

DRYPOINT® AC THE COMPLETE RANGE

OF HIGHLY EFFICIENT

**DESICCANT DRYERS** 

### **ON DEMAND DRYING FOR EVERY APPLICATION**



#### THE RIGHT SOLUTION WHATEVER THE TASK - TRUE INNOVATION IN DESSICANT DRYING

BEKO is world renowned for its innovative, solution oriented compressed air technology. Geared to the customers' needs, BEKO presents a comprehensive product portfolio, covering air treatment, condensate technology and process engineering. The compressed air dryer range meets the highest requirements. Membrane dryers, refrigeration dryers, adsorption dryers – BEKO offers highly efficient, environmentally friendly and cost effective compressed air dryers to suit any task.



### **A FULL RANGE OF DESICCANT DRYING**



#### **The Complete Range**

In addition to the more common dryer technologies typically employed in compressed air applications, BEKO also offers a complete range of blower operated, heated purge systems, as well as systems for high pressure applications in excess of 7,000 psig.

BEKO's unique approach to desiccant dryer engineering provides customers with not only the most complete product range on the market, but the most energy efficient as well. Energy efficiency is optimized across the entire product family regardless of model type and size.

By supplying application specific solutions, we can ensure that our customers receive personalized attention to their compressed air drying needs. The result is a system that will provide the most reliable, energy efficient solution possible.

All BEKO dryers are designed and tested to meet the strict quality guidelines of our company. There are no compromises to quality and reliability of any of our dryers.





+1:

**INNOVATIVE, RELIABLE DESIGN** High quality components are used in construction and combined with high level engineering

+2:

#### **ENERGY SAVING TECHNOLOGY** Dew point demand systems are standard equipment on all DRYPOINT® ACF PLUS model sizes



#### ADVANCED CONTROLLER Each dryer includes a feature rich controller

so there is nothing extra to buy



### EASE OF MAINTENANCE

Innovative, open frame design where all features are front-mounted, simplifies maintenance and reduces PM costs



### WIDE STANDARD RANGE

From 4 to 5,000 scfm and 60 to 7,250 psig with fully customized engineered solutions available

## **HEATLESS DRYING SYSTEMS**

The operation of compressed air systems with conventional adsorption dryers can suffer from high, system-related pressure drop. This deficiency needs to be compensated via an increase in compressor performance, thus requiring a higher energy input.

DRYPOINT® ACF and ACF *PLUS* adsorption dryers offer a convincing, economic solution to the problem: BEKO has developed an adsorption dryer design that is focused completely on reducing energy consumption. By significantly reducing pressure drops and using the most energy efficient components possible, energy savings of up to 80% can be realized when compared to conventional designs. The energy savings alone offer a complete economic payback after an average of only three years.

#### Your advantage:

DRYPOINT<sup>®</sup> ACF and ACF *PLUS* represents a real system solution: The inline integration of CLEARPOINT<sup>®</sup> compressed air filters, combined with BEKOMAT<sup>®</sup> condensate drains represent a major safety asset.



#### Introducing the SHIFT MANAGER Energy Saving Controller

Features at a glance:

- Complete set of indicators for the cycle status
- Test mode operation
- Adjustable service alarm
- PC connection
- Variable cycle modes
- Secondary load mode for automatic cycle time adjustment
- Compressor synchronization
- Contact for filter differential pressure alarm
- Contact for failure to switch alarm

#### **DRYPOINT® AC**





### **HEATED DRYING SYSTEMS**

BEKO offers three basic concepts that are configurable to ensure optimal operation for the application regardless of climate.

- DRYPOINT® ACH Heated Purge Series
- DRYPOINT® ACX Blower Operated Heated Purge Series
- DRYPOINT® RAx + ACH or ACX Combination Dryer Series

The local conditions of the application along with economic parameters ultimately determine the project solution, yet through the modular BEKO design you are guaranteed to have the appropriate dryer for the particular situation - Engineering based on the synergy of proven technologies to achieve a higher level of quality while reducing energy consumption with the added benefit providing customers with a complete solution using this systematic approach.

Your advantage: DRYPOINT® ACH and ACX represents a real system solution.

