

Version 1.1, 09/2020

## VISATRON VN93

Complement information  
to operating manual  
V2.5 11/2015

## Maintenance procedures VISATRON VN93



**Engine Protection Partner AS**  
Schaller Automation Scandinavia & Baltics

**SCHALLER**  
AUTOMATION



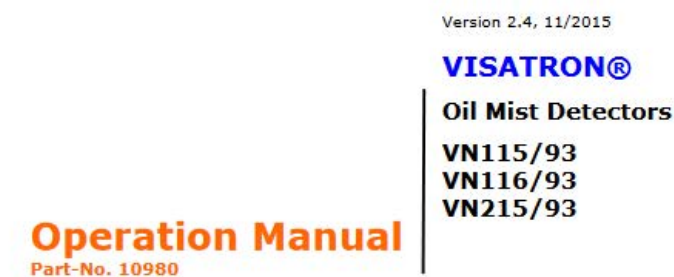
# 1 Maintenance

## 1.1 Maintenance cycle for a safe operation

The following table lists the maintenance cycles for the retrofit kit for pressure regulator. By conducting regular maintenance, Schaller Automation guarantees that 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.

All sequences of maintenance and troubleshooting are detailed in our operating manual Version 2.4 11/2015 available on our homepage

[https://schaller-automation.com/en/wp-content/uploads/sites/2/2018/10/Manual\\_VN93-V2.4-English-1.pdf](https://schaller-automation.com/en/wp-content/uploads/sites/2/2018/10/Manual_VN93-V2.4-English-1.pdf)



IACS UR M67 type approved

**SCHALLER**  
**AUTOMATION**



## Complement maintenance instruction VN93

| Step | Description                                                                                                                                                                                                                         | Interval (whatever comes first) |       |       |       |        |        |        |        | Operating Manual section | Required Parts / Tools                                                                                                                                      |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------|-------|-------|--------|--------|--------|--------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Hours                                                                                                                                                                                                                               | 2.000                           | 4.000 | 6.000 | 8.000 | 10.000 | 12.000 | 14.000 | 16.000 |                          |                                                                                                                                                             |
|      | or Months                                                                                                                                                                                                                           | 3                               | 6     | 9     | 12    | 15     | 18     | 21     | 24     |                          |                                                                                                                                                             |
| 1    | <b>Check negative pressure in Measuring Head:</b><br>- under 55 mmWC -> adjust pressure between 55 mmWC and 65 mmWC -> o. k.<br>- between 65 mmWC and 85 mmWC -> adjust pressure<br>- over 85 mmWC -> check pressure regulator unit | X                               | X     | X     | X     | X      | X      | X      | X      | 3.1, p 29                | <b>270532</b> U-Tube Gauge Kit, or <b>151800</b> Digital pressure gauge                                                                                     |
| 2    | Clean infrared filters in measuring head                                                                                                                                                                                            | X                               | X     | X     | X     | X      | X      | X      | X      | 5.1, p 43                | <b>151482</b> Cleaning Kit                                                                                                                                  |
| 4    | Exchange air filters and fresh air restrictor in measuring head                                                                                                                                                                     | X                               | X     | X     | X     | X      | X      | X      | X      | 5.2, p 43                | <b>151490</b> Maintenance Kit                                                                                                                               |
| 5    | Perform functional test with test glass                                                                                                                                                                                             | X                               | X     | X     | X     | X      | X      | X      | X      | 7.1, p 48                | <b>270453</b> Test Plate Kit                                                                                                                                |
| 6    | Exchange air filters in Pressure Regulator Unit                                                                                                                                                                                     |                                 | X     |       | X     |        | X      |        | X      | 5.3, p 44                | <b>151490</b> Maintenance Kit                                                                                                                               |
| 7    | Exchange filter cartridge of water separator (VNXXX/93)                                                                                                                                                                             |                                 | O     |       | O     |        | O      |        | O      | 8.3, p 61                | <b>273119</b> filter cartridge for water separator                                                                                                          |
| 8    | Clean suction system with compressed air - <b>ATTENTION, do not forget to refill the siphon blocks</b>                                                                                                                              |                                 |       |       | X     |        |        |        | X      | 3, p 29-33               | Compressed Air                                                                                                                                              |
| 9    | Check bellows for cracks and suspensions between measuring head and baseplate                                                                                                                                                       |                                 |       |       | X     |        |        |        |        |                          |                                                                                                                                                             |
| 10   | Check scavenging air outlet behind the control cover manually (low-right) by feeling the air stream                                                                                                                                 |                                 |       |       | X     |        |        |        | X      |                          |                                                                                                                                                             |
| 11   | Perform functional test of entire OMD system with smoke generator                                                                                                                                                                   |                                 |       |       |       |        |        |        | S      |                          | <b>Schaller Service</b><br><b>151067</b> smoke generator (110V) resp. <b>150740</b> (230V)                                                                  |
| 12   | Overhaul complete OMD, incl. exchange bellows and suspension                                                                                                                                                                        |                                 |       |       |       |        |        |        | S      |                          | <b>Schaller Service</b><br><b>151482</b> Cleaning Kit Service Kit, as per model:<br>VN115 - <b>151489</b><br>VN116 - <b>151487</b><br>VN215 - <b>151488</b> |



