

INSTRUCTIONS  
MANUAL

**RAPTOR HANDY**





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# 1. SAFETY GUIDELINES

## GENERAL

The information contained in this section applies not only to everyday equipment operation, but also to any procedure carried out on it, whether for preventive maintenance or in the case of repairs and the replacement of worn out parts.

It is very important to observe the safety warnings in this manual at all times. Failure to do so may result in personal injury and/or damage to the equipment or the rest of the installation.

Before beginning work on the equipment, read this manual carefully, and in case of any doubt, contact our Technical Service Center. We are available for any clarification that you might need.

Keep manuals in perfect condition and within reach of personnel that use the equipment and perform maintenance on it.

Also provide necessary safety material: appropriate clothing, footwear, gloves and safety glasses.

In all cases, observe local regulations regarding risk prevention and safety.



## SYMBOLS

The symbols used on both the melter/appliator equipment and in this manual always represent the type of risk we are exposed to. Failure to abide by a warning signal may result in personal injury and/or damage to the equipment or the rest of the installation.

**Warning:** Risk of electrical shock. Carelessness may produce injury or death.



**Warning:** Hot zone with high temperatures. Risk of burns. Use thermal protective equipment.



**Warning:** System under pressure. Risk of burns or particle projection. Use thermal protective equipment and glasses.



**Warning:** Important information for the correct use of the system. May include one or several of the previous hazards, and therefore must be kept in mind to avoid damage and injury.



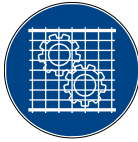
**Warning:** Dangerous area. Risk of entrapment. Carelessness may produce injury or death.



## MECHANICAL COMPONENTS



The hot-melt installation, which is installed to this device, requires moving parts that can cause damage. Use the equipment correctly, and do not remove the safety guards while the equipment is in operation; prevent the risk of possible entrapment due to moving mechanical parts.



Do not use the equipment if the safety devices are not in place or appear to be inadequately installed.

For maintenance or repair operations, stop the movement of moveable parts by turning off the main switch.

The device has no moving mechanical parts, so it does not pose risks to consider in this section.

## ELECTRICAL COMPONENTS



The system works with single-phase or three-phase current of a certain power. Never handle the equipment with the power connected, as this may result in powerful electrical shocks.

The installation must be correctly grounded.



The installation's power cable conductors must match the required electric current and voltage.

Periodically inspect the cables to check for crushing, wear and tear, as well as to prevent tripping and falls as a result of their placement.

Although the system meets EMC requirements, it is inadvisable to use devices that transmit high levels of radiation, i.e., mobile phones or soldering equipment in their vicinity.

## HYDRAULIC COMPONENTS



As this is a pressurized system, precautions related to this type of equipment must be observed.

Before each operation, always make sure that the adhesive circuit is completely free of pressure. There is a high risk of hot particle projection, along with the corresponding danger of burns.

Use caution with the residual pressure that may remain in the hoses when the adhesive cools. When reheated, there is a risk of hot particle projection if the outputs are left open.

## PNEUMATIC COMPONENTS



Some equipment uses compressed air to 6 bar pressure. Before any manipulation, please ensure that the circuit has lost fully air pressure. The risk of projection of particles at high speed can cause injury to a certain severity.

Extreme precautions with the residual pressure that could be contained in the circuit, before disconnecting any pneumatic feeding tube.

## THERMAL COMPONENTS

The entire system works with temperatures that can exceed 200°C (392°F). The equipment must be operated using adequate protection (clothing, footwear, gloves and protective glasses) that completely cover exposed parts of the body.

Keep in mind that, due to the high temperatures reached, the heat does not dissipate immediately, even when the power (in this case, electric) source is disconnected. Therefore, use caution, even with the adhesive itself. It may remain very hot, even in a solid state.

In case of burns:

1. If the burn is the result of contact with melted adhesive, do not try to remove the adhesive material from the skin. Do not try to remove it once it has solidified either.
2. Cool the affected area down immediately with lots of cold and clean water.
3. Seek medical attention as soon as possible either from the company's medical service or the nearest hospital. Provide the medical staff with the Safety Information Sheet of the adhesive.



## MATERIALS

Meler systems are designed for use with hot-melt adhesives. They should not be used with any other type of material, and especially not with solvents, which may cause personal injury or damage to internal system components.

Some units are specifically designed to use polyurethane reactive (PUR) hot-melt adhesives. Using PUR on a unit that is not prepared for that purpose may cause severe damage to the unit.

When using adhesive, follow the corresponding guidelines found in the Technical and Safety Sheets provided by the manufacturer. Pay special attention to the advised work temperatures in order to prevent adhesive burning and degradation.

Ventilate the work area adequately in order to remove the vapors produced. Avoid the prolonged inhalation of these vapors.

Always use original Meler components and replacement parts, which guarantee the correct system operation and service.



## INTENDED USE



The equipment are designed to be used in the following conditions:

- Hot-melt adhesive fusion and pumping at temperatures up to 180 °C (356 °F). Consult with Meler technical service to operate with higher working temperatures.
- Use of equipment with Meler accessories.
- Installation of equipment according to the security regulations currently in force and the instructions provided in this manual (anchoring, electrical connection, hydraulic connection, etc).
- Use of equipment in non-explosive, non-chemically aggressive environments.
- Use of equipment following the safety instructions indicated in this manual, as well as on the labels accompanying the equipment, using adequate means of protection during each mode of operation.

## LIMITED USE



The equipment should never be used under the following conditions:

- Use with reactive polyurethane or any other material that might cause safety or health risks when heated, if it has not been designed for that purpose.
- Use of equipment in environments where cleaning is necessary using water jets, if it has not been designed for that purpose.
- Use of equipment to heat or melt food products.
- In potentially explosive atmospheres, aggressive chemical environments or outdoors.
- Use or operation without adequate safety protection.
- If the person in question does not have the necessary training to use the unit or to apply all of the necessary safety measures.



**Note:** Do not modify the equipment or use components that were not supplied by Meler. For any modification of a component of the equipment or part of the installation, you must firstly consult the After-Sales Service.



## 2. INTRODUCTION

### DESCRIPTION

The Focke Meler RAPTOR HANDY series manual applicator is designed for manually applying pressurised hotmelt in a bead/swirl pattern onto a surface in industrial applications.

Swirl versions of the applicator have a special nozzle that creates a swirling air current around the ejected adhesive material, depositing the material as a tight pattern of overlapping swirls.

The air outlet is activated by a small micro switch on the trigger so that the air is expelled and the adhesive applied when the trigger is pressed.

The applicator handle can be rotated 360° at the hose/applicator connection for easy application in any position without twisting or damaging the hose. It also has a safety lock to prevent accidental release of hot glue.

The temperature is set independently of the hose and melter configuration and is controlled by an RTD probe.



