

# LOCTITE®

## EQ RC30 Manual Reservoir

IDH 2814022

Operating Manual



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# 1 Please Observe the Following

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## 1.1 Emphasized Sections

### **Warning!**

Refers to safety regulations and requires safety measures that protect the operator or other persons from injury or danger to life.


### **Caution!**

Emphasizes what must be done or avoided so that the unit or other property is not damaged.

### **Notice:**

A notice gives recommendations for better handling of the unit during operation or adjustment as well as for service activities.

## 1.2 For Your Safety


 For safe and successful operation of the unit, read these instructions completely. If the instructions are not observed, the manufacturer can assume no responsibility.


 Do not expose the connecting cable to heat, oil, or sharp edges.

 Make sure the Unit stands stable and secure.

 Use only original equipment replacement parts.

 Always disconnect the power supply before servicing the unit.

 Observe general safety regulations for the handling of chemicals such as Loctite® adhesives and sealants. Observe the manufacturer's instructions as stated in the Safety Data Sheet.

 While under warranty, the unit may be repaired only by an authorized Loctite service representative.

## 1.3 Unpacking and Inspection

Carefully unpack the Loctite® EQ RC30 Manual Reservoir and examine the items contained in the carton. Inspect the unit for any damage that might have occurred in

transit. If such damage has occurred, notify the carrier immediately. Claims for damage must be made by the consignee to the carrier and should be reported to the manufacturer.

#### **1.4 Packing List**

- EQ RC30 Manual Reservoir x 1
- Equipment Manual x 1
- Reservoir Tank Fitting: ¼ inch NPT x ¼ Inch Tubing x 1
- Bottle Holder x 1
- ¼” NPT to 6 mm inlet supply line connector x 1
- Anti-Bubbler Fitting and Tubing Kit x 1
- Bottle spacer disc x 1

#### **1.5 Features**

- User-friendly design.
- Operational with manual dispense valve
- Includes Low level sensor for process control
- Equipped with a 0 to 7 bar (0-100psi) manual pressure regulator
- Easy to read pressure gauge
- Accommodates a variety of Loctite packages.

#### **1.6 Field of Application (Intended use)**

The Loctite EQ RC30 Manual Reservoir is suitable for the application of Loctite adhesive with a manual applicator at manual workstations such as in workshops, laboratories, and industrial installations.

It is possible to dispense anaerobic, UV curing adhesives and cyanoacrylate adhesives. The reservoir can accommodate 250ml, 500gram, 1 liter and 2kg adhesive packages which deliver adhesive to dispensing valves.

The capacity of the EQ RC30 Manual Reservoir is:

- |  |                 |
|--|-----------------|
| -500 gr. bottle for CA Products                      | -1 lb. bottle   |
| -250 ml bottle for Anaerobics                        | -1 Liter bottle |
| -Bottle with a $\phi$ 124mm and<br>a height of 250mm | -2kg bottle     |

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## 2 Description

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### 2.1 Theory of Operation

The Loctite EQ RC30 Manual Reservoir is connected to an external pneumatic supply. An uncovered bottle of Loctite® product is placed directly into the EQ RC30 Manual Reservoir, the feedline is inserted into the product, and the reservoir lid is clamped in place.

The manual reservoir is equipped with a 0 to 7 bar (0-100psi) pressure regulator that regulates the dispensing pressure of the reservoir. Adhesive is fed from the reservoir to a manual dispense valve. When the valve is actuated to open then adhesive flows through the outlet dispense needle.

