



Refrigerant Drying

DRYPOINT® RA Eco Series

energy saving cycling and variable speed dryers

Truth in Compressed Air.



DRYPOINT® RA Eco Series Refrigeration Dryers

At a Glance

Refrigerant air dryers are commonly found in the majority of general industrial plant air applications. They offer users the best price-to-performance ratio in comparison to the air quality produced. The dryness of the air may not be as low as with other dryer types, yet the outlet air from refrigerant dryers is more than acceptable for the majority of application. Specifically with the Eco Series dryers, users are provided with maximum energy savings from the cycling and variable speed technologies used.

Features and Benefits

+ Unique Heat Exchanger

Vertical profile allows for minimum pressure drop and self cleans using gravitational force

+ Eco Series Technology

Maximized energy savings with unique variable speed or cycling technology

+ Integrated BEKOMAT®

Reliable condensate discharge and maximum energy savings

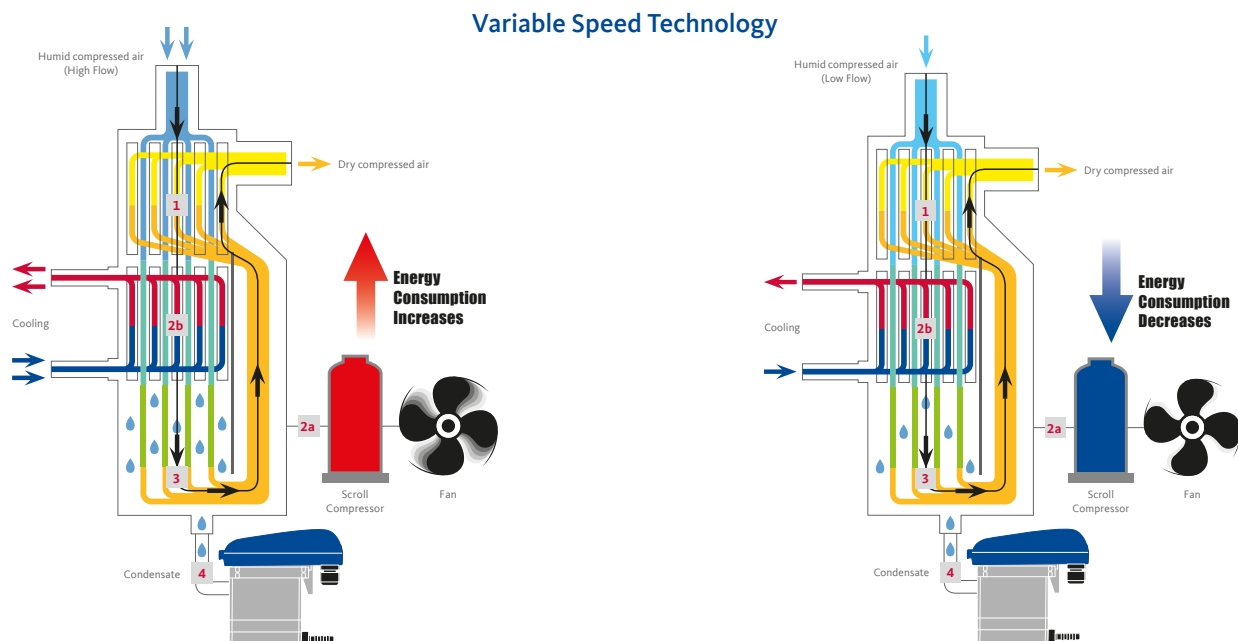
+ Maximum Dew Point Stability

Variable compressor and fan operation provide an ultra stable dew point and no-freeze-up guarantee

+ Maintenance Friendly

The entire range features an open frame that provides easy access to all components

How it Works



Warm compressed air, saturated with water vapor, is pre-cooled in the air/air heat exchanger (1) when entering the refrigeration dryer. Because demand on a compressed air system is often varied, the DRYPOINT® RA VSD intelligent controller monitors the incoming conditions and adjusts the compressor and condenser fan speed (2a) to meet the required cooling capacity of the refrigerant in the downstream air/refrigerant heat exchanger (2b). This action thereby saves energy when low conditions are reached, and over the life of the dryer operating costs decrease. The gravitational force sustains a particularly high droplet separation of nearly 99%. In the very large condensate collection chamber with subsequent

