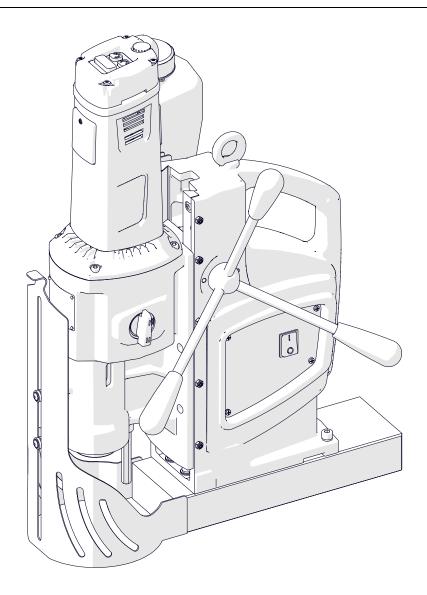


# **OPERATOR'S MANUAL**

# DRILLING MACHINE WITH ELECTROMAGNETIC BASE FE 150 RLX



# Contents

1. GENERAL INFORMATION	4
1.1. Application	4
1.2. Technical data	4
1.3. Equipment included	5
1.4. Dimensions	6
1.5. Design	7
2. SAFETY PRECAUTIONS	8
3. STARTUP AND OPERATION	10
3.1. Installing the handles	10
3.2. Installing and removing the arbor, MT4 twist drill bit, or tap chuck	11
3.3. Installing and removing the annular cutter	13
3.4. Installing and removing the screw tap	14
3.5. Installing and removing the cooling system	15
3.6. Preparing	16
3.7. Drilling	18
3.8. Thread cutting	22
3.9. Adjusting the gibs	23
3.10. Replacing the motor brushes	24
4. ACCESSORIES	25
4.1. Pressure cooling system	25
4.2. Arbor MT4 × 32 mm Weldon	25
4.3. MT4 tap chuck × 31 mm with adapter	26
4.4. MT4 tap chuck × 48 mm with adapter	28
4.5. MT4 tap chuck × 60 mm with adapter	31
5. DECLARATION OF CONFORMITY	34
6. WARRANTY CARD	35

### 1. GENERAL INFORMATION

#### 1.1. Application

The FE 150 RLX is a drilling machine designed to drill holes with diameters of up to 150 mm (5.91") by using annular cutters. The machine can also drill holes with diameters of up to 47 mm (1.85") by using twist drill bits.

The machine can change the direction of rotation. This allows thread cutting by using a tap chuck.

The electromagnetic base clamps the machine to ferromagnetic surfaces. This makes sure that the operator is safe and the machine works correctly. A safety strap protects the machine from falling in case of a clamping loss.

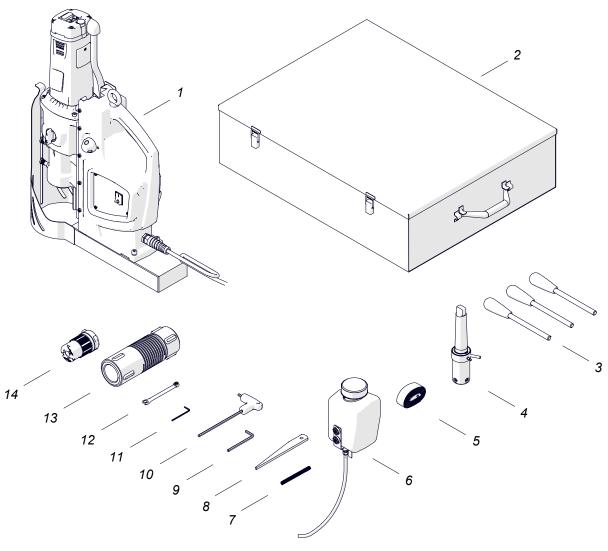
When the brushes are worn, the machine turns off automatically.

#### 1.2. Technical data

Voltage	1~ 220–240 V, 50–60 Hz
Voltage	1~ 110–120 V, 50–60 Hz
Power	2300 W
Spindle shank	MT4
Tool holder	19 mm (3/4") Weldon
Maximum drilling diameter with an annular cutter	150 mm (5.91")*
Maximum drilling diameter with a twist drill bit	47 mm (1.85")
Maximum drilling depth	100 mm (3.94")
Maximum tap size	M42 (1-5/8")
Clamping force	25 000 N
(surface with the thickness of 25 mm and roughness $R_a$ = 1.25)	25 000 11
Electromagnetic base dimensions	105 mm × 315 mm × 50 mm
Liectionagnetic base dimensions	4.1" × 12.4" × 2"
Stroke	260 mm (10.2")
	55–85 rpm
Rotational speed under load	100–150 rpm
Notational speed under load	200–300 rpm
	350–520 rpm
Minimum workpiece thickness	10 mm (0.4")
Protection class	I
Protection level	IP 20
Noise level	More than 85 dB
Required ambient temperature	0-40°C (32-104°F)
Weight	31 kg (68 lbs)
* If U 00 (0.00%) NATA I 30 00 NATA I 1	(LIOM FOO 40 00 00 0)

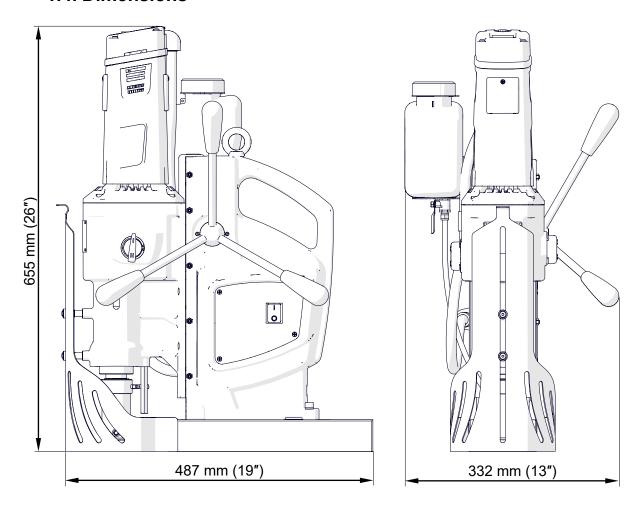
<sup>\*</sup> If more than 60 mm (2.36"), use an MT4 arbor with 32 mm Weldon tool holder (UCW-583-13-00-00-0). If more than 130 mm (5.12"), use only a TCT cutter with the drilling depth of up to 50 mm.