The amount of product dispensed is controlled by four main factors:

- Dispensing pressure set in the reservoir
- Length of time the dispensing valve remains open
- Valve stroke
- Dispensing needle size

### 2.2 Operating Elements and Connections



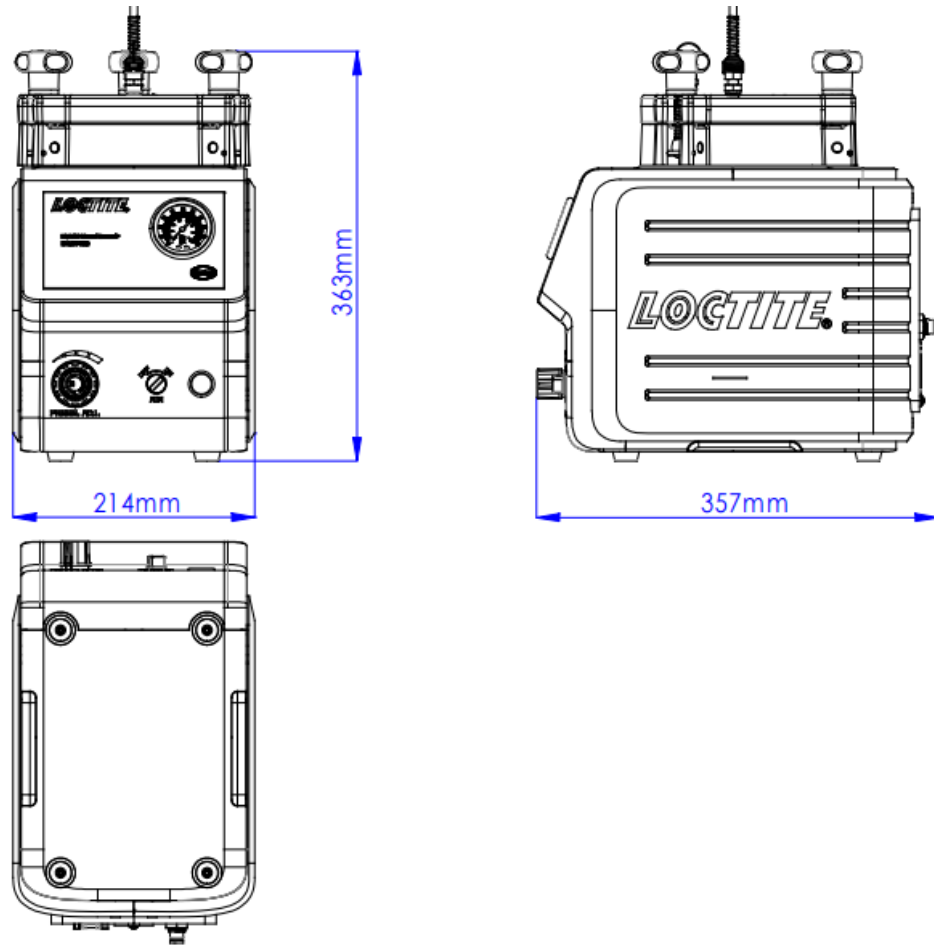
- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Reservoir Pressure Regulator | 6. Reservoir Knob x 3        |
| 2. Air Pressure ON/OFF Switch   | 7. Reservoir Lid             |
| 3. Reservoir Pressure Gauge     | 8. Pneumatic Connection P in |
| 4. Valve Pressure Relief        | 9. Low Level Connector XS2   |
| 5. Reservoir/Feedline Fitting   | 10. Low Level Sensor         |

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### **3 Technical Data**

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Dimensions (L x H x W):	214x363x357 mm
Total weight: Kg (lbs.)	3.5 (8)
Pneumatic Supply:	Clean, dry air not to exceed 116 psi (8bar). and filtered with a maximum of 10 micron.
Pneumatic hose size:	External dia. 6mm
Operating Temperature:	+10 ° C to +40 ° C (+50 ° F to +104 ° F)
Storage Temperature:	- 10 ° C to +60 ° C (+14 ° F to +140 ° F)



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## 4 Installation

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**!** Before using the equipment for the first time check it carefully for signs of external damage. If any shipping damage is found DO NOT USE THE EQUIPMENT – return it to your supplier immediately.

