



Quincy QSI



QUINCY QSI 600-1500
ROTARY SCREW
AIR COMPRESSORS
125-350 HORSEPOWER

QUINCY QSI 125-350 HP

UNPARALLELED PERFORMANCE

The Quincy QSI® rotary screw compressor combines around-the-clock dependability with one of the most efficient, positive displacement airends available. Oversized rotors, low RPMs, and the PowerSync® advanced controller ensures maximum air production using minimum horsepower, which means bottom-line productivity.

Backed by a ten-year airend warranty, the Quincy QSI features an exclusive Triplex bearing arrangement, a triple lip shaft seal, and boasts an airend life of more than 130,000 hours. This is the standard of True Blue Reliability that perpetuates the value of Quincy.

The Quincy QSI airend is the result of over 30 years of proven performance and machining expertise. Starting with a state-of-the-art rotor profile, each rotor is measured using a polar coordinate measuring machine with an allotted tolerance of 0.0005 of an inch.

Beyond a highly efficient rotor profile and unparalleled precision manufacturing standards, Quincy rotors are oversized – almost 62% larger than most competitors. And the Quincy QSI is designed to turn these oversized rotors at a slow 1,800 rpm. This means long compressor life and increased efficiency. Every Quincy QSI features a direct coupling drive and C-faced motors with a flanged connection to the airend on models through the Quincy QSI 1000. This flanged drive system ensures a permanent alignment and a simple drive system.

An oversized, heavy-duty inlet filter and oversized fluid and aftercoolers are standard on the Quincy QSI. With these and other standard features designed to work in harsh operating conditions, the Quincy QSI is truly one of the most reliable compressors available.





ROYAL BLUE WARRANTY

When it comes to reliability, everyone is making the same promise. But when it comes to keeping the promise, Quincy Compressor stands alone with our exclusive ten-year airend warranty that covers both parts and labor. Reliability is

about confidence, performance, and trust – every day. Our warranty program is how we’re keeping our promise of True Blue Reliability for the next ten years*.

* Applicable to machines 150 psig and below

STANDARD FEATURES

- Triplex discharge end bearings
- Full-flow fluid pump
- Axial flow inlet housing
- Warning and shutdown annunciator
- 460 or 575 volt, 3-phase, 60hz, 1800 rpm motor
- Full-voltage magnetic starter, mounted and wired, 460 volt (through QSI 750)
- Flexible dropout coupling with OSHA guard
- Heavy-duty structural steel base
- Two-stage air/fluid separation
- Full-flow, 12-micron fluid filter
- Heavy-duty intake filter
- Auto-dual control with modulation
- Percent capacity gauge
- Factory fill – QuinSyn family of synthetic fluids (food grade optional at no additional charge)
- 5-degree approach aftercooler with pre-piped moisture separator and trap
- Package discharge check valve
- Hourmeter

SAFETY DEVICES

- UL listed electrical controls
- High pressure unload switch
- High pressure relief valve
- Dual probe, high air/fluid temperature shutdown system
- Control line filtration with auto drain
- Power-on light
- Emergency stop button
- Safety oil fill cap

OPTIONAL EQUIPMENT

- Full metal canopy
- Low sound canopy
- Premium efficiency and TEFC motors*
- Solid-state or Wye-Delta reduced voltage starters
- Salt water coolers
- Lifting bails
- Auto restart
- Phase monitor
- Lead/lag control
- Load/no load control
- PowerSync variable displacement airend and electronic controls
- Remote coolers
- Systems package
- Customized configurations

* Note: If a specific motor efficiency is required, please consult the factory.

QUINCY QSI 125-350 HP



All normal maintenance items are conveniently located at one end of the machine for easy serviceability.

Quincy uses a 12-micron absolute fluid filter with a special micro-fiberglass media to provide the best protection for the airend and bearings.

The QSI line of compressors uses aftercoolers

capable of a 3-10 degree approach at standard conditions. This means more moisture is removed by the aftercooler, improving dryer efficiency and air quality.

Quincy's air/fluid separator design and engineered fluids combine to produce fluid make-up rates of less than 3 ppm and downstream carryover rates of 1 ppm or less.

