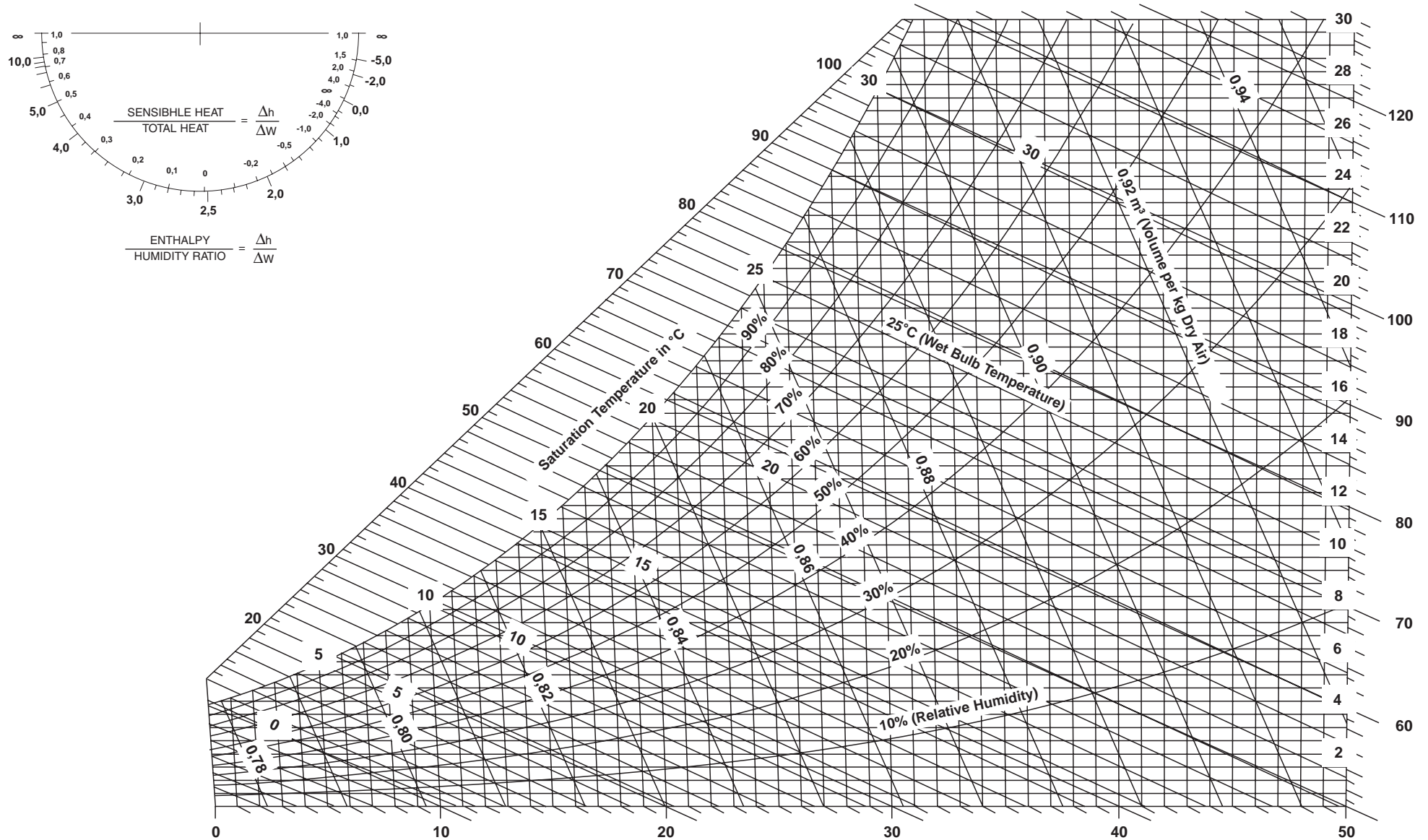


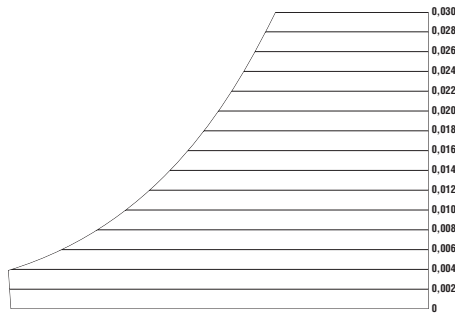


# Psychrometric & Humidification

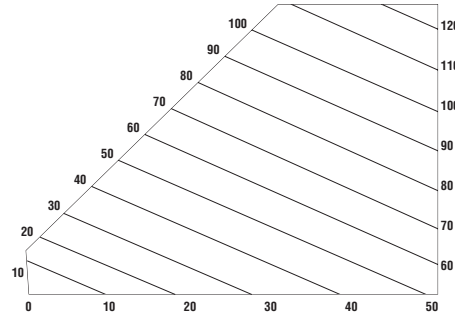


The psychrometric chart is a graphical representation of the thermodynamic properties which impact moist air.

