

# Less is more

CLEARPOINT® W water separator: low costs, highest separation rate





# The complete concept for individual needs: CLEARPOINT® high-pressure filters, water separators and drains

The CLEARPOINT® compressed-air filters are part of an integrated overall concept for professional compressed-air processing. They therefore offer all of the benefits of BEKO TECHNOLOGIES in terms of greater efficiency and profitability: components that have been optimised for functionality and uncompromising quality.

#### Performance under high pressure

CLEARPOINT® high-pressure filters are available for operating ranges of up to 50 bar and for 100 to 500 bar. The design of the filter housing has been tailored to meet the special challenges in high-pressure systems and ensures optimum separation performance.

#### Efficient condensate management

CLEARPOINT® water separators intended for use with aftercoolers and refrigeration dryers achieve an efficiency level of up to 99% across a wide range of volume flows thanks to a flow-optimised design. As a result, they guarantee the highest separation rates at the lowest cost.

#### Optimum performance as part of a combination

The BEKOMAT® 20 FM condensate drain with electronic level controls has been specially designed for use with CLEARPOINT® compressed-air filters. In addition to the reliable draining performance of a BEKOMAT®, this combination provides further benefits, such as an integrated filter-life monitoring function and the transmission of malfunction notifications via a dry contact.

## A smooth flow: flow-optimised condensate separation

When compressed air cools down in the aftercoolers of compressors or in refrigeration dryers, condensed moisture is a by-product. If this condensate is not removed from the compressed-air system in good time, it can lead to costly damage as pipes corrode, pneumatic valves, cylinders and tools wear out prematurely and the efficiency of the compressed-air system is reduced. This results in higher costs for the compressed-air technology and inadequate process reliability.

#### Flow without resistance

CLEARPOINT® W from **BEKO** TECHNOLOGIES removes the condensate from compressed air in a highly cost-effective manner. Reducing flow resistance is decisive in this respect, since the lower the flow resistance is, the lower the operating costs are. CLEARPOINT® W operates with an extremely low differential pressure and delivers top separation rates.

#### Top separation rates

Another benefit is the smart housing design of the threaded filters. The structure of the inside of the housing, with the swirl disc developed by **BEKO** TECHNOLOGIES and the innovative rectifier, makes it possible to ensure a consistent velocity profile at varying flow rates. As a result, CLEARPOINT® W delivers top separation rates.

In contrast to conventional cast housings with rough surfaces that are susceptible to corrosion, CLEARPOINT® W consists of smooth, highly compressed and saltwater-proof anodised extruded aluminium profiles. The reliable corrosion protection prevents oxidation of the housing's interior surface and ensures the highest separation performance for the entire service life of the CLEARPOINT® W



#### **Energy efficiency**

Flow-optimised design

**Extremely low differential pressure** 

**Effective corrosion protection** 



#### **Process reliability**

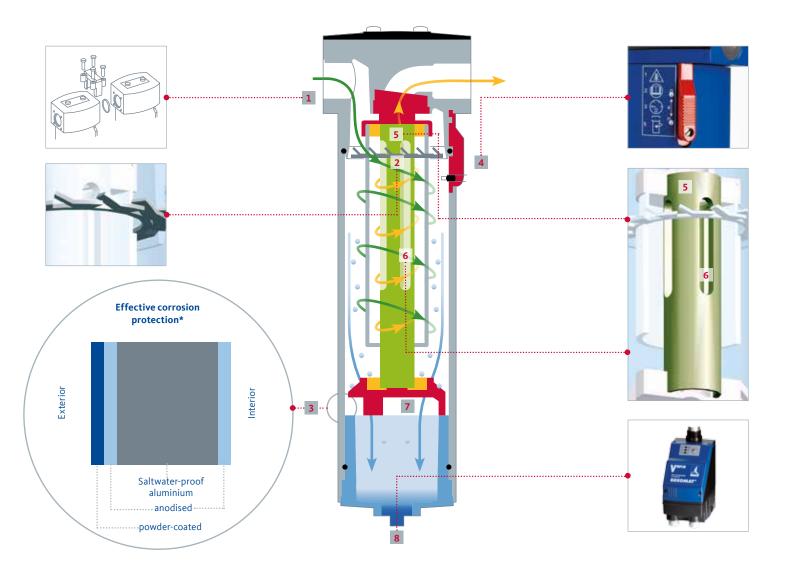
Reliable particle and condensate drainage

99% separation rate across a wide range of volume flows

BEKOMAT® for optimum condensate drainage



#### **Efficiency of CLEARPOINT® water separators** The flow-optimised design ensures an efficiency level of up 99% across a wide range of volume flows. This results in the highest separation rates at the lowest cost. ^ 100 -99 -With CLEARPOINT® W 98 -% Nater separation efficiency 97 – 96 -95 -94 -93 -Conventional 92 water separators 91 -90 -70 40 50 100 110 120 30 130 Flow rate (% of the nominal capacity)



## CLEARPOINT® W with a threaded filter connection

#### 1 Connections

The connections are matched to the dimensions of compressors' pipes. The flow-optimised inlet ensures reduced flow resistance.

#### 2 Internal swirl insert

Once the compressed air has entered the CLEARPOINT® W separator housing, it reaches a special internal swirl insert that causes the incoming air flow to begin rotating at a high velocity. As a result, the centrifugal forces directed outwards push the condensate droplets to the separator wall. From there, they flow into the collection chamber.

#### 3 Effective corrosion protection

Accumulating condensate is almost always aggressive and leads to the corrosion of unprotected surfaces. CLEARPOINT® W filter housings are made of saltwater-proof aluminium. In addition, they are fully anodised and powder-coated on the outside for effective, long-term protection against corrosion.

