KONTREC® KON-S 75 - 1000
Operating manual
Oil-water separator

Rev. 02_25

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1 General information

Compressed air condensate is a complex mixture of water, oil, oxides and chemicals. The condensate produced in a compressor system is determined by many factors: Compressor type, lubricant used, maintenance of the compressor, utilisation of the compressor, ambient conditions at the place of use...

For proper functioning, oil/water separators must be correctly designed taking the above factors into account.

KONTREC KON-S... series oil-water separators are suitable for use with all types of compressors and steam traps (level-controlled, time-controlled traps and float traps).

The various KONTREC KON-S... models differ in terms of the maximum oil quantities that can be absorbed and the treatment of the different condensate compositions (mineral or synthetic lubricants, condensate emulsions...). As the residual oil content after treatment by the oil-water separator is below 10 mg/litre, the water content (approx. 99%) can be discharged into the sewage system without hesitation.

The quality of the purified water must be checked for compliance with local regulations. The test valve can be used for this together with the control glass. The water quality should be checked every week. If the purified water does not meet the required minimum standard, a new filter set should be installed immediately. Contaminated filters are classified as hazardous waste and must be disposed of by a licensed waste disposal company.

KONTREC KON-S ... oil/water separators are not pressurized equipment.

These oil/water separators have building authority approval from the German DIBT.

Type approval number: Z-83.5-94

2 Safety instructions & warnings

The KONTREC KON-S... series oil/water separators are manufactured according to the latest state of the art and in compliance with current safety regulations. However, operation, maintenance, installation and servicing, as well as transport and installation may involve additional hazards. Compressed air in particular can lead to serious injury or death if the safety regulations are not observed. For this reason, only specialised and safety-trained personnel should work with it.

ATTENTION

- Observe the general and applicable safety guidelines!
- Prevent unintentional operation of the oil-water separator!
- Do not carry out any work on the oil-water separator or install/dismantle it as long as the oil-water separator is pressurised!

The general safety guidelines and requirements must be observed during operation or maintenance. International users should pay attention to the regulations that are prescribed in the country of operation. Most accidents that occur during the operation of oil/water separators are due to basic safety guidelines being disregarded and relevant precautions not being taken.

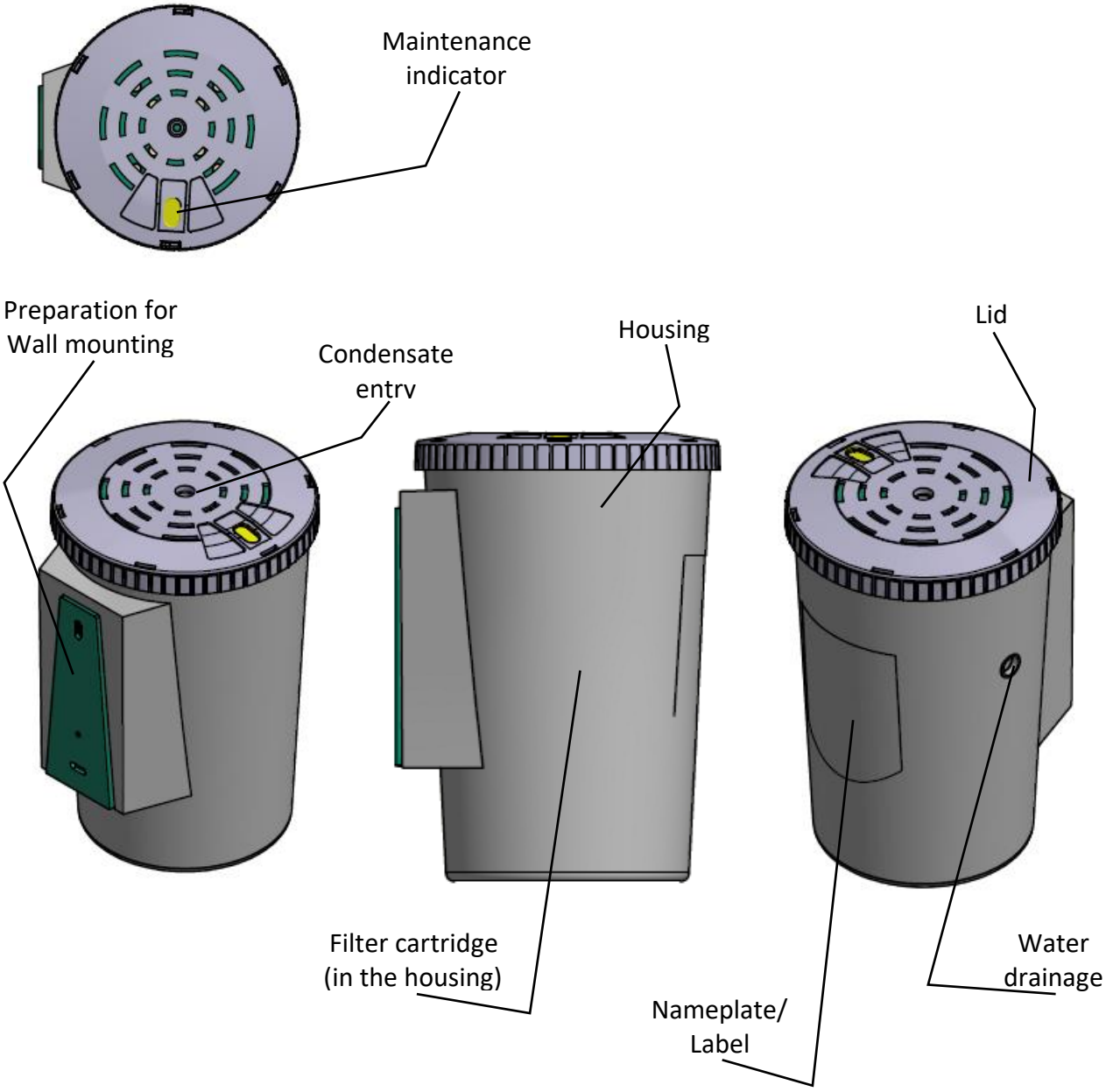
Improper operation or maintenance of the oil/water separator can be dangerous and lead to injury or death.

