

## Maintenance schedule Visatron VN2020

By conducting regular maintenance, the product will have a long service life. If the maintenance intervals are not observed, the oil mist detector may fail prematurely. It is essential that you follow the given sequence for the work.

**NOTE: All maintenance steps should be performed while engine is stopped!**

	What to do:	Interval:	Part kit:
<b>Procedure 1</b>	<ul style="list-style-type: none"> <li>M1   Clean infrared sensors in measuring head and replace seal on inspection cover.</li> <li>M3   Exchange filter in pressure regulator and check negative pressure in measuring head.</li> <li>M5   Functional test with smoke test to be carried out.</li> </ul>	Every 6 months or 4 000 operating hours. (whatever comes first)	<b>Maintenance kit for VN2020 –</b> Part no.: 155006  <b>Cleaning kit –</b> Part no.: 151482  <b>Smoke test kit –</b> Part no.: 151780
<b>Procedure 2</b>	<ul style="list-style-type: none"> <li>M1   Clean infrared sensors in measuring head and replace seal on inspection cover.</li> <li>M2   Exchange seal on connection box and check bellows and suspension system between measuring head and base plate for damage.</li> <li>M3   Exchange filter in pressure regulator and check negative pressure in measuring head.</li> <li>M4   Clean suction/pipe system with compressed air.</li> <li>M5   Functional test with smoke test to be carried out.</li> </ul>	Every 12 months or 8 000 operating hours. (whatever comes first)	<b>Service kit for VN2020 –</b> Part no.: 155004  <b>Cleaning kit –</b> Part no.: 151482  <b>Smoke test kit –</b> Part no.: 151780
<b>Procedure 3</b>	<p><b>Main two-year service (2 years) by authorized and certified Schaller personnel only!</b></p> <ul style="list-style-type: none"> <li>Service and test of complete Oil Mist Detector installation incl. software check and upgrade if necessary.</li> <li>Replacement of mayor part kit for VN2020.</li> <li>Service certificate to be approved by authorized personnel!</li> </ul> <p><b>Please contact us for authorized personnel at: <a href="mailto:epp@epp.no">epp@epp.no</a></b></p>	Every 24 months or 16 000 operating hours. (whatever comes first)	<b>Service kit for VN2020 –</b> Part no.: 155004  <b>Cleaning kit –</b> Part no.: 151482  <b>Smoke test kit –</b> Part no.: 151780

**This system requires service by authorized Engine Protection Partner/Schaller Automation personnel every 2 years to ensure that the complete oil mist detector installation meet the makers requirements.**

## M1 | Clean infrared sensors in measuring head and replace seal on inspection cover.



1. Loosen the captive screws on the inspection cover.



2. Open the inspection cover.



3. Use the cleaning fluid and cotton sticks.



4. Clean the glass on the transmitter diode on the right side until it is clean.



5. And clean the diode until the glass is clean.



6. Clean the surface and replace the gasket for inspection cover.



7. Close the inspection cover and hand tight the captive screws.

## M2 | Exchange seal on connection box and check bellows and suspensions.



1. Disconnect the measuring head from the base plate.



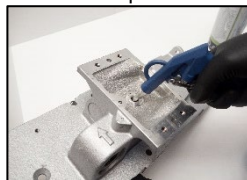
2. Remove the base plate from protection cover base.



3. Unscrew the 4 pc. mounting bolts on the pipe connection box.



4. Clean the base plate for oil and dirt.



5. Use compressed air to the air channels into the base plate.



6. And into the ejector inlet and outlet chamber.



7. Clean the ejector in and out nozzle free for oil and dirt.



8. Replace the valve box gasket.



9. Install the pipe connection box.



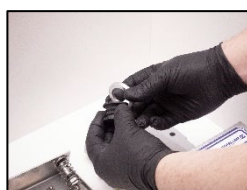
10. Unscrew the 2 pc. screws, and remove the fastening ring for the upper bellow.



