



MINI EXTRUDER

Instruction Manual

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Contents

1. Description
2. Specifications
3. Accessories-standard and optional
4. Tools and materials required for inspection and maintenance
5. Installation and commissioning
6. Pre-operation checks
7. Operation
8. Do's and Dont's
9. Trouble shooting
10. Preventive maintenance
11. Drawings
12. Parts List

1.DESRIPTION

The Mini extruder consists of following major components

Pneumatic gun (air gun)

The Pneumatic is the power source for the rotation of the screw rod to move the melted rubber through the nozzle.

Analog control box

This lets the operator increase and decrease the temperature according to atmospheric conditions and production rate.

Barrel

This is the body of the melting chamber of the Mini extruder. It contains heating element & thermostat. The rubber input on top inlet and outlet in the front nozzle.

Nozzle

This is the part where melted rubber is output and pasted on the repair area of tires. There are three types of nozzles used according to the repairing area.

Support handle

This is provided to tilt or move the Mini extruder at required directions and angles for convenience while doing a repair.

Clamp

It is used to hang the Mini extruder in a Repair station.

2.SPECIFICATIONS

Model

ME 01

Electrical requirement

110v, 1PH , 50/60 Hz

Heater watts

300 w

Temperature range

0 -120°C

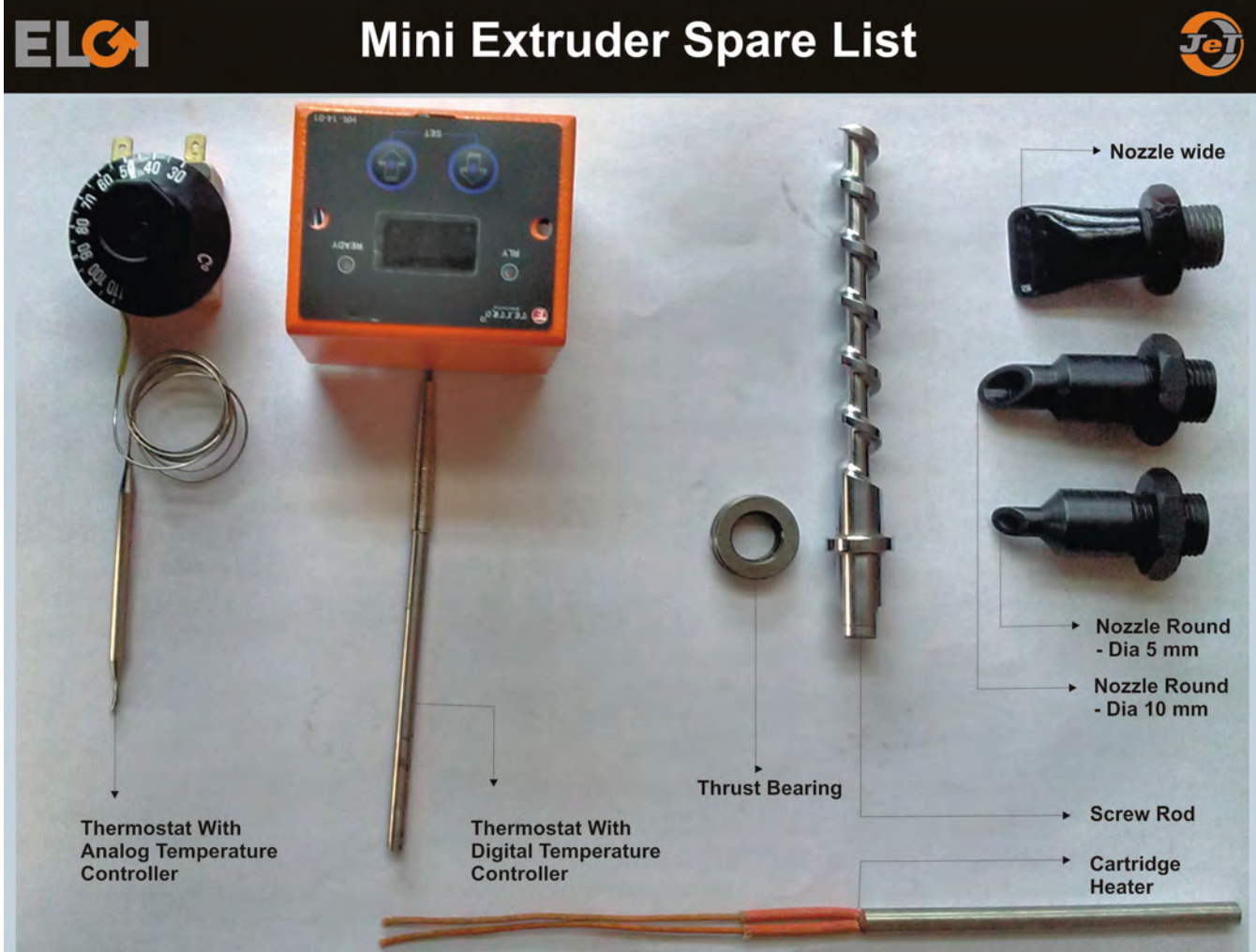
Output capacity

20 Lb/Hr

Weight

11 Lb

3.ACCESSORIES



4.TOOLS AND MATERIALS REQUIRED

Tools and materials required for erection and maintenance

Tools

Wrenches

Double end 10 – 11	1 no
Double end 12 – 13	1 no
Double end 14 – 15	1 no
Double end 16 – 17	1 no
Double end 18 – 19	1 no
Adjustable wrench	1 no

Allen key

Allen key 4mm	1 no
Allen key 6mm	1 no

Screw driver

Screw driver star (*)end	1 no
Screw driver star (-)end	1 no

Nylon mallet

1 no

Materials

For air lubricator ISO 68 or SAE 40	1/4 ltr
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5.INSTALLATION & COMMISSIONING

Positioning

The Mini extruder does not need any stand, It is sufficient to be hung on a rope near the repairing area.

The area where the extruder is located should be well illuminated.

Connection

Connect the Mini extruder to a proper 110 volt receptacle.

From the nearest air point ,draw a line using a 3/8" hose. Connect both ends with the help of air connector which fits into coupler.

Setting

