



## Drying | DRYPOINT® AC 410 – 495

### Cold-regenerated adsorption dryer The latest generation: DRYPOINT® AC

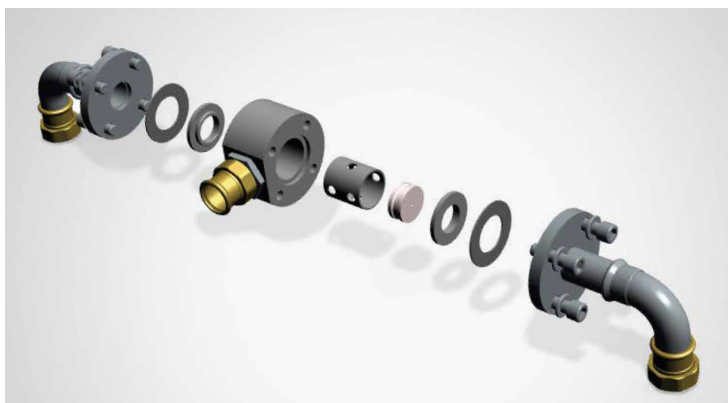
The compact cold-regenerated DRYPOINT® AC adsorption dryer removes moisture from the compressed air to a pressure dew point of -40 °C (optional -70 °C). It comes with an efficient compressor synchronisation control as standard. For even greater energy efficiency, the system can be equipped with an optional dew point control.

#### Reliable, innovative and safe

The combination of integrated CLEARPOINT® pre- and after-filters, the BEKOMAT® condensate drain and the user-friendly intuitive control interface ensure highest operational safety.

The innovative shuttle valve with an internal purge air line allows for adequate purge air flow even in the event of a power failure, making the system fail safe. Sturdy galvanised press fittings, easy to transport and access to all system components show that the unit has been designed with practicability in mind.

- › **Efficient control**
- › **Fail-safe**
- › **Practical, simple to operate**
- › **Easy to service**
- › **Sturdy and safe**



The innovative shuttle valve with an internal purge air line allows for adequate purge air flow even in the event of a power failure.

