

QGV Series



# Quincy QGV Series

Rotary Screw Air Compressors | 150-200 hp

# Q-Control

## Q-Control Advanced Monitoring, Controls and Networking Capability

The Q-Control combines the latest controller technology with Quincy's cutting-edge and market leading compressor controller software. The resulting package provides a broad range of customer benefits, including improvements on user interface; overall reliability and uptime as well as energy reductions through improved control algorithms. Optimizing and staying connected to the compressed air system has never been easier due to the new onboard tools which include networking, basic remote monitoring and cellular connectivity services.

### Built-In Intelligence

- Full-color 5.7" display
- Networking up to 6 compressors\*
- Online visualization via ethernet connection
- Real-time trending on controller screen
- Day/Week Organizer
- Dual Pressure Band
- Graphic Service Plan Indicator

### Protection

- Predictive graphic service plan
- Pre-warnings

### Optional

- Remote pressure sensor

\*Consult manual for unique configuration constraints

## Q-Control Online Visualization

Monitor your compressors with the new Q-Control over your local area network (LAN). Monitoring features include warning indications, compressor shutdown and maintenance scheduling, all possible with the free, online compressor status visualization.

## Q-Connect Cellular Connectivity

Q-Connect is a monitoring service that provides an online service performance dashboard, service logging, machine service status and monthly service emails at no charge to the customer (RightTime). The cellular hardware device (ICONS) ships standard with every Q-Control. Additional paid features including text message, email and maintenance pre-alerts are available through the connectivity program (UpTime).



## Performance Guaranteed

Quincy Compressor proudly participates in the Compressed Air and Gas Institute's (CAGI) Performance Verification Program. When you purchase a Quincy compressor, rest assured your machine performs as promised.





# Quality Comes in All Shapes and Sizes— But Just One Color.

**True Life Cycle Cost = Purchase Price + Energy Costs +  
Parts and Service + Additional Factors**

## Purchase Price

This is the “upfront” portion of your investment. Over time, the impact of this expense becomes less significant, especially in units that run with minimal downtime over a long life.

## Parts and Service

This cost can vary depending on the type of unit purchased and the application it performs. In all cases, this expense can be calculated by considering the cost and schedule of regular maintenance as a baseline. High stress or demanding applications should also consider the availability of genuine replacement parts and the cost of repairing or replacing key components.

## Energy Costs

Over the operating life of your compressor, energy is the greatest share of your true life cycle cost. Additionally, energy expenses often fluctuate, and these price changes can directly impact your overall profitability. Consider placing an emphasis on units that come with more energy efficient features to help minimize the impact of energy costs throughout your compressor's operational life.

## Additional Factors

In addition to purchase price, parts/service and energy costs, you should also consider any applicable factors based on the needs of your application and configuration of your compressor. These can include (but are not limited to):

- Load profile
- Unloaded energy costs
- Energy recovery
- Pressure drops across equipment and piping
- Demand charges
- Dryer energy costs
- Auxiliary equipment energy costs
- Load/unload cycle time
- Bleed-down losses
- Non-production operation
- Artificial demand
- Air leak losses
- Project engineer recommendations
- System pressure set points



# Quincy QGV 150-200

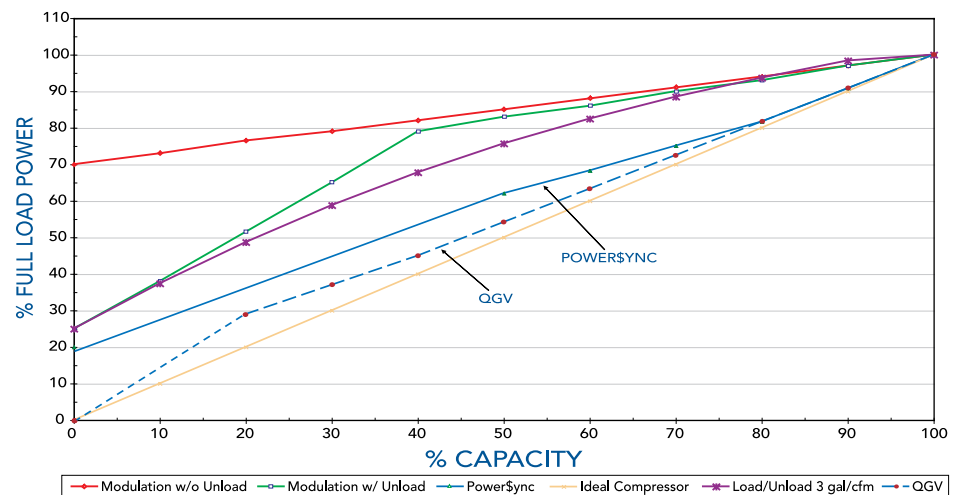
## Lowering Your Total Cost of Ownership

