



**NEW  
PERFORMANCE DATA**



**BEKOMAT<sup>®</sup>**

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**THE ULTIMATE SOLUTION**

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**FOR CONDENSATE DISCHARGE**

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## FOR THE EFFICIENCY OF YOUR COMPRESSED-AIR SYSTEM



The secondary product of compressed air is condensate – a threat to your production result.



### Do you use compressed air?

Compressed air – an important production aid. No matter for what purpose you are using compressed air, it must always be of high and unvarying quality. This quality can be impaired by compressed-air condensate.

### Condensate – your No. 1 enemy of quality

- ➔ Condensate is always produced in compressed air.
- ➔ It is usually highly contaminated with oil.
- ➔ It always contains particles of rust, scale, and dirt.
- ➔ "Oil-free" condensate is very acidic.
- ➔ Your primary target: removing and treating the condensate to ensure high quality compressed air.

### Why you need an intelligent condensate drain:

- ➔ Condensate does not occur in consistent quantities.
- ➔ Condensate should be removed whenever and whenever it accumulates.
- ➔ You must not waste expensive compressed air.

### Avoid problems from the start, rely on the industrial standard:

- ➔ **BEKOMAT®** electronically level-controlled condensate drains
- ➔ Over 500.000 installations worldwide
- ➔ The original patented sensor system
- ➔ Safe, dependable and economical condensate removal.



### BEKOMAT® condensate drain and ÖWAMAT® oil- water separation system:

The ideal combination for  
the treatment of dispersed  
condensates



**BEKOMAT®**  
installed on air receiver

## THE TECHNOLOGY

### WELL-PROVEN & EFFICIENT



#### How it works: the operating principle of the BEKOMAT® 14

**Fig. 1:**

- ➔ Condensate trickles through the inlet opening ❶
- ➔ Condensate collects in the container ❷.
- ➔ The solenoid ❹ is de-energized.
- ➔ The diaphragm ❺ is held closed by air pressure in the pilot-supply line ❸.
- ➔ The larger surface area on the top of the diaphragm results in a high closing force, making shur the valve seat is absolutely leakproof.

**Fig. 2:**

- ➔ The container ❷ fills with condensate.
- ➔ The capacitive level sensor ❻ signals at the maximum fill level.
- ➔ The solenoid ❹ is energized, closing the pilot-supply line
- ➔ The closing pressure above the valve diaphragm is removed.
- ➔ The pressure in the housing lifts the diaphragm off the seat ❷ and forces the condensate into the discharge pipe ❸.
- ➔ The electronic system of the **BEKOMAT®** calculates the discharge rate from the max level sensor down to the minimum level sensor and uses this figure to determine the total valve opening time required. The valve will again be fully closed and leakproof before any compressed air can escape.

#### Alarm function:

- ➔ Condensate discharge fails to function properly (blocked discharge pipe, worn diaphragm).
- ➔ The **BEKOMAT®** will change to the alarm mode after 60 seconds.
- ➔ The red LED flashes and, if desired, the alarm signal is relayed via a potential-free contact.
- ➔ While in the alarm mode, the solenoid valve will open every 4 minutes for a period of 7.5 seconds.
- ➔ The **BEKOMAT®** will automatically reset itself when the cause of the fault is removed.

#### Condensate treatment:

- ➔ Oil contaminated condensate can flow for treatment into the **ÖWAMAT®** oil-water separator which is designed to deal with non-stable, oil-contaminated condensate.