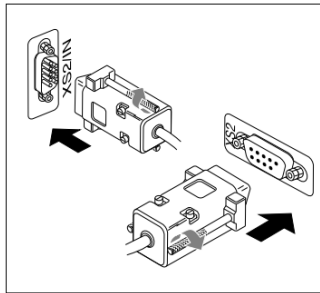
### 4.1 Environmental and Operating Conditions

- Keep product feedline as short as possible. The shorter the feedline the smaller the specific resistance and lower the dispensing pressure can be. Avoid kinking of the feedline.

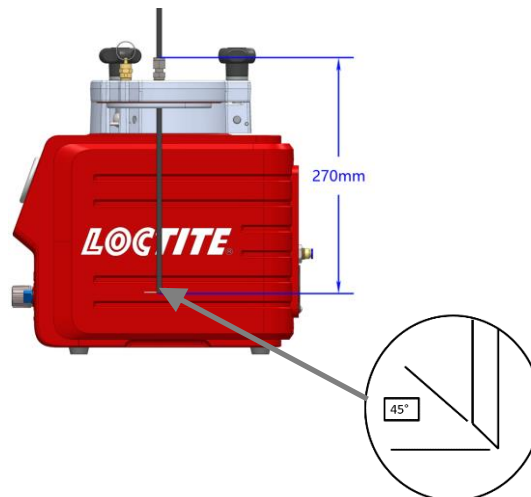
- Use flexible pneumatic hoses and Loctite supplied product feedlines to prevent unnecessary loads on the fitting and to ensure compatibility.
- Keep all fittings tight.
- No direct sunlight; no UV light.
- No condensing humidity.
- Avoid direct contact with water.

## 4.2 Connecting the Unit

- Use only the cable and hose sets supplied.
- Connect the air pressure supply to reservoir P in (8).
- If connecting to an external controller, connect the tank cord to the 9 pin D-sub connector XS2 (9) located on the rear panel of reservoir.



- Insert feedline through the reservoir lid to the dimension shown below. Alternatively use the reference line shown on the housing to set the feedline length. Cut the end of the feedline at an angle as shown below.



- Connect dispensing valve.





- If two dispense valves are used, remove blanking plug from the reservoir lid and replace with additional reservoir/tube fitting.

### 4.3 Filling and Refilling the Product Reservoir

#### **Warning!**

Never fill the product directly into the reservoir!

The pneumatic and safety devices would become clogged and therefore ineffective!

#### **Warning!**

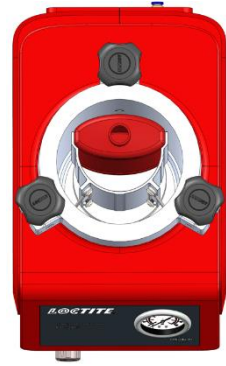
**Before loosening the reservoir locking knobs (6), the EQ RC30 Manual Reservoir must be depressurized (pressure-free)!**

When dispensing cyanoacrylate and an empty signal is shown, refill the product reservoir immediately, since air in the product line results in curing of the product!

The reservoir is depressurized when the depressurizing valve (2) is in “OFF” position and reservoir pressure gauge (3) indicates no pressure.

- Loosen the reservoir knobs and remove the lid.
- Check that there is no condensed moisture at the bottle or the sensor surface.

- Place the bottle in the bottle holder (see the right figure).
- Check that the product bottle inserted in the bottle holder is pressed against the level sensor.
- Insert the product feedline into the bottle and put on the lid.
- Uniformly tighten the reservoir knobs by hand.
- Set the depressurizing valve (2) to “ON” position (pressurize) by hand.
- Continue dispensing with the selected dispensing pressure.



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## 5 Operation

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### 5.1 First Operation:

#### Warning!

**Before loosening the reservoir locking knobs (6), the EQ RC30 Manual Reservoir must be depressurized (pressure-free)!**

The EQ RC30 Manual Reservoir is depressurized when the reservoir pressure gauge indicates no pressure.

In any case:

- Set the depressurizing valve (2) to position  (depressurize).

#### 5.1.1 Inserting the Product Bottle

Follow procedure as described in section 4.3.

#### 5.1.2 Priming the Feedline

- Check that the product reservoir and the dispensing valve are connected correctly according to their instruction manuals.

