



Maintenance Instructions XactClean® HP+



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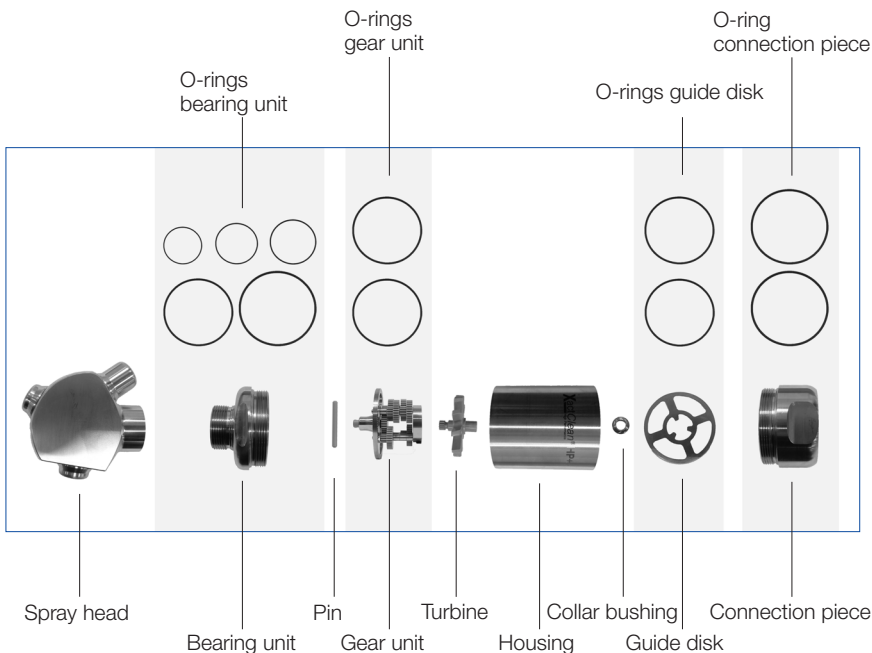
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INTRODUCTION

This manual shows the maintenance of the Lechler tank cleaning nozzle XactClean® HP+.

Please note: The Lechler assembly tool (order no. 05S.590.16.00.00.0) is additionally required for maintenance 3.

The assembly tool can be reused. The spare parts package is required only once per maintenance.



Depending on the operating conditions, we recommend different maintenance intervals (maintenance 1 - 3). At each maintenance interval, a visual inspection of the parts must always be carried out for wear and tear. We recommend replacing the O-rings each time a sealing point is opened.

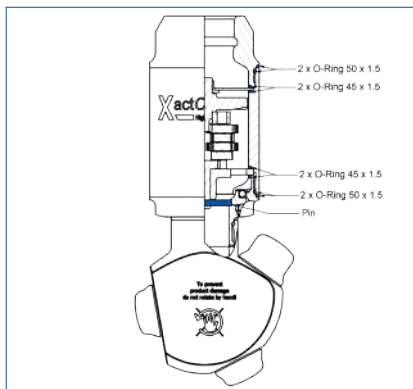
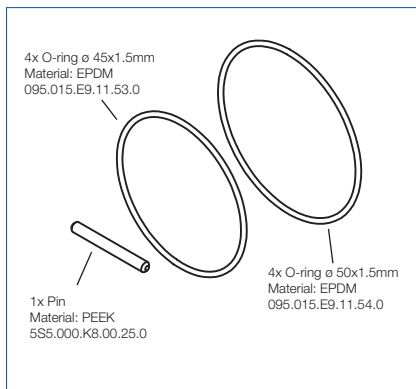
Note: Use suitable lubricant for EPDM O-rings.

MAINTENANCE 1

It is recommended to **perform maintenance 1 every 500 operating hours.**

The **spare parts package 1** contains the following parts:

Spare parts package 1			
Name	Quantity	Product number	Order number
Pin	1 pc.	5S5.000.K8.00.25.0	5S5.000.1Y.00.50.0
O-ring 45 x 1.5 mm	4 pcs.	095.015.E9.11.53.0	
O-ring 50 x 1.5 mm	4 pcs.	095.015.E9.11.54.0	



The following steps from this maintenance manual are necessary for carrying out maintenance 1:

