Gas Compressors

QUINCY QSG SERIES
ROTARY SCREW GAS COMPRESSOR
QUINCY QRNG SERIES
RECIPROCATING GAS COMPRESSOR
QUINCY QSG SERIES

ROTARY SCREW GAS COMPRESSOR

Quincy QSG rotary gas compressor modules combine around-the-clock dependability with one of the most efficient, positive displacement compressors available. Directly driving a state-of-the-art rotor profile through a flexible drop out coupling, the Quincy QSG delivers maximum gas flow using minimum horsepower.

CONSISTENT PERFORMANCE

The Quincy QSG compressor is the result of years of detailed calculations and proven modifications. A highly efficient rotor profile and unparalleled precision manufacturing standards only reinforce Quincy's commitment to quality.

A field-replaceable mechanical shaft seal is utilized to prevent fluid from escaping from the Quincy QSG. Should any fluid pass through the seal, it collects in a cavity between the seals and is then scavenged back into the rotary screw. This shaft seal arrangement contributes to the consistent performance that is expected from Quincy Compressor.

OPTIONS & ACCESSORIES

- Gas engine or electric motor drives
- Engine adapters available in various SAE sizes (#0, #1, #2)
- Adaptable to direct flexible coupling or belt drive system
- Shaft drive positive displacement pump
- Optional oil and gas separator element and tank
- Optional variable displacement lift valves for capacity control

DURABLE DESIGN

The Quincy QSG is designed to exceed industry standards. Featuring an exclusive triplex bearing arrangement, this superior “third bearing” arrangement has an L-10 calculated life of 130,000 hours. This exceeds the average life expectancy of competing compressors by up to 100%. In addition, the Quincy QSG can be supplied with 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.

MAXIMUM EFFICIENCY

Every detail of the Quincy QSG is refined for maximum efficiency and dependability. The Quincy QSG axial flow inlet actually improves efficiency by 5-7% over traditional radial flow designs. This, combined with the standard features designed to work even in harsh operating conditions, makes the Quincy QSG truly one of the most reliable rotary screw gas compressor modules available.

APPLICATIONS

- Gas gathering
- Vapor recovery
- Well head compression
- Fuel gas boosting
- Landfill gas
- Coal bed methane
QUINCY QSG GAS COMPRESSOR - FEATURES & BENEFITS

- Machined directly into the gasend housing to prevent gas leaks
- Double-acting for rapid response and control, not actuated by internal pressure
- Capacity control to 50% in four equal steps
- Contoured to sit directly against rotor

OPTIONAL VARIABLE DISPLACEMENT LIFT VALVES - A QUINCY EXCLUSIVE

The Quincy QSG with optional, patented lift valves is uniquely designed to give the compressor the ability to function as a base-load machine AND a part-load machine.

When the application doesn’t require the entire (“full load”) capacity of the compressor, the QSG with optional lift valves quickly decreases the flow output so there is no energy wasted compressing unneeded gas.

The lift valves adjust automatically to match the application’s demand. Valves are controlled by a gas packager’s control system.
## NATURAL GAS COMPRESSORS

### QUINCY QSG SERIES

**ROTARY SCREW GAS COMPRESSOR TECHNICAL DATA**

### Standard Pressure Models

<table>
<thead>
<tr>
<th>Model</th>
<th>225</th>
<th>285</th>
<th>350</th>
<th>430</th>
<th>580</th>
<th>700</th>
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<td>695</td>
<td>770</td>
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</table>
THE QUINCY QRNG SERIES INCLUDES 2-34 HP, SINGLE-STAGE & 13-33 HP TWO-STAGE MODELS DELIVERING UP TO 225 MCFD

- Proven performance measured in decades
- Engineered for demanding applications
- Maintenance accessibility and efficiency
- Sweet gas boosting, 10 PPM maximum H2S sour gas content
- Low cost gas compression

QUINCY QRNG SERIES

RECIPROCATING GAS COMPRESSOR

The engineering behind the Quincy QRNG is best examined through the proven performance of the Quincy QR-25. With over two million Quincy QR-25 air compressors currently in use, some originally installed more than 40 years ago, you can count on the Quincy QRNG for economical gas boosting needs.

ENGINEERED DURABILITY

The Quincy QRNG is constructed of heavy-duty cast-iron for strength and durability – just like the Quincy QR-25. The cylinders are cast-iron with horizontal cooling fins and machined to precision tolerances. Quincy’s state-of-the-art manufacturing ensures optimum performance and high volumetric efficiency.

