

On board with the new FSD rotary screw compressors

Enhanced performance from the flagship of the Kaeser fleet

Space on board maritime vessels is always at a premium, which makes Kaeser's new FSD series rotary screw compressors the ideal solution for marine applications. Measuring only a metre in width and with a total footprint of just 4.1 m², they are significantly more compact than equivalent conventional compressors. Of course, like all Kaeser compressors, they also guarantee outstanding dependability, performance and energy efficiency.

With motor outputs of 240, 310 and 390 kW and covering delivery volumes up to 44 m³/min at pressures up to 14 bar, these versatile compressors are the ideal choice for a wide range of applications, such as nitrogen generation for example. Moreover, they are certified by all international marine classification societies.

Efficiency is always a key requirement for any ship's compressed air system – especially in view of ever-increasing energy costs. FSD series compressors owe their exceptional levels of efficiency and performance to meticulous engineering and design, which serve to save energy in four key ways. First of all, the rotary screw airend features flow-optimised, energy-saving “Sigma Profile” rotors. Secondly, they are powered by IE4 Super Premium Efficiency drive motors for the highest levels of efficiency available on the market today and thirdly, Kaeser's highly efficient 1:1 drive concept eliminates the transmission losses associated with gear or belt-driven systems, as the motor drives the airend via a direct coupling. The fourth major energy-saving feature is the industrial PC-based “Sigma Control 2” compressor controller with its five preprogrammed control modes, which enables compressor performance to be matched precisely to actual current air demand, thereby saving additional energy. This advanced controller, also certified for marine applications, offers the choice of operation in 30 selectable languages. Furthermore, not only does it ensure energy-efficient operation of the compressor, it also monitors the inlet and compressor temperatures, working in perfect interplay with the electronic fluid temperature control (Electronic Thermal Management) to prevent condensation from forming in the fluid circuit when there are differing levels of moisture in the intake air.

Cool, condensate-free compressed air is ensured by a highly efficient cooling system – fed by fresh water or optionally, seawater – equipped with an integrated, axially-mounted centrifugal separator and an energy-saving Eco-Drain electronic condensate drain.

To guarantee that the compressor remains firmly in place no matter how rough the seas may be, the system's stable base frame is specially designed to be bolted down or welded to the deck.

An intelligent component layout means that all maintenance work can be carried out from one side of the unit, meaning the FSD can be installed along the wall or against a bulkhead.

In every respect, the new flagship of the Kaeser fleet is the perfect partner for all your marine compressed air needs.

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The FSD is a compact compressed air station for marine applications. With a width of just over one metre and a total footprint of only 4.1 m², this powerful, reliable and efficient compressor will fit in almost anywhere.