The Quincy QGV compressor family is engineered to deliver the lowest Total Cost of Ownership (TCO) among compressors in their class. Variable Speed Drive operation, along with Quincy's efficient airend design, ensures that overall energy consumption is minimized.



While other manufacturers recommend compressor overhauls every four or five years, Quincy designs to a higher standard. All QGV airends are designed for an L10 bearing life of 100,000 hours – two to three times greater than the industry norm. Quincy is so confident in its design that we offer the industry-leading 10-Year Royal Blue Warranty standard on every QGV.

## % POWER vs. % CAPACITY



To compare various machines, use the specific power and performance of each.

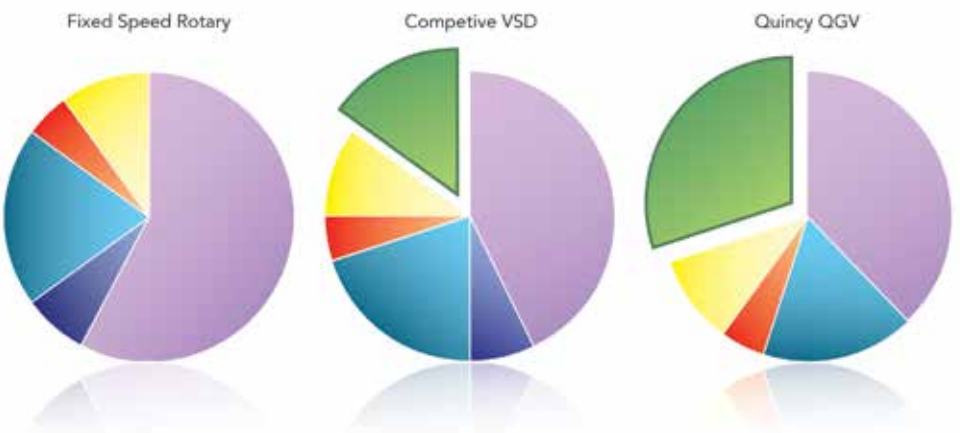
## Quincy's Industry-Leading 10-Year Warranty

Everyone says they have the best machine, but how do they support it? Quincy backs the QGV with the world's best Warranty! World's Best Warranty = 10 Year Airend Warranty. Five year warranty on major components, including variable frequency drive assembly, motor, coolers and reservoir. Other compressor manufacturers charge extra for similar plans, or an extended warranty. Why purchase an empty promise? The World's Best Warranty is standard on the QGV with no extra fees.



## Typical Ten Year Life Cycle Cost

- Purchase Price
- Installation
- Maintenance
- Airend Overhaul (50,000 hours)
- Energy Consumption
- Savings Over Fixed Speed



## Technical Specifications

Model	Max Capacity* - ACFM (m3/hr) ®			Enclosed Sound Level (dBA)	Dimensions			Weight lbs. (kg)
	100 PSIG (7 bar)	125 PSIG (8.5 bar)	150 PSIG (10 bar)		Length inches (mm)	Width inches (mm)	Height inches (mm)	
QGV-150	741 (1260)	660 (1122)	591 (1005)	75	107 (2718)	75 (1905)	80 (2026)	7100 (3220)
QGV-200	975 (1608)	918 (1560)	805 (1368)	78	107 (2718)	75 (1905)	80 (2026)	7500 (3400)

\* Sound level tested in accordance with ISO 2151 and 3744.

