



# Tobacco humidification

Increasing profits with environmental control

60-70%rH  
= maximum profits

Tobacco leaves, cut tobacco and cigarette papers are all extremely hygroscopic. This means that they give up their moisture to the surrounding environment if the air is too dry.

Dry air will cause a tobacco's properties to degrade and change the dimensions of cigarette papers leading to misfeeds on machines. Static electricity also builds up in dry conditions and can cause problems for a manufacturing facility.

By maintaining the relative humidity at between 60-70%rH tobacco, paper and leaves retain moisture at the correct levels, so maintaining their quality and ensuring that production can proceed at full efficiency.

Correct humidity control will:

- Maintain the quality of the stored leaves
- Prevent product weight loss
- Avoid dimensional changes of cigarette papers
- Eliminate static electricity
- Improve recovery in ripping rooms
- Allow cigarettes to remain on conveyors during downtime

Our clients include:

Hunters & Frankau • Industria de Tabaco Leon Jimenes • ITC  
White Nile Tobacco • Yunnan Da Li Tobacco • Imperial Tobacco  
Alfred Dunhill • BAT • Casjuca • Corporación Agrícola de Tabaco  
Murray & Sons • Gallagher & Co • Rizla • Rothmans International  
Saba International • Seita Group Altadis • Swedish Match • Tanasa  
United Division Company • World Duty Free • West Indian Tobacco

# Why humidify in the tobacco industry?

Humidity control in the tobacco industry is essential in order to maintain product quality, eliminate the need to remove tobacco from machines during downtime and reduce wastage from all manufacturing and storage areas.

### Primary production

Tobacco leaves most primary production areas with a moisture content of 13-16% by weight. An ambient relative humidity of 60-68%rH is needed to maintain equilibrium between the air and the moisture in the tobacco. If it is lower than 60%rH tobacco will be losing moisture, weight and quality.



### Cut tobacco storage

After the initial production processes, moistened tobacco is normally taken to large bins or silos. Smaller tobacco plants will rely on box or cut tobacco stores. These areas must be maintained at 60-70%rH and 21-24°C as they have large amounts of tobacco exposed to ambient air.



### Buffers & temporary storage

The maintenance of around 60-70%rH is critical in and around temporary storage systems. Cigarettes stored in a buffer for several hours or over a weekend will lose moisture if the relative humidity is not maintained, and are often scrapped due to drying out. Humidification means stored cigarettes can continue to be processed and wastage eliminated.

### Recovery & ripping areas

Any loss in moisture will lead to poor recovery of tobacco in ripping rooms where production waste is broken up and re-used. These areas need to be maintained at 65%rH at 21°C.

### Electrostatic build-up

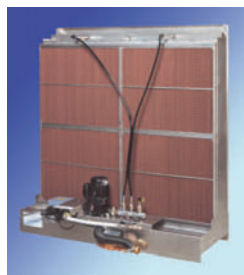
If humidity falls below 50%rH then electrostatic charges can occur in most production areas even in filter rod areas where extra humidity is not normally called for. If conditions are maintained above 50%rH, then this will totally eliminate electrostatic charges.

### Papers

Cigarette paper must also be kept in equilibrium with the environment. If its moisture changes so will the dimension of the reel of paper along the exposed edges. These are then in tension as the paper runs, which can lead to tears, machine misfeeds and expensive downtime re-feeding the roll.

## Why JS Humidifiers?

JS Humidifiers offers a comprehensive service of humidifier system design, installation and maintenance. Our range includes spray, steam and evaporative humidifiers and with over 20 years experience in tobacco humidification we are ideally placed to advise you on which type will be most suitable for your specific application.



[www.jshumidifiers.com](http://www.jshumidifiers.com)

### JS Humidifiers plc

Artex Avenue, Rustington, LITTLEHAMPTON,  
West Sussex, BN16 3LN, UK.  
Tel: +44 (0)1903 850200 • Fax: +44 (0)1903 850345  
Email: [sales@jshumidifiers.com](mailto:sales@jshumidifiers.com)

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



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