# 1.3. Equipment included

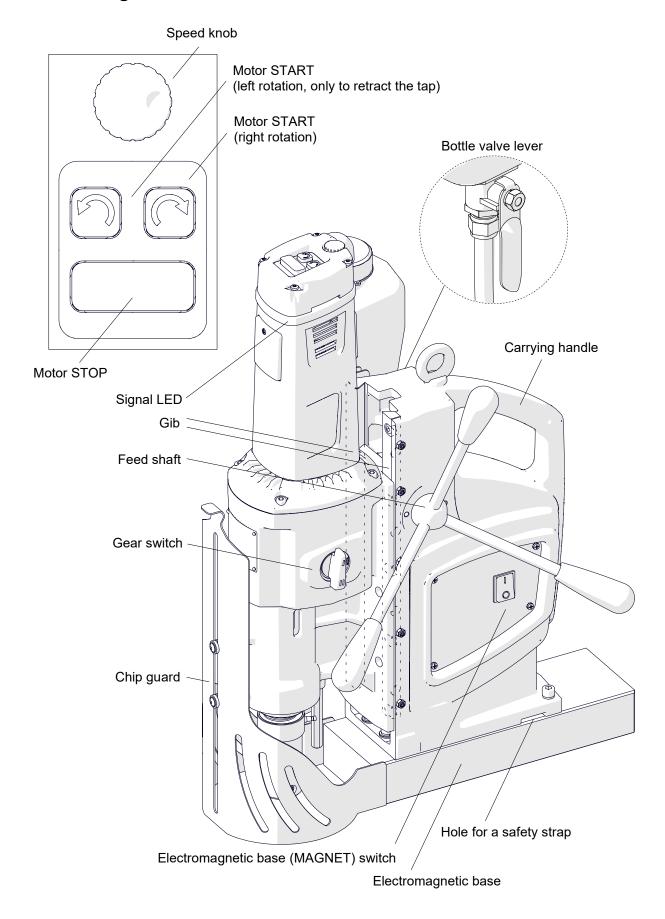


1	Drilling machine	1 unit
2	Metal box	1 unit
3	Handle	3 units
4	MT4 arbor with 19 mm (3/4") Weldon tool holder	1 unit
5	Safety strap	1 unit
6	Cooling system	1 unit
7	Protective spring for cooling hose	1 unit
8	MT3 drift	1 unit
9	5 mm hex wrench	1 unit
10	5 mm hex wrench with a handle	1 unit
11	2.5 mm hex wrench	1 unit
12	8 mm combination wrench	1 unit
13	Tool can	1 unit
14	Locking connector (only in 115 V version)	1 unit
_	Operator's Manual	1 unit

# 1.4. Dimensions



# 1.5. Design



### 2. SAFETY PRECAUTIONS

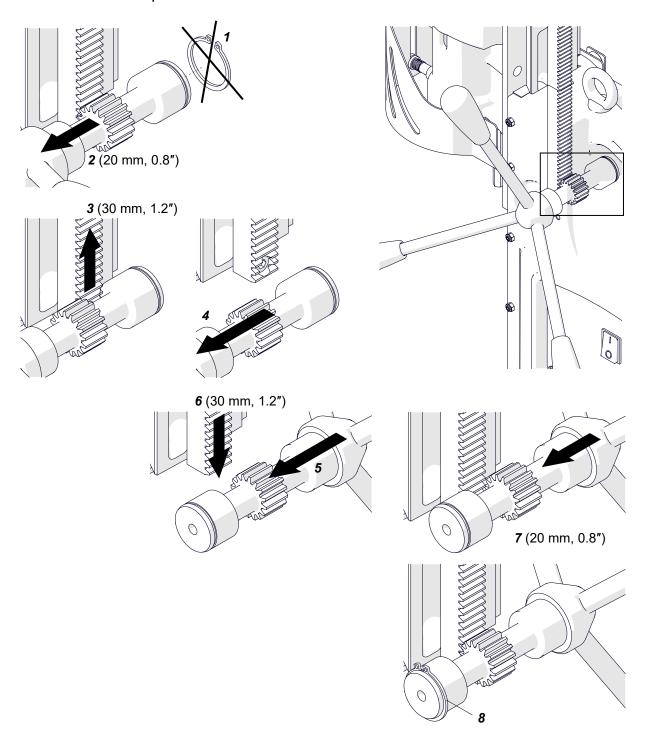
- 1. Before use, read this Operator's Manual and complete a training in occupational safety and health.
- 2. Use only in applications specified in this Operator's Manual.
- 3. Make sure that the machine has all parts and they are genuine and not damaged.
- 4. Make sure that the specifications of the power source are the same as those specified on the rating plate.
- 5. Connect the machine to a correctly grounded power source. Protect the power source with a 16 A fuse for 230 V or a 32 A fuse for 115 V. If you are going to work on building sites, supply the machine through an isolation transformer with class II protection only.
- 6. Let only qualified electrician do the connection to the 115 V power source.
- 7. Set the MAGNET switch to 'O' before you move the machine. Use carrying handle to move the machine.
- 8. Do not carry the machine by the power cord and do not pull the cord. This can cause damage and electric shock.
- 9. Keep untrained bystanders away from the machine.
- 10. Before each use, ensure the correct condition of the machine, power source, power cord, plug, control panel, and tools.
- 11. 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.
- 12. Keep the machine dry. Do not expose the machine to rain, snow, or frost.
- 13. Do not stay below the machine that is put at heights.
- 14. Keep the work area well lit, clean, and free of obstacles.
- 15. Make sure that the tool is correctly attached. Remove wrenches from the work area before you connect the machine to the power source.
- 16. Do not use tools that are dull or damaged.
- 17. Unplug the power cord before you install and remove tools. Use protective gloves to install and remove tools.
- 18. Unplug the power cord before you manually turn the spindle.
- 19. Use annular cutters without the pilot pin only when you drill incomplete through holes. Do not use arbors without a spring.
- 20. Do not make holes/threads whose diameter or depth differ from those specified in the technical data.

