Refrigerant Drying

DRYPOINT® RA

the most economical way to dry compressed air

Truth in Compressed Air.

BEKO

DRYPOINT® RA 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 compressed air quality produced. While the treated air may not be as dry as can be achieved with desiccant or membrane dryer technologies like DRYPOINT® X and DRYPOINT® M, the dry outlet air from refrigerant dryers is more than acceptable for the majority of applications.

Features and Benefits

Unique Heat Exchanger

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

Varioflow Hot Gas By-Pass

Stable dew point regardless of varying operating conditions - patented design

Integrated BEKOMAT®

Reliable condensate discharge and maximum energy savings

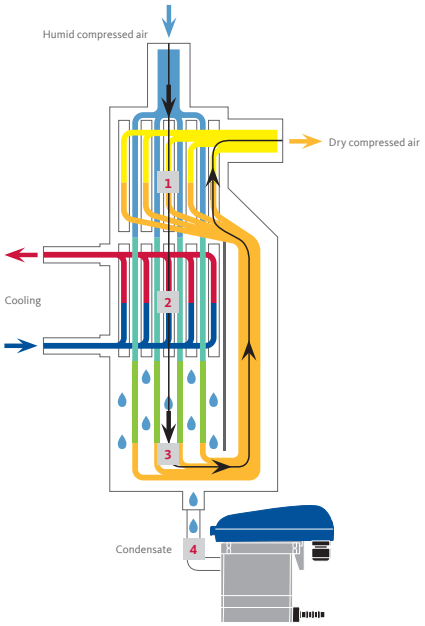
Energy Saving Technology

Oversized condensers and smaller high performance compressor maximize energy savings

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 precooled in the air/air heat exchanger **(1)** when entering the refrigeration dryer. The required cooling capacity of the refrigerant in the downstream air/refrigerant heat exchanger **(2)** is reduced by this action and the system becomes more energy-efficient. 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®, 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 Refrigeration Dryers

Compare

	RAc Series	RAx Series	RA HT Series	RS HP Series
Flow Rates	10 - 480 scfm	20 - 10,000 scfm	20 - 350 scfm	15 - 3,500 scfm
Maximum Inlet Air Temperature	130 °F	160 °F	210 °F	160 °F
Maximum Inlet Operating Pressure	10 - 50: 232 psig 75 - 480: 200 psig	20 - 50: 232 psig 75 - 10,000: 200 psig	20 - 50: 232 psig 75 - 350: 200 psig	15 - 550: 725 psig 700 - 3,500: 650 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	≤ 45-50 °F | Class 5-6	≤ 37-45 °F | Class 4-5
Standard Condensate Drain | Optional	Timer Solenoid | BEKOMAT®	BEKOMAT®	Timer Solenoid | BEKOMAT®	Timer Solenoid | BEKOMAT®
Available Options	3-valve bypass, Cover3More Extended Warranty	Water-cooled, Sea-water cooled, 3-valve bypass, Water ingress protection, Anti-corrosion treatment, Cover3More Extended Warranty	Water-cooled, Sea-water cooled, 3-valve bypass, Anti-corrosion treatment, Cover3More Extended Warranty	Anti-corrosion treatment, Cover3More Extended Warranty

Product Family

Non-cycling refrigeration dryers

High temperature refrigeration dryers

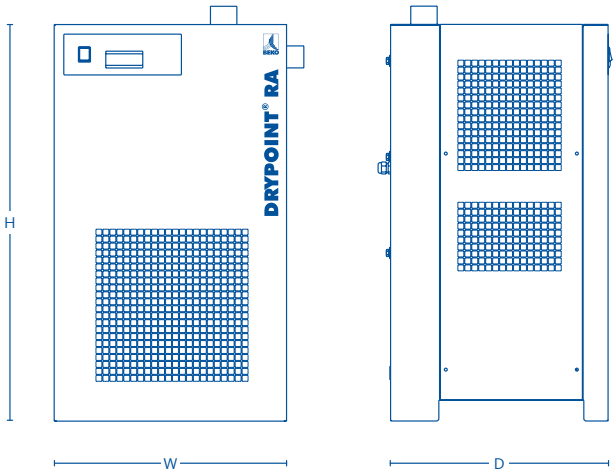
High pressure refrigeration dryers

Technical Details

DRYPOINT® RAc Compact Refrigeration Dryers

economically priced with BEKOMAT® or with timer drain

- Required pre-filtration: 1 µm | Recommended post-filtration: .01 µm
- UL / CSA certified
- Outlet pressure dew point: Class 4-5 in accordance with ISO 8573-1:2010
- Max. inlet air temperature: 130 °F
- Min. / max. ambient temperature: 34 °F / 115 °F
- Max. inlet pressure: RAc 10 - 50: 232 psig | RAc 75 - 480: 200 psig



