxH):	400 x 430-450 mm
Noise:	44 dBA
Connection:	10mm cutting ring coupling
Voltage:	230 V
Power:	43 W
Current:	0.3 A
Frequency:	50 Hz

## The unique Prima Air system

Extremely fine atomization,  
droplet smaller than 5 microns

Anti-drip adapter prevents dripping

Ability to blow in any direction

Insensitive to the quality of the supply water

Nozzles of durable stainless steel

No expensive compressed air needed

Energy efficient

Very quiet

Easy to assemble

System easily expandable at any time

## Mounting

The Smart Airjet (Trio) is attached to the wall with a bracket. It must be hung at a height of at least 2.5 meters and have a clearance of 0.7 meters at the top. In addition, the nozzles must be directed so that they have a minimum discharge distance of 3 meters.





# UVC disinfection system

With regards to legionella, no risk should be taken. All Prima Air humidification installations are equipped with a standard legionella protection system, which operates when the humidification installation is switched on. In case the installation is switched off for a period of time or to enhance the protection, a UVC disinfection system can be installed.

## Additional protection against legionella

Highly effective

Fast and safe

Environmentally friendly

Economical

UV-C radiation is very suitable for disinfecting liquids. Due to the high energy of UV-C radiation, the DNA of living legionella microorganisms becomes illegible, resulting in the death of the cell.



Besides killing off microorganisms, the water does not undergo any chemical or physical reaction. Factors such as taste, odor, color and pH level remain unchanged, unlike with many other methods.

Prima Air's humidification system can be expanded to include a UVC disinfection system. The UVC disinfection system is fully integrated into our pump unit and includes a UV-C lamp.







## **Prima Air**

**Reinders Corporation**

**Prima Air** is a proud member of Reinders Corporation. A private company in the 4th generation, operating in more than 100 countries across six continents. Since 1910, the name Reinders has come to be associated with a reputation for excellence in air and climate solutions worldwide.

### **Interested or questions?**

Get in touch with us. The experts of Prima Air are at your service!

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# **REINDERS**

**CORPORATION SINCE 1910**