



BEKO Products

ÖWAMAT®



Condensate processing



# Reliably separated, efficiently processed

Oil-water separation with ÖWAMAT®





# The concept: sustainability with a savings potential. The solution: ÖWAMAT®

From the process plant control to pneumatic test and control methods – in large parts of production, compressed air has become indispensable. However, during its generation, contaminated condensate is formed which contains, for example, hydrocarbons, dust and dirt particles from the intake air, coolants and lubricants from the compressor, as well as oil residues, rust, wear debris or residues from sealants.

### Cost factor disposal

Condensate, as an oil-containing wastewater, must not be introduced into the sewer system according to the Federal Water Act, meaning that the condensate either needs to be disposed of professionally or processed on location. Disposal via external service providers is an expensive process. In addition to the disposal costs, company-internal investment costs, for example for approved collection tanks and monitoring devices, are incurred.

### What remains, counts: ÖWAMAT® ensures oil-free wastewater

A more cost-effective solution for environmentally compatible condensate management is the decentralised processing of dispersed condensates directly at the source. For this, ÖWAMAT® oil-water separators made by BEKO offer a clean solution: condensate which was processed using an ÖWAMAT® can be directly introduced into the sewer system as purified water. The units meet all legal requirements.

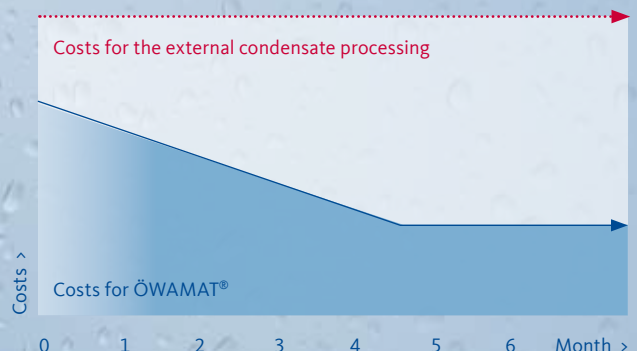
Furthermore, ÖWAMAT® oil-water separators do not cause any energy costs, boast enormous service lives and therefore, the cartridge disposal involves only little waste. The devices can be retrofitted without problems in older plants. With this, ÖWAMAT® meets highest requirements on sustainability, efficiency and profitability.

