



Products

BEKOMAT® 31 U | 32 U | 33 U



Condensate drainage



High efficiency, low effort

Profitable condensate drains with an easy-to-maintain basic concept



Saving resources, increasing efficiency: the BEKOMAT® principle

The generation and processing of compressed air always involves the formation of condensate which, in most cases, contains oil, is contaminated with dirt particles and disperses over the entire compressed-air network. A system problem which can cause costs and damage. In addition, condensate does not accumulate regularly but varies depending on the climate, temperature, season, time of day or on the capacity utilisation of the compressor.

The amount is the criterion

Unnecessary costs and damages during the generation of compressed air can only be avoided by level-controlled condensate drainage. BEKOMAT® condensate drains therefore function with a capacitive sensor. The intelligent electronics prevent

compressed-air losses and minimise the energy input. For this reason, the BEKOMAT® often pays off within half a year already, compared with devices with time-controlled drain valves.

Quick connections for more convenience

With the BEKOMAT® 31 U | 32 U | 33 U series, profitable and efficient condensate drainage is completed by an easy-to-maintain basic concept: the devices consist of only two or three (BEKOMAT® 33 U) units. All the components are coupled via quick connections. This allows for uncomplicated replacement and minimises the expenditure of time during installation and maintenance. In addition, with the service unit, only one spare part is required.

More than **3**
million worldwide

BEKOMAT®
Condensate drain



More than 3 million installations throughout the world make the electronically level-controlled BEKOMAT® condensate drain a recognised global industrial standard for safe and cost-effective condensate drainage.

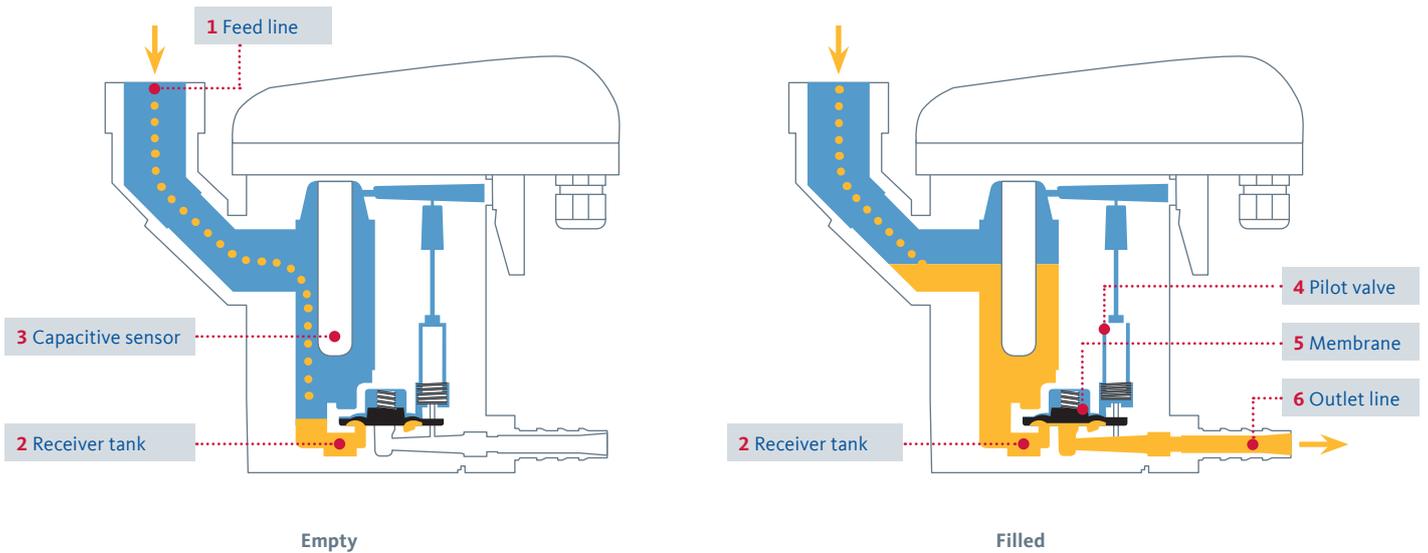


Condensate drainage without compressed-air losses:

