



BEKO Products

DRYPOINT® M PLUS



Drying



Efficiency in the smallest space

DRYPOINT® M PLUS, the all-in-one solution for filtration and drying





Two in one: the successful concept of DRYPOINT® M PLUS

The most important target in compressed-air processing is to remove contaminations and humidity from the compressed air. The condensation of water in compressed air systems causes corrosion, promotes the growth of micro-organisms and represents a permanent danger to the operating procedure. Compressed air with a high content of humidity can lead, for example, to a breakdown of the pneumatic controls, to increased wear and tear or to other failures in the production process.

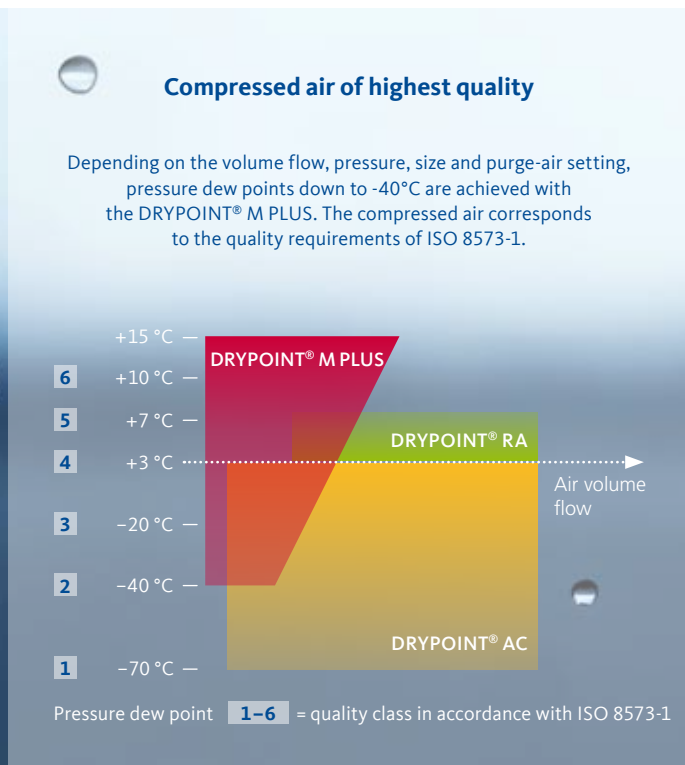
High performance demands

The demands on the degree of drying (pressure dew point) vary depending on the application. However, they should always be met with the lowest possible use of energy. In addition, the dry compressed air must be immediately available.

The precondition for this is a finely graded range of products and the know-how of the manufacturer regarding the performance characteristics of the dryers under widely differing operating conditions. The solution: DRYPOINT® M PLUS made by BEKO.

Demand-oriented and energy-efficient

DRYPOINT® M PLUS membrane dryer with an integrated nanofilter is the innovative solution for efficient filtration and drying in one housing. It offers reliable compressed-air drying with low purge air demands, requires no electric energy and contains no environmentally harmful desiccants. The integrated nanofilter increases the quality of the dried compressed air and the reliability and long-term stability of the highly selective hollow-fibre membranes. The high-capacity DRYPOINT® M PLUS is even suitable for the processing of breathing air.





Drying and filtering in new dimensions

With the integration of a compressed-air filter and a membrane dryer in one housing, the DRYPOINT® M PLUS offers highest safety and flexibility to the operator. Thanks to its compact construction type, the device is suitable for use with widely differing space requirements. The performance of the membrane dryer made by BEKO with its wide drying spectrum makes it attractive for versatile tasks. In extensive compressed air systems with central processing, DRYPOINT® M PLUS can also be employed where

additional compressed-air processing is required as a result of demanding plant technology, for example for point-of-use drying at decentralised supply points. With the corresponding prefiltration, the employment directly downstream of oil-lubricated compressors is also possible. DRYPOINT® M PLUS is particularly easy to maintain and needs no electric energy.

+ Compact, energy-saving and powerful: the DRYPOINT® M PLUS advantages at a glance

