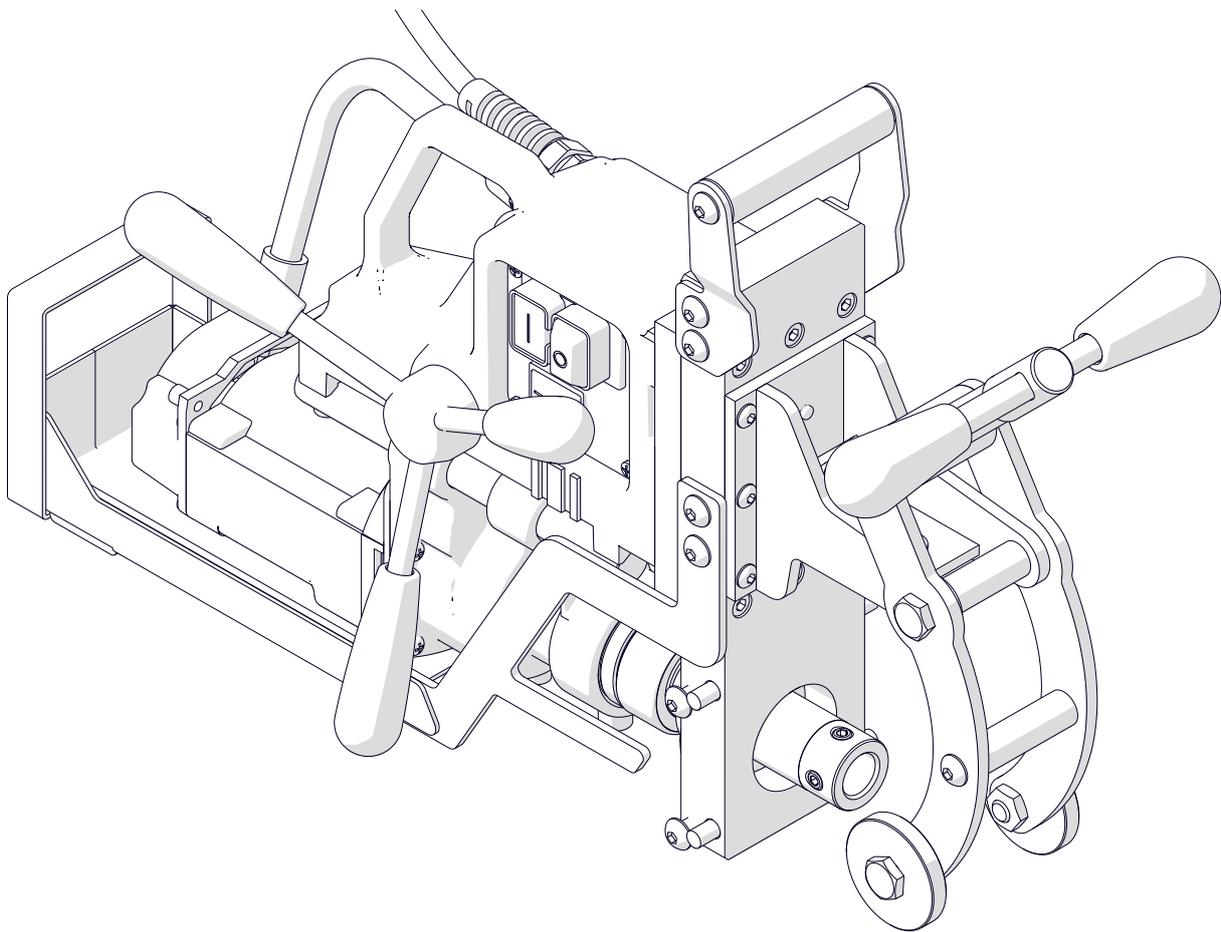


JEI DRILLING AND CUTTING **SOLUTIONS**

OPERATOR'S MANUAL

ELECTRIC RAIL DRILLING MACHINE

RAILBEAST RDE-36



UNIT 21 EMPIRE BUSINESS PARK, ENTERPRISE WAY

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1. GENERAL INFORMATION

1.1. Application

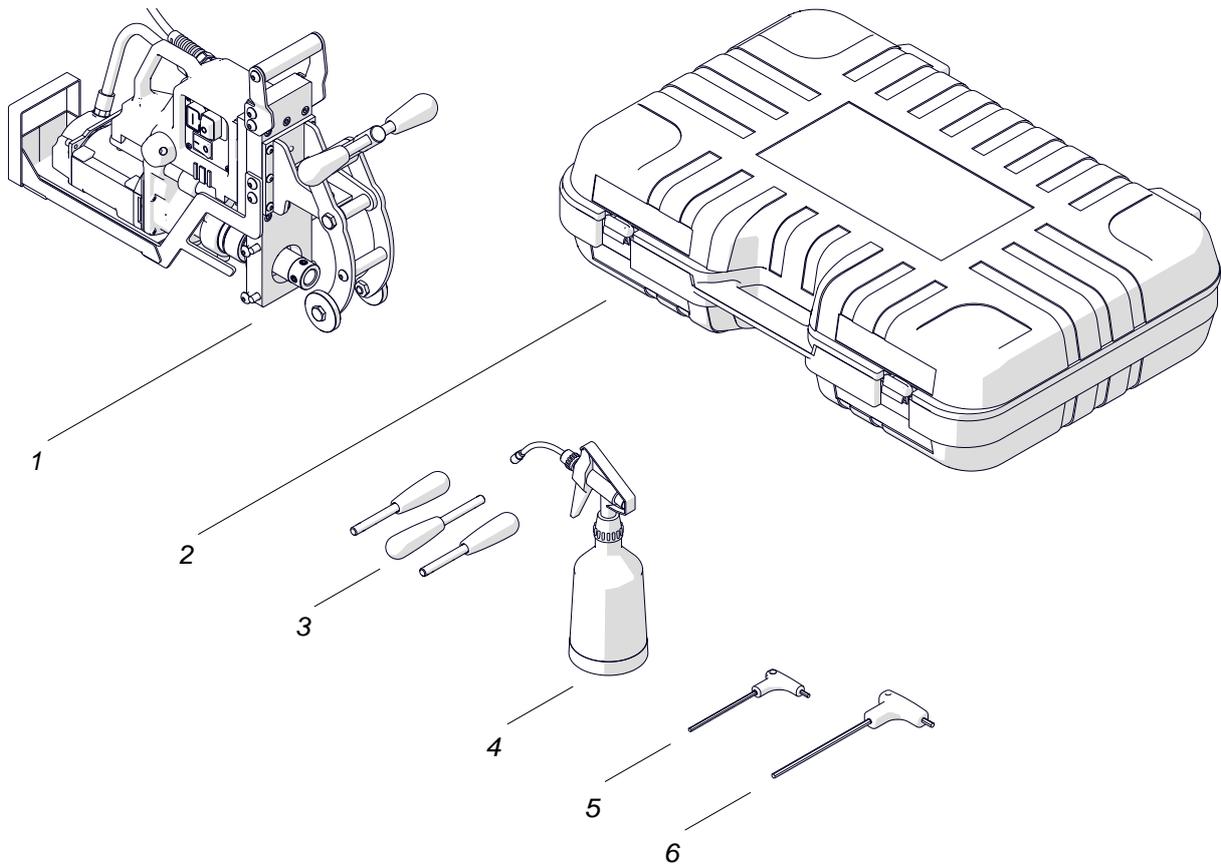
The RAILBEAST RDE-36 is a drilling machine designed to drill holes in rails of UIC54, UIC60, P50, P65, S49, or any other standard. The machine can drill holes with diameters of 36 mm (1.42") by using annular cutters.

Ordered separately rail profile templates allow the machine to be clamped onto a rail. Hole center positioners allow you to get the correct span between holes.