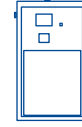
recirculation, the flow velocity is significantly reduced. Re-entrainment of already separated droplets is reliably prevented in this manner (3). The accumulated condensate is discharged from the DRYPOINT® RA via the level-controlled BEKOMAT® condensate drain avoiding any compressed air losses, and can be processed reliably using processing systems such as the QWIK-PURE® oil-water separation system or the BEKOSPLIT® emulsion-splitting plant (4). Prior to leaving the DRYPOINT® RA, the dried and cold compressed air is reheated in the air/air heat exchanger. Through this process, the relative air humidity is significantly reduced and the cooling capacity employed is recovered by up to 60%.

DRYPOINT® RA Eco Series Refrigeration Dryers

Compare



DRYPOINT® RA CT



DRYPOINT® RA VSD

Flow Rates

20 - 500 scfm

800 - 6,000 scfm

Maximum Inlet Air Temperature

160 °F

160 °F

Maximum Inlet Operating Pressure

20 - 50: 232 psig
75 - 500: 200 psig

200 psig

Standard Outlet Pressure Dew Point | ISO 8573-1:2010 Air Quality Class

≤ 37-45 °F | Class 4-5

≤ 37-45 °F | Class 4-5

Standard Condensate Drain

BEKOMAT®

BEKOMAT®

Available Options

Anti-corrosion treatment, 3-valve bypass, Water ingress protection, Cover3More extended warranty

Anti-corrosion treatment, 3-valve bypass, Cover3More extended warranty

Product Family



Cycling refrigeration dryers

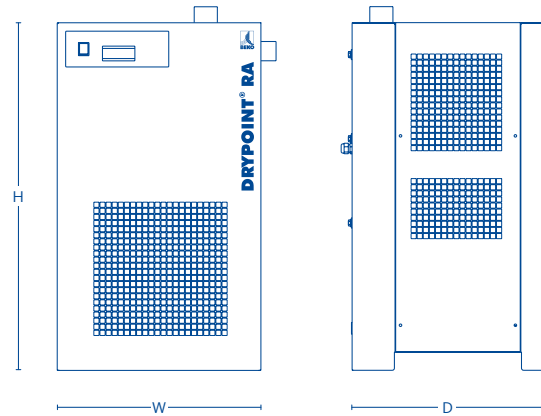


Variable speed refrigeration dryers

■ Technical Details

DRYPOINT® RA CT Cycling Refrigeration Dryers ultra efficient cycling dryer with standard BEKOMAT®

- › Required pre-filtration: 1 µm | Recommended post-filtration: .01 µm
- › UL/CSA certified: RA CT 20-200: 115V | RA CT 250-500: 230V
- › Outlet pressure dew point: Class 4-5 in accordance with ISO 8573-1:2010
- › Max. inlet air temperature: 160 °F
- › Min. / max. ambient temperature: 34 °F / 120 °F
- › Max. inlet pressure: RA CT 20-50: 232 psig | RA CT 75-500: 200 psig



DRYPOINT® RA CT Eco	RACT 20	RACT 30	RACT 50	RACT 75	RACT 100	RACT 125	RACT 150
Connection Size (NPT)	½"	½"	½"	1"	1¼"	1¼"	1¼"
Flow Rate (scfm)	20	30	50	75	100	125	150
Power Consumption at Full Load (kW)	.26	.27	.39	.48	.58	1.00	1.05
Pressure Drop	.44	1.16	1.60	1.89	2.47	2.18	2.90
Dimensions and Weight							
H x W x D (inches)	29 x 14 x 17	29 x 14 x 17	29 x 14 x 17	29 x 14 x 17	32 x 19 x 18	32 x 19 x 18	32 x 19 x 18
Weight (lbs)	62	64	75	79	82	101	110

DRYPOINT® RA CT Eco	RACT 200	RACT 250	RACT 300	RACT 350	RACT 400	RACT 500
Connection Size (NPT)	1½"	1½"	2"	2"	2½"	2½"
Flow Rate (scfm)	200	250	300	350	400	500
Power Consumption at Full Load (kW)	1.10	1.39	1.64	2.19	2.48	2.97
Pressure Drop	2.18	2.61	1.31	1.89	1.02	1.89
Dimensions and Weight						
H x W x D (inches)	35 x 22 x 23	35 x 22 x 23	38 x 22 x 25	38 x 22 x 25	44 x 26 x 29	44 x 26 x 29
Weight (lbs)	121	139	203	207	331	355