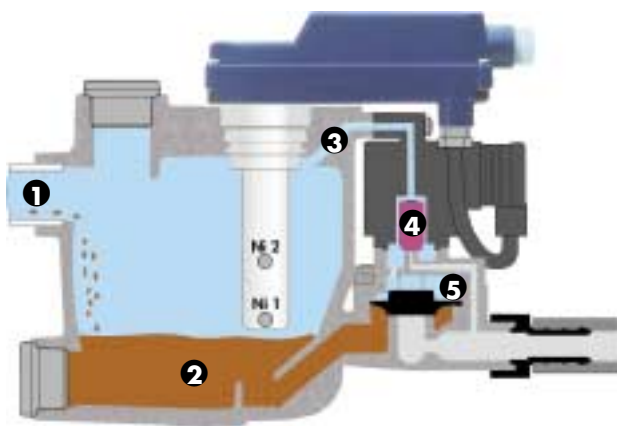


FIG. 1

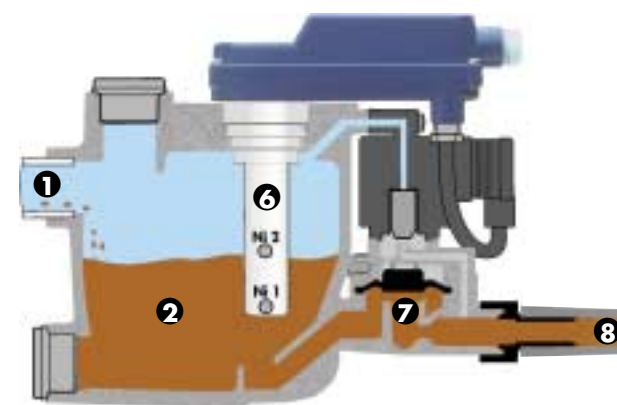
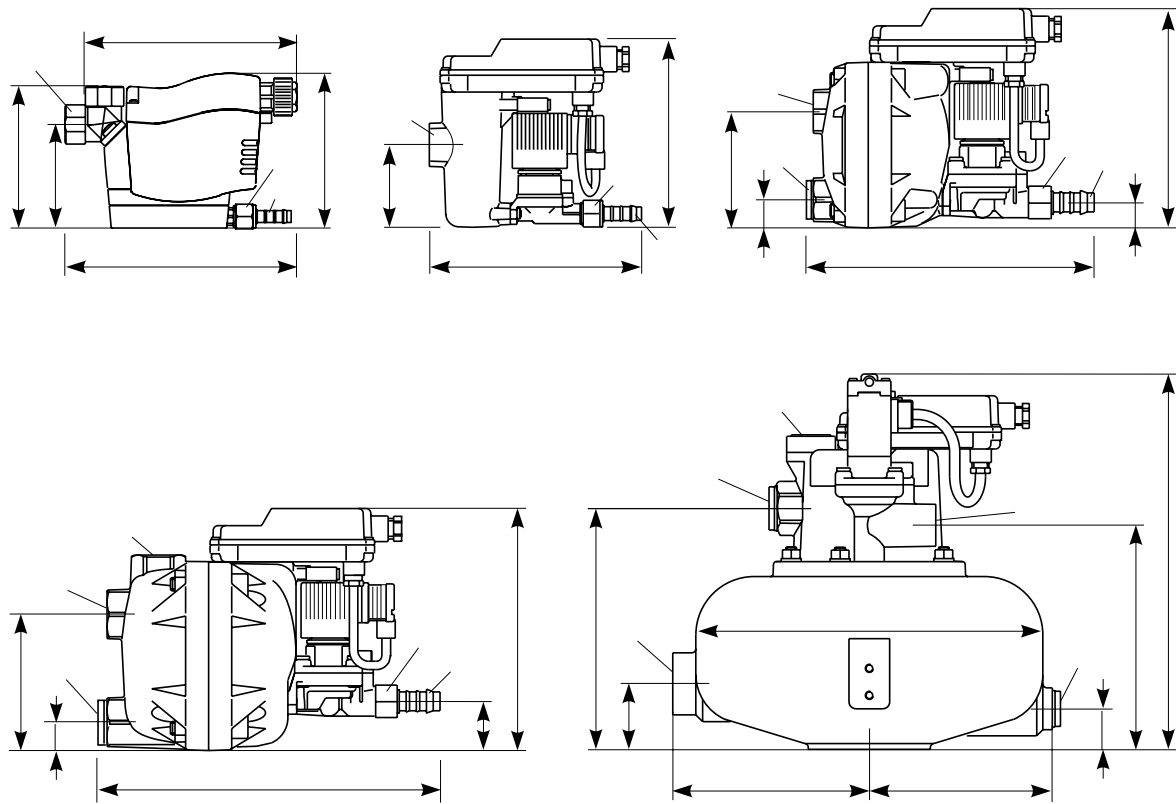


FIG. 2

- ➔ If the condensate contains stable emulsions, our **BEKOSPLIT®** emulsion splitting plant will clean up the condensate leaving only a minimum of waste for disposal.
- ➔ Either system will help your company to conform to the legal obligations concerning the treatment & discharge of compressed-air condensate.

## **A WIDE RANGE OF SUCCESSFUL MODELS FOR EFFECTIVE CONDENSATE MANAGEMENT**



The correct **BEKOMAT®** model for your particular compressed-air application is chosen on the basis of the installed compressor performance, the system pressure and the relevant material requirements. Condensate drain **BEKOMAT® 21** is supplied with a plastic housing, while **BEKOMAT® 12** to **16** are available as aluminium units for oil-contaminated condensates. **BEKOMAT®** may also be provided with additional hard coating or in stainless steel for corrosive

atmospheres. Heaters, insulating shells, and trace heating are available for areas where freezing is a problem.