Observe the warnings in the operating instructions and the possible dangers that exist on site, even if these are not specified in the operating instructions.

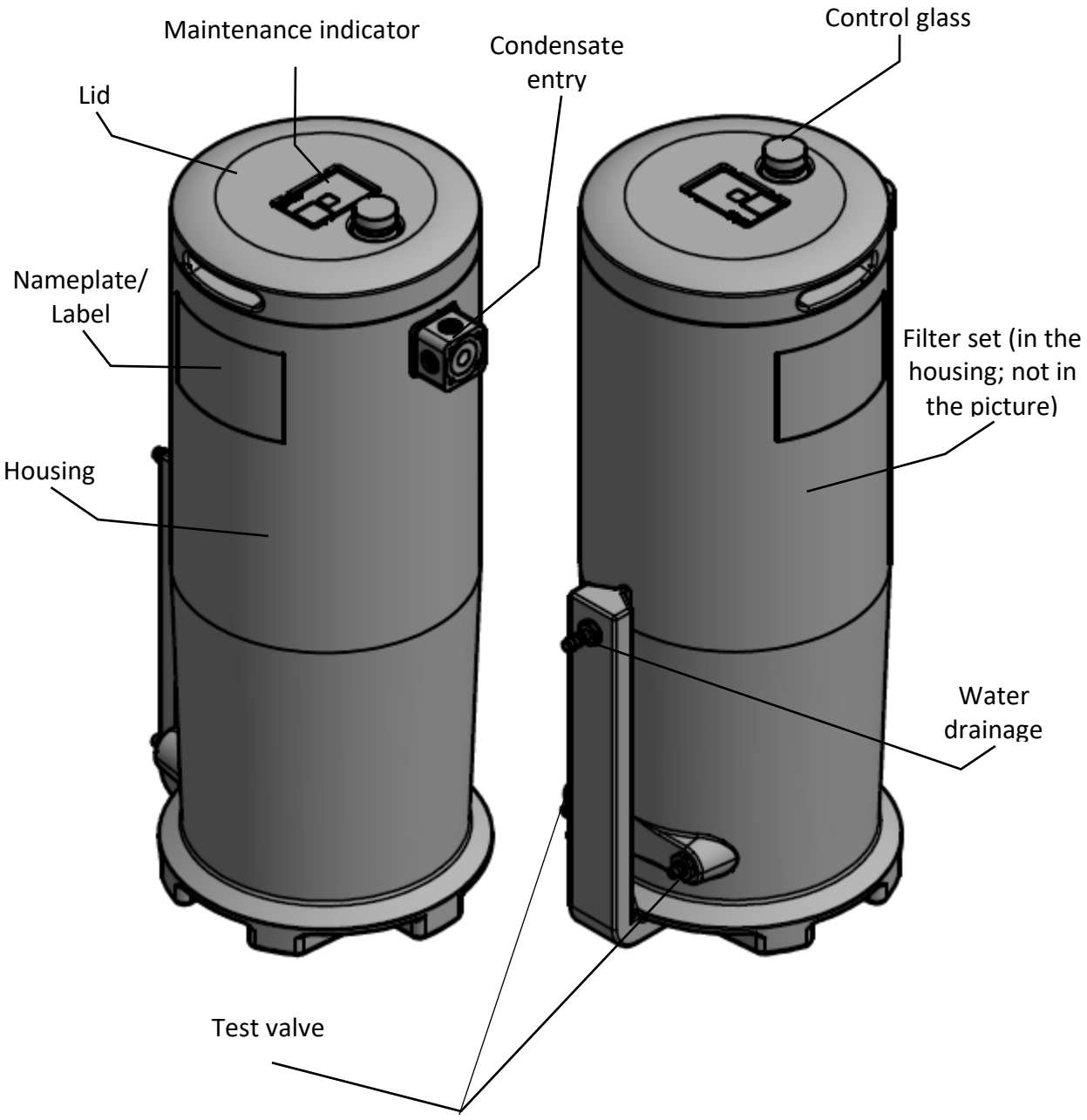
If an operating procedure, an individual part of the oil/water separator or a working method is used that is not recommended by the manufacturer, this may invalidate any warranty.