1.2. Technical data

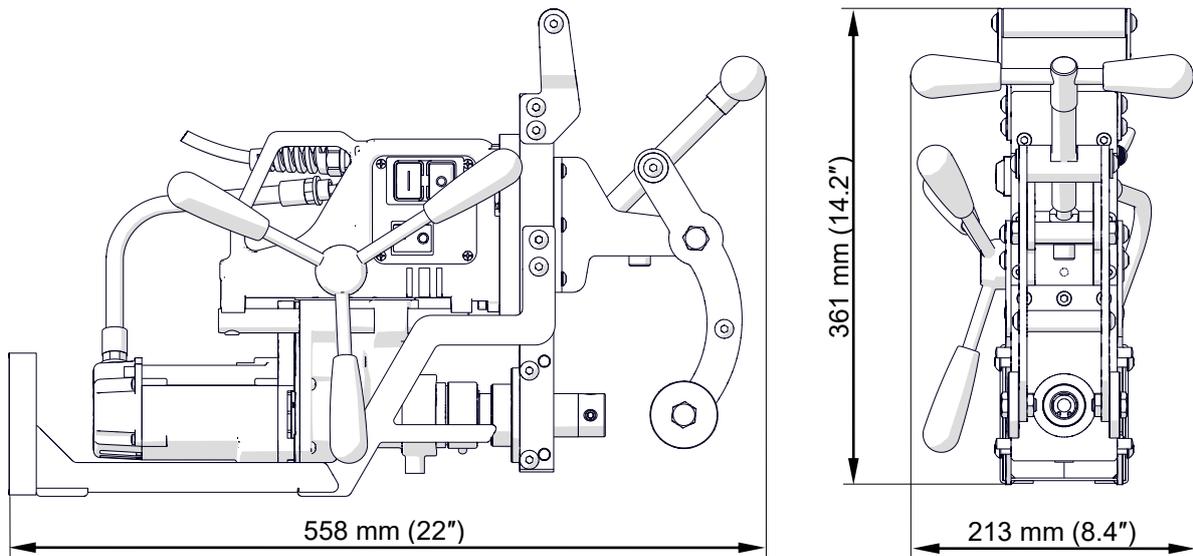
| | |
|-------------------------------|--|
| Voltage | 1~ 220–240 V, 50–60 Hz 1~ 110–120 V, 50–60 Hz |
| Power | 1020 W |
| Tool holder | 19 mm (3/4") Weldon |
| Maximum drilling diameter | 36 mm (1.42") |
| Maximum drilling depth | 30 mm (1.18") |
| Stroke | 40 mm (1.57") |
| Rotational speed with no load | 520 rpm |
| Rotational speed with load | 350 rpm |
| Protection level | IP 20 |
| Protection class | I |
| Noise level | More than 70 dB |
| Vibration level | 1.55 m/s ² (5.1 ft/s ²) |
| Required ambient temperature | 0–40°C (32–104°F) |
| Weight | 14.5 kg (32 lbs) |

1.3. Equipment included

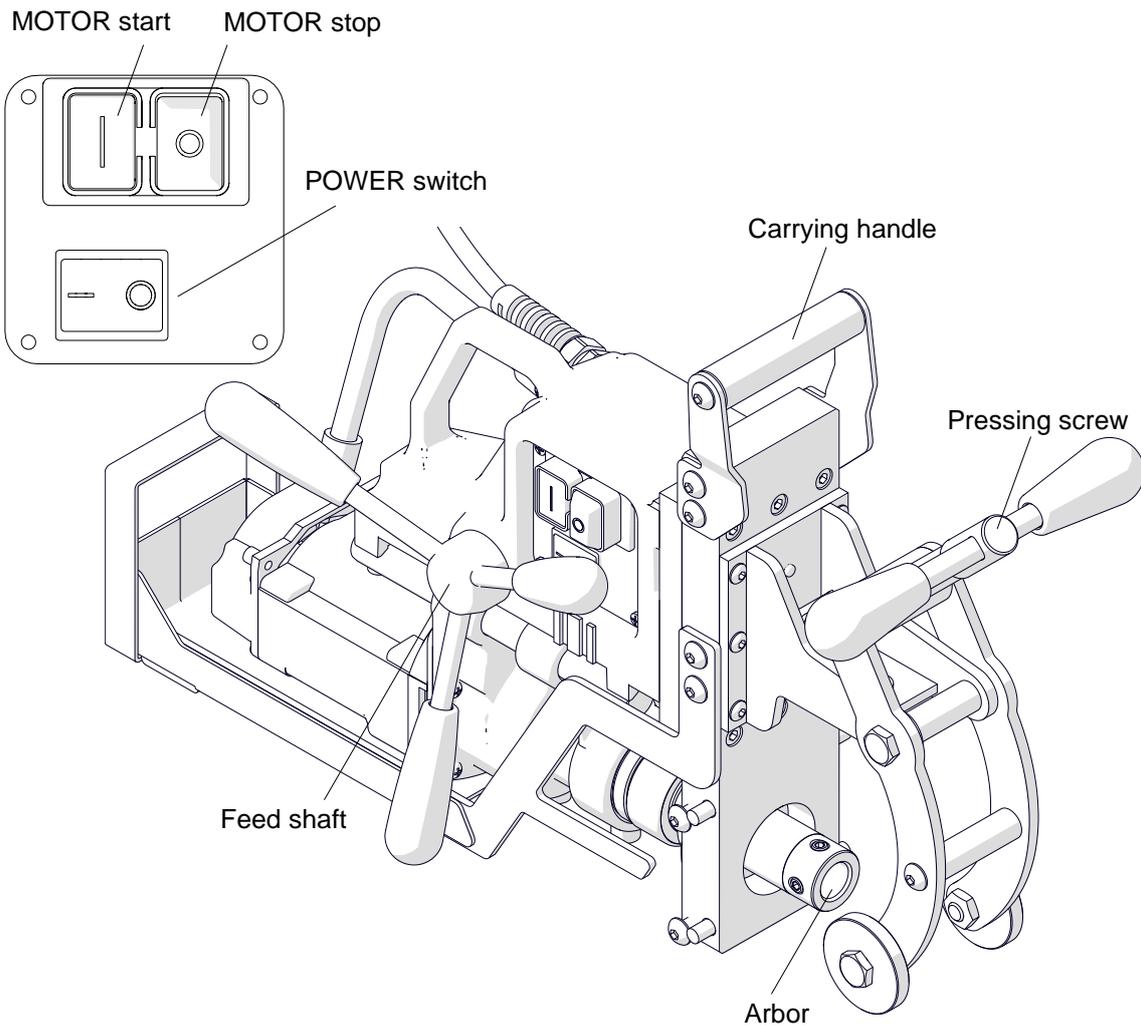


| | | |
|---|-----------------------------------|---------|
| 1 | RAILBEAST RDE-36 drilling machine | 1 unit |
| 2 | Plastic box | 1 unit |
| 3 | Handle | 3 units |
| 4 | Cooling system | 1 unit |
| 5 | 4 mm hex wrench with a handle | 1 unit |
| 6 | 5 mm hex wrench with a handle | 1 unit |
| – | Operator's Manual | 1 unit |

1.4. Dimensions



1.5. Design



2. SAFETY PRECAUTIONS

1. Before use read this Operator's, Manual and complete a training in occupational safety and health.
2. Use only in applications specified in this Operator's Manual.
3. Make sure that the machine has all parts and they are genuine and not damaged.
4. Make sure that the specifications of the power source are the same as those specified on the rating plate.
5. Do not carry the machine by the power cord and do not pull the cord. This can cause damage and electric shock.
6. Transport and position the machine by using the carrying handle.
7. Keep untrained bystanders away from the machine.
8. Before each use, make sure the correct condition of the machine, power source, power cord, plug, control panel, and tools.
9. Before each use, make sure that no part is cracked or loose. Make sure to maintain correct conditions that can have an effect on the operation of the machine.
10. Before starting, make sure that the rail profile templates installed agree with the rail standard.
11. Use the correct coolant for the ambient temperature.
12. Keep the machine dry. Do not expose the machine to rain, snow, or frost.
13. Keep the work area well lit, clean, and free of obstacles.
14. Make sure that the tool is correctly attached. Remove wrenches from the work area before you connect the machine to the power source.
15. Do not use tools that are dull or damaged.
16. Unplug the power cord before you install and remove tools. Use protective gloves to install and remove tools.
17. Do not make holes whose diameter or depth differ from those specified in the technical data.
18. Do not use near flammable materials or in explosive environments.
19. Use eye and ear protection and protective clothing. Do not use loose clothing.
20. Do not touch chips or moving parts. Do not let anything catch in moving parts.
21. After each use, remove chips and coolant from the machine and the tool. Do not remove chips with bare hands.
22. Unplug the power cord before you do maintenance or install/remove parts.

