

The Quincy[®] QSV series

boosts vacuum quality, reduces operating costs, and replaces single-application pumps. Quincy quality is the reason.

Ever since we developed the first rotary screw vacuum pump back in 1982, our reputation for building powerful, versatile vacuum equipment has been unrivaled. We have always been dedicated to meeting your demands for reliable vacuum, which is why today we can point to a number of applications where a Quincy pump has been in continuous operation for over 14 years, without a problem.

We're particularly enthusiastic about our rugged rotors, designed specifically for thousands of trouble-free hours of operation. A polar coordinate measuring machine ensures that the QSV rotors are machined to the most exact tolerances in the industry.

The nuts and bolts of the QSV series

The Quincy QSV series offers a total vacuum package, complete with modulating inlet valve, control panel, electrical enclosure, gauges, and exhaust separation system. Put it all together and you'll have a system that will maintain your process vacuum levels for years—automatically. With pumping speeds from 155-3000 CFM, the QSV line is able to meet every process requirement.

QSV series pumps can be set to run continuously or on a start/stop basis. Our Demand-a-matic control option allows you to run two, three, or four units on a rotating lead/lag basis, and a programmable timer ensures optimum cycling of the pumps. Standard equipment includes a power-on light, hour meter, vacuum gauge, separator maintenance gauge, and discharge temperature gauge. Each pump meets our highest quality standards before leaving the factory.

A model of efficiency

Because the QSV series requires no sealing water, users can realize substantial savings on water and sewer charges, as well as on power consumption. In many instances, the payback on the QSV can be as low as one year or less.

Virtually maintenance-free

While you're counting the energy dollars the QSV saves you, be sure to notice what you're saving in maintenance costs. Our efficient airend design and tremendously long bearing life beats rotary vane and other vacuum technologies hands down. Plus, a cushion of fluid seals the clearances between the two rotors and the housing, ensuring that the rotors experience minimal wear.

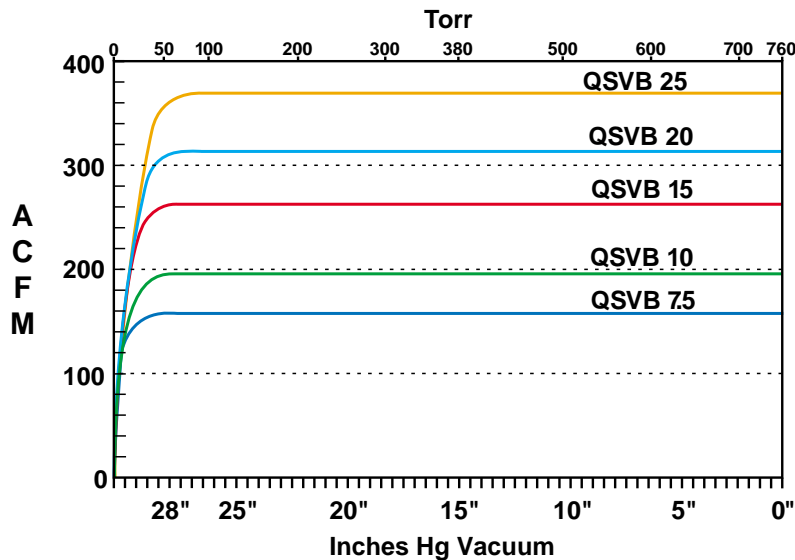
The bearing package on the QSV line was initially designed for a compressor, with cylindrical roller bearings on the suction side and two sets of tapered roller bearings on the discharge side (three sets on the QSVI). The comparatively light loads and the heavy-duty bearings translate into extended pump life.

Superior quality, power savings, and years of dependable performance. The Quincy QSV series has been proven under pressure—put it to work for you!

The Quincy QSVB

- Belt-drive
- Five models to choose from
- Pump speed range from 155 to 371 ACFM
- Can attain base pressures of 29.9" Hg vacuum (.5 torr)

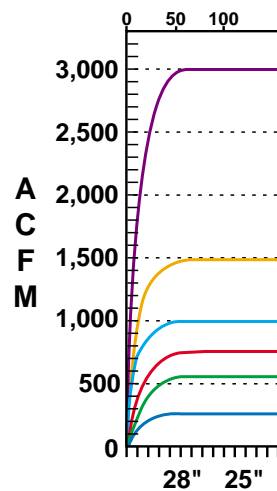
Capacity Curves, QSVB



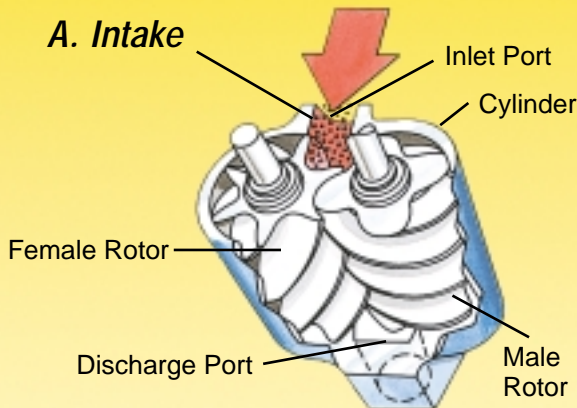
The Quincy

- Direct-drive
- Six models to choose from
- Pump speed range from 365 to 3000 ACFM
- Can attain base pressures of 29.9" Hg vacuum

