

DRYPOINT® RA

REFRIGERATION DRYER RANGE



BEKO OFFERS A FULL RANGE OF DRYERS

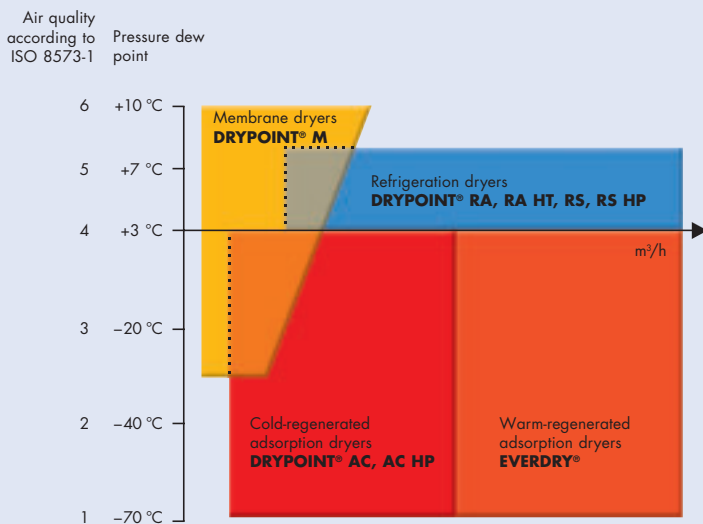
THE RIGHT SOLUTION WHATEVER THE TASK

BEKO is renowned worldwide for its innovative, solution-oriented compressed air technology. Geared to the customers' needs, BEKO presents a comprehensive product portfolio, covering treatment, condensate technology, distribution, measurement technology and process engineering.

The compressed air dryer range meets the highest requirements. Membrane dryers, refrigeration dryers, adsorption dryers made of stainless steel or aluminium, versions for high pressure and high temperature applications – BEKO offers highly efficient, environmentally friendly and cost effective compressed air dryers to suit any task.

This brochure describes BEKO's refrigeration dryer range and focuses on a new and important addition to the family: the DRYPOINT® RA compressed air refrigeration dryer.

BEKO dryer range



+ 1: OPTIMUM DRYING THANKS TO HIGHLY EFFECTIVE HEAT EXCHANGER COMBINATION

+ 2: MAXIMUM ECONOMIC EFFICIENCY, MINIMUM ENERGY CONSUMPTION

+ 3: LOWEST POSSIBLE PRESSURE LOSS, EVEN WITH VARYING LOADS

+ 4: CONDENSATE DRAIN BEKOMAT®

+ 5: EXCELLENT PRICE/ PERFORMANCE RATIO

DRYPOINT® RA

COMPRESSED AIR REFRIGERATION DRYER

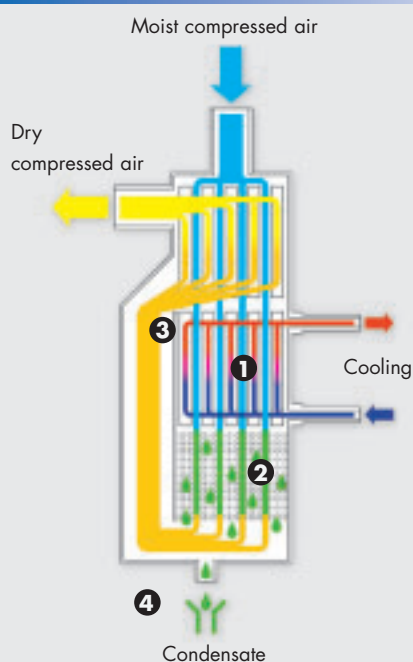
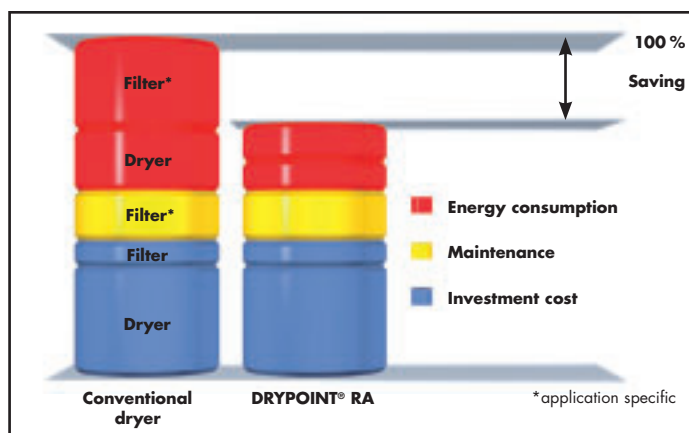
WITH COMBINED HEAT EXCHANGER

With the DRYPOINT® RA compressed air refrigeration dryer, BEKO has extended its range of dryers by another cost-effective alternative.

The extremely efficient design enables reliable and economic operation.

