

Operational Manual For SquareDevil 2.0/4.5



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Section 1 : Operation Safety

SquareDevil 2.0/4.5 is small, light and portable, be suitable to field work requirements. Please use it properly based upon the procedure in this manual. Using it for purpose other than those described in this manual may cause injury to the user or to others. It may also cause damage to the machine or other equipment.

- Always ensure the machine is in good working condition and comply with these notes on safety.
- Keep complete documents nearby the machine.
- General valid regulations for the prevention of accidents must be observed.
- The machine can be only used for tube squaring.
- Damage caused by not following the manual is user's responsibility.
- Only use the dimensions and material specified in these instructions. Consult LEFON for cutting material that is not covered in the manual.
- Inspect the machine daily of visible sign of wear or damage. Repair any damage or defect immediately
- Only qualified electrician can work on the electrical equipment.
- Unplug the power input before carrying out any maintenance or repair work on the machine.

Keep Safety in Mind

- Report any unusual response from the machine to the person in charge of this machine
- Wear protective goggles, safety gloves and ear protection when working with the machine
- Keep hands off the machine during processing.

Pay attention to the surroundings. Don't use any electric tools in humid area. Make sure to have excellent lighting. Do not working near combustible liquids or gases.



Danger of Death by Electric Shock

If the main cable is damaged, live parts may cause death when touching directly.

- Keep the main cable of the machine motor away from the saw beveling cutter.
- Make the scrapiron drop off safely.
- Don't make the scrapiron drop off uncontrolled
- Don't run the machine unattended
- While cutting the pipe, always pay attention to the positions cable.



Danger of Injury by Sharp Cutting Edges

- Keep hands away from the machine during cutting or beveling.
- Wear safety gloves.



Section 2 : Specification

Model		SD1.5	SD2.0	SD4.5
Pipe OD	mm	3.175-38.1	4.76-50.8	6.35-114.3
	Inch	0.125"-1.5"	0.1875"-2"	0.25"-4.5"
Max Wall Thickness(mm)	mm	4	10	10
Motor Horse Power	w	300	1020	1020
Motor Voltage	V	15.6VDC	220、 110VAC	220、 110VAC
Blade Speed	RPM	400	160	140
Net Weight	kg	4	11	19

Section 3 : Package & Installation



Deliver Package Item List

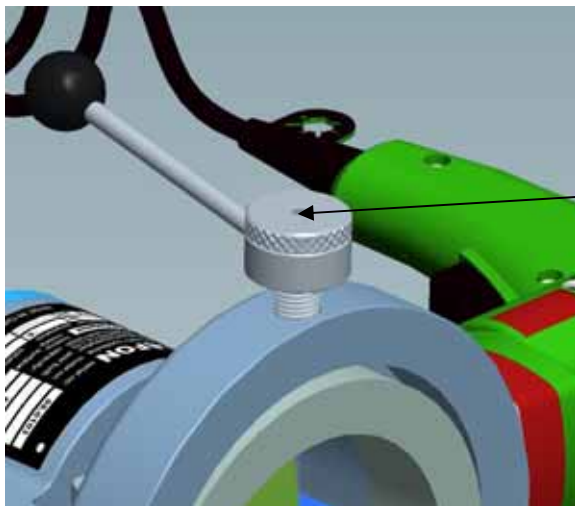
One SD1.5/SD2.0/SD4.5 should include the spare parts as below, if lacking or damaged, please contact manufacturer or shipper in time.

- 1、 two saw blades
- 2、 wrench
- 3、 operation instnution
- 4、 one set of collet

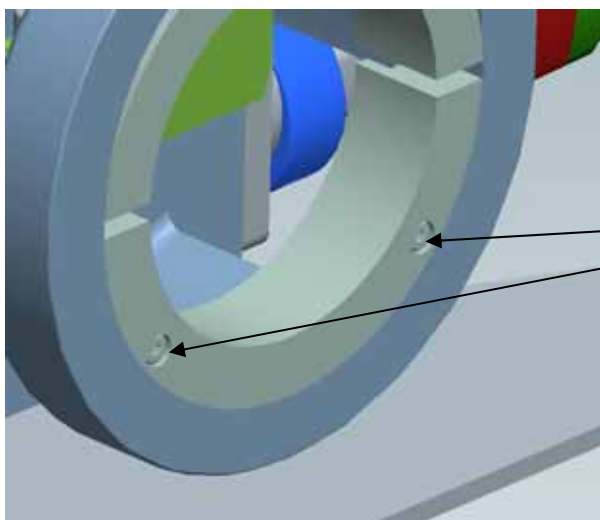
Installation Instruction

The machine is well installed before be delivered. Customer only need to take it out of the box and install the right collect according to tube size.