### INTENDED USE

This type of applicator is used for manually applying an adjustable amount of pressurised hotmelt on different materials in industrial applications.

The applicator is activated by manually operating the trigger. This squeezes the hot, pressurised adhesive out of the application nozzle, together with the compressed air in swirl models, in the direction in which the operator guides it on the surface. When the trigger is released, the adhesive application stops, as does the compressed air output in swirl models.

Any other use is considered unintended use. The manufacturer is not responsible for damage resulting from unintended use and warns against misuse. Compliance with the operating, maintenance and service instructions stipulated by the manufacturer is considered part of the intended use.

The safety protection provided could be impaired if the applicator is not used in accordance with the operating, maintenance and servicing instructions.

The following misuse is also prohibited:

- Incorrect assembly, start-up, operation and maintenance of the applicator.
- Operating the applicator with defective safety equipment or with safety equipment that has been assembled incorrectly or is not fully functional.
- Use of materials other than those indicated by the manufacturer.
- Use of inappropriate hotmelt.
- Use in potentially explosive environments.



## RAPTOR HANDY APLICATOR RANGE

APPLICATOR	RH	E	P	S	10	230	SW1	UL
<b>Certifications</b> – (blank): CE • UL: cULus								
<b>Switch</b> – SW0: w/o switch • SW1: with 1 switch • SW2: with 2 switch • WL: wireless								
<b>Voltage</b> – 120: 120V • 230: 230V								
<b>Hose to connect</b> – 08: Ø8 • 13: Ø13 • 10: Ø10 (only for swirl)								
<b>Hose position</b> – I: Standard • S: Upper								
<b>Temperature sensor</b> – P: Pt100 • N: Ni120 • T: NTC-R								
<b>Type of application</b> – C: Bead • E: Swirl • L: Lamination								
<b>Model</b> – RH: Raptor Handy								
<b>Type of product</b> – APPLICATOR								

## APPLICATOR IDENTIFICATION



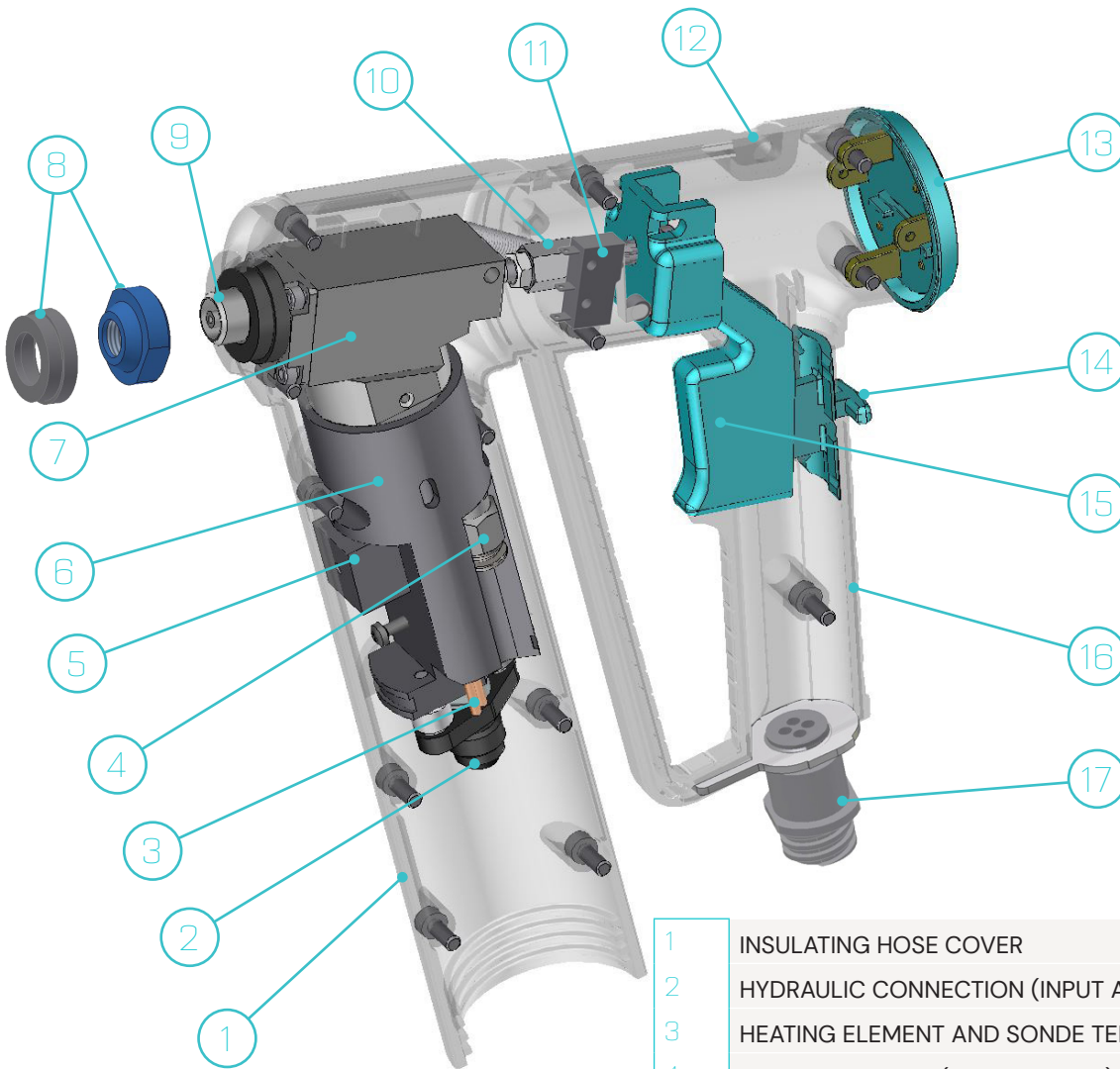
The applicator number and part number must be provided when requesting replacement material or requesting technical support.

This and other additional technical information is provided on the identification plate located on the applicator.