### Legend

X – Work to be done by crew

O – Optional, only if optional water separator is installed

S – Executed only by authorized Schaller service team or partners

## 1.2 Maintenance and service kits VN93

### 1.2.1 Maintenance kit 151490



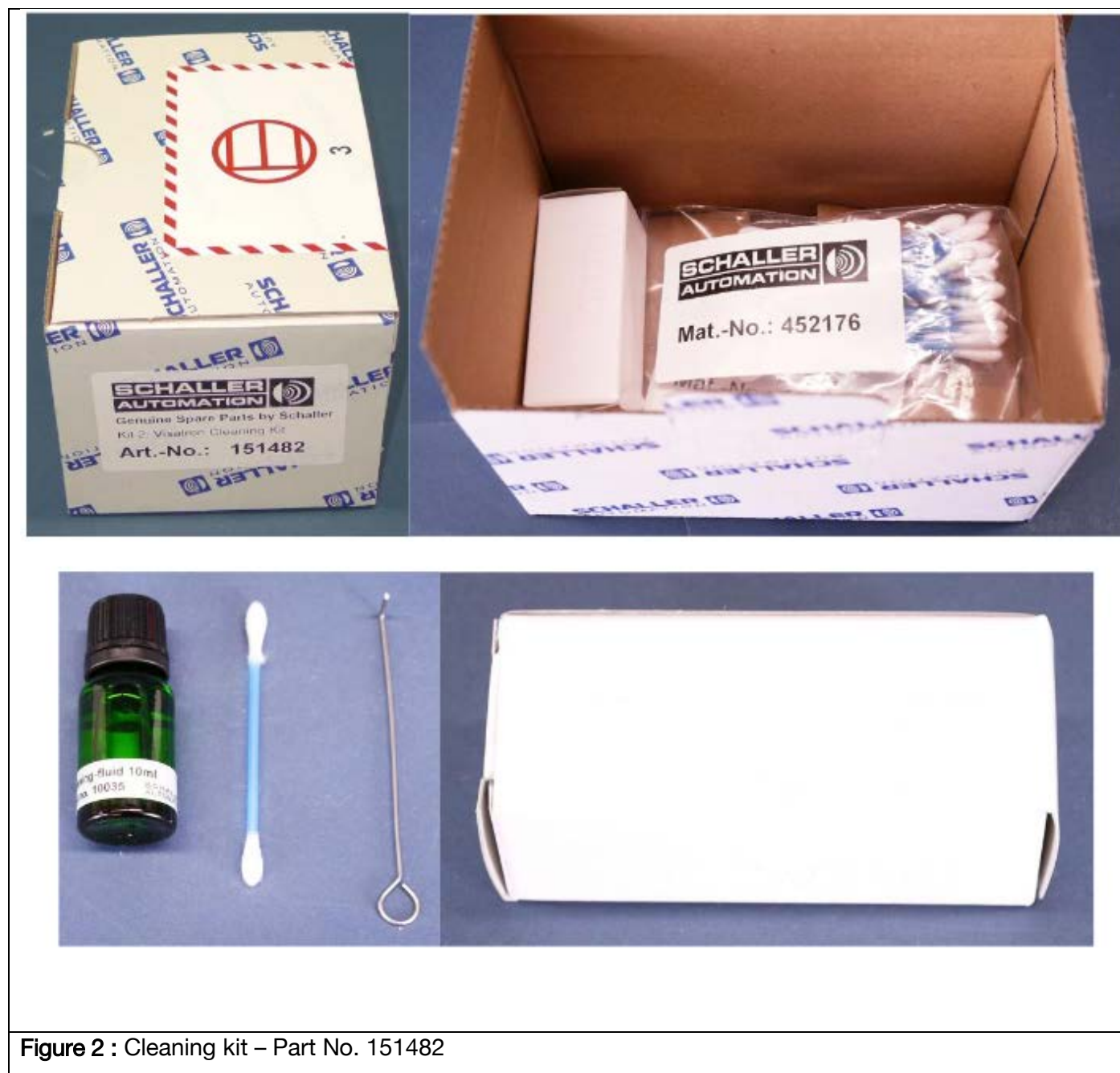
## Complement maintenance instruction VN93

