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Date: 29.10.2021.

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## SETUP AND OPERATION MANUAL PE-1U: PIPE EXPANDING MACHINE

**Serial nr.:**

**Build year:**

**Buyer:**





# PE-1U User Guide

Page: 2

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## TABLE OF CONTENTS

|   |   |
|---|---|
| 1.) WARNINGS AND SAFETY MEASURES.....               | 3 |
| 2.) SPECIFICATIONS.....                             | 3 |
| 3.) UNLOADING.....                                  | 4 |
| 4.) LEVELING.....                                   | 4 |
| 5.) POWER UP.....                                   | 4 |
| 6.) MANUAL EXPANDING.....                           | 5 |
| 7.) AUTOMATIC EXPANDING.....                        | 6 |
| 8.) EXPANDER HEAD CHANGING.....                     | 6 |
| 9.) ADJUSTING THE HEAD FOR DIFFERENT MATERIALS..... | 7 |
| 10.) PIPE SUPPORT.....                              | 7 |
| 11.) OILING MAINTENANCE.....                        | 8 |
| 12.) NOTES.....                                     | 9 |

## 1.) WARNINGS AND SAFETY MEASURES

People using the machine MUST NOT HAVE loose clothes, long hair, or jewelry.  
If there is any danger, the NOT-AUS button can be pressed. Doing that will immediately stop the machine.



**Wear safety shoes with steel caps!**



**Wear cut resistant safety gloves!**



**Danger rotating parts!**



**Danger high voltage!**



**General warning!**



**Read the instructions before use!**

## 2.) SPECIFICATIONS

The pipe expanding machine is used to expand the size of the finished seamed pipe, so that pipes can be connected by fitting the end of one pipe into another pipe. The machine can expand pipes of different materials: galvanized steel, copper plates, coloured aluminium, titan zinc, pre-painted material, etc.

**Product:** Pipe expanding machine

**Type:** PE-1

**Dimensions (Length x Width x Height):** 1000mm x 800mm x 1200mm

**Weight:** 200kg

**Machine colour:** Anthracite gray (RAL 7016)

### ELECTRICAL SPECIFICATIONS

**Motor power:** 0,75kW, 11,7°/min,  $\cos \rho = 0,78$

**Power supply:** 3N PE ~380V @ 50Hz

**Machine operating voltage:** 24V

### SHEET METAL THICKNESS

**Maximum tensile strength:** 400N/mm<sup>2</sup>

**Galvanized sheet metal:** 0,4 – 0,7mm

**Pre-painted:** 0,4 – 0,65mm

**Copper sheet:** 0,5 – 0,8mm

**Titan zinc:** 0,5 – 0,8mm

**Coloured aluminium sheet metal:** 0,8mm max.

### 3.) UNLOADING

The machine can be unloaded by pulling a belt through the eye bolts on top and lifting with a forklift, crane, etc.

### 4.) LEVELING

After unloading, place the machine on a hard, flat surface.

The machine is equipped with 4 leveling bolts, 2 on each of the transverse bottom UNP profiles. Use those to level the machine depending on the surface it is on.



*UNP profile with leveling bolts shown.*

#### BEFORE SWITCHING THE MACHINE ON!

The machine must be connected to a three-phase power outlet, 3N PE ~400/230V @ 50Hz.

**IF THE PHASES ARE CONNECTED INCORRECTLY** the machine will not work, in which case an electrician should switch the phases inside the three-phase plug.

### 5.) POWER UP



Turn the **MAIN SWITCH** into **ON (1)** position. After switching on the **MAIN SWITCH**, press the green **SUPPLY ON** button. If everything is connected correctly, the button should light up green.

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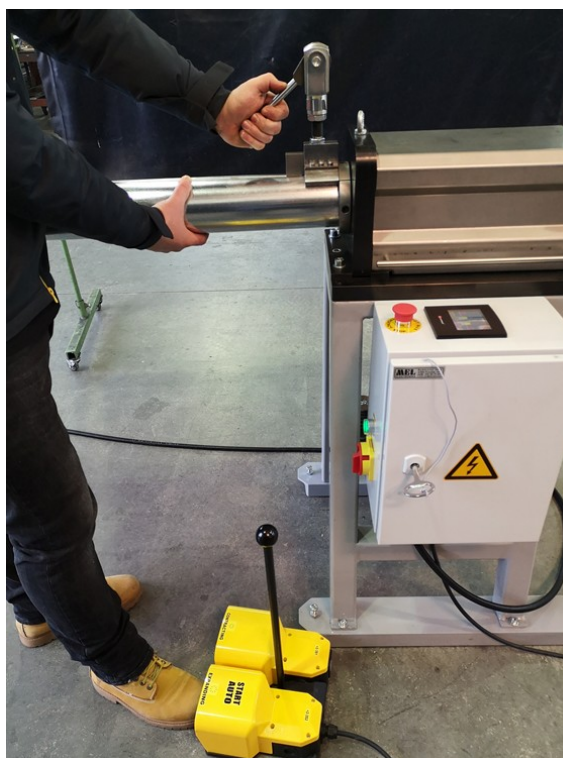
## 6.) MANUAL EXPANDING

