Quincy
COMPRESSOR

QGV

Variable Speed Compressors

ROYAL BLUE WARRANTY
10 YEARS
Quincy
WORLD'S BEST!

QUINCY QGV SERIES
ROTARY SCREW
AIR COMPRESSORS
20–200 HP

QUINCY QGV 20-200

PERFORMANCE YOU DEMAND

LOWEST TURNDOWN AVAILABLE MAXIMIZES EFFICIENCY

From 100% to 15% of capacity, the Quincy QGV delivers the precise amount of air you need – matching any change in air demand to maintain constant pressure. The QGV operates continuously operation from 75 to 150 psig.

DOWNSTREAM PRESSURE SIGNAL PROVIDES STABLE PRESSURE

System pressure has a major impact on energy consumption, and the QGV is designed to provide the most stable pressure available from a compressor. Quincy's downstream signal option allows the compressor to react immediately to pressure changes close to the point of use, eliminating the lag often created by air treatment equipment pressure drop.

LOW DEMAND MODE ELIMINATES UNLOADED POWER

To prevent rapid cycling of the compressor during intermittent periods of low compressed air demand, the Quincy QGV features a low demand mode, which allows system pressure to rise above the set point prior to stopping the compressor when demand drops below its turndown capability. This ensures that system pressure does not drop below an acceptable level, and the QGV never runs unloaded. With a QGV in a lead position, this unique energy-saving mode also allows pressure to rise enough for additional network compressors to turn off in periods of low demand.

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 promissed.

ADVANCED NETWORKING AND REMOTE MONITORING

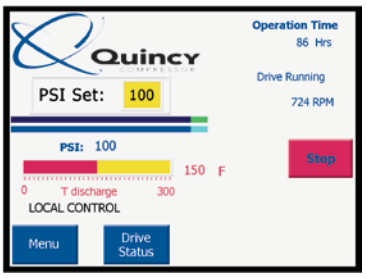
All Quincy QGV controllers include advanced networking capabilities as standard equipment. Quincy's innovative approach allows for automatic sequencing and scheduled rotation between compressors.

Plus, QGV's can be monitored remotely with an optional Web$ync II package. From simple web-interfaces to more advanced SCADA systems, Quincy offers specific solutions for different needs. Consult your Quincy representative to determine which solution best matches your requirements.

RELIABILITY YOU TRUST

MICROPROCESSOR CONTROLLER

The 6" color touch screen controller provides continuous monitoring and a graphic display of performance and efficiency. Built-in trending software tracks all critical operating parameters and transfers the data via standard communication protocol:



- Touch screen display and interface
- Speed and Percent Capacity
- Horsepower
- System Pressure
- Low Demand Mode
- True PID function control
- Remote system signal connection

SPEED OPTIMIZER

The Quincy QGV features Speed Optimizer Control. Dynamically responding to changes in ambient operating conditions, the QGV automatically adjusts the speed output to ensure maximum air flow is delivered from the compressor, without sacrificing dependability. This unique feature helps prevent nuisance alarms and keeps the QGV supporting your operation.

LONG LIFE SYNTHETIC COOLANTS

QuinSyn fluids are custom engineered to perform and protect compressors in the harshest of conditions – ensuring that wear and tear is kept to a minimum. Quincy offers different solutions for different needs.

QuinSyn XP: A custom blended POE lubricant, designed to last between 12,000 and 15,000 hours. Per hour of operation, QuinSyn XP is the lowest operating cost solution available.

QuinSyn Plus: A custom blended POE/POA, QuinSyn Plus last between 8,000 and 10,000 hours under typical operating conditions.

QuinSyn PG: A non-varnishing PAG coolant that typically lasts 8000 hours.

QuinSyn F: A custom blended food-grade lubricant that complies with the standards set forth by USDA H-1 and FDA 21 CFR 178.3570-Lubricants. QuinSyn-F typically lasts 6000 hours – far longer than most other food-grade lubricants.