DRYPOINT® RAc	RAc 10	RAc 15	RAc 20	RAc 35	RAc 50	RAc 75	RAc 100
Connection Size (NPT)	3/8"	3/8"	½"	½"	½"	1"	1¼"
Flow Rate (scfm)	10	15	20	35	50	75	100
Pressure Drop (psid)	1.50	2.00	.60	1.30	2.20	2.60	2.20
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
Power Consumption - Load (kW)	.19	.20	.21	.29	.30	.45	.70
Dimensions and Weight							
H x W x D (inches)	17 x 12 x 14	17 x 12 x 14	19 x 15 x 20	19 x 15 x 20	19 x 15 x 20	29 x 14 x 17	29 x 14 x 18
Weight (lbs)	46	49	55	62	71	75	86

DRYPOINT® RAc	RAc 125	RAc 150	RAc 175	RAc 220	RAc 300	RAc 375	RAc 480
Connection Size (NPT)	1¼"	1¼"	1½"	1½"	2"	2"	2½"
Flow Rate (scfm)	125	150	175	220	300	375	480
Pressure Drop (psid)	3.50	4.90	2.80	3.60	2.00	2.90	2.20
Operating Voltage	115 V / 1 Ph	115 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph
Power Consumption - Load (kW)	.97	1.00	1.05	.91	1.15	2.07	2.25
Dimensions and Weight							
H x W x D (inches)	29 x 14 x 18	29 x 14 x 18	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
Weight (lbs)	88	90	119	123	207	212	317

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	110	115
Correction Factor	1.10	1.07	1.00	.83	.70

Inlet Air Temperature °F	90	100	110	120	130
Correction Factor	1.11	1.00	.80	.65	.53

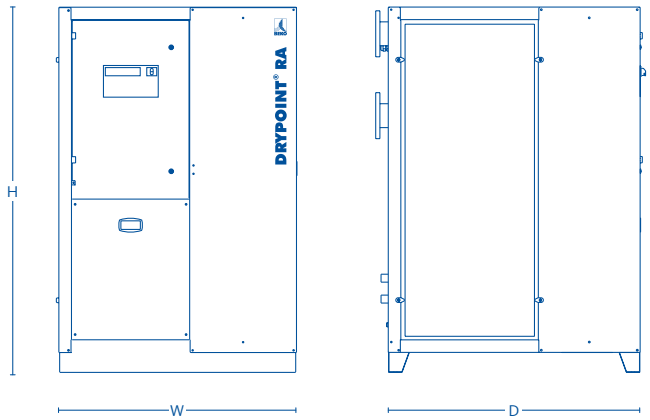
The correction factors on this page provide an estimation of the performance that can be achieved with the model sizes shown. For precise sizing for your application, please contact your BEKO Technologies sales representative.

Technical Details

DRYPOINT® RAx Premium Refrigeration Dryers

equipped with all premium features including BEKOMAT® as standard

- Required pre-filtration: 1 µm | Recommended post-filtration: .01 µm
- RAx 20-200 115V UL / CSA certified
- RAx 125-400 230V UL / CSA certified
- RAx 600-10,000 460V UL / CSA certified control panel
- 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: RAx 20-50: 232 psig | RAx 75-500: 200 psig
- MODBUS ready



DRYPOINT® RAx	RAx 20	RAx 30	RAx 50	RAx 75	RAx 100	RAx 125	RAx 150	RAx 200	RAx 250	RAx 300
Connection Size (NPT)	½"	½"	½"	1"	1¼"	1¼"	1¼"	1½"	1½"	2"
Flow Rate (scfm)	20	30	50	75	100	125	150	200	250	300
Pressure Drop (psid)	.40	1.00	2.20	2.20	2.00	2.60	3.30	1.70	3.60	1.50
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	115 V / 1 Ph 230 V / 1 Ph 460 V / 3 Ph	230 V / 1 Ph 460 V / 3 Ph	230 V / 1 Ph 460 V / 3 Ph
Power Consumption - Load (kW)	.26	.27	.39	.48	.58	1.00	1.05	1.10 - 115 V 1.10 - 230 V 1.22 - 460 V	1.39 - 230 V 1.38 - 460 V	1.64 - 230 V 1.41 - 460 V
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	35 x 22 x 23	35 x 22 x 23	38 x 22 x 25
Weight (lbs)	62	64	75	79	82	101	110	121	139	203

