

# Gas Compressors



QUINCY QSG SERIES  
ROTARY SCREW GAS COMPRESSOR

QUINCY QRNG SERIES  
RECIPROCATING GAS COMPRESSOR

# NATURAL GAS COMPRESSORS

## 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-replacable 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

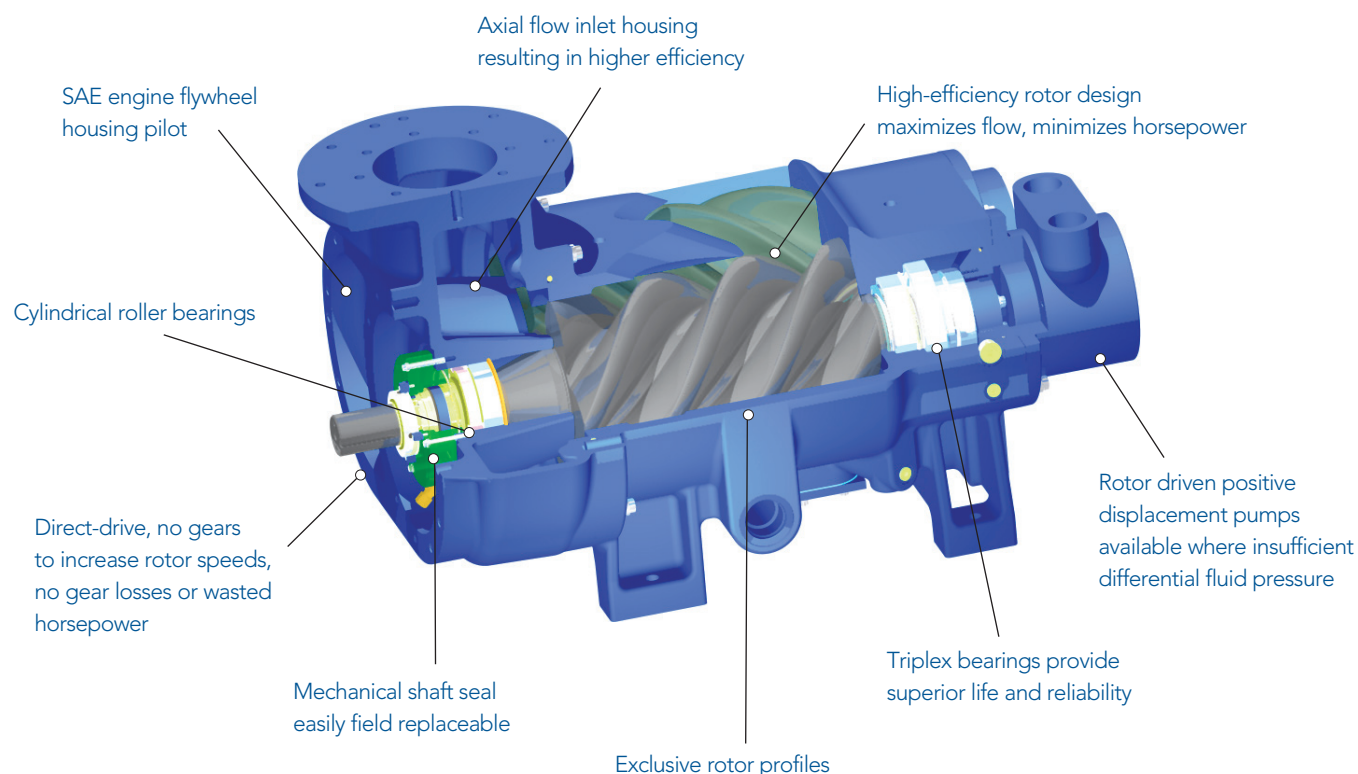
Every detail of the Quincy QSG is refined for maximum efficiency and dependability. The Quincy QSG axial flow inlet actually improves efficiency by 5-7% over traditional radial flow designs. This, combined with the standard features designed to work even in harsh operating conditions, makes the Quincy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



## OPTIONAL VARIABLE DISPLACEMENT LIFT VALVES - A QUINCY EXCLUSIVE

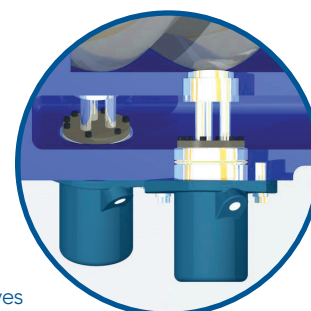
The Quincy QSG with optional, patented lift valves is uniquely designed to give the compressor the ability to function as a base-load machine AND a part-load machine.

