# QOF & QOFT Series





Oil-Free Air Compressors 20-200 HP





# Designed To Solve Your Production Problems



We achieve best in class reliability when we design each component with the high reliability of the package in mind.

- Scott Barker
Business Line Director - Rotaries & QAS



# Reduce Your Risk

No one likes unexpected surprises, breakdowns or complete system shutdowns. Quincy promises to do whatever it takes to keep your systems running and proactively prevent any downtime.



## Reduce Your Cost

We don't believe in wasteful sales and inefficiency. Our goal is to offer the best product and the lowest total cost of ownership. We will work with you to figure out the right air system and warranty to make you successful.



# **Increase Simplicity**

We make the entire selection process as simple as possible for you while tailoring the system to your specific requirements. We collect the data to give you the most accurate suggestions for both systems and service. Our systems are designed for less complicated installation, easy usage and the most sensible service options.

# Here's How

Maximum
Uptime,
Minimum
Disruptions



## A Machine Designed For A Lifetime

Our philosophy has always been to over engineer everything, from sensors to motors. Deliberate design choices to maximize uptime include:

- Oil pump integrated into the drive shaft (our oil pump turns when the motor turns with no requirement for an external power source)
- Airend cooling jackets increase temperature control on all QOF
- Teflon coating that allows "run-in" and coating-to-coating contact (higher reliability and efficiency)

## Market Leading Warranty

If ever there is a problem, it's not yours! Our "Sterling Blue" Extended Warranty has your airend covered.

### Simple, Easy & Inexpensive Installation

- All QOF-QOFT models are delivered factory tested and ready to operate
- Self sustained base frame: No need to anchor the compressor to the floor
- Vertical draft cooling simplifies the installation of ducting
- Forklift holes means easy placement and eliminates the need for a crane

#### Leading System Efficiency

Quincy offers several control option alternatives to more closely match the supply profile of the machine with the demand profile of your system. Quincy's controller technology enables constant communication between machines, allowing them to work in harmony as a group rather than as individuals.



Quincy machines are designed for faster, less expensive service. Easy access panels enable better and quicker access for routine service visits.

Cost of Ownership



Flexibility
To Do It
Your Way



Get The Machine You Want With Features You Need

For the most challenging applications that need a fully custom package, we can design, assemble and test locally according to your needs.

Purchase Without Burdening Your Business

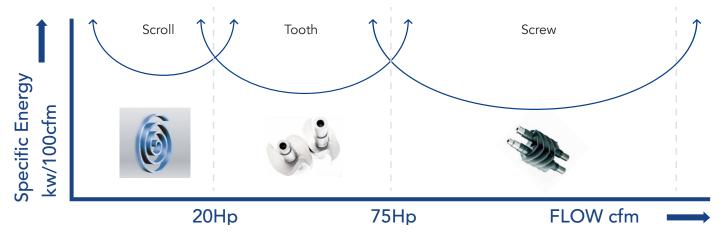
We can provide all kinds of attractive purchase options, including long term rental, leasing, financing and even providing the package as a service.

Maintain Your System Your Way

We can support your maintenance goals, from supplying parts to becoming completely accountable for your system availability levels.

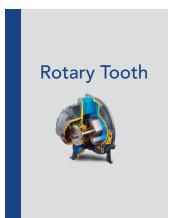
# The Best Technology For All Oil-Free Applications

Every technology has an optimum performance curve.



Quincy always offers the most efficient and reliable designs at all optimal output capacities

Quincy uses the most efficient technology across all HP/CFM ranges



### Rotary Tooth is best technology from 20 - 75HP:

Smaller Leak Path

Our exclusive design allows low leakage between rotors when compared to other compression technologies.

✓ Lower RPM

Rotor speeds can be kept low because the leak path is smaller.

Teflon Coated Stainless Steel

The profile surface of the female rotor body and the inner walls of the compression chamber are coated with an abradable Teflon-based paint.

## Rotary Screw is the best technology above 75HP:

Bearing Set-Up Designed For Lifetime

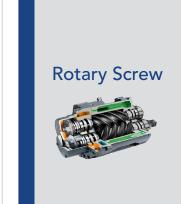
Our unique bearing set-up was jointly designed with a leading bearing manufacturer for the exclusive application on oil-free compressor airends.

