

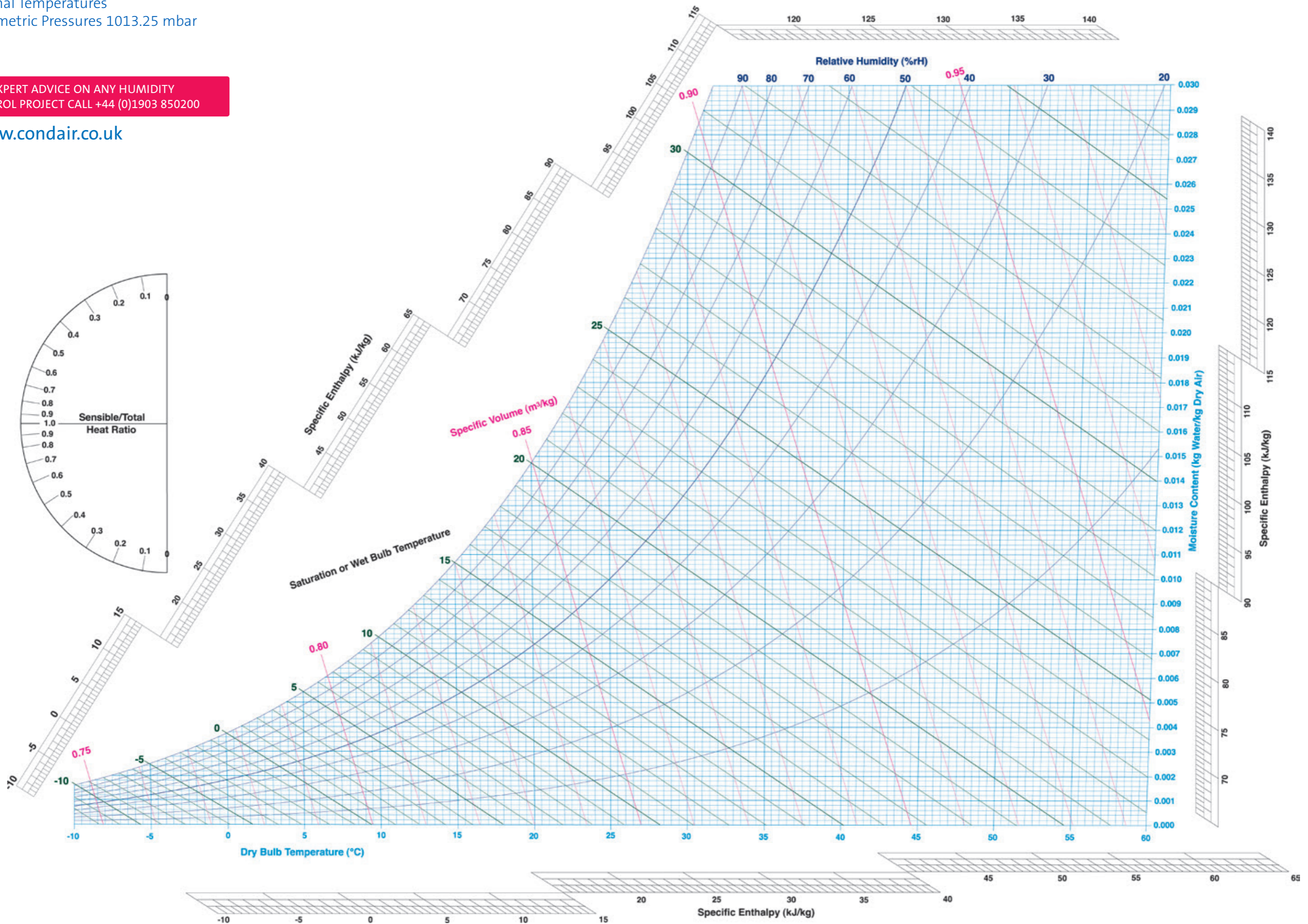
PSYCHROMETRIC CHART

Normal Temperatures
Barometric Pressures 1013.25 mbar



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www.condair.co.uk



IN-DUCT HUMIDIFIERS

DIRECT ROOM HUMIDIFIERS

PROCESS EXAMPLES

ISOTHERMAL



Condair RS Resistive steam



Condair EL Electrode boiler steam



Condair GS Gas-fired steam



Condair ESCO Live steam



Condair SE Steam-to-steam



Condair RM Low capacity resistive steam



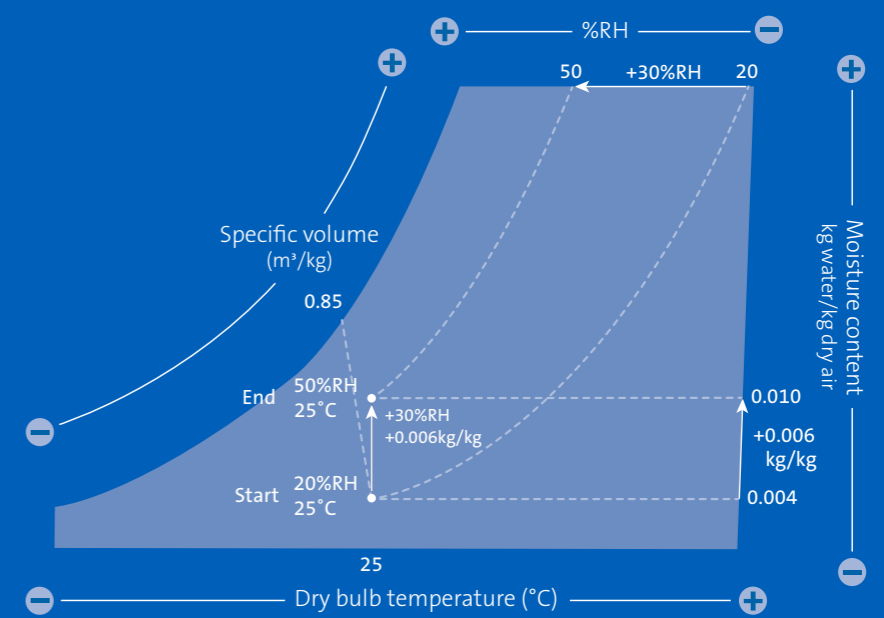
Condair RS with fan unit Resistive steam



Condair EL with fan unit Electrode boiler steam

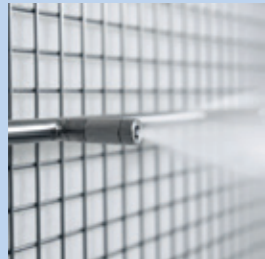


Condair CP3 Mini Low capacity electrode boiler



ISOTHERMAL

ADIABATIC



Condair HP High pressure spray



Condair ME Evaporative humidifier



Kuul evaporative media



JetSpray Compressed air & water spray



Condair DL Hybrid humidifier



Ultrasonic humidifier



ML Princess High pressure spray



ML Solo High pressure spray



Draabe NanoFog Evolution High pressure spray



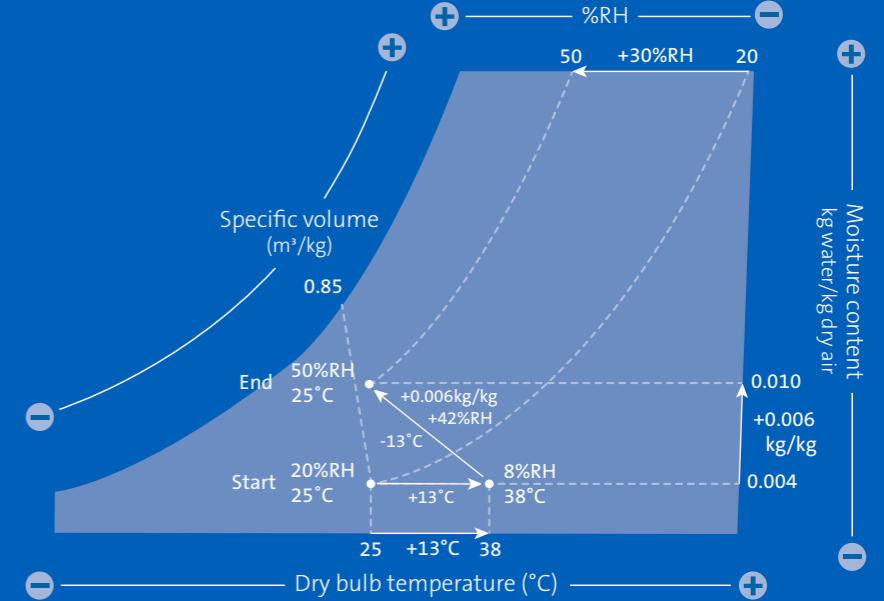
JetSpray Compressed air & water spray