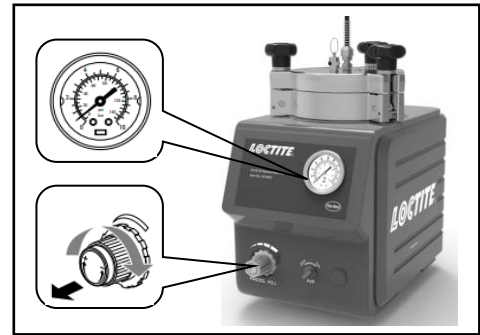
**👉 Notice:**

To avoid air bubbles during dispensing, the product line must be filled and then purged of air.

- Position the dispensing valve as specified in its instruction manual to ensure bubble-free filling of the product line.
- Set the pressure regulator (2) to a dispensing pressure of 0.5bar (approx. 7 psi) and open the manual dispense valve until the produce flows out.
- For viscous products, increase the pressure slowly in steps until the product flows out.

**⚠ Warning!**

**Hold the dispensing valve upright enables air to be purged out of the valve.**



### 5.1.3 Adjusting the Dispensed Quantity

If the dispensed flow is too slow or too fast:

- On the pressure regulator (1) increase or decrease the dispensing pressure.
- Open the dispensing valve to check the dispensed quantity.
- Repeat the last two steps until the desired dispensed quantity is achieved.

If the desired dispensed quantity is not achieved:

- Attach a larger (or smaller) dispensing needle, repeat the steps of Section 5.1.3.

## 5.2 Adjust the Level Sensor

**👉 Notice:**

The level sensor is set in manufacturing and can be adjusted according to the type of product used, the size of the bottle, and orientation of the basket with spacers if required. If small bottles are used the supplied Bottle spacer disc can be placed in

the base of the reservoir to raise the height of the bottle to reduce the residual adhesive in the bottle when low level is used.

Before adjusting the Level Sensor:

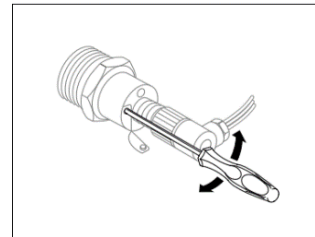
1. Remove the plastic cap from the backside of reservoir.
2. Connect the reservoir cord to the connector XS2 (9) on the reservoir as well as to socket of the controller to be used.
3. Empty a bottle of the product you use.
4. Leave as much residue in the bottle as is required in order to prevent air getting into the product feed line.



5. Insert the product bottle. For small bottles use the bottle holder. For 250ml product bottle, pay attention to ensure the bottle is aligned with the level sensor.
6. Check that the product bottle inserted into the bottle holder is pressed against the level sensor. Only then the correct adjustment of the level sensor is possible.

Procedure to Adjust the Level Sensor:

1. Turn controller power switch - "ON".
2. Remove the metal screw from the level sensor.
3. With an electrician's screwdriver, find the point at which the sensor switches to the condition inactive. The LED is "OFF".
4. Check this adjustment with a full bottle and an empty bottle again.
5. Refit the metal screw to the level sensor.
6. Put the plastic cap back.



**👉 Notice:**

The correct adjustment is exactly the point when the sensor switches "OFF".

**Do not go beyond that point!**

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## 6 Application Hints

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As with all adhesives, performance depends on conditions of use. Suggestions or recommendations contained herein are for guidance only since actual conditions of use are outside the supplier's control.

### 6.1 Shutdown for Longer Periods of Non-use (>recommended idle time)

- Disconnect the pneumatic supply from the unit.
- Clean the product hose and dispensing valve.

Recommended maximum idle times for different products are shown below:

Adhesive	Maximum idle time for dispensing Systems
Anaerobic	2 weeks
Cyanoacrylate	1 week
UV-acrylate	2 weeks
Acrylate	1 week
Epoxy	2 weeks
Activator	n.a.
Primer	n.a.

