



R1 HEAT REACTIVATED DESICCANT DRYERS

Silicair Dryers have a full range of internally heated desiccant dryers all based on the Thermal Swing principle. This involves the use of a fixed timer control system providing an alternating adsorber drying process and reactivation through the two desiccant filled adsorber vessels.

The changeover sequence is based on a standard operating cycle of a 9 hour sequence with 4.5 hours drying per vessel. The units are all plc controlled to ensure the dryer and valve operational sequences meet with the required timings. The use of internal heaters provide heat to assist the reactivation process and a cooling period is also included to ensure the off stream vessel has cooled before it is next required for drying duty.

A bleed of very dry expanded air is used to reactivate the off stream vessel ready for the next drying duty to commence. For processes that require a very low outlet dewpoint, the timer sequence and desiccant bed composition can be changed to achieve these levels of performance.

Nominal design flow rates can be accommodated up to 850 L/s (1800 cfm or 3060 M³/Hr at 7 bar (g)) with all models being available for a maximum working pressure up to 13 bar (g).



All Silicair Dryers models are CE marked as standard and are custom selected to meet your specific requirements based on the exact operating parameters for your process. To obtain the correct model to meet your requirements please contact us with your inlet flow, pressure, temperature and required outlet dewpoint. All models are available for an outlet dewpoint of -40 °C with an option for -70 °C if required. Specific pressure vessel design codes are available for these models including ASME VIII Div.1, ASME VIII Div.1 U stamp or PD5500.

These models will benefit from the use of the optional DESS dryer energy saver system to assist with the overall operational energy efficiency.

In addition, complete dryer/filtration packages can be provided to ensure that the correct level of outlet air quality is provided to meet your process specification. Dewpoint analysers and changeover failure alarm can be provided as part of the scope of supply.

The activation purge flow will be calculated accordingly and product design data sheets are available on request.