All-in-one: filtration and drying in one housing

Twist 60 technology for highest efficiency

Integrated condensate drain

Optimum filtration directly upstream of the membrane

No change in the compressed-air composition/temperature

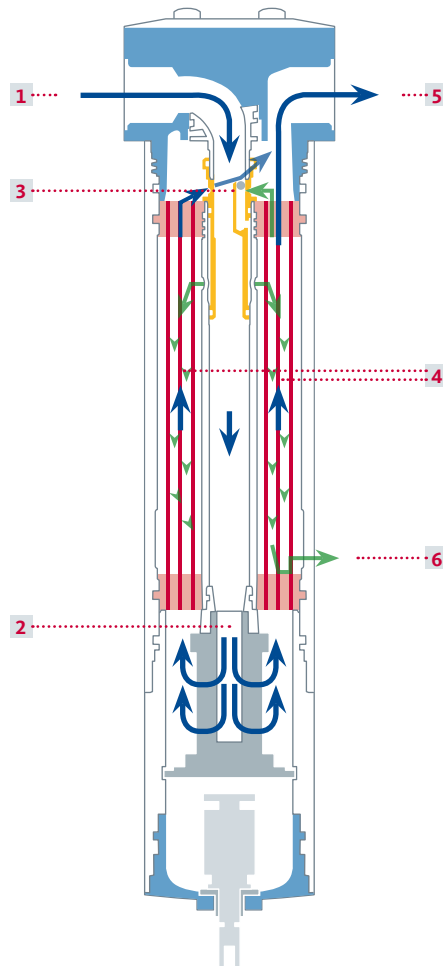
Easy filter element replacement

DRYPOINT® M PLUS compressed-air membrane dryer



TWIST 60





The right turn: the operating principle of the DRYPOINT® M PLUS

In the DRYPOINT® M PLUS compressed-air membrane dryer, the air is dried according to the physical principle of the partial vapour pressure compensation of water vapour through diffusion. This is particularly efficient and energy-saving thanks to the patented TWIST 60 technology of BEKO. The special winding method of the fibres in the membrane element leads to optimum flow conditions at a lower construction height and reduces the purge air demand. The filter element directly upstream of the hollow-fibre membranes offers effective protection against aerosols and particles.

- 1** The compressed air flows into the core tube of the membrane dryer.
- 2** In the filter element, it is diverted; filtered compressed air enters the hollow fibres of the membrane element.
- 3** The purge air required for drying is continuously diverted in the outlet zone of the membrane element and is atmospherically

expanded through a defined nozzle opening. This purge air is significantly drier due to the expansion, as the humidity contained in the compressed air is now distributed to a multiple of volume. The dry purge air is led via the outside of the membrane fibres.

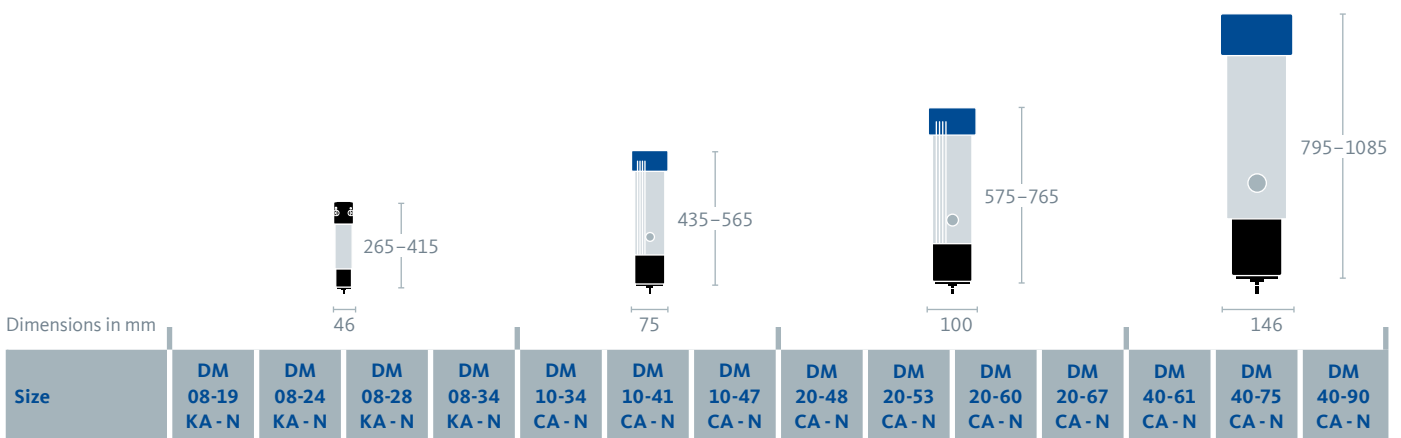
- 4** Two air flows with different moisture contents move in a reverse current through the membrane element, only separated by the membrane wall. The humid compressed air flows in the hollow-fibre membranes, and the dry purge air flows outside. As a result of the different moisture contents, the humidity diffuses from the compressed air into the purge air. The drying process is highly efficient thanks to the controlled winding of the membrane fibres, the TWIST 60 technology.
- 5** The dry compressed air leaves the membrane element.
- 6** The humid purge air is released into the environment.

In use everywhere: DRYPOINT® M PLUS

types and applications

DRYPOINT® M PLUS is available in several sizes, for different drying degrees, and is equipped with a float drain. Depending on the volume flow, pressure, size and purge-air setting, standard

pressure dew points of down to 40°C are achieved. Customer-specific designs, e.g. for lower pressure dew points, are possible at any time.