Capacity Curves, Quincy

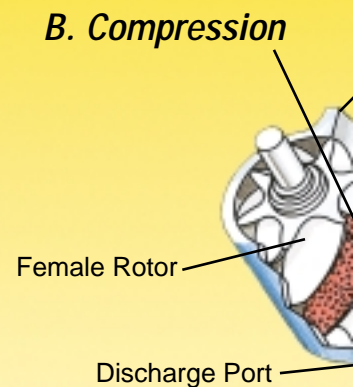


Description of the rotary screw principle



Initial suction and entrapment

As the rotors turn, an increasing volume creates a suction effect at the inlet. The gas is drawn in and is closed off from the inlet.



Compression

The turning rotors carry the gas to the back of the air end. The gas is then compressed and pushed out through the discharge port.

QSVI

from
rom
ssures
(.5 torr)



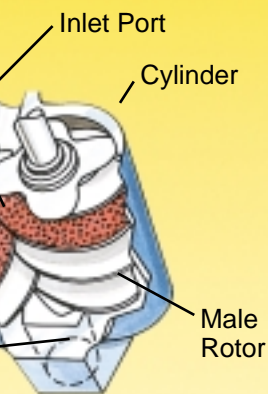
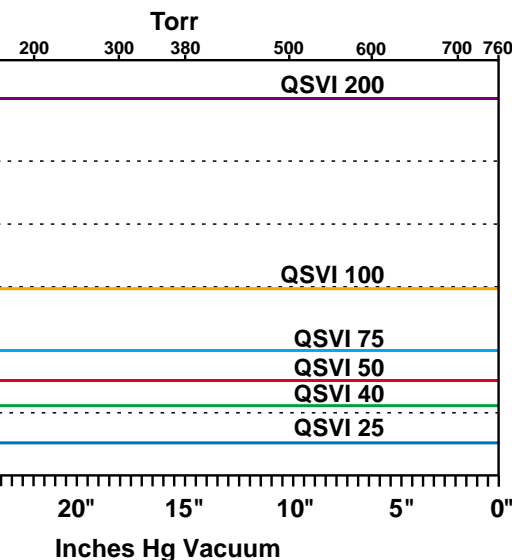
Both the QSVB and QSVI are available with air-cooling or water-cooling, with sound enclosures optional.

For sealing and cooling, all models are equipped with a fluid pump to ensure positive fluid flow to the rotors and bearing assemblies, and a removable filter to keep particulates and debris out of the fluid. Because of its superior vapor pressure characteristics and tolerance to harsh process environments, QuinSyn fluid is included in all pumps.

The air/fluid separator element is accessible through a removable top plate for cleaning and replacement, and a fluid drain valve makes fluid changes easy.

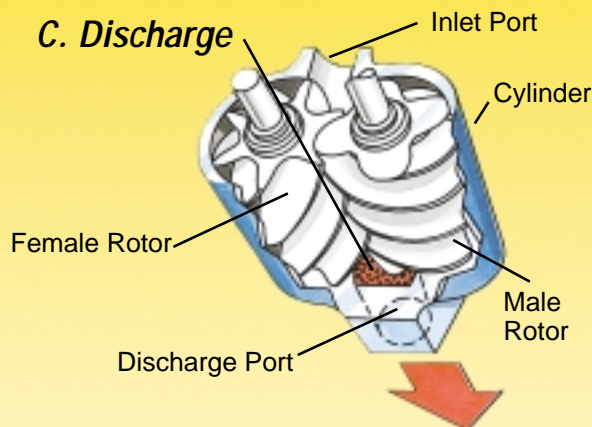
To protect against process failure, all models have a high air temperature (HAT) shutdown device. In case of process failure or malfunction, the sensor automatically reads high air/fluid temperature on the discharge side, and stops the pump. The air/fluid reservoir has an ASME-coded overpressure relief valve for high exhaust pressure.

QSVI



The gas along a path toward compression cycle begins.

C. Discharge



Final compression and discharge

The ever-decreasing volume between the rotors and the housing causes the gas to compress to atmospheric pressure. At the point where the rotors open over the discharge port, the gas is ejected.