HIGHEST QUALITY COMPONENTS
The use of only the best materials and components available guarantee reliability and ensure a sound, long term investment

+2:

# COMPLETE PACKAGE SOLUTION

Dryers are designed as a complete solution to suit your application needs instead of the more common bit-by-bit approach



#### WORLDWIDE APPROVALS

Whether produced in the U.S., Europe or Asia they are built to meet the market specific requirements



#### INNOVATIVE DESIGNS

Three basic designs that are highly
configurable into a wide array of variants optimized for the customer's application



### ENERGY OPTIMIZED SOLUTIONS

Dryer technologies ranging from demand controlled zero purge, to heat of compression and combination dryer designs



#### **DRYPOINT® AC**







STAINLESS STEEL STANDARD Corrosion resistant guaranteeing operationally reliability in any environment

+2:

#### **SHOCK TESTED AND APPROVED** Shock tested to withstand up to 30 G and TÜV approved



#### **STRESS RELIEVING DESIGN** Components are mounted individually and are independent from the frame, including

are independent from the frame, including all valves



#### **ENERGY SAVING TECHNOLOGY** Standard purge air saving (PAS) system with optional low pressure purge air connection and optional freeze protection



## NON-WELDED VESSELS

Stainless steel tube design, no welded parts are employed in construction ensuring maximum pressure tolerances

## **HIGH PRESSURE DRYING SYSTEMS**

Safe and reliable compressed air drying under high-pressure conditions that typically contain many solid particles, high oil fractions and aggressive condensates requires experience, high-level engineering and complete application and system competence.

DRYPOINT® AC HP high-pressure dryers are uncompromisingly designed to meet these special requirements found in high-pressure applications. All of the pressure bearing components, including the entire vessel are manufactured out of stainless steel. Therefore, aggressive condensates on the interior surfaces, which accumulate during operation, will not damage the desiccant container or filters.

On the following pages, you will find detailed information, which demonstrates the exemplary design of the DRYPOINT<sup>®</sup> AC HP as an efficient and economical high-pressure dryer.



Highly efficient adsorbents guarantee the reliable under running of the required pressure dew point.

As standard, the adsorption beds consist of stainless steel profiles with large cross sectional apertures and a screw top. This does not only reduce the maintenance efforts, but also facilitates the internal inspection of the containers.

The highly efficient filters, as standard in a stainless steel, reliably remove contamination, such as solid particles and oil fractions.

Free condensate which, for example, enters the container through post condensation, is retained by a highly efficient settling chamber which, in this form, is unique, with its separator and storage function. It is then discharged with the regeneration air.

The optimized introduction of air ensures even perfusion of the desiccant bed and thus aids in the drying process.

The DRYPOINT® AC HP is equipped with individual valve units. The separate fixings relieve the tubes. Therefore, the dryer is resistant to vibration. Operational reliability is enhanced, and the cost for spare parts reduced.



Stressed components are, as standard, supplied in stainless steel.

The compact design enhances the flexibility of the set-up.

Two separate pressure reducers for the control and regeneration air guarantee reliable operation at all times.

The low-pressure area is protected by a safety valve.

The control and regeneration air is taken downstream of the final filter. This results in a more reliable function and control.

The base plate enables simple transport and serves to additionally stabilize the dryer. A stable frame protects against external influences.

## **TECHNICAL DATA DRYPOINT® ACC**

					Dimensions in		
Model	Flow Rate scfm	Connection Size	Tower Configuration	Height	Width	Depth	Weight Ibs
ACC 4	4	³∕₃″ NPT-F	Simplex	18	11	4	29
ACC 6	6	³⁄8″ NPT-F	Simplex	20	11	4	31
ACC 8	8	³∕₃" NPT-F	Simplex	22	11	4	33
ACC 10	10	³∕₃" NPT-F	Simplex	25	11	4	36
ACC 15	15	³∕₃" NPT-F	Simplex	32	11	4	43
ACC 25	25	³⁄8″ NPT-F	Simplex	42	11	4	53
ACC 35	35	³∕₃″ NPT-F	Simplex	58	11	4	68
ACC 45	45	3⁄4″ NPT-F	Simplex	28	21	7	117
ACC 55	55	3⁄4″ NPT-F	Simplex	32	21	7	130
ACC 65	65	3⁄4″ NPT-F	Simplex	36	21	7	141
ACC 85	85	1″ NPT-F	Simplex	44	21	7	165
ACC 105	105	1″ NPT-F	Simplex	56	21	7	200
ACC 135	135	1 ¼″ NPT-F	Simplex	64	21	7	225
ACC 175	175	1 ¼″ NPT-F	Simplex	80	21	7	271
ACC 215	215	1 1⁄2″ NPT-F	Duplex	56	21	14	379
ACC 275	275	1 1⁄2″ NPT-F	Duplex	64	21	14	423
ACC 365	365	1 ½″ NPT-F	Duplex	80	21	14	511