Disassembly of housing

Correct inspection

Assembly of spray head with bearing unit

Mounting of housing

Assembly of spray head with housing

Steps 1 – 9

Steps 19 – 20

Step 27

Steps 33 – 36

Method A or B

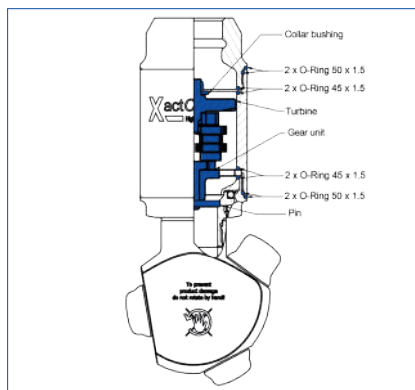
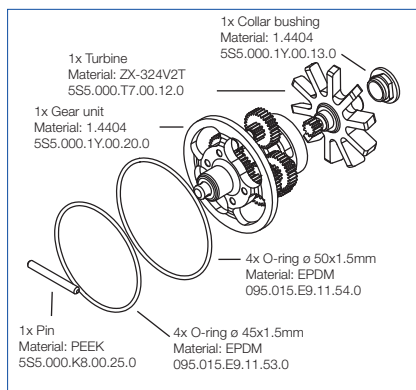
Note: The PEEK pin transmits torque from the gearbox to the spray head shaft. If too much torque is applied via the spray head, the pin deforms and protects thereby the gear unit from damage. If the pin has been deformed, it must be replaced.

MAINTENANCE 2

It is recommended to **perform maintenance 2 every 1000 operating hours.**

The **spare parts package 2** contains the following parts:

Spare parts package 2			
Name	Quantity	Product number	Order number
Pin	1 pc.	5S5.000.K8.00.25.0	5S5.000.1Y.00.60.0
O-ring 45 x 1.5 mm	4 pcs.	095.015.E9.11.53.0	
O-ring 50 x 1.5 mm	4 pcs.	095.015.E9.11.54.0	
Gear unit	1 pc.	5S5.000.1Y.00.20.0	
Turbine	1 pc.	5S5.000.T7.00.12.0	
Collar bushing	1 pc.	5S5.000.1Y.00.13.0	



The following steps from this maintenance manual are necessary for carrying out maintenance 2:

- Disassembly of housing
- Correct inspection
- Assembly of spray head with bearing unit
- Mounting of housing
- Assembly of spray head with housing

- Steps 1 – 9
- Steps 19 – 20
- Step 27
- Steps 33 – 36
- Method A or B

MAINTENANCE 3

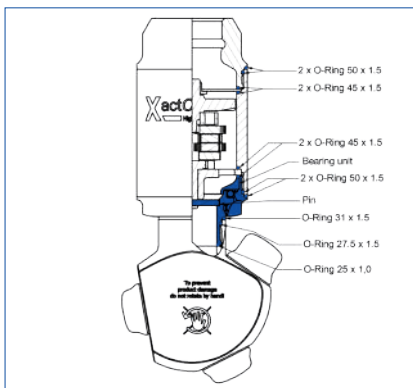
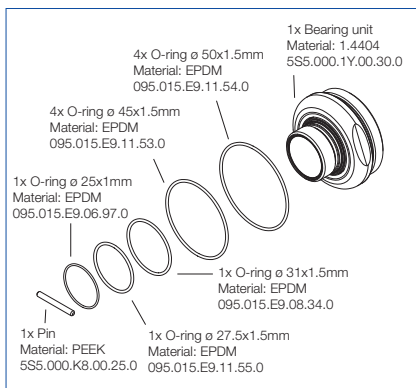
Tip

For maintenance 3 the Lechler assembly tool **order no. 05S.590.16.00.00.0** is required.

It is recommended to **perform maintenance 3 after 1.500 operating hours**.

The **spare parts package 3** contains the following parts:

Spare parts package 3			
Name	Quantity	Product number	Order number
Pin	1 pc.	5S5.000.K8.00.25.0	5S5.000.1Y.00.70.0
O-ring 45 x 1.5 mm	4 pcs.	095.015.E9.11.53.0	
O-ring 50 x 1.5 mm	4 pcs.	095.015.E9.11.54.0	
Bearing unit	1 pc.	5S5.000.1Y.00.30.0	
O-ring 27.5 x 1.5 mm	1 pc.	095.015.E9.11.55.0	
O-ring 31 x 1.5 mm	1 pc.	095.015.E9.08.34.0	
O-ring 25 x 1.0 mm	1 pc.	095.015.E9.06.97.0	