| Material | Description                            | Qty | Unit | Note                          |
|----------|----------------------------------------|-----|------|-------------------------------|
| 365206   | Filter for pressure regulator unit     | 3   | PC   | For pressure regulator 151072 |
| 365197   | Scavenging air filters                 | 10  | PC   |                               |
| 365208   | O-RING 9,0x4,5 NBR70, pressure reducer | 3   | PC   | For pressure regulator 151072 |
| 366717   | Filter cartridge 5µm                   | 2   | PC   | For pressure regulator 366709 |
| 355576   | Gasket for inspection cover VN.../93   | 2   | PC   |                               |
| 271899   | Scavenging air insert (2 pcs per bag.) | 2   | PC   | 4 x 360251                    |

**Table 1:** content of maintenance kit 151490



### 1.2.2 Cleaning kit 151482



| Material | Description                       | Qty | Unit | Note |
|----------|-----------------------------------|-----|------|------|
| 190003   | Cleaning needle                   | 1   | PC   |      |
| 452176   | Cotton sticks to clean IR-filters | 20  | PC   |      |
| *        | Bottle with cleaning fluid        | 1   | PC   |      |

**Table 2:** content of maintenance kit 151482

### 1.2.3 Service kit 151489 VN115/93



Figure 3 : Service kit VN115/93 – Part No. 151489

| Material | Description                                | Qty | Unit | Note                          |
|----------|--------------------------------------------|-----|------|-------------------------------|
| 330721   | Gasket for valve box                       | 1   | PC   |                               |
| 355321   | Gasket for measuring head VN/93            | 1   | PC   |                               |
| 365206   | Air filter for pressure regulator unit     | 1   | PC   | For pressure regulator 151072 |
| 365197   | Scavenging air filter                      | 2   | PC   |                               |
| 271899   | Scavenging air inserts for measuring heads | 1   | PC   | 2 x 360251                    |
| 365193   | Flexible bellow of suction channel         | 2   | PC   |                               |
| 270629   | Bellow of scavenging air channel           | 1   | PC   |                               |
| 366717   | Filter cartridge 5µm                       | 1   | PC   | For pressure regulator 366709 |
| 480338   | Screw DIN 965 M3x 12 A2                    | 4   | PC   |                               |
| 365208   | O-RING 9,0x4,5 NBR70, Screw Pres Reducer   | 1   | PC   | For pressure regulator 151072 |
| 365449   | O-RING 8,0x2,5 Screw Throttle              | 1   | PC   |                               |
| 365954   | O-RING 4,0 x 1,75 NBR70                    | 1   | PC   |                               |
| 330543   | Gasket to Air-Jet Pump                     | 3   | PC   |                               |
| 360136   | Oil return gasket                          | 1   | PC   |                               |