Rugged canopy with a powder coated finish reduces sound levels to as low as 73dBA.

Two control options make the QSI easy to operate.

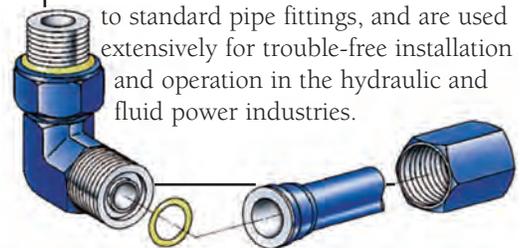


MEMBER
COMPRESSED AIR
CAGI
AND GAS INSTITUTE®

Quincy Compressor proudly publishes total package acfm and power data that is measured and reported in accordance with CAGI/PNUEROP PN2CPTC2 guidelines. However, some manufacturers publish acfm capacity based on bare airend or partial package performance – which is not the same. Every Quincy QSI meets or exceeds CAGI/PNUEROP PN2CPTC2 guidelines – ensuring that you get every acfm that has been promised.

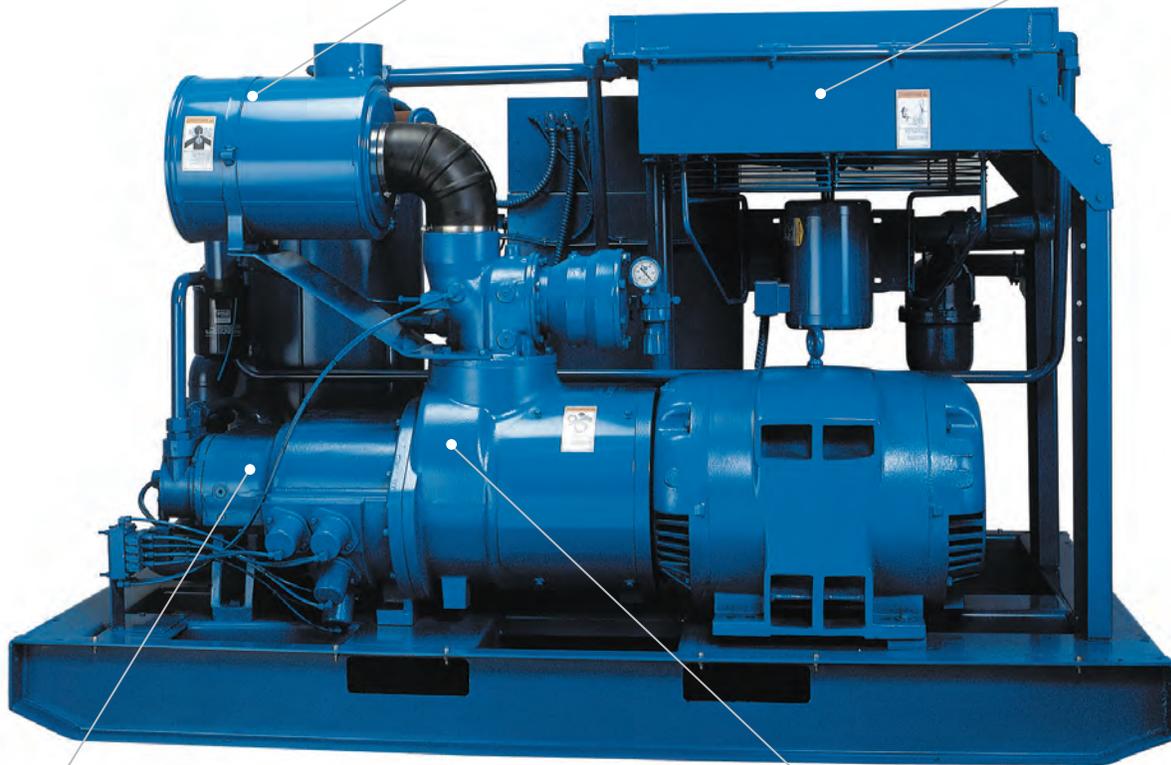
SAE O-RING FITTINGS

We've designed the Quincy QSI with far fewer potential leak points than other compressors in its class. One such feature is the use of castings in place of discharge piping. Another is the use of SAE o-ring fittings on all fluid pipe joints over 1/4" in diameter. These connections are superior to standard pipe fittings, and are used extensively for trouble-free installation and operation in the hydraulic and fluid power industries.



