CLEARPOINT®

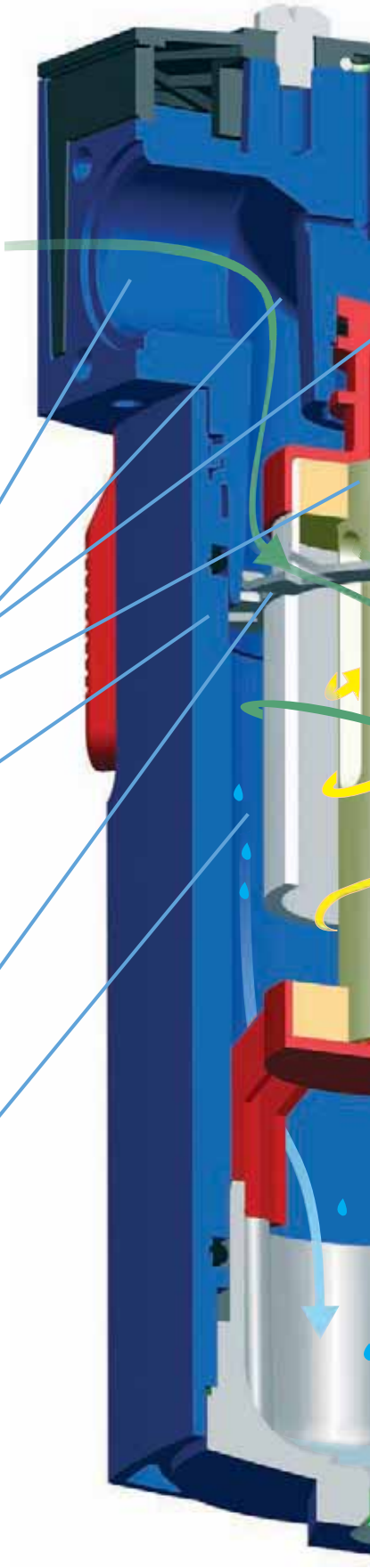
PARTICLE- AND CONDENSATE SEPARATION

ENSURING PROCESS RELIABILITY AND FLOW OPTIMIZATION

AN INNOVATIVE CONCEPT ...

Compressed air condensate – unavoidable during the cooling of compressed air

When compressed air cools in the after-coolers and in refrigeration-dryers, water automatically condenses. This has potentially expensive consequences: Corrosion of pipes, greater wear on pneumatic valves, cylinders and tools, deterioration(s) in the performance of after-coolers and heat exchangers. The result is rising costs for pneumatic technology and inadequate process reliability. Your compressed air therefore needs to be freed of condensate efficiently and reliably (at a high degree of separation.).



Efficiency

With a share of more than 90% over the lifetime of the separator, flow resistance significantly influences the cost profile of a water separator. Lowering the flow resistance helps optimize operational costs. Flow-optimized in many areas using innovative technology, **CLEARPOINT**® *water separators are an ideal investment:*

Connections are matched optimally with the compressor outlet pipe size. A flush connection is achieved once a threaded pipe has been fitted. No flow resistance is generated by superfluous, costly pipe size reduction (necking).

Features include a flow-optimized supply line to the spin-disc and a curved compressed-air outlet path.

An innovative rectifier guides compressed air optimally to the outlet.

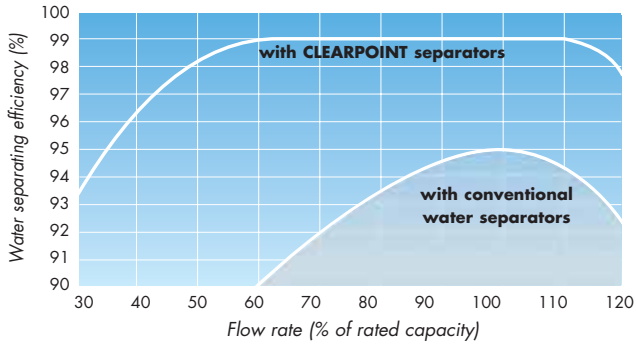
Conventional, cast housings have rough surfaces some of which are not protected against corrosion. In contrast, **CLEARPOINT**® *housings are made of highly compressed, smooth, hollow aluminum profiles resistant to seawater, providing* **CLEARPOINT**® *water separators with a definite advantage.*

High separation rates

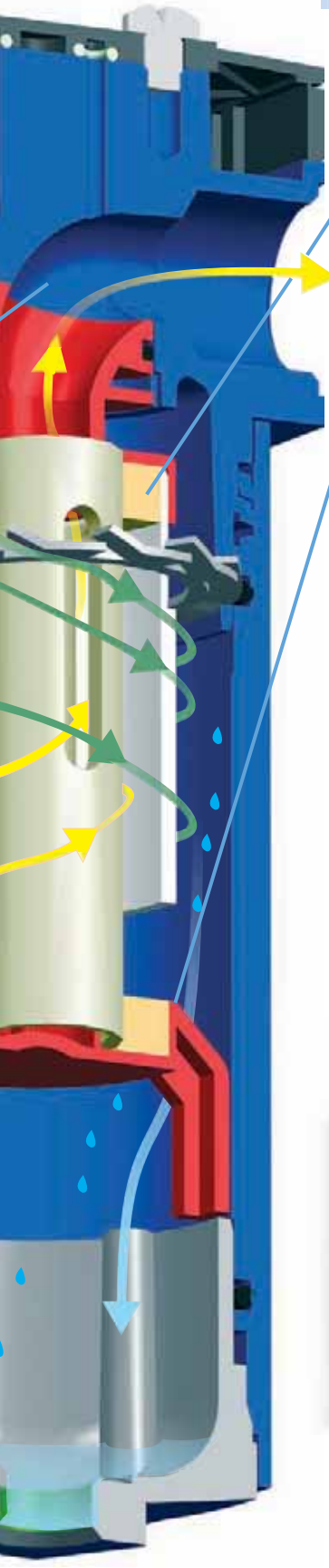
On entering the **CLEARPOINT**® *separator housing, the compressed air encounters a special, internal spin-disc; which causes the incoming air-stream to perform a particular rotary motion at high speed. The resulting rotational forces propel condensate droplets toward the separator wall from where they flow into the collecting chamber.*

The highest possible degrees of separation are achieved here by a velocity profile which remains constant at different flow rates. Investigations based on CFD (computational fluid dynamics) have clearly demonstrated that the smoothness of the housing is of paramount importance for a homogeneous velocity profile.

