

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

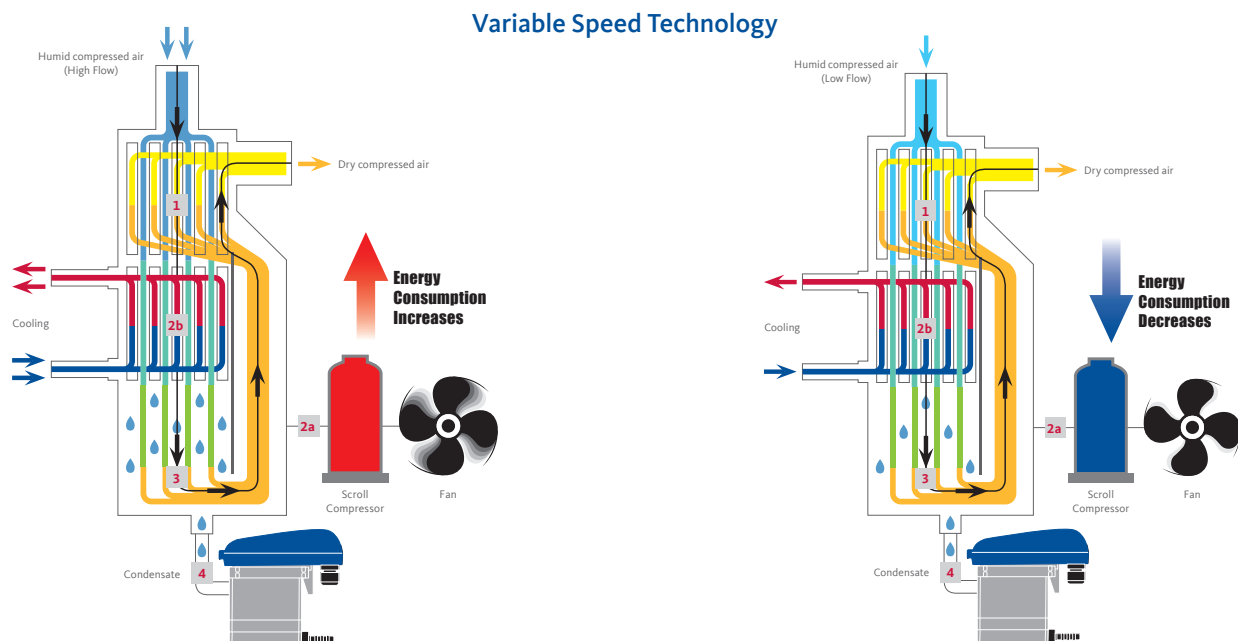
### + Maximum Dew Point Stability

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

203 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

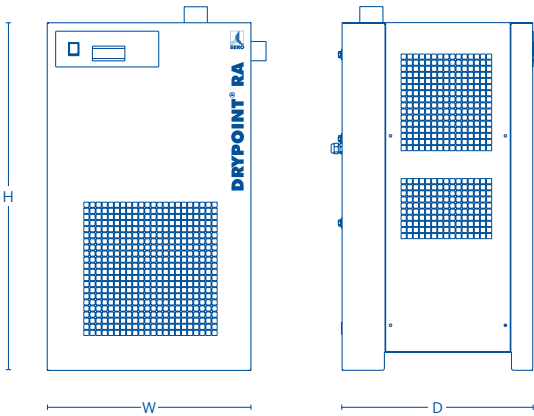


Variable speed refrigeration dryers

■ 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
Operating Voltage	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph
Pressure Drop	0.4	1.0	2.2	2.2	2.0	2.6	3.3
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
Operating Voltage	115 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph
Pressure Drop	1.7	3.6	1.5	1.9	1.0	1.5
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

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

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

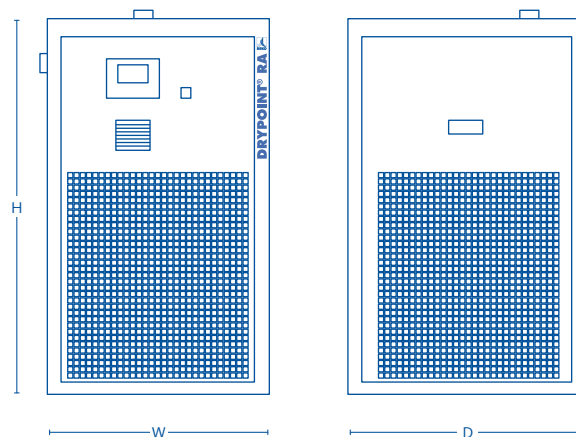
The correction factors on this page provide an estimation of the performance that can be achieved with the model sizes shown. For precise sizing for your application, please contact your BEKO Technologies sales representative.

## ■ 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
Operating Voltage	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph
Pressure Drop	2.90	2.80	3.60	2.80	1.90	2.60	3.60
<b>Dimensions and Weight</b>							
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
Operating Voltage	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph
Pressure Drop	2.80	3.80	2.80	4.10	3.20
<b>Dimensions and Weight</b>					
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

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.