Set the regulator at 90 psi by rotating the knob clockwise and then lock it.

6.PRE-OPERATION CHECKS

Check appearance for cracks caused in air tool.

Check all the nuts are tightened properly.

Check for curred rubber jammed inside the barrel.

Check for proper heating and control of temperature at set point.

Check for air tool rotation and irregular sound.

Check for grounding of electric supply.

Check for air leaks in pneumatic lines.

7.OPERATION

Connect the plug from junctionbox and switch on power supply.

Set the temperature in terminal box around 85°C to 95°C .

Setting temperature in terminal box:

Rotate knob to correct temperature setting according to rubber manufacturer suggestions.

Ensure that there is no cured rubber jammed inside the barrel.

Wait for the gradual raise of temperature to the set temperature.

Insert the rubber rope in the slot ,while pressing the air tool button, to make sure melted rubber exits nozzle .

With holding the extruder handle in left hand and air tool in right hand,apply the melted rubber to the repair area of the tire.

8.DO'S AND DON'TS

Do's

- ⤴ Ensure the device is set to attain 85°C before feeding the rope rubber.
- ⤴ Ensure the old stock rubber cleaned by running the equipment idle for 3 to 5 minutes before feeding new rubber.
- ⤴ Ensure recommended rope rubber compound is used.
- ⤴ Check and clean the jammed rubber, by removing nozzle to see if cured rubber is present from previous use.
- ⤴ Ensure correct pressure for air tool as recommended.
- ⤴ Ensure to install the rear exhaust kit.
- ⤴ Ensure proper earth ground.

Don'ts

- ⤴ Don't operate the mini extruder with out reaching the set temperature.
- ⤴ Don't use pre-cured rubber.
- ⤴ Don't set the air pressure above recommended.
- ⤴ Don't use the electric input supply with out grounding.
- ⤴ Don't use 2 pin or open wire to connector to connect the heater with the power supply.
- ⤴ Don't attempt to open the air tool to repair.

9.TROUBLE SHOOTING

SYMPTOMS/ PROBLEMS	POSSIBLE CAUSES	REMEDIES
Noise occurred	Cured rubber in barrel.	Clean the screwrod, nozzle and re assemble.
Sensed body earth	No grounding made	Earth ground should be done in junction box.
Rotation caused separately between body and air tool.	Cured rubber won't allow rotation of screw rod	Clean the cured rubber.
Air tool not rotating properly	Air pressure not sufficient	Set required air pressure.
Airtool bearing found tight.	No proper lubrication provided.	Check and fill SAE 40 oil in lubricator.