Ultrasonic humidifier



Condair PureHum 1000 Pro Mobile humidifier



ADIABATIC

IN-DUCT LOAD CALC

The desired room condition is 50%RH at 25°C. An AHU supplies air at 3m³/s. 80% is re-circulated from the building itself and 20% is fresh air, which is pre-heated to 25°C (min 20%RH prior to humidifier).

The required humidifier duty is:

$$\frac{\text{Moisture x air vol x fresh air \%}}{\text{Specific volume}} = \text{humidity load}$$

$$\frac{0.006\text{kg/kg} \times 3\text{m}^3/\text{s} \times 3,600 \times 0.2}{0.85\text{m}^3/\text{kg}} = 15.25\text{kg/h}$$

DIRECT ROOM LOAD CALC

The desired room condition is 50%RH at 25°C in a production area of 3,600m³ with 2.5 air changes per hour and a current minimum humidity of 20%RH.

The required humidifier duty is:

$$\frac{\text{Moisture x air vol x no. of air changes}}{\text{Specific volume}} = \text{humidity load}$$

$$\frac{0.006\text{kg/kg} \times 3,600\text{m}^3 \times 2.5}{0.85\text{m}^3/\text{kg}} = 63.53\text{kg/h}$$

CALC EXAMPLES

FREE 1HR IN-HOUSE CPD SEMINARS
LEARN HUMIDITY CONTROL
VISIT CONDAIR.CO.UK/CPD



We also supply a comprehensive range of dehumidifiers.