QUINCY'S INDUSTRY-LEADING 10-YEAR WARRANTY

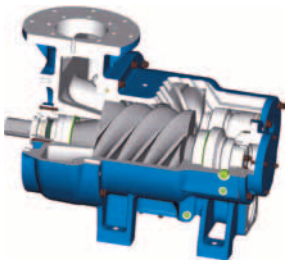
Everyone says they have the best machine, but how do they support it? Quincy backs the QGV with the world's best Warranty! **World's Best Warranty = 10 Year Airend Warranty.** Five year warranty on major components, including variable frequency drive assembly, motor, coolers and reservoir. Other compressor manufacturers charge extra for similar plans, or an extended warranty. Why purchase an empty promise? The World's Best Warranty is FREE and it's standard on the QGV.

QUINCY QGV 20-200

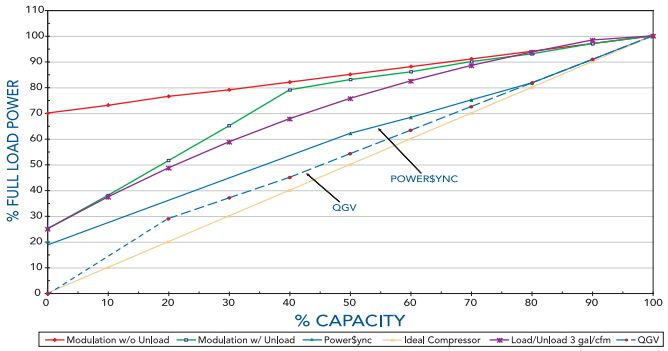
LOWERING YOUR TOTAL COST OF OWNERSHIP

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 L_{10} 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.