**+3**  
Years on all  
Products

ask your  
**sales  
representative**  
for complete details  
and extend your full  
warranty today

## Cover3More Extended Warranty Program

**We give you more:** In addition to a robust, standard 2-year warranty on BEKO Technologies products, we offer our customers the option of extending the standard warranty even further with the **Cover3More** program – a low cost, all-encompassing, and simple warranty extension program.

Secure your future with a minimal investment. The **Cover3More** extended warranty program from BEKO Technologies ensures that your investment is covered for a total of 5-years at a nominal cost.

- › Extends the standard factory warranty for an additional 3-years
- › May be purchased at any time up to 18-months post-sale
- › Can be applied to stocked or installed products
- › No hassle and easy to calculate without any hidden costs
- › Applicable to all product lines
- › 2-year standard warranty covers parts and labor
- › 3-year extended warranty covers parts only, no parts restrictions
- › Significantly reduces your risk of having unexpected costs

### Cover3More on the Following Product Lines

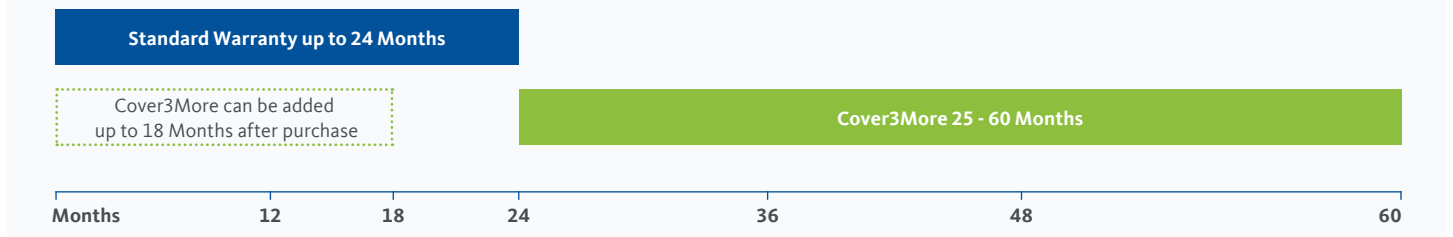
DRYPOINT® RA	Refrigerant Air Dryers	BEKOMAT®	Zero Air Loss Drains
DRYPOINT® X / AC	Desiccant Air Dryers	QWIK-PURE®/ÖWAMAT®	Oil-water Separators
DRYPOINT® M	Membrane Air Dryers	METPOINT®	Instrumentation
CLEARPOINT®	Filters and Water Separators	BEKOKAT®	Hydrocarbon Removal Systems

**Reliability you can count on:** With the Cover3More extended warranty program, BEKO Technologies not only lengthens the standard warranty period by 3-years from the installation date, but also draws on the company's vast compressed air industry experience to quickly resolve any product problems you may experience in the least disruptive way possible, thereby keeping downtime to an absolute minimum. Should a repair be required, it will be handled by qualified, authorized personnel, and only original parts will be used.

All maintenance procedures, including filter element changes, must be carried out in accordance with the manual in order to maintain any warranty.

# Cover3More Extended Warranty Program

## Compare



## How it Works

- 1 Select the product or products that you wish to cover with the extended warranty.
- 2 Contact your BEKO Technologies sales representative to help calculate your final net price for extended coverage.
- 3 Include the information received along with your purchase order or purchase the warranty extension up to 18-months post-sale.

**What we need from you:** It's not much. In fact, if you are purchasing the Cover3More extended warranty with a new equipment purchase, all you have to do is include a line item on your order indicating which items you wish you cover, and we will take care of the rest. If you happen to be adding coverage to a product you've already taken delivery of, then all we need is the company name and contact information of the original purchaser, the product model number of the product to be covered, serial number, and original purchase order number or BEKO Technologies invoice number, and we will apply coverage appropriately. **Please feel free to contact us at +1 (800) 235-6797 to get started.**

**What's in the fine print:** The optional 36-month warranty extension (i.e. Cover3More) is a limited extended warranty that covers parts only from months 25-60.

However, all of the aforementioned installation, performance, and quality requirements must still be met in order to maintain extended warranty coverage. Failure to do so will render all warranties null and void.

The limited extended warranty coverage may be purchased and applied to any of the BEKO Technologies product lines included in the scope of the Cover3More extended warranty program from the original date of purchase from BEKO Technologies to 18-months thereafter.

Extended warranty coverage may not be purchased during the final 6-months of the standard warranty coverage, which are months 19-24 from the date of shipment or at BEKO Technologies' discretion, the date of installation.

The purchase price of the Cover3More limited extended warranty is not prorated and the current published purchase price is always applied.

Should the extended warranty coverage be purchased post-delivery or post-sale, then the serial number of all products to which the warranty shall be extended must be provided to BEKO Technologies at the time of purchase of the extended warranty.

Reliable | Efficient | Innovative

What can we do for you?



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