Best In Class Screw Rotor Clearances

Liquid cooled jackets and exclusive Teflon graphite coating keeps clearances as small as possible.

Minimized Internal Leakage

We design our rotary screw compressors to have the airends turning at the optimum speeds to minimize losses and increase performance and durability.



# Engineered Solutions

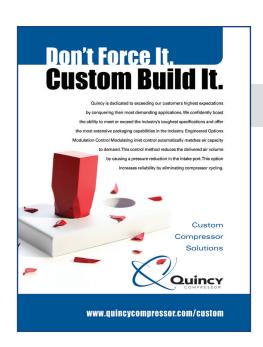


# **Engineered Solutions**

Quincy Compressor recognizes the need to combine our compressor and dryer production with the specifications and standards required by major companies for equipment purchases. Strategically located departments within the Quincy Compressor division take care of the design and manufacturing of customized equipment to operate at extreme temperatures, often in remote locations.

# **Innovative Technology**

The reliability, longevity and performance of our equipment will not be compromised. All equipment includes options for extended warranty coverage.





# **Innovative Engineering**

Each project is unique and by entering into a partnership with our customers, we can appreciate the challenge at hand, ask relevant questions and design the best engineered solution for all your needs.

# QOFT 20-75 HP Series

Set to meet your specific demands and tackle your daily challenges, we offer you the QOFT compressors. Immediately ready to supply high quality oil-free air, this powerful solution provides you with the exceptional reliability and efficiency you are looking for.



# 1 Inter-cooler & After-cooler

- Water separators are included for both the Inter-cooler and After-cooler
- Low After-cooler approach (CTD) prevents having to oversize the air dryer

## 2 Two Stage Tooth Airend

- Lower energy consumption compared to single stage compression systems as no venting of the pressure is required
- 2 Year Sterling Blue Extended Warranty

## 3 Sound Insulated Canopy

No separate compressor room required

## **4** Induction Motor

- Flange-mounted for perfect alignment
- The dry motor coupling requires no lubrication, eliminating service requirements

## 5 Air Filter

- SAE fine 99.5%; SAE coarse 99.9%
- Long lifetime and high reliability for longer service intervals
- Combined air filter and silencer to ensure sound insulation

# 6 Integrated VSD Inverter

- High energy efficiency by matching customer demand with power consumption
- Operation in a narrow pressure band setting reduces the overall system working pressure

## 7 Q-Control Touch

 Advanced Q-Control Touch control and monitoring system, designed for integration in a (remote) process control system

## 8 Electronic Water Drain

- Mounted vibration-free on the frame
- Constant removal of condensate for improved water separation and extended lifetime of the compressor

#### Radial Fan

- Easy to connect ductwork
- Low noise



# QOF 75-200 HP Series

Quincy Compressor's QOF 75-200HP line of oil-free rotary compressors brings you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. Built to perform even in the harshest environments, these compressors keep your production running efficiently.



# 1 Highly Efficient Inlet Filter

- Machine mounted, easy to maintain
- Minimum intake losses

## 2 Advanced Q-Control Monitoring System

- Overall system performance status with pro-active service indications, alarms for malfunctions and safety shutdowns (multi-language selectable)
- All monitoring and control functions via one interface
- Integration possible in many process control systems (field bus system)

# High Precision Gears AGMA A5

- Long lifetime
- Low transmission losses
- Low noise level and vibration

## 4 Superior Airend Bearings

- High stability under varying load conditions
- No need for pre-lubrication/ stabilization time
- Joint development with world top-ranked SKF bearing supplier



## Water Separator

- The labyrinth design efficiently separates the condensate from the compressed air
- Low moisture carry-over protects downstream equipment
- Improved dryer performance



## 6 World Class Oil-Free Compression Rotors

- 100% oil-free air compression
- High overall efficiency, thanks to superior rotor coating and element cooling jackets
- Internal machining process and assembly (not outsourced)

# 7 Totally Enclosed Fan Cooled Motor

 Higher degree of protection against environmental contaminants vs ODP (open drive proof)

#### 8 Coolers

- Air-cooled version uses aluminum alloy fin cooler
- Water-cooled version uses stainless steel (longer lasting than cheaper copper based alternatives)



# Competitive Inverter Designs





Other companies' units have the inverter on the exterior of the machine. The inverter is more exposed causing it to be less efficient and more costly to the owner.

