



SPIRAL VALVE TECHNOLOGY: AN ENERGY-SAVING SOLUTION FOR HOT CLIMATES AND DUSTY ENVIRONMENTS

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When choosing an industrial air compressor, customers are often faced with a decision to select a compressor with Spiral Valve Technology or Variable Speed Drive. There are considerations for each – with an important one being the climate and environment in which the compressor is used.

What is Electronic Spiral Valve Technology?

Introduced in 1984, Sullair Spiral Valve technology is a variable capacity control method to efficiently manage changes in compressor demand, reducing the amount of air compressed. This reduces energy usage and saves customers money. Plus, Sullair Spiral Valve technology helps improve compressor durability and increase air end life by reducing the bearing loads due to variable

flow demands. Using Spiral Valve Technology, customers can see between 17-35% efficiency depending on configuration. Sullair's new Electronic Spiral Valve Technology, available in 125 hp-200 hp units, offers customers a tight +/- 1 psi pressure band providing even greater precision when compared to other variable capacity control methods.

What is Variable Speed Drive?

In the 1990s, Variable Speed Drive (VSD) was introduced. Variable Speed Drive provides maximum energy efficiency and operating consistency by adjusting the speed of the motor to match compressed air supply needed. Using VSD, customers can realize up to 35% efficiency.

Considering the geography and location in which your compressor is placed will help guide you to which machine to choose. For instance, our (Air Power Sales & Service) customer base is in Texas. In the summer, our customers experience very high summer temperatures with many days over 100°. Many of our customers place compressors outside, so heat and high humidity is a major factor. If it does not rain, dusty environments can harm VSD units. In those cases, customers have two choices: relocate the equipment to inside the facility, where there is often limited space, or continue to place equipment outside but opt for a machine with Spiral Valve Technology.

Using a Spiral Valve machine, there are no electronics to worry about reprogramming, servicing or maintaining. This allows customers more freedom to put the machine where they would like, yet the customer still benefits from gaining the efficiency they seek. In addition, with Spiral Valve machines, a 55°C motor can be placed in

the compressor allowing it to be safely used or placed in environments where temperatures reach up to 131°F.

Spiral Valve technology allows customers to gain efficiency without the worries of where the compressor can be placed – and the payback is faster. The initial investment in Spiral Valve technology is nearly 20% less upfront compared to a unit with VSD. In addition, you still receive an equivalent warranty with one year on the Sullair compressor package, five years on the major components, and 10 years on the air end.

If you use compressed air in your production process and are seeking air 75 hp and above, Spiral Valve technology is an option worth looking into – particularly in hot climates and dusty environments.