11. Check the upper bellow for damage, replace if necessary.



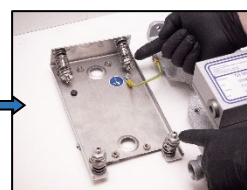
12. Unscrew the 2 pc. screws and remove the fastening ring for the lower bellow.



13. Check the lower bellow damage, replace if necessary.



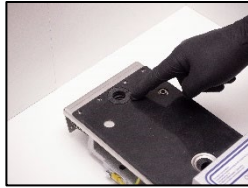
14. Reinstall the fastening ring and ensure correct position of the bellows.



15. Check the upper and lower suspensions for any damage, replace if necessary.



16. Reinstall the vibration damping plate.



**17.** Ensure that position of the flexible bellows are correct.



**18.** Install the measuring head and tighten the captive screws with a torque of 4,5 Nm.

### M3 | Replace the filter in pressure regulator and check/adjust negative pressure in measuring head.



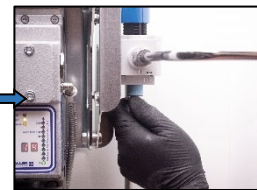
**1.** Close the air pressure.



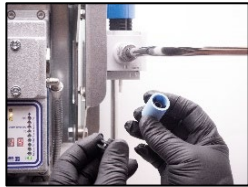
**2.** Hold the filter cage one hand and pull the blue tab down with your thumb.



**3.** Turn the filter cage clockwise and pull out downwards.



**4.** Unscrew the black plastic disc and remove the dirty filter.



**5.** Screw in the new filter counter clockwise and make sure that it is aligned for installation.



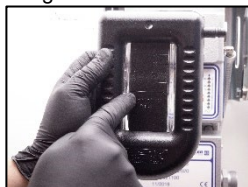
**6.** Reinstall the filter cage.



**7.** Install the quick connection.



**8.** Fill in slacked water in the u-tube manometer.



**9.** To the middle line.



**10.** Install the u-tube manometer.



**11.** Adjust the air pressure to 55.00 – 65.00 mmWC!



**12.** Disconnect the u-tube manometer and install the plug for inspection cover.

### M4 | Clean suction/pipe system with compressed air.



**1.** Loosen the main pipe connection.



**2.** Remove the pipe from oil mist detector.



**3.** Blow compressed air into the main pipe for few seconds so collected oil will drain back to the engine.

**The procedure to be done on the right and left side!**



**M5 | Functional test with smoke test to be carried out.**



### CAUTION!

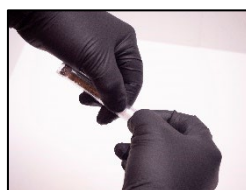
**The oil mist alarm will now be triggered, showing alarm LED lighting up and the engine will be shutting down/reducing the RPM.**



1. Remove the plug in the inspection cover.



**2.** Install the test plug at the inspection cover.



**3. Bend the smoke house until tube content break.**



4. Pull the hose into the test pump.



**5. Pump smoke until the oil mist alarm is realised.**



**6.** When the oil mist concentration is high, the LED indicator will increase and at 70% opacity of the set alarm threshold, the “Oil Mist Alarm” LED turns on. At 100% opacity relative to the set alarm threshold, the “Oil Mist Alarm” LED will start flashing. If the opacity subsequently decreases, the alarm status is saved. The opacity is displayed on the LED level indicator on the right. If the top LED comes on, the opacity has reached/exceeded the oil mist alarm threshold. The alarm condition can only be reset by pressing the oil mist alarm reset button.

7. Each extraction point is now checked individually. To do this, hold the smoke tube directly under the suction funnel of the individual extraction point and perform at least 3 – 5 pumping strokes. The resulting smoke should now be drawn out directly via the suction funnels. After no more than 10 seconds, the oil mist detector should indicate an alarm on the measuring head display. The time to display varies depending on the engine type and the installation kit.