#### **Correction Factors**

<b>Operating Pressure psig</b>	60	70	80	90	100	110	120	130	140	150
Correction Factor	0.65	0.73	0.82	0.91	1.00	1.09	1.18	1.27	1.35	1.44

Inlet Temperature °F	80	85	90	95	100	105	110	115	120
Correction Factor	1.07	1.06	1.05	1.03	1.00	0.94	0.88	0.78	0.67

Standard outlet pressure dew point	-40 °F
Optional outlet pressure dew point	-100 °F
Min./max. operating pressure	58 psig / 232 psig
Min./max. air inlet temperature	35 °F / 120 °F
Min./max. ambient air temperature	41 °F / 120 °F
Intelligent Power Supply	12-24 VDC or 100-240 VAC; 50-60 Hz
Inlet filter	0.01 µm coalescing filter
Outlet filter	integrated dust filter included





### **TECHNICAL DATA DRYPOINT® ACF AND ACF PLUS**

					Dimensions in		
Model	Flow Rate scfm	Connection Size	Filter Model Size	Height	Width	Depth	Weight Ibs
ACF / ACF PLUS 80	80	3⁄4" NPT-F	S075	70	31	20	475
ACF / ACF PLUS 120	120	1″ NPT-F	\$100	70	36	20	490
ACF / ACF PLUS 160	160	1″ NPT-F	M010	70	36	20	560
ACF / ACF PLUS 220	220	1 ½″ NPT-F	M015	90	40	20	650
ACF / ACF PLUS 320	320	1 ½″ NPT-F	M018	90	52	20	780
ACF / ACF PLUS 440	440	1 ½″ NPT-F	M019	90	54	20	950
ACF / ACF PLUS 580	580	2″ NPT-F	M022	96	56	22	1150
ACF / ACF PLUS 740	740	2″ NPT-F	M023	96	56	30	1500
ACF / ACF PLUS 900	900	2 ½″ NPT-F	M025	96	65	38	1800
ACF / ACF PLUS 1300	1300	3″ Flange	M030	96	76	42	2200
ACF / ACF PLUS 1600	1600	3″ Flange	M030	92	88	48	3700
ACF / ACF PLUS 2050	2050	4″ Flange	L102	108	88	48	4500
ACF / ACF PLUS 2980	2980	4″ Flange	L150	116	100	58	6000
ACF / ACF PLUS 4000	4000	6″ Flange	L156	118	134	52	7600
ACF / ACF PLUS 5100	5100	6″ Flange	L156	118	140	60	9500

#### **Correction Factors**

Operating Pressure psig	60	70	80	90	100	110	120	130	140	150
Correction Factor	0.65	0.73	0.82	0.91	1.00	1.09	1.18	1.27	1.35	1.44
Inlet Temperature °F	80	85	90	95	100	105	110	115	120	130
Correction Factor	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95

Standard outlet pressure dew point	-40 °F
Optional outlet pressure dew point	-100 °F (on request)
Min./max. operating pressure	60 psig / 150 psig
Min./max. air inlet temperature	40 °F / 130 °F
Min./max. ambient air temperature	40 °F / 120 °F
Power Supply (standard)	115 VAC / 1 Phase / 60 Hz
Inlet filter	0.01 µm coalescing filter
Outlet filter	1.0 µm dust filter





