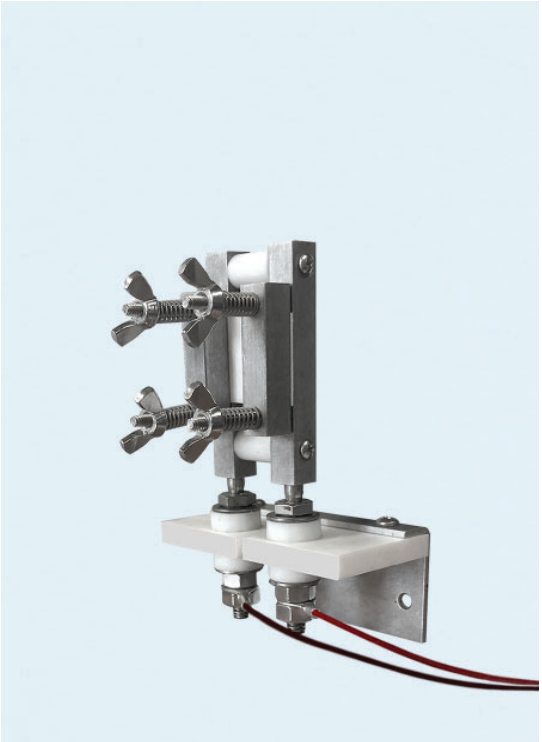
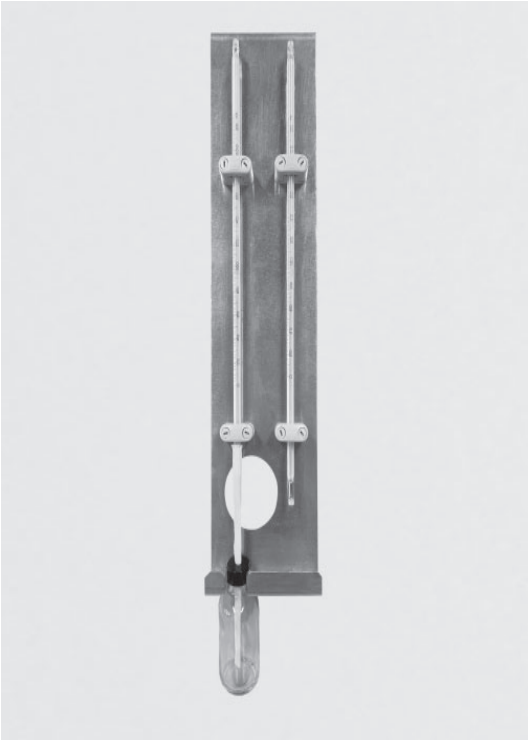
EMC Measurement with Ligno-VersaTec and Lignometer K

Once the kiln has been loaded the last thing to do is place the EMC holders. A new cellulose wafer should be used for every kiln charge. Check and clean the EMC station if necessary. Dirty angle connectors and EMC holders affect the EMC readings. EMC readings are also used to check a dry-bulb-wet-bulb measuring station.



Angle connector with EMC holder and EMC wafer for direct measurements of EMC. Setting for Ligno-VersaTec and Lignometer K is #129. (EMC holder can be also plugged into station plate.)



Dry-bulb-wet-bulb thermometers with mounting plate and wet sock bottle.

Obtaining EMC Readings

The EMC can be read with the Lignometer K and the Ligno-VersaTec directly in percent. For EMC readings the meter should be set to the setting specified on the wood group card for EMC. All EMC values should be temperature compensated by setting the drying temperature inside the kiln (temperature of air surronding the EMC wafer) at the moisture meter Lignometer K or Ligno-VersaTec.

After dialing the wood group and the air temperature in the moisture meter and selecting the corresponding station at the selector switch, the EMC can be read at the moisture meter directly in percent. Conversion charts are not necessary. 2 Charts are included showing the relation between EMC/MC and relative air humidity, and dry bulb-wet bulb temperature.