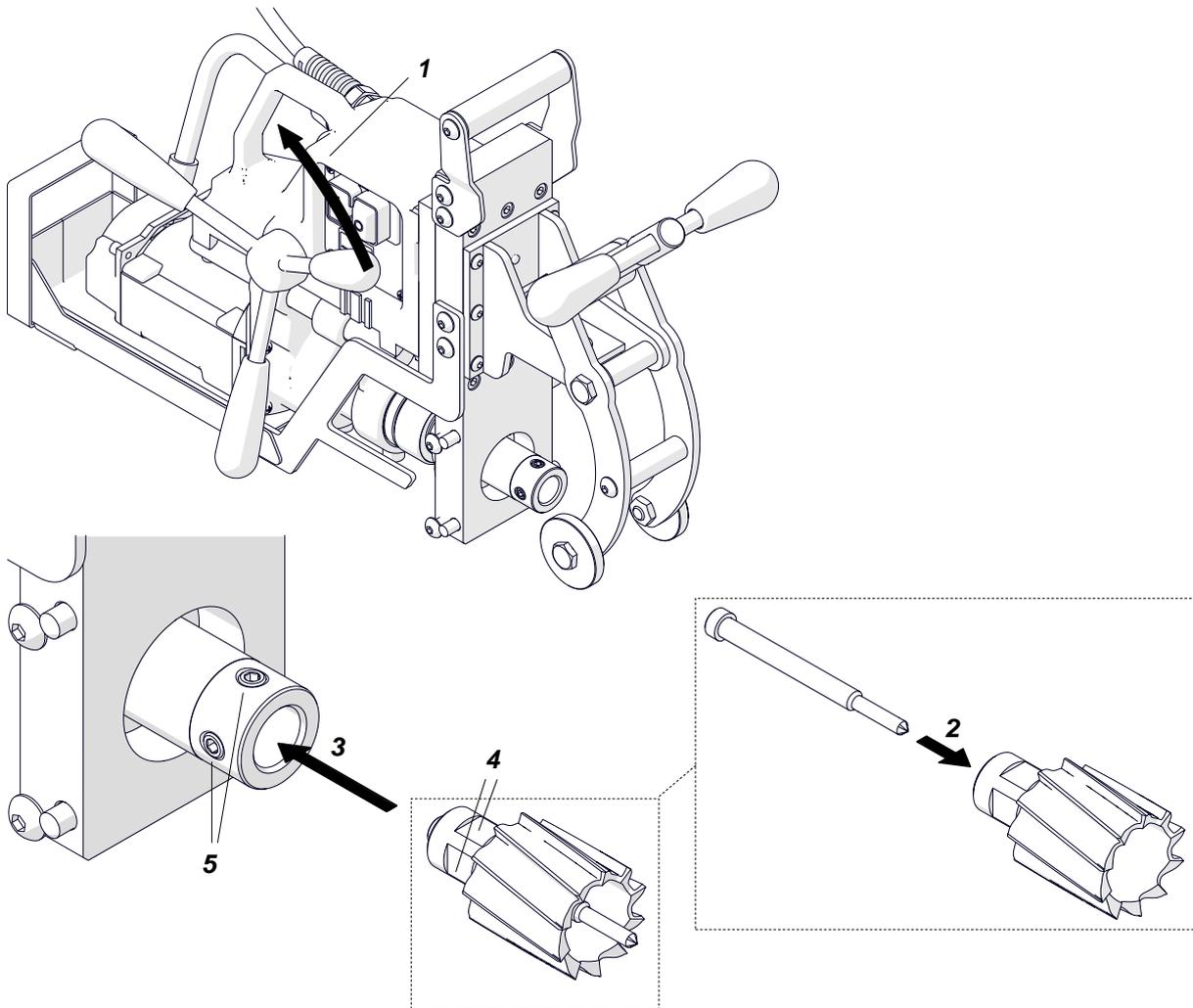
23. Repair only in a service center appointed by the seller.
24. If the machine falls, is wet, or has any damage, stop the work and immediately send the machine to the service center for check and repair.
25. Do not leave the machine when it operates.
26. If you are not going to use the machine, remove the tool from the holder. Then, remove the machine from the work area and keep it in a safe and dry place.
27. If you are not going to use the machine for an extended period, put anti-corrosion material on the steel parts.

3. STARTUP AND OPERATION

3.1. Installing and removing the annular cutter

With the motor stopped, turn the handles (1) to move out the arbor. Install the arbor as described before. Use gloves to put the correct pilot pin into the annular cutter (2). Use a dry cloth to clean the cutter. Put the cutter into the arbor (3) to align the flat surfaces (4) with the screws (5). Use the 4 mm hex wrench to tighten the screws.

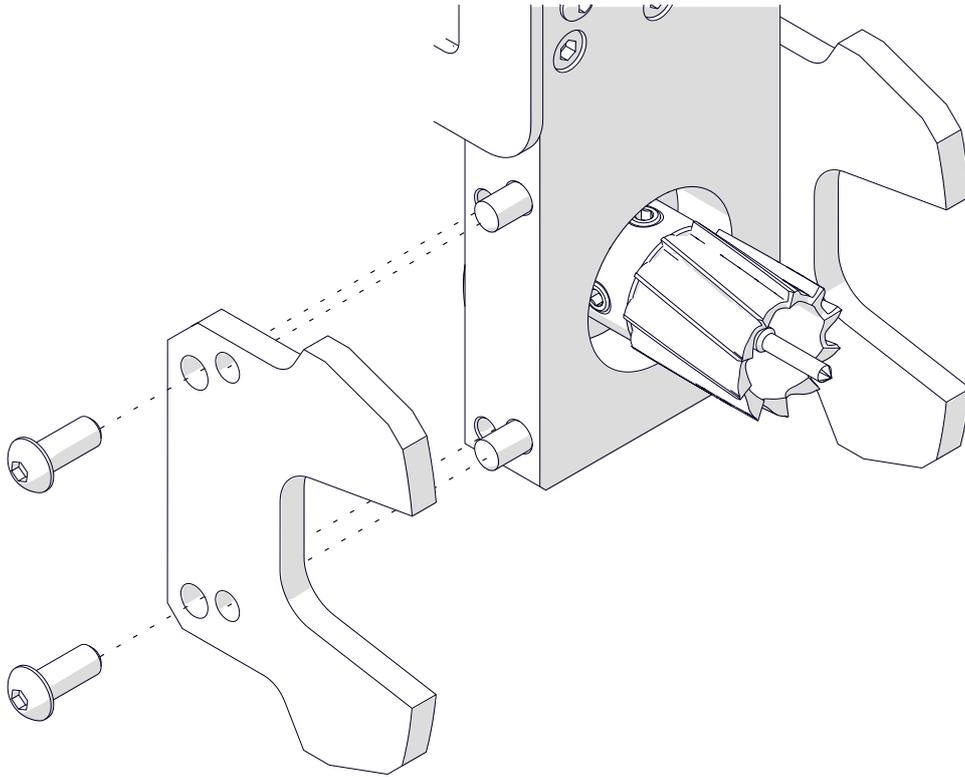
To remove the cutter, loosen the screws (5) with the 4 mm hex wrench.



