

KONTREC® SEP



Oil-Water Separators

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The new concept for safe and economical treatment of condensates containing oil: KONTREC® SEP Oil-Water Separators

The operation of compressed air systems with oil lubricated compressors generates oil-rich condensate. This condensate must be drained from the compressed air system and must then be discharged ecologically, economically and in conformity with legislation. Since the oil content of the contaminated condensate may be up to 1000 mg/l it is classified as „wastewater containing mineral oil“ and cannot be simply discharged into the drainage system without pretreatment. Similarly, the current limits of 20 mg/l, and generally even lower in some regions, cannot be achieved by light liquid separators or simple gravity separators.



Treatment on-site

Since the condensate is composed of 99% water, direct treatment on-site is the most economical solution. After filtering through **KONTREC® SEP** oil water separator, the treated condensate can be discharged into the drainage system. The possibility of treatment by external service providers would also be safe and reliable but at the same time extremely expensive. Additional investment, e.g. in approved collection tanks, piping etc., would be required on top of the high disposal costs.

Part of the compressed air system

KONTREC® SEP is the safe and economical solution. It is installed as part of the compressed air system and reduces the oil concentration of the condensate to a permitted level. One special feature of **KONTREC® SEP** is that it can not only separate petroleum fractions from the condensate but also synthetic oils and polyglycols. It can also separate stable emulsions. It can therefore be used with all types of condensate drain.

KONTREC® SEP

The innovative and simple 4-stage concept

Normally, oil-water separators have the following negative features:

- Disproportionately large and heavy
- Expensive to manufacture, transport and maintain
- Rapidly severely fouled in operation
- Clogging of the activated carbon by particulate matter

Thanks to their new 4-stage concept, the **KONTREC® SEP** oil-water separators can be manufactured in highly compact construction. In addition, they are built using simple production processes and commercially available components, thereby keeping manufacturing and transport costs to a minimum and also significantly cutting the customer's investment costs. Moreover, excessive rapid fouling of the device is prevented by abandoning the conventional pressure relief method.

The 4 stages:

- 1** The primary filter provides a safe and clean pressure relief stage through a robust, permeable side wall that lets in the condensate under system pressure.
- 2** Free oil fractions are bound by an adsorbent filling of the primary filter.
- 3** Particulate matter is trapped in the primary filter, thereby preventing clogging of the activated carbon filter.
- 4** An activated carbon filter cleans the condensate of the last traces of oil. Only top-quality activated carbon is used for this stage.