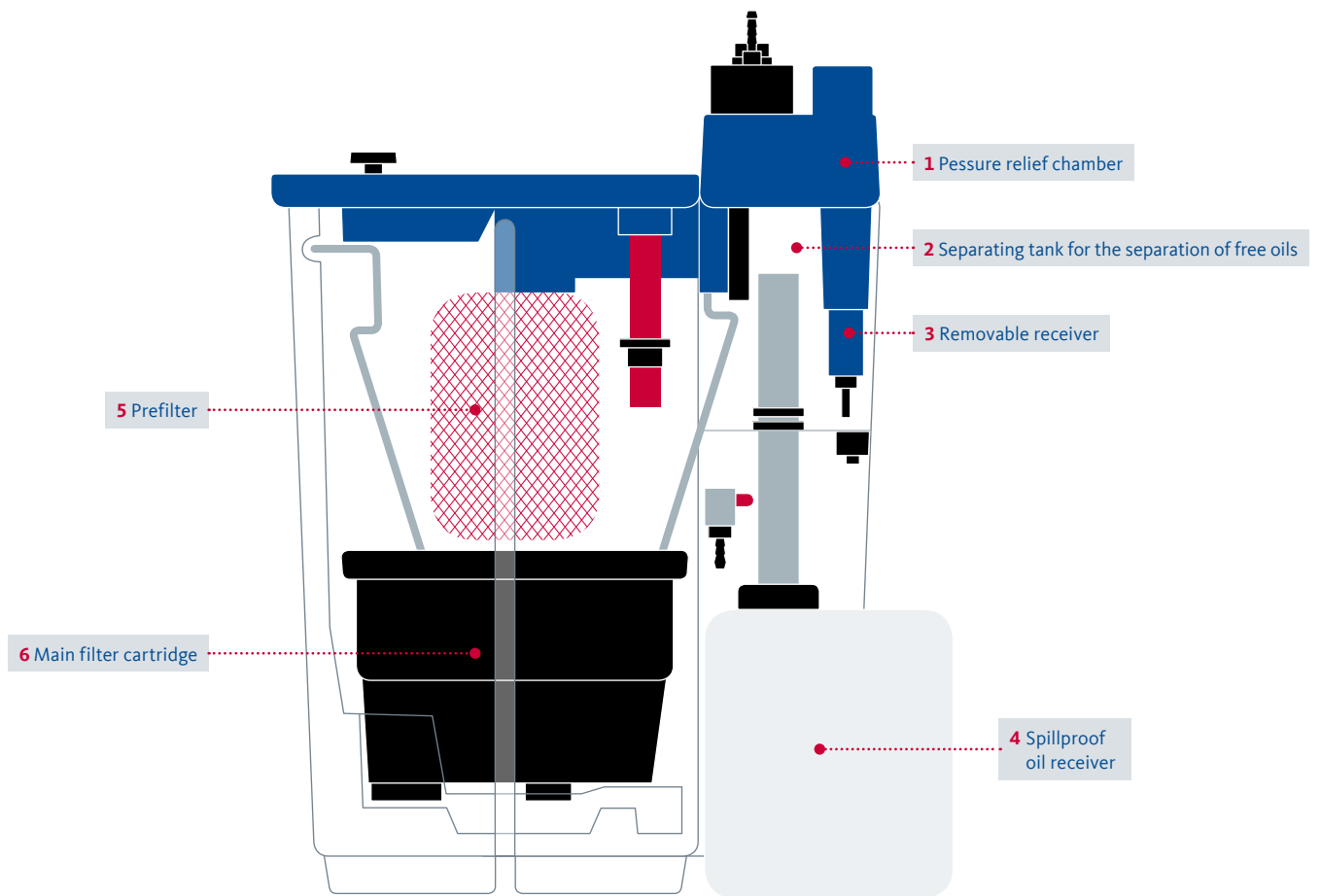
National technical approval  
Z-83.5-9  
Deutsches Institut für Bautechnik, Berlin



### Economic efficiency in new dimensions

Disposal of the condensate via external service providers is complex and expensive. Here, ÖWAMAT® offers a clear cost-saving potential.





## Safe and cost-effective condensate processing: the operating principle of ÖWAMAT®

For the processing, the oil-containing condensate first flows under pressure into the pressure relief chamber (1). Here, the pressure is reduced without causing turbulence in the downstream separating tank for the separation of free oils (2). Any entrained coarse dirt particles are retained in a removable receiver (3). In the separating tank, the oil settles on the surface as a result of gravity separation and is led into the spillproof oil receiver (4).

**The filter makes the difference:** The condensate, precleaned in this manner, now flows through the oleophilic prefilter (5), which boasts a large active filtering surface. With a flow from the inside to the outside, it binds the remaining oil droplets and also absorbs any residual floating oil in the filter chamber. The core is the OEKOSORB® main filter with cartridge technology (6): here, residual oil fractions are reliably retained. What remains is water which may be directly introduced into the sewer system.



## Approved for all designs: ÖWAMAT® types and applications

### ÖWAMAT® 10–16

ÖWAMAT® is an oil-water separation system for dispersed condensates which has been proven for decades and continuously further-developed. The ÖWAMAT® series is available in six sizes and container volumes between 10 and 228 l. A heating system can be retrofitted at any time for the sizes 11 to 16.

#### Without free-oil separation

This special version is suitable for condensates without free oils, which occur in special applications, for example in compressors lubricated with polyalkylene glycol. For the design of the ÖWAMAT® version without free-oil separation, we recommend getting expert advice by the specialised trade or by BEKO.

