

Heat of Compression Dryer

H-series description of operation

The flow chart illustrates the efficient H-series system. Air enters the dryer directly from the compressor. It is directed into the regenerating tower, where the heat-of-compression removes the moisture from the desiccant. The air then flows into the aftercooler, into the coalescing-type moisture separator, and into the drying tower where the air is dried to its final low dewpoint.

The H-series switches towers every half hour. (With the optional Dewpoint Demand Controller Series II (DDC II), the cycle is extended until the drying tower reaches saturation.)

At tower shift, a small temperature and dewpoint bump occurs, as with most other heat reactivated dryers. The small amount of high dewpoint air blends in with the previously dried air to maintain a low overall dewpoint.

The DDC II turns off the timer and switches the towers only when the dewpoint at the outlet of the dryer rises to a preset level indicating the desiccant in the drying tower is saturated. Switching towers on demand uses the full capacity of the desiccant, reduces the number of tower shifts, and compensates for fluctuations in compressor flow. The DDC II allows the dryer to be operated at 0% - 100%

Left Tower Heating, Right Tower Drying