# The Quincy Advantage

All Quincy Variable Speed units are individually designed and endurance tested with the inverter located inside the electrical enclosure and a motor uniquely designed for variable frequency operation.

# Motor Reliability

Fixed Speed compressor motors are designed for continuous operation at a fixed frequency 60Hz (USA). At slower speeds, the motor operates at higher temperatures with less available cooling (fan cooled motors). Quincy uses motors designed to operate in the required frequency range and qualifies the package considering minimum speed and maximum ambient (worst case conditions).

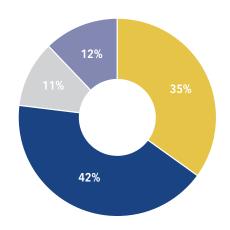
### Turndown / Efficiency

The Quincy QOF/QOFT lines of oil-free compressor offer up to 65% turn-down (QOFT-30V @ 100PSI)

#### **Inverter Protection**

With the inverter externally installed, its more exposed to environmental contaminants and more likely to experience damage in shipment. The Quincy "built in" solution protects the inverter with dedicated electrical cubicle ventilation sized for max ambient and an intake filter to protect against dust/dirt from the environment.





#### Quincy Compressor Total Life Cycle Cost

- Energy savings with VSD
- Energy
- Investment
- Maintenance

# 100% Certified Oil-Free Air



Quincy Compressor is renowned for designing and manufacturing the most durable oil-free rotary compressors. The QOF-QOFT compressors come out of this strong tradition. Ideal for industries where high-quality oil-free air is key, the QOF-QOFT offers the highest reliability and safety in combination with low energy costs.



## Class Zero Oil-Free

Quincy has worked hard to meet the needs of our customers by always offering the best technology, resulting in a range of air compressors and technologies that provide 100% pure, clean air. Through continuous research and development, Quincy Compressor achieved a new milestone, being awarded CLASS 0 certification.



# Eliminating any risk

As the industry leader committed to meeting the needs of the most demanding customers, we requested the renowned TÜV Institute to type-test its range of oil-free compressors. Using the most rigorous testing methodologies available, all possible oil forms were measured across a range of temperatures and pressures. The TÜV Institute found no traces of oil at all in the output air stream.

CLASS	Concentration total oil (aerosol, liquid, vapor) mg/m3
0	As specified by the equipment user or supplier and more stringent than class 1
1	< 0.01
2	< 0.1
3	< 1
4	< 5

# Our Customers Say It All

We don't need to talk about why we're the smarter choice or how great our systems are. Our awesome customers do that for us. If you ask, they'll tell you how Quincy compressors provide high-quality compressed air for the harshest environmental conditions with our patented technology and designs.





Quincy Compressor has grown with our business and we know we can count on them to keep an eye on our machines which allows us to focus on our business. Quincy compressor is reliable, dependable and trustworthy.

- Neil Henderson MS Laminators

- Quincy Compressor Oil-Free air compressors serve a multitude of applications in the Food and Beverage, Electronic and Pharmaceutical Industries
- Our Oil-free air compressors deliver the highest level of air purity
- Oil-Free means no risk of contamination
- 100% oil-free air prevents risk of contamination
- Oil-free air helps you successfully obtain FDA certification



Quincy has been with us since our plant opened in 1979. We've never had major issues with your compressors and we know if we did, Quincy would be right on top of it. We count on Quincy because they keep our plant running.

- John Wagner Fruit Growers Supply Company



Quincy is responsive to our needs, the equipment is reliable, the price points are good and when you combine all those things, going with Quincy Compressor is an easy decision.

- Mark Hans
Top Drawer Cabinetry

Our customers rely on our compressors to meet strict guidelines and provide only the purest air. Industries like electronics, pharmaceuticals and food and beverage all require precise equipment to ensure their products are free of any contamination. Our 100% oil-free air ensures quality performance and an extended lifetime for the compressor.

