



Condensate technology



# Get a **grip** on condensate

Condensate discharge and processing

Better through Responsibility



For us, **acting responsibly** means  
keeping an eye on what you need



**We are your specialist partner for condensate technology**

Where there is compressed air, there is condensate. The removal of condensate is therefore one of the key purposes of compressed air treatment. And we are the specialists – as the millions of BEKOMAT® condensate drains are in operation world-wide demonstrate. As the safe and efficient discharge of condensate is often only the first step, we also offer condensate processing solutions that are not only highly economical but also protect the environment.

**Your requirements are our benchmark**

When developing new products and solutions, we always keep your requirements in mind. That is why we focus on operational safety and durability and make sure that our products are easy to install. In addition, we work hard to ensure that our devices are efficient, cost-effective and environmentally friendly. However complex your task – we assist you in finding a solution.

**Our approach**

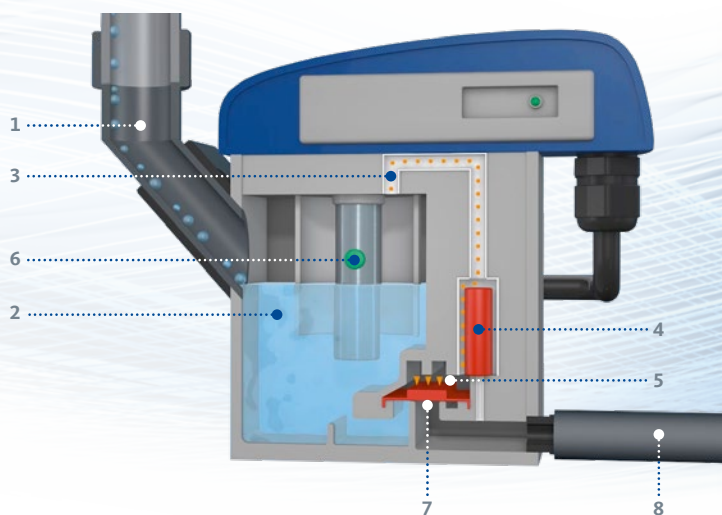
In all our work, we take into account all relevant factors, as we want to minimise the impact of our operations and products on the environment. These are the principles behind the **BEKO TECHNOLOGIES** success story.

**BEKO TECHNOLOGIES.** Better through Responsibility



# Quality that sets new standards: Condensate discharge with the BEKOMAT®

Condensation occurs at virtually every point along the compressed air treatment process. In many cases, it contains oil and dirt particles that should not enter the compressed air system. We help you remove condensate from your compressed air, improving the air quality to the standard required for your application: with the BEKOMAT®. The first condensate drain with electronic level control has become synonymous with efficient condensate discharge. Dimensioned for the actual condensate load and equipped with intelligent electronics, the BEKOMAT® minimises compressed air loss, energy consumption and costs. This is not only our view, but also that of many renowned compressor manufacturers who recommend the BEKOMAT®, as they regard it as the safest and most economical condensate discharge unit currently available on the market.



- |                        |                     |
|------------------------|---------------------|
| 1 Inlet pipe           | 5 Diaphragm         |
| 2 Collecting container | 6 Capacitive sensor |
| 3 Control air line     | 7 Diaphragm seat    |
| 4 Pilot valve          | 8 Drain pipe        |

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More than **4** million  
BEKOMAT® condensate  
drains sold worldwide

BEKOMAT® 13



Scan this code to receive up-to-date information about the latest BEKOMAT® models

# For all applications: BEKOMAT®

The condensate discharge requirements are ultimately determined by the purpose for which the treated compressed air is used. We aim at offering our customers optimised solutions for their specific applications. With our comprehensive range of

condensate drains, we cater for virtually all compressor types and performance levels, system pressures and operating conditions – including of course highly specialised applications.



## Cost-effective and reliable: BEKOMAT® standard units

The BEKOMAT® range includes the standard models 12, 13, 14, 16 and 20 and offers a suitable low-energy solution for virtually all applications. The integrated capacitive sensor for volume-controlled condensate discharge helps save energy and enhances efficiency – which is what you would expect from a BEKOMAT®.