3 Device overview

3.1 KON-S 75[-K] device overview



3.2 Device overview KON-S 150[-K] - KON-S 1000[-K]



4 Assembly

4.1 Installation of oil-water separator KON-S 75[-K]

Check scope of delivery

Model	KON S75[-K]
Assembled oil-water separator	1
Wall bracket (mounting plate)	1
Maintenance indicator	1
Operating manual	1

Select a suitable fastening

Mount the oil-water separator on a wall or other vertical surface
using a wall bracket.
Avoid strong vibrations and ensure that the appliance is standing upright.
Secure the bracket with screws.
Depending on the mounting method, slide the oil/water separator downwards onto the conical wall bracket.

Pre filling with water

Before using the oil-water separator fitted with the filter cartridge for the first time, fill it with tap water.

Check cover

Check that the lid is securely in place. Press the cover down with both hands and turn it slightly clockwise until it is firmly seated

Connection

Connect the water drain point(s) securely to the inlet connector using a 1/4" nylon hose.
Fix the inlet hose in a fixed position near the oil/water separator to minimise hose deflection.
Connect the outlet with an 8 mm hose so that the condensate can drain unhindered by gravity into a sewer or collection vessel.

Activating the maintenance indicator Press the bulge on the back of the indicator together until it is flat. Remove the indicator from the adhesive strip, place it on the outer end of the recess and press it down. The colour gradient on the scale indicates the time (up to 12 months) since installation or the last maintenance.	
Check system drains All oil/water separators work best with loss-free condensate drains. However, time-controlled arresters also work very well, provided they are set correctly. The shortest possible opening times of ~ 0.5 seconds and short cycles of around 2 minutes should be configured.	
Filter change Replace the filter cartridge after a maximum of 3000 operating hours or earlier if necessary.	

4.2 Mounting oil-water separator KON-S 150[-K] - KON-S 1000[-K]

Check scope of delivery

Model	KON S150[-K]	KON S450[-K]	KON S1000[-K]
Housing and cover	1	1	1
Felt bag	1	1	1
Filter bag	2	2	3
Retaining clips	1	1	2
Pipe and elbow	1	1	1
Control glass KON-KG	1	1	1
Hose nozzle	1	1	1
Blanking plug	3	3	3
Operating manual	1	1	1

Mesh bag
Insert the mesh bag(s) into the housing and set aside. The main filter medium of the KON-Kit 1000[-K] consists of 2 parts to minimise the lifting effort required to remove it when wet.

Retaining clips
Insert one (KON-S150[-K] / KON-S450[-K]) or two (KON-S1000[-K]) retaining clips with the bent ends into the matching recesses of the inner housing.

Felt bag
Insert the felt bag and connect the inlet pipe to the pre-installed manifold block by connecting the black pipe to the elbow with pressure fit. Ensure that the pipe is inserted as far as possible into each connector.

Inlet connection
Connect the condensate inlet to the pre-installed manifold. Use the optional blanking plugs supplied to seal connections that are not required.

