



## Do It all, With One Controller and One Program, **Built-In!**

*The Universal Program of the Quantum™ HD controller provides unmatched versatility from a single program platform*

### Easy To Configure

The **Quantum™ HD** controller is easily configured to control virtually any rotary screw compressor in use today, Simply select the compressor type to enable all relative control for that compressor type. Simplify your maintenance and inventory processes with the one panel / one program approach to control all of your compressors.

### Field Retrofit/Configurable

In addition to retrofitting Frick® screw compressors, the **Quantum™ HD** controller is used extensively to retrofit the following rotary screw compressors: **FES/GEA** (fixed or variable Vi) · **Dunham Bush** · **Vilter** (dual-rotary) · **Mycom** (fixed or Var. Vi) · **Howden** · **Stal** · **Sullair** · **Kobe** (fixed or variable Vi).

### No Controller Makes Retrofitting Easier!

After installing 11 **Quantum™ HD** retrofit controllers, Juan Gonzalez, Senior Service & Controls Engineer for American Refrigeration commented...

*"The new Frick Quantum™ HD controllers are much easier to install and configure than any other retrofit controller available. The universal operating program of the Quantum HD makes it completely field configurable."*

*"There is no lost time going back to the factory for program or configuration changes. Frick really got it right!"*

### Factory Tested and Certified

Each **Quantum™ HD** controller undergoes and must pass an extensive battery of tests prior to shipping to your location. As confirmation of this test, each panel is shipped with an accompanying Panel Test report for your records.



### Touchscreen User Interface

The touchscreen user interface of the **Quantum™ HD** controller makes navigation of its near countless features, a virtual breeze. The design of the home page means that nearly all, if not all, of the day-to-day operations can be managed without ever leaving the home page. It is all at your fingertips.

### No One Can Respond Faster!

The Universal Program of the **Quantum™ HD** controller allows Frick by Johnson Controls to respond to a critical breakdown situation of an older controller faster than any manufacturer. We

take an **"All Hands On Deck"** approach to taking care of your needs. **Same Day or Next Day Shipping Available!**

### Standard Software Features

- Compressor Sequencing, 3 temperature levels, 8 compressors per temperature level.
- Four-Step Condenser Control (digital), with 2 analog outputs for VFD control. Includes Wet/Bulb control.
- PLC I/O Interface, provides remote digital starting/stopping, loading and unloading from a remote source such as a PLC.
- PowerMizer, Economizer Optimization control
- Additional digital and analog auxiliary channels that are field configurable.
- Eight Proportional/Integral Control Loops that are field configurable.
- Eight Analog Outputs that are also field configurable
- Part Load profiling to identify the best candidate compressor for a VFD retrofit...

*Just to name a few... Contact your Frick representative for more details.*

\* Certain software features may require additional hardware.

## Field Configurable

The following is but a short list of the items that are field configurable with the **Quantum™ HD** controller.

1. Compressor Type/Manufacturer
2. Refrigerant
3. Drive Type (fixed speed, VFD, engine, turbine, etc...)
4. Oil Pump Control
5. Filter Differential Check
6. Liquid Injection Oil Cooling
7. Economizer Control
8. Compressor Sequencer Control
9. Condenser w/Wet Bulb Control
10. Panel-to-Panel Networking
11. System Pull Down Control
12. Number of Capacity Control Modes (up to 4)
13. Digital and Analog Auxiliaries
14. Communications Type (Ethernet or serial)
15. Temperature & Pressure Units
16. Language
17. PIN Based Security Codes
18. Analog Input and Output, Board/Channel
19. Digital Input and output Board/Channel
20. Analog Sensor Type and Range

## The Load Profile page

The Load Profile page provides the necessary data to determine if retrofitting a compressor package with a variable speed drive is the correct thing to do.



This page provides such vital data as the percentage of time the slide valve spent at each 10% interval through the profile. Additional information includes the Run at the beginning of the profile, the current run hours, number of starts during the profile, as well as the average operating suction and discharge pressure during the profile.

## Remote Access

Access your **Quantum™ HD** controller without the need for additional software or hardware. Our patented process for remote access allows up to 5 remote users to access the same **Quantum™ HD** controller without interfering with what the other user is doing.



This level of remote access makes collaboration very easy and effective.

**Standard Supported Analog Devices** - ICTD, 0-5vdc, 1-5vdc, 0-10vdc, 2-10vdc, RTD, 0-20mA and 4-20mA (analog device range is field configurable).

## Standard Supported Communication Protocols

### Ethernet:

- Allen Bradley Ethernet I/P
- Modbus TCP

### Serial (RS-485/422):

- Frick
- Modbus (ASCII & RTU)
- Allen Bradley DF-1 (half & full duplex)

## Be Ready For Tomorrow, Today!

The **Quantum™ HD** controller lets you define your tomorrow, today. The most powerful, field configurable program available means that as your system grows, chances are the program is ready to control it. If you need a software update to get the feature you need, these are **Free & Easy** from our website. There is simply no better value for your retrofit dollar than the **Quantum™ HD!**

