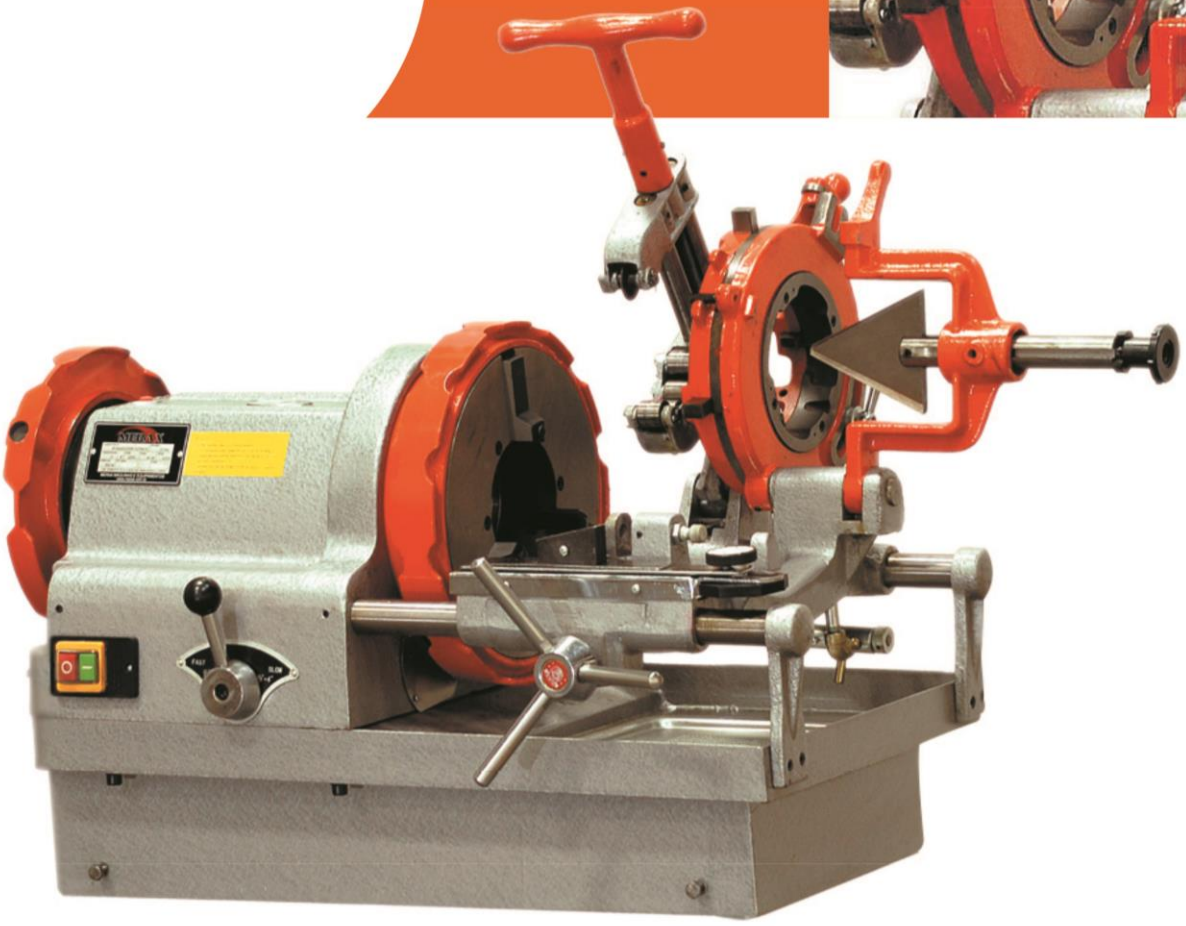
MERAX



Operation Manual

Pipe Threaders

Make more With Merax!

INTRODUCTION

MERAX Pipe Threaders can cut, thread and ream ½" – 6" pipes, according to the model). Compact, easy to handle and highly efficient, they feature a safe automatic mechanism and an innovative lubrication system.

Purchasing this Pipe Threader, you will notice it extends the life of dies, protects pipes from deforming and have a high quality output. It is the ideal machine for achieving higher efficiency, guaranteeing quality for your projects and sharply reducing work in pipe installations, being widely used in industrial installations.