A Condensate inlet

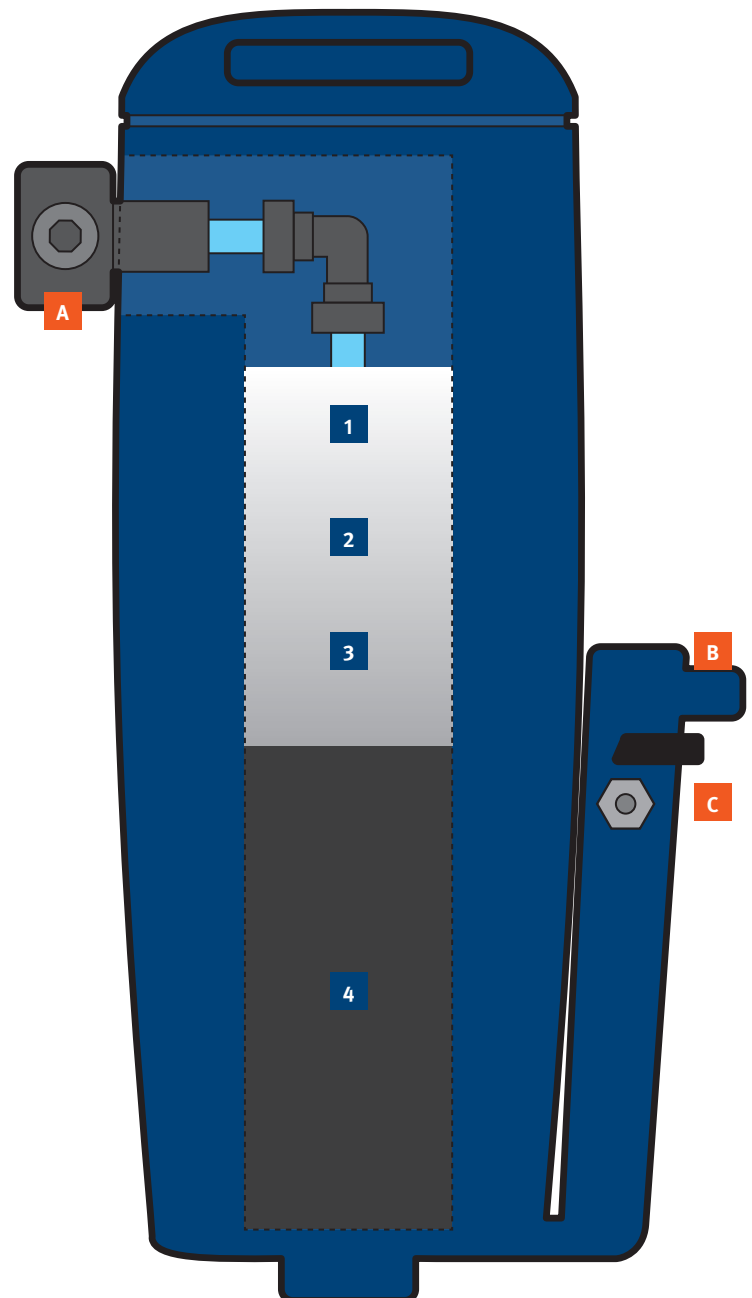
Up to four 1/2" connections are available. Optionally, up to eight 1/2" connections can be provided.

B Condensate outlet

Draining of the cleaned condensate

C Test valve

Using an optionally available test kit, the degree of contamination of the condensate can be monitored at the condensate outlet in order to determine filter saturation.





Condensate inlet



Condensate supply to the primary filter



Standard package

KONTREC® SEP including primary filter and activated carbon filter

Specifications

| Type | Capacity* | Connection | Connection | Width A | Height H | Depth T | Weight | Quantity | Max. oil capacity |
|----------|-----------|------------|------------|---------|----------|---------|--------|-------------|-------------------|
| | m³/min | Inlet | Outlet | mm | mm | mm | kg | Filter sets | Primary Filters |
| K-SEP 3 | 3 | 4 x 1/2" | 20 mm | 215 | 500 | 257 | 4 | 1 Stück | 2,2 litres |
| K-SEP 9 | 8,5 | 4 x 1/2" | 20 mm | 282 | 654 | 343 | 9 | 1 Stück | 5 litres |
| K-SEP 21 | 21 | 4 x 1/2" | 20 mm | 432 | 989 | 495 | 28 | 1 Stück | 16 litres |
| K-SEP 42 | 42 | 8 x 1/2" | 2 x 20 mm | 985 | 989 | 552 | 57 | 2 Stück | 32 litres |

*based on compressor capacity

Product specification

Features

KONTREC® SEP Oil-Water Separators, including filter sets and test kit

Residual oil content <10 mg/l

Separation of petroleum-based lubricants yes

Separation of synthetic lubricants* yes

Separation of polyglycol** yes

Housing colour blue

Housing material PE, fully recyclable

*at 50% of standard capacity, **at 25% of standard capacity

Filtersets

| Type | consisting of | |
|----------|-----------------|--------------------------|
| | Primary Filters | Activated Carbon Filters |
| K-KIT 3 | 1 X | 1 X |
| K-KIT 9 | 1 X | 1 X |
| K-KIT 21 | 1 X | 1 X |
| K-KIT 42 | 2 X | 2 X |