#### Type approval

As ÖWAMAT® meets all legal requirements; direct introduction into the sewer system of the water purified by the device is permissible according to the environmental law. For Germany, this is confirmed by the Deutsches Institut für Bautechnik (DIBt) with the national technical approval for the versions with and without free-oil separation, for synthetic and mineral oils, as well as for the processing of condensate from piston compressors.

For the processing of emulsified condensates, we recommend using the BEKOSPLIT®.



## Efficient, cost-saving and sustainable: ÖWAMAT®

ÖWAMAT® takes into account environmental and water protection and follows the holistic approach of sustainability. An example for this is the user-friendly cartridge technology. It allows fast replacement of the filter and facilitates low-waste disposal. Furthermore, the filter service lives are significantly longer than the service lives of conventional activated-carbon filters, thanks to the improved filtering material. Prolonged maintenance intervals also result from this high product quality.

ÖWAMAT® also proves its saving potential when it comes to the life cycle costs: they are particularly low, as no additional energy is required for the processing procedure. Compared with the previous model, the devices offer a performance increase of 90 to 125%, depending on the size. Thanks to these advantages, ÖWAMAT®, in most cases, pays for itself within a few months already.

### **+** The advantages at a glance

Application-related specific sizes

Long service life of the filter units

Easy retrofitting of a heating system at any time

Easiest handling thanks to the cartridge technology

Type approval with or without free-oil separation

No energy costs

### The components: easy handling in the focus



OEKOSORB® cartridge for fast and clean replacement



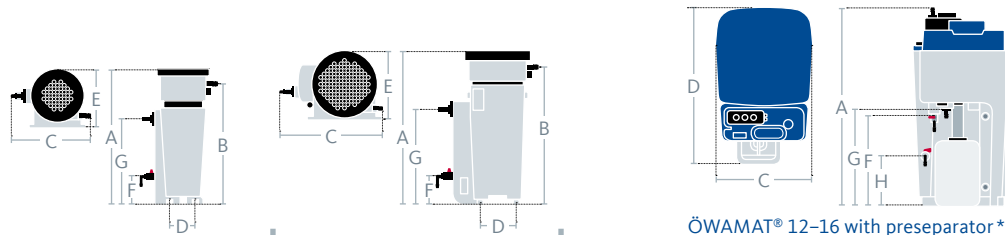
Variable connection in three directions



Prefilter with a higher performance through improved filtering material

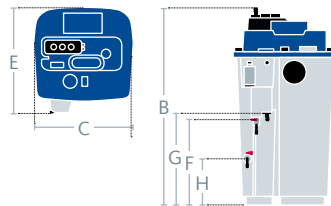


# ÖWAMAT®



ÖWAMAT® 12-16 with preseparator\*

Model	10	11	12	14
<b>Compressor performance (m<sup>3</sup>/min)</b>				
Screw compressor <b>turbine oil</b>	2.8	5.5	8.5	16.9
	2.4	4.9	7.3	14.6
	2.1	4.2	6.2	12.5
Screw compressor <b>VDL oil</b>	2.8	5.5	8.5	16.9
	2.4	4.9	7.3	14.6
	2.1	4.2	6.2	12.5
Screw compressor <b>VCL oil</b>	2.1	4.2	6.5	13.0
	1.9	3.8	5.6	11.3
	1.6	3.2	4.8	9.6
Screw compressor <b>synthetic oil: PAO</b> (possible performance deviation +/-20 %)	2.1	4.2	6.5	13.0
	1.9	3.8	5.6	11.3