- 21. Do not use in explosive environments or near flammable materials.
- 22. Do not use on surfaces that are rough, not flat, not rigid, or have rust, paint, chips, or dirt.
- 23. Do not use if the gibs are adjusted incorrectly.
- 24. Do not use if there is no grease on the gibs.
- 25. Do not use the gear switches if the motor is on.
- 26. Use the safety strap to attach the machine to a stable structure. Put the strap through the hole in the machine body. In the horizontal position, attach the strap to the carrying handle. Do not put the strap into the buckle from the front.
- 27. Use eye and ear protection and protective clothing. Do not use loose clothing.
- 28. We do not recommend work on workpieces thinner than 10 mm (0.4"). The clamping force depends on the workpiece thickness and is much lower for thin plates.
- 29. Each time before you put the machine on the workpiece, rub the workpiece with coarse-grained sandpaper. Make sure that the bottom of the base is in full contact with the workpiece.
- 30. Do not touch chips or moving parts. Do not let anything catch in moving parts.
- 31. After each use, remove chips and coolant from the machine and the tool. Do not remove chips with bare hands.
- 32. Unplug the power cord before you do maintenance or install/remove parts.
- 33. Repair only in a service center appointed by the seller.
- 34. 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.
- 35. Do not leave the machine when it operates.
- 36. 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.
- 37. 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 the handles

Attach the handles to the feed shaft. You can install the shaft so that the handles are on the opposite side of the machine. To do this, lift the motor to the maximum and continue in the sequence that follows.



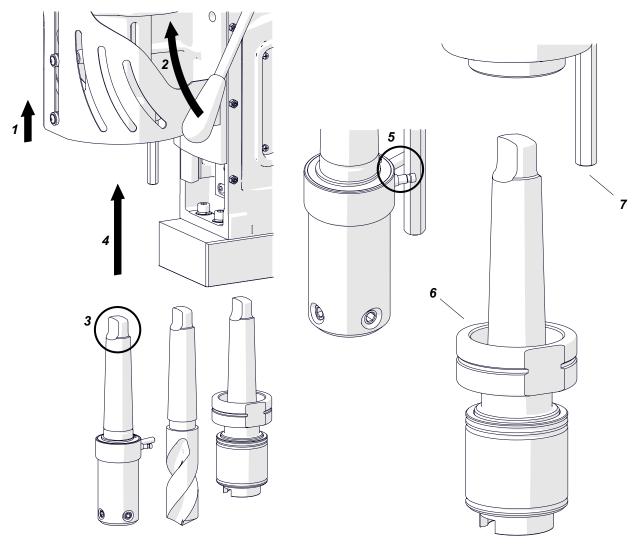
# 3.2. Installing and removing the arbor, MT4 twist drill bit, or tap chuck

Unplug the power cord and lift the chip guard (1). Turn the handles to the right (2) to lift the motor. Use petroleum ether to clean the spindle and the arbor (drill bit, tap chuck). Then, clean them with a dry cloth.

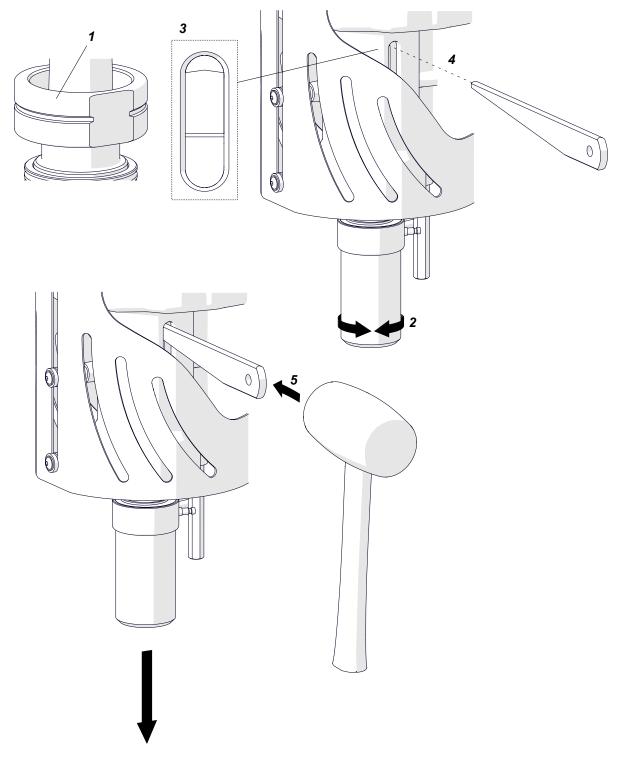


Chips or grease in the spindle or on the Morse taper (3) can damage the spindle.

Use gloves and a quick movement to put the arbor (drill bit, tap chuck) into the spindle (4). Make sure that the stop rod is between the pin and the fitting (5). If the arbor (tap chuck) has a nut (6), tighten the nut to the spindle. Before you install an MT4×60 mm tap chuck, remove the stop rod (7).



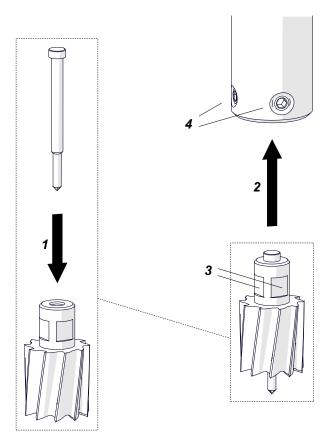
To remove the arbor (drill bit, tap chuck), continue as follows. If the arbor (tap chuck) has a nut (1), remove the nut. Next, lift the motor and turn the spindle (2) to align the holes in the spindle and gearbox (3). Put the drift into the hole (4). Next, hold the carrying handle with one hand and hit the drift with a mallet (5).



# 3.3. Installing and removing the annular cutter

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

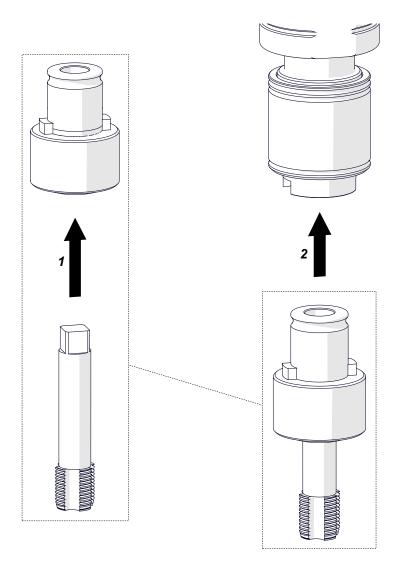
To remove the cutter, loosen the screws (4) with the 5 mm hex wrench.