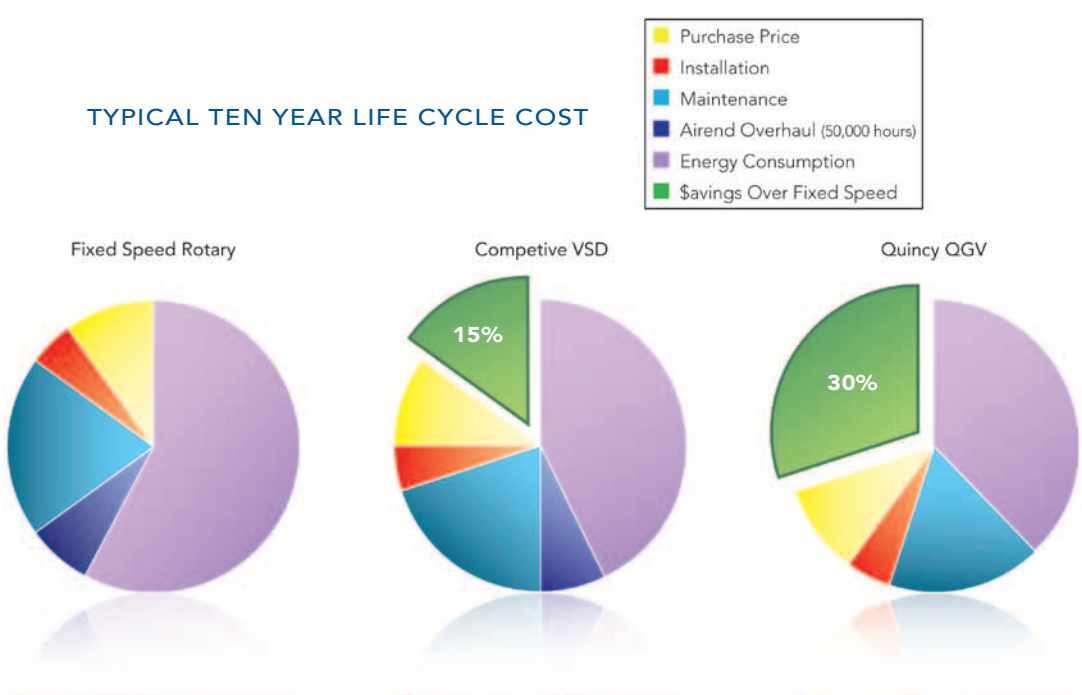


% POWER vs. % CAPACITY



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

TYPICAL TEN YEAR LIFE CYCLE COST



TECHNICAL SPECIFICATIONS

	Max Capacity* - acfm (m^3/hr) @ 100 psig (7 bar)	125 psig (8.5 bar)	150 psig (10 bar)	Enclosed Sound Level (dBA)	Dimensions Length in. (mm)	Width in. (mm)	Height in. (mm)	Weight lbs.(kg)
QGV-20	82 (139)	70 (119)	60 (101)	68	80 (2019)	31 (782)	58 (1463)	1575 (714)
w/tank	82 (139)	70 (119)	60 (101)	68	87 (2210)	35 (889)	84 (2133)	2066 (937)
QGV-25	116 (198)	106 (180)	91 (154)	68	80 (2019)	31 (782)	58 (1463)	1625 (737)
w/tank	116 (198)	106 (180)	91 (154)	68	87 (2210)	35 (889)	84 (2133)	2116 (959)
QGV-30	136 (231)	120 (204)	106 (179)	68	80 (2019)	31 (782)	58 (1463)	1675 (760)
w/tank	136 (231)	120 (204)	106 (179)	68	87 (2210)	35 (889)	84 (2133)	2166 (982)
QGV-40	180 (306)	158 (269)	153 (260)	69	97 (2466)	40 (1003)	65 (1643)	2155 (977)
QGV-50	226 (384)	213 (362)	190 (323)	69	97 (2466)	40 (1003)	65 (1643)	2255 (1023)
QGV-60	291 (495)	258 (439)	242 (410)	75	97 (2466)	40 (1003)	65 (1643)	2255 (1023)
QGV-75	371 (630)	350 (595)	326 (554)	72	91(2133)	54 (1372)	75 (1905)	4150 (1882)
QGV-100	471 (800)	452 (768)	414 (703)	72	91(2133)	54 (1372)	75 (1905)	4550 (2064)
QGV-125	583 (991)	545 (926)	502 (853)	75	91(2133)	54 (1372)	75 (1905)	4880 (2214)
QGV-150	734 (1247)	652 (1108)	586 (996)	75	107 (2718)	75 (1905)	75 (1905)	7100 (3220)
QGV-200	982 (1668)	860 (1461)	765 (1300)	78	107 (2718)	75 (1905)	75 (1905)	7500 (3400)

* FAD tested in accordance with ISO 1217, Ed.3, Annex-C. Sound level tested in accordance with ISO 2151 and 3744.

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

QGV-50 shown with panels removed

OPTIONAL EQUIPMENT

- Line reactors
- Water-cooled on QGV 75 to 200
- Remote monitoring
- Remote Pressure Transducer
- 145 gallon tank-mount configuration (20-30 hp)

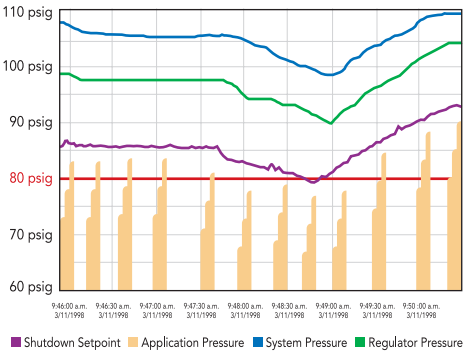
CASE STUDY: BOTTLING / PACKAGING FACILITY REDUCES OPERATING COSTS BY MORE THAN $44,000 ANNUALLY AND ELIMINATES PRODUCTION SHUTDOWNS

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.

EXISTING SYSTEM PRESSURES



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%
System EQ Rating	**77%**
Operating Cost Reduction >25%	

3) THE EQ ANALYSIS: OPERATING COSTS COULD BE REDUCED BY $44,000/YR AND SHUTDOWNS OF THE PNEUMATIC PACKAGING EQUIPMENT COULD BE ELIMINATED

Quincy EFFICIENCY QUOTIENT Analysis

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.