### 6.2 Returning to Operation after Longer Periods of Non-use

- Reconnect the pneumatic supply to the unit.
- Check the installation according to Chapter 4.
- Return to operation according to Section 5.1.

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## 7 Troubleshooting

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- ⚠ Before proceeding with any repair or maintenance operation disconnect the EQ RC30 Manual Reservoir from the main air supply.

<b>Malfunction</b>	<b>Possible Cause</b>	<b>Corrective</b>
No needle movement on the pressure gauge.	No air pressure present.	Check pneumatic supply.
	Product reservoir not switched on.	Check product reservoir.
	Pressure gauge is defect.	Replace pressure gauge.
The desired pressure is not achieved.	Supply pressure inadequate.	Increase the supply pressure.
No Product, too little or too much product.	Dispensing pressure not set correctly.	Adjust dispensing pressure setting.
	Pressure hose not properly connected.	Connect air pressure hose correctly.
	Dispensing needle is clogged, too small or too large.	Replace the dispensing needle.
	Dispensing valve not correctly connected or defect.	Check the dispensing valve (see instruction manual for dispensing valve).
	Product reservoir not switched on.	Check product reservoir.
	Product reservoir is empty.	Refill product reservoir (see Section 4.3).
Air bubble in the product	Product reservoir is empty.	Refill product reservoir (see section 4.3).
	Dispensing valve not correctly connected or defective.	Check the dispensing valve (see instruction manual for dispensing valve).
	Product reservoir pressure is too high.	Lower pressure, longer dispensing time.
Pressurized air escapes between reservoir housing and reservoir lid.	Reservoir Knob is not tightened.	Tighten the reservoir knob.
	O-ring leaks.	Grease or renew the O-ring.
Pressurized air escapes at the product connection 5.	Union nut on the product connection 5 not tightened.	Carefully tighten the union nut.


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## 8 Care, Cleaning and Maintenance

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### 8.1 Care

-Occasionally the O-ring at the reservoir lid should be lubricated with silicone grease. This will prolong the life of the O-ring.

 **Notice:** Clean hands after application of grease to ensure surfaces to be bonded are clean.

-Clean the sensor surface as required.

-Both the bottle surface and the sensor surface must be free of condensed moisture!

### 8.2 Cleaning

-Prior to extended idle times or when changing of the product type, clean the product hose and the dispensing valve.

-Loosen reservoir locking knobs (6) and remove the reservoir lid (7).

-Clean product residue from the outside of the feedline hose.

-Remove the product bottle and insert a container with approx. 0.5 liter of cleaning agent.

-Put on the reservoir lid (7) and uniformly tighten the reservoir locking knobs (6).


-Operate the dispenser continuously until dry air streams out of the dispensing valve (see operating instructions for the dispensing valve).

-Remove the empty cleaning agent container.

### 8.3 Maintenance

-Check the reservoir knobs and the product feed line on a regular basis. If there is any sign of cracks, replace them!

-Clean, dry, filtered air must be used. If it is not, the solenoids on the controller will be fouled over time.