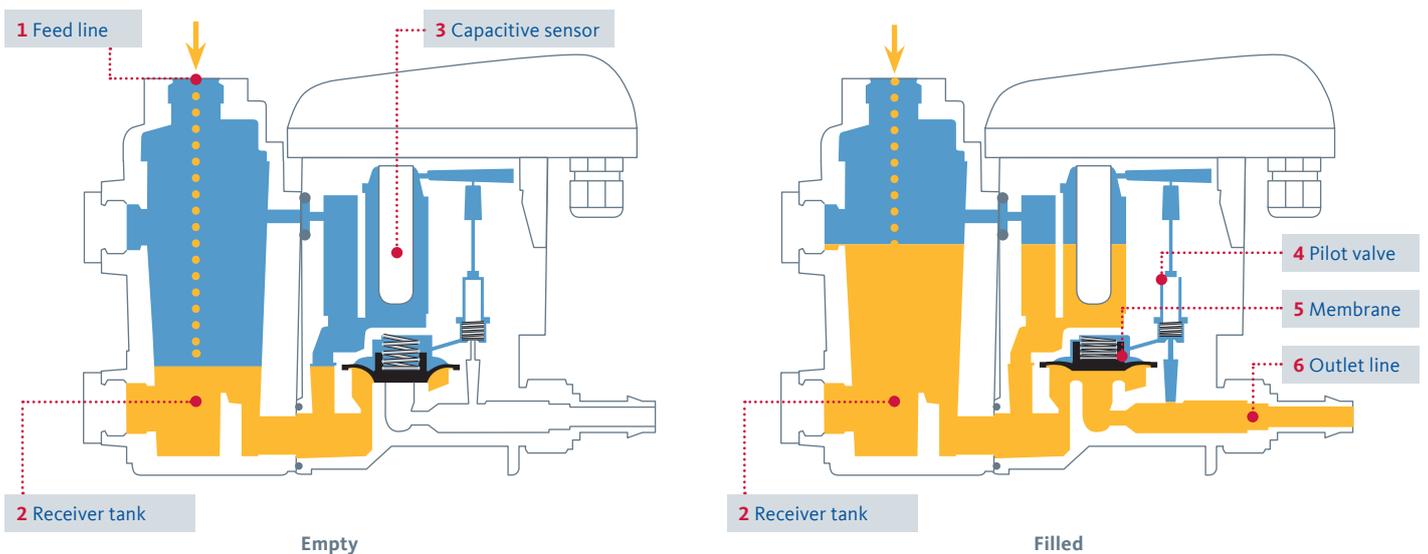
BEKOMAT® 31 U | 32 U | 33 U devices are also ideally suitable for installation in compressed-air dryers, for example.

Level-controlled condensate drainage: the operating principle of the BEKOMAT®

BEKOMAT® 31 U | 32 U



BEKOMAT® 33 U



Empty: The condensate flows into the BEKOMAT® via the feed line (1) and accumulates in the receiver tank (2). A capacitively functioning sensor (3) continuously records the filling level and sends a signal to the electronic control as soon as the container is filled.

Filled: The pilot valve (4) is activated and the membrane (5) opens the outlet line (6) for the discharge of the condensate. When the BEKOMAT® is empty, the outlet line is tightly reclosed in time before any unnecessary compressed-air losses can occur.



A plus for sustainability: the BEKOMAT® by comparison

If a float drain starts to leak, the leakages will sum up to more than 700 euros per annum. Compressed-air losses also occur when employing solenoid valves, as these do not discharge the condensate according to the demand but in a time-controlled manner. Expensively produced compressed air therefore escapes into the environment without being used when the valve opens, in particular during the cold season.

In contrast, the electronic level-control of the BEKOMAT® guarantees discharge without any loss of compressed air. This not only saves energy, and thus costs, but also CO₂ emissions which would otherwise occur during the generation of energy – a win-win situation both for the user and the environment.

+ Process-safe, reliable and efficient: the BEKOMAT® advantages at a glance

- | | | |
|--|---|---|
| Minimum expenditure of time during installation and maintenance | Service unit – advanced and safe | Drainage adapted to condensate quantity |
| Fully automatic monitoring, no unnecessary compressed-air losses | The sensor detects any type of condensate | Insensitive to impurities |

Quick connection between power supply and service unit



Efficiency with a flick of the wrist:

The intelligent concept for fast installation and maintenance

The construction of the BEKOMAT® 31 U | 32 U | 33 U consists of only two or three units with quick connections: the service unit with all the maintenance components, control unit, and condensate receiver tank. A service indicator will inform you in a timely manner about the maintenance to be performed or the replacement of the service unit. All wearing and pressurised parts are accessible with a flick of the wrist, not even requiring electrical installations or the mounting of seals or individual parts. The installation concept is also particularly user-friendly and time-saving:

