

Dresser-Rand engineers are always looking for new ways and new ideas to improve existing products and services. One might even say they are looking for game-changers – products and services that set new standards in compression technology. One such product is the DATUM® ICS compressor.

Built upon the success of the DATUM line of compressors, the DATUM ICS is an integrated compression system (ICS) that is engineered with centrifugal separator technology to efficiently separate liquid from the gas stream. Its integrated design makes the DATUM ICS competitive with the overall performance of traditional systems when the scrubber and inlet piping losses are taken into account.

But what exactly is it about the DATUM ICS that makes it a “game-changer”?

According to Pascal Lardy, director Business Development ICS Technology at Dresser-Rand, “Our engineers were able to integrate our separation technology – for removing liquids from gases – and package it in a single, compact unit to create the DATUM® I compressor. Moreover, because there is no stand alone separator, we’re actually able to take all the process coolers, piping and valves and condense everything into an integrated compression module that substantially reduces the footprint as much as 50 percent, while also reducing the onsite interconnected piping and valves – hence the DATUM ICS.”

With a footprint and weight up to typically 50 percent smaller than comparable conventional solutions, the DATUM ICS creates an efficient, cost-effective alternative that can lower a client’s initial infrastructure costs and add efficiency to both onshore and offshore, brown field and green field, applications.

“Furthermore,” adds Lardy, “the compressor remains dry and runs reliably at full performance while our competitors are still concerned with how wet the compressor can get before performance and reliability are compromised.”

Because the DATUM ICS is built with proven DATUM design features, it also inherits the compressor line’s environmentally friendly characteristics. Perhaps one of the most significant green features is the use of magnetic bearings. While such bearings have been around for years, previous systems



DATUM® ICS COMPRESSOR CONTINUES THE LINE’S EFFICIENT REPUTATION.

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Game-Changer, n. completely changing thought about or made.

relied on older analog control systems, making the bearings difficult to tune and adjust. With these new bearings, there is no need for an oil lubrication system or oil film seals. The unit is completely enclosed and produces no on-site emissions.

Said Lardy, “The DATUM ICS is essentially a plug-and-play module. You set it on site and simply connect the inlet pipe, the discharge pipe and the associated electronics with limited on-site testing since the full unit, including the integrated process package, has been tested in shop.” This translates into a substantial reduction in time to install and



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the way that something is done,

commission the module. “In fact, we estimate up to a 30 percent reduction in time to install it,” adds Lardy.

Dresser-Rand is in the process of making the DATUM ICS fit for service on the seafloor, because the same features that provide value for topside applications will be enhanced in a subsea environment. According to Lardy, the company is planning to build a subsea model, eventually working with subsea integrators to perform qualification testing.

“There are numerous potential applications inside the oil and gas industry for which we believe the DATUM ICS will be the preferred solution,” said Lardy. “Offshore applications are certainly among these, since footprint and weight are key parameters to minimize operating expenses.”

“In brown field applications, for example, additional boosting is often needed to maintain or improve the production level. To avoid the impact of new mezzanine installation, which means higher costs and downtime, the compressor system and the process package have to fit within the (very limited) free area on the existing platform. This is exactly what the DATUM ICS is all about, and what makes it a game changer,” Lardy concludes. ●

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