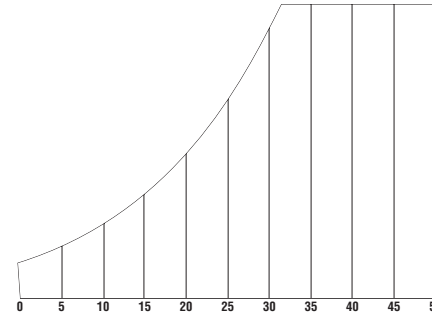
It consists of eight major components:



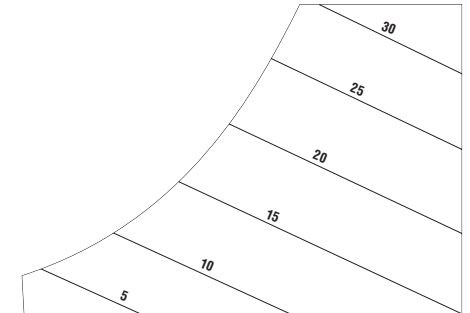
**1. Humidity ratio values** are plotted vertically along the right-hand margin, beginning with 0 kg/kg of dry air at the bottom and extending to 0,03 kg/kg of dry air at the top.



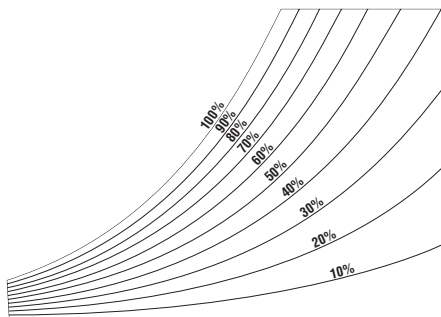
**2. Enthalpy**, or total heat, is plotted with oblique lines, at intervals of 10 kJ/kg of dry air, extending from upper left to lower right.



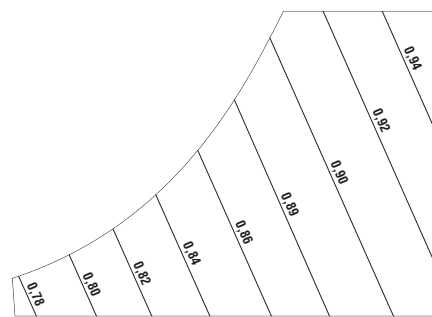
**3. Dry-bulb** temperature lines are plotted vertically at 1°C intervals.



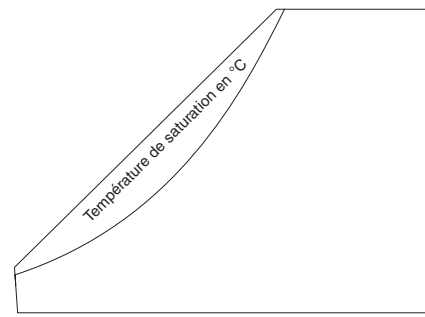
**4. Wet-bulb** temperature lines are indicated obliquely and fall almost parallel to enthalpy lines. They are shown at 1°C intervals.



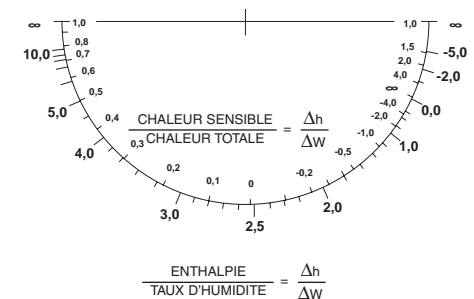
**5. Relative humidity** lines curve across the chart from left to right at intervals of 10%. They begin at the bottom at 10% and end at the top with the saturation curve (100%).



**6. Volume** lines indicating cubic meter per kilogram of dry air are plotted at intervals of 0,01 m<sup>3</sup>.



**7. Two-phase** region includes a narrow, cross-hatched area to the left of the saturation region indicating a mixture of condensed water in equilibrium.



**8. The protractor** at the upper left of the chart contains two scales. One is for the ration of enthalpy difference. The other is for a ratio of sensible heat to the total heat. The protractor establishes the angle of a line on the chart along which a process will follow.