Now explain how to change the collect:



Step 1: Rotate the handle to the outside of collect. Use fingers to push it from inside untill it fall out.



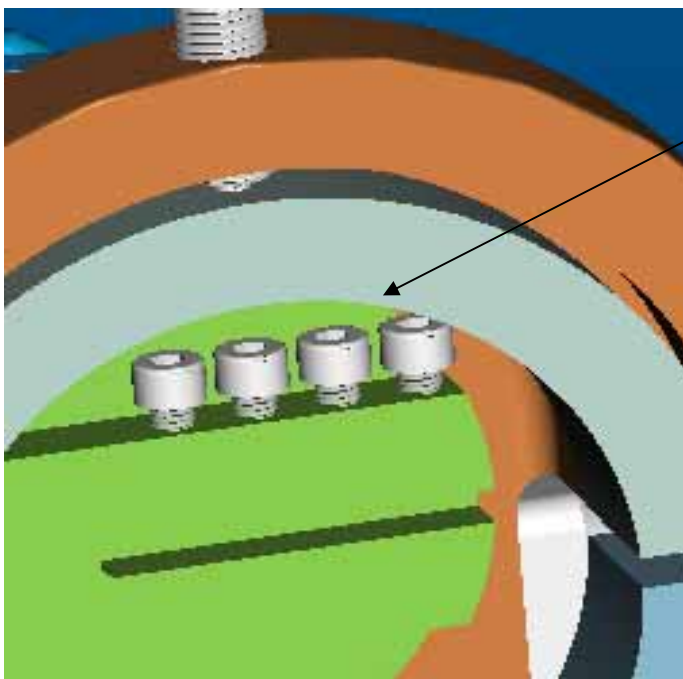
Step 2: Screw out two screw bolts with inner hexagonal wrench, then take out the lower mold of collect.

Step 3: Install the right collect according to tube size.

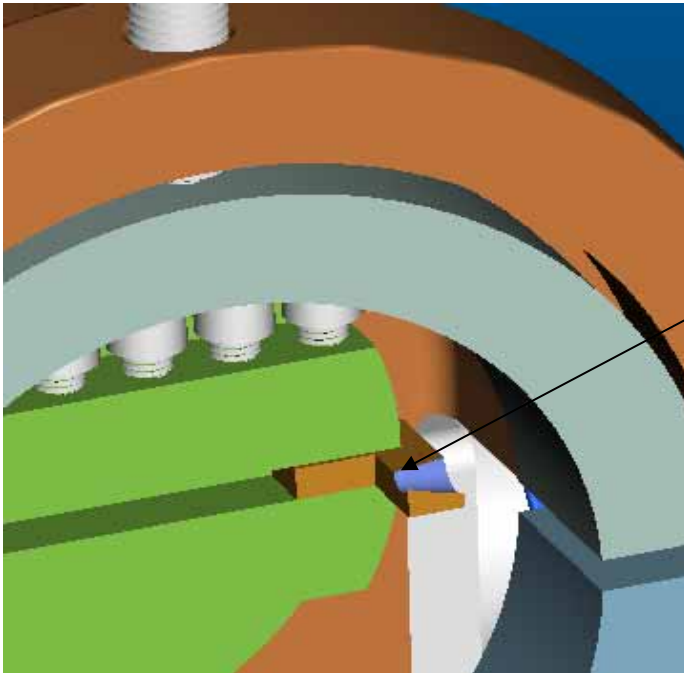
Section 4 : Operation Procedure

Now explain how to operate the machine:

Step 1: Install bits with inner hexagonal wrench. Make the Push Type Broach Bolts as following shown loosen, so bits can free to put in. Note: The bit cutting edge need to toward the Push Type Broach Bolt. Meanwhile, adjust the bit position on shaft as per tube size and tighten the Push Type Broach Bolt with the inner hexagonal wrench.