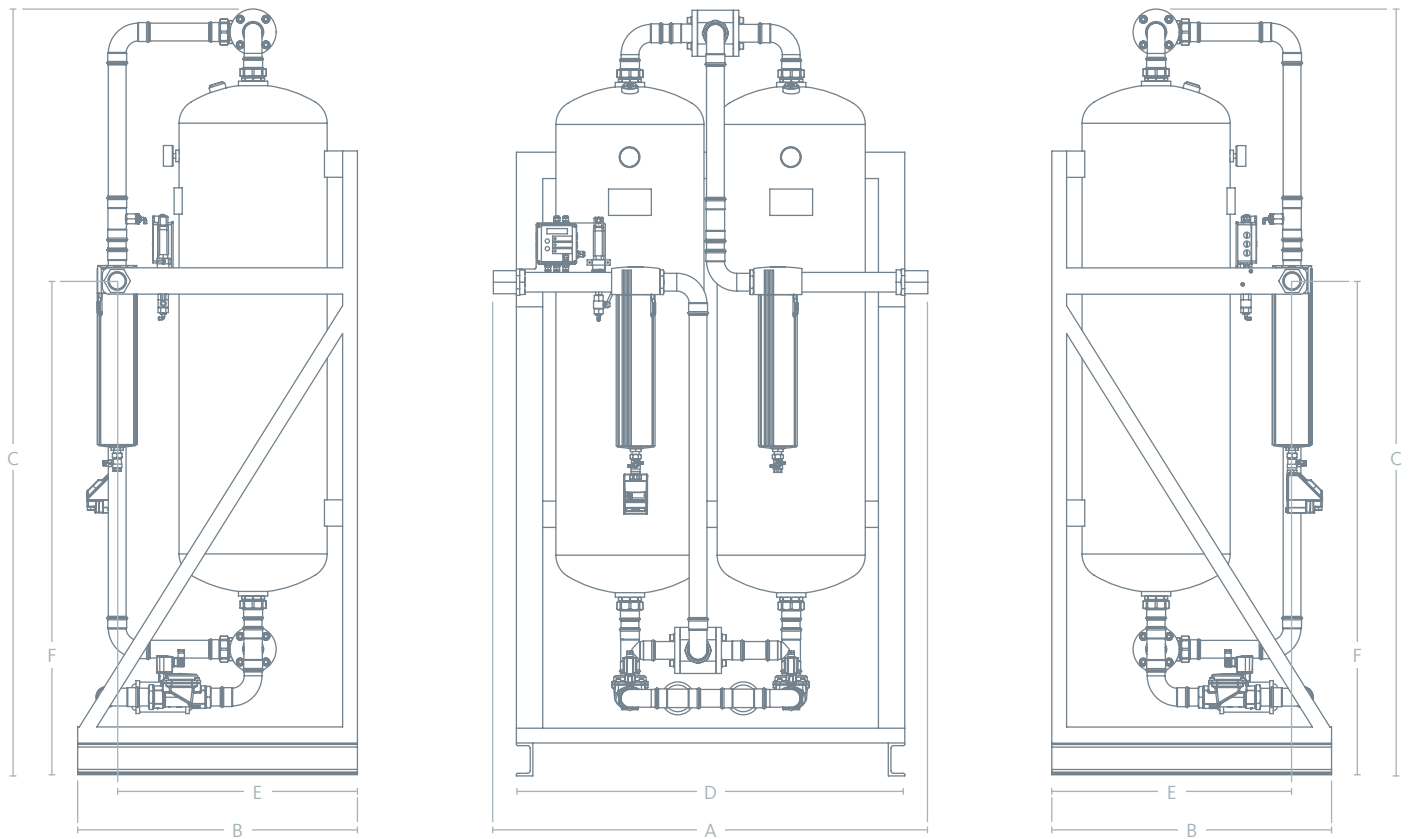


Better through Responsibility

Technical data	DRYPOINT® AC 410	DRYPOINT® AC 415	DRYPOINT® AC 418	DRYPOINT® AC 423	DRYPOINT® AC 430
Connection	½"	1"	1"	1"	1"
Medium	Compressed air/nitrogen				
Volumetric flow (m³/h)*	100	150	175	225	300
Operating pressure min./max.	4-16 bar (gauge)				
Inlet temperature max.	50 °C				
Ambient temp. min./max.	+4 - 50 °C				
Air humidity	Max. 100% at 45 °C				
Ambient conditions	0 - 2000 m NN (indoor installation)				
Pressure dew point (PDP)	Min. -40 °C, optional -70 °C				
Operating voltage	230 V / 50-60 Hz (±10 %), optional 115 V / 50-60 Hz (±10 %), 24 V DC (±10 %)				
Power consumption	Max. 40 W, 250 V, ceramic tube fuse 2 A, slow-acting				
Protection class	IP 54				
Dimensions					
A (mm)	675	700	855	855	905
B (mm)	450	450	600	600	650
C (mm)	1,600	2,025	1,905	1,905	1,890
D (mm)	600	600	750	750	800
E (mm)	365	365	400	465	530
F (mm)	900	1,100	1,100	1,170	1,185
Weight (kg)	155	185	245	245	290

Technical data	DRYPOINT® AC 438	DRYPOINT® AC 455	DRYPOINT® AC 465	DRYPOINT® AC 485	DRYPOINT® AC 495
Connection	1 ½"	2"	2"	2"	2"
Medium	Compressed air/nitrogen				
Volumetric flow (m³/h)*	375	550	650	850	1000
Operating pressure min./max.	4-16 bar (gauge)				
Inlet temperature max.	50 °C				
Ambient temp. min./max.	+4 - 50 °C				
Air humidity	Max. 100% at 45 °C				
Ambient conditions	0 - 2000 m NN (indoor installation)				
Pressure dew point (PDP)	Min. -40 °C, optional -70 °C				
Operating voltage	230 V / 50-60 Hz (±10 %), optional 115 V / 50-60 Hz (±10 %), 24 V DC (±10 %)				
Power consumption	Max. 40 W, 250 V, ceramic tube fuse 2 A, slow-acting				
Protection class	IP 54				
Dimensions					
A (mm)	920	1,190	1,190	1,320	1,320
B (mm)	650	750	750	850	850
C (mm)	2,220	2,180	2,200	2,315	2,330
D (mm)	800	1,050	1,050	1,180	1,180
E (mm)	520	635	625	730	730
F (mm)	1,320	1,350	1,350	1,480	1,500
Weight (kg)	365	400	475	565	645