Outlet connection Supplied hose end or other preferred connection piece for connecting to the brass threaded inserts of the oil/water separator. Two sampling points (test valves) ensure that the quality of the condensate can be tested regardless of the installation position.	
Pre filling with water Before using the oil-water separator fitted with the filter sets for the first time, fill it with tap water.	
Activation of maintenance indicator Press the maintenance indicator firmly against the cover to activate the red dye inside the indicator. The progression of the colour on the index provides information about the time (up to 12 months) since installation or last maintenance.	
Always ensure that the condensate drainage pipe slopes downwards towards the drain without any restrictions. Always discharge condensate into a drain or the sewerage system and never into the rainwater drain or groundwater.	

5 Maintenance

5.1 Changing the filter set on the KON-S 75[-K]

Before starting work, make sure that your compressed air system and other equipment are safe

The maintenance indicator provides information on the elapsed time (up to 12 months) since the appliance was installed or since the last maintenance. If the expected maximum service life is approaching, and especially after 12 months, a filter set should be replaced even for applications with low usage. The functionality of the diffuser, on the other hand, should be checked regularly.

<table>
<tr><td>Check filter set scope of delivery<table><tr><th>Model</th><th>KON
S75 [-K]</th></tr><tr><td>Filter cartridge</td><td>1</td></tr><tr><td>Foam disc</td><td>1</td></tr><tr><td>Protective bag (polyethylene)</td><td>1</td></tr><tr><td>Maintenance indicator</td><td>1</td></tr></table></td><td>-</td></tr>
<tr><td colspan="2">Disconnect the condensate feed from the oil/water separator.
If the oil/water separator is still attached to the wall bracket, hold the cover with both hands, turn it anticlockwise and put it aside.</td></tr>
<tr><td colspan="2">Carefully lift the filter cartridge and the foam disc out of the inside of the main housing and allow to drain.
Fill the cartridge and foam disc into the hard-wearing polybag and seal it.</td></tr>
<tr><td>Take a new cartridge and lower it into the oil/water separator housing so that the recess on the side of the cartridge is above the outlet nozzle. Position the cartridge in the housing and set it down so that the base of the housing bottom slides exactly into the recess at the bottom of the cartridge. If necessary, after draining the cartridge, move it back and forth slightly to find the correct position.</td><td>  </td></tr>
<tr><td>Place the new foam disc on top of the cartridge.
Place the cover in the correct position as shown in the illustration opposite and put it on. Turn the cover clockwise until it is aligned as shown in the illustration opposite.</td><td>  </td></tr>
</table>

Ensure that the nylon line is fully inserted into the plug connection.
Replace the maintenance indicator and press firmly against the cover to activate the red dye inside the indicator.
The device is now ready for operation.
Replace the cartridge after a maximum of 3000 operating hours or earlier if necessary.
The used cartridge is waste containing oil and must be disposed of in accordance with local regulations.

5.2 Changing the filter set for KON-S 150[-K] - KON-S 1000[-K]

Before starting work, make sure that your compressed air system and other equipment are safe

The maintenance indicator provides information on the elapsed time (up to 12 months) since the appliance was installed or since the last maintenance. If the expected maximum service life is approaching, and especially after 12 months, a filter set change should be carried out even for applications with low usage. The functionality of the diffuser, on the other hand, should be checked regularly.

Check filter set scope of delivery

Model	KON S150[-K]	KON S450[-K]	KON S1000[-K]
Felt bag	1	1	1
Filter bag	2	2	3
Protective bag (polyethylene)	1	1	1
Maintenance indicator	1	1	1

Remove the cover and disconnect the black lines from the filter and the intake manifold. Carefully remove the upper felt bag and place it in the protective bag (polythene). Remove the retaining clip(s) above the main filter. Slowly remove the main filter(s) and allow the condensate to drain into the oil/water separator. Place the old main filter in the protective bag.	
The new set is installed in the reverse order to removal. When inserting the spring holders, only light pressure should be exerted on the top of the bag. The moulded ends bulge downwards. Ensure that the black lines at the ends are fully inserted into the connections. Check all connections at the inlet and outlet and ensure that the outlet hose is flowing freely.	
Replace the maintenance indicator and press firmly against the cover to activate the red dye inside the indicator. The device is now ready for operation. The used filters in the protective bag are oily waste that must be disposed of in accordance with local regulations.	

5.3 Condensate quality inspection

Before starting work, make sure that your compressed air system and other equipment are safe

Quality inspection Remove the control glass from the usual storage location in the housing cover. Fill halfway with condensate from one of the test valves near the base of the housing.	
Testing the sample Hold the control glass against a light source. If the water in the glass appears cloudier than the grey reference strip on the glass label, the filter set should be replaced. This is an indication of a progressive deterioration in filter performance and not a specific determination of the oil content.	

