The rugged new CNI Eliminator™ Industrial Dehumidifier dries air automatically, without fuss or hard to deal with chemicals; and it does it at an astonishing low cost.

No recognized method of air drying, within its recommended operating range is as economical in first cost or operating cost as the Eliminator. In comparison to absorption and suction adsorption equipment, the CNI Industrial Dehumidifier usually costs less than half as much to own and operate in equivalent moisture removal.

Selecting the CNI Eliminator to Solve Your Humidity Problems!

Actual moisture removing capacity is determined by operating temperature and relative humidity. It may range from as little as three gallons of water per day to 36 gallons of water per day.

The CNI Industrial Dehumidifier is designed to operate most effectively at ambient dry bulb temperatures between 55 F (13 C) and 105 F (41 C), and at relative humidities from 40% to 100%. If equipment is required for operating conditions other than those shown in this catalog, consult the factory.

Step 1: Determine amount of moisture that must be removed from air infiltration to your space

A. Identify the maximum moisture content of the outside air in your locality, from Table 1. Select the city closest to your area.
B. Determine the maximum amount of moisture that must be removed from every 1,000 cu. ft. of air entering your facility at a given temperature, to satisfy your requirement for a selected humidity. From Table 2, enter usual indoor temperature on hot, muggy days and read pints of water at desired relative humidity. Deduct this from the figure selected in Step 1A.
C. Establish the total volume of space where the humidity is to be controlled. Multiply interior building or space, width by length by height, to determine cubic feet.
D. From Table 3 select the appropriate infiltration factor for your plant. Multiply this factor by the total volume (cu. ft. from Step 1C) to determine the cubic feet per hour infiltrating your space.
E. Multiply the moisture removal requirement as established in Step 1B by the total air infiltrating your facility as established in Step 1D.

Step 2: Determine the effect of occupancy on humidity levels

People occupying the space give up moisture. The amount of moisture released is dependent on the degree of activity. Table 4 identifies the amounts of moisture given up for various types of activities. Referencing this table, compute the moisture that must be removed every hour to compensate for the number of people and the type of activity performed within your space.

Step 3: Determine from standing water

If your operation requires open tanks or sinks of standing water which can evaporate into the air, it will be necessary to identify the temperature of the standing pool and the exposed surface area. Referencing Table 5, identify pints of water that will be evaporated for every square foot of surface area at the usual water temperature.

Step 4: Identify other sources of moisture

For instance, if your space houses equipment that burns unvented natural or manufactured gas, the hydrogen in the gas will combine with oxygen in the air to form moisture. This is another source of humidity that must be controlled. Determine the amount of gas burned in cu. ft. per hour and multiply it by .65 for natural gas or .35 for manufactured gas to determine the pints of water per hour that must be removed. Additional sources of moisture might include wiping cloths or the products being manufactured, or packaged. In each case some effort must be made to establish the amount of water that will be given up in order to maintain humidity levels.

Step 5: Summary Data

1. Water from infiltrating air..... _____Pts/Hour

2. Water from occupancy ..... _____Pts/Hour

3. Water from evaporation..... _____Pts/Hour

4.Water from other sources..... _____Pts/Hour

Total to be removed each hour to maintain humidity levels..... _____Pts/Hour

Step 6: Machine Selection

Identify the moisture removal capacity of the Eliminator for a given room temperature and relative humidity from Table 6. More than one piece of equipment may be necessary.