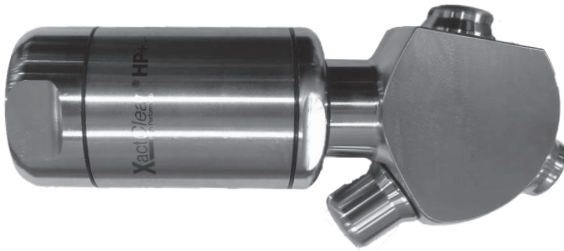
The following steps from this maintenance manual are necessary for carrying out maintenance 3:

Disassembly of housing
 Disassembly of spray head and bearing unit
 Correct inspection
 Assembly of spray head with bearing unit
 Mounting of housing
 Assembly of spray head with housing

Steps 1 – 9
 Steps 14 – 18
 Steps 19 – 20
 Steps 21 – 27
 Steps 33 – 36
 Method A or B

DISASSEMBLY OF HOUSING

1



- To dismantle the XactClean® HP+, please open the housing first.

2



- The housing is screwed off by using a suitable fork or pliers wrench and a vice with protective jaws. As a result, the sprayhead will become detached from the housing. The connecting piece does not have to be dismantled.

3



- Remove the pin.

Note: The housing should be fixed in the vice. Please be aware of that both, connecting piece and the housing are fixed in the vice.

Tip

All threads of XactClean® HP+ are right-hand threads.

DISASSEMBLY OF HOUSING



- Remove the O-ring from the housing.



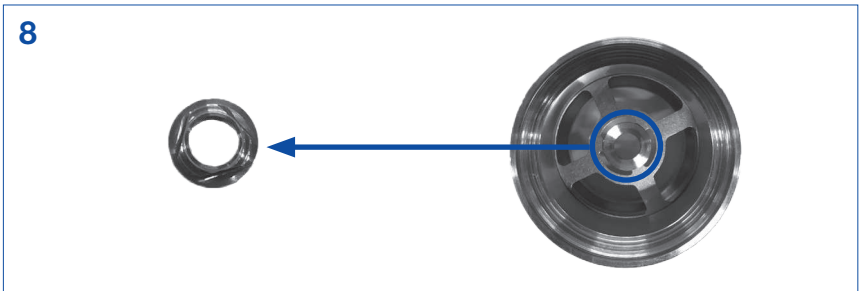
- The gear unit can be removed upwards.



- Remove the O-ring from the underside of the gear unit.



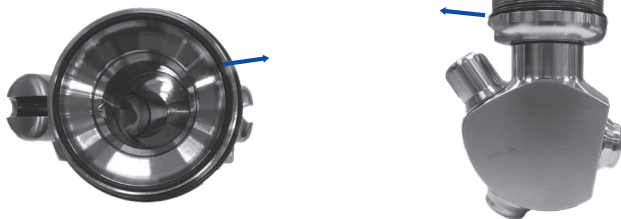
- The turbine can be removed upwards.



- Remove collar bushing.

DISASSEMBLY OF HOUSING

9

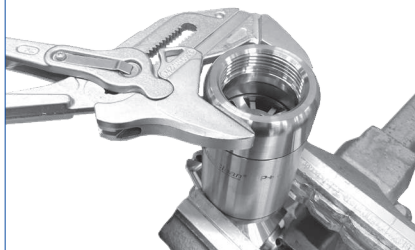


- Remove the O-rings from the bearing unit.

DISASSEMBLY OF CONNECTION PIECE (optional)

For the maintenance intervals 1 – 3 it is not necessary to open the connection piece. In case that the connecting piece is nevertheless opened, the o-rings are included in the respective spare parts package and can be used for the assembly of the connection piece (pls. see steps 28-32).

10



- The connection piece can be screwed on by using a suitable fork or pliers wrench and a vice with protective jaws. The housing should be tightened so that the bearing unit and the housing are tightened.

11



- Remove guide disk.

DISASSEMBLY OF CONNECTION PIECE (optional)



- Remove the O-ring.



- Remove the O-rings from the connecting piece.

DISASSEMBLY OF SPRAY HEAD AND BEARING UNIT

14



- Use both grooves in the spray head shaft to separate the spray head from the bearing unit.

15



- For dismounting and mounting the spray head the Lechler assembly tool (05S.590.16.000.00.0) is required.

16



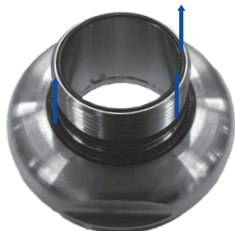
- Place the cylindrical pins of the Lechler assembly tool in the provided grooves of the bearing unit.