## TECHNICAL CHARACTERISTICS


	RAPTOR HANDY
Operating voltage (heating)	230 / 240 VAC • 120 VAC
Temperature sonde RTD	Pt-100 • Ni-120 • NTC.R
Hydraulic connection	JIC 9/16" (Ø8 Hoses / Ø10 Swirl) JIC 3/4" (Ø13 Hoses)
Max. working temperature	200 °C
Max. pneumatic pressure	6 bar (for pneumatic tube of Ø6)
Max. hydraulic working pressure	80 bar
Output nozzle	1/2"-20 UNF
Weight (w/o hose)	0,8 kg

MAIN COMPONENTS



1	INSULATING HOSE COVER
2	HYDRAULIC CONNECTION (INPUT ADHESIVE)
3	HEATING ELEMENT AND SONDE TEMPERATURE
4	AIR CONNECTION (SWIRL MODEL)
5	ELECTRICAL CONNECTION TERMINALS
6	MAIN BODY
7	NOZZLE BODY
8	BEAD/SWIRL NOZZLE INSULATION
9	BEAD/SWIRL NOZZLE
10	INJECTION SYSTEM
11	MICRO OPERATION SWITCH (Optional)
12	SUPPORTING SUSPENSION SYSTEM
13	BACK COVER / WIRELESS SWITCH (Optional)
14	TRIGGER SAFETY LOCK
15	TRIGGER
16	HANDLE
17	SWITCH CONNECTOR (Optional)
18	WIRELESS SWITCH RECEIVER

## HOSE RANGE FOR RAPTOR HANDY

	ARION HANDY		
Sensor type	Pt-100	Ni-120	Thermocouple (J)
Inner diameters available	8 • 10 • 13 mm		
Lengths available	De 0.6 a 13 m		
Maximum working temperature	Up to 200 °C		
Electrical power supply	120 • 200 • 230 VAC		
Maximum Working pressure	130 (Ø8) • 120 (Ø10) • 105 (Ø13) bar at 200 °C		
Minimum bending radius	200 (Ø8-Ø10) • 300 (Ø13) mm		
Use type	Manual		
Internal air	Ø10 (Pneumatic tube Ø6mm)		
Hydraulic connections type	JIC 9/16" (Ø8 - Ø10) • JIC 3/4" (Ø13)		
Electrical connections type	M01 • S01 • S03 • S04 • T01	N01 • N02 • N03	M03 • X01 • X03
Power (at 230V)	90 - 160 W/m		

More information on the range of Arion hoses and accessories for hand applicators at [www.meler.eu](http://www.meler.eu) and [www.arionhoses.com](http://www.arionhoses.com)

# 3. INSTALLATION AND USE

This chapter provides information for installing and commissioning the hotmelt application system and operating the system's components.

## MANUAL APPLICATION SYSTEM

The applicator is combined with

- a melter,
- a hose,
- electrical connection for heating,
- compressed air supply (swirl option),
- and wireless switch adapter (optional)

to make up a complete manual hotmelt application system.

The most common installation types are:

- **Installation for bead (1):** The applicator is electrically and hydraulically connected to the melter through the hose. The system's temperature is controlled from the melter.
- **Installation for bead with pump activation (2 and 3):** In melters with a gear pump, the pump is activated simultaneously by pressing the manual adhesive output trigger. This activation (switch) can be wireless (2) or through an electrical connector (3) built into the applicator.

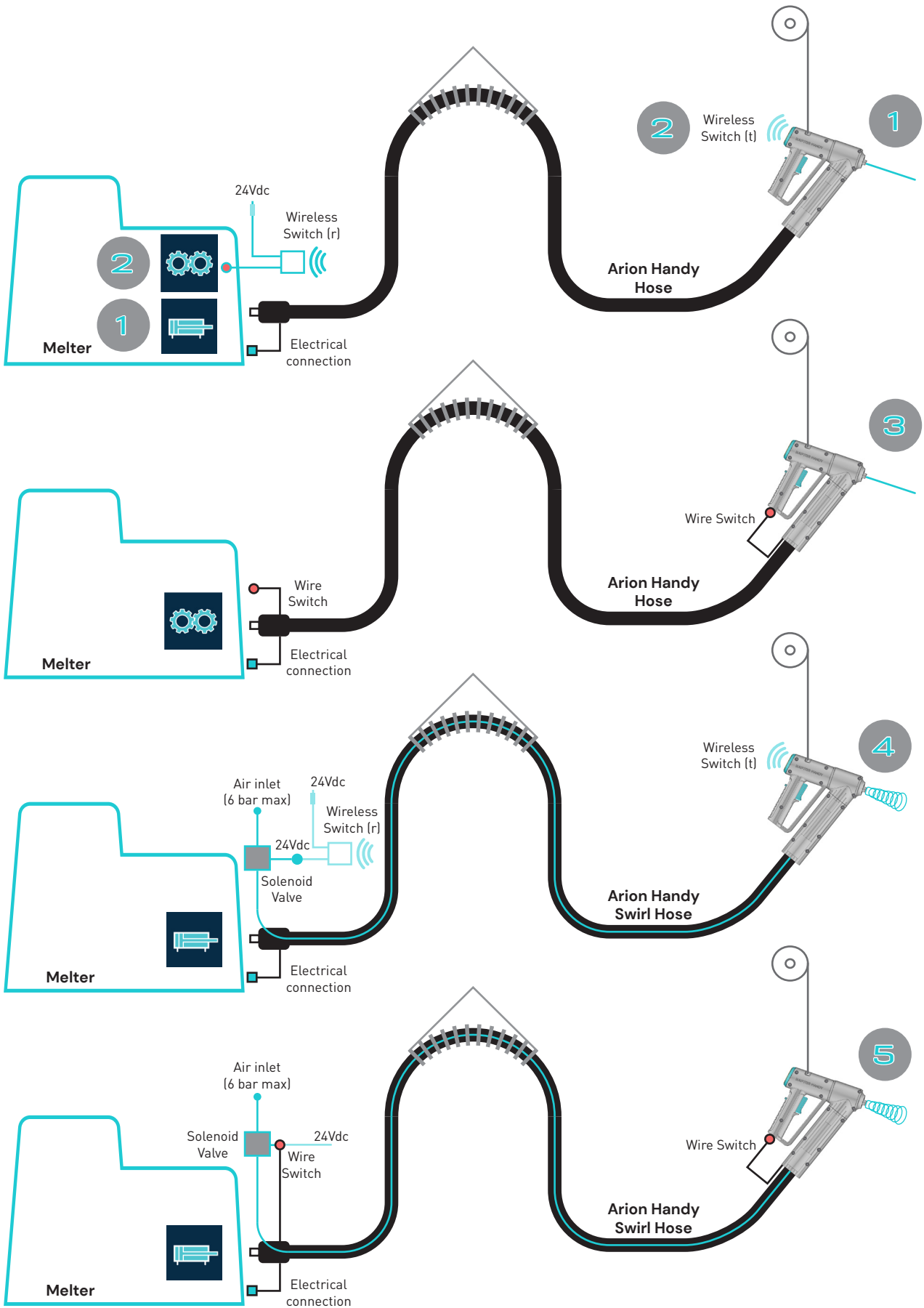
The applicator is electrically and hydraulically connected to the melter through the hose. The system's temperature is controlled from the melter.

- **Swirl installation (4 and 5):** The applicator is electrically and hydraulically connected to the melter through the hose. The system's temperature is controlled from the melter.

Compressed air for swirling is also connected to the applicator through the hose. The air is provided by an external pneumatic system, activated simultaneously by pressing the manual adhesive output trigger. This activation (switch) can be wireless (4) or through an electrical connector (5) built into the applicator.