Correction Factors

Operating Pressure psig	60	80	100	120	140	160	180	200
Correction Factor	.79	.91	1.00	1.07	1.13	1.18	1.23	1.27

Ambient Air Temperature °F	80	90	100	105	110	115	120
Correction Factor	1.11	1.09	1.00	.94	.87	.78	.69

Inlet Air Temperature °F	90	100	110	120	130	140	150	160
Correction Factor	1.16	1.00	.82	.68	.61	.52	.45	.40

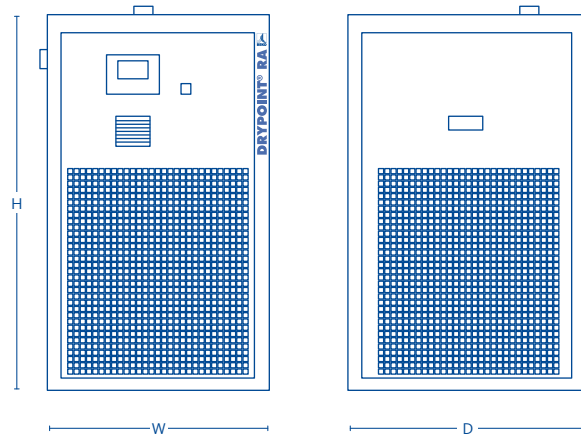
The correction factors on this page provide an estimation of the performance that can be achieved with the model sizes shown. For precise sizing for your application, please contact your BEKO Technologies sales representative.

Technical Details

DRYPOINT® RA VSD Variable Speed Refrigeration Dryers

ultra efficient variable speed cycling dryer with standard BEKOMAT®

- › Required pre-filtration: 1 µm | Recommended post-filtration: .01 µm
- › MODBUS ready
- › Outlet pressure dew point: Class 4-5 in accordance with ISO 8573-1:2010
- › Max. inlet air temperature: 160 °F
- › Min. / max. ambient temperature: 34 °F / 115 °F
- › Max. inlet pressure: 200 psig



DRYPOINT® RA VSD Eco	RA VSD 800	RA VSD 1000	RA VSD 1250	RA VSD 1500	RA VSD 1750	RA VSD 2000	RA VSD 2500
Connection Size (NPT)	3" Flange	3" Flange	3" Flange	4" Flange	4" Flange	4" Flange	4" Flange
Flow Rate (scfm)	800	1000	1250	1500	1750	2000	2500
Power Consumption at Full Load (kW)	2.80	4.10	5.00	5.80	6.40	8.00	10.10
Pressure Drop	2.90	2.80	3.60	2.80	1.90	2.60	3.60
Dimensions and Weight							
H x W x D (inches)	58 x 31 x 39	58 x 31 x 39	58 x 31 x 39	69 x 45 x 47	69 x 45 x 47	69 x 45 x 47	69 x 45 x 47
Weight (lbs)	534	608	686	1,021	1,202	1,202	1,349

DRYPOINT® RA VSD Eco	RA VSD 3000	RA VSD 3750	RA VSD 4000	RA VSD 5000	RA VSD 6000
Connection Size (NPT)	6" Flange	6" Flange	8" Flange	8" Flange	8" Flange
Flow Rate (scfm)	3000	3750	4000	5000	6000
Power Consumption at Full Load (kW)	11.20	13.80	15.40	17.10	22.30
Pressure Drop	2.80	3.80	2.80	4.10	3.20
Dimensions and Weight					
H x W x D (inches)	71 x 51 x 69	71 x 51 x 69	74 x 55 x 87	74 x 55 x 87	96 x 61 x 86
Weight (lbs)	1,850	2,090	2,350	2,670	3,660

Correction Factors

Operating Pressure psig	60	80	100	120	140	160	180	200
Correction Factor	.79	.91	1.00	1.07	1.13	1.18	1.23	1.27