## **TECHNICAL DATA DRYPOINT® ACH**

				Dimensions in		
Model	Flow Rate scfm	Connection Size	Height	Width	Depth	Weight Ibs
ACH 70	70	3⁄4″ NPT-F	70	31	20	135
ACH 130	130	1" NPT-F	70	36	20	240
ACH 180	180	1" NPT-F	70	36	20	335
ACH 260	260	1 ½″ NPT-F	72	50	22	475
ACH 355	355	1 ½″ NPT-F	72	54	24	490
ACH 460	460	2" NPT-F	90	54	24	560
ACH 575	575	2" NPT-F	92	58	24	650
ACH 720	720	2 ½″ NPT-F	92	62	26	780
ACH 1010	1010	3″ Flange	96	66	30	950
ACH 1300	1300	3″ Flange	96	72	30	1150
ACH 1725	1725	4″ Flange	96	68	38	1500
ACH 2350	2350	4″ Flange	96	80	42	1800
ACH 3250	3250	6″ Flange	96	92	48	2200
ACH 4050	4050	6″ Flange	108	92	48	3700

#### **Correction Factors**

Operating Pressure psig	60	70	80	90	100	110	120	130	140	150
Correction Factor	0.65	0.73	0.82	0.91	1.00	1.09	1.18	1.27	1.35	1.44
Inlet Temperature °F	80	85	90	95	100	105	110	115	120	130
Correction Factor	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95

Standard outlet pressure dew point	-40 °F
Optional outlet pressure dew point	-100 °F (on request)
Min./max. operating pressure	60 psig / 150 psig
Min./max. air inlet temperature	40 °F / 130 °F
Min./max. ambient air temperature	40 °F / 120 °F
Power Supply	460 VAC / 3 Phase / 60 Hz
Inlet filter	0.01 µm coalescing filter
Outlet filter	1.0 µm dust filter





### **TECHNICAL DATA DRYPOINT® ACX**

				Dimensions in		
Model	Flow Rate scfm	Connection Size	Height	Width	Depth	Weight Ibs
ACX 260	260	1 ½" NPT-F	72	50	33	475
ACX 355	355	1 ½″ NPT-F	72	54	36	490
ACX 460	460	2" NPT-F	90	54	36	700
ACX 575	575	2" NPT-F	92	58	36	850
ACX 720	720	2 ½″ NPT-F	92	62	39	1000
ACX 1010	1010	3″ Flange	96	66	45	1250
ACX 1300	1300	3″ Flange	96	72	45	1600
ACX 1725	1725	4″ Flange	96	68	57	1800
ACX 2350	2350	4″ Flange	96	80	63	2300
ACX 3250	3250	6″ Flange	96	92	72	3800
ACX 4050	4050	6″ Flange	108	92	72	4600

#### **Correction Factors**

Operating Pressure psig	60	70	80	90	100	110	120	130	140	150
Correction Factor	0.65	0.73	0.82	0.91	1.00	1.09	1.18	1.27	1.35	1.44
Inlet Temperature °F	80	85	90	95	100	105	110	115	120	130
Correction Factor	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95

Standard outlet pressure dew point	-40 °F
Optional outlet pressure dew point	-100 °F (on request)
Min./max. operating pressure	60 psig / 150 psig
Min./max. air inlet temperature	40 °F / 130 °F
Min./max. ambient air temperature	40 °F / 120 °F
Power Supply	460 VAC / 3 Phase / 60 Hz
Inlet filter	0.01 µm coalescing filter
Outlet filter	1.0 µm dust filter





### **TECHNICAL DATA DRYPOINT® AC HP**

				Dimensions in			
Model	Flow Rate scfm	Pipe Size Ø in	Max. Pressure psig	Height	Width	Depth	Weight Ibs
AC 60 HP 100	35	1/2″	1450	57.09	31.34	17.91	350
AC 90 HP 100	50	1⁄2″	1450	59.25	31.34	17.91	350
AC 160 HP 100	95	1⁄2″	1450	59.25	31.34	17.91	400
AC 250 HP 100	145	1⁄2″	1450	69.88	31.34	17.91	550
AC 390 HP 100	230	1⁄2″	1450	69.88	33.07	19.69	570
AC 110 HP 250	65	1⁄2″	3600	53.15	31.34	17.91	460
AC 145 HP 250	85	1⁄2″	3600	53.15	31.34	17.91	485
AC 210 HP 250	125	1⁄2″	3600	65.95	31.34	17.91	540
AC 440 HP 250	260	1⁄2″	3600	65.95	31.34	17.91	620
AC 655 HP 250	385	1⁄2″	3600	69.88	33.07	19.69	680
AC 145 HP 350	85	1⁄2″	5000	53.15	31.34	17.91	460
AC 190 HP 350	110	1⁄2″	5000	53.15	31.34	17.91	485
AC 265 HP 350	155	1⁄2″	5000	65.95	31.34	17.91	540
AC 540 HP 350	315	1⁄2″	5000	65.95	31.34	17.91	620
AC 820 HP 350	480	1/2"	5000	69.88	33.07	19.69	680