The technical highlights include:

- Vertical arrangement of the heat exchanger with condensate flow from top to bottom (best solution in terms of physics)
- Stainless steel demister for reliable separation
- Large calming space to prevent condensate carry-over
- Countercurrent heat exchange system



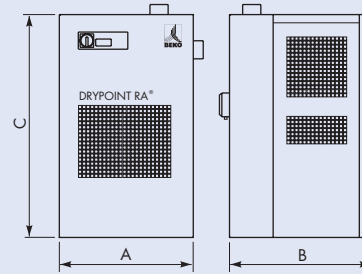
FUNCTION

- 1 Warm, moisture-saturated compressed air is cooled down to a temperature of +3°C. The generous dimensions of the heat exchanger promote especially effective cooling, while flow resistance is reduced to an absolute minimum.
- 2 Contrary to conventional systems the air follows a downward path through the heat exchanger. Gravity action results in particularly high droplet separation of almost 99%. Within the very large condensate collection space, the flow velocity is greatly reduced, so that carry-over of droplets that have already been separated is reliably prevented.
- 3 The dried, cold compressed air is reheated in an air-to-air heat exchanger before discharge from the dryer. During this process, the relative humidity of the air is lowered considerably and up to 60 % of the cooling energy is recovered.
- 4 The produced condensate is discharged from the DRYPOINT® RA unit through the level-controlled BEKOMAT® condensate drain in a way that avoids pressure loss. The condensate can then be safely treated with appropriate treatment systems, such as the ÖWAMAT® oil/water separation system or the BEKOSPLIT® emulsion splitting plant.



TECHNICAL DATA

DRYPOINT® RA



Model	Air flow rate m³/h				Power input kW	Pressure loss bar	Luftanschluss	A mm	B mm	C mm	Weight kg
	~ 3 °C	~ 5 °C	~ 7 °C	~ 10 °C							
RA 3	21	23	25	29	0.15	0.02	G½ BSP-F	345	420	740	28
RA 5	33	36	39	46	0.18	0.03	G½ BSP-F	345	420	740	29
RA 8	51	56	60	71	0.22	0.08	G½ BSP-F	345	420	740	31
RA 12	72	79	85	100	0.30	0.11	G½ BSP-F	345	420	740	32
RA 18	108	118	127	150	0.43	0.13	G1 BSP-F	345	419	740	34
RA 23	138	151	163	191	0.46	0.17	G1 BSP-F	345	419	740	35
RA 30	186	203	220	258	0.69	0.15	G1¼ BSP-F	484	453	824	46
RA 40	240	262	284	334	0.79	0.20	G1¼ BSP-F	484	453	824	50
RA 55	330	361	391	457	0.82	0.15	G1½ BSP-F	553	579	884	55
RA 60	372	407	440	515	0.92	0.18	G1½ BSP-F	553	579	884	63
RA 80	486	532	575	672	1.05	0.09	G2 BSP-F	555	625	975	103
RA 100	630	690	750	870	1.15	0.13	G2 BSP-F	555	625	975	107
RA 120	750	820	890	1040	1.38	0.07	G2½ BSP-F	664	724	1105	145
RA 140	870	950	1030	1210	1.50	0.13	G2½ BSP-F	664	724	1105	150
RA 160	960	1047	1133	1325	1.53	0.15	G2½ BSP-F	664	724	1105	155
RA 180	1080	1180	1280	1500	3.35	0.17	DN80 - PN16	785	949	1410	221
RA 210	1260	1370	1490	1750	3.50	0.21	DN80 - PN16	785	949	1410	226
RA 250	1500	1640	1770	2080	4.30	0.13	DN80 - PN16	785	949	1410	250
RA 300	1800	1970	2130	2500	4.40	0.19	DN80 - PN16	785	949	1410	275
RA 360	2208	2407	2605	3047	5.00	0.26	DN80 - PN16	860	1040	1410	295
RA 400	2400	2620	2840	3330	6.50	0.21	DN100 - PN16	1335	1535	1786	530
RA 500	3000	3300	3600	4200	6.70	0.14	DN100 - PN16	1335	1535	1786	582
RA 600	3600	4000	4300	5000	7.80	0.20	DN100 - PN16	1335	1535	1786	595
RA 720	4416	4813	5210	6094	8.50	0.26	DN125 - PN16	1345	1534	1786	620
RA 900	5400	6000	6400	7500	11.50	0.20	DN150 - PN16	1400	1900	1785	990
RA 1200	7200	8000	8500	10000	16.20	0.20	DN150 - PN16	1405	2065	1785	1120

REFERENCE CONDITIONS IN ACCORDANCE WITH DIN / ISO 7183

Flow rate related to 20 °C at 1 bar, operating pressure 7 bar, compressed-air inlet temperature 35 °C, cooling air temperature 25 °C, pressure dew point 3 °C. All models are provided with a BEKOMAT condensate drain as a standard. Water-cooled versions RA 55 – RA 1200 upon enquiry.

ELECTRICAL CONNECTION

RA3 - RA 140: 230 Vac, 50 Hz, 1 Ph; RA 180 - RA 1800: 400 Vac, 50 Hz, 3 Ph. Other versions upon enquiry.