3.2. Installing and removing the rail profile templates

Select rail profile templates (not included) that agree with the rail standard. Put the templates on the pins. Use the 6 mm hex wrench to tighten the screws.

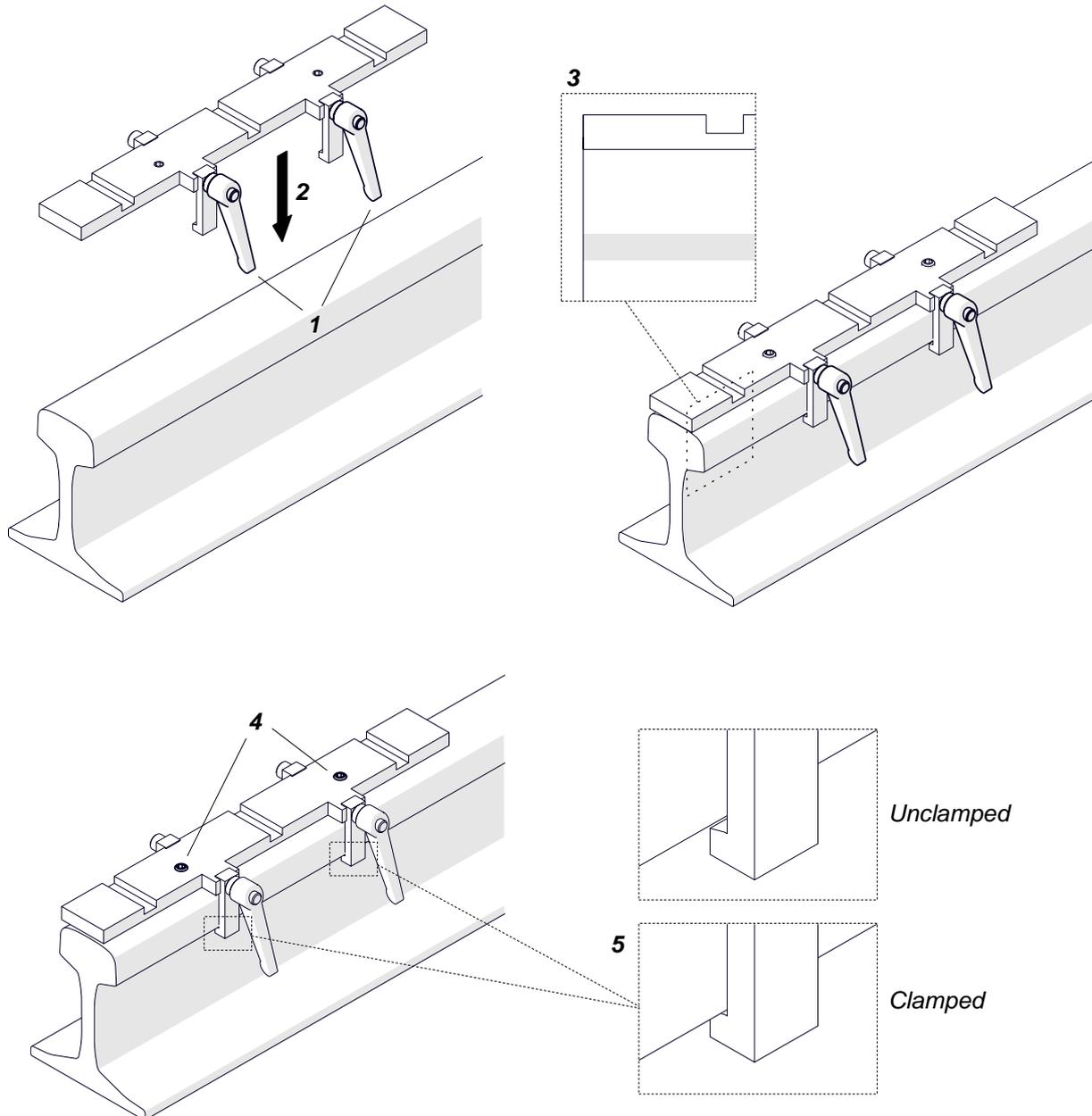
To remove the templates, use the 6 mm hex wrench.



3.3. Installing and removing the hole center positioner

Select a hole center positioner (not included) that agrees with the rail standard, and loosen the levers (1). Put the positioner onto the rail (2) so that the positioner face aligns with the rail face (3). Lock the levers in this position. Next, use the 6 mm hex wrench to tighten the screws (4) so that the positioner clamps onto the rail (5).

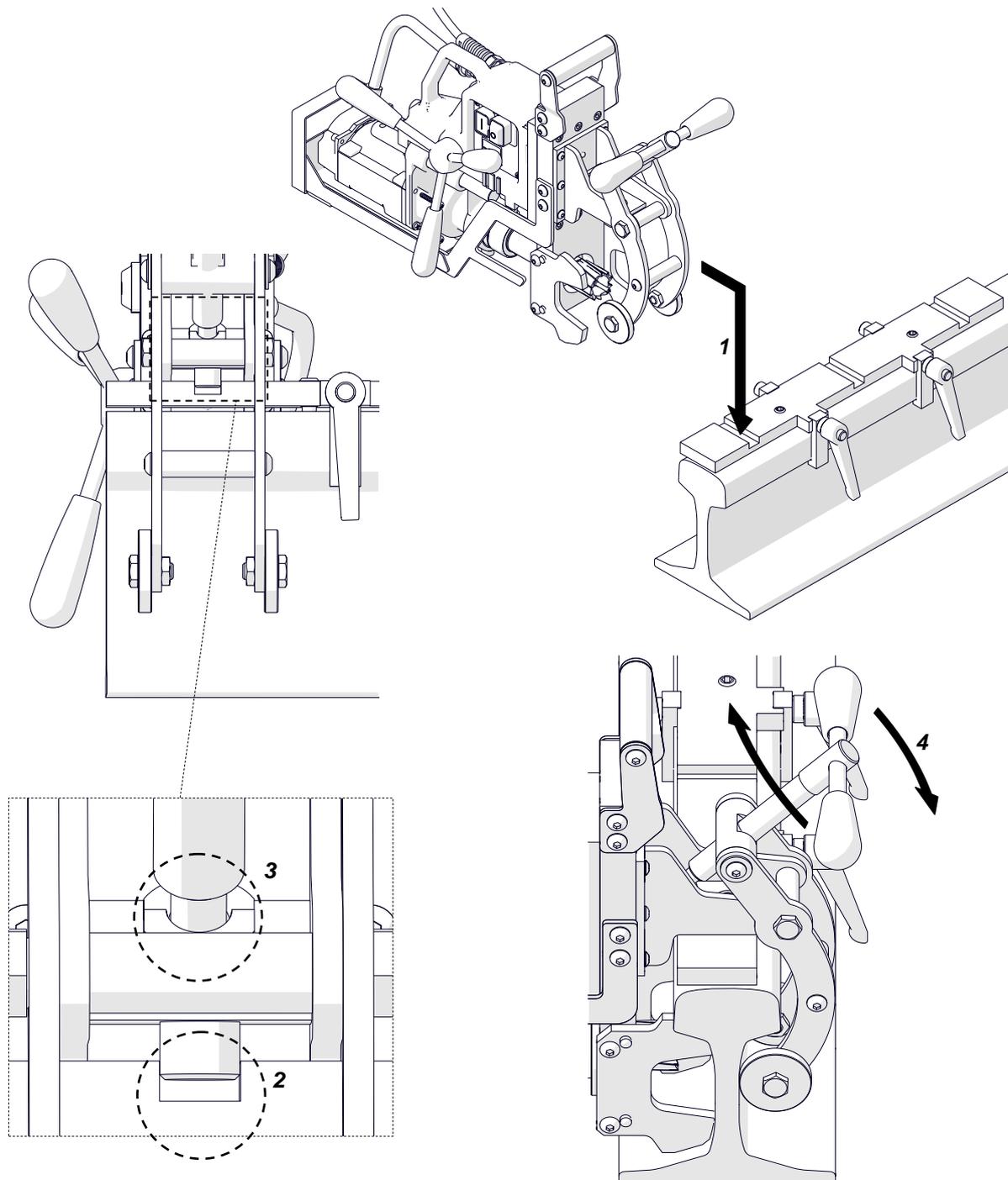
To remove the positioner, loosen the screws (4) and levers (1).



