Refrigerated
Air Dryers

Quincy
COMPRESSOR

Refrigerated Air Dryers

Quincy QPNC Series | Non-Cycling

Quincy QRHT Series | High Temp

Refrigerated Air Dryers

Non-Cycling Designs for Maximum System Efficiency

Non-Cycling Dryers 13 to 3000 CFM

Quincy refrigerated air dryers are manufactured to exact standards in state-of-the-art production facilities, featuring high-capacity, balanced component selection and consistent output. This, combined with a clean, simple design, creates an efficient, reliable and environmentally friendly non-cycling refrigerated air dryer.

Quincy refrigerated air dryers allow plant equipment to run efficiently, and processes more reliably, by providing the cleanest compressed air utility possible. Payback starts immediately upon start up.

A Greener Choice

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Environmentally Safe Refrigerants

- No CFC's or HCFC's
- EPA/SNAP Compliant
- Zero Ozone Depletion Potential (ODP)
- Qualifies for one LEED point
- Higher performance potential
- Higher efficiency potential

QPNC – Non-Cycling Dryer Operation

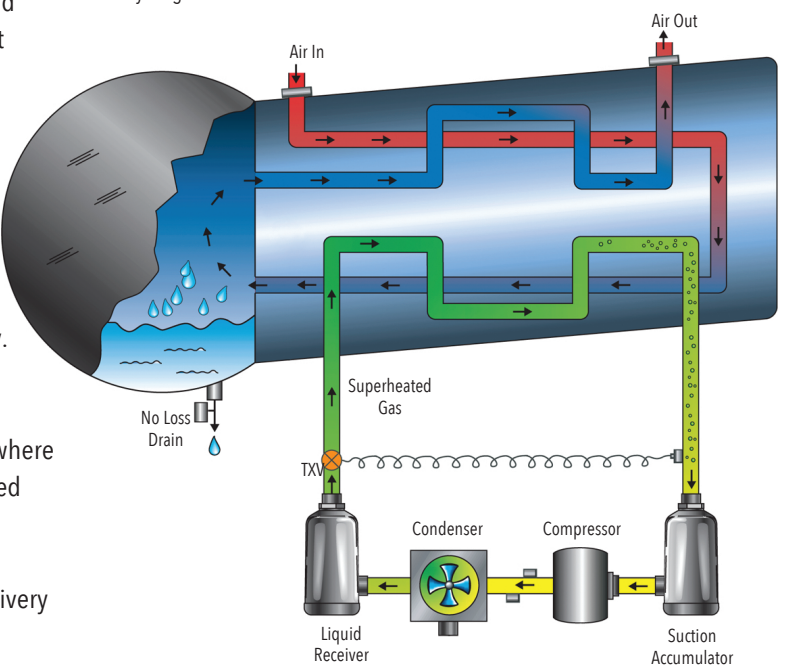
Quincy Non-Cycling dryers use a two-stage heat exchanger system to maintain consistent dew points. Freeze-ups are prevented and optimum performance is maintained by integrating the highest quality components and refrigeration controls into our system.

The system reduces the temperature of the compressed air to approx. +39°F forcing entrained moisture to condense. The mixture of condensed liquids and cold air then flow into the cold point moisture separator where the liquids are collected and removed by a Zero Loss condensate drain. The Zero Loss drain ensures maximum moisture removal while saving energy.

Once liquids have been removed, the cold dry compressed air returns through the cold side of the first stage heat exchanger where it is reheated by the warm incoming air. Pipe sweating is avoided and air volume is increased by reheating.

The compressed air is now considered treated and ready for delivery to downstream products.

Non-Cycling Flow Schematic



Quality Comes in All Shapes and Sizes – But Just One Color.

Quincy Has the Compressed Air Solution for Your Application.

Since 1920, Quincy's trademark blue compressors have been hard at work building our company's reputation for quality and performance in some of the world's most demanding applications and harshest environments.

We're Still Making History.

Today, you'll find that same leadership in Quincy's next-generation compressed air solutions that feature everything from smart controls to green technologies. We know that your company is counting on our reputation. That's why every Quincy product is designed, constructed and proven to deliver exceptional customer value before it is worthy of wearing the Quincy name.

Our Promise to You.