	1.6	3.2	4.8	9.6
Screw compressor <b>synthetic oil: Ester</b> (possible performance deviation +/-40 %)	1.8	3.6	5.5	11.1
	1.6	3.2	4.8	9.6
	1.4	2.8	4.0	8.2
Piston compressor <b>VDL oil</b>	1.9	3.8	5.9	11.7
	1.7	3.4	5.1	10.1
	1.5	2.9	4.3	8.7
Piston compressor <b>synthetic oil: PAO</b> (possible performance deviation +/-20 %)	1.6	3.2	4.9	9.8
	1.4	2.8	4.2	8.4
	1.2	2.4	3.6	7.2
Piston compressor <b>synthetic oil: Ester</b> (possible performance deviation +/-40 %)	1.8	3.7	5.6	11.2
	1.6	3.2	4.9	9.7
	1.4	2.8	4.1	8.3
Container volume	10 l	18.6 l	30.6 l	61.3 l
Filling volume with preseparator	-	-	22.7 l	46.3 l
Filling volume without preseparator	4.3 l	11.7 l	20.3 l	41.5 l
Condensate inflow (hose)	2 x G ½ (di = 10 mm)	2 x G ½ (di = 10 mm)	3 x G ½ (di = 10 mm) 1 x G 1 (di = 10 mm)	3 x G ½ (di = 13 mm) 1 x G 1 (di = 25 mm)
Water outflow (hose)	G ½ (di = 10 mm)	G ½ (di = 10 mm)	G ½ (di = 13 mm)	G 1 (di = 25 mm)
Oil outflow	-	-	DN 25	DN 25
Oil receiver	-	-	2 x 5 l	2 x 5 l
Empty weight with preseparator	-	-	13.5 kg	18.5 kg
Empty weight without preseparator	3,5 kg	5.75 kg	12 kg	16 kg
Min./max. temperature	+5 to +60 °C	+5 to +60 °C	+5 to +60 °C	+5 to +60 °C
Max. operating pressure at the inlet	16 bar	16 bar	16 bar	16 bar
Prefilter	2,5 l	4.7 l	2.5 l	6.7 l
Main filter	2,6 l	4.8 l	5.9 l	11.0 l



ÖWAMAT® 12-16 without preseparator\*

15	16
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33.6	67.3
29.3	58.5
24.9	49.7
33.6	67.3
29.3	58.5
24.9	49.7
25.9	51.8
22.5	45.0
19.1	38.3
25.9	51.8
22.5	45.0
19.1	38.3
22.0	44.0
19.1	38.3
16.3	32.5

23.3	46.6
20.3	40.5
17.2	34.4
19.4	38.8
16.9	33.8
14.3	28.7
22.3	44.6
19.4	38.8
16.5	33.0

115.5 l	228.4 l
84.3 l	158.8 l
72.5 l	137.2 l
3 x G ½ (di = 13 mm) 1 x G 1 (di = 25 mm)	3 x G ½ (di = 13 mm) 1 x G 1 (di = 25 mm)
G 1 (di = 25 mm)	G 1 (di = 25 mm)
DN 40	DN 40
2 x 10 l	2 x 20 l
36.5 kg	53 kg
32 kg	42 kg
+5 to +60 °C	+5 to +60 °C
16 bar	16 bar
18.5 l	37.2 l
20.4 l	40.3 l

Dimensions in mm

Model	10	11	12	14	15	16
A	528	595	698	867	1088	1158
B	464	534	719	892	1118	1193
C	290	387	350	410	520	650
D	100	140	544	594	764	939
E	222	260	397	461	573	702
F	110	110	320	420	505	535
G	330	368	340	460	550	580
H	-	-	200	240	270	200



ÖWAMAT® is designed for a region by means of the three climatic zones:

- e.g. Northern Europe, Canada, Northern USA, Central Asia
- e.g. Central and Southern Europe, Central America
- South-East Asian coastal regions, Oceania, Amazon and Congo region

You will find dimensional drawings and operating instructions at [www.beko-technologies.com](http://www.beko-technologies.com).