\* Volume flow information for PDP -40 °C, in relation to 20 °C ambient temperature, 1 bar (abs), an operating pressure of 7 bar (gauge) and a compressed air inlet temperature of 35 °C (saturated DTP -70 °C on request)



Correction Factor															
Pressure dew point (PDP)	Inlet temperature	Operating pressure (bar)													
		4	5	6	7	8	9	10	11	12	13	14	15	16	
-40 °C	25 °C	0.75	0.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	
	30 °C	0.69	0.83	0.96	1.10	1.24	1.38	1.51	1.65	1.79	1.93	2.06	2.20	2.34	
	35 °C	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13	
	40 °C	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	
	45 °C	0.44	0.53	0.61	0.70	0.79	0.88	0.96	1.05	1.14	1.23	1.31	1.40	1.49	
	50 °C	0.31	0.38	0.44	0.50	0.56	0.63	0.69	0.75	0.81	0.88	0.94	1.00	1.06	

The MS build series is required for pressure dew points of -70°C or pre-dried compressed air.

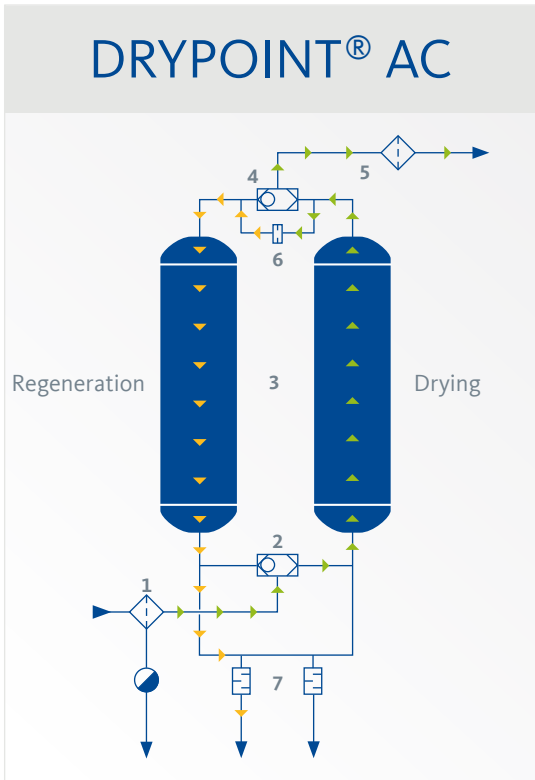
Regeneration air flow		
DRYPOINT® AC 410–495	Rated throughput Input m³/h*	Regeneration air flow (average) m³/h
410	100	15.0
415	150	23.0
418	175	26.3
423	225	34.0
430	300	45.0
438	375	56.0
455	550	83.0
465	650	98.0
485	850	128.0
495	1000	150.0

### DRYPOINT® AC MS series

The models of the MS series use a adsorbent bed of a molecular sieve. It allows for pressure dew points **as low as -70 °C**.

MS series dryers are also required for the treatment of **pre-dried compressed air**. Please contact us for detailed technical specifications.

# Principle of DRYPOINT® AC



The cold-regenerated DRYPOINT® AC adsorption dryer ensures a continuous supply of high-quality air.

Two vessels filled with desiccant (3) are arranged in parallel. The compressed air is fed through the CLEARPOINT® pre-filter with a BEKOMAT® condensate drain (1) that remove particles and condensate from the compressed air. From there, it flows through the shuttle valve (2) at the bottom and into the adsorption vessel (3). There, it is dried to the required pressure dew point. The compressed air then passes through the shuttle valve (4) at the top and a CLEARPOINT® after-filter (5) which removes any desiccant abrasion residue. The dried and purified air is now available for use. While the compressed air is dried in one vessel, the regeneration of the adsorption agent takes place in the other. For this purpose, a partial flow of already dried air is depressurised through a nozzle (6) to atmosphere pressure and fed through the desiccant bed for regeneration before it is released through a silencer (7) into the atmosphere. The switchover between the two vessels is performed at fixed cycle times. On request, we offer solutions where switching is based on the actual dew point. The measured dew point can of course be transferred to a data logger such as the METPOINT® BDL.

## Do you have questions about the best way to achieve high quality compressed air?

Then we have the answers! We offer efficient solutions for any type of processing chain. Please contact us with all your queries. We would be delighted to tell you more about our condensate

treatment, filtration, drying, measuring technology and process technology, as well as our extensive services.



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