\* Unit performance measured according to ISO 1217, Annex C, Edition 4:2009.

## Features

- Direct drive airend, 460 or 575 volt, 75-150 psig
- Automatic restart
- Low demand mode
- Factory mounted and tested variable frequency drive assembly
- Heavy-duty intake filter
- 104° - 110°F max ambient capability
- Integrated compressor networking
- Choice of long-life QuinSyn® fluids
- Two-stage air/fluid separation
- Low-sound enclosure
- Remote alarm communication
- Flexible coupling
- Speed optimizer control
- 10-year Royal Blue Warranty

## Optional Equipment

- Line reactors
- Water-cooled on QGV 150 to 200
- Remote monitoring
- Remote Pressure Transducer



QGV-200



Manufactured in Bay Minette, Alabama  
Performance You Demand.  
Reliability You Trust.

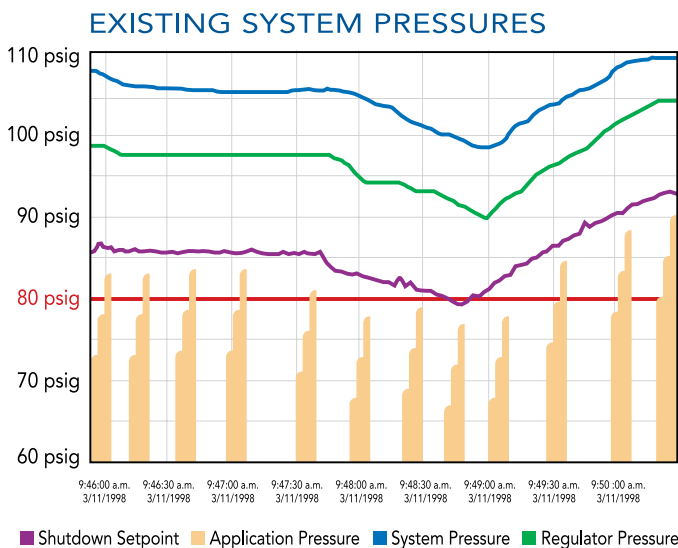
## CASE STUDY: Bottling/Packaging Facility Reduces Operating Costs by More than \$44,000 Annually and Eliminates Production Shutdowns

A California bottling and packaging manufacturer believed its air system operating costs could be reduced. The compressed air supply system was composed of two 75 hp and one 40 hp rotary screw air compressors, a refrigerated dryer and a coalescing filter.

### 1) The Challenge: Air System Pressure Was Raised to the Limits in an Effort to Prevent Frequent Production Shutdowns

Elevating system pressure also elevates operating costs.

In fact, system operating costs can increase 1% for every 2 PSI of unnecessary header pressure.



### 2) The Applied Science: Quincy EQ™ Rating Identifies Potential for System Improvement

The two hour EQ Rating survey conducted by the Quincy distributor identified an opportunity to reduce operating costs by >25% - by resolving elevated system pressure, multiple part-loaded compressors and demand side waste.

QUINCY EQ RATING	
Supply Side EQ Rating	72%
Demand Side EQ Rating	81%
<b>System EQ Rating</b>	<b>77%</b>
<b>Operating Cost Reduction &gt;25%</b>	

### 3) The EQ Analysis: Operating Costs Could Be Reduced by \$44,000 / yr and Shutdowns of the Pneumatic Packaging Equipment Could Be Eliminated

The EQ Analysis™ was conducted by a local EQ trained distributor and projected an annual operating cost reduction of \$44,000. In addition, it was discovered that the unstable header pressure caused by the slow and inaccurate response of the compressor controls was causing shutdowns of the pneumatic packaging equipment.

The Quincy EQ Analysis evaluates the operating and financial performance of your compressed air system, regardless of the brand or type of compressor and dryer.