### Everything under control

- › Automatic operation, monitoring and self-cleaning routine
- › Filter management version for low-cost service life monitoring of the filter element
- › Durable and sturdy aluminium, hard coated and high-pressure models

### Excellent performance

- › Resistant to dirt
- › Large valve diameters prevent the formation of emulsion
- › No delicate mechanical components
- › For operation at temperatures up to +60 °C
- › Ready for integration into modern system monitoring installations

### Simply better

- › Low-maintenance design
- › Easy to install and operate
- › Flexible connection options

### Extremely economical

- › Low operating costs
- › Enhanced system efficiency thanks to capacitive sensor

BEKOMAT® 31U | 32U | 33U



**Easy, low-cost  
maintenance – for  
example with the  
BEKOMAT® 33U**

## The safest option for greater efficiency: the BEKOMAT® with service unit

Easy and risk-free operation – with the innovative BEKOMAT® 31U, 32U, 33U and 33U CO models. The function-tested service unit contains all components that require maintenance. Simply attach the service unit by means of the quick-mount mechanism to the permanently installed control and sensor unit.

### Minimum maintenance

- › Future-proof thanks to exceptional functional safety
- › Plug & play: no need for weekly inspections, screen checks or cleaning
- › No unpleasant surprises
- › Service unit is pressure- and function-tested and comes with a two-year warranty

### As easy as can be

- › Automatic monitoring
- › Power and alarm signalling as standard
- › New: service indicator warns operators in advance when the service unit needs to be replaced
- › Easy replacement, even where space is confined
- › All wear and pressure parts are combined in a single, exchangeable service component

## For specialised applications: BEKOMAT® special models

### Great performance

- › For compressed air flow rates of up to 1,700 m³/min

### For special applications

- › Hard coated and stainless steel models for demanding applications: ATEX, vacuum, Multi-stage compressors, extra low or high pressure
- › Floating alarm contact

### For powerful partners

- › Suitable for systems with turbo or multi-stage compressors

### Tested and certified

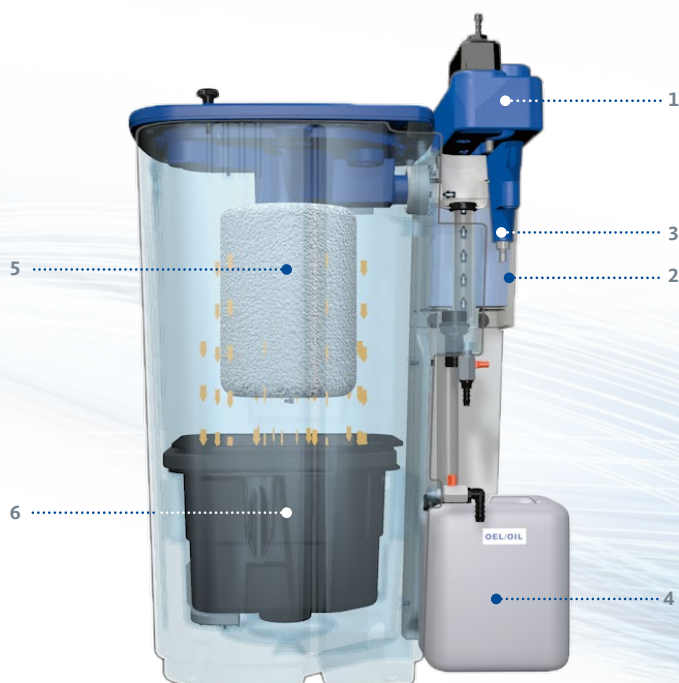
- › ATEX certificate, 3.1 acceptance certificate and 2.2 material certificate, PED and ASME certificates





# The clean solution that fits your budget and protects the environment: Condensate processing with ÖWAMAT® and BEKOSPLIT®

Legislators demand that discharged condensate is processed safely and properly. We make it easy for operators to meet the legal requirements – with our extensive range of condensate processing solutions that reflect our commitment to sustainability. With our ÖWAMAT® oil-water separation systems and the BEKOSPLIT® reaction splitting plants, we offer cost-effective and environmentally friendly solutions for the disposal of dispersed and emulsified condensates. These systems are designed to be environmentally friendly. They are cost-efficient on-site units for the processing of condensate in compliance with all applicable statutory regulations..



- 1 Pressure relief chamber
- 2 Separation container
- 3 Collector
- 4 Oil receiver
- 5 Prefilter
- 6 OEKOSORB® main filter with cartridge

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video clip





ÖWAMAT® 16



BEKOSPLIT® 12





Scan this code to receive the latest information about the ÖWAMAT®

# Approved for **all compressors:** ÖWAMAT®

The ÖWAMAT® is a tried and tested oil-water separation system for dispersed condensates. It has been type-approved and therefore does not require a separate operating licence under water protection legislation. The models of the ÖWAMAT® series come

in various sizes. The ÖWAMAT® 12 to 16 models are available with or without preseparator. ÖWAMAT® models of sizes 11 to 16 can be retrofitted with a heating system.