For other types of installation Consult your 'Focke Meler' representative or the Main Office.





## INSTALLATION

The following work may only be carried out by personnel duly qualified and trained to perform it.

Follow these steps to install an applicator:

- Unpack and check the contents.
- Connect the hose to the applicator.
- Connect the hose to the melter.
- Connect the air system and the switch for the solenoid valve (swirl range).
- Connect the switch system for pumping permission (gear melter).
- Start up the melter.
- Once all temperatures are OK and the equipment can pump adhesive, carry out a test application.
- Adjust the settings (temperature, adhesive flow rate and air flow rate) so that the application is set as desired.



**Warning:** The applicator must be connected without adhesive pressure and with the electrical and pneumatic supply disconnected.



### UNPACKING AND CHECKING THE CONTENTS

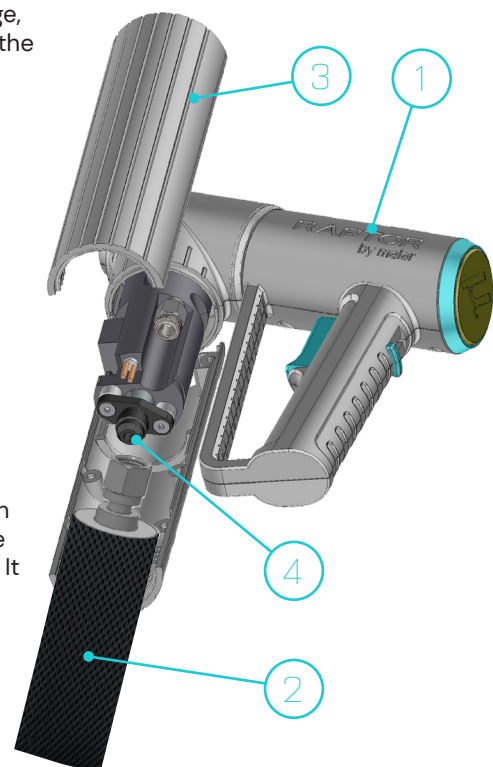
Before installing the applicator, it must be removed from its packaging and examined to detect any damage or breakage. Communicate any damage, including external packaging, to your 'Focke Meler' representative or to the Main Office.

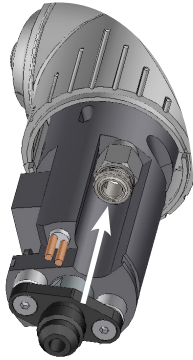
### ADHESIVE HOSE CONNECTION

The applicator (1) is connected to the melter with a hose (2). To ensure that the hose is connected correctly, consult the documentation from the manufacturer for the hose and the melter.

1. Remove the protector (3) by removing the fastening screws.
2. Screw the hose (2) to the fitting (4).

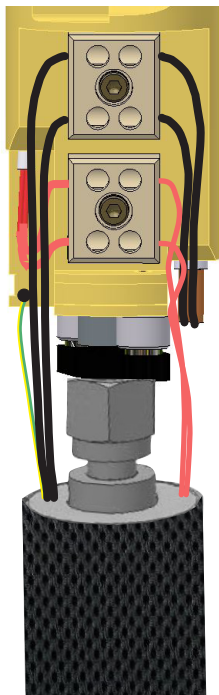
**Note:** To ensure tightness between hose and applicator, use one wrench or spanner to hold the male hydraulic connector on the applicator while using another wrench or spanner to tighten the female hose connector. It is very important to do this to prevent adhesive leakage between these components.





### PNEUMATIC CONNECTION FOR SWIRLING

3. Connect the pneumatic air inlet tube to the quick connector inside the applicator.



### CONNECTING ELECTRICAL COMPONENTS

4. Connect the hose wires (blue/black) to the white wires of the applicator resistance on the bipolar ceramic strip.
5. Connect the hose wires (Ø8 yellow/Ø10 grey) to the red (Pt-100) or white (Ni-120) wires of the applicator RTD on the bipolar ceramic strip.
6. Connect the green/yellow ground wire from the hose to the ground screw on the applicator body.
7. Pass the wires through the appropriate slot in the applicator body and secure them in place with the ring on the applicator body.
8. Assemble the hose protectors.



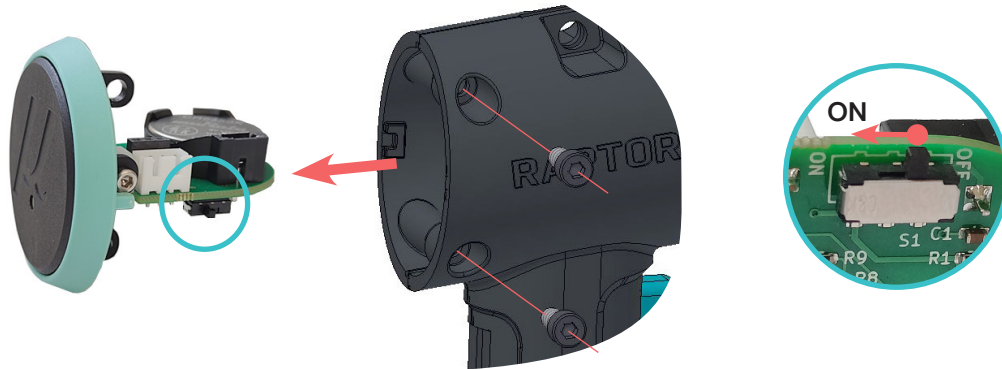
### CONNECT THE SYSTEM SWITCH WIRE (OPTIONAL)

9. Connect the extension wire plug for the pump activation control through the external connector at the bottom of the applicator handle.
10. For bead applicators, connect the other end of the extension wire to the connector on the melter.
11. For swirl applicators, connect the other end of the wire to the pneumatic system so that it activates the solenoid valve supplying air to the applicator.



**CONNECT THE WIRELESS SYSTEM SWITCH (OPTIONAL)**

12. Loosen the side screws and remove the back cover of the applicator to access the activation switch of the wireless transmitter. Put the switch in the "ON" position and mount the rear cover back on the applicator.



