Quincy COMPRESSOR

ECO DRI

Cycling Refrigerated Air Dryers | 15-2100 CFM

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

Why Dry Compressed Air?

Compressed air has been considered the fourth utility and is used in almost all industrial applications. In order for compressed air to be an effective utility, it must be free of contaminants. Contaminants include solids, liquids, and gases. Untreated compressed air presents the risk of either damaging the air system or the end use product. The most basic and potentially most harmful of these is moisture. The relative humidity (RH%) affects the moisture content contained in your compressed air. The most effective method of moisture control is by maintaining a constant RH%. The new Quincy ECO DRI cycling refrigerated air dryer maintains a 30% RH in all site conditions, to ensure dry compressed air is achieved.

Benefits of a Clean, Dry System

- Protects your equipment
- Leakage reduction
- Reduces equipment maintenance costs
- Prolongs your equipment life
- Improves quality of the final product
- Boosts your productivity (less downtime)

A R_H Evolution in Cycling Thermal Mass Technology

- Energy-efficient
- Simple operation
- Compact design
- Flow switch (650 CFM and up)
- Steady RH, for corrosion control
- No antiquated glycol bath to cool
- Less leak points than glycol system
- Newest technology in decades
- Automatic adjustments based on conditions
- Zero-loss drains
- 2-year Full Coverage Warranty
- Industry best 10-year Heat Exchanger Warranty

ECO DRI Cycling Air Dryers

ECO DRI– Specifications & Engineering Data: Cycling

Model	CFM at 100 PSIG	Refrigerant	Voltage/ Phase Hertz	Cooling	Power Consumption kW	Max PSIG	Dimensions			Approx. Wt. lbs.	Connections In/Out
							Length (in)	Width (in)	Height (in)		
QED-15	15	R134a	115/1/60	Air	0.16	232	21	15	18	82	3/4" NPT
QED-20	20	R134a	115/1/60	Air	0.16	232	21	15	18	82	3/4" NPT
QED-30	30	R134a	115/1/60	Air	0.23	232	21	15	18	93	3/4" NPT
QED-40	40	R134a	115/1/60	Air	0.32	232	21	15	18	97	3/4" NPT
QED-50	50	R134a	115/1/60	Air	0.32	232	21	15	18	97	3/4" NPT
QED-65	65	R134a	115/1/60	Air	0.32	232	21	15	18	97	3/4" NPT
QED-85	85	R134a	115/1/60	Air	0.67	232	27	16	24	127	1" NPT
QED-100	100	R134a	115/1/60	Air	0.79	232	27	16	24	156	1" NPT
QED-125	125	R410a	Multiple	Air	0.75	232	35	20	27	219	1" NPT
QED-150	150	R410a	Multiple	Air	0.76	232	35	20	27	219	1" NPT
QED-200	200	R410a	Multiple	Air	0.85	232	35	20	27	226	1" NPT
QED-650	650	R410a	Multiple	Air	4.3	203	52	34	47	491	3" NPT
QED-650	650	R410a	Multiple	Water	2.5	203	52	34	47	491	3" NPT
QED-850	850	R410a	Multiple	Air	5.8	203	52	34	54	575	3" NPT
QED-850	850	R410a	Multiple	Water	3.2	203	52	34	54	575	3" NPT
QED-1050	1050	R410a	Multiple	Air	7.3	203	63	34	54	733	3" NPT
QED-1050	1050	R410a	Multiple	Water	5.0	203	63	34	54	733	3" NPT
QED-1250	1250	R410a	Multiple	Air	7.6	203	41	42	56	755	4" Flange
QED-1250	1250	R410a	Multiple	Water	3.9	203	41	42	56	755	4" Flange
QED-1600	1600	R410a	Multiple	Air	8.1	203	49	42	56	888	4" Flange
QED-1600	1600	R410a	Multiple	Water	4.5	203	49	42	56	888	4" Flange
QED-1800	1800	R410a	Multiple	Air	9.1	203	49	42	56	930	6" Flange
QED-1800	1800	R410a	Multiple	Water	5.8	203	49	42	56	930	6" Flange
QED-2100	2100	R410a	Multiple	Air	11.2	203	62	42	56	1102	6" Flange
QED-2100	2100	R410a	Multiple	Water	6.2	203	62	42	56	1102	6" Flange

Notes: Capacity in accordance with recommended NFPA standards and CAGI standard ADF 100.
Ratings based on 100°F inlet temperature, 100 PSIG inlet pressure and 100°F max ambient.