As a customer you can always count on Quincy for a low cost of ownership through stable air pressure, easy maintenance and longer equipment life. And we back it all with some of the strongest extended warranty plans in the industry. No shortcuts and no substitutions. That's the quality of Quincy.

The Quincy Solution

Operating at peak efficiency and providing quality product is a priority for many of our customers. Quincy Compressor, in partnership with our global network of authorized distributors, strives to be your provider for all of your compressed air system needs. From the air compressor to filtration, to dryers and storage solutions, Quincy Compressor is your single-source provider for all of your compressed air system needs.

- **Air Compressors** Quincy Compressor is a premier manufacturer of many different types of air compressors designed for a variety of applications using different compression technologies.

  For example the family includes: The Quincy QT is a Reciprocating Splash Lubricated compressor for tough everyday use. The Quincy QP is a reciprocating fully pressure-lubricated compressor for a competitive advantage. The Quincy QR is a reciprocating compressor designed for the most demanding conditions. The Quincy QGD 15-60 HP is a heavy-duty gear driven rotary compressor at a competitive price. The Quincy QSI provides an industrial grade premium fixed speed rotary screw air compressor. The Quincy QGV provides a premium variable speed rotary screw air compressor designed to optimize your energy efficiency.

- **Compressed Air Treatment** Quincy Compressor is your single-source provider of compressed air treatment products to complement your air compressor. Quincy provides refrigerated air dryers, desiccant air dryers, compressed air filtration from 5 to .01 micron, condensate drains, condensate management systems, storage solutions, and flow control valves. Quincy Compressor is truly a single-source provider for all of your compressed air needs.

- **Genuine Parts** Genuine Parts from Quincy Compressor keep your equipment running like new. When servicing your Quincy compressor, insist on Genuine Quincy parts. Not only will you save time and money, but you will gain the peace-of-mind from using only the highest quality parts worthy of the Quincy name.

- **System Controls** Whether you have one air compressor or many from different manufacturers, Quincy Compressor provides you with a way to control and monitor all of your system components in your compressed air system in a way that maximizes your energy efficiency. Whether you need to control your system on site or from half way around the world, Quincy Compressor is your source for reliable, efficient controls.

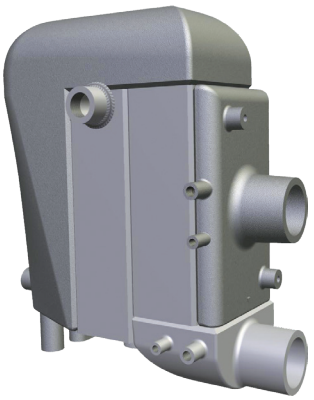
Refrigerated Air Dryers

Ease of Operation

- Refrigerant System Flow
- Run & Alarm Indicator Lights
- Analyzer Gauge
- Schematic
- Stop / Start Switch with Lock Out

Non-cycling

Heat Exchangers & Moisture Separators

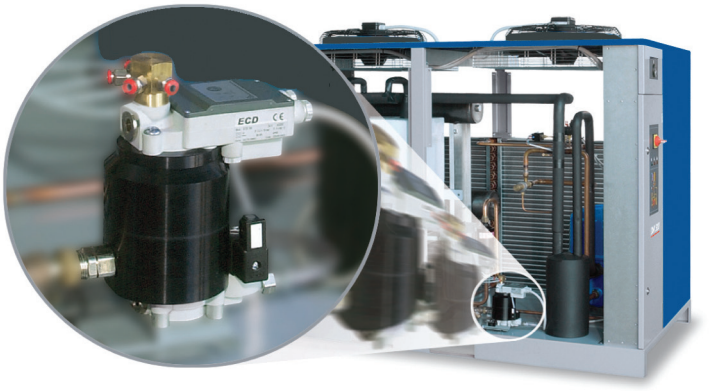


- Low pressure drop
- Cold Air Module (QPNC 83 - 3000)
- Brazed Plate (QPNC 13 - 64)
- Integrated Moisture Separator
- Five-step centrifugal separation
- 10-Year Heat Exchanger Warranty

Saving Energy

Quincy QPNC dryers from 13 to 3000 CFM come standard with the most energy-efficient ZERO LOSS DRAINS.

