

Office humidification

Improving productivity with humidity control

40-60%rH =
maximum productivity

The office, air conditioned in the summer and heated in the winter, is often the number one place where we will be exposed to dry air and the problems it causes us.

As human beings, we are far less sensitive to dry air than we are to temperature and we fail to associate the discomfort or health problems we experience at work with low relative humidity.

Prolonged exposure to low humidity in an office can cause:

- Dry itchy skin
- Sore eyes & throat
- Contact lens discomfort
- Dehydration & lethargy
- Reduced resistance to viruses
- Increased static
- Increased absenteeism

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Why humidify in the office?

The optimum level of humidity in an office environment should be between 40-60%rH (relative humidity). If humidifiers aren't used to add moisture to an atmosphere, even in humid climates, indoor heating and cooling systems will lower the humidity to unhealthy levels.

A study carried out by Volvic showed that one in five offices in Britain were as dry as the Sahara Desert with just 25%rH. At this low level the health of the occupants will be affected with a resulting drop in productivity and an increase in absence due to illness.

Sore eyes & throat

One of the first signs of exposure to a dry atmosphere is sore eyes and dry throat. Eyes are very susceptible as the



thin layer of moisture on the cornea rapidly evaporates. Contact lens wearers express discomfort that can increase by a factor of five as humidity drops from 45% to 20%, by which stage dust and dirt deposits on lenses increase causing greater irritation.

The mucous membranes in the nose and throat are our body's natural defence against airborne pollutants. Once these dry our bodies can become more susceptible to germs and viruses.

Dehydration & lethargy

Just 1% reduction in body weight due to fluid loss will cause symptoms of dehydration. Initial symptoms include dry chapped lips and headache but it can soon lead to tiredness, irritability and an overall feeling of lethargy.

Static build-up

A very noticeable effect of dry air is electrostatic shocks, which occur below a threshold of 40%rH. This is not only an annoying nuisance to people working in the office but it can also damage sensitive computer equipment. Maintain 40%rH and static build-up is eliminated.

Reduce heating & odours

People feel warmer and more comfortable at the right humidity. It has

been shown that a reduction by 1.5°C is unnoticeable in an office environment if the humidity is kept above 40%rH. People are also less susceptible to odours at this level of humidity.

Legislation

In the UK, the Health and Safety Executive's Display Screen Equipment Regulations 1992, obliges employers to maintain a level of relative humidity that prevents discomfort and problems of sore eyes where people work at computer terminals for long periods.

Several professional bodies produce guidelines on appropriate humidity levels in the office and commercial premises. The Chartered Institute for Building Services Engineers (CIBSE), the Building Services Research Institute (BSRIA) and Building Research Establishment (BRE) generally agree that the appropriate range of humidity in an office environment should be around 50%rH, within a typical range of 40-60%rH.

The solution

An appropriately designed humidification system, whether in-room or in-duct, will relieve symptoms of a dry atmosphere and help to provide a healthy, productive working environment.

Why JS Humidifiers?

JS Humidifiers offers a comprehensive service of humidification system design, installation and maintenance. Our range includes spray, steam and evaporative humidifiers and with over 30 years experience in humidifying office environments around the world we are ideally placed to advise you on which type will be most suitable for your specific application.



www.jshumidifiers.com

JS has a policy of continually improving products and performance. Actual specifications might vary from those shown.

JS Humidifiers plc

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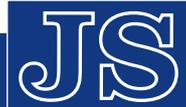
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