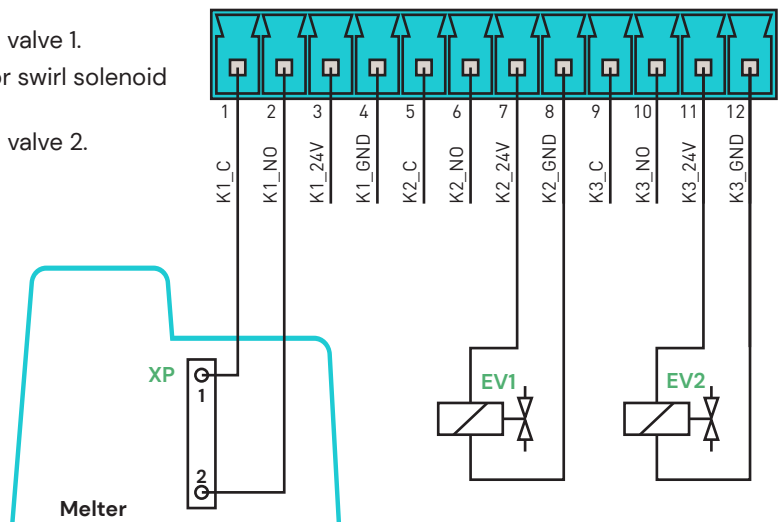
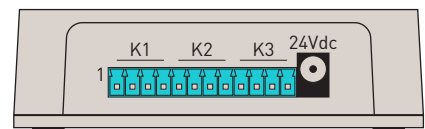
13. For bead applicators on geared equipment, connect the wireless receiver (K1) to the melter's switch connector so that it activates the adhesive pump upon receiving the signal.

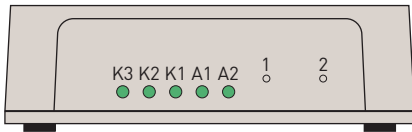
If there is no switch connector, connect the wireless receiver to the melter's pumping permission signal (XP). To do this, consult the manual for the melter.



14. For swirl applicators, connect the wireless receiver (K2 - K3) to the pneumatic system so that it activates the applicator air supply solenoid valve upon receiving the signal. The receiver can operate up to two solenoid valves.

- **24Vdc**: Power input to the wireless receiver.
- **K1\_C & K1\_NO**: potential-free contact for XP output (pump activation).
- **K1\_24V**: +24Vdc output for XP output (pump activation).
- **K2\_C & K2\_NO**: potential-free contact for swirl solenoid valve 1 output.
- **K2\_24V**: +24Vdc output for swirl solenoid valve 1.
- **K3\_C & K3\_NO**: potential-free contact for swirl solenoid valve 2 output.
- **K3\_24V**: +24Vdc output for swirl solenoid valve 2.





15. To synchronise the applicator with the wireless receiver, press button '1'. When led 'A1' begins to flash, activate the applicator trigger. If the synchronisation is correct, the LED will stay on for a few seconds and then turn off.

When the applicator trigger is activated, the LED will turn on and when it is released, the LED will turn off.

15. To synchronise a second applicator, proceed in the same way on button '2'.



**Warning:** Synchronise so that adhesive application is not possible when the applicator trigger is activated.

## OPERATION



**Warning:** Hot zone with high temperatures. Burn risk. Use heat protection elements.



**Warning:** System under pressure. Risk of burns or particle projection. Use heat protection elements and eyewear.



Adhesive is pumped from the melter through the heated hose connected hydraulically and electrically to the hand applicator.

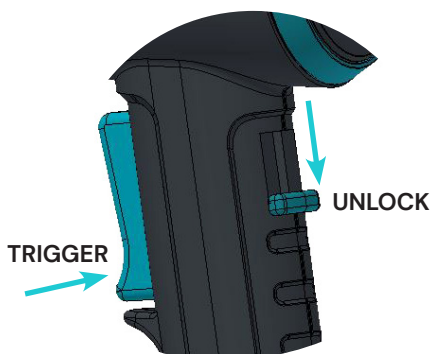
To open the adhesive passage, the trigger must be unlocked by lowering the safety lock and activating it, always directing the applicator on the surface to be bonded.

Simultaneously, if the applicator has a switch system:

- Bead applicator: the pump starts pumping and the bead of adhesive comes out of the nozzle.
- Swirl applicator: the air passes spirally around the bead of adhesive so that it begins to rotate as it goes onto the surface.

When the trigger is released, the adhesive passage is closed and the switch stops the pumping (bead) or the air passage (swirl).

If the applicator is not in use, the trigger lock must be placed in the "locked" position. This will prevent accidental activation and release of adhesive from the applicator.



**Attention:** never hang the applicator by the trigger area. Accidental release of hot adhesive can result in burns and other serious damage to personnel or equipment.



## STARTING UP THE APPLICATOR

**Warning:** Hot zone with high temperatures. Burn risk. Use heat protection elements.



**Warning:** System under pressure. Risk of burns or particle projection. Use heat protection elements and eyewear.



To ensure that the applicator works correctly with the adhesive to be used, it must be purged after installation and checked for correct application. To do this:

- Start up the melter and configure the necessary settings (temperature, pressure, etc.). Consult the operating manuals supplied with the melter and the hoses, as well as the data sheets for the adhesive to be used.
- Open the compressed air passage of the pneumatic installation (swirl applicators).
- Aim the applicator over a disposable container or surface and pull the trigger until adhesive flows steadily from the applicator nozzle.
- Adjust the application by adjusting the adhesive pumping speed and the temperature. See 'Adhesive Adjustment'.
- Swirl applicator: with the applicator 40 – 50 mm from the surface and slightly moving the applicator, adjust the swirl by adjusting the air pressure of the pneumatic circuit until the desired swirl pattern is obtained.



## ADJUST THE ADHESIVE

### INCREASE THE FLOW

To increase the amount of adhesive to apply, make one or more of the following adjustments:

- Increase hydraulic pressure (piston pump) or motor speed (gear pump) on the melter.
- Replace the applicator nozzle with one with a larger section.
- Increase the applicator temperature, within the adhesive application temperature range recommended by the manufacturer.
- If possible, replace the adhesive with one of lower viscosity.

### DECREASE THE FLOW

To decrease the amount of adhesive to apply, make one or more of the following adjustments:

- Decrease hydraulic pressure (piston pump) or motor speed (gear pump) on the melter.
- Replace the applicator nozzle with one with a smaller section.
- Decrease the applicator temperature, within the adhesive application temperature range recommended by the manufacturer.
- If possible, replace the adhesive with one of higher viscosity.



**Note:** In both cases, the air pressure will probably need to be adjusted if the applicator is a swirl applicator.

## SHUTTING DOWN THE SYSTEM

1. Disconnect the melter as detailed in the service manual.
2. Disconnect pneumatic pressure (swirl applicator).
3. Place the applicator trigger lock in the “locked” position.
4. Store the applicator holding it by the top support.



# 4. MAINTENANCE

**Warning:** The melters and applicators feature start-of-the-art technologies with certain foreseeable risks. Therefore, only allow qualified personnel with sufficient training and experience to handle, install or repair this equipment.

**Warning:** Hot zone with high temperatures. Burn risk. Use heat protection elements.



To ensure safe use of the applicator and optimal system performance, follow these instructions:

OPERATION	FREQUENCY
System depressurisation	- Before maintenance and repair work on the hydraulic / pneumatic system
External cleaning and visual inspection	- Daily
Nozzle cleaning	- Weekly - As required
Inspection and external cleaning	- Monthly - As required
Trigger adjustment	- As required
Replacing the battery of the wireless switch system	- As required

## DEPRESSURISE THE SYSTEM

### PNEUMATIC SYSTEM



The circuit must be depressurised before carrying out maintenance work on the pneumatic system or on the applicator.