The flow-optimized design achieves an efficiency of up to 99% over a wide range of volumes, resulting in maximum separation rates at minimum costs.



... AND A CONVINCING SOLUTION

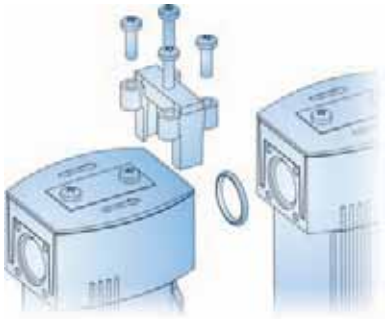


Operational reliability

A specially designed immersion pipe prevents a transfer of particles to the upward, rotary stream of compressed air; which has largely been freed of condensate. This achieves the highest possible process reliability for all subsequent elements of the pneumatic system, such as the filter and dryer.

A shield developed for the collecting chamber by BEKO engineers stabilizes the air-stream in this section in order to effectively prevent a stirring up and sweeping along of liquid which has already been separated.

More than 60% of all the condensate accumulates in the water separator. The electronically level-controlled **BEKOMAT®** *ensures that discharge takes place in the usual, reliable manner. Compared with float drains susceptible to leakage, the higher costs of purchase here are often redeemed within just two months! Why cancel out the cost efficiency provided by* **CLEARPOINT®** *water separators through the use of inadequate float, or energy inefficient timed drains?*



Easy combinations:
BEKO add-on technology
The water separators have a modular design, just like the **CLEARPOINT®** compressed-air filters (types S + M). Combinations with these elements result in system solutions providing outstanding value for money.

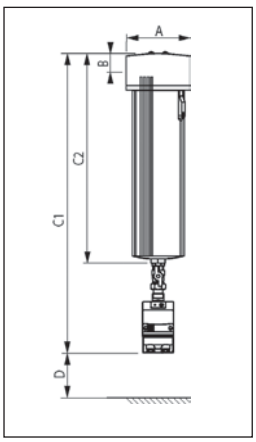
CLEARPOINT® water separators form part of BEKO's overall, innovative concept for professional compressed air conditioning. Accordingly, these units also incorporate all of BEKO's technological features providing more efficiency and cost effectiveness: Optimal component functionality with uncompromising quality.

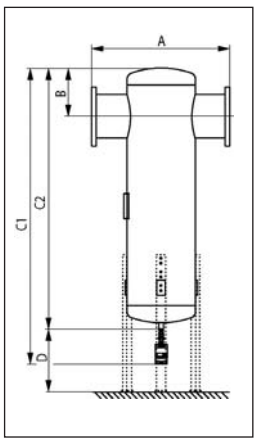
TECHNICAL DATA

Filter Model	Connection	Volumetric flow	Dimensions					Volume	Weight	Classification acc. to PED 97/23/EG
	IN-OUT	m³/h	A	B	C1	C2	D	L	kg	Category
S040	⅜″	35	75	28	395	180	150	0,25	0,75	-
S050	½″	100	75	28	425	210	150	0,31	0,85	-
S075	¾″	150	100	34	495	280	150	0,87	1,70	-
M010	1″	250	100	34	565	350	150	1,12	2,10	-
M015	1½″	420	146	48	580	365	160	2,52	4,10	-
M020	2″	780	146	48	683	468	160	3,40	5,10	1
M022	2″	1020	146	48	780	565	160	4,23	6,10	1
M025	2½″	1620	260	77	886	671	200	13,88	19,90	2
M030	3″	2400	260	77	1010	895	200	19,51	25,90	2
L065	DN65	1420	360	126	915	700	325	12,5	21	1
L080	DN80	1420	370	126	915	700	325	12,5	23	1
L100	DN100	2840	425	166	1135	910	315	27,6	42	2
L102	DN100	4260	480	198	1195	970	480	40,5	53	2
L150	DN150	5680	485	212	1515	1290	480	57,5	75	2
L156	DN150	9940	535	222	1625	1310	470	82,1	95	3
L200	DN200	11360	580	278	1995	1680	465	147	153	3
L204	DN200	14200	630	288	2015	1700	450	196	106	4
L254	DN250	19880	750	332	2375	2070	450	380	178	4
L304	DN300	31240	870	370	2735	2420	430	650	249	4

Specifications of the water separator:

- Flow-optimized housing made of seawater-resistant aluminum/or steel
- Additional, external powder coat
- Maximum operational overpressure of 16 bar
- Standard version includes a BEKOMAT®
  S040 - M010 BEKOMAT® 20
  M015 - L080 BEKOMAT® Vario 20
  L100 - L150 BEKOMAT® 14
  L156 - L304 BEKOMAT® 16
- Differential pressure <0.05 bar





EN ISO 9001:2000
DNV
Certified Company

If there is a difference in operational pressure, the volumetric flow specified above needs to be multiplied by the relevant correction factor:																		
Operating pressure (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

Subject to technical changes, all specifications do not represent product features in terms of BGB.

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