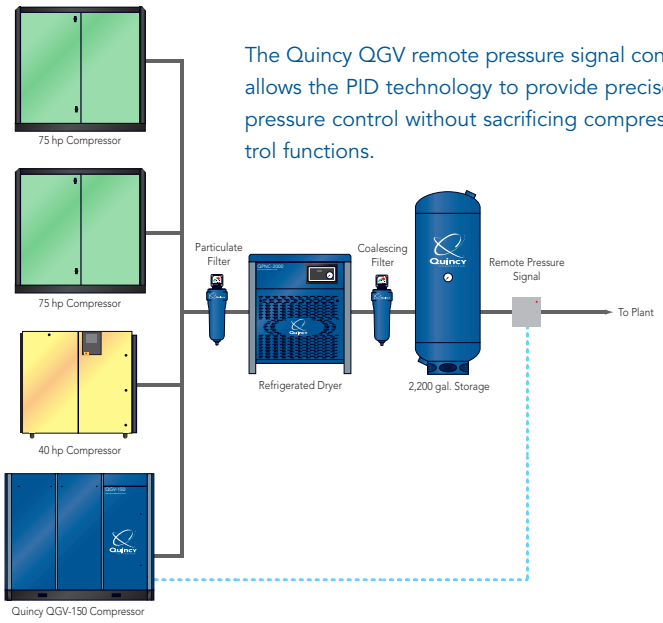
The EQ Analysis:

- 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.



The Quincy QGV remote pressure signal connection allows the PID technology to provide precise system pressure control without sacrificing compressor control functions.

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.