MODEL		Z1T – R2	Z1T – R2A	Z1T – R4	Z1T – R6
Threading, cutting and reaming capacities		½" – 2"	½" – 2" M8 – M33	½" – 4"	2 ½" – 6"
Speed R/Min	cutting reaming	28	28	24	24
	Threading	28	28	24 (1/2" –2") 8.5(2 ½"-4")	24 8.5(2 ½"-6")
M O T O R 60 HZ	Type	JY7142	JY7142	YL8024	Ao : 8034
	Power(W)	750	750	750	1100
	Current (A)	6,5	6,5	6,5	2,8
	Voltage (V)	220 monoph.	220 monoph.	220 monoph.	220 monoph.
	Rotation (R/min)	2800	2800	1400	1400
Size (L x W x H)		660 x 420 x 375 mm	660 x 420 x 375 mm	930 x 670 x 570 mm	110 x 770 x 690 mm
Net weight	Kg.	68	72	175	195

TAB 1

STRUCTURE

Made of highly resistant cast alluminum alloy and polished steel alloy, it is a lightweight, but heavyduty machine. FIG 1 shows the machine structure, die head, reamer and pipe cutter, which move along the support brackets. The motor, reducer and oil pump are assembled within the machine.

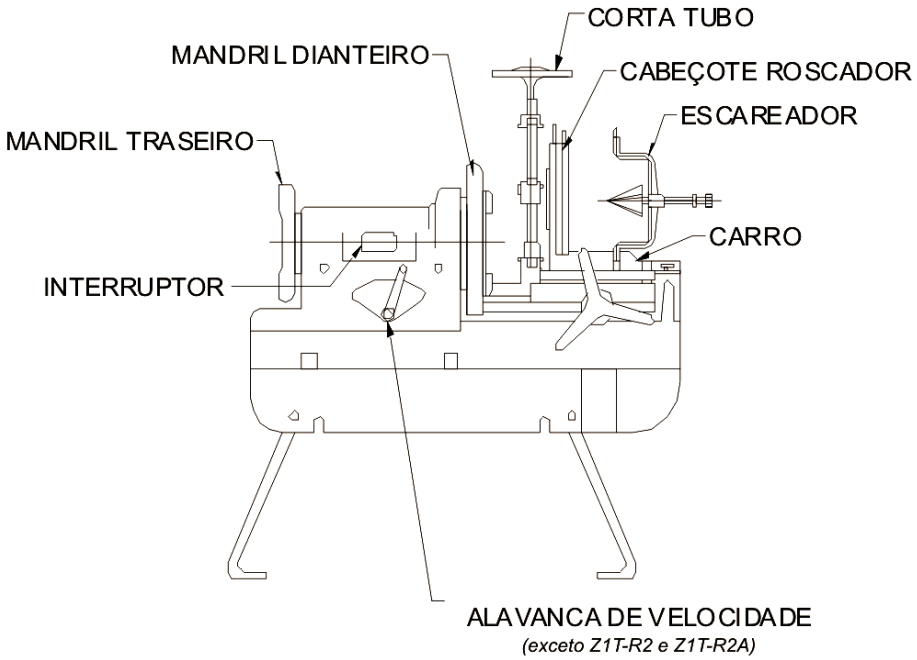


FIG 1

PREPARATION

1 – Care during transportation:

Lock the die head in the threading position with dies completely open. Lock a small piece of pipe in the front chuck and fasten the pipe cutter to it. Lock the reamer in the operation position.

Empty the Oil Threader reservoir, releasing the cap at the bottom of the reservoir.

The machine can be safely transported now.

2 – Preparing for operation:

To operate the machine, the legs should be adjusted so that the back chuck is at a higher position than the front chuck.

OPERATION GUIDE

A – Adjusting the pipe:

(1) Open both chucks and place pipe beginning from back chuck.
(2) Close the back chuck, pressing the clamps against the pipe. Close front chuck: with the hands on the wheel, pull it towards your body to lock pipe.
(3) A sudden movement in the opposite direction will release the pipe after cutting.
(4) Using short pipes that do not reach the back chuck, with the front chuck lightely loose, place the short pipe and tighten it, using the front edge of the dies. This procedure should help to keep pipe centered while front chuck is fastened (FIG 2) .

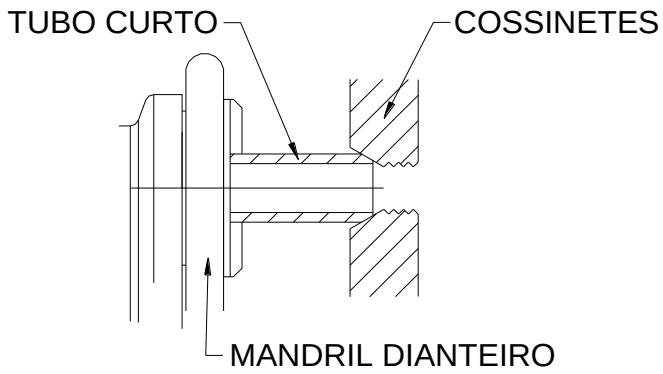


FIG 2

B – Preparing for threading:

(1) Select the adequate dies for the job.
(2) Place the set of dies in the die head as numbered.
(3) Release the lever and pull it until dies are locked.
(4) Place thread length selector in the required position (except ZIT-R2A).
(5) Select the desired thread diameter on the reference line. (FIG 3).
(6) Select the speed lever for the recommended size (available in some models).