Heavy-duty intake filter
for quiet, trouble free
operation.

Generously sized coolers ensure reli-
able operation in ambient temperatures
as high as 115°F/46°C with aftercooler
approach as low as 3°F/16°C.



Rugged QSI airend with triplex
bearings for maximum
efficiency and operating life.

Axial flow inlet
housing.

QUINCY QSI 125-350 HP

LEGENDARY AIREND DURABILITY & RELIABILITY

Rotor diameter, length, and speed determine the acfm that can be produced. Logically, this means that a smaller airend with smaller rotors must turn faster than a larger airend with larger rotors to produce the same acfm.

Larger rotors turning slower produce more acfm per brake horsepower. The clearance between rotors is known as the “leakage path.” Smaller rotors have a much greater “leakage path” than larger rotors. In addition, the faster the rotors are turning, the greater the drag coefficient. Combined with gear or belt friction, these smaller airend inefficiencies add up to increased power consumption.

The airend is the most expensive component of

Quincy's Rotor

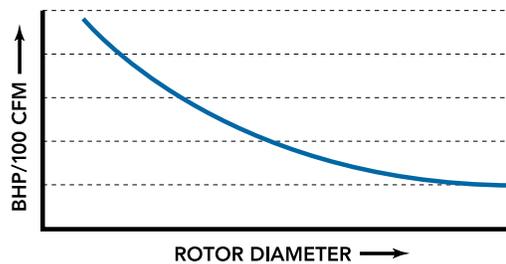
Competitor's Rotor



Quincy's rotors are 62% larger and ensure more acfm per brake horse power and reduce power consumption.

your compressor to replace and it determines a majority of your operating costs. The bottom-line – the Quincy QSI oversized airend can save you thousands of dollars in maintenance and energy costs.

Larger Rotor/Greater Efficiency



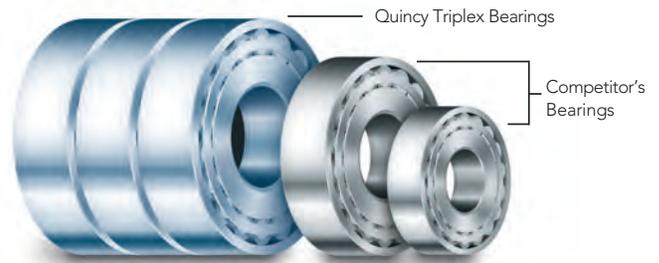
As rotor diameter size increases, brake horsepower per 100 acfm requirements generally decline.



