









Defensor Humidifiers

The Novatron range of high quality portable humidifiers are designed with efficient and durable operation in mind for managing large volume areas for museums, art galleries, heritage properties, store rooms and archives.

For conservation of fine art it is essential to maintain air relative humidity to stable conditions of within 40 – 60% rh, with a maximum variation of +/-10% over a 24 hour period. These are the standards set by the industry and most accredited museums & art galleries need to demonstrate that they are working to achieve this.



Normally the indoor relative humidity falls to below 40% during the colder months of October through to May when the heating comes on. To compensate for this, Novatron supply precision portable humidifiers for local control and for back-up of air conditioning systems in museums, art galleries and archives.

Due to the unique evaporative design, resistance to scaling or clogging is a major advantage for both machine types. Whilst the PH15 & PH28 are very similar, they are intended for use within different sized room volumes, 900m³ and 1300m³ respectively.

- Fully Portable
- Easy Filling
- Ergonomic Design
- Water Sterilization
- · Quiet Operation
- Intelligent Controls
- Lockable Buttons
- Electronic Sensors
- Onsite Service
- Full Support
- Commissioning
- Spares Stocked

PH15 Humidifier



The Defensor humidifiers employ the evaporator principle which humidifies air sparingly and with minimum energy consumption and is particularly suitable for use in museums, galleries and living rooms, as well as office premises, walk-in humidors or other rooms in which pleasant room atmosphere is desired. The PH range humidifies efficiently to meet requirements while simultaneously purifying the air in dusty and bad odour environments.

Low maintenance requirements, simple handling, inexpensive investment and operational costs are the main benefits of this humidifier. The PH humidifiers also ensure an extraordinary level of user comfort, absolute reliability and safety, thanks to the use of the latest technology.







Features of Novatron Defensor Humidifiers

Easy and convenient handling

The PH range of humidifiers are easy to use and require practically no maintenance. The 20/30 litre trolley water tank enables a convenient replenishment, especially beneficial if the water supply is not close to the application.

For a direct connection to the water supply the models **PH15A / PH28A** are available. In this version the Aquastop system prevents any water damage. The clever design enables the realisation of a short water course, with few components being wet by the water. This prevents the formation of heavy lime deposits, so only a minimal amount of accessible parts have to be cleaned.

Hygienic and dust-free humidification

For high quality of humidification there is a <u>Silver ionisation</u> <u>device</u> available. This keeps the water free of germs and ensures that air humidifying is biologically safe.

Depending on the season and humidity demand, the filters can be changed optionally in the winter for humidification and optionally in the summer for air purification.

The Quattro filter system filters the smallest dust particles (pollen) and odours, thus ensuring that air remains clean and fresh.

Often the challenge can be dealing with the amount of VOCs (Volatile Organic Compounds) within the air that are generated by the chemicals and fluids used during art restoration and cleaning. These can be drawn into the humidifier and cause build up bacterial growth which needs to be cleaned regularly during maintenance visits.

However, the Defensor humidifiers have a unique system of water sterilization with silver electrodes that ensure the water remains bacteria free so that the machines can operate safely at all times.

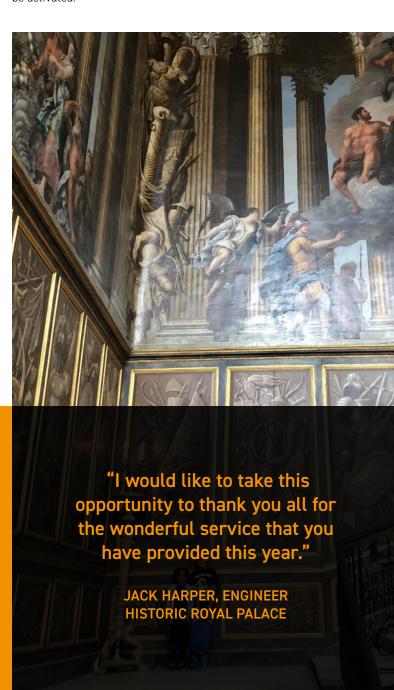
- Energy-saving operation with the automatic mode
- Easy and convenient handling
- Air-purifying with the Quattro filter system
- Direct connection to water supply (Type PH15A / PH28A)
- Low running noise, only 48dB(A) (Stage 1)
- · Turnkey unit, no installation outlay
- <u>Silver ionisation</u> for hygienic humidification (optional)

