PSYCHROMETRIC CHART

Normal Temperatures
Barometric Pressures 1013.25 mbar

condair
The new name for JS Humidifiers

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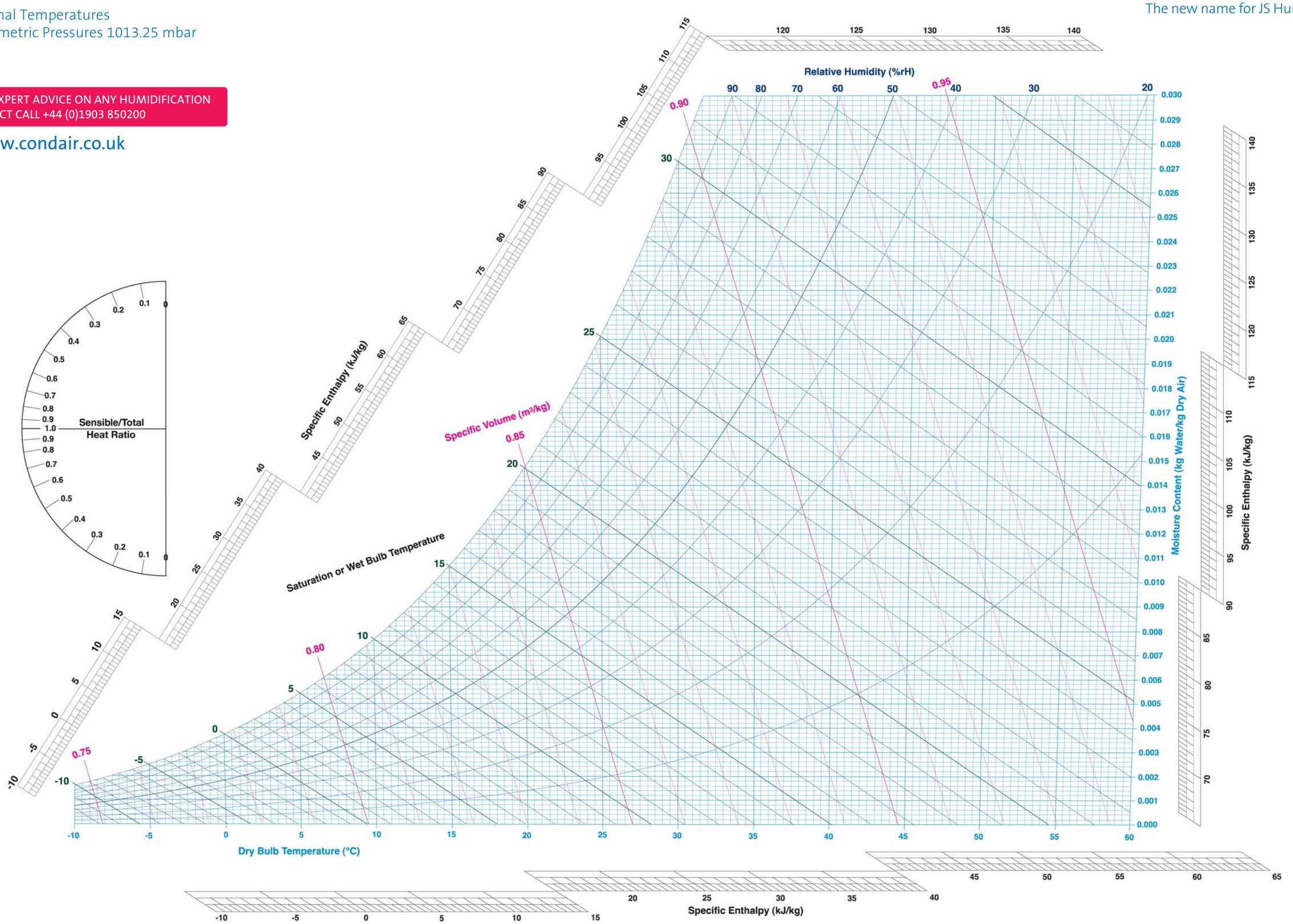
www.condair.co.uk