3.4. Clamping the machine onto the rail and unclamping

Put the machine onto the rail (1). Make sure that the locating pin is in the first groove of the hole center positioner (2) and the pressing screw is in the resisting socket (3). Then, tighten the screw (4) to clamp the machine onto the rail.

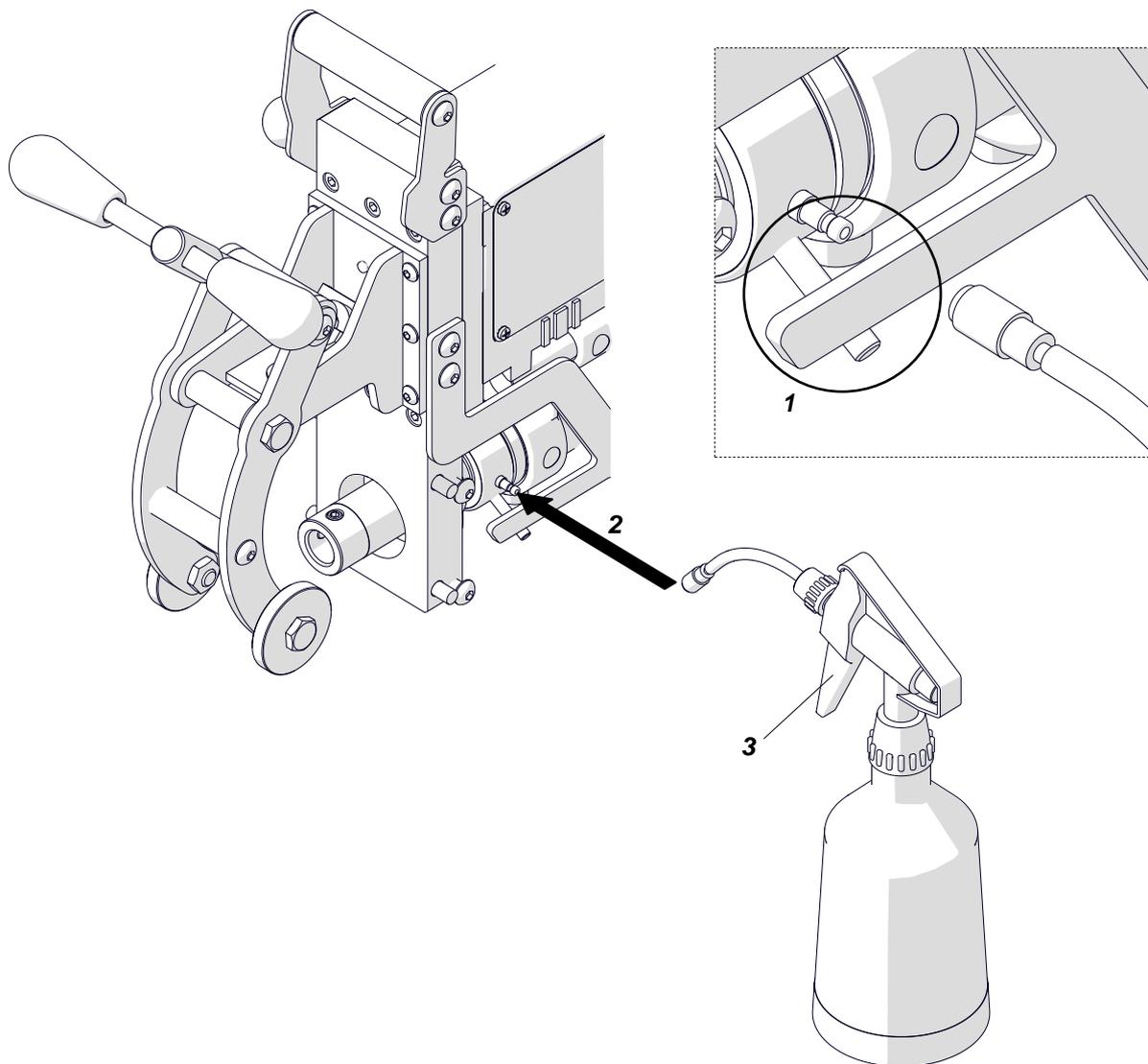
To unclamp the machine, loosen the pressing screw.



3.5. Connecting and disconnecting the cooling system

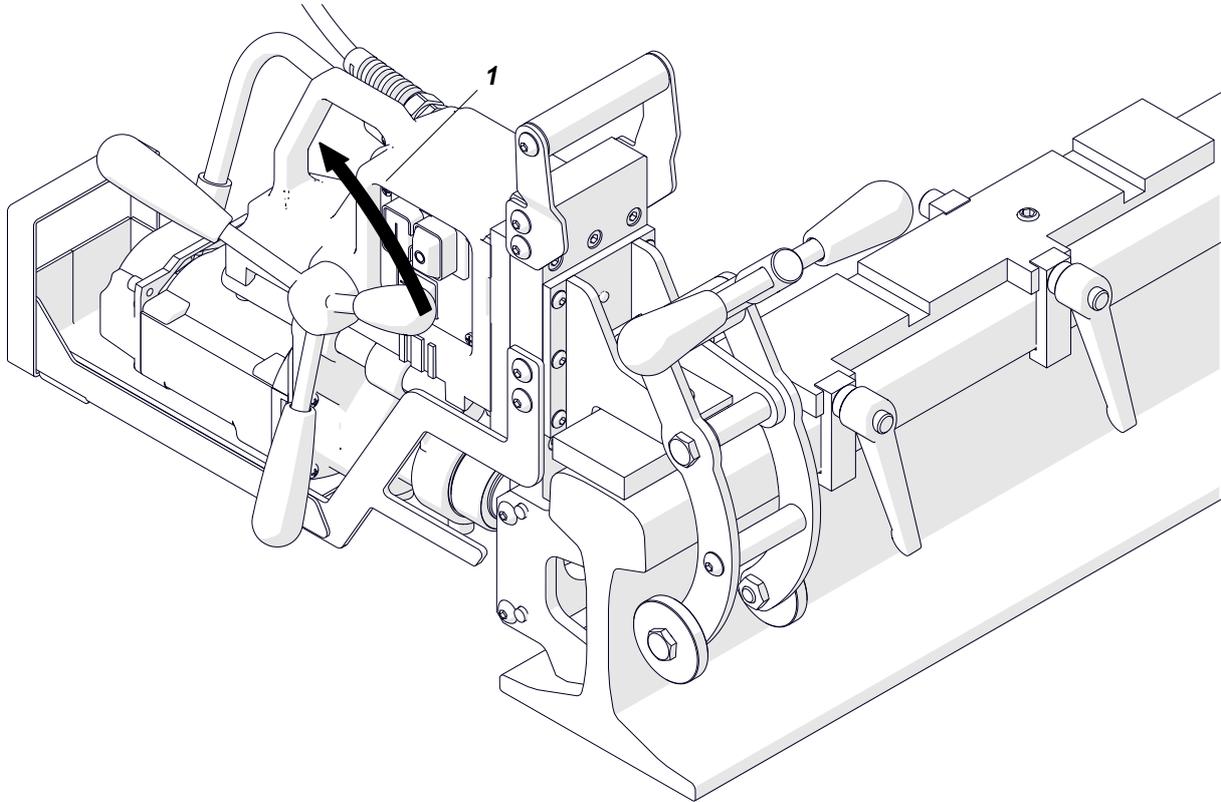
Make sure that the bar of the frame is between the pin and the fitting (1). Next, attach the cooling system to the fitting (2), and then fill the bottle with a coolant. Do not use only water as the coolant. But you can mix water and drilling oil. Before you drill, press the lever (3) several times. Press and release the lever during work to supply the coolant.