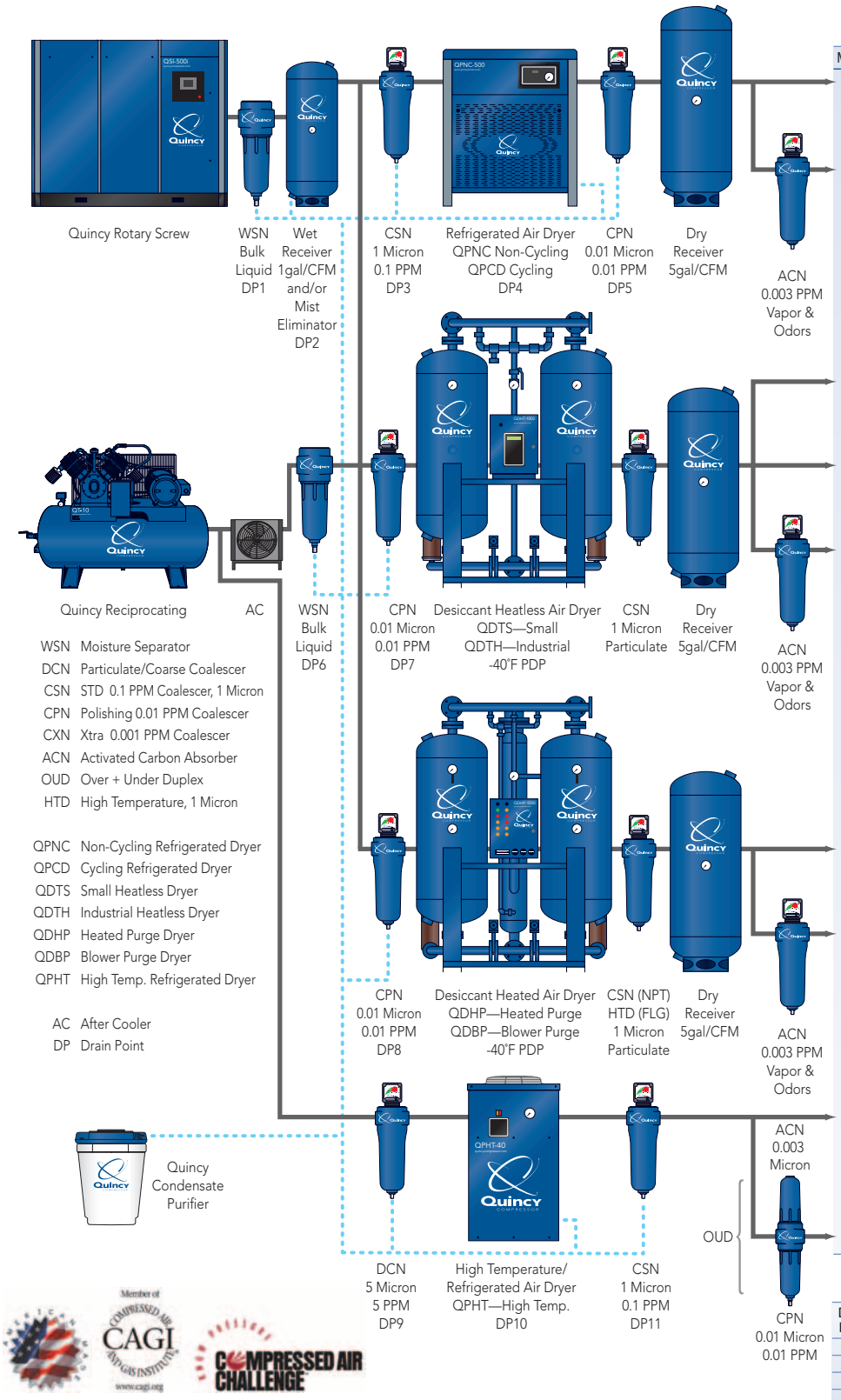
Quincy EFFICIENCY QUOTIENT Analysis

FINANCIAL SUMMARY

Constituent	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
Totals	$148,835	$104,390	$44,445

Estimated Retrofit Costs	$58, 800	
Projected Savings/Year	$44,445	
Estimated Simple Payback	15.7	(months)

COMPRESSED AIR SYSTEMS BEST PRACTICE



WSN Moisture Separator
DCN Particulate/Coarse Coalescer
CSN STD 0.1 PPM Coalescer, 1 Micron
CPN Polishing 0.01 PPM Coalescer
CXN Xtra 0.001 PPM Coalescer
ACN Activated Carbon Absorber
OUD Over + Under Duplex
HTD High Temperature, 1 Micron

QPNC Non-Cycling Refrigerated Dryer
QPCD Cycling Refrigerated Dryer
QDTS Small Heatless Dryer
QDTH Industrial Heatless Dryer
QDHP Heated Purge Dryer
QDBP Blower Purge Dryer
QPHT High Temp. Refrigerated Dryer

AC After Cooler
DP Drain Point

Air Quality Classification ISO 8573.1						Wet System Avg. DP	
Solids		Moisture		Oil			
Micron	ISO	PDP	ISO	PPM	ISO	psi	Mbar
0.01	1	+38°F	4	0.01	1	10.7	738
0.01	1	+38°F	4	0.003	1	11.8	814
0.01	1	-100°F	1	0.001	1	14.2	979
NOTE: Requires CXN (.001 PPM) filter in series with standard CPN prefilter.							
1	2	-40°F	2	0.01	1	9.2	634
0.01	1	-40°F	2	0.003	1	10.3	710
1	2	-40°F	2	0.01	1	9.2	634
0.01	1	-40°F	2	0.003	1	10.3	710
1	2	+50°F	6	0.01	2	7.8	538
0.01	1	+50°F	6	0.003	1	10.0	689

Approximate Liquid Removal
100 CFM, 100 psi, 80°F, 4000 hrs./yr., 2 PPM

Drain Point	Gallons per Year	Drain Point	Gallons per Year	Drain Point	Gallons per Year
1	3000	5	140	9	300
2	2000	6	3000	10	4320
3	305	7	310	11	120
4	1300	8	310		

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