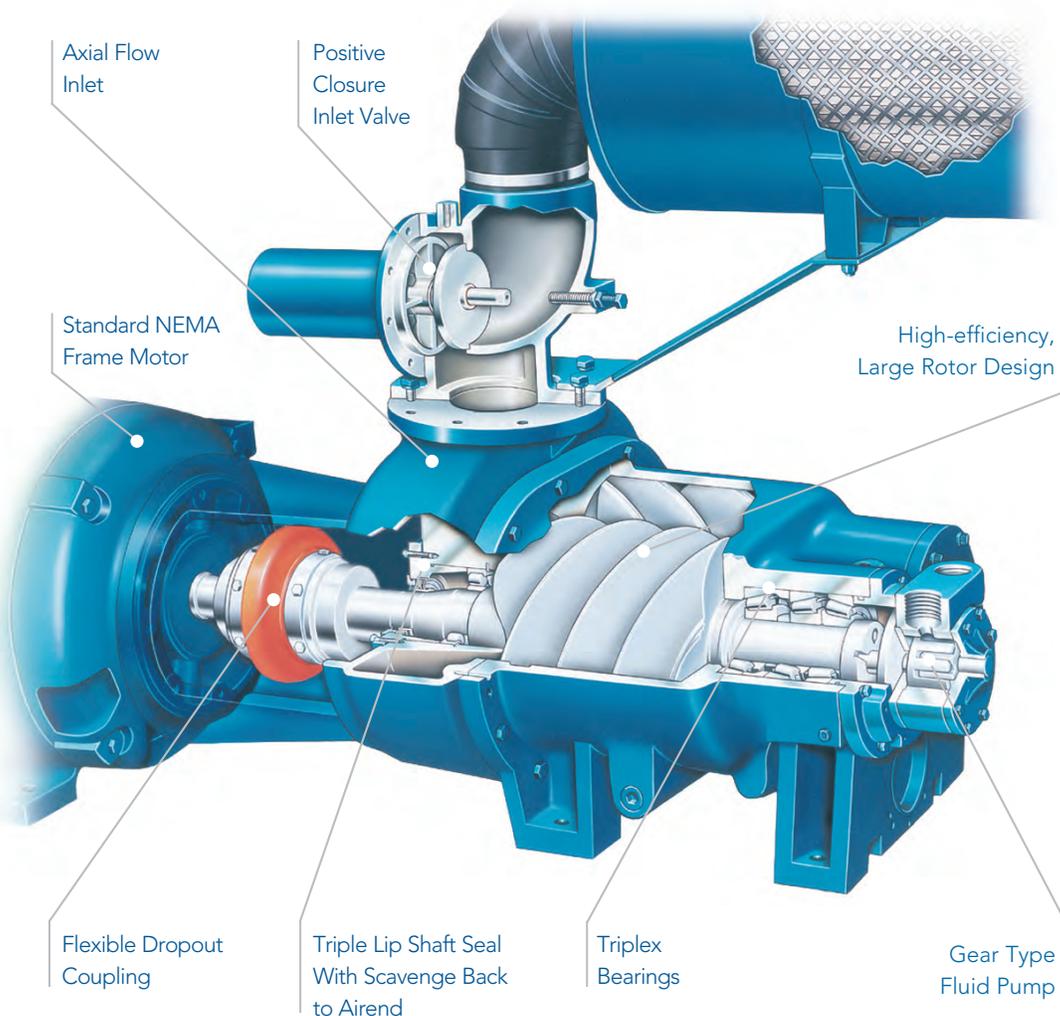
ENGINEERED SUPERIORITY

As you might expect, Quincy's oversized rotors allow for oversized bearings – over 56% larger than most competitors. But more importantly, the Quincy QSI features an exclusive Triplex bearing arrangement. This superior “three bearing” arrangement is designed to deliver over 130,000 hours of operation, far exceeding the average life expectancy of competing compressors.

In addition, the Quincy QSI uses a positive displacement gear-type fluid pump to lubricate both the rotors and the bearings. This pump is driven by the rotor shaft, so as soon as the compressor starts, lubrication begins instantly. During unloaded operation, the pump works with the positive closure inlet valve allowing reservoir pressure to be relieved – reducing unloaded brake horsepower to as low as 13.5% of full load.



Quincy's Triplex bearings are over 56% larger than most competitors, delivering over 130,000 hours of operation.



QUINCY QSI 125-350 HP

MAXIMUM ENERGY EFFICIENCY

Maximizing the efficiencies of the Quincy QSI, the patented Quincy Power\$ync® is the most advanced electronic controller in the industry. Designed to monitor changes in system air pressure as well as the rates of these changes, the Quincy Power\$ync microprocessor works constantly, adjusting to efficiently meet the air demands of your system.



Together, the innovative Quincy QSI airend and the Quincy Power\$ync dedicated microprocessor controller are changing the standards of efficiency. More acfm per horsepower and the ability to operate at peak efficiency 24 hours a day make this combination your most reliable bottom-line investment.

When the Quincy Power\$ync senses a slow drop in pressure, the response rate is recalibrated to allow a delayed response before adding capacity. Often, the slight air demand causing the pressure drop is quickly satisfied. This allows the pressure to rise again without adding capacity, which contributes to higher power costs. In contrast, if the pressure drop is great, the Quincy Power\$ync will add more capacity than pressure alone would indicate necessary, preventing excessive system pressure drops and production losses.