#### 4 Increased safety

The safe shutter mechanism provides users with complete control when opening the filter housing. In the event that the housing is opened while under pressure, a warning will sound. The mechanism also prevents unlatching when there are vibrations.

#### 5 Riser pipe

A specially designed riser pipe prevents particles from being transferred to the upward rotational flow of the largely purified compressed air.

#### 6 Rectifier

The innovative rectifier guides the compressed air to the outlet and reduces flow loss to a minimum.

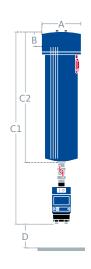
#### 7 Shielded collection chamber

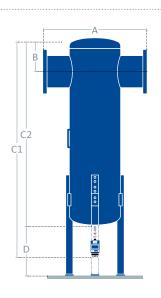
The shielding of the collection chamber through the division of the separator settles the air flow in this area, which effectively prevents liquids that have already been separated from being agitated and entrained.

#### 8 BEKOMAT®

More than 60 % of the total amount of condensate already accumulates in the water separator. The BEKOMAT  $\circledR$  with electronic level controls ensures reliable drainage.

# CLEARPOINT® water separator





#### Threaded filters (S040 - M030)

#### Flanged filters (L080 - L304)

Modell	5040	<b>S050</b>	S075	M010	M015	M020	M022	M025	M030	L080	L100	L102	L150	L156	L200	L204	L254	L304
Connection (In-Out)	3/8" (1/2")**		³¼" (1")**	1"	1½" (2")**	2"	2"	2½" (3")**	3"	DN80	DN100	DN100	DN150	DN150	DN200	DN200	DN250	DN300
Volume flow at 7 bar [g]* (m³/h)	46	130	195	325	545	1015	1325	2100	3120	1580	3160	4740	6320	11060	12640	15800	22120	34680
Volume (I)	0.25	0.31	0.87	1.12	2.52	3.40	4.23	13.88	19.51	12.5	27.6	40.5	57.5	82.1	147	196	380	650
Weight (kg)	0.75	0.85	1.70	2.10	4.10	5.10	6.10	19.90	25.90	23	42	53	75	95	140	155	210	330
Classification according to PED97/23/EC Fluid group 2	-	-	-		—			II	II	l	II	II	ΙΙ			IV	IV	IV

#### Dimensions in mm

А	75	75	100	100	146	146	146	260	260	370	480	480	535	535	700	700	800	900
В	28	28	34	34	48	48	48	77	77	126	166	198	212	222	278	288	332	370
C1	395	425	495	565	580	683	780	886	1010	915	1135	1195	1515	1625	1995	2015	2375	2725
C2	180	210	280	350	365	468	565	671	895	700	910	970	1290	1310	1680	1700	2070	2420
D	150	150	150	150	160	160	160	200	200	325	315	480	480	470	465	450	450	430

#### Standard with

	:BEKOMAT® 2	0: BEKOMAT® Vario 20	E BEKOMAT® 14	BEKOMAT® 16	
: Condensate drain		0: BEKOMAT® Vario 20		BEKOWAI, 10	

 $Flow-enhanced\ housing\ made\ of\ saltwater-proof\ aluminium\ or\ steel\ |\ The\ exterior\ is\ also\ powder-coated\ or\ painted.$ 

Max. operating pressure 16 bar | from L204 10 bar | Differential pressure  $\leq$  0.06 bar

\* In case of a differing operating pressure, multiply the indicated volume flow at 7 bar with the corresponding correction factor of the actual operating pressure.

\*\* Optionally available at the same price as the standard connection.

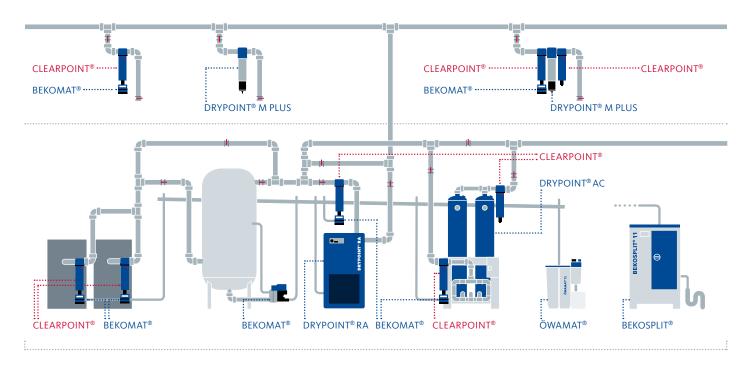
#### In case of a differing operating pressure, multiply the indicated volume flow with the corresponding correction factor.

bar	0.3	0.6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	0.21	0.29	0.38	0.53	0.65	0.76	0.84	0.92	1	1.07	1.13	1.19	1.25	1.31	1.36	1.41	1.46	1.51

## Quality with a system. Worldwide

Here at **BEKO** TECHNOLOGIES, we develop, manufacture and sell products and systems for optimised compressed-air and compressed-gas quality worldwide. From the generation of compressed air and gases through to filtration and drying, from proven condensate technology through to quality-control instruments, from simple compressed-air applications to sophisticated process technology.

Since it was founded, **BEKO** TECHNOLOGIES has been a major driving force behind compressed-air technology. Our pioneering ideas have been instrumental in the development of this field. To remain at the forefront, more than 10% of our employees work in the field of innovation. Thanks to this potential and our personal commitment, we at **BEKO** TECHNOLOGIES stand for trailblazing technologies, products and services.



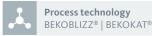
# Our fields of competence

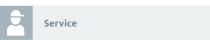














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