Quincy refrigerated dryers play the important role of removing condensation from compressor systems. Without a dryer, moisture can accumulate in a compressor. With this moisture comes dirt and other particulate matter, which can cause oxidation and other types of premature wear on delicate compressor components. A refrigerated dryer eliminates the problem by cooling moisture in the air to approximately 39°F, where it condenses and can be removed from the compressor system by way of an automatic drain.



http://www.quincycompressor.com/dryers/

KNOW PRESSURE
COMPRESSED AIR CHALLENGE

Performance You Demand.
Reliability You Trust.

QPNC – Specifications & Engineering Data

Non-Cycling

Model	CFM at 100 PSIG	m3/hr 7 BAR	Standard Electrics		Pressure		Dimensions			Approx. Shipping Weight	Connections In/Out	Refrigerant Gas
			Volts/Phase (Hertz)	Full Load (kW)	Max PSIG	Nominal ΔP	Length (in)	Width (in)	Height (in)			
QPNC-13	13	22	115/1/60	0.2	232	2.2	19	14	18	57	0.5" NPT (M)	R513a
QPNC-21	21	36	115/1/60	0.2	232	2.2	19	14	18	57	0.5" NPT (M)	R513a
QPNC-30	30	51	115/1/60	0.2	232	2.9	19	14	18	60	0.5" NPT (M)	R513a
QPNC-42	42	71	115/1/60	0.3	232	2.9	19	14	18	71	0.5" NPT (M)	R513a
QPNC-64	64	109	115/1/60	0.4	232	2.9	19	14	18	75	0.5" NPT (M)	R513a
QPNC-83	83	141	115/1/60	0.7	203	2.1	20	15	30	112	1.0" NPT (F)	R513a
QPNC-106	106	180	115/1/60	0.7	203	2.9	20	15	30	112	1.0" NPT (F)	R513a
QPNC-127	127	216	115/1/60	0.8	203	2.6	22	18	31	143	1.5" NPT (F)	R410A
QPNC-144	144	245	230/1/60	0.8	203	2.6	22	18	31	143	1.5" NPT (F)	R410A
QPNC-184	184	313	230/1/60	0.9	203	2.9	22	18	31	143	1.5" NPT (F)	R410A
QPNC-229	229	389	230/1/60	1.1	203	2.9	23	23	35	187	1.5" NPT (F)	R410A
QPNC-271	271	460	230/1/60	1.3	203	3.7	23	23	35	187	1.5" NPT (F)	R410A
QPNC-297	297	505	460/3/60	2.0	203	4.3	24	23	35	198	1.5" NPT (F)	R410A
QPNC-354	354	601	460/3/60	1.7	203	2.3	42	32	38	346	2.0" NPT (F)	R410A
QPNC-424	424	720	460/3/60	2.7	203	3.3	42	32	38	375	2.0" NPT (F)	R410A
QPNC-530	530	900	460/3/60	2.7	203	2.6	42	32	38	390	2.5" NPT (F)	R410A
QPNC-636	636	1081	460/3/60	3.6	203	2.6	42	32	38	390	2.5" NPT (F)	R410A
QPNC-750	750	1275	460/3/60	5.4	188	3.6	41	41	61	717	3" NPT (M)	R404A
QPNC-1000	1000	1700	460/3/60	5.8	188	4.3	41	41	61	739	3" NPT (M)	R404A
QPNC-1250	1250	2125	460/3/60	7.3	188	5.0	41	41	61	772	3" NPT (M)	R404A
QPNC-1600	1600	2720	460/3/60	12.7	188	4.3	41	41	61	812	6" NPT (M)	R404A
QPNC-1800	1800	3060	460/3/60	13.7	188	4.3	41	83	61	1235	6" Flange	R404A
QPNC-2200	2200	3740	460/3/60	19.2	188	3.6	41	83	61	1323	6" Flange	R404A
QPNC-2500	2500	4250	460/3/60	19.2	188	3.6	41	83	61	1323	6" Flange	R404A
QPNC-3000	3000	5097	460/3/60	22.3	188	3.7	41	83	61	1433	6" Flange	R404A

Notes: Capacity in accordance with recommended NFPA, ISO, and CAGI standards. kW inputs are shown for air-cooled models including fan motors.