10.PREVENTIVE MAINTENANCE

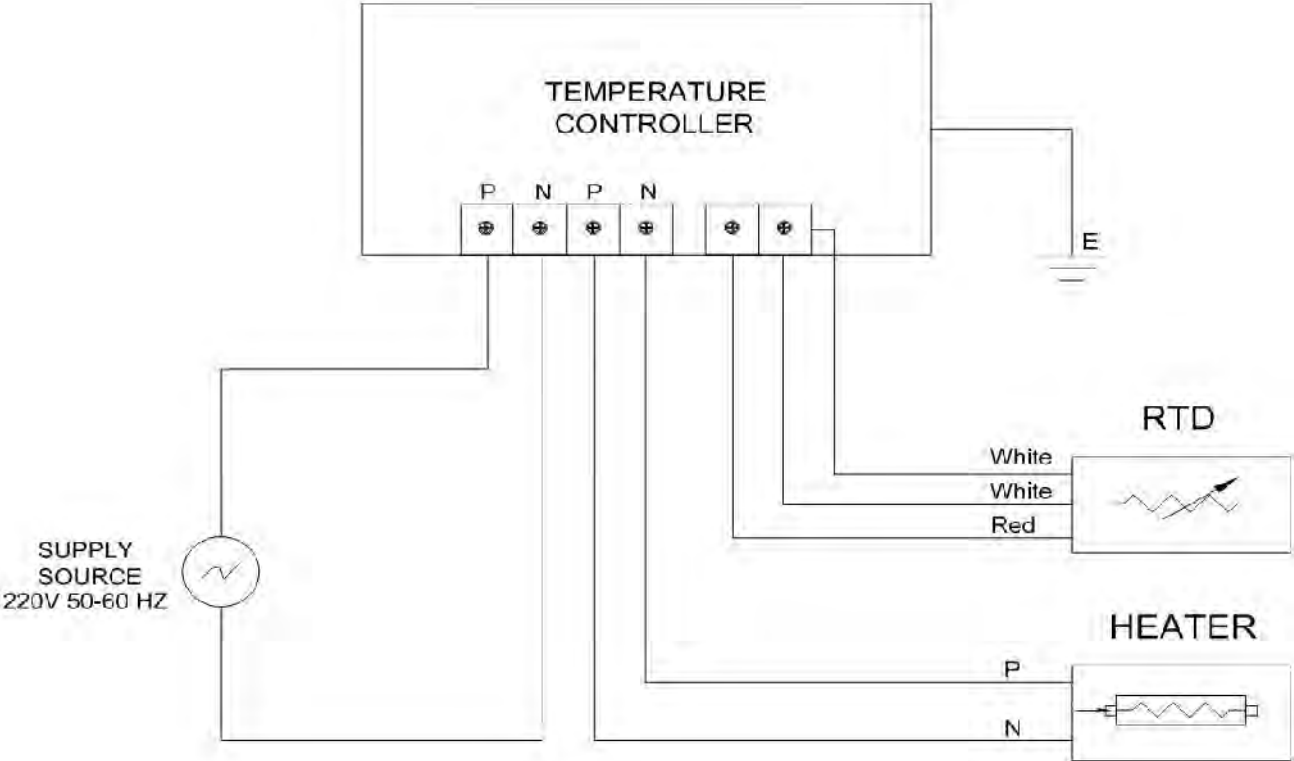
- ^ The Mini Extruder requires normal maintenance, like any other tool or machine.
- ^ The drive portion of the Mini Extruder is a pneumatic drill.
- ^ Make sure that a filter-regulator-lubricator is present in the line feeding the tool and that those units are properly monitored and maintained.

Every three 3 months or depending on use, the Mini Extruder should be disassembled, the extruder screw removed and cleaned, the shank of the screw polished, and the unit reassembled.