To disconnect, pull out the hose from the fitting.

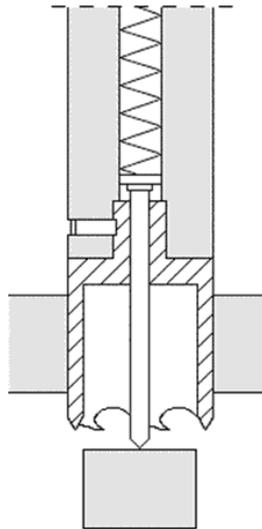


3.6. Drilling

Set the power switch to 'I'. Then, press the green MOTOR button to start the motor. Slowly turn the handles (1) to move out the cutter and start drilling.



When the annular cutter goes through the workpiece, the slug core is pushed out with a large force.



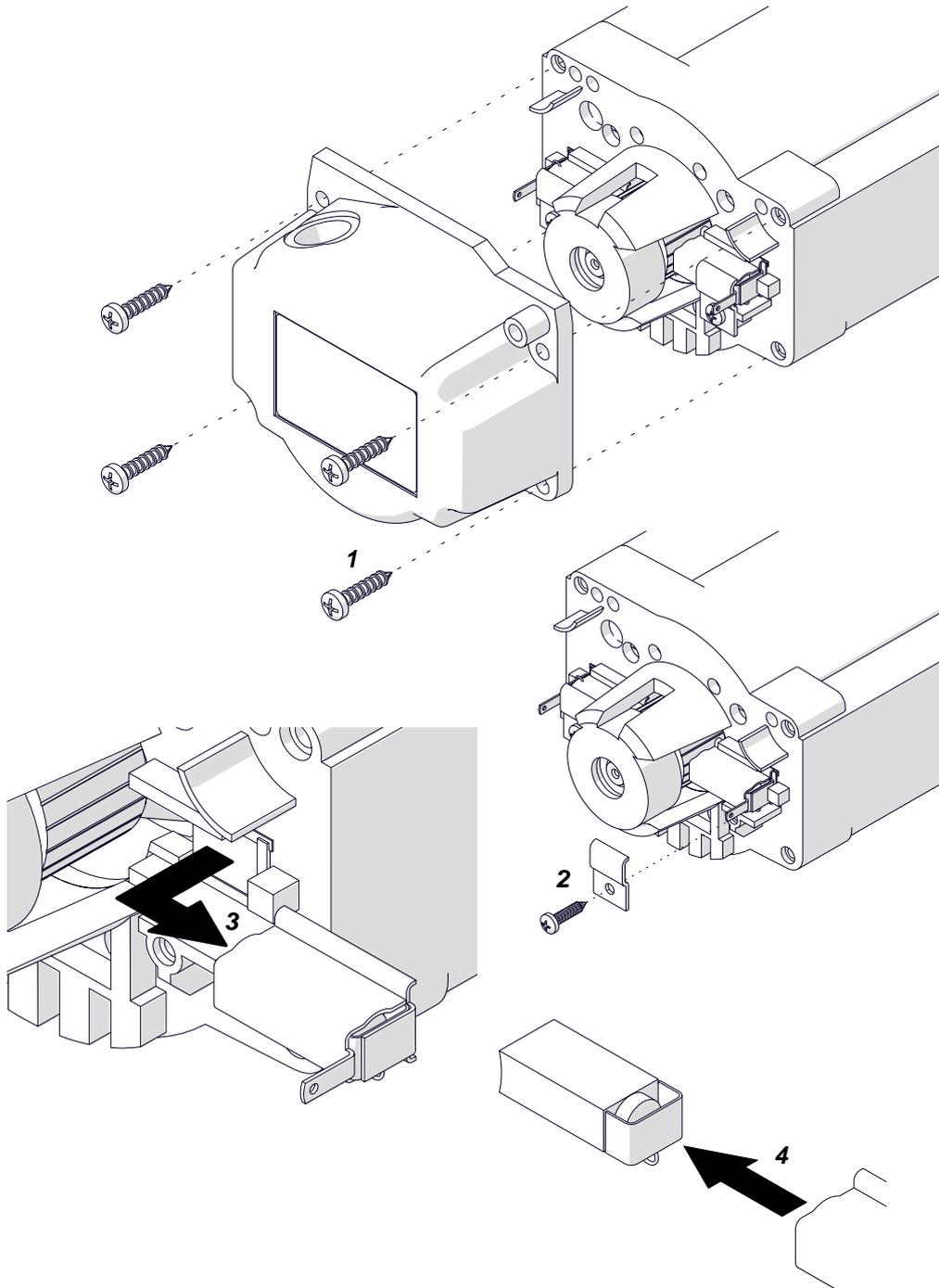
After you drill the first hole, turn the handles opposite to (1), to retract the cutter. Unclamp the machine as described before. Next, clamp the machine onto the rail in the next groove of the hole center positioner, and make a next hole.

Continue as described until all holes are made. After the work is finished, press the red MOTOR button to turn off the motor. Then, set the power switch to 'O' to turn off the power.

3.7. Replacing the motor brushes

Every 100 work hours, check the condition of the brushes. To do this, unplug the power cord and remove the motor cover (1). Next, remove the pressing plate (2), and then remove the brush holder (3) and the brush (4). If the brush is shorter than 5 mm (0.2"), replace the two brushes with new ones.

Install in reverse sequence. Then, let the motor operate with no load for 20 minutes.