ÖWAMAT® 10 | 11 | 12 | 14 | 15 | 16

## Quality based on experience

- › In practical use for more than 30 years
- › Type-approved by DIBt
- › Designed for 24/7 operation

## Reliable performance

- › 3-stage separation
- › Particularly suitable for systems with fluctuating condensate volume
- › No risk of incorrect operation

## Fast, clean and easy to use

- › Intuitive operation
- › Visual overflow indicator (also available with electronic indicator)
- › Visual reference turbidity check

## Environmentally friendly

- › Quality product made from carefully selected materials
- › CO<sub>2</sub> emissions produced in the manufacture of the ÖWAMAT® filter material are only 60% of those for conventional activated carbon
- › Fixed costs for cartridges, spare parts and disposal



### German type approval

As the ÖWAMAT® meets all relevant German statutory requirements, its discharge can be disposed of directly through the foul drain. That is why the Deutsches Institut für Bautechnik (DIBt) has issued a type approval for all models with or without free oil separation used for the removal of synthetic or mineral oils, or for the processing of condensate produced in screw or piston compressors.

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



### Oil-water separation made easy with the ÖWAMAT®

The ÖWAMAT® separates oil from water – efficiently and with minimum maintenance. The ÖWAMAT® filters have a much longer service life than conventional activated carbon filters. They can be changed quickly and the cartridge can be disposed of safely.

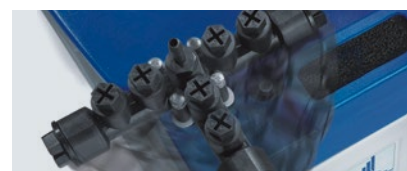
### OEKOSORB® cartridge for quick and clean replacement



### Prefilter with increased capacity thanks to optimised filter material



### Adjustable connection (3 directions)







Scan this code to receive the latest information about the BEKOSPLIT®

# Future-proof emulsion processing: BEKOSPLIT®

One litre of oil can contaminate up to one million litres of groundwater. As many industrial processes produce water contaminated with oil, the risk to drinking water and the environment in general is huge. That is why legislators prohibit the dis-

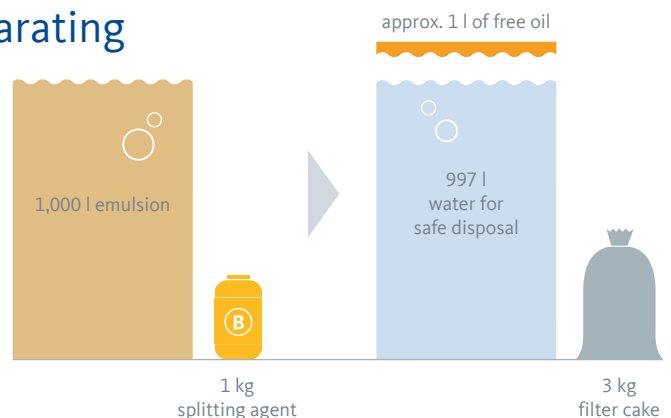
posal of emulsified condensates and oil-contaminated industrial wastewater through the sewerage system. For the safe processing of emulsified condensates, gravitational separation is often not sufficient.

BEKOSPLIT® 12 | 14



## Our solution: splitting rather than separating

The BEKOSPLIT® reaction splitting plant is a reliable on-site processing solution for treating emulsified condensate. Emulsification often occurs as a result of unfavourable conditions or in connection with certain lubricant-compressor combinations. The BEKOSPLIT® process uses a special splitting agent that encapsulates organic compounds that are not soluble in water, such as oil and solids, which are then retained in the plant. The discharge water can be safely disposed of through the foul drain.



**Global market leader**

- › Most popular emulsion splitting plant worldwide for compressed air condensates
- › Suitable for all compressor condensate
- › Process certified in advance

**No job too big**

- › Easy and safe to operate
- › Effective splitting of stable emulsions
- › Successful processing of even the most challenging condensates