# 3.4. Installing and removing the screw tap

Install the tap chuck as described before. Next, put the screw tap into the correct adapter (1). Install the adapter into the tap chuck (2).

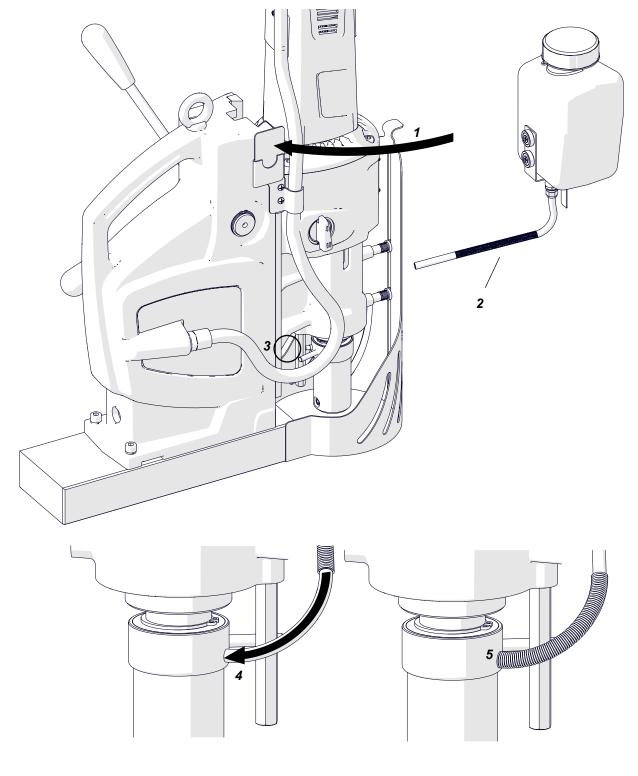
To remove the screw tap, unlock it and remove from the adapter.



# 3.5. Installing and removing the cooling system

Attach the bottle to the bracket (1). Put the hose with the spring (2) between the stop rod and the body (3). Then, attach the hose to the fitting and move the spring to the arbor (4, 5).

To remove the bottle, continue in reverse sequence.



#### 3.6. Preparing

Before use, clean steel parts, including the MT4 socket, from anti-corrosion material used to preserve the machine for storage and transport.

Attach the handles to the feed shaft. You can install the shaft so that the handles are on the opposite side of the machine.

Apply a thin layer of grease to the gibs.

Select the annular cutter, drill bit, or screw tap that matches the required hole diameter. When you drill holes with diameters of 18–32 mm (0.71–1.26") by using twist drill bits, select two bits: with 70% and 100% of the required diameter. When you drill holes with diameters of 32–47 mm (1.26–1.85") by using twist drill bits, select three bits: 18 mm and with 80% and 100% of the required diameter.

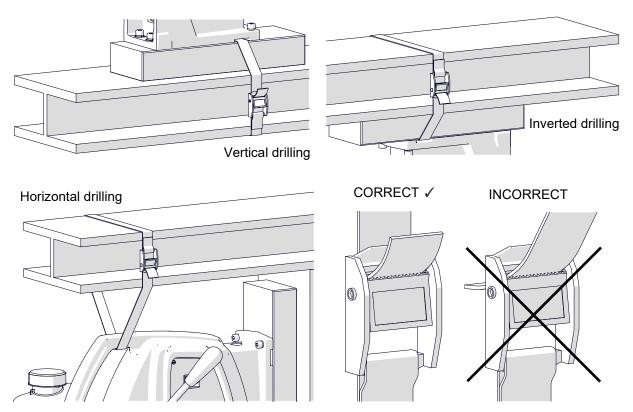
Use a dry cloth to clean the spindle, arbor (drill bit, tap chuck), and cutter. Then, as described before, install the arbor (and then the cutter), drill bit with the smaller diameter, or tap chuck (and then the screw tap with adapter).

Put the machine on a flat ferromagnetic workpiece with the thickness of at least 10 mm (0.4"). Make sure that there is no rust, paint, chips, or dirt. They decrease the clamping force. The force will be lower also if the surface is thin, rough, not flat, not rigid, the voltage is lower than required, or the bottom of the base is worn.

Connect the machine to the power source. To connect the machine to a 115 V power source, use the locking connector. Refer to the instructions included with the connector.

Set the MAGNET switch to 'I' to turn on the clamping. Some types of steel (non-ferromagnetic) do not conduct magnetic flux so the machine cannot clamp onto them.

Use the safety strap to prevent fall and injury if the machine loses the clamping. Attach the machine to a stable structure by putting the strap through the hole in the machine body. In the horizontal position, attach the strap to the carrying handle. Make sure that the strap is tight and not twisted. If the machine comes loose from the workpiece and hangs on the strap, replace the strap. Do not put the strap into the buckle from the front.



Turn the handles to the left to put the tool above the workpiece.

For vertical drilling with an annular cutter, install the cooling system and fill it with coolant. Do not use only water as the coolant. But you can mix water and drilling oil. Then, make sure that the cooling system works correctly. To do this, lightly loosen the bottle cap and use the lever to open the valve. Then, turn the handles to the left to apply a light pressure on the pilot pin. The coolant should fill the system and start flowing from the cutter.

The cooling system works by gravity. Thus, in the horizontal position, turn the bottle. In the inverted position, use coolants under pressure or in the form of spray or paste.