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.

- 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 lift valves

# NATURAL GAS COMPRESSORS

## QUINCY QSG SERIES

### ROTARY SCREW GAS COMPRESSOR TECHNICAL DATA

#### Standard Pressure Models

	QSG 225	QSG 285	QSG 350	QSG 430	QSG 580	QSG 700	QSG 850	QSG 1170	QSG 1460	QSG 1750
Rotor Diameter (mm)	127	204	204	204	255	255	255	321	321	321
Speed Range (rpm)	1200-6800	1000-4800	1000-4800	1000-4800	1000-3750	1000-3750	1000-3750	900-3600	900-3600	900-3600
Suction Pressure (psia)	12-35	12-29	12-29	12-29	12-29	12-29	12-29	12-27	12-27	12-27
Discharge Pressure (psia)	90-225	90-180	90-180	90-180	90-180	90-180	90-180	90-180	90-180	90-180
Rated Power (hp)	75	110	140	170	200	240	380	480	540	610
Gas Delivery (cfm)	70-330	140-570	170-690	210-870	300-940	360-1140	440-1400	540-1820	670-2240	800-2680
Gas Delivery (mscfd)	100-480	220-820	240-990	300-1250	430-1350	520-1640	630-2020	780-2620	960-3230	1150-3860
Max Discharge Temperature (°F)	220	220	220	220	220	220	220	220	220	220
Approximate Weight (lbs)	220	695	730	770	1170	1260	1400	2000	2200	2450

#### Low Pressure Models

	QSG 225LP	QSG 285LP	QSG 430LP	QSG 580LP	QSG 850LP	QSG 1750LP
Rotor Diameter (mm)	127	204	204	255	255	255
Speed Range (rpm)	1200-6800	1000-4800	1000-4800	1000-3750	1000-3750	1000-3750
Suction Pressure (psia)	12-54	12-54	12-54	12-54	12-54	12-54
Discharge Pressure (psia)	30-115	30-115	30-115	30-115	30-115	30-115
Rated Power (hp)	75	110	170	200	380	610
Gas Delivery (cfm)	70-330	140-570	210-870	300-940	440-1400	800-2680
Gas Delivery (mscfd)	100-480	200-820	300-1250	430-1350	630-2020	1150-3680
Max Discharge Temperature (°F)	220	220	220	220	220	220
Approximate Weight (lbs)	220	695	770	1170	1400	2450



## 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.

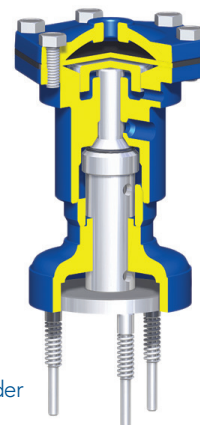
The Quincy QRNG also features an advanced design pressure lubrication system, rebuildable connecting rods and low-lift valves. The Quincy QRNG is uniquely engineered to meet even the most demanding natural gas applications.

### 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 H<sub>2</sub>S sour gas content
- Low cost gas compression

### GAS UNLOADERS

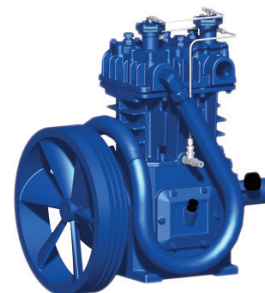
The Quincy QRNG optional gas unloaders are mounted and supplied with tubing which require a tie-in to the customer-supplied activation and control system. This results in easier compressor start-up and provides the ability to handle changes in capacity requirements.



Optional gas unloader

### 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

Model No.	Bore & Stroke	Min RPM	Max RPM	CFM Displacement @ Max RPM	Max Inlet pressure	Max Discharge pressure	Max BHP
216 NG	3x3x2.5*	400	900	18.4	50	150	5.5
240 NG	4x4x3*	400	900	39.3	50	125	10.9
270 NG	4.5x4.5x4*	400	900	66.3	50	125	18.3
4125 NG	4.5x4.5x4**	400	900	132.5	50	125	34.5