**Efficient operation**

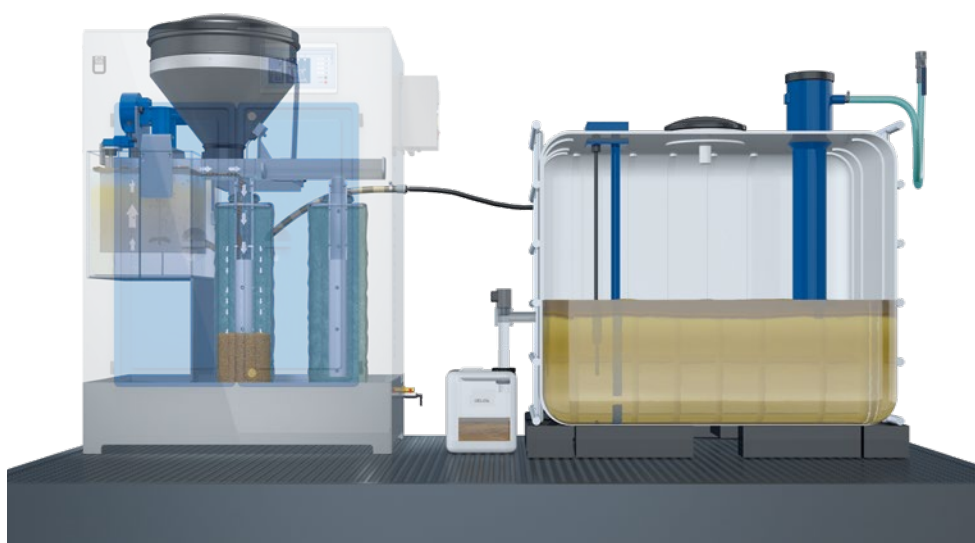
- › Fully automated – signal contact for error messages and maintenance prompts
- › Low-cost investment, operation and maintenance
- › Highly effective splitting agents do away with continuous pH correction

**Protects the environment**

- › Safe process
- › No need for aggressive detergents
- › Huge reduction in waste volume to below 0.5%

## Highly effective emulsion splitting: How the BEKOSPLIT® works

The condensate is fed through a pressure relief chamber into the preseparator where the floating oil is automatically drained off. In this process, the fractions in the pressure relief chamber are continuously monitored by a capacitive level sensor, which has the ability to distinguish between air, oil and emulsion. This ensures that no emulsion is discharged into the oil receiver, and no free oil enters the splitting process. The pre-cleaned condensate is automatically processed with a splitting agent in the reaction chamber. The splitting agent encapsulates the oil and dirt particles, and the resulting macro-floccules are subsequently removed from the liquid. The discharge water can be safely disposed of through the foul drain.



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# Complete solution from a single supplier **for your success!**

When it comes to compressed air, no two applications are exactly the same. And each application comes with its very specific requirements regarding the quality of the compressed air. This quality is primarily determined by the treatment of the air downstream of the compressor. That is where our solutions come into play! For more than three decades, we have been providing companies with high-performance equipment in the field of compressed air and compressed gas technology. Our tried and tested products, systems and solutions help our customers achieve the compressed air quality they need for their production processes – safely and efficiently. From filtration and drying to condensate processing technology and instruments for quality monitoring and validation. From small compressed air plants to sophisticated process technology. We are the only supplier in the market offering all components found along the processing chain. For our products, we use only components that meet our stringent quality standards. Through dedication and expert knowledge, we are able to combine these components for optimum efficiency and reliability.



## Compressors

As soon as the compressed air leaves the compressor, it must be prepared for the application it is to be used in.



## Excellent service

For us, customer service means that we assist you from the first moment of contact, during the planning and commission phase and when the system is up and running. We help you in all mat-

ters regarding cleaning, maintenance, measuring and training: we are there for you for the entire service life of your equipment, offering you a wide range of services.

Scan this code to find out more about our services







### Measurement technology



## Application

With our solutions, you can achieve the compressed air quality you need for your applications.



### Drying



## BEKO TECHNOLOGIES



### Filtration



### Condensate technology

Our condensate processing solutions used worldwide in millions of factories and plants guarantee disruption-free and efficient operation of the connected equipment and ensure safe and cost-effective condensate processing and discharge. For more information about our products, services and capabilities, visit [www.beko-technologies.co.uk](http://www.beko-technologies.co.uk) or contact our sales department for a brochure.

## Why is the whole greater than the sum of its parts?

Our solutions combine the expertise of a leading system provider with the dedication of every single member of our staff. We listen to our customers and remain focused on practical applications. We want to protect the environment and value our partners in

business. This commitment is reflected in every single product that leaves our factories.

**BEKO TECHNOLOGIES. Better through Responsibility**

# Do **you** want to know more about condensate technology?

We have the answers! We would be delighted to hear from you to explore solutions for your specific compressed air system.

## About **BEKO** TECHNOLOGIES:

- › Established in 1982 by Berthold Koch
- › Independent, family-owned company
- › Head office based in Neuss, Germany
- › Operates production plants in Germany, the USA, India and China
- › Global sales network
- › Committed to the highest quality standards
- › Certified according to EN ISO 9001:2015

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