17



- Use the appropriate pliers or fork wrench to unscrew the spray head by means of the Lechler assembly tool. The wrench size is 30 mm

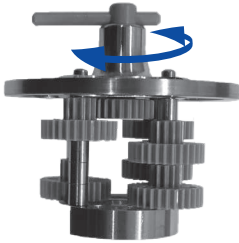
18



- Remove the three O-rings from the bearing unit.

CORRECT INSPECTION

19



- Turn the drive shaft with the pin fitted to check the function of the gear unit. The rotation should be carried out with minimum friction and should not stagnate.

20

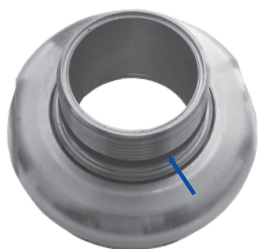


- To check whether the entire unit (gear unit and turbine) is functioning, the turbine must be inserted into the gear unit.
- In the next step, with the pin mounted, turn the drive shaft for a few revolutions. If the gear unit cannot be turned by hand or has a large play, the gear unit must be replaced.

ASSEMBLY OF SPRAY HEAD WITH BEARING UNIT

When assembling, make sure that the parts to be replaced are replaced by the new parts from the spare parts package.

21



- Mount the O-rings on the bearing unit (O-Ring 27.5 x 1.5 mm).

22



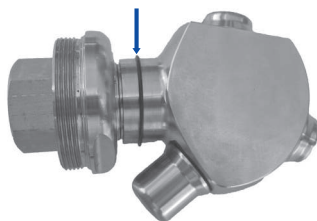
- The Lechler assembly tool is required for mounting the bearing units on the spray head.
- Insert the Lechler assembly tool.

23



- Mount the O-ring on the bearing unit (O-Ring 25 x 1.0 mm).
- With the use of the Lechler assembly tool, the O-ring 25 x 1.0 mm is additionally centered. This ensures that the O-ring is in the correct position during further assembly.

24



- Mount the O-ring on the spray head (O-Ring 31 x 1.5 mm).
- Screw the bearing unit together until the gap dimension is approx. 1.8 mm.

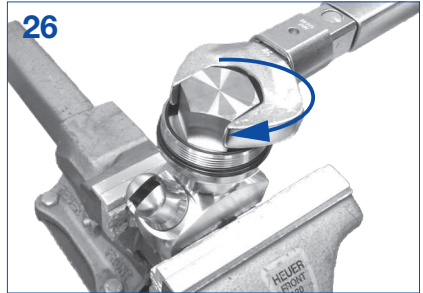
ASSEMBLY OF SPRAY HEAD WITH BEARING UNIT

25



- Then snap the O-ring 31 x 1.5 mm into the groove.

26



- The bearing unit should be tightened with a torque of 40 Nm.

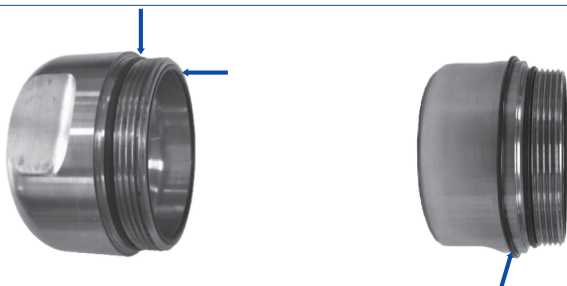
27



- Mount the O-ring 45 x 1.5 mm and O-ring 50 x 1.5 mm on the connection piece exactly into the groove provided for this purpose. Make sure that the O-rings are not damaged by the thread. So that the O-ring (45 x 1.5 mm) does not fall out of the groove during assembly, it is recommended to place the O-ring with a thin film of grease (use suitable grease) in the groove.
- The second O-ring 50 x 1.5 mm must first be positioned on the outside diameter of the connection piece for easy installation.

ASSEMBLY OF CONNECTION PIECE (optional)

28



- Mount the first O-ring 50 x 1.5 mm and O-ring 45 x 1.5 mm on the connection piece exactly into the groove provided for this purpose. Make sure that the O-rings are not damaged by the thread.
- The second O-ring 50 x 1.5 mm must first be positioned on the outside diameter of the connection piece for easy installation.

29



- Fit the O-ring 45 x 1.5 mm in the housing exactly into the groove provided for this purpose.