**Table 3:** content of maintenance kit 151489



### 1.2.4 Service kit 151487 VN116/93



Figure 4 : Service kit VN116/93 – Part No. 151487

| Material | Description                                | Qty | Unit | Note                          |
|----------|--------------------------------------------|-----|------|-------------------------------|
| 330721   | Gasket for valve box                       | 1   | PC   |                               |
| 355346   | Gasket for tube connection                 | 3   | PC   |                               |
| 355321   | Gasket for measuring head VN/93            | 1   | PC   |                               |
| 365206   | Air filter for pressure regulator unit     | 1   | PC   | For pressure regulator 151072 |
| 365197   | Scavenging air filter                      | 2   | PC   |                               |
| 271899   | Scavenging air inserts for measuring heads | 1   | PC   | 2 x 360251                    |
| 365193   | Flexible bellow of suction channel         | 2   | PC   |                               |
| 270629   | Bellow of scavenging air channel           | 1   | PC   |                               |
| 366717   | Filter cartridge 5µm                       | 1   | PC   | For pressure regulator 366709 |
| 480338   | Screw DIN 965 M3x 12 A2                    | 4   | PC   |                               |
| 365208   | O-RING 9,0x4,5 NBR70, Screw Pres Reducer   | 1   | PC   | For pressure regulator 151072 |
| 365449   | O-RING 8,0x2,5 Screw Throttle              | 1   | PC   |                               |
| 365954   | O-RING 4,0 x 1,75 NBR70                    | 1   | PC   |                               |
| 330543   | Gasket to Air-Jet Pump                     | 3   | PC   |                               |
| 360132   | Sealing for oil draining in valve box      | 1   | PC   |                               |
| 360133   | Sealing for suction channel in valve box   | 1   | PC   |                               |

