

## Solution Spotlight: New Oil-Free Centrifugal Compressors

Written by MT Staff

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### **Centac C-Series: C1000 700-1,100 sW (900-1,500 hp)**

#### **Simplicity by design just got better...Delivering What You Asked for.**

With its new line of C1000 Centac oil-free centrifugal compressors, Ingersoll Rand is continuing a long tradition of simplicity by design and—*it appears*—outstanding customer responsiveness. According to the company, this recently introduced series incorporates the best of both time-proven and new technologies, including more than 50 design improvements, to deliver the type of reliable, efficient, productive operating capabilities that compressed air users demand.

Optimized for superior serviceability, the vertically-split design provides fast access to major components, thus minimizing downtime. Traverse-mounted water-in-tube coolers, for example, can be thoroughly cleaned in place from either side. (Oversized for greater fouling resistance, these coolers provide low CTD and pressure drop to increase compressor efficiency and reliability.)

The units have a simplified, leak-free oil system with an integrated oil filter, in addition to pressure and thermal regulation. Leak-free operation is attained using O-ring face seals.

Sleeve bearings in the heavy-duty motor reduce maintenance and improve durability. High-quality AMGA-rated gearing is designed for 25-year life. All components are uniform-hardened (as opposed to surface-hardened) to further increase reliability.

Ingersoll Rand's signature reverse backward-leaning impellers maximize turndown and increase efficiency. Field removal is simple and requires no special tools.

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Flex-pad lobe bearings lead to high load capability and low vibration levels. Tapered land thrust bearings absorb maximum load and are more tolerant to contaminants.

Full floating non-contact carbon ring seals minimize air leakage and prevent oil from migrating into the air. According to the manufacturer, single-piece construction provides two to three times better performance than other technologies, which saves valuable compressed air.



### It's All About Control...The Right Kind

The C1000's controller features an intuitive high-resolution color display that provides a window into all of the compressor's vital signs. Besides helping ensure peak performance, this controller enables predictive maintenance through continuous monitoring and trending of critical parameters. It has an open Web-page architecture allowing users to remotely interact with the compressor from almost anywhere.