



## For The Variable Speed Drive Control of Your Compressors, Don't Settle For Anything Less, Than The Industry's Best!

### **Built-In!**

*The Variable Speed Drive Control Logic That Is **Built-In** To Every Quantum™ LX Control Panel, Provides The Highest Degree of Safe and Efficient Operation Available.*

#### Easy To Use

While the Variable Speed Drive control logic of the Quantum™ LX control panel is quite extensive, the setup for this powerful program is quite easy, consisting of just a handful of setpoints.



#### Lower Costs

Better control equates directly to energy savings, which lowers operating costs. The Superior Variable Speed Drive control logic that is **Built-In** to every Quantum™ LX squeezes out every bit of available energy savings from your compressor system by:

- Maximizing Part-Load Efficiency
- Removing Control Setpoint Overshoot
- Maintaining Ideal Volume Ratio Control
- Optimizing Economizer Boost

**Independent Setpoints** - for slide valve control reaction as well as speed control reaction means that the slide valve can be set to load as quickly as possible while the speed can be adjusted independently to react as fast or as slow as required by the process.

#### Proportional With Integral Control

Proportional Control establishes the reaction of the speed control based on the current control value's relationship to the control setpoint. The integral control adjusts the reaction of the speed control over time by monitoring this relationship and walking the control value to the control setpoint as quickly or slowly as the process requires. Properly set proportional and integral control setpoints will satisfy your process needs as efficiently as possible.

#### The Quantum™ LX Knows Compressors!

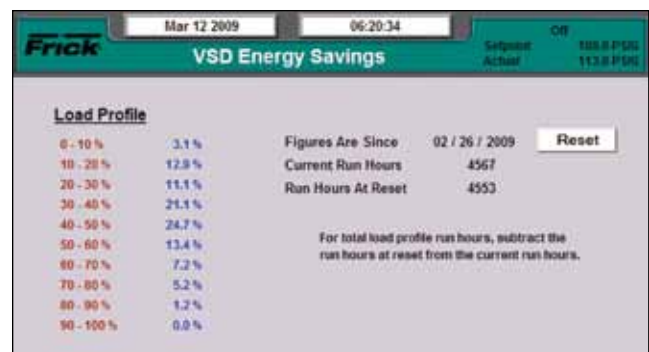
Without a doubt, satisfying the needs of the process is the primary function of the Variable Speed Drive. It is also important that the controller understand the needs of the compressor and motor. The Variable Speed Drive control logic of the Quantum™ LX control panel is packed with decades of screw compressor engineering experience. During a period of system upset, this **Built-In** experience allows the Quantum™ LX control panel to take the appropriate temporary corrective action, keeping the system operating when otherwise a shut-down may occur.

#### Liquid Cooled or Air Cooled

The Quantum™ LX provides unparalleled control for the liquid cooled, package mounted Frick® Vyper™ drive, or any Air-Cooled Variable Speed Drive that may be applied.

#### Field Retrofit

Retrofitting existing compressors with a Variable Speed Drive can be just as advantageous as applying one to a new compressor. Retrofitting your compressor package with a Quantum™ LX control panel is often the first step in determining if a Variable Speed Drive is the right decision. The Part Load Profile gathered by the Quantum™ LX, as shown on The VSD Energy Savings screen below, will aid greatly in this decision.



NOTE: In order to best suit your needs, the Part Load Profile can be in days, weeks or months.

Contact Your Frick® Sales Representative for More Details



BY JOHNSON CONTROLS

**“The Trifecta of Compressor System Efficiency”**  
**Frick® RWF II Screw Compressor**  
**Quantum™LX Control Panel and Vyper™ Variable Speed Drive**



***Maximize Your Compressor System Efficiency By  
Optimizing Capacity With Speed Control !***

***5:1 Speed Turndown - Best In The Industry***

**Remove Overshoot • Optimize Economizer Boost • Maintain Ideal Volume Ratio**

Form 090.000-ADV05 (2010-11)  
Supersedes: 090.140-ADV2 (2010-11)  
Subject to change without notice  
Printed in USA • 1211 PDF

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