The Quincy Power\$ync is designed to not only provide the best full and part load operation of a single QSI air compressor, but also a network of up to 16 QSI air compressors. Control of other Power\$ync machines is obtained through simple network cables. Each machine, regardless of size, is controlled based on either a pre-set schedule or by changing system demand. The

Quincy Power\$ync will operate the most efficient machine based on changes in the system, maintaining a target pressure as tight as +/- 1 psi with adequate storage. No other compressor manufacturer offers this level of control and sophistication for either a single, or entire network, of rotary screw air compressors. Finally, for peace of mind and continuous operation, no matter what nature throws your way, Quincy Compressor has included with every Power\$ync machine a fully redundant manual mode.

With a simple flip of a switch your QSI air compressor will operate like a standard electro-pneumatically controlled machine, complete with full safety and protective features.



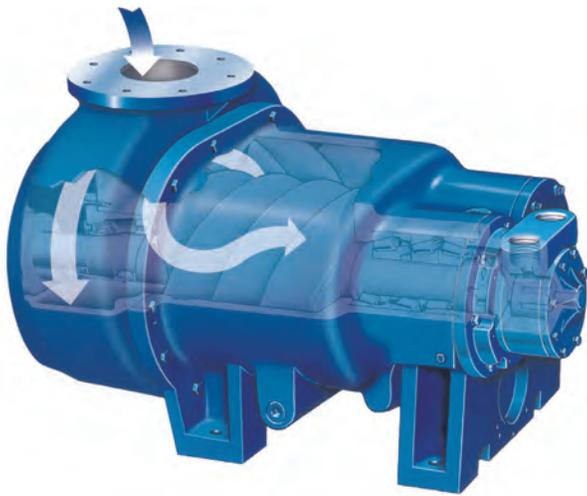
Quincy QSI switch

Only Quincy Compressor gives you this level of protection to ensure you have compressed air when you need it.

EXTRA PRESSURE BY DESIGN

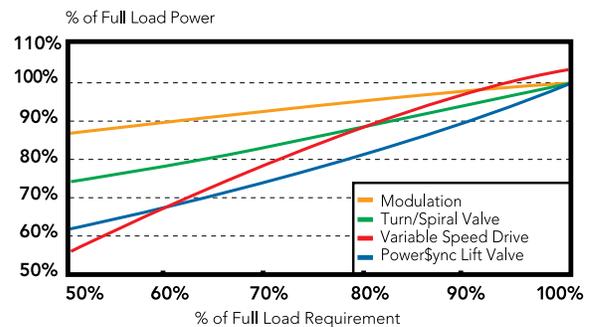
Every detail of the Quincy QSI has been refined for maximum efficiency and dependability. A one-piece, cast inlet housing allows intake air to enter axially to the rotors. The Quincy QSI

axial flow inlet actually improves compressor efficiency by five to seven percent over traditional radial flow designs.



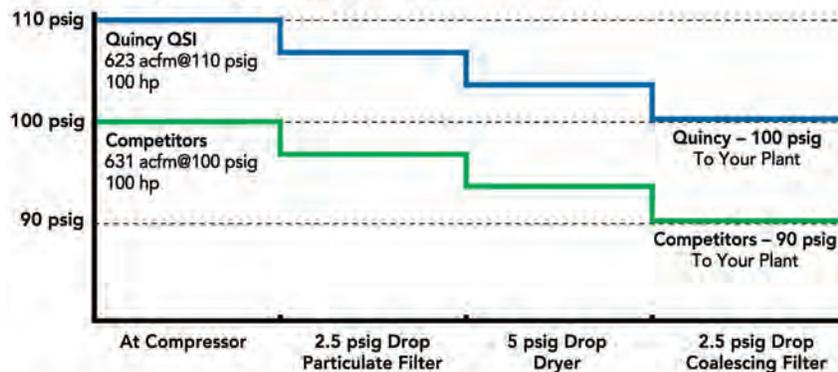
The Quincy QSI has a unique feature which results in maximum efficiency related to displacement. Air is drawn into an inlet chamber ahead of the rotors, causing the air to enter the rotor housing in an axial direction for more efficient compression.

Part Load Power Requirements



PowerSync's part load performance keeps efficiency high during 2nd and 3rd shifts. Unloaded bhp is 13.5 - 18% of full load bhp, the lowest in the industry.