# QOF/QOFT

# QOF/QOFT V SPECIALS

20-25-30-40-50-60-75-100-125-150-200 HP

30-50-75-100-125-175-200 HP

All QOF/QOFT 20-200 HP

#### Premium Fixed Speed

#### Premium Variable Speed

#### **Extreme Environments**







\*Picture shown is a unit with a rain protection option

## The QOF/QOFT Is **Best For:**

- **(** Applications that require its full air flow capacity
- **(**/ Harsh operating conditions (outdoor, hot, cold, dirty)
- (V) Special applications that require a customizable air compressor
- **%** Even higher durability and reliability

## The QOF/QOFT V Is **Best For:**

- Ø, Applications that require compressors to operate at partial loads
- (V) Customers that are interested in an efficient compressed air system
- **W** A better control of compressed air pressure to reduce variations
- Highly sensitive applications with good operating conditions

## **Custom Solutions** Are Best For:

- Harsh operating conditions
- Flexible installations including outdoors
- Skid Packages
- Containerized Solutions
- Hazardous Area Classification

# Core Technologies

## Legendary Airend Designs

The Quincy airend has earned a legendary reputation for its longevity. By engineering for reliability and offering both the oil-free rotary tooth and screw we never push a technology beyond its ideal application.



#### **Exclusive Inverter Design**

This in-house design allows for improved control over the life-cycle of the application. The Quincy inverter is designed specifically for compressed air applications, eliminating the usual sensitivity to dust and heat. The electronics are intelligently protected by an IP5X enclosure which dissipates heat via a fan cooled heat sink.

The QFD 900 operates in high ambient temperatures with operation at full power between -20°C/-4°F and 50°C/122°F.



- \*Available on QOFT-50V-75V
- \*\*Siemens on QOFT-30V
- \*\*\*Schneider on QOF-100V-125V-175V-200V

#### Integrated Directly Driven Oil Pump

All Quincy oil-free rotary compressors feature a gear rotor type oil pump mounted on the main shaft. When the motor is turning, the required oil pressure is delivered to the bearings. Even in a power loss situation, the oil pump operates while the motor slows its rotation.





\*Gear rotor type pump mounted on main shaft

#### Networking & Remote Monitoring

The latest Quincy controller provides on-board tools that make staying connected easier than ever due to networking, monitoring and integrated cellular connectivity. In-cloud analysis of the data helps schedule optimum service intervention, predicts failure and measures overall machine health.



# **QOFT Technical Data**

	Working Pressure		Capacity FAD		Installed Motor		Noise	Weight		Outlet	
Model No.	Effective	Maximum	Capacity 1 AD		Tristalled Wiotor		Level	Stan	Standard		
	psi	psi	l/s	m³/min	cfm	kW	HP	dB(A)	kg	lb	Size
Aircooled											
QOFT-20	100	109	37.7	2.26	79.8	15	20	68	984	2169	1 1/2
QOFT-20	116	125	34.4	2.07	72.9	15	20	68	984	2169	1 1/2
QOFT-20	137	145	30.6	1.83	65.4	15	20	68	984	2169	1 1/2
QOFT-25	100	109	48.7	2.92	103.3	18	25	70	1014	2235	1 1/2
QOFT-25	116	125	45.6	2.73	96.5	18	25	70	1014	2235	1 1/2
QOFT-25	137	145	38.6	2.32	81.8	18	25	70	1014	2235	1 1/2
QOFT-30	100	109	59.1	3.55	125.3	22	30	72	1024	2258	1 1/2
QOFT-30	116	125	53.8	3.23	114.0	22	30	75	1024	2258	1 1/2
QOFT-30	137	145	45.7	2.74	96.8	22	30	72	1024	2258	1 1/2
QOFT-40	100	109	79.8	4.79	169.1	30	40	69	1251	2758	1 1/2
QOFT-40	116	125	76.6	4.60	162.4	30	40	69	1251	2758	1 1/2
QOFT-50	100	109	97.0	5.82	205.6	37	50	71	1321	2912	1 1/2
QOFT-50	116	125	92.9	5.58	196.9	37	50	71	1321	2912	1 1/2
QOFT-60	100	109	113.6	6.82	240.8	45	60	73	1341	2956	1 1/2
QOFT-60	116	125	108.6	6.52	230.2	45	60	73	1341	2956	1 1/2
	100		56.4	3.38	119.5						
QOFT-30V	125	145	51.7	3.10	109.6	22	30	72	1091	2045	1 1/2
	145		47.4	2.84	100.3						
QOFT-50V	100	125	101.2	6.07	214.4	37	50	71	1386	3056	1 1/2
QOF1-50V	125	125	95.1	5.71	201.6	3/	50	/ 1	1386	3056	1 1/2
OOET 751/	100	105	142.5	8.55	302.0	E F	7.5	72	1207	2057	1 1 / 2
QOFT-75V	125	125	138.8	8.33	294.0	55	75	73	1386	3056	1 1/2