Close the circuit air stopcock and open the solenoid valve to eliminate residual pressure.

### HYDRAULIC SYSTEM



Hydraulic pressure for the applicator comes from the main melter.

Completely depressurise the hydraulic system before servicing the applicator or feed hose. For depressurisation, stop the pump and open the purge valve on the main melter until the pressure in the circuit drops completely.



For further information, consult the instruction manual for the melter.

## EXTERIOR CLEANING



**Warning:** Do not use pointed tools or scrapers with sharp edges for cleaning.



**Warning:** Hot zone with high temperatures. Burn risk. Use heat protection elements.



Visually check for loose or damaged components that could cause malfunction or safety hazards.

Build-up of hot material can cause malfunction. Use a cloth impregnated with the cleaning product recommended by the adhesive manufacturer to clean the external surfaces.

Take care to keep the adhesive application area free from solid debris that may prevent correct operation.

## CLEANING THE NOZZLE

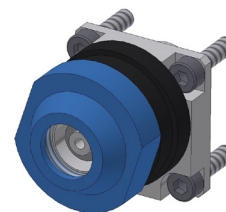
The nozzle can become obstructed when the adhesive filter is damaged or when burned material moves through the system to the applicator. Adhesive can burn if heated above the recommended application temperature or if a system set at the recommended temperature is not used for an extended period of several hours.

If burned, it may be necessary to clean only the applicator nozzle. If the nozzle is still clogged, the entire system should be cleaned as detailed in the service manual for the melter.

1. Bring the applicator to working temperature in accordance with the melter service manual.
2. Depressurise the system.
3. Remove the nozzle from the applicator and blow with compressed air to open the hole(s). If necessary, heat the nozzle with a hot air gun.
4. Clean the nozzle holes with a fine needle inserted in the direction of flow opposite to that of the adhesive material.
5. Check adhesive output from applicator. Carefully clean any solid or burnt adhesive remains.

**Warning:** Do not insert sharp metal objects into the hole or force the mechanism.

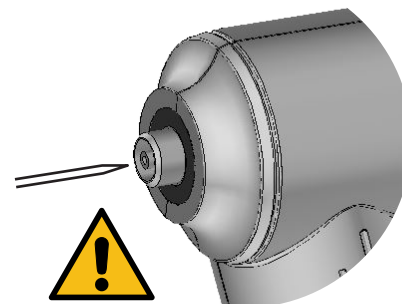
6. Reinstall the nozzle on the applicator.
7. Restore the system to normal operation.
8. Shoot the applicator into a heat-resistant waste container to ensure correct operation.



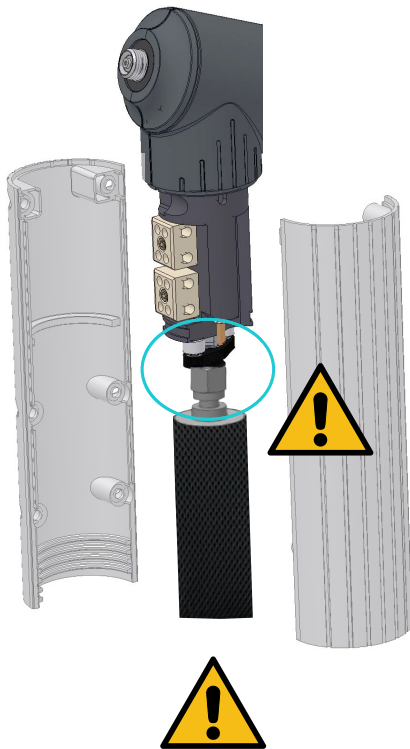
Swirl nozzle



Bead nozzle



## INTERIOR CLEANING



Periodically check that the inside of the applicator is clean, with no traces of adhesive and that the hydraulic, electrical and pneumatic connections are in perfect condition. To do this:

1. Remove the six Allen head screws that secure the hose guard to the applicator and remove it.
2. Inspect the hydraulic connection. There should be no traces or leaks of adhesive. Retighten the connection if necessary.

**Warning:** To ensure a tight connection between the hose and the applicator, use one wrench or spanner to hold the male hydraulic connector on the hose applicator and simultaneously use another wrench or spanner to tighten the female hose connector. It is very important to do this to prevent adhesive leakage between these components.

3. Inspect the pneumatic connection. The tube must be in perfect condition. Retighten the quick connector if necessary.
4. Inspect all wiring and electrical connections for signs of wear or other damage. Check that all ceramic bipolar spacers are tight.

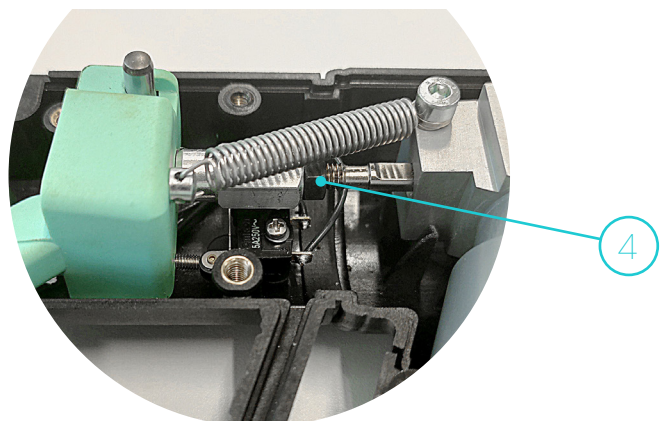
**Warning:** Vibration and heating/cooling cycles can loosen connections and cause possible equipment malfunction and/or electric shock to the operator.

5. Reinstall the hose guards.

## TRIGGER ADJUSTMENT

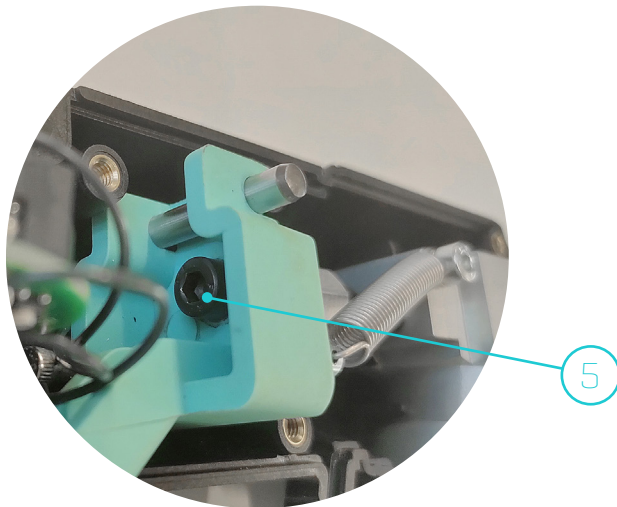
If adhesive leaks from the application hole without having activated the trigger; or if the applicator does not open by activating the trigger, the trigger system will need to be adjusted. To do this:

1. Depressurise the system.
2. Disconnect the power supply.
3. Remove the Allen head screws that secure the applicator guard and remove it.
4. Loosen the hexagonal locknut on the applicator needle.