More Capacity at Higher Pressure



Example: A QSI 600 delivers 623 acfm at 110 psig, while other competitors produce 631 acfm at a lower pressure of 100 psig. With a 10 psig pressure drop, Quincy will maintain 100 psig pressure to your plant, while the competition can give you only 90 psig.

QUINCY QSI 125-350 HP

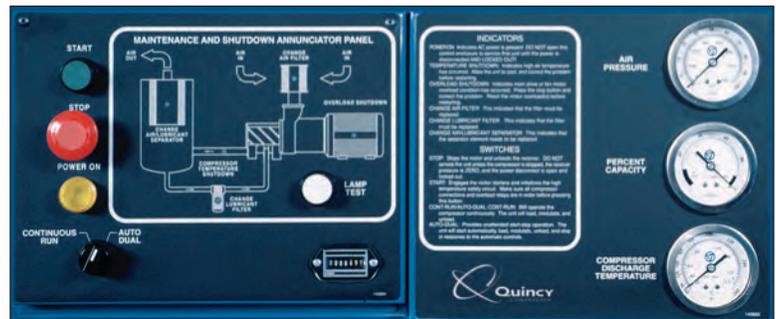
STANDARD CONTROL PANEL

The Quincy QSI is both reliable and functional. A selector switch on the control panel allows the user to select auto-dual control or continuous run control. In the auto-dual mode, the compressor will load, unload, and modulate in response to system demand. If there is no system demand during the pre-set time delay, the compressor will shut down the main drive motor and, on air-cooled units, the fan motor. The compressor then goes into a “stand-by” mode and continues to monitor system pressure. As soon as the system pressure drops, the controls will react by restarting the compressor.

Continuous run operation can be selected if typical plant operations include frequent, brief periods of no air usage. In continuous run, the control circuitry bypasses the timer and the compressor does not shut down. This control method prevents excessive restarting and extends the motor life in certain applications.

The standard compressor control panel has a maintenance and shutdown annunciator panel to indicate various ser-

vice and shutdown conditions. A graphic display showing the compressor schematic has amber lights to indicate the need to service the air filter, fluid filter, and separator element. Red



Quincy's exclusive percent capacity gauge details the compressor load level. When load levels are low, the Quincy QSI can be shut down with confidence, unlike competitive machines that may be left on-line because load levels are unknown.

lights indicate shutdown conditions for high air or fluid temperature, and drive or fan motor overload. These indicators are designed to allow easy remote sensing of all service and shutdown conditions.

All gauges are 2-1/2", stainless steel backed and bezeled, with silicon-dampened dash-pot movements. They provide the reliability and service life of liquid-filled gauges, without the possibility of liquid leaks. Temperature and pressure gauges have both English and metric scales.

ADDITIONAL CONTROL PANEL FEATURES

- Start button
- Red mushroom stop button with twist lock
- Power-on light
- Lamp test button for annunciator panel
- Discharge air pressure gauge
- Percent capacity gauge
- Hour meter
- Compressor discharge temperature gauge

OPTIONAL CONTROL MODES

Load/No Load

This is a simple control alternative. A switch on the control panel allows the choice between modulation and load/no load. In this mode, the compressor does not modulate the inlet valve – the valve is either fully open or fully closed. Load/no load works with auto-dual control to turn the compressor off during extended periods of no demand. For systems that call for this type of control, maximum efficiency is gained by operating fully loaded, completely unloaded, or off.

Lead/Lag

System demands that are variable, but have consistent steps in their variation, can benefit from the Quincy QSI lead/lag control option. This manual option allows one of two different pressure control settings to be chosen for a given machine. If the demand for air is greater than the lead unit's capability, the lag compressor will automatically turn itself on until the excess demand is satisfied. Again, working with the standard auto-dual control, the lag machine will time out and turn itself off after the demand dropped. With one compressor or several set as lead and the backup as lag, the backup compressor will automatically start should the primary compressor fail to operate properly.