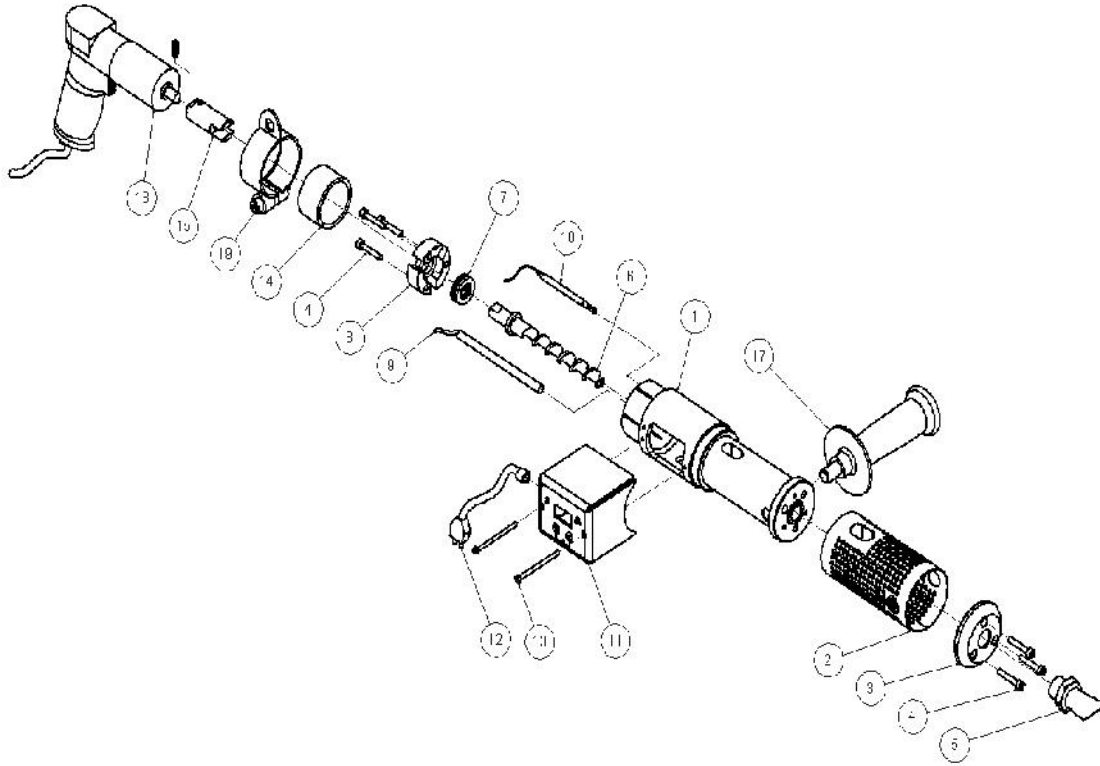
- ^ This operation requires very little time to accomplish and will prevent costly down time should any foreign material cause the extruder screw to seize.

11.DRAWINGS

ELECTRICAL SCHMATIC DIAGRAM



12.PARTS LIST



ITEM NO.	ITEM CODE	DESCRIPTION	UOM	QTY.
1	05530010067000	BARREL-MINI EXTRUDER/CNC MACHINED	NOS	1
2	05382500002000	COVER-BODY-ME 01	NOS	1
3	05380010001007	CAP FRONT BG-N	NOS	1
4	03011140503202	SOCKET HEAD CAP SCREW M5 X 20 X 0.8P	NOS	6
5	05530010013007	NOZZLE WIDE BG-N	NOS	1
6	05500010017000	SCREW ROD-ME 01	NOS	1
7	03120080196002	THRUST BEARING 51102/NTN	NOS	1
8	05380010002007	CAP REAR BG-N	NOS	1
9	03040360050000	CARTRIDGE HEATER DIA 8MM x 125MM 300w / 220/ERDG1/PH	NOS	1
10	03040350062000	THERMOSTAT 0 - 110 DEG.C/ BUZZGUN-1/EGO	NOS	1
11	05460010114007	TERMINAL BOX BG-N	NOS	1
12	03040250085000	CABLE (MOLDED) 5A -1.5 MTR LENGTH	NOS	1
13	03011130404100	SOCKET CSK SCREW M4 x 60 (B4B0504060) DIN965/PHILLIP	NOS	2
14	05320010029007	SLEEVE-TOOL-BG-N	NOS	1
15	05310010037007	ADOPTER-TOOL-BG-N	NOS	1
16	05330010004007	CLAMP BG-N	NOS	1
17	03070150003000	HANDLE.ERBG-N	NOS	1
18	32010050018021	PNEUMATIC DRILLING MACHINE 13MM/ MODELCP-9286/CP	NOS	1