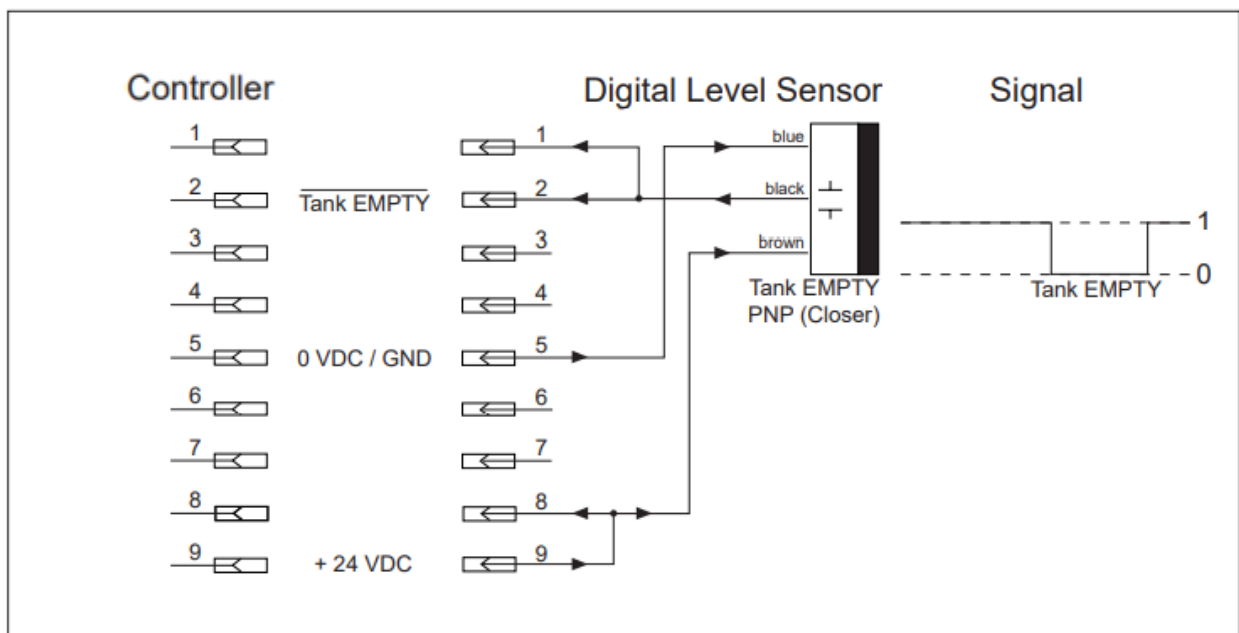
 **Notice:** If the required air quality is not achieved, install a Loctite® filter regulator. In the US order a 5 µm filter using Part Number 478603. In Europe or Asia, order a 10 µm filter using Part Number 88649.

## 9 Accessories and Spare Parts

Item	Description	IDH#
<b>Spare Parts</b>		
1	Reservoir/tube Tank Fitting, ¼ inch NPT x ¼ inch Tubing	360636
3	¼ inch O.D. Black PE Teflon Lined feedline Tubing (10mtr/33ft length)	142646
4	Tank Lid O-ring for Reservoir	478505
5	Pressure Safety Relief Valve	360462
6	Anti-Bubbler Kit, 2 Adapters & 2 Sleeves	478569
7	Silicone Grease, 6 Gram Tube	88722
<b>Accessories</b>		
1	Loctite Air Filter, Regulator, Gauge (Mechanical version) - US	478603
	Loctite Air Filter, Regulator, Gauge (Mechanical version) – EU/Asia	88649

## 10 Diagrams

EQ RC30 Manual Reservoir Pin Connection:





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## 11 Warranty

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Henkel expressly warrants that all products referred to in this Instruction Manual for Loctite® EQ RC30 Manual Reservoir (hereafter called “Products”) shall be free from defects in materials and workmanship. Liability for Henkel shall be limited, as its option, to replacing those Products which are shown to be defective in either materials or workmanship or to credit the purchaser the amount of the purchase price thereof (plus freight and insurance charges paid therefor by the user). The purchaser’s sole and exclusive remedy for breach of warranty shall be such replacement or credit.

A claim of defect in materials or workmanship in any Products shall be allowed only when it is submitted in writing within one month after discovery of the defect or after the time the defect should reasonably have been discovered and in any event, within (12) months after the delivery of the Products to the purchaser. This warranty does not apply to perishable items, such as fuses, filters, lights, etc.. No such claim shall be allowed in respect of products which have been neglected or improperly stored, transported, handled, installed, connected, operated, used or maintained. In the event of unauthorized modification of the Products including, where products, parts or attachments for use in connection with the Products are available from Henkel, the use of products, parts or attachments which are not manufactured by Henkel, no claim shall be allowed.

No Products shall be returned to Henkel for any reason without prior written approval from Henkel. Products shall be returned freight prepaid, in accordance with instructions from Henkel.

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## **12 Declaration of Conformity**

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TO BE CONFIRMED

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