Special **BEKOMAT®** models are available for:

- extremely aggressive condensates
- areas with potentially explosive atmospheres
- low pressure and vacuum conditions
- discharge during no-load operation with multi-stage compressors



## THE ADVANTAGES

### FULL ATTENTION TO DETAIL

#### Economical:

- Intelligent control system
- No loss of compressed air.
- Energy savings ensures quick return of investment.

#### Reliable:

- Non-wearing capacitive sensor.
- Senses all types of condensate – including pure oil.
- Heavily contaminated condensate is no problem.

#### Easy installation:

- Connection to the compressed-air system is quite simple.
- Inlet and outlet of the **BEKOMAT®** unit are in alignment.
- Discharge can be fitted with a hose.

LED-Display  
with TEST button



Fully adaptable –  
connecting the **BEKOMAT®**  
to different feed pipes is  
quick and easy.



#### User-friendly:

- The electronic system operates on 24 V direct current.
- A plug-in connector separates the device from the power unit.
- Maintenance work can be performed without danger.

#### Safe:

- Constant self-monitoring guarantees maximum reliability.
- Current operating state is indicated by an LED display.
- A functional test can be carried out at any time by pressing the test button.
- A potential-free contact allows for remote alarm.
- Electronic controls are dust and water tight and comply with NEMA 4X.
- Approved by CSA and UL standards.

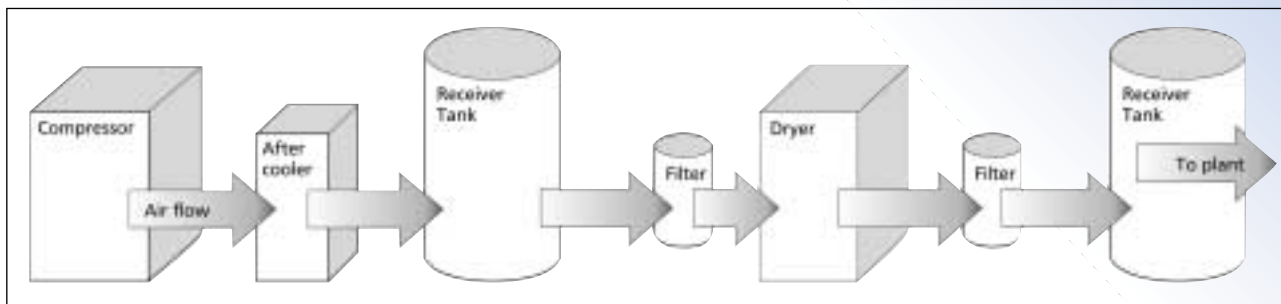
All CO devices with  
hard-coated protection  
against aggressive  
condensates



Separate  
power supply  
and controls  
for safe and  
easy handling

Reliable sensing

## SELECTOR DATA



Compressor HP	After Cooler	Receiver following after cooler	Pre Filter	Refrig Dryer	After Filter	Receiver Tank
up to 40	21	21	21	21	21	21
50	12	12	21	21	21	21
60	12	12	21	21	21	21
75	13	13	21	21	21	21
100	13	13	21	12	21	21
125	13	13	21	12	21	21
150	13	13	21	13	21	21
175	13	13	21	13	21	21
200	13	13	21	13	21	21
250	13	13	12	13	21	21
300	14	13	12	13	21	21
400	14	13	13	13	21	21
500	14	13	13	13	12	12
750	14	14	13	14	12	12
1000	14	14	13	14	13	13
1250	16	14	13	14	13	13
1500	16	14	14	14	13	13
1750	16	14	14	14	13	13
2000	16	14	14	14	13	13
2500	16	16	14	16	13	13
3000	16	16	14	16	14	14
4000	16	16	14	16	14	14
5000	16	16	14	16	14	14

Locate the horsepower of the compressor and read along that line for your location (receiver, filter etc.) and selection of correct size of **BEKOMAT®**.  
 For multiple compressors feeding to one receiver, add horsepower together.  
 For in plant filters, use afterfilter size column.  
 For other applications, contact BEKO.  
 For dryer climates, capacities can be increased, contact BEKO.

Subject to technical changes without prior notice; errors not excluded.  
 XP KA00 003 USA Edition: 10.00



certified by  
**entela**  
 Certified  
 according to CSA and UL standards  
 UL 8730 7171 CSA E 730.1