30



- Insert the guide disk into the housing and screw it to the connection piece.

ASSEMBLY OF CONNECTION PIECE (optional)

31



- Screw the connection piece together until the gap dimension is approx. 1.8 mm.

32



- Then snap the O-ring 50 x 1.5 mm into the groove.

MOUNTING OF HOUSING



- Insert the collar bushing so that the triangle engages in the guide disk.



- Insert the O-ring 45 x 1.5 mm and make sure that the O-ring fits exactly in the provided groove.



- Insert turbine.



- Insert the gear unit incl. pin into the housing. The gear unit must be turned slightly so that the teeth of the turbine and gear interlock.
- Align the pin centered towards the center.

ASSEMBLY OF SPRAY HEAD WITH HOUSING

There are two methods for mounting the bearing unit with the housing.

Method A



- The position of the pin is indicated by a permanent marker on the outside of the housing.



- Mark the position of the grooves with a permanent marker on the outside of the spray head spindle on the bearing unit.



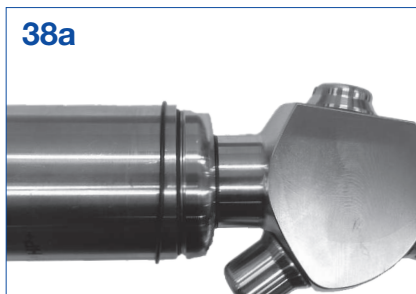
- The two markings serve to position the bearing unit and the housing in which the gear unit is located.



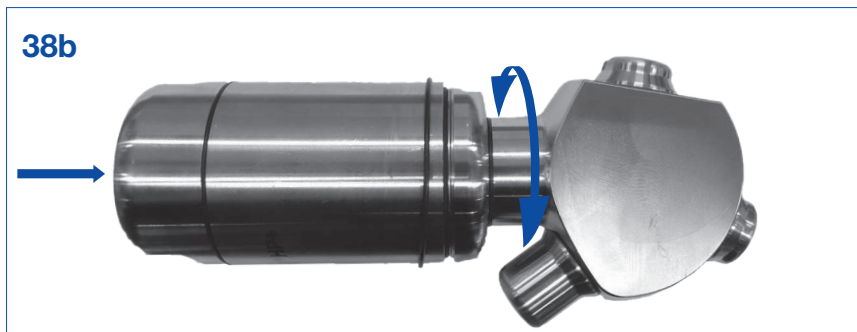
- The thread of the bearing unit is screwed into the housing. The markings must be held in position during screwing.

ASSEMBLY OF SPRAY HEAD WITH HOUSING

Method B



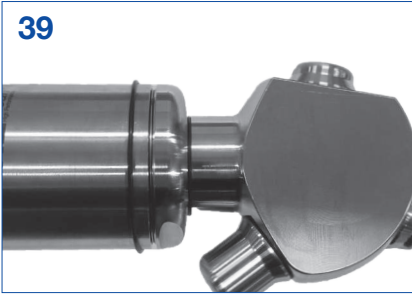
- Screw the bearing unit into the housing by hand, up to a gap dimension of approx. 3 mm. If a slight resistance can be felt, it is possible that the pin has not yet snapped into the two grooves.



- Rotate the spray head by hand while blocking the turbine with a finger until the horizontal pin audibly clicks into the grooves. The preload of the pin against the bearing unit must be adjusted by unscrewing and screwing it in.

ASSEMBLY OF SPRAY HEAD WITH HOUSING

39



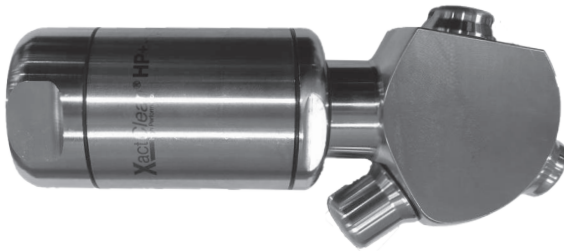
- Continue screwing the bearing unit up to a gap dimension of approx. 1.8 mm. Then snap the O-ring 50 x 1.5 mm into the groove.
- Screw the bearing unit into the housing by hand.

40



- The housing is tightened with a torque of 50 Nm using a vice and torque wrench (wrench 50).

41



- To check that all parts are correctly assembled, turn the spray head. The spray head should be carried out with minimal effort. In no way, should the spray head be turned erratically. It is normal that the rotation can stagnate a little bit, but the spray head should still be rotatable.

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