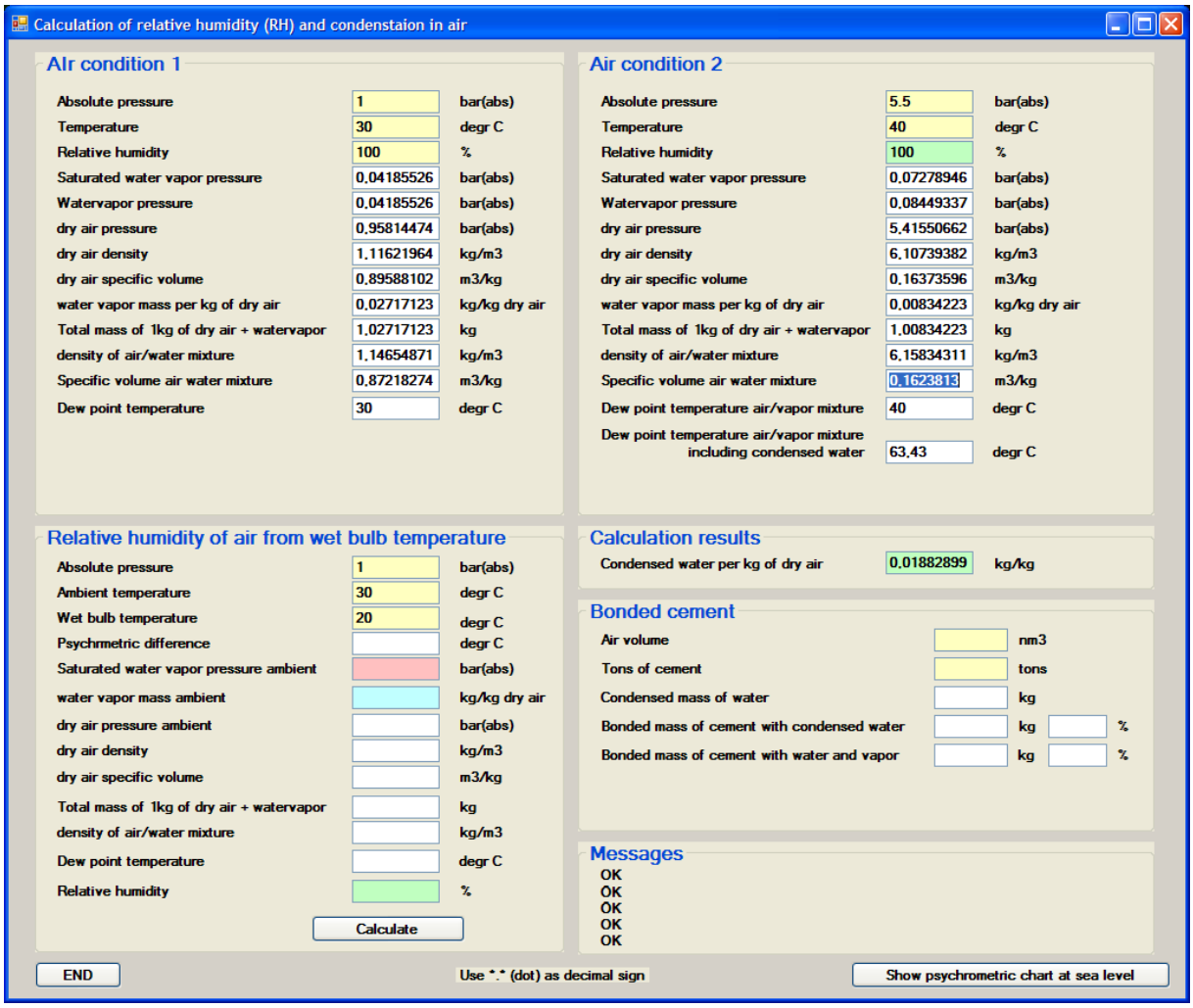
Calculation of relative humidity (RH) and condenstaion in air
AIr condition 1
Absolute pressure 1 bar(abs)
Temperature 30 degr C
Relative humidity 100 %
Saturated water vapor pressure 0,04185526 bar(abs)
Watervapor pressure 0,04185526 bar(abs)
dry air pressure 0,95814474 bar(abs)
dry air density 1,11621964 kg/m3
dry air specific volume 0,89588102 m3/kg
water vapor mass per kg of dry air 0,02717123 kg/kg dry air
Total mass of 1kg of dry air + watervapor 1,02717123 kg
density of air/water mixture 1,14654871 kg/m3
Specific volume air water mixture 0,87218274 m3/kg
Dew point temperature 30 degr C
Air condition 2
Absolute pressure 5.5 bar(abs)
Temperature 40 degr C
Relative humidity 100 %
Saturated water vapor pressure 0,07278946 bar(abs)
Watervapor pressure 0,08449337 bar(abs)
dry air pressure 5,41550662 bar(abs)
dry air density 6,10739382 kg/m3
dry air specific volume 0,16373596 m3/kg
water vapor mass per kg of dry air 0,00834223 kg/kg dry air
Total mass of 1kg of dry air + watervapor 1,00834223 kg
density of air/water mixture 6,15834311 kg/m3
Specific volume air water mixture 0,1623813 m3/kg
Dew point temperature air/vapor mixture 40 degr C
Dew point temperature air/vapor mixture including condensed water 63,43 degr C
Relative humidity of air from wet bulb temperature
Absolute pressure 1 bar(abs)
Ambient temperature 30 degr C
Wet bulb temperature 20 degr C
Psychrmetric difference degr C
Saturated water vapor pressure ambient bar(abs)
water vapor mass ambient kg/kg dry air
dry air pressure ambient bar(abs)
dry air density kg/m3
dry air specific volume m3/kg
Total mass of 1kg of dry air + watervapor kg
density of air/water mixture kg/m3
Dew point temperature degr C
Relative humidity %
Calculate
Calculation results
Condensed water per kg of dry air 0,01882899 kg/kg
Bonded cement
Air volume nm3
Tons of cement tons
Condensed mass of water kg
Bonded mass of cement with condensed water kg %
Bonded mass of cement with water and vapor kg %
Messages
OK
OK
OK
OK
OK
END
Use "." (dot) as decimal sign
Show psychrometric chart at sea level