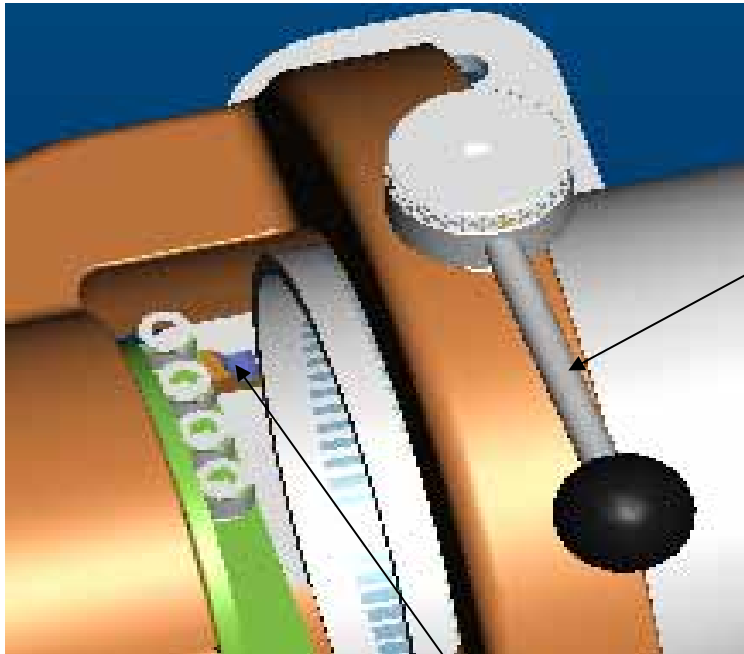


Four push type broach bolts



The bit cutting edge need to toward the Push Type Broach Bolt.

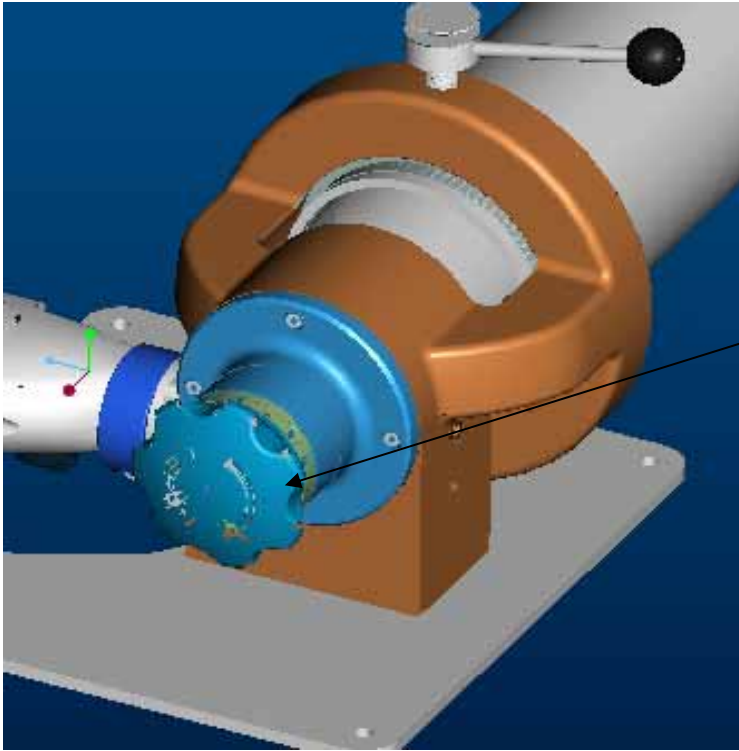
Step2: Put required tube into collect and maintain 3-5MM distance between bit cutting edge and pipe end. Rotate the following handle to tighten the pipe.



Rotate the handle to tighten the pipe

maintain 3-5MM distance between
bit cutting edge and pipe end.

Step3: Now run the machine, the bit begin to rotate towards colockwise direction and proceed plain end as well. When achieving the desired effect, contrarotation make a certain distance between bit cutting edge and pipe end. Release the motor switch. Unscrew the pressed handle, release the pipe, then finish plain end of pipe.



the bit begin to rotate towards
colockwise direction and proceed
plain end as well.

Section 5: Maintenance & Troubling Shooting

Maintenance Overview

Note	The impact and requirements
Before run the machine	Clean the cutter and the cutting edge of bits
Before clean the machine and change the bit every time	Do not blow iron fillings with an air gun, which maybe let some iron fillings into the mache. That will affect the accuracy of the machine and later precision of cutting.
Every week	Clean and lubricate

Trouble Shooting

Symptom	Possible Cause	Correction
Bit is too loose to cut	Push Type Broach Bolt hasn't been tightened.	Tighten Push Type Broach Bolts with inner hexagonal wrench
The pipe couldn't be cut	The blade is set up backwards	When set up the blades, the cutter edge should toward to Push Type Broach Bolt.
The pipe couldn't be clamped	The clamp handle won't be tighten.	Tighten the clamp wrench
	Choose wrong collect	Choose right collect according to tube size