Please use non-permanent marker

IN-DUCT HUMIDIFIERS

ISOTHERMAL

Condair MK5
resistive steam

Condair CP3
electrode boiler steam

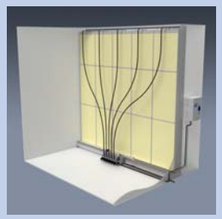
Condair GS
gas-fired steam

Condair ESCO
live steam

Condair SE
steam-to-steam

ADIABATIC

Condair HP
high pressure spray


Condair ME
evaporative humidifier

JetSpray
compressed air & water spray

Condair DL
hybrid humidifier

DIRECT AIR HUMIDIFIERS

ISOTHERMAL

Condair MK5 with fan unit
resistive steam

Condair CP3 with fan unit
electrode boiler steam

Condair CP3 Mini
low capacity electrode boiler

ADIABATIC

ML Princess
high pressure spray

ML Solo
high pressure spray

ML Flex
high pressure spray

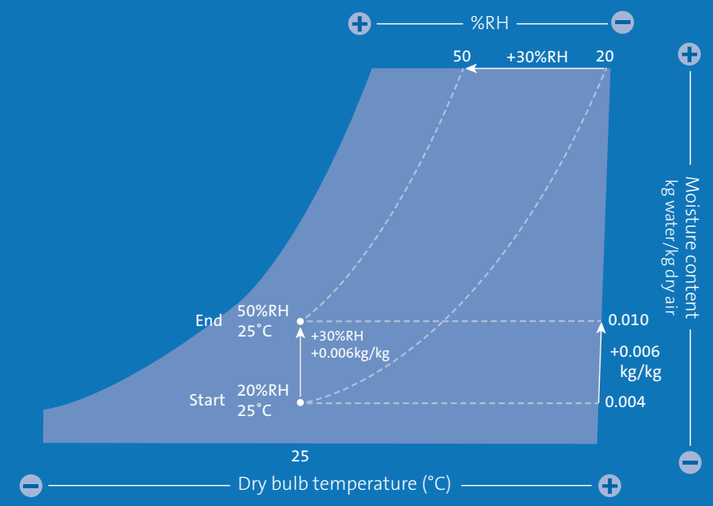
JetSpray
compressed air & water spray

Draabe NanoFog Evolution
high pressure spray

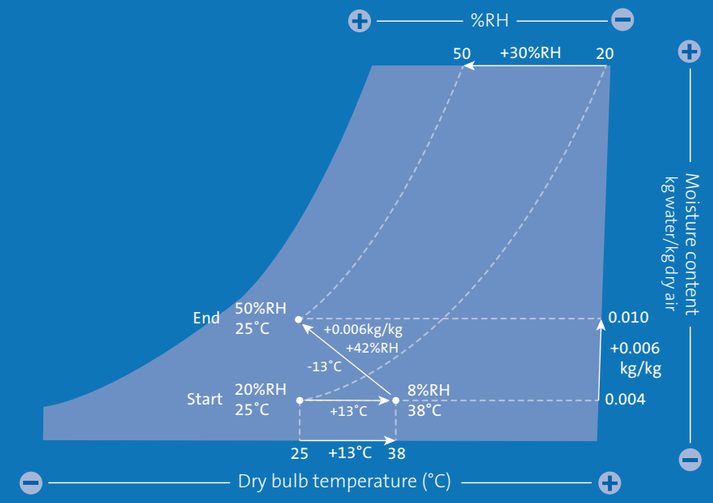
Defensor PH
mobile humidifiers

PROCESS EXAMPLES

ISOTHERMAL



ADIABATIC



IN-DUCT HUMIDITY LOAD CALCULATION

air volume per sec(m³) x air density = air mass per sec(m³)

air mass per sec(m³) x no. sec per hr = air mass per hr(m³)

air mass per hr(m³) x difference in moisture content(kg/kg dry air) = **humidity load(kg/hr)**

EXAMPLE

2.5m³ x 1.2 = 3m³ air mass per sec

3m³ x 3,600 = 10,800m³ air mass per hr

10,800m³ x 0.006(kg/kg dry air) = **64.8kg/hr humidity load**

DIRECT AIR HUMIDITY LOAD CALCULATION

area length(m) x area width(m) x area height(m) = area volume(m³)

area volume(m³) x no of air exchanges per hr = air volume per hr(m³)

air volume per hour(m³) x air density = air mass per hr(m³)

air mass per hr(m³) x difference in moisture content(kg/kg dry air) = **humidity load(kg/hr)**

EXAMPLE

40m x 20m x 4.5m = 3,600m³ area volume

3,600m³ x 2.5 = 9,000m³ air volume per hr

9,000m³ x 1.2 = 10,800m³ air mass per hr

10,800m³ x 0.006(kg/kg dry air) = **64.8kg/hr humidity load**

FREE 1HR IN-HOUSE CPD SEMINARS.

LEARN HUMIDIFICATION & PSYCHROMETRICS.

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