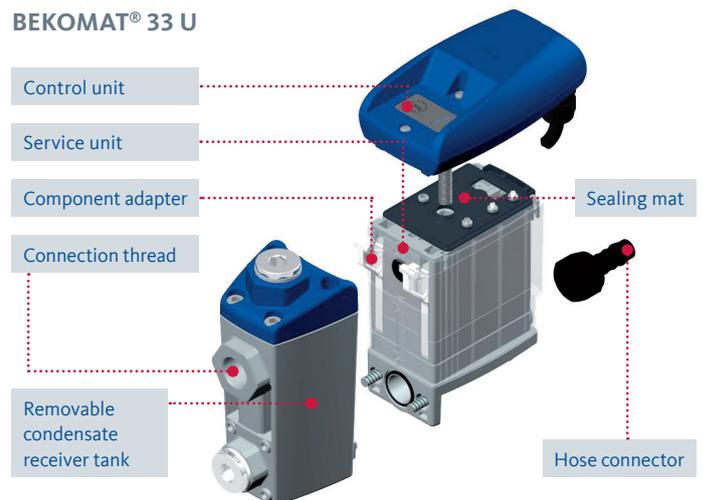
the device only needs to be electrically connected once. In addition, the robust housing is waterproof in accordance with IP67. Using an angle nozzle, BEKOMAT® 31 U | 32 U facilitates the connection with the compressed-air system.

When the service unit of the BEKOMAT® 33 U is disconnected from the power supply and the condensate receiver tank, the feed tank always remains in the compressed-air system. This saves time and effort during maintenance measures.

BEKOMAT® 31 U | 32 U



BEKOMAT® 33 U



Easy maintenance also for the BEKOMAT® 33 U





BEKOMAT® standard devices

BEKOMAT® special devices

In use everywhere: BEKOMAT® types and applications

Condensates can be aggressive, contaminant-laden or they can contain oil. The BEKOMAT® range of products offers the right solution for every case of application. The control elements and the control itself are impermeable to splash water, in accordance with IP65 or IP55.

BEKOMAT® standard devices BEKOMAT® 12 | 13 | 14 | 16 | 20

Compressors

At the aftercooler of the compressor, approximately 60 per cent of the condensate accumulates.

Tank

More than 10 per cent of the condensate accumulates at the tank.

Dryer

Refrigeration dryers separate up to 25 per cent of the condensate. Therefore, effective drying is only possible with a condensate drainage which is just as effective.

Filter

The BEKOMAT® 20 FM with filter management, which was especially developed for the monitoring of the filter service life, automatically determines the replacement of the filter element.

BEKOMAT® special devices BEKOMAT® 3 | 6 | 8 | 9

Multistage compressors

If the condensate from the intercoolers is not reliably drained in multistage compressors, it will reach the next compressor stage. The BEKOMAT® LA prevents damage through “drop attacks”, condensate build-up and water hammers.

Vacuum

Especially employable for condensate drainage in vacuum or pressureless systems at operating pressures from 0.1 to 1.8 bar (abs.).

Hazardous areas

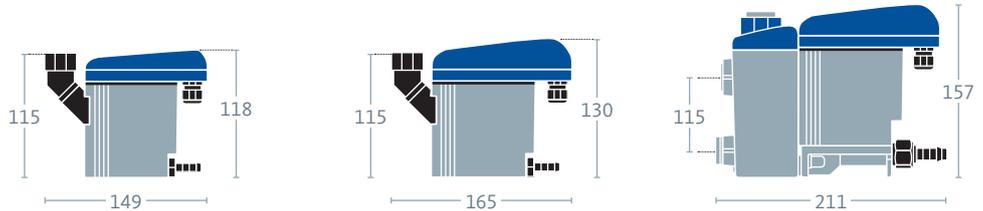
BEKOMAT® special devices are also available for the application in hazardous areas (II 2G EEX ib IIB T4 / explosion class II B, temperature class T4) where ignition sources need to be prevented. Permissible media are ethane, methane, city gas, diesel fuel, ethylene, propane, fuel oil and compressor oil.

Stainless-steel versions

For the drainage of particularly aggressive condensates, the BEKOMAT® is also available as a stainless-steel version.

Further information on the BEKOMAT® special device series is available in the form of brochures and data sheets.

BEKOMAT® standard devices 31 U | 32 U | 33 U



Dimensions in mm

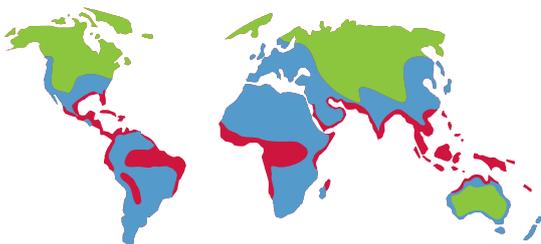
BEKOMAT®	31 U	32 U	33 U
Max. compressor performance (m³/min)	3 2,5 1,5	6 5 3,5	12 10 7
Max. dryer performance (m³/min)	6 5 3	12 10 7	24 20 14
Max. filter performance (m³/min)	30 25 15	60 50 35	120 100 70
Min. working pressure (bar)	0,8	0,8	0,8
Max. working pressure (bar)	16	16	16
Weight (kg)	0,8	1,0	1,65
Field of application	a/b	a/b	a/b
Use	Suitable for all drainage points		

Connections

Inlet	1 x G ½	1 x G ½	3 x G ½
Outlet (hose connector)	1 x G ¼	1 x G ¼	1 x G ½
Outlet (hose di)	8–10 mm	8–10 mm	13 mm

a: oil-containing condensate | **b:** oil-free, often aggressive condensate

The multi-voltage power supply unit can use voltages between 95 and 240 Vac or between 100 and 125 Vdc with 50 to 60 Hz.