DRYPOINT® RAx	RAx 350	RAx 400	RAx 500	RAx 600	RAx 800	RAx 1000	RAx 1250	RAx 1500	RAx 1750	RAx 2000
Connection Size (NPT)	2"	2 ½"	2 ½"	3"	3"	3"	3"	4"	4"	4"
Flow Rate (scfm)	350	400	500	600	800	1000	1250	1500	1750	2000
Pressure Drop (psid)	1.90	1.00	1.50	2.20	2.90	2.80	3.60	2.80	1.90	2.60
Operating Voltage	230 V / 1 Ph 460 V / 3 Ph	230 V / 1 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	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph
Power Consumption - Load (kW)	2.19 - 230V 1.80 - 460V	2.48 - 230V 2.70 - 460V	2.97	2.65	3.25	4.60	5.60	6.40	7.50	8.60
Dimensions and Weight										
H x W x D (inches)	38 x 22 x 25	44 x 26 x 29	44 x 26 x 29	58 x 31 x 39	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
Weight (lbs)	207	331	355	529	534	608	686	1,021	1,186	1,190

DRYPOINT® RAx	RAx 2500	RAx 3000	RAx 4000	RAx 5000	RAx 6000	RAx 7500	RAx 8000	RAx 10000
Connection Size (NPT)	4"	6"	8"	8"	8"	8"	10"	10"
Flow Rate (scfm)	2500	3000	4000	5000	6000	75000	8000	10000
Pressure Drop (psid)	3.60	2.80	2.80	4.10	3.20	4.50	2.80	3.80
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	460 V / 3 Ph
Power Consumption - Load (kW)	9.80	12.20	15.70	23.50	23.70	26.60	35.00	40.70
Dimensions and Weight								
H x W x D (inches)	69 x 45 x 47	71 x 51 x 69	74 x 55 x 87	74 x 55 x 87	96 x 61 x 85	96 x 61 x 85	96 x 61 x 107	96 x 61 x 107
Weight (lbs)	1,349	1,830	2,330	2,650	4,040	4,430	5,280	5,990

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

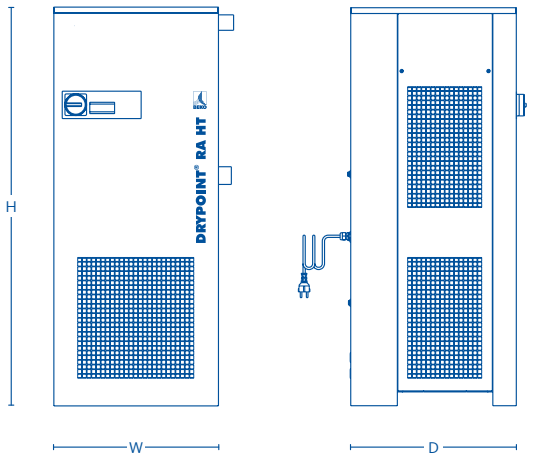
The correction factors on this page provide an estimation of the performance that can be achieved with the model sizes shown. For precise sizing for your application, please contact your BEKO Technologies sales representative.

Technical Details

DRYPOINT® RA HT High Inlet Temperature Refrigeration Dryers

with integrated aftercooler and BEKOMAT® or timer drain

- Integrated aftercooler
- Pre-filter included
- Recommended post-filtration: .01 µm
- Outlet pressure dew point: Class 6 in accordance with ISO 8573-1:2010
- Max. inlet air temperature: 210 °F
- Min. / max. ambient temperature: 34 °F / 120 °F
- Max. inlet pressure: 200 psig



DRYPOINT® RA HT	RA HT 20	RA HT 30	RA HT 40	RA HT 50	RA HT 75
Connection Size (NPT)	½"	½"	½"	½"	1"
Flow Rate at 45 °F Outlet PDP (scfm)	20	30	40	50	75
Pressure Drop (psid)	1.50	2.80	2.90	4.10	3.80
Power Consumption - Load (kW)	.21	.28	.31	.46	.77
Operating Voltage	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph	115 V / 1 Ph
Dimensions and Weight					
H x W x D (inches)	25 x 17 x 16	25 x 17 x 16	25 x 17 x 16	25 x 17 x 16	45 x 16 x 18
Weight (lbs)	82	88	90	93	112

DRYPOINT® RA HT	RA HT 100	RA HT 150	RA HT 200	RA HT 250	RA HT 300	RA HT 350
Connection Size (NPT)	1¼"	1¼"	1½"	1½"	2"	2"
Flow Rate at 45 °F Outlet PDP (scfm)	100	150	200	250	300	350
Pressure Drop (psid)	3.00	5.00	3.30	5.10	4.10	4.50
Power Consumption - Load (kW)	.88	1.10	1.55	1.82	2.60	2.70
Operating Voltage	115 V / 1 Ph	115 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph	230 V / 1 Ph
Dimensions and Weight						
H x W x D (inches)	52 x 20 x 20	52 x 20 x 20	55 x 22 x 23	55 x 22 x 23	59 x 28 x 31	59 x 28 x 31
Weight (lbs)	134	146	165	185	291	304