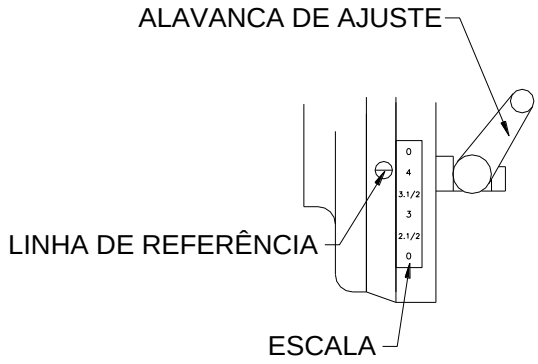
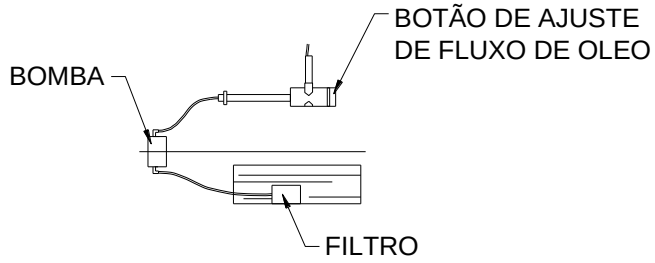


FIG 3

C – Threading:

(1) Move the pipe cutter and the reamer out of the way, lower the head until it touches the edge. Use hands to press until it is locked. When the thread head is securely locked, press the switch to begin.
(2) With the pipe turning, turn the cart wheel couterclockwise to move threading head against the pipe. Make sure oil is flowing through the threading head before beginning to thread (check the oil flow adjustment button, available in some models) FIG 4.
(3) Pressure the carriage wheel counterclockwise until dies lock the pipe at a distance of 3 or 4 thread lines. Repeat the procedure of pipes of 2 ½" or more.
(4) At this point, the carriage wheel can be released. A standard thread will automatically be made. At the end of the thread, the dies will open up and the threading operation will be complete (except Z1T-R2A).
(5) Stop the machine, remove the carriage until die head releases the pipe. Pull the thread head lock button (except Z1T-R2A) and lift it to the rest position.



D - Setting the thread diameter:

The size scale position is factory preset. If recalibration is necessary, proceed as follows:
(1) Make 2 or 3 threades to determine the desired size. Lock the lever nut in this position.
(2) Release the bolts to change the scale as desired. Re-tighten screws. (FIG 3)

E - Removing the dies:

(1) Revome the threading head. Pipe cutter must be lifted.
(2) Release the thread indicator lever and push it until the end. Lightly tighten it.
(3) Pull dies out.

F - Installing the dies:

(1) Place dies in their respective places, as numbered in die heads. Make sure dies are in their correct places. Once the dies set has been installed, always use this set. If a die breaks, change the complete set to avoid deffective threads.

Note: When installing dies, beware that there is a round hole near the wires. Fit it in the die head ball, guaranteeing the exact place and alignment. Otherwise, you would be able to close the lever.

G - Pipe cuttering and reaming:

To cut and ream, switch the speed lever to the faster position (available in some models). Always countersing after cutting the pipe.

For pipes cutting:

(1) Lift the reamer and the threading head. Move speed lever to faster position.
(2) Lower the cutter over the pipe, opening the cutter wheel width wider than the width of the pipe.
(3) Move the cutter wheel to the position where the pipe will be cut.
(4) Turn the cutter wheel to the right and align it with the pipe.
(5) Turn the machine on and press cutter wheel lightly, giving the wheel a 1/4 turn for one or more turns of the pipe. After this procedure, release the wheel and lift the cutter to a rest position. Warning! If the cutter wheel turns to fast (too much pressure), the pipe form may change when the cutter wheel is contact with the pipe.

Special precautions during cutting: We recommend special attention to pipe cutting, when not made by the Pipe Threader cutter. If this has happened, make sure cutting is perpendicular to pipe shaft and there are not any indentations.

Reaming the pipe:

(1) Lift the threading head and the pipe cutter. Move speed lever to the maximum position. Lower the reamer and move the reaming shaft forward, locking the bar in position with a turn of ¼.

(2) Turn machine on and turn the carriage wheel clockwise to place reamer into the pipe. You should not overstress the reamer under risk of damaging the moto-reducer. The reamer is used for removing burrs.
(3) After reaming, turn the machine off, retract the bar and lift arm up to the rest position.

