

Rotation dryer i.HOC

Efficient compressed air production with full-flow regeneration

i.HOC is the new integrated attachment rotation dryer for dry-running rotary screw compressors from Kaeser. It provides a reliable and stable supply of compressed air with pressure dew points to minus 30 degrees Celsius, even in challenging environmental conditions – and also saves energy.

i.HOC stands for “integrated Heat Of Compression dryer”. This means that the heat, which is a by-product of air compression, is used to regenerate the desiccant. The heat is essentially available for free, as no additional energy is required to power the drying process. The result: reliable air drying with maximum efficiency and lower energy costs - even for varying quantities of air.

Compared to systems already on the market, i.HOC takes advantage of the entire quantity of available heat. This means that low pressure dew points can be reliably achieved even in challenging conditions, such as low pressure, high temperature or low load operation. This is made possible by a high-efficiency radial blower with variable control, which serves two main purposes: to compensate for the pressure lost in the drying process and automatically adapt the drying process to changing operating conditions. Full-flow regeneration, together with an additional patented process, ensures dependable drying, without additional electrical heat sources or coolers, even at ambient temperatures as high as 45 degrees Celsius.

The integrated Sigma Control 2 compressor controller perfectly manages the entire process, controlling the radial blower and drum drive of the i.HOC integrated rotation dryer. Regardless of the operating conditions or the required air delivery volume, the controller automatically adjusts accordingly to ensure reliable and consistent production of pressure dew points down to minus 20 degrees Celsius, and under special conditions down to as low as minus 30 degrees Celsius.

The logical, compact system design not only enables straightforward and low-cost installation, but also offers optimal serviceability features and a relatively small footprint.

Moreover, the Kaeser i.HOC system provides impressive heat recovery rates. The full-flow regeneration process with water-cooled dry-running rotary screw compressors allows the compressor cooler to be used for heat recovery purposes. This system eliminates the heat losses associated with existing systems caused by separate dryer coolers – and saves the cost of energy that would have to be expended to produce process heat or to provide space heating.

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2.628 keystrokes. Free for publication – A copy would be appreciated.

Caption:



Dry-running rotary screw compressors with the new i.HOC integrated attachment rotation dryer deliver a reliable and stable supply of quality compressed air with pressure dew points to minus 30 degrees Celsius. They also save energy and space.