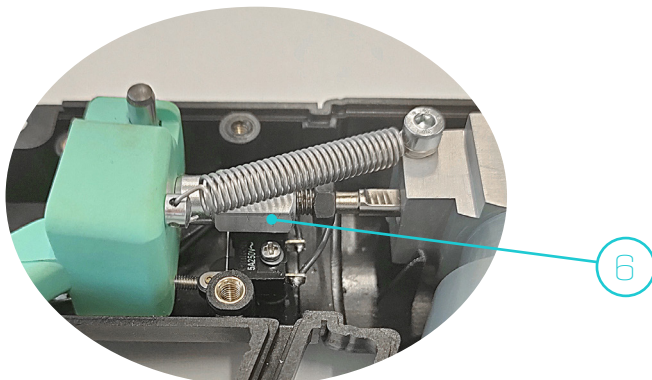




5. Slightly loosen the Allen screw that fastens the needle to the trigger.



6. Turn the adjustment nut to the desired position. Moving the nut towards the applicator guarantees the needle closes and there is a longer stroke on the opening when the trigger is activated.



7. Retighten the Allen screw and the locknut to fasten the adjusted position.
8. Check the correct condition of the trigger return spring and its fastening.
9. Check the correct state of the switch activation micro. With the trigger idle, it must be switched off.
10. Replace the applicator guard.
11. Restore the system to normal operation.

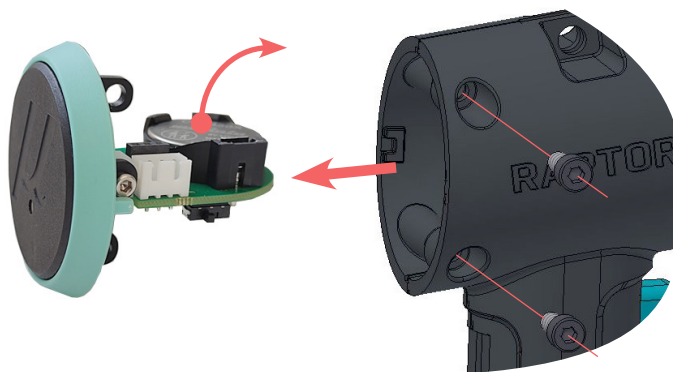
**Warning:** The applicator trigger safety in its 'locked' position must not allow triggering. Check the condition of the locking device and trigger and immediately replace any defective part.



## REPLACING THE BATTERY OF THE WIRELESS SWITCH SYSTEM

To replace the power battery, proceed as follows:

1. Disconnect electrical power to the applicator.
2. Loosen the two rear cover fixing screws.
3. Remove the cover with the wireless system.
4. Replace the battery
5. Reassemble the cover in its place.
6. Restore the system to normal operation.



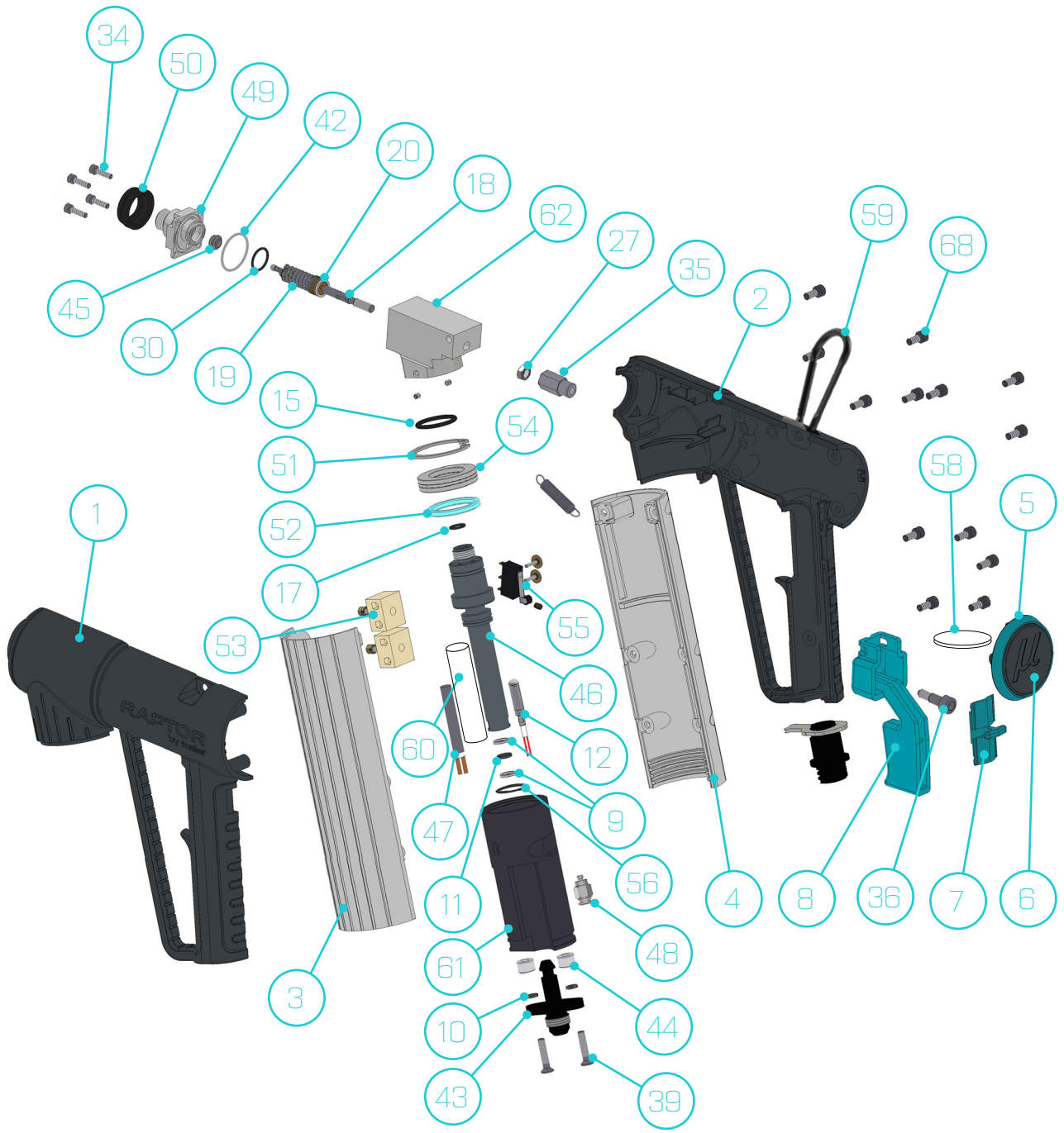
## 5. SPARE PART LIST

The list of the most common spare parts for Raptor Handy applicators appears in this section, providing a quick and reliable guide to choosing them.

