



Dehumidification Application

The choice for desiccant dehumidification®
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APPLYING DEHUMIDIFICATION EQUIPMENT

Bry-Air environmental control systems allow for consistent control to efficiently prevent the effects of humidity.

The procedure for selecting a Bry-Air dehumidifier involves matching the application requirements to the most effective equipment size and configuration.

The project must be identified in terms of general requirements and also in specific detail to allow for proper equipment selection and application.

The control level must be understood to insure proper application of the equipment. First

determine if the control requirements for temperature and humidity apply to a space condition or to a process air stream. Verify if the control level is to be held constant or if variable control points are required.

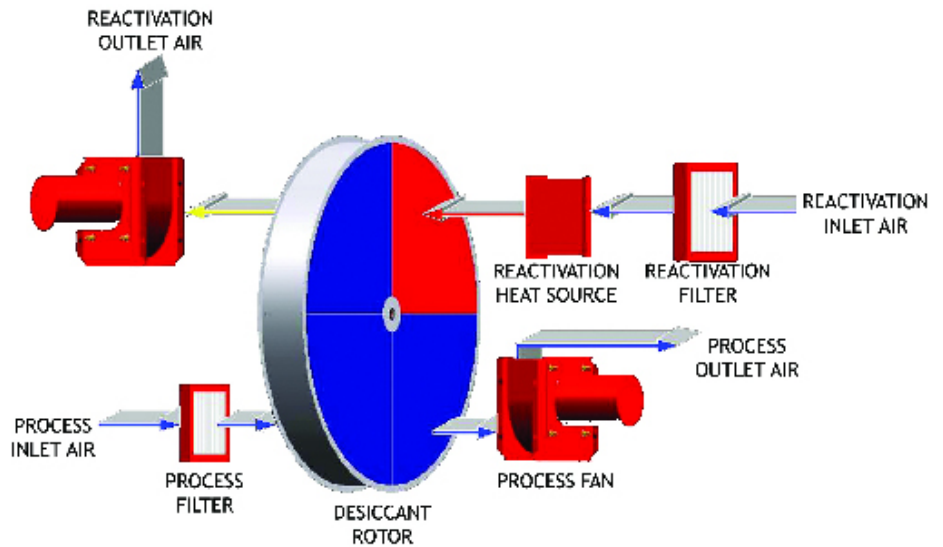
In addition, it is important to identify the humidity level and control tolerance required of the application. If a condition is to be maintained year round, and humidity levels can be too low, consideration must be taken for adding humidity during periods of dry weather, typically

in the winter. Once the control level is established, the location of the controlling device must be determined. The location can be within the controlled space, in the return duct (Bry-Air assumes this is equal to the space condition), or in the supply air for process applications.

In the case of process applications, it may be difficult to specifically target a control level. Keep in mind that many variables affect the drying process. Air flow rates, air distribution to the product, temperature, humidity, and product characteristics all have an effect on moisture removal rates. Product drying is not always a matter of removing surface moisture, and the drying rates for adsorbent materials can be very difficult to establish.

If drier air offers advantages to the customer due to inability to raise temperature on heat sensitive products, then dehumidification may be applicable. If the customer can effectively dry product in the winter, then the design requirements for

Typical Flow Diagram



the equipment have already been established.

Although Bry-Air cannot guarantee product drying rates based on theory, we can provide dehumidified air for the process based on our experience. Investment in a pilot system or an R&D product evaluation test may provide the necessary information to properly apply the dehumidification equipment. Once control values have been established for an application, the load calculations for the equipment can be defined.

For more information on Bry-Air's products and services please visit www.bry-air.com

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