QSVB and QSVI Specifications

Performance Characteristics	QSVB 7.5	QSVB 10	QSVB 15	QSVB 20	QSVB 25	QSVI 25	QSVI 40	QSVI 50	QSVI 75	QSVI 100	QSVI 200
Capacity (ACFM)	155	196	265	319	371	365	550	730	980	1500	3000
Horsepower	7.5	10	15	20	25	25	40	50	75	100	200
RPM: Motor	1800	1800	3600	3600	3600	1800	1800	3600	3600	3600	3600
RPM: Pump	2810	3550	4826	5800	6750	1800	2700	3600	3600	3600	3600
Base Vacuum "HgV	29.9"	29.9"	29.9"	29.9"	29.9"	29.9"	29.9"	29.9"	29.9"	29.7"	29.6"
Inlet (NPT)	3"	3"	3"	3"	3"	4"	4"	5"	5"	8"	8"
Exhaust (NPT)	2"	2"	2"	2"	2"	4"	4"	4"	4"	6"	8"FLG
Lubricant (Gallons)	6.5	6.5	6.5	10	10	12.5	12.5	24	42	45	65
Weight (lbs.)	960	960	960	980	980	2362	2434	2550	3975	6300	8100
Max. Length (inches)	65	65	65	65	65	78	78	78	96	108	120
Max. Width (inches)	34	34	34	34	34	48	48	48	56	60	76
Max. Height (inches)	46	46	46	46	46	58	58	58	73	85	96

*See the QSV technical data sheet for exact dimensions.

QSVB: Belt Drive

QSVI: Direct Drive

Standard equipment

- Auto belt tensioner on QSVB
- Positive lubrication fluid pump
- Full instrument, UL-listed control panel
- Modulating inlet valve
- Magnetic motor starter
- Spin-on fluid filter
- Standard NEMA motor, 3-phase, 60hz, 230/460-volt
- Temperature regulating valve
- Air-cooled or water-cooled
- Fluid-level sight glass
- Fluid filter pressure indicator
- Synthetic fluid

Protection devices

- Pressure relief valve
- High discharge temperature shutdown system with manual reset

Options

- Power failure restart module
- Auto-dual control for timed shutdown
- 200- or 575-volt operation
- 50hz, 380-volt service
- NEMA 4, 12 control panel
- TEFC motors
- High-efficiency motors
- Sound enclosures
- Standard vacuum accessories
- Other options may be available: consult factory for special requirements

Accessories

- Inlet filters (Std. QSVI 25, 40, 50)
- Vacuum gauges
- Vacuum receivers (Size in gallons: 30, 60, 120, 200, 250, 400) horizontal or vertical orientation
- Vacuum ball valves
- Vacuum check valves
- Exhaust demisters
- Ask for our Accessories Brochure

Healthcare applications of the QSV series

Medical

- Hospital central vacuum systems
- Surgical vacuum
- Anesthesia removal
- Dental systems
- Laboratory vacuum
- Vacuum incubators
- Extraction equipment

Pharmaceutical

- Powder and paste degassing
- Vacuum filtration
- Material transfer
- Vacuum sealing
- Organic distillation
- Vacuum mixing

Please call Quincy regarding applications that involve corrosive gases.

Outstanding features

- Complete gauge package for system monitoring includes 0-30" vacuum gauge, fluid temperature gauge, and an exhaust pressure gauge to monitor the separator element.
- Electrical control package includes UL-listed control panel, power-on light, on/off switch, high-temperature shutdown system with indicator light, hour meter, and magnetic motor starter. An optional auto-dual control allows timed shutdowns and power savings.
- Full-range modulating inlet valve is field-adjustable, and allows you to adjust vacuum between 10" and 29.9" Hg, depending on your requirements.
- Unique pressure lubrication system: female rotor drives an external fluid pump to ensure positive fluid flow throughout system, making a supplemental fluid pump unnecessary.
- Air/fluid separation system removes fluid aerosol from exhaust, returns it to pumping chamber.
- Sturdy base frame requires no special foundations or mounting procedures. Installation is easy: just plumb the inlet and exhaust, supply power, and turn it on.
- Every QSV vacuum pump is assembled and tested before shipping. If it doesn't meet our high standards, it doesn't get shipped. We warrant our airends for two years from the ship date, and all other parts for one year in defects in materials or workmanship.
- Quincy also offers the technical expertise you need to solve the toughest application challenges. Our goal, in fact, is to be your personal process consultants.



*Looking for the Quincy Distributor nearest you?
Call toll-free 888.4-AIR-QCY (888.424.7729)*



Quincy
Compressor



Visit us on the WWW at www.quincycompressor.com

We reserve the right to change specifications without liability, without advance notice, and without incurring any obligation for products previously or subsequently sold.

3501 Wisnann Lane, P.O. Box C2, Quincy, Illinois 62305-3116

© Quincy Compressor. All rights reserved. Litho in USA. (QSVH-005 4/00)