Correction Factors

Inlet Air Pressure Correction

	PSIG	60	80	100	120	140	150	180	200
A	QPNC 13-3000 Factor	0.79	0.93	1.0	1.03	1.07	1.09	1.12	1.14

Ambient Air Temperature Correction

	Temp.˚F	80	90	100	109
C	QPNC 13 - 636 Factor	1.0	0.91	0.81	0.71
	QPNC 750 - 3000 Factor	1.15	1.07	1.0	0.91

Inlet Air Temperature Correction

	Temp.˚F	80	100	110	120	131
B	QPNC 13 - 636 Factor	1.05	1.0	0.87	0.67	0.49
	QPNC 750 - 3000 Factor	1.05	1.0	0.84	0.69	0.51

Dew Point Correction

	Temp.˚F	37-39˚F	45-50˚F
D	QPNC 13 - 636 Factor	1	1.12
	QPNC 750 - 3000 Factor	1	1.2

Example One: Conditions Requirement

Capacity	1050 CFM
Inlet Pressure	120 PSIG
Inlet Air Temperature	110˚F
Ambient Temperature	100˚F
Dew Point	39˚F

Example Two: Conditions QPNC 1000 Corrected Flow for:

Inlet Pressure	120 PSIG
Inlet Air Temperature	110˚F
Ambient Temperature	90˚F
Dew Point	39˚F

Example One: Calculations

Dryer Required = $\frac{\text{cfm required}}{(A) \times (B) \times (C) \times (D)}$

= $\frac{1050}{(1.03) \times (.84) \times (1) \times (1)}$

= 1214 cfm dryer required

Select QPNC 1250 for this application

Example Two: Calculations

Corrected Capacity = Std. Capacity x (A) x (B) x (C) x
= 1000 x (1.03) x (.84) x (1.07) x (1)

= 926 cfm

QRHT – High Temperature Refrigerated Dryer

Space Saving Refrigerated Dryer

QRHT Series Total Air System High Temperature Dryers integrate five different components that perform separate functions. An air-cooled aftercooler, refrigerated dryer, moisture separator, Zero Loss drain, and coalescing filter – these five components work in harmony to ensure clean dry, filtered compressed air.

- 180°F Inlet Temperature
- 3-in-1 Design
- Eliminates Water, Oil and Dirt from Air
- Prevents Damage to Pneumatic Tools
- Fewer Finished Product Defects
- Prevents "Fisheye" Paint Splotches
- Reduces Operational Downtime
- Increase Profitability and Productivity
- Eliminates Air Line Purging

QRHT – Specifications & Engineering Data

High Temperature

Model	CFM at 100 PSIG	Voltage	Power Consumption kW	Max PSIG	Refigerant	Dimensions			Approx. Wt. lb.	Connections (inches)
						Length (inches)	Width (inches)	Height (inches)		
QRHT 25	25	115/1/60	0.4	232	R134a	20.4	13.8	17.7	57	0.5 NPT
QRHT 50	50	115/1/60	0.8	232	R404A	22.6	18.1	31.0	108	1 NPT
QRHT 75	75	115/1/60	1.6	232	R404A	22.6	18.1	31.0	168	0.75 NPT
QRHT 100	100	115/1/60	1.7	232	R404A	22.6	18.1	41.0	231	0.75 NPT
QRHT 125	125	115/1/60	2.0	232	R404A	22.6	18.1	41.0	236	0.75 NPT