Correction Factors

Inlet Air Pressure Correction

A	PSI	60	80	100	120	140	150	180	200
	Factor	0.83	0.94	1.00	1.03	1.05	1.08	1.09	1.11

Inlet Air Temperature Correction

B	Temperature °F	100	110	120
	Factor	1.00	0.84	0.69

Ambient Air Temperature Correction

C	Temperature °F	100	110
	Factor	1.00	0.91

Example One: Conditions Requirement

Capacity	1050 CFM
Inlet Pressure	120 PSIG
Inlet Air Temperature	110 °F
Ambient Temperature	100 °F

Example Two: Conditions QED 1050 Corrected Flow for:

Inlet Pressure	120 PSIG
Inlet Air Temperature	110 °F
Ambient Temperature	100 °F

Example One: Calculations

Dryer Required = CFM required / (A) x (B) x (C)
= 1050 / (1.03) x (.84) x (1)
= 1217 CFM dryer required

Select QED 1250 for this application

Example Two: Calculations

Corrected Capacity = Dryer Capacity x (A) x (B) x (C)
= 1050 x (1.03) x (.84) x (1)

= 908 CFM

Dedicated Infologic

Quincy's sophisticated Airlogic2 controller responds to real-time data acquired by the sensors, and adjusts the thermal core temperature necessary to keep compressed air relative humidity at 30%, well below the corrosion point.

Additional Control Panel Features

- Remote monitoring
- CAN communication protocol
- Voltage-free contacts for remote alarm
- Auto restart
- LAT lowest air temp
- Ambient temperature
- Relative humidity (Rh)
- Freezing alarm

QED 650-2100 controller shown

Refrigeration Compressors

QED 125 through 2100 are filled with R410A refrigerant, along with our exclusive 21st century rolling piston compressor. Quincy's rolling-piston high-efficiency compressor delivers efficient performance while protecting the environment.

- R410A refrigerants ensure the lowest environmental impact
- Phase monitor ensures proper rotation
- Rotary technology
- Few moving parts
- Long lifetime
- Low noise level
- Less vibrations
- QED 15-100 use R134A refrigerant

Superior Efficiency and Protection

The Quincy ECO DRI uses the latest in cycling refrigerated technology, providing the best energy savings in its class. The Smart RH Technology not only ensures the air is dried to a non-corrosive RH level, but it also automatically protects against freezing conditions.

The cycling sensors automatically revert the mode of operation to non-cycling, when freezing conditions are present. On models 650 CFM and above, the integrated flow switch turns off the dryer when no flow is detected. No other dryer offers this feature.

MEMBER OF CAGI Compressed Air & Gas Institute

KNOW PRESSURE COMPRESSED AIR CHALLENGE

Performance You Demand.
Reliability You Trust.

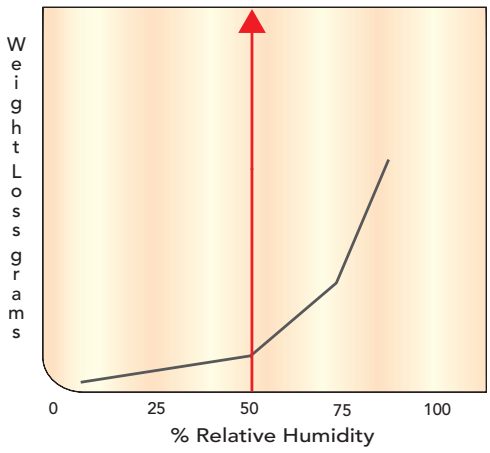
Smart R_H THermal Mass

Conventional cycling dryers must cool a large glycol bath down to a fixed +39°F temperature. At normal conditions, this would yield a 12% RH when all that is required to protect the system from corrosion is 50% RH. The chart below shows that from 50% RH down to 12% RH is a relatively flat curve, with no additional benefit.

Quincy's ECO DRI cycling dryers maintain a target 30% RH, automatically adjusting based on the temperature conditions. This technology allows for maximum energy savings by operating only as much as needed.

Thermal Core 10-Year Warranty

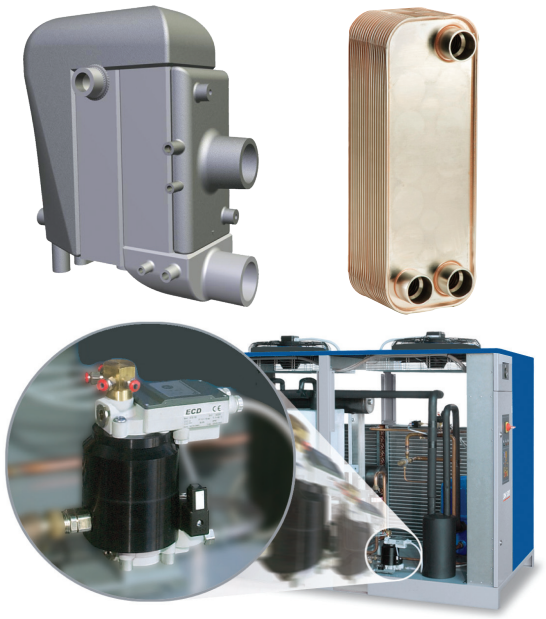
Quincy's three-stage thermal core heat exchanger design, materials, and construction ensure maximum reliability and efficiency. The thermal core heat exchanger combines the 1st stage air to air, the 2nd stage refrigerant to air evaporator, and the 3rd stage integral moisture separator with zero-loss drain. Quincy's heat exchangers are engineered with quality and reliability in mind. Because of this, Quincy confidently offers an industry best 10-year heat exchanger warranty, bringing you the quality you demand and the reliability you trust from Quincy Compressor.