The EQ Analysis:

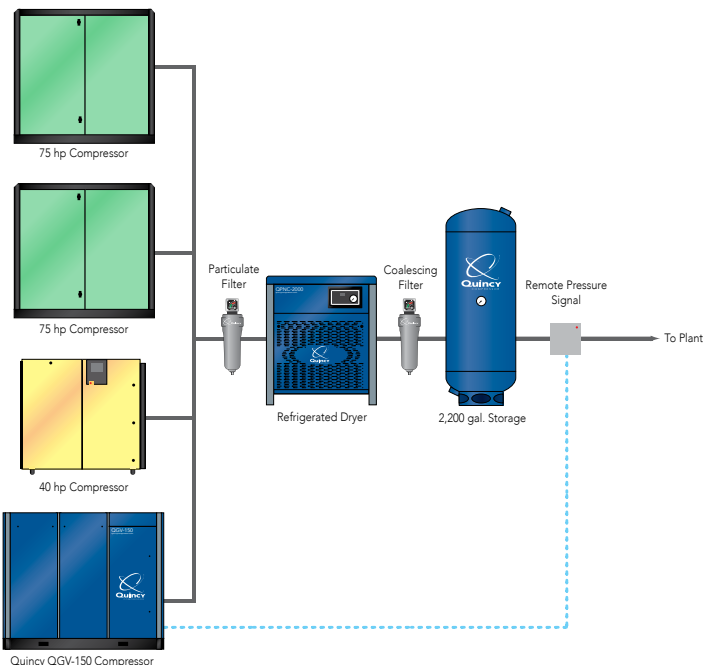
- Accurately calculates the air system's existing performance and operating costs.
- Provides graphs of total flow, power and pressure variation.
- Patent pending technology models the performance of a variety of air system modifications in order to determine the best system arrangement.
- Reports the recommended upgrades, highlighting reduced energy consumption and documents the Return On Investment.



#### 4) The Solution: Delivering the Most Precise Control of System Pressure Available from a Compressor, the Quincy QGV-150 Proved to Be the Best Alternative

The Quincy QGV Series was engineered exclusively to control system pressure accurately across a broad range of air demand.

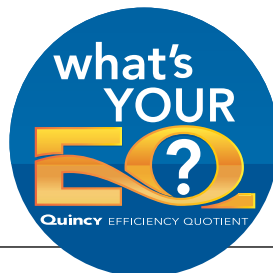
- True PID functions in the Quincy QGV PLC mean that it is able to adjust the speed of its response to match the rate of change in air demand.
- Remote Pressure Signal Connection overcomes the pressure drop created by air treatment equipment, providing accuracy unavailable with any other compressor.
- Turndown capability as much as 85% ensures optimum efficiency, letting the QGV act as the trim compressor in all production conditions.



#### 5) The Results: Production Shutdowns Eliminated and Operating Costs Reduced by More than \$44,000 / yr

The Quincy QGV-150 with the remote pressure signal now controls the header pressure within 2 PSI of the 90 PSIG setpoint – compared to over a 20 PSI variation prior to the system upgrade. This allowed the pressure setpoint to be lowered by 15 PSI while eliminating the production shutdowns. The lower system pressure and the broad turndown range of the Quincy QGV compressor eliminated the need to operate any part-loaded, inefficient compressors.

Total operating cost savings are \$44,000 a year (>29% reduction) and were verified by the supplying utility. It is significant to note that the original EQ System Rating predicted >25% operating cost savings and an attractive ROI.



##### Analysis

##### Constituent

Electricity  
Maintenance & Repairs  
Cooling Water  
Rental Compressors  
Miscellaneous

##### Totals

Estimated Retrofit Costs  
Projected Savings/Year  
Estimated Simple Payback

##### FINANCIAL SUMMARY

	Existing	Proposed	Variance
Electricity	\$140,635	\$100,390	\$40,245
Maintenance & Repairs	8,200	4,000	4,200
Cooling Water	0	0	0
Rental Compressors	0	0	0
Miscellaneous	0	0	0
<b>Totals</b>	<b>\$148,835</b>	<b>\$104,390</b>	<b>\$44,445</b>
Estimated Retrofit Costs	\$58,800		
Projected Savings/Year	\$44,445		
Estimated Simple Payback	15.7	(months)	

# Compressed Air Systems Best Practice