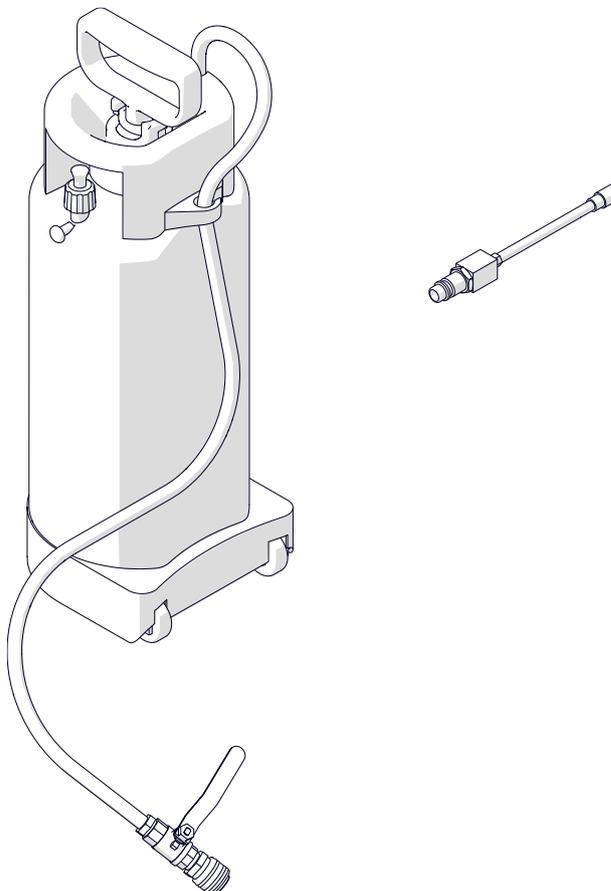


4. ACCESSORIES

4.1. Pressure cooling system with adapter

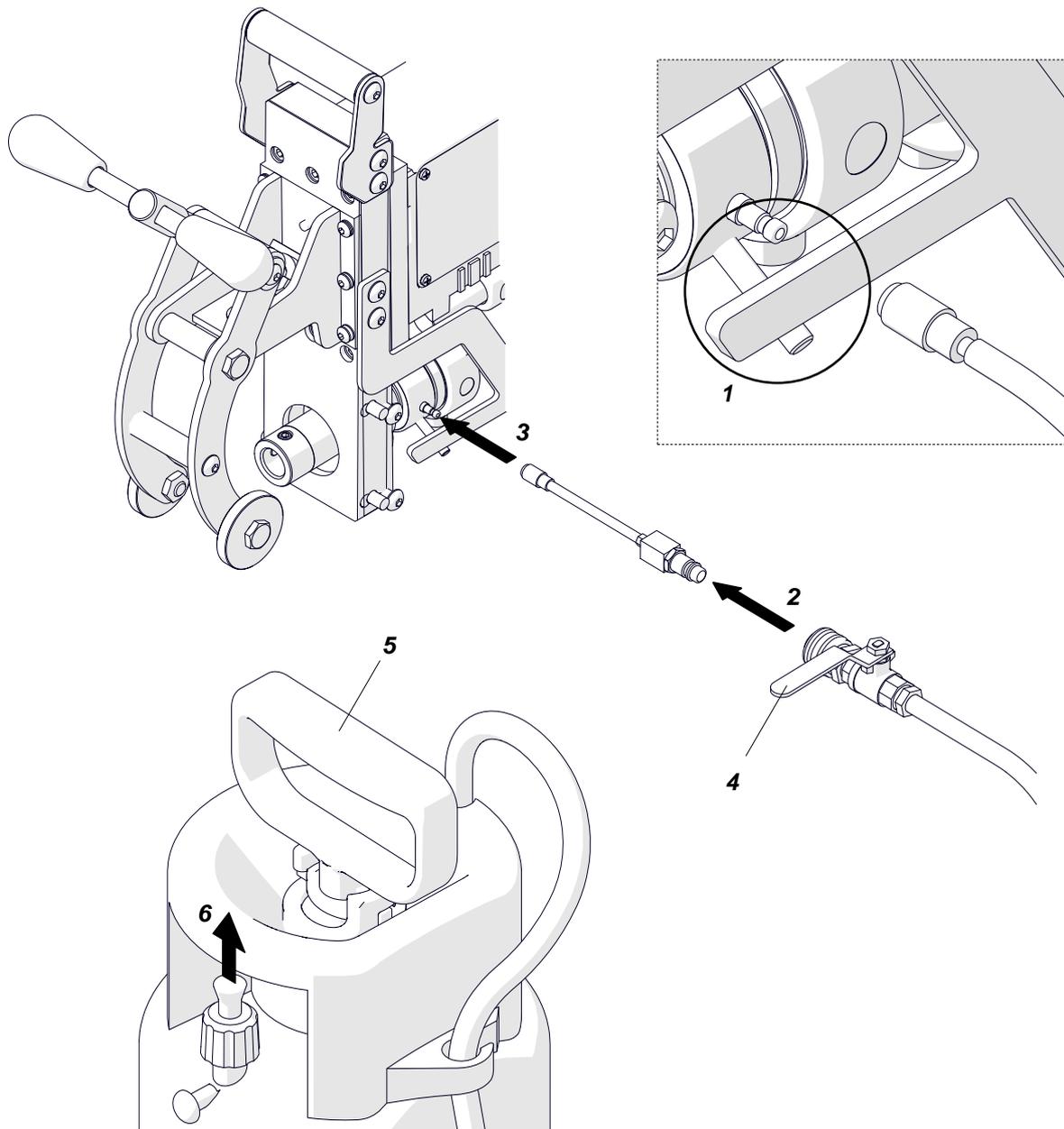
Capacity of 5 liters.

Part number:
PJM-0676-10-00-00-0



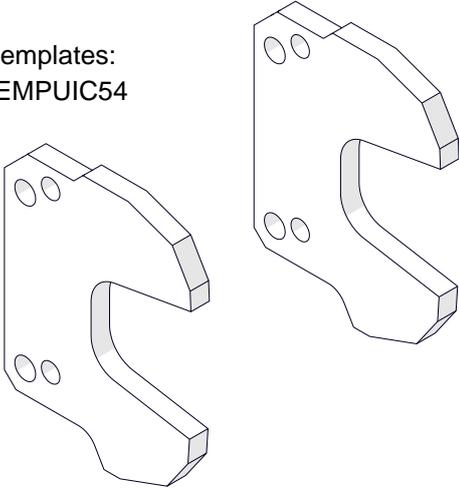
Make sure that the bar of the frame is between the pin and the fitting (1). Connect the cooling system with the adapter to the fitting (2, 3). Open the valve (4). Next, turn the handle (5). Move the handle up-down several times to increase the pressure in the bottle.

To remove, close the valve (4). Pull up the release valve (6) to release excess pressure, and then pull out the adapter from the fitting.