(1) Unit performance measured according to ISO 1217, Annex C, Edition 4 (2009)

	Standard								
Model	А	В	С						
No.	Length (mm/in)	Width (mm/in)	Height (mm/in)						
QOFT-20-25-30	1760/69.3	1016/40	1620/63.8						
QOFT-40-50-60	2006/79	1016/40	1880/74						
QOFT-30V	2195/86.4	1016/40	1620/63.8						
QOFT-50V-75V	2440/96.1	1016/40	1880/74						



15

# **QOF Technical Data**

	Working	Working Pressure		- Capacity FAD			Installed Motor		Weight			
Model No.	Effective	Maximum		_apacity FAL		mistanca Motor		Level Standard				
	psi	psi	l/s	m³/min	cfm	kW	HP	dB(A)	kg	lb		
Aircooled												
QOF-75	100	100	145.3	8.7	308	55	75	79	7910	4278	2.5	
QOF-100	116	125	188.2	11.3	399	75	100	79	2100	4630	2.5	
QOF-125	116	125	229.7	13.8	487	90	125	79	2150	4740	2.5	
QOF-100V	100	125	210.5	12.6	446	75	100	80	2108	4647	2.5	
QOF-100V	116	125	193.0	11.6	409	75	100	80	2108	4647	2.5	
QOF-125V	100	125	259.1	15.5	549	90	125	80	2108	4647	2.5	
QOF-125V	116	125	210.5	12.6	446	90	145	80	2108	4647	2.5	
QOF-150	116	125	317.7	19.1	670	110	150	79	2887	6365	3	
QOF-200	116	125	391.2	23.5	828	145	200	79	3078	6786	3	
QOF-175V	100	125	369.2	22.2	782	132	175	79	2870	6327	3	
QOF-175V	116	125	354.9	21.3	752	132	175	79	2870	6327	3	
QOF-200V	100	125	388.6	23.3	823	160	200	79	2870	6327	3	
QOF-200V	116	125	375.2	22.5	795	160	200	79	2870	6327	3	

	Working Pressure		Capacity FAD		Installed Motor		Noise	Weight			
Model No.	Effective	Maximum		Sapacity I AL		Ilistallet	a Wotol	Level	Stan	dard	Outlet Size
	psi	psi	l/s	m³/min	cfm	kW	HP	dB(A)	kg	lb	
Watercooled											
QOF-150	116	125	314.3	18.9	666	110	150	75	3080	6393	3
QOF-200	116	125	387.1	23.2	820	145	200	76	3080	6789	3
QOF-175V	100	125	365.3	21.7	774	132	175	76	2912	6420	3
QOF-175V	116	125	351.1	20.8	744	132	175	76	2912	6420	3
QOF-200V	100	125	384.6	22.8	815	160	200	77	2912	6420	3
QOF-200V	116	125	371.0	22.0	786	160	200	77	2912	6420	3

(1) Unit performance measured according to ISO 1217, Annex C, Edition 4 (2009)

	Standard								
Model	Α	В	С						
No.	Length (mm/in)	Width (mm/in)	Height (mm/in)						
Aircooled									
QOF 75-125	2700/106.3	1600/63	1800/70.9						
QOF 150-200	3000/118.1	1560/61.4	2000/78.7						
Watercooled									
QOF 150-200 W	2540/100	1650/65	2008/79.1						



### Compressed Air Systems Best Practice