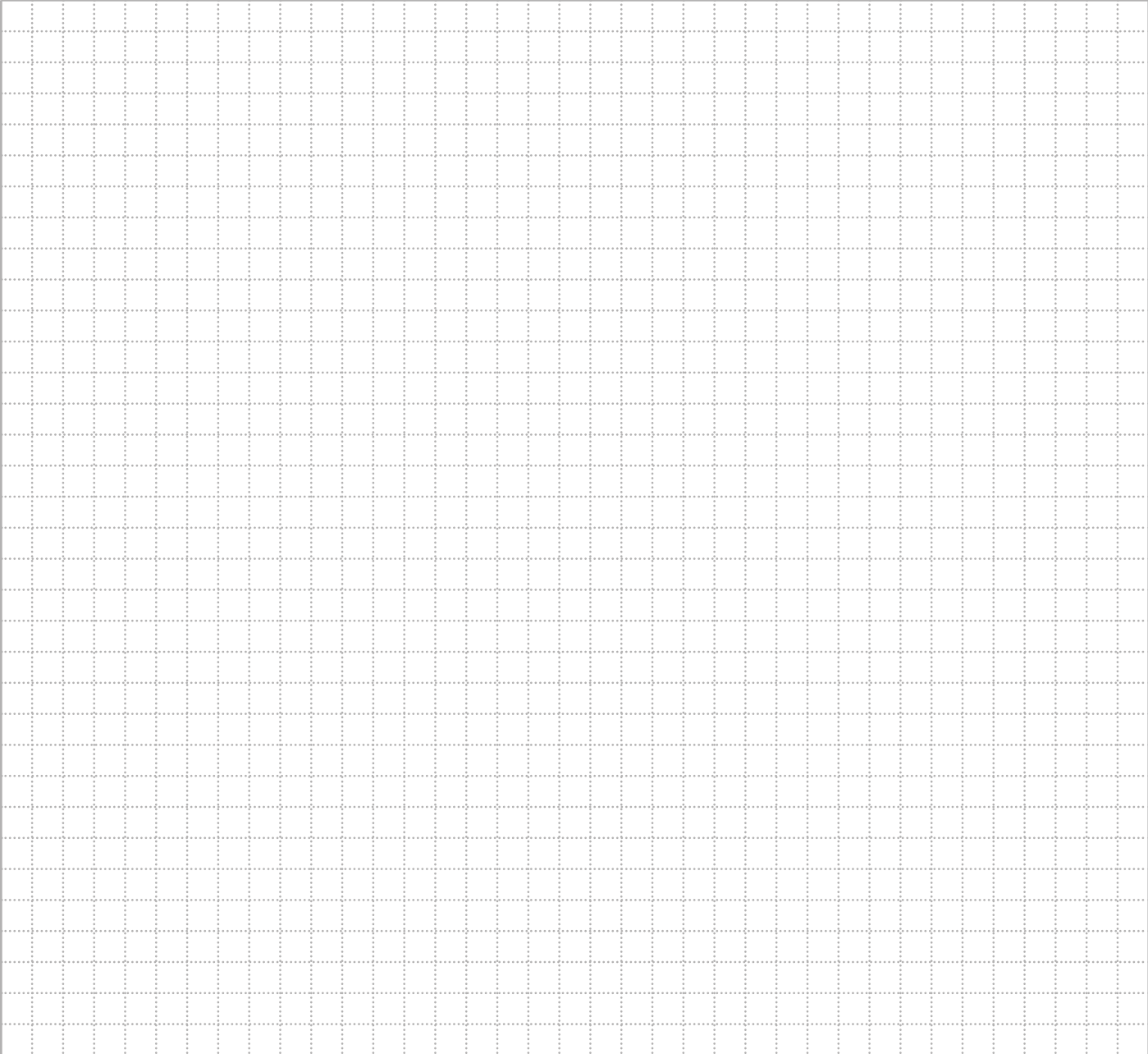
Ambient Air Temperature °F	80	90	100	105	110	115	120
Correction Factor	1.11	1.09	1.00	.94	.87	.78	.69

Inlet Air Temperature °F	90	100	110	120	130	140	150	160
Correction Factor	1.16	1.00	.82	.68	.61	.52	.45	.40

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Reliable | Efficient | Innovative

What can we do for you?



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