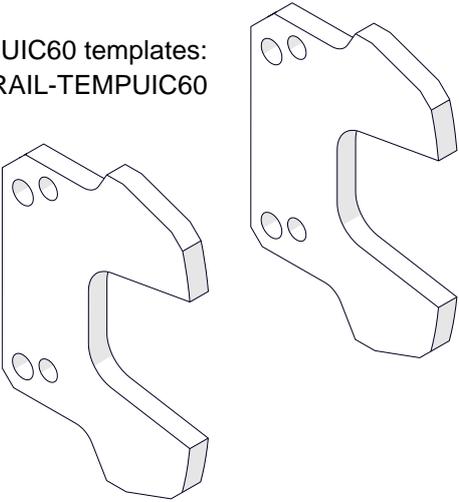


4.2. Rail profile templates

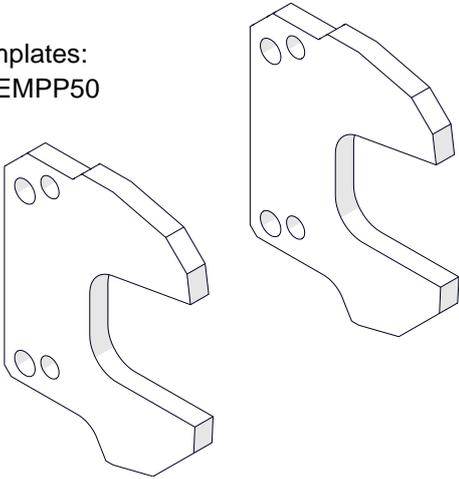
UIC54 templates:
RAIL-TEMPUIC54



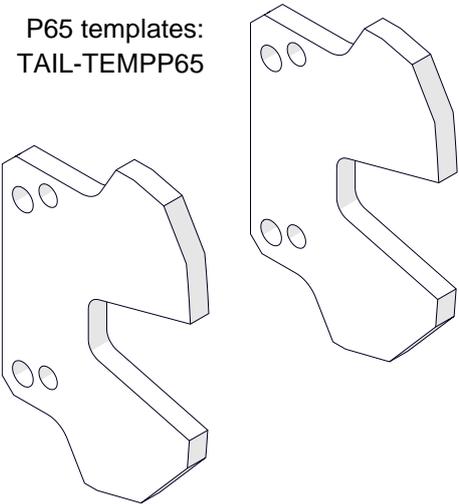
UIC60 templates:
RAIL-TEMPUIC60



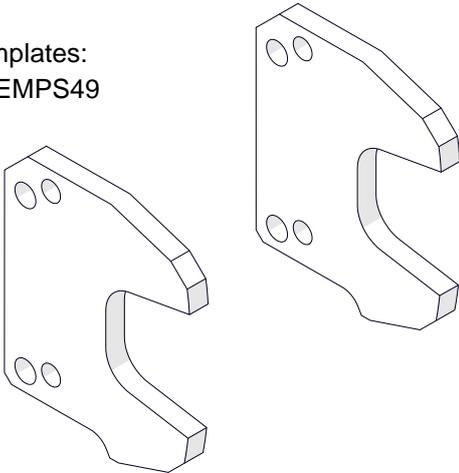
P50 templates:
RAIL-TEMP50



P65 templates:
TAIL-TEMP65



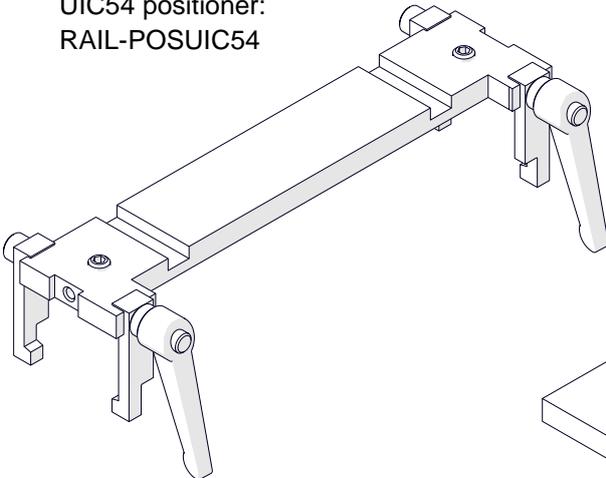
S49 templates:
RAIL-TEMPS49



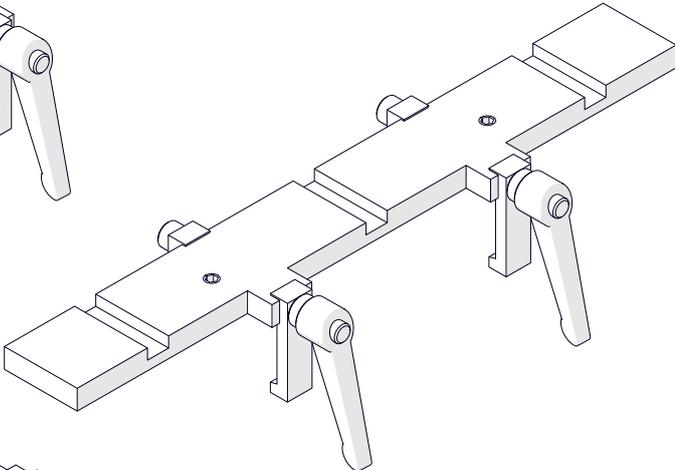
Other templates available on request.

4.3. Hole center positioners

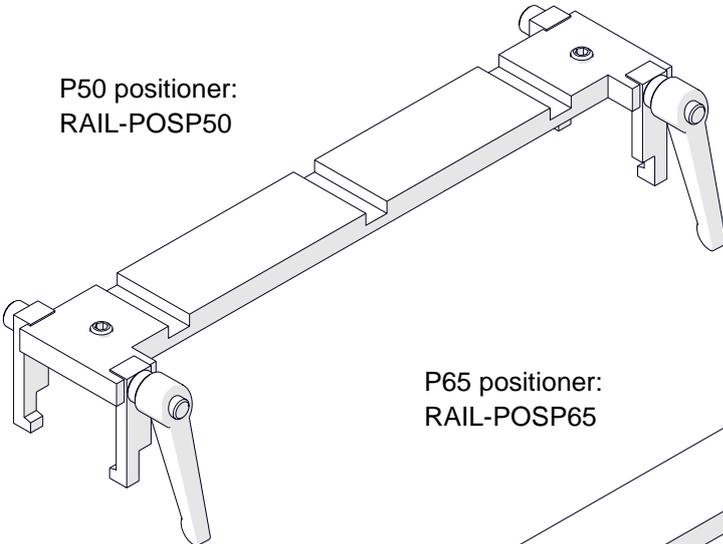
UIC54 positioner:
RAIL-POSUIC54



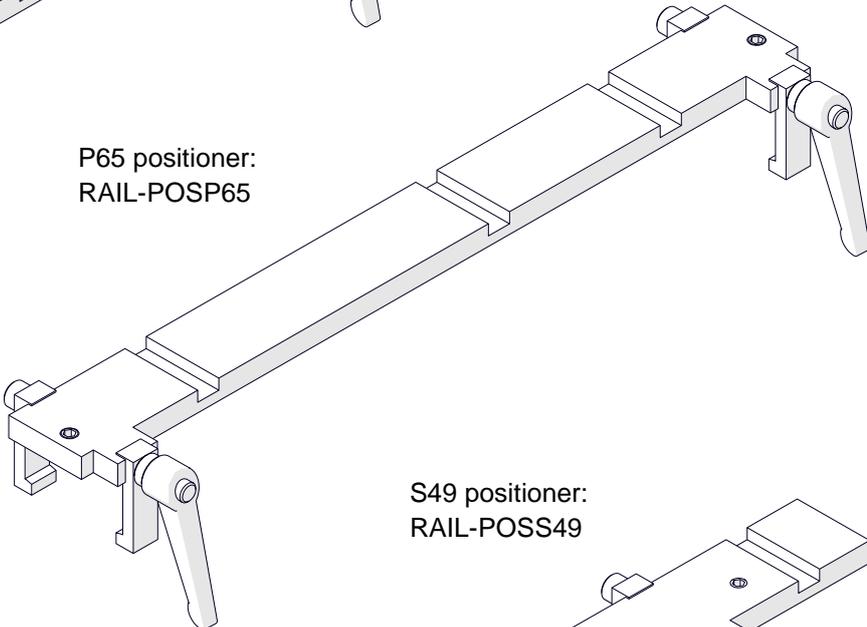
UIC60 positioner:
RAIL-POSUIC60



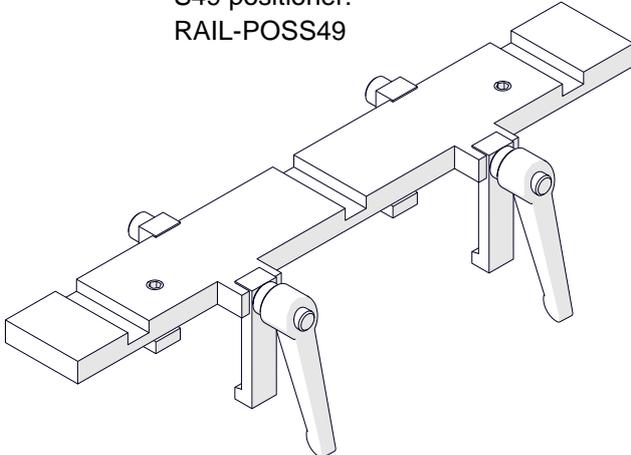
P50 positioner:
RAIL-POSP50



P65 positioner:
RAIL-POSP65



S49 positioner:
RAIL-POSS49



Other positioners available on request.

5. DECLARATION OF CONFORMITY

Declaration of Conformity

**JEI DRILLING & CUTTING SOLUTIONS LTD
UNIT 21 EMPIRE BUSINESS
ENTERPRISE WAY
BURNLEY, LANCASHIRE, BB12 6LT**

We declare with full responsibility that:

RAILBEAST RDE-36 ELECTRIC RAIL DRILLING MACHINE

is manufactured in accordance with the following standards:

- EN 60745-1
- EN 55014
- EN ISO 12100

and satisfies regulations of the guidelines: 2014/30/UE, 2014/35/UE, 2006/42/UE, 2011/65/UE, 2012/19/UE.

Person authorized to compile the technical file:

David McFadden, Unit 21 Empire Business Park,
Burnley



Burnley, 3 September 2019

David McFadden
Managing Director

6. WARRANTY CARD

WARRANTY CARD No.....

..... in the name of Manufacturer warrants the RAILBEAST RDE-36 Electric Rail Drilling Machine to be free of defects in material and workmanship under normal use for a period of 12 months from the date of sale.

This warranty does not cover tools as well as damage or wear that arise from misuse, accident, tempering or any other causes not related to defects in workmanship or material.

Serial number

Date of sale

Signature and stamp of the seller

0.03 / 23 December 2019

WE RESERVE THE RIGHT TO MAKE CHANGES IN THIS MANUAL WITHOUT NOTICE