The spare parts are grouped together naturally, in the same way as they are located in the unit itself.

As a visual aid, drawings of the parts are included and are numbered to help identify them in the list

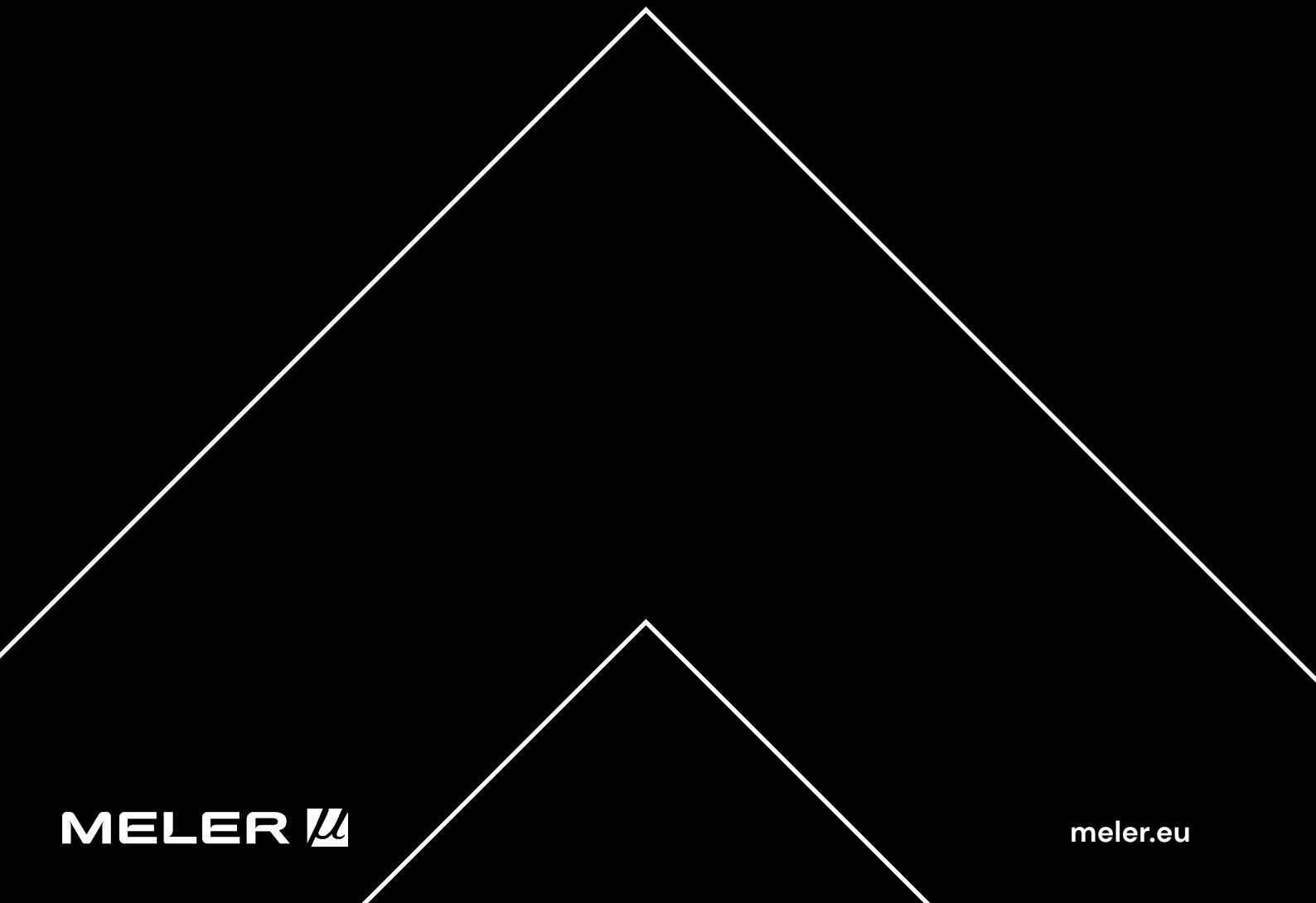




## A. MANUAL APPLICATOR

N°	REF.	DENOMINATION
20+19+18+27	12330037	RH NEEDLE ASSEMBLY
62+15	150142820	RH APPLICATOR NEEDLE BODY
43+39+10+44+9+11	150142830	RACOR UNION 9/16 RH
43+39+10+44+9+11	150143150	RACOR UNION 3/4
8+36+35+WASHER	150143120	RH TRIGGER ASSEMBLY
8+36+35+WASHER+SPRING+BOLT	150143130	TRIGGER ASSEMBLY FOR SWITCH SYSTEM
2+1+68	150142840	GRIPS APPLICATOR RH LOWER SWO
2+1+68	150142940	GRIPS APPLICATOR RH UPPER SWO
4+3+68	150142950	HOSE GRIPS RH
2+1+68	150142960	GRIPS APPLICATOR RH UPPER SW1
54+51	150142970	AXIAL SLIDE ASSEMBLY
47	150142980	HEATER 230V
47	150142990	HEATER 120V
12	150143690	PT100 PROBE + CAP
12	150143430	Ni120 PROBE + CAP
61+16+52+ CAPBOLT	150143000	RH APPLICATOR BODY
46+17+60	150143010	APPLICATOR ROD RH
6+5	150143020	LOGO LID
6+5+WL	150143070	COVER LOGO MICRA RH WL1
7	150143030	TRIGGER LOCK
48	150143080	STRAIGHT FITTING M5 Ø6 QUICK PLUG
49+50+34+45+42+30+NUT	150143090	RH SWIRL APPLICATOR TIP
49+34+45+30	150143040	RH CORD APPLICATOR TIP
52	150143050	QUAD-RING JOINT Ø25
60	150143350	ROD TURN JOINT
50	150143140	SWIRL INSULATION NUT APPLICATOR RH
55	150143600	SWITCH SET WITH CONNECTOR RH
55	150143580	SET OF 2 SWITCHES WITH CONNECTOR RH
55	150143590	SWITCH SET FOR WIRELESS
53	150143060	CERAMIC CONNECTOR 17X19,5X13 10A 230V
59	150143160	RH CARABINER
58	150143170	WIRELESS BATTERY
9+11	150143700	UNION FITTING O-RING KIT
56	150026320	O-RING 15x1.5 VITON

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