# 3.7. Drilling

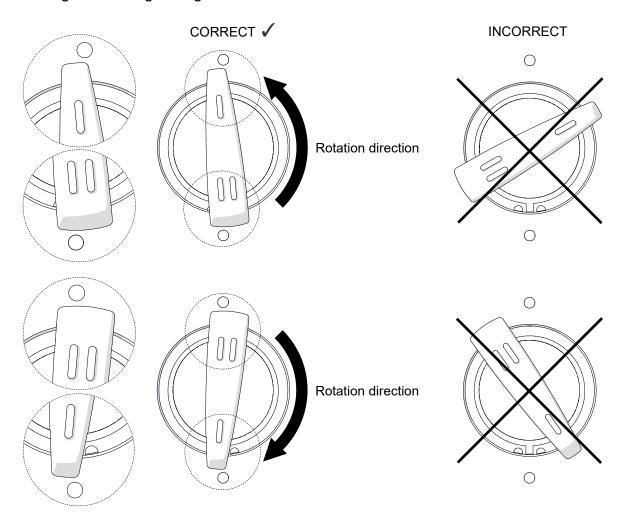
Set the speed based on the table that follows.

Tool	Hole dia	ameter	Rotational speed* Gear switch	
1001	[mm]	[in]	[rpm]	setting
	12–21	0.47-0.83	350–520	
HSS annular cutter	22–37	0.87–1.46	200–300	
Tioo amulai cullei	38–72	1.50–2.83	100–150	
	73–130	2.87–5.12	55–85	
TCT annular cutter	12–27	0.47–1.06	350–520	
	28–47	1.10–1.85	200–300	
	48–85	1.89–3.35	100–150	
	86–150**	3.39–5.91	55–85	
	15–22	0.59–0.87	200–300	
Twist drill bit	22–32	0.87–1.26	100–150	
	32–47	1.26–1.85	55–85	

<sup>\*</sup> For a sharp tool and mild steel with a strength  $R_{\rm m}$  < 500 N/mm<sup>2</sup> (70,000 psi), such as St0 (S185), St3S (S235JR), or St4W (S275JO).

<sup>\*\*</sup> If more than 130 mm (5.12"), use only a cutter with the drilling depth of up to 50 mm and be careful. A too high feed speed or rotational speed can result in excessive vibrations, machine overload, incorrect arbor operation, or cutter damage.

Turn the gear switch as shown in the figure until you feel resistance. Incorrect setting can damage the gearbox.



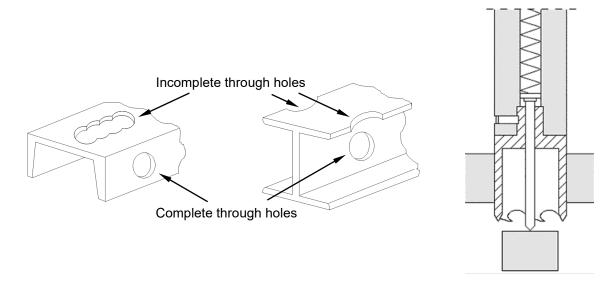
Steel with a strength  $R_m \ge 500 \text{ N/mm}^2$  (70,000 psi), such as St5 (E295), 18G2A (S355N), or 45 (C45), requires lower speeds. If the speed is too high or too low for the workpiece strength and the type/diameter of the tool, the tool will wear faster or be unable to drill the hole.

Press to start the motor. Turn the handles to the left to put the tool into the workpiece. Use the speed knob to set a speed sufficient for the actual process conditions. Set the speed knob near the maximum.



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

When you use an annular cutter, drill only through holes. For incomplete through holes do not use the pilot pin.



Keep the machine in the same position until the hole is made.

When you use a drill bit, drill holes with diameters of 18–32 mm (0.71–1.26") in two steps. First, use the drill bit with the 70% diameter of the required diameter to drill a hole. Then, keep the machine in the same position, and drill again with the drill bit that matches the required diameter.

When you use a drill bit, drill holes with diameters of 32–47 mm (1.26–1.85") in three steps. First, use the drill bit with the diameter of 18 mm to drill a hole. Then, keep the machine in the same position, and drill again with the drill bit with the diameter of 80% of the required diameter. Finally, drill again with the drill bit that matches the required diameter.

If you are going to drill holes deeper than 50 mm (2"), remove the tool from the workpiece as often as possible. This allows chips to be removed from the hole. If the grooves of the tool are clogged, turn off the motor and use a brush to clean them.

After you get to the depth of 40 mm (1.6"), remove the tool from the workpiece as often as possible. Then, manually apply the coolant from the bottle into the drilling area.

The table that follows shows the meaning of the LED colors.

Color	Meaning	Description
Green is on	Strong surface.	Ready to work.
Green flashes	Weak surface.	We do not recommend work.
White is on	Normal work.	_
Blue flashes	Near overload.	Do not increase the feed speed. This can cause emergency stop.
Red is on	Overheat.	Immediately remove the tool from the workpiece! Operate with no load for 2–4 minutes to let the temperature of the motor decrease.
Blue is on	Emergency stop. Overload.	Make sure that the tool is sharp. Make sure that the motor speed and the feed are correct. Use coolant. Remove the tool from the workpiece, press STOP, and then start again.
Violet is on	Emergency stop. Machine tilt/vibrations or the surface not stable.	Make sure that the surface is stable and its thickness is at least 10 mm (0.4"). Press STOP and then start again. If the motor does not operate, contact the service center.
Red changes to blue	Emergency stop. Voltage drop.	Make sure that the power source is correct. Press STOP and then start again.
Red changes to green	Emergency stop. Worn brushes.	Replace the brushes. Let the motor operate with no load for 20 minutes. If the motor does not operate, contact the service center.



The green color is indicative only. It does not make sure that the machine will always be in contact with the surface. Thus, in each position protect the machine with the safety strap.

If an overload occurs, the machine stops. The overload can be caused by not enough cooling, dull tool, too fast feed, or too slow speed. Then, to start the machine again, remove the tool from the workpiece, press STOP and then

After the hole is made, remove the tool from the workpiece, and press STOP to turn off the motor. Before you move the machine, set the MAGNET switch to 'O' to turn off the base.



When the brushes are worn, the machine turns off.

The signal LED color then changes from red to green.

In this case, replace the brushes.

After the work is finished and the motor turned off, set the gear switches to the opposite position. Then, turn on the motor and let it operate for a while with no load

to improve lubrication. Next, turn off the motor and the base, and then unplug the power cord. Clean the machine and the tool, and then remove the machine from the work area.

Tighten the bottle cap, close the valve, and then press the pilot pin to remove the coolant that remains in the cooling system. Before you put the machine into the box, remove the bottle, and use gloves to remove the tool from the holder.

