

our specific market we only need to control two compressors at a time, therefore, Sullair redesigned a simpler built-in controller. Now it's a simple matter of pre-programming the control according to customer requirements. This oil-injected rotary screw compressor is available in a whole range of sizes."

Because compressors are huge energy guzzlers, all manufacturers have had to face the challenge of reducing energy consumption to the minimum. "All our compressor products have been redesigned, and are now seen as energy efficient machines," says Paul. "They have two modes of operation. You can either run them under constant pressure, or you can have them load and unload which is where you save energy."

Saving energy

"However, where required we can supply variable speed control systems," Paul adds. "Using variable speed drives coupled with Sullair's Smart Technology system, compressors can run more efficiently in environments where demand may vary from season-to-season or from shift-to-shift. In periods of low demand, the Supervisor control system reduces the compressed air output by reducing the drive speed. This reduction in drive speed saves power and trims operating costs."

Another energy saving feature is a mechanical control system that continuously controls the capacity in the compressor. "An outstanding feature of VCC (Variable Capacity Control) compressors is Sullair's unique capacity control system, which consists of a spiral valve and an inlet butterfly valve," explains Paul.

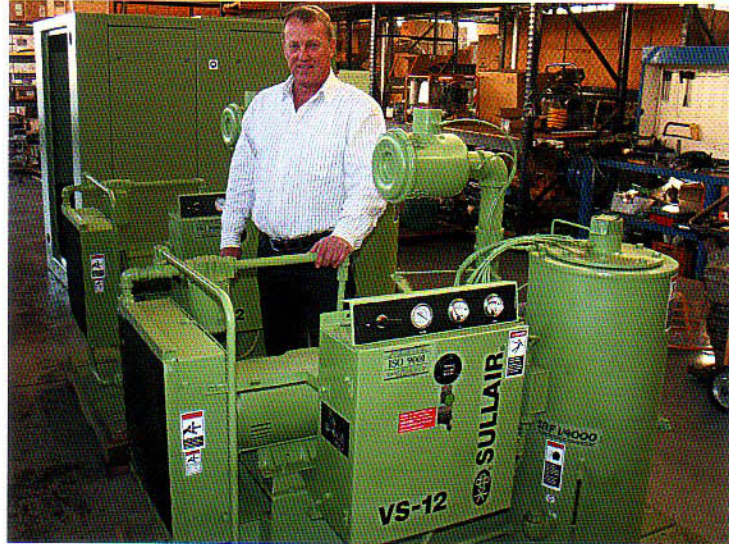
Unique technology

"This system delivers greatly improved part-load performance, especially when compared with compressors having suction throttling or load and no load controls. The compressed air volume is varied by rotating the spiral valve, which opens and closes by-pass ports in the stator, and returns air to suction rather than compressing it. By matching compressor displacement with output need, 17 percent less power is consumed."

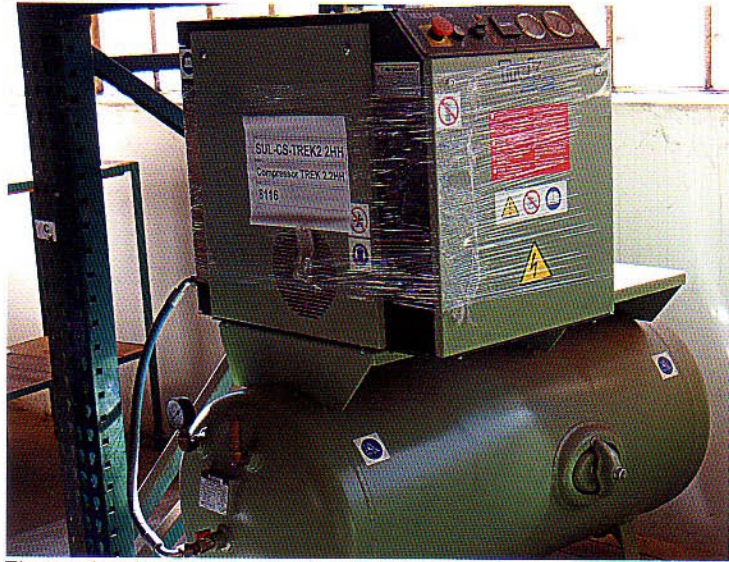
The range of two-stage tandem rotary screw compressors have been redesigned to feature variable capacity control with spiral valve technology to provide increased levels of energy efficiency and operating performance. They are available in either constant speed drive models or a range of variable speed drive (VSD) models. At full load, the tandem compressor and spiral valve have proven to be 13 percent more energy efficient, while at 60 percent load, the two-stage tandem compressors provide up to 30 percent savings over single-stage compressors.

More savings

"Further part load and full load energy savings are achieved with an optional VSD which provides



Paul Combe



The product has been on the South African market for many years

the highest power factor over the entire frequency range," says Paul. "This package, combined with the spiral valve, offers the best control with the lowest turndown in the industry, truly the ultimate energy saving feature in compressed air systems. The tandem compressor can also be fitted with a heat recovery enclosure which saves even more energy by recovering expended heat from the compressor. This heat can be used as supplemental comfort heating, or make-up air for process heating."

This energy-saving system uses up to 17 percent less power

In the future, GCAS will stock a wide range of portable compressors from Sullair. "With the new energy saving technology I am confident that this range of proven air products is set to grow in the local market," Paul says in conclusion. "Just take the air-ends as an example of the quality of this premium brand. On a daily basis we hear of air ends that crash at anything between 20 to 25 000 hours. On our smaller units we comfortably get 45 000 hours while the bigger units do 80 000 hours and in many instances are still running."

Paul Combe, Goscor Compressed Air Systems, Tel: (011) 453-8836, Email: pcombe@goscor.co.za, Website: www.goscor.co.za