**Table 4:** content of maintenance kit 151487



## 1.2.5 Service kit 151488 VN215/93

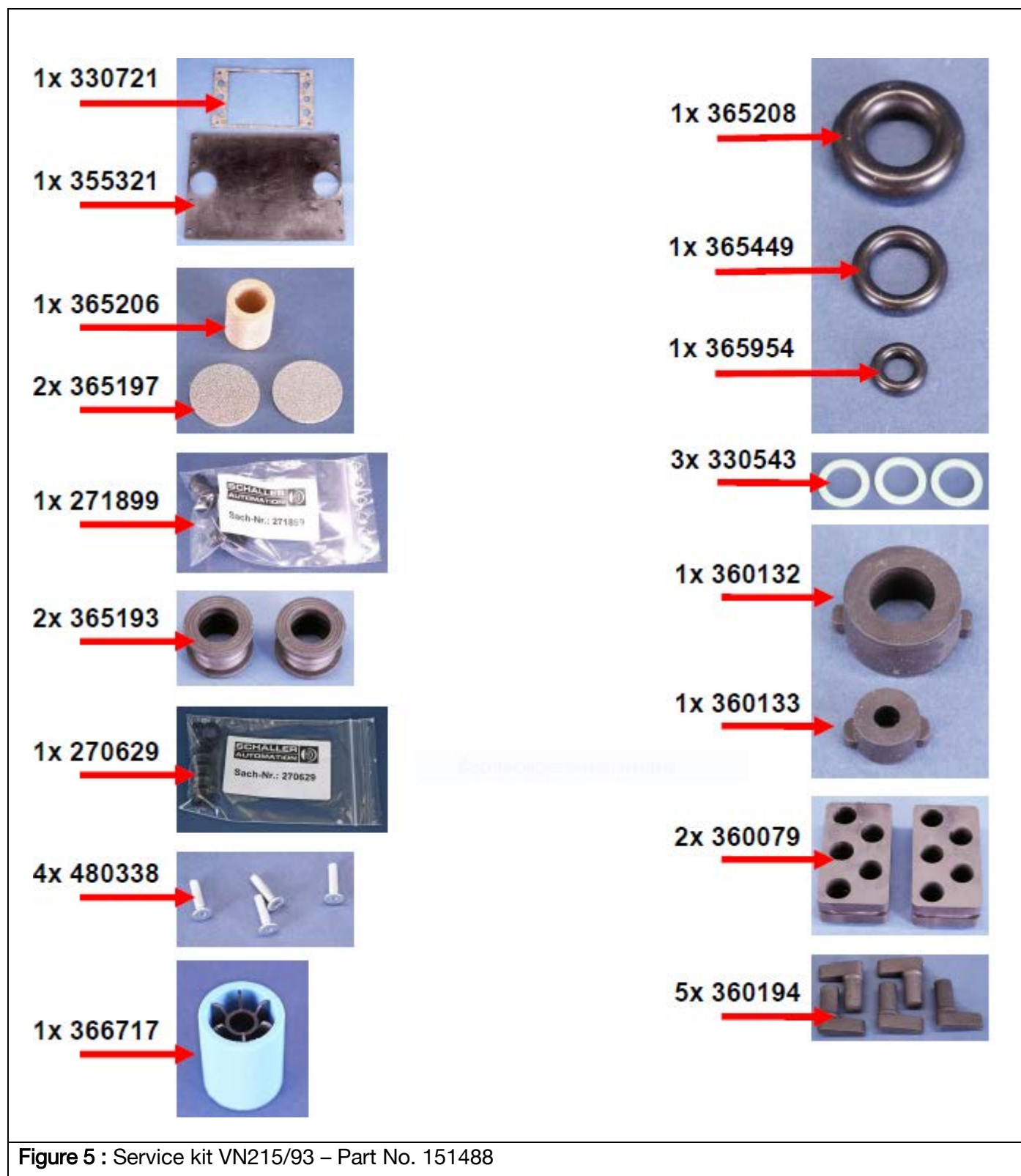


Figure 5 : Service kit VN215/93 – Part No. 151488

| Material | Description                                   | Qty | Unit | Note                          |
|----------|-----------------------------------------------|-----|------|-------------------------------|
| 330721   | Gasket for valve box                          | 1   | PC   |                               |
| 355321   | Gasket for measuring head VN/93               | 1   | PC   |                               |
| 365206   | Air filter for pressure regulator unit        | 1   | PC   | For pressure regulator 151072 |
| 365197   | Scavenging air filter                         | 2   | PC   |                               |
| 271899   | Scavenging air inserts for measuring heads    | 1   | PC   | 2 x 360251                    |
| 365193   | Flexible bellow of suction channel            | 2   | PC   |                               |
| 270629   | Bellow of scavenging air channel              | 1   | PC   |                               |
| 366717   | Filter cartridge 5µm                          | 1   | PC   | For pressure regulator 366709 |
| 480338   | Screw DIN 965 M3x 12 A2                       | 4   | PC   |                               |
| 365208   | O-RING 9,0x4,5 NBR70, Screw Pres Reducer      | 1   | PC   | For pressure regulator 151072 |
| 365449   | O-RING 8,0x2,5 Screw Throttle                 | 1   | PC   |                               |
| 365954   | O-RING 4,0 x 1,75 NBR70                       | 1   | PC   |                               |
| 330543   | Gasket to Air-Jet Pump                        | 3   | PC   |                               |
| 360132   | Sealing for oil draining in valve box         | 1   | PC   |                               |
| 360133   | Sealing for suction channel in valve box      | 1   | PC   |                               |
| 360079   | Rubber plate for VN215 valve box connection   | 2   | PC   |                               |
| 360194   | Rubber plugs for unused valve box connections | 5   |      |                               |

**Table 5:** content of maintenance kit 151488