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

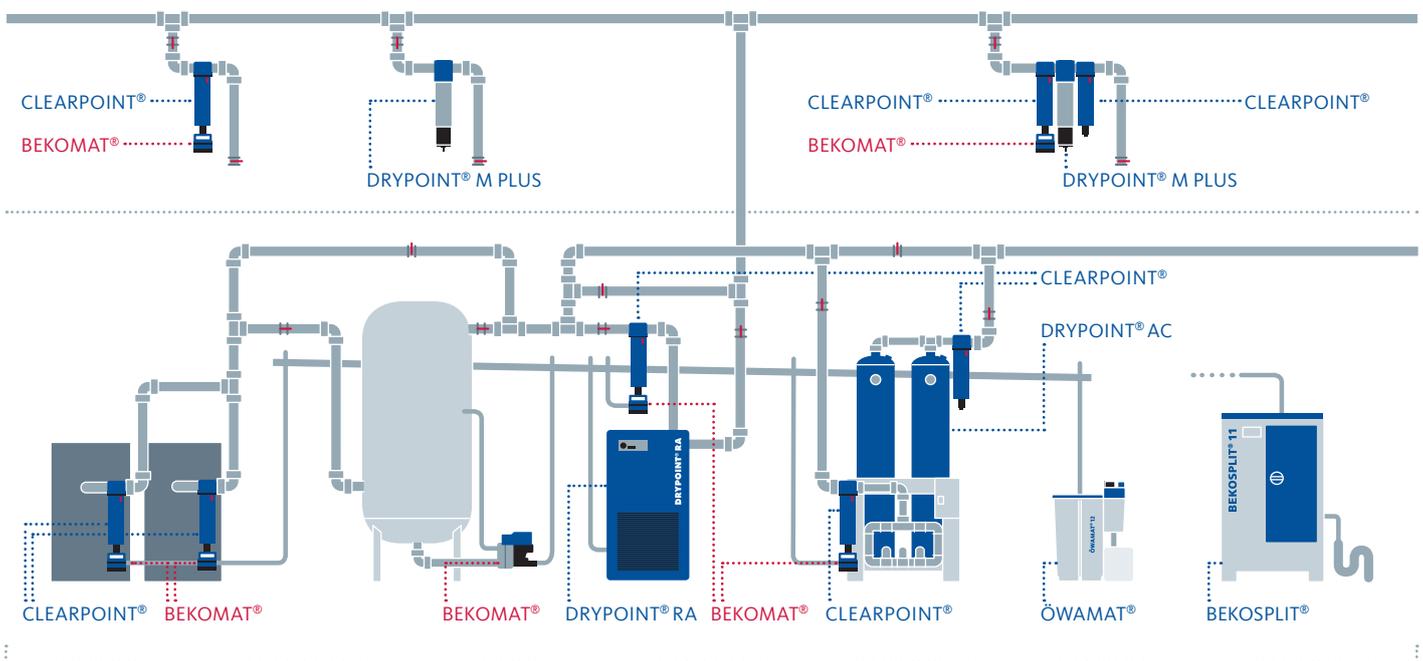
- e.g. Northern Europe, Canada, Northern USA, Central Asia
- e.g. Central and Southern Europe, Central America
- e.g. South-East Asian coastal regions, Oceania, Amazon and Congo region

Temperature range: +1 to +60 °C, optional +70 °C

Quality with a system concept. 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, drying and proven condensate technology, to instruments for quality supervision and measurement. From a simple compressed-air application to demanding process technologies.

Since its founding, **BEKO TECHNOLOGIES** 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 TECHNOLOGIES** stand for trend-setting technologies, products and services.



The product and system categories

 Condensate drainage BEKOMAT®	 Filtration CLEARPOINT®	 Measurement instrumentation METPOINT®
 Condensate processing ÖWAMAT® BEKOSPLIT®	 Drying DRYPOINT® EVERDRY®	 Process technology BEKOBLIZZ® BEKOKAT®

BEKOMAT® condensate drains for the electronically level-controlled drainage of condensate in the compressed-air/ compressed-gas system, operate without unnecessary compressed-air losses and with minimum energy costs.



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