### 3.8. Thread cutting

Install the screw tap and set the speed based on the table that follows.

Screw tap size	Rotational speed* [rpm]	Gear switches setting	
M8 – M24			
5/16" — 15/16"	100–150		
M27 – M42			
1" — 1-5/8"	55–85		

Turn the handles to the left to put the tap above the hole for the thread. If the diameter of the hole is too small, cutting may not be possible because of too much milling resistance.

Apply oil on the cutting part of the tap to prevent seizure and increase durability.

Press to start the motor. Set the speed knob near the minimum. Then, turn the handles to the left to put the tap into the hole. Use the handle to guide the tap down until the thread is cut. After the cutting with the tap is finished, press STOP to turn off the motor. Then, press and hold and use the handle to guide the tap up to prevent damage to the thread.

After the work is finished and the motor turned off, set the gear switches to the opposite position. Start the motor and let it operate for a while with no load to improve lubrication. Next, turn off the motor and the base, and then unplug the power cord.

If the workpiece is very hard or the screw tap is worn, thread cutting may not be possible. When this happens we recommend that you cut the thread with manual taps (entering tap and bottoming tap).

## 3.9. Adjusting the gibs

Every 50 work hours, make sure that the gibs are correctly adjusted. To do this, move the motor up and down and make sure that it moves smoothly.

To adjust the gibs, apply a thin layer of grease on them. Then, use the 8 mm combination wrench, the 2.5 mm hex wrench, and the 5 mm hex wrench to loosen the nuts and screws (1). Put the motor so that the slider is in the center of the gibs (2). Then, lightly tighten the screws (3) so that they touch the gib. Move the motor up and down and adjust the screws (3) so that the travel is smooth. Next, tighten the screws (4) and then tighten the nuts (5).



# 3.10. Replacing the motor brushes

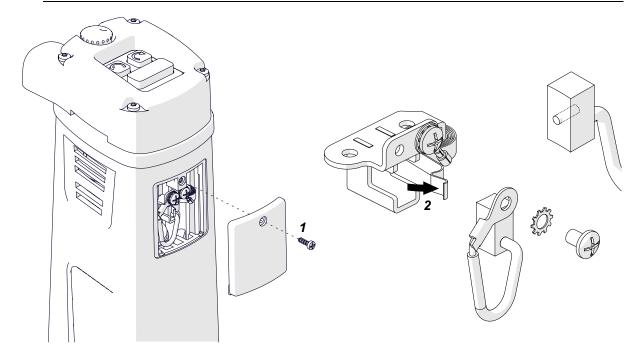
When the brushes are worn, the machine turns off. The signal LED color then changes from red to green.

To replace the brushes, unplug the power cord and remove the cover (1). Lift the spring (2) and remove the brush.

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



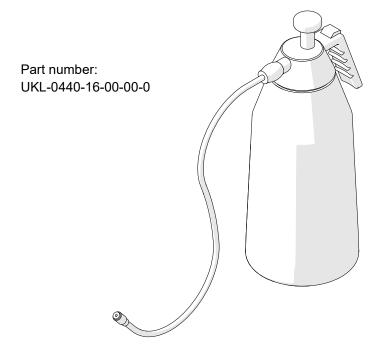
#### Use only genuine brushes.



# 4. ACCESSORIES

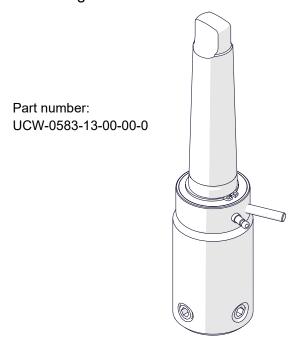
# 4.1. Pressure cooling system

Capacity of 2 liters.



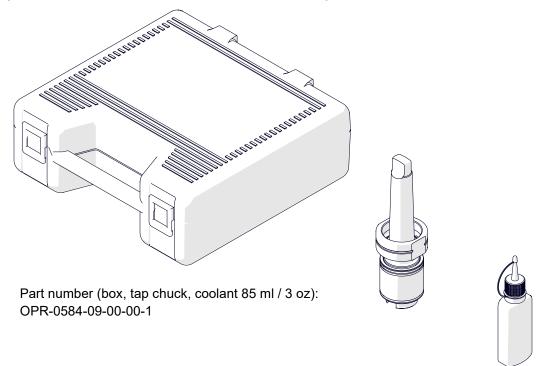
#### 4.2. Arbor MT4 × 32 mm Weldon

Required when drilling diameter is more than 60 mm (2.36").

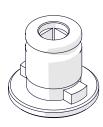


# 4.3. MT4 tap chuck × 31 mm with adapter

For screw taps with sizes from M8 to M20 and from 5/16" to 7/8". Install the chuck in the spindle. To cut threads in blind holes, use adapters with a clutch.

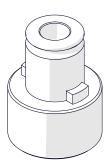


Requires an adapter that matches the size of the screw tap.



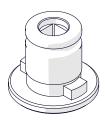
Screw tap size (metric)	Adapter Ø31 without clutch	Adapter Ø19 without clutch
M8	WKL-000072	WKL-000069*
M10	WKL-000073	WKL-000070*
M12	WKL-000074	WKL-000071*
M14	WKL-000075	_
M16	WKL-000076	-
M18	WKL-000077	_
M20	WKL-000078	_

<sup>\*</sup> Requires a 31×19 mm reduction adapter (RDC-000008)



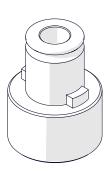
Screw tap size (metric)	Adapter Ø31 with clutch	Adapter Ø19 with clutch
M8	WKL-000100	WKL-000095*
M10	WKL-000101	WKL-000098*
M12	WKL-000102	WKL-000099*
M14	WKL-000103	_
M16	WKL-000104	-
M18	WKL-000105	_
M20	WKL-000106	-

<sup>\*</sup> Requires a 31×19 mm reduction adapter (RDC-000008)



Screw tap size (imperial)	Adapter Ø31 without clutch	Adapter Ø19 without clutch
5/16"	WKL-000173	WKL-000167*
3/8"	WKL-000174	WKL-000168*
7/16"	WKL-000175	WKL-000169*
1/2"	WKL-000176	WKL-000170*
9/16"	WKL-000177	WKL-000171*
5/8"	WKL-000178	_
11/16"	WKL-000179	-
3/4"	WKL-000180	_
13/16"	WKL-000181	_
7/8"	WKL-000182	_