### QRNG TWO-STAGE COMPRESSOR TECHNICAL DATA

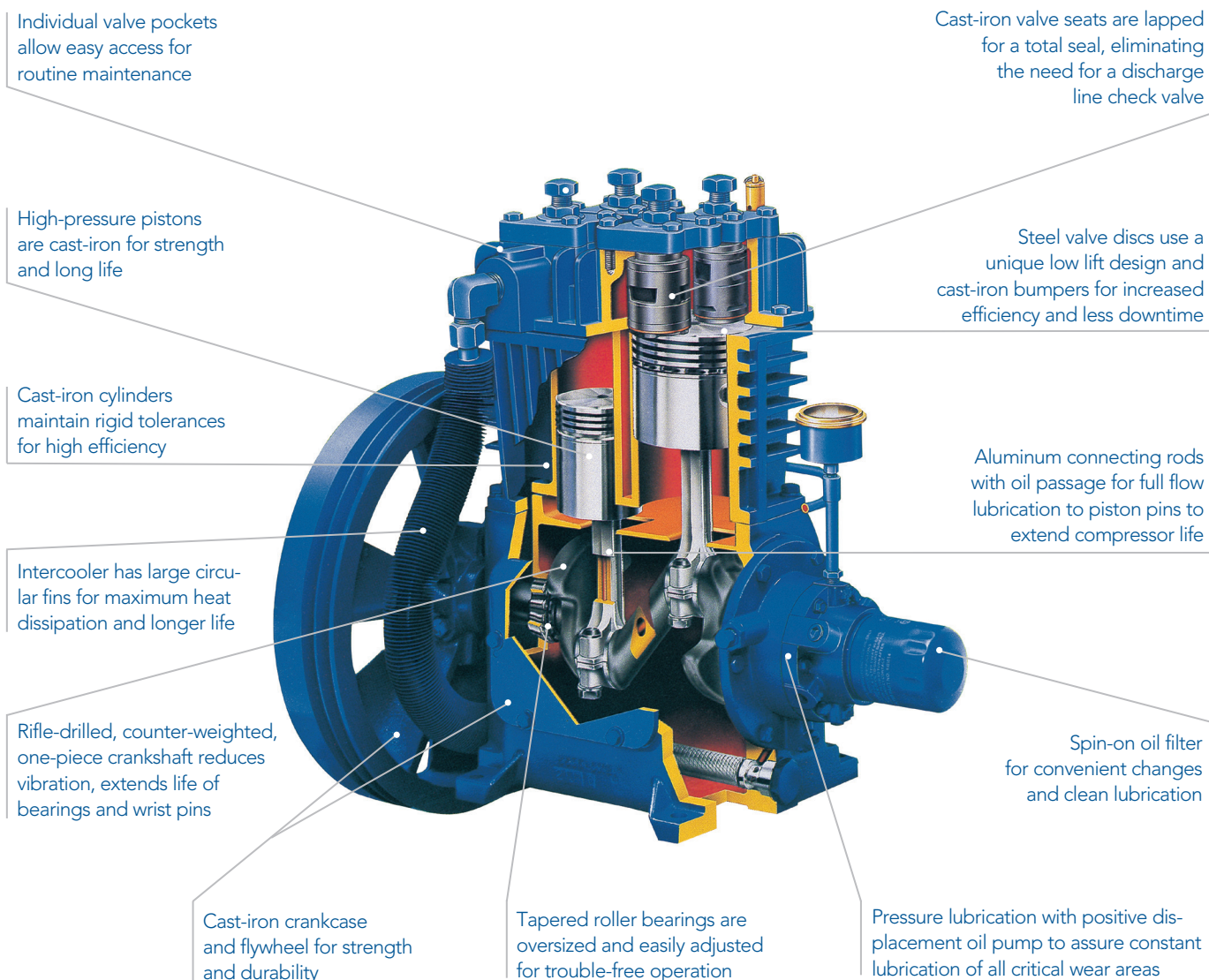
Model No.	Bore & Stroke	Min RPM	Max RPM	CFM Displacement @ Max RPM	Max Inlet pressure	Max Discharge pressure	Max BHP
325 NG	4.5x2.5x3*	400	900	24.9	30	500	13.2
340 NG	5.25x3x3.5*	400	900	39.5	30	500	20.00
350 NG	6x3.25x3.5*	400	900	53.7	30	400	23.8
370 NG	6x3.25x4*	400	900	61.6	30	400	27.7
5120 NG	6x3.25x4**	400	900	123.2	15	325	33.0

\* Two-cylinder

\*\* Four-cylinder

## QUINCY QRNG SERIES

### QUINCY QRNG GAS COMPRESSOR - FEATURES & BENEFITS



### 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



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