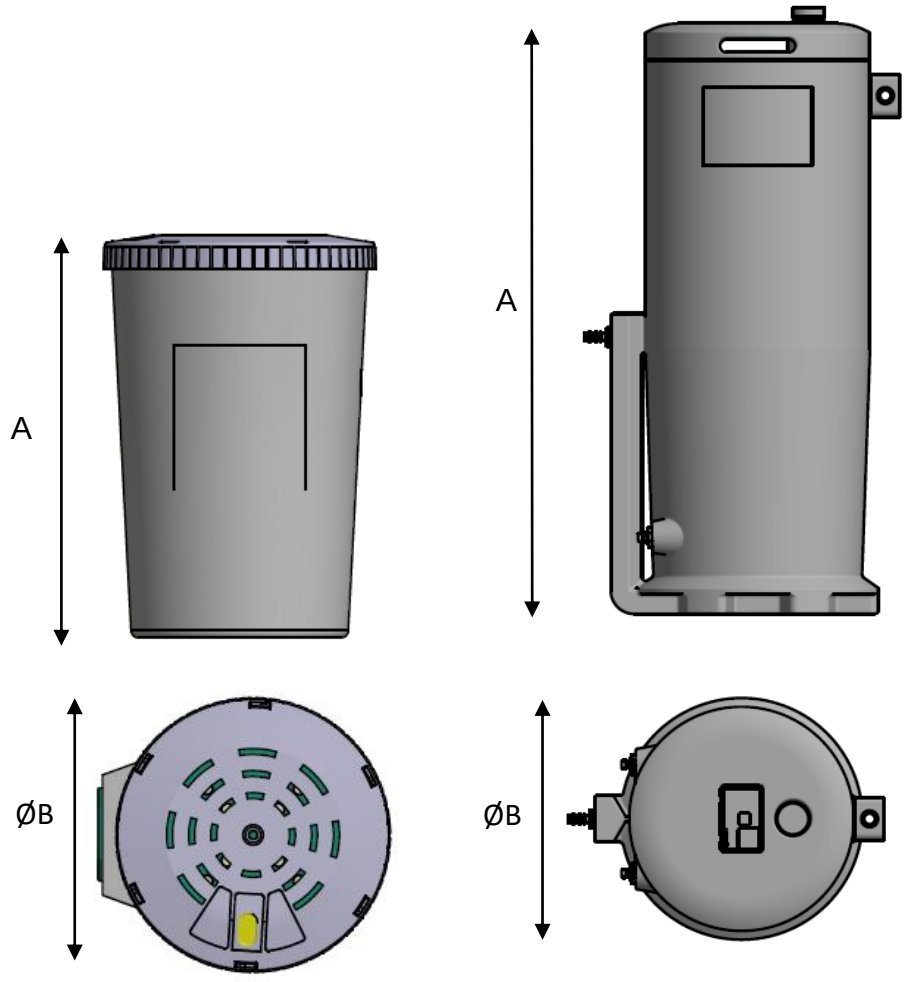
The water quality should be checked every week.	

6 Technical data

Model	KON-S 75[-K]	KON-S 150[-K]	KON-S 450[-K]	KON-S 1000[-K]
Max. Compressor capacity (for 1-shift operation)	75 cfm	150 cfm	450 cfm	1000 cfm
Max. Oil absorption	1.5 litres	3.1 litres	9.2 litres	20.4 litres
Residual oil content	< 10 mg/l			
Input connection	6 mm (hose)	4 x ½"		
Output connection	8 mm (hose)	1 x ½"	1 x 3/4"	
Control glass (KON-KG)	No	Yes		
Test valve	No	Yes	Yes	Yes
Housing material	ABS	PE	PE	PE
Fully recyclable	Yes			
Colour housing & cover	Grey			

7 Dimensions

Schematic diagrams - not to scale



KON-S 75[-K] KON-S 150-1000[-K]

Model	A [inches]	ØB [inches]
KON-S 75[-K]	11	8
KON-S 150[-K]	23	9
KON-S 450[-K]	31	12
KON-S 1000[-K]	39	16

8 Product variants

Condensate	Mineral lubricants			
Oil-water separator	KON-S 75	KON-S 150	KON-S 450	KON-S 1000
Matching filter set	KON-KIT 75	KON-KIT 150	KON-KIT 450	KON-KIT 1000

Condensate	Synthetic lubricants and/or Stable condensate emulsions			
Oil-water separator	KON-S 75-K	KON-S 150-K	KON-S 450-K	KON-S 1000-K
Matching filter set	KON-KIT 75-K	KON-KIT 150-K	KON-KIT 450-K	KON-KIT 1000-K