<sup>\*</sup> Requires a 31×19 mm reduction adapter (RDC-000008)

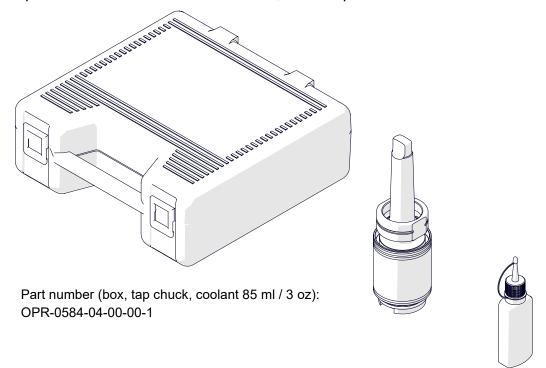


Screw tap size (imperial)	Adapter Ø31 with clutch	Adapter Ø19 with clutch
5/16"	WKL-000139	WKL-000133*
3/8"	WKL-000140	WKL-000134*
7/16"	WKL-000141	WKL-000135*
1/2"	WKL-000142	WKL-000136*
9/16"	WKL-000143	WKL-000137*
5/8"	WKL-000144	_
11/16"	WKL-000145	_
3/4"	WKL-000146	_
13/16"	WKL-000147	_
7/8"	WKL-000148	_

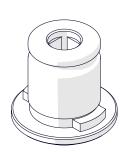
<sup>\*</sup> Requires a 31×19 mm reduction adapter (RDC-000008)

# 4.4. MT4 tap chuck × 48 mm with adapter

For screw taps with sizes from M14 to M30 and from 5/8" to 1-1/4". Install the chuck in the spindle. To cut threads in blind holes, use adapters with a clutch.



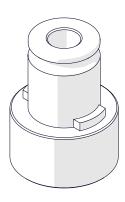
Requires an adapter that matches the size of the screw tap.



Screw tap size (metric)	Adapter Ø48 without clutch	Adapter Ø31 without clutch	Adapter Ø19 without clutch
M8	_	WKL-000072*	WKL-000069**
M10	_	WKL-000073*	WKL-000070**
M12	_	WKL-000074*	WKL-000071**
M14	WKL-000079	WKL-000075*	_
M16	WKL-000080	WKL-000076*	-
M18	WKL-000081	WKL-000077*	_
M20	WKL-000082	WKL-000078*	-
M22, M24	WKL-000083	_	-
M27	WKL-000084	_	_
M30	WKL-000085	_	_

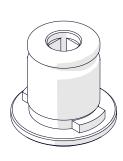
<sup>\*</sup> Requires a 48×31 mm reduction adapter (RDC-000010)

<sup>\*\*</sup> Requires a 48×19 mm reduction adapter (RDC-000009)



Screw tap size (metric)	Adapter Ø48 with clutch	Adapter Ø31 with clutch	Adapter Ø19 with clutch
M8	_	WKL-000100*	WKL-000095**
M10	_	WKL-000101*	WKL-000098**
M12	_	WKL-000102*	WKL-000099**
M14	WKL-000107	WKL-000103*	_
M16	WKL-000108	WKL-000104*	_
M18	WKL-000109	WKL-000105*	_
M20	WKL-000110	WKL-000106*	_
M22, M24	WKL-000111	_	_
M27	WKL-000112	_	_
M30	WKL-000113	_	_

<sup>\*</sup> Requires a 48×31 mm reduction adapter (RDC-000010)

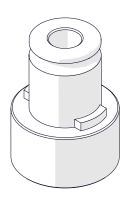


Screw tap size (imperial)	Adapter Ø48 without clutch	Adapter Ø31 without clutch	Adapter Ø19 without clutch
5/16"	_	WKL-000173*	WKL-000167**
3/8"	_	WKL-000174*	WKL-000168**
7/16"	_	WKL-000175*	WKL-000169**
1/2"	_	WKL-000176*	WKL-000170**
9/16"	_	WKL-000177*	WKL-000171**
5/8"	WKL-000183	WKL-000178*	_
11/16"	WKL-000184	WKL-000179*	_
3/4"	WKL-000185	WKL-000180*	_
13/16"	WKL-000186	WKL-000181*	_
7/8"	WKL-000187	WKL-000182*	_
15/16"	WKL-000120	_	_
1"	WKL-000121	_	_
1-1/8"	WKL-000122	_	_
1-1/4"	WKL-000123	_	_

<sup>\*</sup> Requires a 48×31 mm reduction adapter (RDC-000010)

<sup>\*\*</sup> Requires a 48×19 mm reduction adapter (RDC-000009)

<sup>\*\*</sup> Requires a 48×19 mm reduction adapter (RDC-000009)



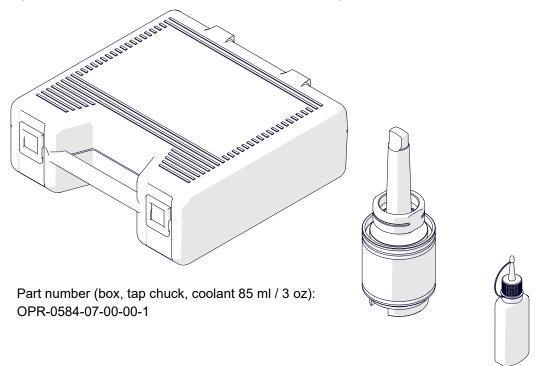
Screw tap size (imperial)	Adapter Ø48 with clutch	Adapter Ø31 with clutch	Adapter Ø19 with clutch
5/16"	_	WKL-000139*	WKL-000133**
3/8"	_	WKL-000140*	WKL-000134**
7/16"	_	WKL-000141*	WKL-000135**
1/2"	_	WKL-000142*	WKL-000136**
9/16"	_	WKL-000143*	WKL-000137**
5/8"	WKL-000149	WKL-000144*	_
11/16"	WKL-000150	WKL-000145*	_
3/4"	WKL-000151	WKL-000146*	_
13/16"	WKL-000152	WKL-000147*	-
7/8"	WKL-000153	WKL-000148*	_
15/16"	WKL-000154	_	_
1"	WKL-000155	_	_
1-1/8"	WKL-000156	_	-
1-1/4"	WKL-000157	_	-

<sup>\*</sup> Requires a 48×31 mm reduction adapter (RDC-000010)

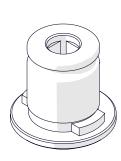
<sup>\*\*</sup> Requires a 48×19 mm reduction adapter (RDC-000009)

# 4.5. MT4 tap chuck × 60 mm with adapter

For screw taps with sizes from M24 to M42 and from 7/8" to 1-5/8". Install the chuck in the spindle. To cut threads in blind holes, use adapters with a clutch.