See EMC graph on page 2 for relationship
wood moisture / relative humidity / temperature dry-bulb/wet-bulb

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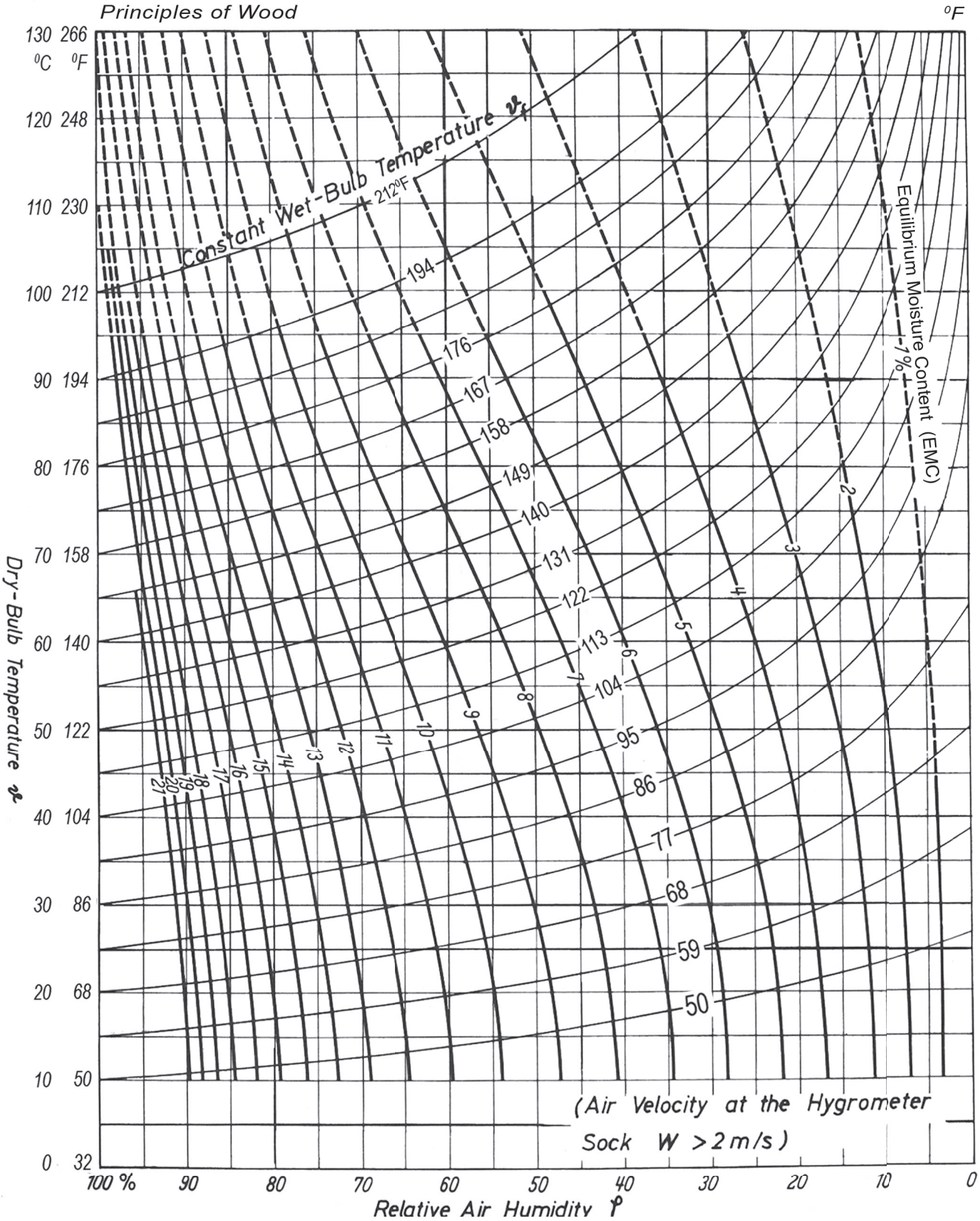
EMC Graph: Wet - Dry - Bulb - RH - EMC - MC (^{0}F)



Equilibrium moisture content of wood (EMC) according to R. Keylwerth and data from the U.S Forest Products Laboratory in Madison, Wisconsin 1951.

Example: When the dry-bulb temperature is 95^{0}F and the relative humidity is 45%, then the corresponding wet-bulb temperature is 77^{0}F and the equilibrium moisture content (EMC) is 8%.

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