More Information

Economical operation

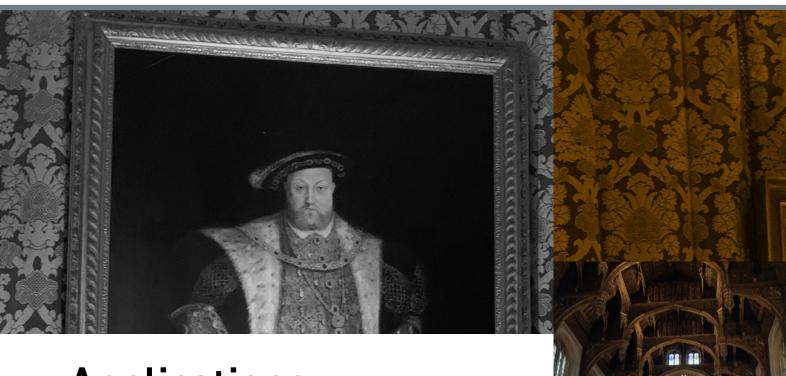
With the aid of the integrated advanced electronics the humidifying capacity can be automatically controlled.

Humidity is measured by the integrated sensor. An external wireless humidity sensor is optionally available. Up to four PH15s can be controlled with a single sensor. Data transfer is based on radio technology and makes cable laying unnecessary. In the program mode the PH15 can be easily configured to adjust the humidification time. As protection from unauthorized users there is a key lock setting that can be activated.









Applications



Museums



Private Collections



Galleries



Heritage Properties



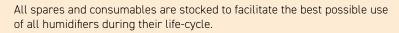
Palaces



Art Conservation Studios

On site service and full technical support

Novatron Scientific have a team of specialist engineers who perform regular site service visits for preventative maintenance & repairs. We are fully **Safe Contractor accredited** to assure good working practices and great care is taken, essential when working amongst valuable works of art.





Experts in the museum and heritage sector

We have been supplying this sector for over 20 years.

We are proud to be members of the following associations:

- Museums and Heritage Advisor
- Museums Association
- Ecclesiastical and Heritage World









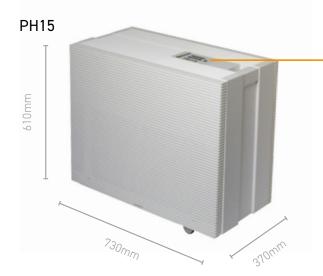


Features

The Defensor PH humidifiers are easy to use models that require very little maintenance on a day to day basis. They have been designed with convenience in mind and have an optional auto fill feature. The PH humidifiers also ensure high output with minimal noise and low energy consumption, absolute reliability and safety, thanks to the use of the latest technology.

- Simple to use and maintain
- · High performance
- Quite operation
- Low energy consumption
- Robust and excellent longevity

Digital display and controlEasy to use digital controller, control panel lock and water





Humidifies and purifies the air



Filters viruses and pollen





Evaporator mat

The evaporative technology provides low energy operation without the high running costs of electric steam humidifiers.



Water tank

Large tank with wheels and handle, easy to remove and re-fill using tap water. Alternatively can be connected directly to a water supply.



Silver ionisation

Optional kit with silver electrodes provide water treatment to the reservoir and maintain hygienic operation (standard on PH28).





Specifications





Features	DF PH15	DF PH28		
Electronic water level detector	✓	√		
Electronic overflow detector	✓	√		
Silver ionizer water sterilization	Optional	✓		
Plumbed-in water fill option (A)	Optional	Optional		
Optional control via radio hygrostat	Optional	Optional		
Ultra quiet operation	✓	√		
Room capacities of up to:	900m³	1300m³		

Technical data		DF PH15				DF PH28			
Fan speeds:	1	2	3	4	1	2	3	4	
Humidification capacity [l/h]:									
at 25°C and 20%rH	0.8	1.1	1.5	1.7	1.1	1.4	2.1	2.7	
at 23°C and 45%rH	0.6	0.8	1.0	1.3	0.7	0.9	1.3	1.8	
Air circulation rate [m3/h]	155	195	280	340	290	390	600	850	
For rooms up to a max. of [m³]	430	600	730	900	600	680	1000	1300	
Sound pressure level [dBA]	32	38	45	50	43	52	56	61	
Mains voltage	220240VAc / 5060Hz or 90100VAc / 5060Hz				220240VAc / 5060Hz or 90100VAc / 5060Hz				
Power consumption max.:	72 Watt max.				150 Watt max.				
Weight (empty)	25 kg				42 kg				
Water tank capacity	20 litres				30 litres				
Dimensions (L x H x D)		730 x 610 x 370				800 x 750 x 440			
Certificates		VDE, CE, GS, GOST				VDE, CE, GS, GOST			





Shop PH15



Shop PH28