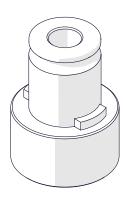
Requires an adapter that matches the size of the screw tap.



Screw tap size (metric)	Adapter Ø60 without clutch	Adapter Ø48 without clutch	Adapter Ø31 without clutch
M8	_	-	WKL-000072**
M10	_	-	WKL-000073**
M12	-	1	WKL-000074**
M14	_	WKL-000079*	WKL-000075**
M16	_	WKL-000080*	WKL-000076**
M18	_	WKL-000081*	WKL-000077**
M20	_	WKL-000082*	WKL-000078**
M22, M24	_	WKL-000083*	=
M24	WKL-000086	WKL-000084*	-
M27	WKL-000087	WKL-000085*	_
M30	WKL-000088	-	-
M33	WKL-000089	_	_
M36	WKL-000090	_	_
M42	WKL-000091		

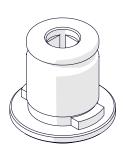
<sup>\*</sup> Requires a 60×48 mm reduction adapter (RDC-000012)

<sup>\*\*</sup> Requires a 60×31 mm reduction adapter (RDC-000011)



Screw tap size (metric)	Adapter Ø60 with clutch	Adapter Ø48 with clutch	Adapter Ø31 with clutch
M8	_	_	WKL-000100**
M10	_	ı	WKL-000101**
M12	_	-	WKL-000102**
M14	_	WKL-000107*	WKL-000103**
M16	-	WKL-000108*	WKL-000104**
M18	_	WKL-000109*	WKL-000105**
M20	-	WKL-000110*	WKL-000106**
M22, M24	_	WKL-000111*	ı
M24	WKL-000114	WKL-000112*	-
M27	WKL-000115	WKL-000113*	ı
M30	WKL-000116	ı	ı
M33	WKL-000117	_	_
M36	_	-	-
M42	_	_	_

<sup>\*</sup> Requires a 60×48 mm reduction adapter (RDC-000012)

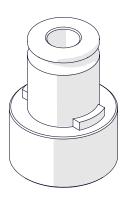


Screw tap size (imperial)	Adapter Ø60 without clutch	Adapter Ø48 without clutch	Adapter Ø31 without clutch
5/16"	_	_	WKL-000173**
3/8"	-	_	WKL-000174**
7/16"	-	_	WKL-000175**
1/2"	_	_	WKL-000176**
9/16"	-	-	WKL-000177**
5/8"	_	WKL-000183*	WKL-000178**
11/16"	-	WKL-000184*	WKL-000179**
3/4"	_	WKL-000185*	WKL-000180**
13/16"	-	WKL-000186*	WKL-000181**
7/8"	WKL-000124	WKL-000187*	WKL-000182**
15/16"	WKL-000125	WKL-000120*	_
1"	WKL-000126	WKL-000121*	_
1-1/8"	WKL-000127	WKL-000122*	_
1-1/4"	WKL-000128	WKL-000123*	
1-3/8"	WKL-000129	_	_
1-1/2"	WKL-000130	_	_
1-5/8"	WKL-000131	_	_

<sup>\*</sup> Requires a 60×48 mm reduction adapter (RDC-000012)

<sup>\*\*</sup> Requires a 60×31 mm reduction adapter (RDC-000011)

<sup>\*\*</sup> Requires a 60×31 mm reduction adapter (RDC-000011)



Screw tap size (imperial)	Adapter Ø60 with clutch	Adapter Ø48 with clutch	Adapter Ø31 with clutch
5/16"	_	_	WKL-000139**
3/8"	_	_	WKL-000140**
7/16"	-	-	WKL-000141**
1/2"	_	_	WKL-000142**
9/16"	_	-	WKL-000143**
5/8"	_	WKL-000149*	WKL-000144**
11/16"	-	WKL-000150*	WKL-000145**
3/4"	_	WKL-000151*	WKL-000146**
13/16"	-	WKL-000152*	WKL-000147**
7/8"	WKL-000158	WKL-000153*	WKL-000148**
15/16"	WKL-000159	WKL-000154*	_
1"	WKL-000160	WKL-000155*	_
1-1/8"	WKL-000161	WKL-000156*	_
1-1/4"	WKL-000162	WKL-000157*	_
1-3/8"	_	_	_
1-1/2"	_	_	_
1-5/8"	_	_	_

<sup>\*</sup> Requires a 60×48 mm reduction adapter (RDC-000012)

<sup>\*\*</sup> Requires a 60×31 mm reduction adapter (RDC-000011)

#### 5. DECLARATION OF CONFORMITY

# **Declaration of Conformity**

Fe Powertools BV

Jac.P.Thijsseweg 16

2408ER Alphen aan den Rijn
The Netherlands

We declare with full responsibility that:

# FE 150 RLX Drilling Machine with Electromagnetic Base

is manufactured in accordance with the following standards:

- EN 62841-1:2015
- EN 55014-1:2017
- EN ISO 12100:2010

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

Person authorized to compile the technical file:Manufacturer Wiktor Marek Siergiej, ul. Elewatorska 23/1, 15-620 Białystok, Poland

Białystok, 16 August 2021

Wiktor Marek Siergiej

CEO

# 6. WARRANTY CARD

WARRANTY CARD No
in the name of Manufacturer warrants the FE 150 RLX Drilling Machine with Electromagnetic Base 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, tampering or any other causes not related to defects in workmanship or material.
Serial number
Date of sale
Signature and stamp of the seller

0.01 / 17 August 2021

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