Source data:Vernon W.H.J Second experimental report to the Atmospheric Research committee, British Non-ferrous metals Research Association

Drain Systems

All Quincy ECO DRI systems are equipped with high-efficiency, environmentally-friendly zero-loss electronic drains. Energy efficient drains for energy efficient dryers.

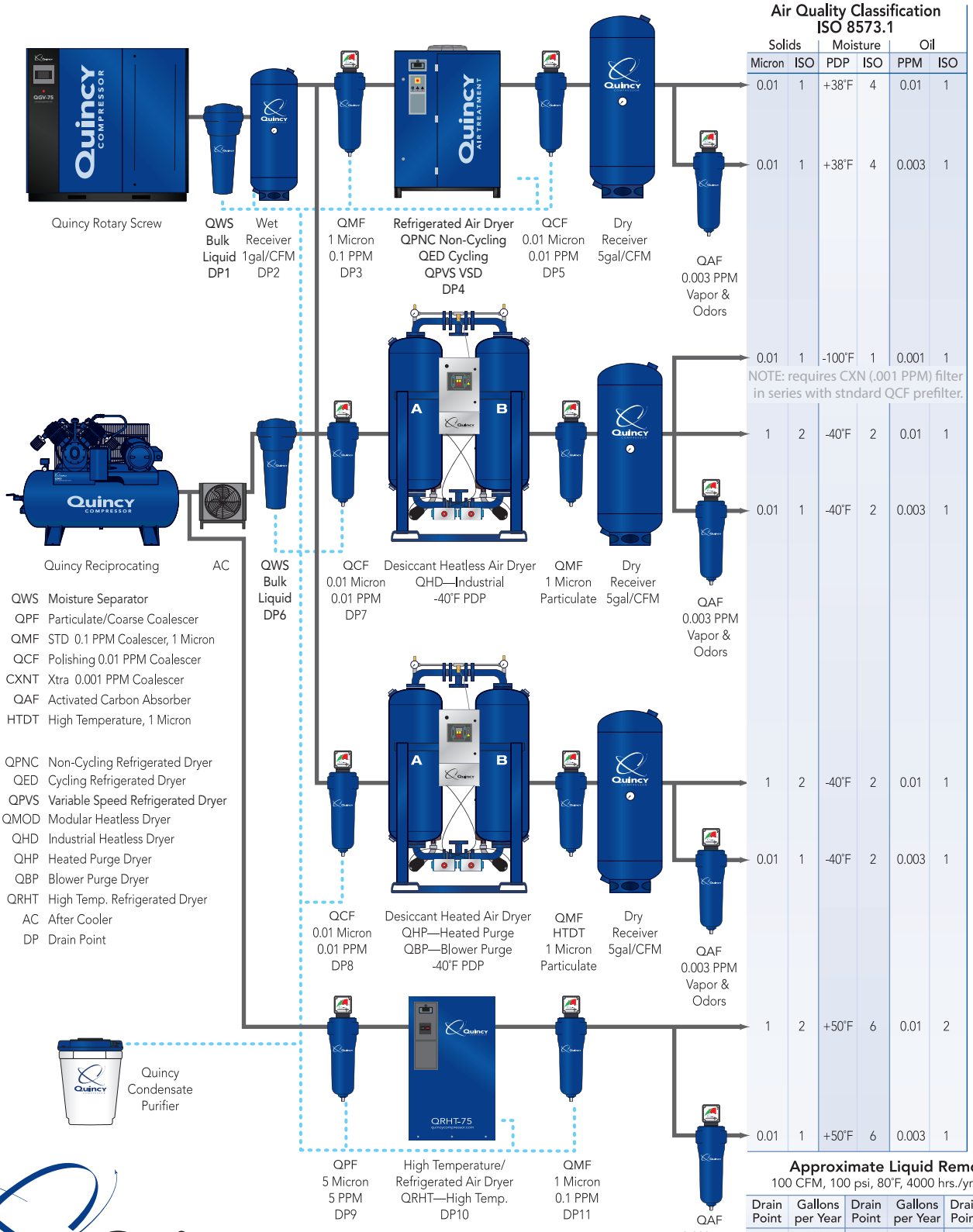


How Much Is Your Drain Costing You?

Drain	Pressure	CF/yr	Cost/yr
Timer Drain	100 PSIG	3,171,120	$531.00
Zero Loss Drain	100 PSIG	0	$0.00

* Based on 100 PSIG operating at 8,760 hrs/yr @ $.10 kWh

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		

Quincy Compressor

Performance You Demand. Reliability You Trust.™

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