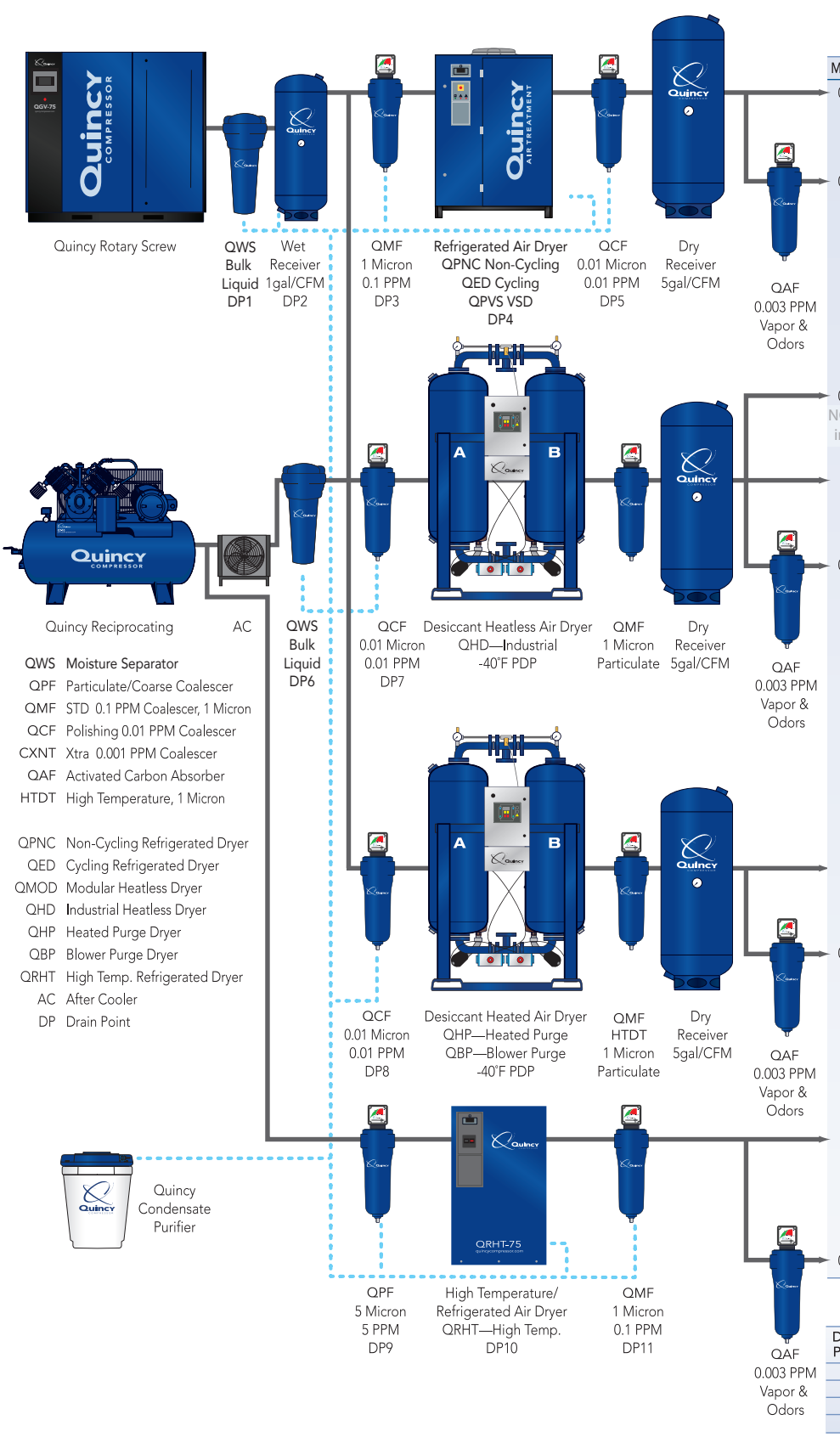
Notes: Instrumentation includes: On/off switch, refrigerant suction pressure gauge and drain test button. Coalescing filter is supplied for all models.

Inlet Flow SCFM

Model	50°F PDP	40°F PDP
QRHT 25	25	20
QRHT 50	50	40
QRHT 75	75	60
QRHT 100	100	80
QRHT 125	125	100

SCFM flow is rated at 180°F max. inlet, 100 psig and 100°F ambient

Compressed Air Systems Best Practice



Air Quality Classification ISO 8573.1

Solids		Moisture		Oil	
Micron	ISO	PDP	ISO	PPM	ISO
0.01	1	+38°F	4	0.01	1
0.01	1	+38°F	4	0.003	1
0.01	1	-100°F	1	0.001	1

NOTE: requires CXN (.001 PPM) filter in series with stndard QCF prefilter.

1	2	-40°F	2	0.01	1
0.01	1	-40°F	2	0.003	1
1	2	-40°F	2	0.01	1
0.01	1	-40°F	2	0.003	1
1	2	+50°F	6	0.01	2
0.01	1	+50°F	6	0.003	1

Approximate Liquid Removal

100 CFM, 100 psi, 80°F, 4000 hrs./yr., 2 PPM

Drain Point	Gallons per Year	Drain Point	Gallons per Year	Drain Point	Gallons per Year
1	3000	5	140	9	300
2	2000	6	3000	10	4320
3	305	7	310	11	120
4	1300	8	310		

Performance You Demand. Reliability You Trust.™

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