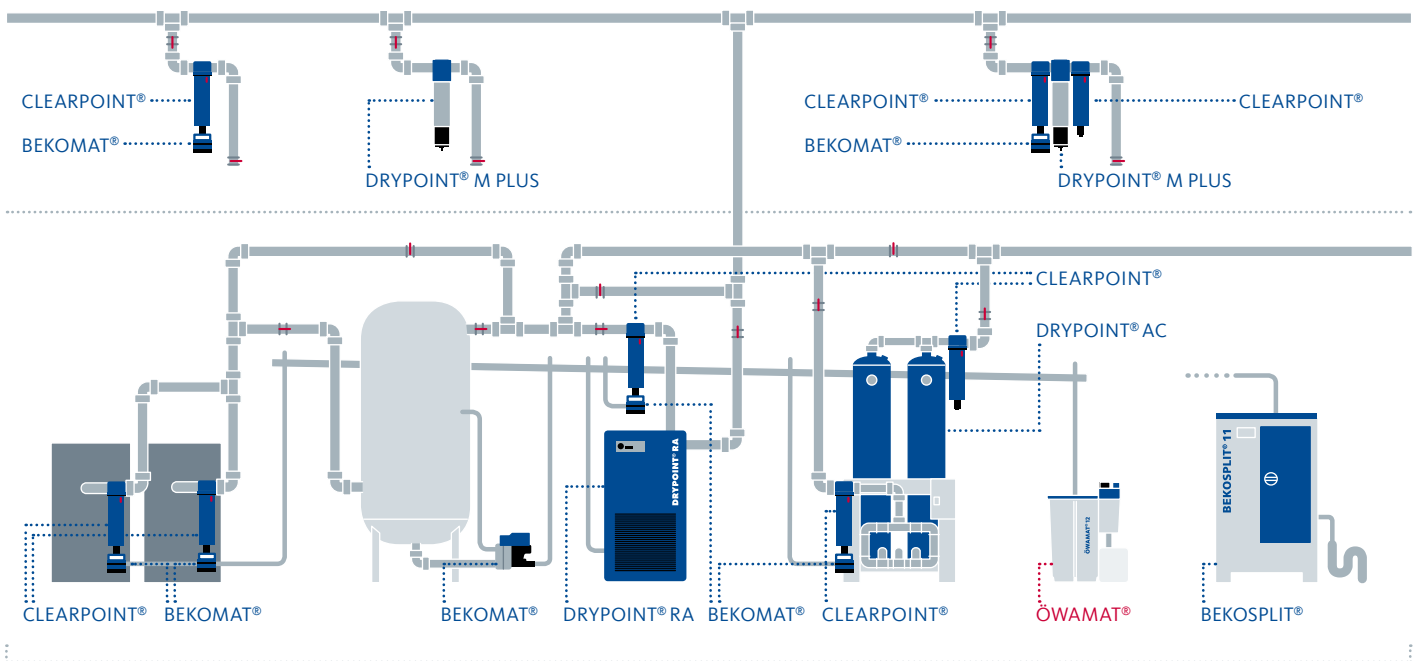
\*ÖWAMAT® oil-water separation systems are available for sizes 12 to 16 with or without separation of free oils. The separation of free oils extends the life cycle of the OEKOSORB® filter cartridge applied. Depending on the case of application, however, the use of an ÖWAMAT® without free-oil separation can be sufficient. Both versions have the type approval for synthetic and mineral oils.



# 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


 **Condensate processing | ÖWAMAT®**

ÖWAMAT® is an oil-water separation system for dispersed condensates. The purified water meets the legal requirements for the introduction into the sewer system.

 **Condensate drainage | BEKOMAT®**

 **Filtration | CLEARPOINT®**

 **Drying | DRYPOINT®**

 **Compressed-air distribution  
BEKOFLOW®**

 **Measurement technology  
METPOINT®**

 **Process technology  
BEKOBLIZZ® | BEKOKAT®**



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