H - Lubrication system of thread head:

(1) Check if oil flows correctly, if there is enough oil in reservoir and if lines are unobstructed. Avoid letting air into pump due to oil shortage.
(2) If oil contamined or has a faded color, clean reservoir and replace with new oil.
(3) After 6 to 12 hours of real use, clean the reservoir.
(4) When threading, small burr will accumulate in reservoir. Thus, good cleaning is essential for good working and the oil pump.
(5) Use only special oil threader.

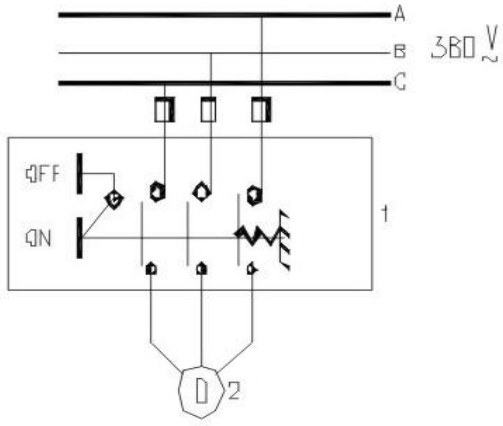
I - Maintenance check:

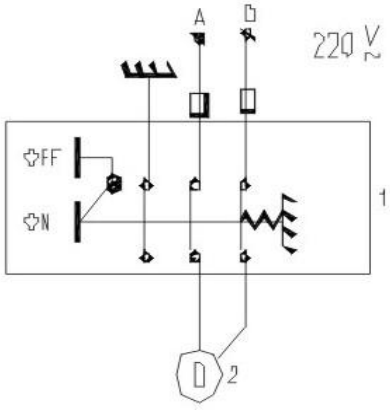
(1) Check the cutter wheel for damage and replace it if necessary.
(2) Clean and lubricate cutter rollers.
(3) Check the alignment of the cutter wheel and the cutter rollers.
(4) Grease gears using an oil can through the orifices on the top of the body.
(5) Constantly clean dies.

J - Removing the jaws of the front chuck:

(1) Remove the hex screws with appropriate tool and remove from front chuck.
(2) Remove the jaws. Remove the hex screws at the top of the jaw. Remove the retention pin and spring. After that, the damaged jaw us is free to be replaced.
(3) To assemble perform inverse operation, making sure the jaws are evenly aligned. Check screws are tight.

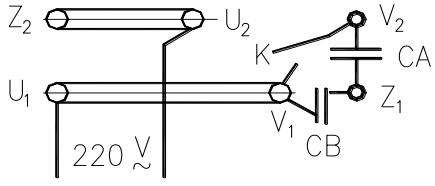
K - Electric Diagram (Fig. 5) :



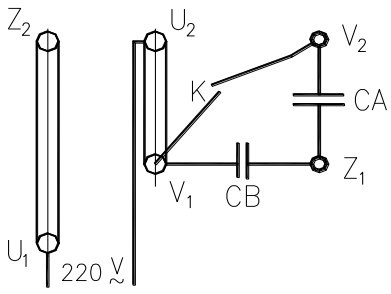


1 – Switch 2 – Motor

L - YL8024 Motor Standard Electric Diagram (Fig. 6) :



ROTAÇÃO SENTIDO HORARIO



ROTAÇÃO SENTIDO ANTI HORARIO

M - Accessories:

Threading heads : Z1T-R2 : ½" – 2" one set
Z1 T-R2A : ½" – 2", M8 – M33 one set of each
Z1 T-R4 : ½" – 2", 2 ½" - 4" one set of each
Z1 T-R6 : 2 ½" - 4", 5"-6" one set of each

Dies : Z1T-R2 : ½" - ¾, 1" - 2" one set of each
Z1 T-R2A : ½" - ¾, 1"-2", M12, M14-16, M18-22, M24-27, M30-33 one set of each
Z1 T-R4 : ½" - ¾, 1"-2", 2 ½" - 4" one set of each
Z1 T-R6 : 2 ½" - 4" , 5" - 6" one set of each

Hex wrench : 3, 4, 5, 6 mm one set of each
Tools set : 1 set
Oil threader: 1 gallon
Oil can : 1
Wrench (8") : 1
Wrench: 1

WARRANTY

MERAX Pipe Threading Machines are guaranteed in Brazil for 12 months from the date of issue of invoice or delivery of the product to the final consumer.

This warranty applies to manufacturing, materials, parts and workmanship defects, when adequately proven.

This warranty does not apply to damages provoked by inadequate transportation, accidents of any type, misuse, electrical installation oscillations, use of wrong voltage, bad quality of compressed air, the removal or alteration of the series number of the machine, and the non-compliance with the instructions herein contained

This warranty does not apply to any component that deteriorates under normal use.

Use only original spare parts and always contact a Merax Authorized Assistance. Check list in our website: www.merax.com.br

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