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	1.22	1.11	1.00	.94	.89	.83	.78

Inlet Air Temperature °F	140	160	170	180	195	210
Correction Factor	1.26	1.13	1.07	1.00	.90	.81

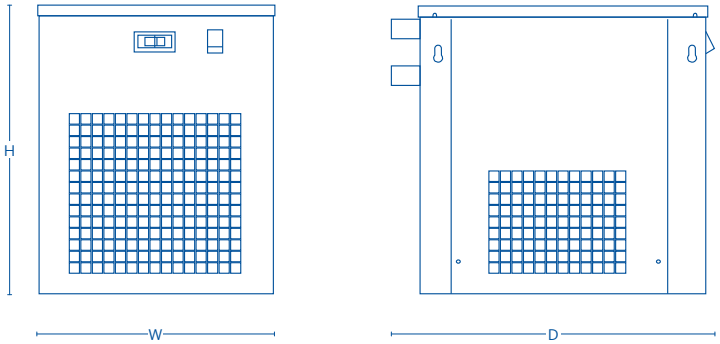
The correction factors on this page provide an estimation of the performance that can be achieved with the model sizes shown. For precise sizing for your application, please contact your BEKO Technologies sales representative.

Technical Details

DRYPOINT® RS HP High Pressure Refrigeration Dryers

stainless steel heat exchanger with BEKOMAT® or timer drain

- Required pre-filtration: 1 µm | Recommended post-filtration: .01 µm
- 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: RS HP 15-550: 725 psig | RS HP 700-3500: 650 psig



DRYPOINT® RS HP	RS HP 15	RS HP 30	RS HP 40	RS HP 50	RS HP 80	RS HP 100	RS HP 140	RS HP 180	RS HP 260
Connection Size (NPT)	3/8"	3/8"	3/8"	½"	½“	¾"	¾"	1"	1"
Flow Rate (scfm)	15	30	40	50	80	100	140	180	260
Pressure Drop (psid)	3.63	3.48	3.63	3.34	3.34	3.48	3.48	2.90	3.19
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	115 V / 1 Ph	230 V / 1 Ph
Power Consumption - Load (kW)	.16	.22	.33	.41	.49	.86	.89	.94	1.18
Dimensions and Weight									
H x W x D (inches)	19 x 15 x 20	19 x 15 x 20	19 x 15 x 20	29 x 14 x 17	29 x 14 x 17	33 x 19 x 18	33 x 19 x 18	34 x 23 x 23	34 x 23 x 23
Weight (lbs)	62	64	71	79	82	119	130	135	192

				Max. 650 psig							
DRYPOINT® RS HP	RS HP 350	RS HP 450	RS HP 550	RS HP 700	RS HP 900	RS HP 1300	RS HP 1400	RS HP 1700	RS HP 2300	RS HP 2900	RS HP 3500
Connection Size (NPT)	1"	1½"	1½"	2"	2"	2"	3" Flange	3“ Flange	3“ Flange	3“ Flange	3“ Flange
Flow Rate (scfm)	350	450	550	700	900	1300	1400	1700	2300	2900	3500
Pressure Drop (psid)	3.19	3.34	3.19	3.19	3.34	2.76	3.63	3.63	3.48	3.63	3.48
Operating Voltage	230 V / 1 Ph	230 V / 1 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	460 V / 3 Ph	460 V / 3 Ph	460 V / 3 Ph
Power Consumption Load (kW)	1.39	1.93	2.75	3.00	3.30	4.25	5.20	5.95	6.90	8.00	-
Dimensions and Weight											
H x W x D (inches)	34 x 23 x 23	44 x 26 x 29	44 x 26 x 29	58 x 31 x 40	58 x 31 x 40	58 x 31 x 40	64 x 45 x 48	64 x 45 x 48	64 x 45 x 48	64 x 45 x 48	-
Weight (lbs)	240	262	291	556	584	562	979	1,016	1,071	1,217	-

Correction Factors

Operating Pressure psig	200	300	400	500	550	580	650	725
Correction Factor	.53	.71	.84	.94	.98	1.00	1.05	1.10

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
Correction Factor	1.16	1.00	.82	.68	.61	.52	.45

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Reliable | Efficient | Innovative

What can we do for you?

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CAGI Compressed Air & Gas Institute

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