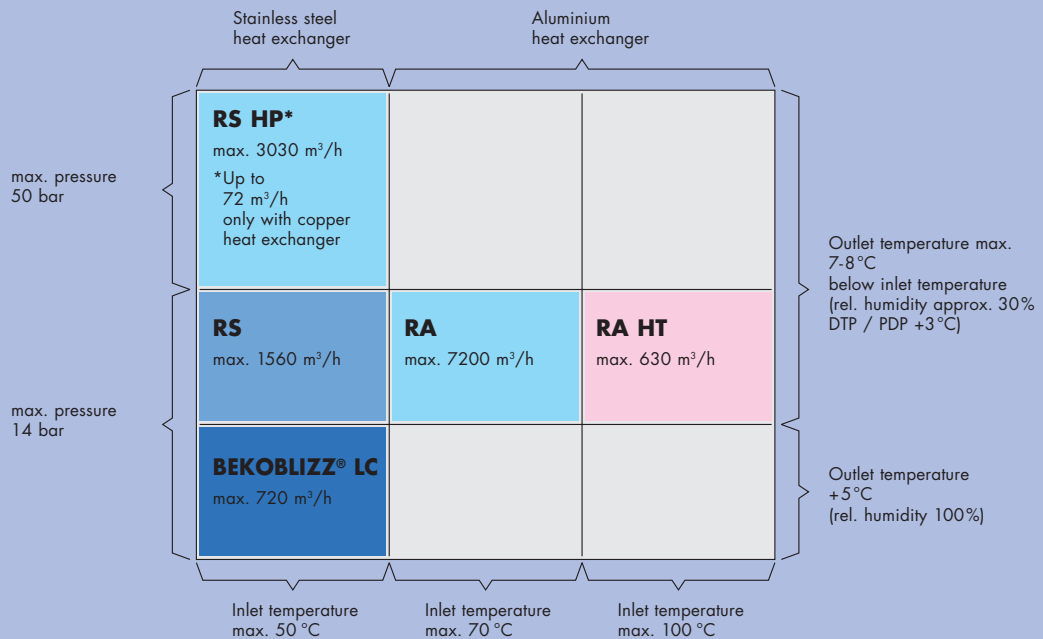
CONVERSION FACTORS

To adapt the performance figures, please multiply by the relevant correction factor.

Operating pressure bar	4	5	7	8	10	12	14				
Correction factor	0.77	0.86	1.00	1.05	1.14	1.21	1.27				
Compressed-air inlet temperature °C	25	30	35	40	45	50	55	60	65	70	
Correction factor	1.27	1.12	1.00	0.88	0.78	0.70	0.62	0.55	0.49	0.43	
Cooling medium temperature °C	25	30	35	40	45						
Correction factor	1.00	0.99	0.97	0.93	0.88						



DRYPOINT® REFRIGERATION DRYER RANGE



DRYPOINT® RS

Compressed air refrigeration dryers for high-quality requirements.

Corrosion-free thanks to stainless steel heat exchanger. The smooth surfaces of the stainless steel plates are self-cleaning and do not need any maintenance. Pressure loss is considerably reduced compared with conventional refrigeration dryers, and the consequent saving in operating costs is a boon to the budget.



DRYPOINT® RS HP

DRYPOINT® RS HP compressed air refrigeration dryers are designed specifically for high-pressure applications. They are certified for pressures up to 50 bar. Among the technical highlights of this series are the specially developed plate heat exchangers made of stainless steel and a condensate separation system based on the demister principle. DRYPOINT® RS HP dryers comply with Directive 97/23/CE-PED.



DRYPOINT® RA HT

DRYPOINT® RA HT compressed air refrigeration dryers are designed for application in environments with high ambient temperatures and for inlet temperatures up to 100 °C. The HT design basically follows the well-known DRYPOINT® RA dryer concept, with heat exchangers made entirely of aluminium, but includes two additional components: a pre-cooler equipped with copper tubing and aluminium fins and a pre-filter with a BEKOMAT condensate drain.



BEKOBLIZZ® LC

Compressed air cooler for the reliable supply of compressed air at a temperature of +5 °C. BEKOBLIZZ LC is the solution for challenging climate control and cooling applications in laboratories, workshops, production facilities including blow moulding.

BEKO

HIGH-QUALITY COMPRESSED AIR SUPPLY

BEKOMAT®

The convincing concept for condensate discharge

ÖWAMAT®

Clean & safe oil-water separation.
Super efficient with OEKOSORB® replacement filters

BEKOSPLIT®

Splitting plants for the reliable, economic and environmentally friendly treatment of emulsions

DRYPOINT®

The complete product range for compressed air drying:
refrigeration dryers, adsorption dryers, membrane dryers

CLEARPOINT®

Flow-optimised, reliable filters and water separators for compressed air and industrial gas

BEKOKAT®

The optimum solution for the highest requirements in compressed air treatment

BEKOFLOW®

Innovative, cost-cutting compressed air pipe system

BEKOBLIZZ®

Optimised cooling processes using deep-cooled, dry compressed air



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