#### **Correction Factors**

Operating Temperature	85 °F	95 °F	100 °F	110 °F	120 °F	130 °F
1,085 psig (AC HP 100)	0.78	0.76	0.59	0.46	0.36	0.29
1,450 psig (AC HP 100)	1.03	1.00	0.78	0.61	0.48	0.38
2,900 psig (AC HP 250)	0.86	0.83	0.65	0.51	0.40	0.32
3,600 psig (AC HP 250)	1.03	1.00	0.78	0.61	0.48	0.38
4,350 psig (AC HP 350)	0.90	0.90	0.70	0.54	0.43	0.34
5,000 psig (AC HP 350)	1.03	1.00	0.78	0.61	0.48	0.39

Regeneration air requirements: 3% at -40 °F PDP

Standard outlet pressure dew point -40 °f	:		
Optional outlet pressure dew point -100	-100 °F		
Min./max. operating pressure availed	available on request		
Min./max. air inlet temperature 40 °F	/ 130 °F		
Min./max. ambient air temperature 40 °F	40 °F / 120 °F		
Intelligent Power Supply 85-26	85-264 VAC / 50-60 Hz or 24 VDC		
Inlet filter 0.01	um coalescing filter		
Outlet filter 1.0 µ	n dust filter		



#### **CUSTOM MADE SOLUTIONS BEYOND THE NORM**



BEKO has the in-house ability to design, engineer and manufacture adsorption dryers to suit any application imaginable. From the initial concept to final implementation in the compressed air system, we offer our customers world-class, cutting edge solutions with an economic payback that is unsurpassed in the industry. Furthermore, this differentiates BEKO from its competition allowing us to approach applications where adsorption drying techniques may be the optimum solution, but were originally deemed cost prohibitive. Our custom solutions are up to the challenge.

#### CONCEPTS OF CUSTOMIZED BEKO SYSTEMS

RELIABILITY QUALITY CREATIVITY SUSTAINABILITY FLEXIBILITY

Custom systems are the center point of competence concerning heat regenerated adsorption dryers within BEKO TECHNOLOGIES. Our team of experts have been forming the market for decades with innovative concepts in the area of compressed air and technical gas treatment solutions.

**Our Passion:** Dryer installations that are based on innovative synergies of proven technology to achieve a higher quality final product while reducing overall energy consumption.

**Our Claim:** We provide complete, working, total system solutions as opposed to just components.

The wide range of services available to the customer from BEKO, when considering complex compressed air purification applications, is unparalleled. When it comes to the task of purifying compressed air or technical gases this provides the customer with the ability to obtain the total solution from one source company.

Long term, interactive relationships with our customers and business partners is where we place our values. For every application question asked, there is a corresponding solution to which BEKO will become your most reliable source. As no problem should go unresolved, no challenge not taken on, and no question unanswered - we are here to help you achieve your goals, practically and economically.



We have definitive solutions to solve even the largest drying applications in the world! Pictured above is a complete system solution employed at a massive chemical industry park in Germany. The dryer is operated by Currenta GmbH & Co. OHG and provides BEKO drying technology and compressed air treatment to over 38,000 scfm of compressed air for all instruments, control and process, and factory air for the entire chemical park.

## **HIGH QUALITY COMPRESSED AIR**

## FROM BEKO

The quality of your compressed air.

### RELIABLE

The highest level of operational reliability is guaranteed with every product that BEKO manufactures.

## EFFICIENT

Maximum energy efficiency and conservation are guiding principles of every product design.

## ECONOMIC

Products that provide the quickest return on investment in the industry with the least amount of risk.

### EFFECTIVE

German engineered with no compromises on quality.

### **EXPERIENCE**

More than 25 years of industry leading experience stands behind our entire product offering.

### SOLUTIONS

Your single source for a range of performance compressed air products designed to work in synergy.

# Compressed air treatment and condensate technology. The complete program. Worldwide.



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