The Quincy QRNG also features an advanced design pressure lubrication system, rebuildable connecting rods and low-lift valves. The Quincy QRNG is uniquely engineered to meet even the most demanding natural gas applications.

GAS UNLOADERS

The Quincy QRNG optional gas unloaders are mounted and supplied with tubing which require a tie-in to the customer-supplied activation and control system. This results in easier compressor start-up and provides the ability to handle changes in capacity requirements.

ENGINEERED DURABILITY

GAS UNLOADERS

QUICK & EASY MAINTENANCE

Engineered for lasting performance, the Quincy QRNG has been designed for quick and easy maintenance. For example, valves often require the most maintenance. Not only are Quincy’s heavy-duty, disc-type valves efficient – they are accessible without having to remove the cylinder head, unhook the discharge lines, unbolt the intercoolers, or any other typical valve maintenance procedures.
NATURAL GAS COMPRESSORS

QUINCY QRNG SERIES

NO YELLOW METALS

- All yellow metals have been replaced with steel or aluminum for corrosion resistance.
- In addition, all seals are made of Viton® materials for corrosion and wear resistance.

STANDARD QUALITY FEATURES

- Rebuildable components
- Low maintenance requirements
- Manually reversible oil pump allows application flexibility
- All three single-stage models are capable of handling inlet pressures up to 50 PSIG
- Single-stage maximum discharge pressure is 125 PSIG (216NG is 150 psig)

- Screw-in dipstick with O-ring seal prevents gases from venting to atmosphere
- Customer connection point for venting of crankcase and gas unloader to a safe area provided
- Two-stage models are capable of handling inlet pressures up to 30 psig maximum; except model 5120NG which is limited up to 15 psig maximum
- Two-stage maximum discharge pressure is 500 psig for models 325NG & 340NG, 400 psig for models 350NG & 370NG and 325 psig for model 5120NG
- Optional gas unloaders allow for easy start-up and the ability to handle capacity changes

QRNG SINGLE-STAGE COMPRESSOR TECHNICAL DATA

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Bore &amp; Stroke</th>
<th>Min RPM</th>
<th>Max RPM</th>
<th>CFM Displacement @ Max RPM</th>
<th>Max Inlet Pressure</th>
<th>Max Discharge Pressure</th>
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QRNG TWO-STAGE COMPRESSOR TECHNICAL DATA

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<th>CFM Displacement @ Max RPM</th>
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<th>Max BHP</th>
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* Two-cylinder
** Four-cylinder
QUINCY QRNG SERIES

QUINCY QRNG GAS COMPRESSOR - FEATURES & BENEFITS

Individual valve pockets allow easy access for routine maintenance.

High-pressure pistons are cast-iron for strength and long life.

Cast-iron cylinders maintain rigid tolerances for high efficiency.

Intercooler has large circular fins for maximum heat dissipation and longer life.

Rifle-drilled, counter-weighted, one-piece crankshaft reduces vibration, extends life of bearings and wrist pins.

Cast-iron crankcase and flywheel for strength and durability.

Tapered roller bearings are oversized and easily adjusted for trouble-free operation.

Spin-on oil filter for convenient changes and clean lubrication.

Pressure lubrication with positive displacement oil pump to assure constant lubrication of all critical wear areas.

Aluminum connecting rods with oil passage for full flow lubrication to piston pins to extend compressor life.

Steel valve discs use a unique low lift design and cast-iron bumpers for increased efficiency and less downtime.

Cast-iron valve seats are lapped for a total seal, eliminating the need for a discharge line check valve.

QUALITY FEATURES PERFORMING QUALITY FUNCTIONS

- Slow speed operation requires less maintenance, produces more CFM per horsepower
- Valve design lets the QRNG run efficiently at lower temperatures
- Lubricating system features advanced-design gerotor oil pump and heavy-duty oil filter for longer life
- Fully counterweighted ductile iron crankshaft
- Crankshaft/connecting rods are rifled-drilled to assure positive pressure lubrication to all critical wear areas
- Piston pin needle bearings for strength and long life
- Heavy-duty, low-lift disc-type valves with Swedish steel discs, cast-iron bumpers and seats for long life
- Rebuildable high-strength aluminum alloy connecting rods equipped with replaceable automotive-type inserts
- Crankshaft ends are supported by large Timken tapered roller main bearings to withstand radial and thrust loads
- Large fan-type flywheel for smooth running and efficient heat dissipation