QUINCY QSI 125-350 HP



QUINCY QSI 125-350 PERFORMANCE DATA

110 psig Full Load

@ 110 psig (7.58 BAR) – Full load pressure, 125 psig (8.62 BAR), Maximum pressure

| Model | Full Load | M3/min @7.58 BAR | Motor hp/rpm | Rotor Diameter in/mm | Unit Length in/mm | Unit Width in/mm | Unit Height in/mm | Weight lbs/kg |
|----------|-----------|------------------|--------------|----------------------|-------------------|------------------|-------------------|---------------|
| QSI-600 | 630 | 17.84 | 125/1800 | 10.04/255 | 102/2591 | 56/1422 | 60.25/1530 | 4500/2045 |
| QSI-750 | 745 | 21.10 | 150/1800 | 10.04/255 | 116/2946 | 68/1727 | 76.25/1937 | 7500/3409 |
| QSI-1000 | 1014 | 28.71 | 200/1800 | 12.64/321 | 120/3048 | 76/1930 | 73.25/1861 | 9000/4091 |
| QSI-1250 | 1269 | 35.93 | 250/1800 | 12.64/321 | 132/3353 | 80/2032 | 89.25/2267 | 10300/4682 |
| QSI-1500 | 1521 | 43.07 | 300/1800 | 12.64/321 | 132/3353 | 80/2032 | 89.25/2267 | 10500/4773 |

@ 125 psig (8.62 BAR) – Full load pressure, 140 psig (9.65 BAR), Maximum pressure

| | | | |
|----------|------|-------|----------|
| QSI-600 | 615 | 17.40 | 150/1800 |
| QSI-750 | 740 | 20.95 | 200/1800 |
| QSI-1000 | 1003 | 28.40 | 250/1800 |
| QSI-1250 | 1255 | 35.54 | 300/1800 |
| QSI-1500 | 1504 | 42.59 | 350/1800 |

125 psig Full Load – Low Horsepower*

@ 125 psig (8.62 BAR) – Full load pressure, 140 psig (9.65 BAR) Maximum pressure

| Model | Full Load | M3/min @7.58 BAR | Motor hp/rpm | Rotor Diameter in/mm | Unit Length in/mm | Unit Width in/mm | Unit Height in/mm | Weight lbs/kg |
|----------|-----------|------------------|--------------|----------------------|-------------------|------------------|-------------------|---------------|
| QSI-540 | 540 | 15.29 | 125/1800 | 10.04/255 | 102/2591 | 56/1422 | 60.25/1530 | 4500/2045 |
| QSI-675 | 675 | 19.11 | 150/1800 | 10.04/255 | 116/2946 | 68/1727 | 76.25/1937 | 7500/3409 |
| QSI-925 | 925 | 26.19 | 200/1800 | 12.64/321 | 120/3048 | 76/1930 | 73.25/1861 | 9000/4091 |
| QSI-1175 | 1175 | 33.27 | 250/1800 | 12.64/321 | 132/3353 | 80/2032 | 89.25/2267 | 10300/4682 |
| QSI-1400 | 1400 | 39.64 | 300/1800 | 12.64/321 | 132/3353 | 80/2032 | 89.25/2267 | 10500/4773 |

High Pressure*

@ 175 psig (12.07 BAR) – Full load pressure, 190 psig (13.10 BAR) Maximum pressure

| Model | QSI-245 HP | QSI-370 HP | QSI-500 HP | QSI-750 HP | QSI-1000 HP | QSI-1250 HP |
|--------------------|------------|------------|------------|------------|-------------|-------------|
| acfm @ 175 psig | 259 | 351 | 468 | 712 | 951 | 1216 |
| M3/min @ 12.07 BAR | 7.33 | 9.94 | 13.25 | 20.16 | 26.93 | 34.43 |
| hp | 100 | 100 | 150 | 200 | 300 | 350 |

@ 210 psig (14.48 BAR) – Full load pressure, 225 psig (15.52 BAR) Maximum pressure

| | | | | | | |
|--------------------|------|------|-------|-------|-------|---|
| acfm @ 210 psig | 254 | 346 | 461 | 702 | 933 | – |
| M3/min @ 14.48 BAR | 7.20 | 9.80 | 13.05 | 19.88 | 26.42 | – |
| hp | 100 | 125 | 150 | 250 | 300 | – |

* PowerSync not available on these models.
Performance rated in accordance with CAGI/PNEUROP PN2CPTC2 test code.
See Quincy QSI technical data sheets for exact dimensions.