Drying performance (inflow in l/min at 7 bar)

Pressure dew point reductions from

35 °C to +15 °C (5 °C to -7 °C)	50	100	150	200	270	300	400	600	800	1050	1350	1650	2450	-
35 °C to +3 °C (5 °C to -17 °C)	32	66	100	133	181	199	266	399	532	765	910	1125	1690	2250
35 °C to -10 °C (5 °C to -26 °C)	23	49	74	99	139	149	198	297	396	590	700	860	1290	1720
35 °C to -20 °C (5 °C to -35 °C)	19	42	63	84	120	127	169	253	338	505	605	740	1110	1480

Purge air (l/min)	5	10	15	20	30	30	40	60	80	120	150	180	270	360
Weight (kg)	0.79	0.87	0.94	1.03	1.85	2.1	2.3	3.5	3.8	4.1	4.4	9.1	10.2	11.3
Thread	G ¼				G ⅜				G ½				G 1½	

Pressure difference	0.1–0.3 bar (depending on the volume flow and size)
Filter, integrated	Klasse Class 1.-1. in accordance with ISO 8573-1 (depending on the application, additional filters connected ahead need to be provided)
Conditions of use	Temperature +2 °C to +50 °C / pressure 4 to 12.5 bar Temperature +2 °C to +60 °C / pressure 4 to 7 bar

Membrane dryers for higher pressures and temperatures upon request.

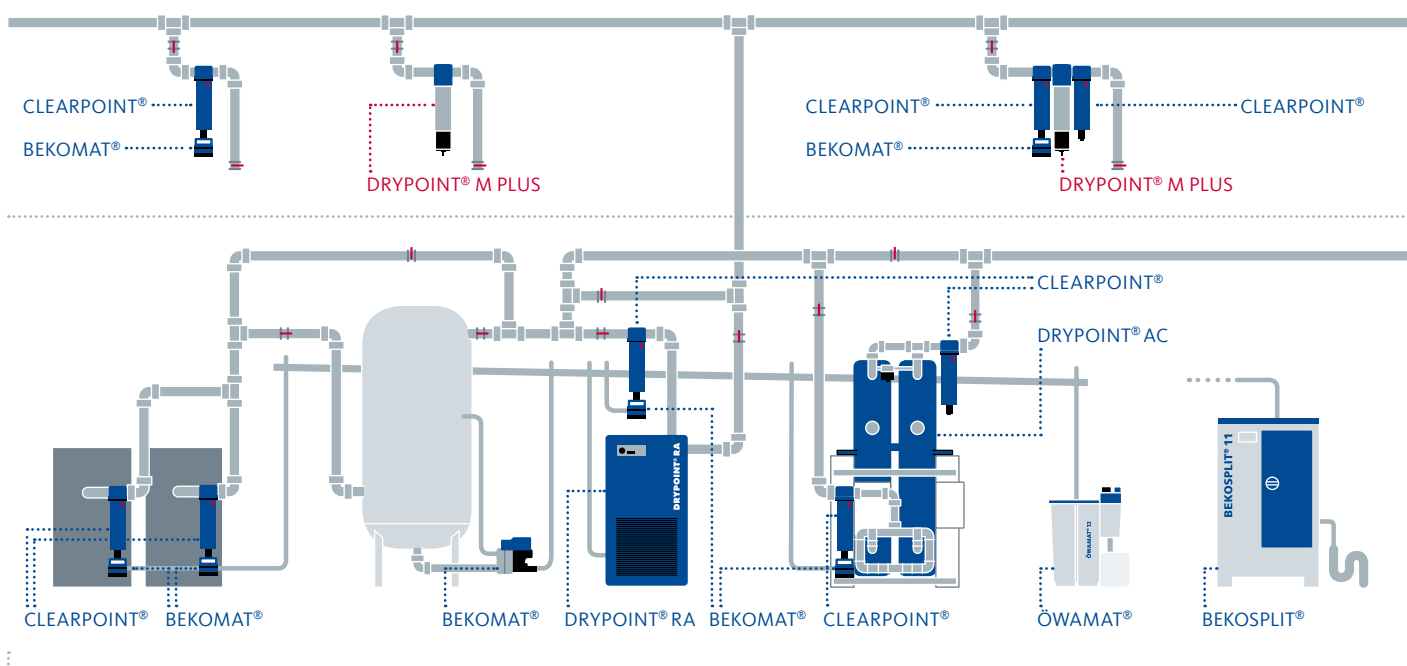
Please feel free to avail yourself of our professional expertise, e.g. for a design to fit any other conditions. We would be happy to advise you.



Quality with a system. Worldwide

We at **BEKO TECHNOLOGIES** develop, manufacture and distribute products and systems for an optimised compressed-air and compressed gas quality throughout the world. From the processing of compressed air and compressed gas through filtration and drying, via the proven condensate technology to instruments for the quality supervision and measurement. From the small compressed-air application to demanding process technology.


Since its founding, **BEKO** has continuously given decisive impulses to compressed-air technology. Our pathbreaking ideas have exerted considerable influence on the development. In order to keep this going, more than 10% of our employees work in the field of innovation. With this potential and with our personal commitment, we at **BEKO** stand for trend-setting technologies, products and services.





The product categories


 **Drying | DRYPOINT® M PLUS**


As an innovative all-in-one solution, DRYPOINT® M PLUS integrates a compressed-air filter and a membrane dryer in one housing. The device therefore offers efficiency in the smallest space for the mobile or stationary employment.

 **Condensate drainage | BEKOMAT®**

 **Condensate processing | ÖWAMAT®**

 **Filtration | CLEARPOINT®**

 **Compressed-air distribution
BEKOFLOW®**

 **Measurement technology
METPOINT®**

 **Process technology
BEKOBLIZZ® | BEKOKAT®**



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