Place the pipe on the expander head and pull the clamping lever down to strengthen the seam. Press the **EXPANDING** pedal and keep it pressed until you're satisfied with the expanded pipe diameter. Press the **CONTRACTING** pedal and keep it pressed until the head is back in the original position.



*Pedals, marked with **CONTRACTING** and **EXPANDING**. The right pedal is also used to start the automatic cycle.*

Lift the clamping lever and remove the pipe from the expander head.



## 7.) AUTOMATIC EXPANDING

Adjust the expanding time using the potentiometer.

Place the pipe on the expander head and pull the clamping lever down to strengthen the seam.

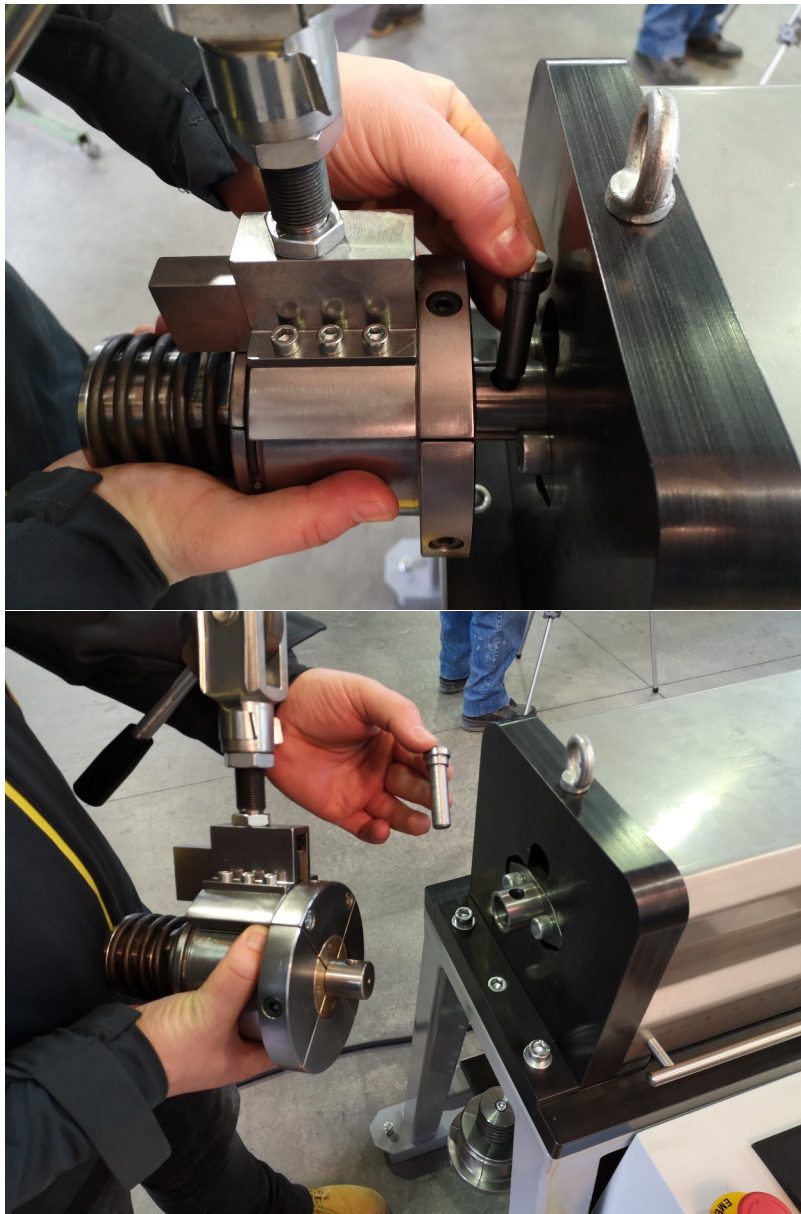
Press the **AUTO START** pedal.

Once the process is complete, lift the clamping lever and pull the pipe off of the head.

## 8.) EXPANDER HEAD CHANGING

To change the expander head to one with a different material, first move the head away from the limit plate.

Lift the head up by hand, so that the safety pin loosens. Take the safety pin out, and pull the head out of the slot.

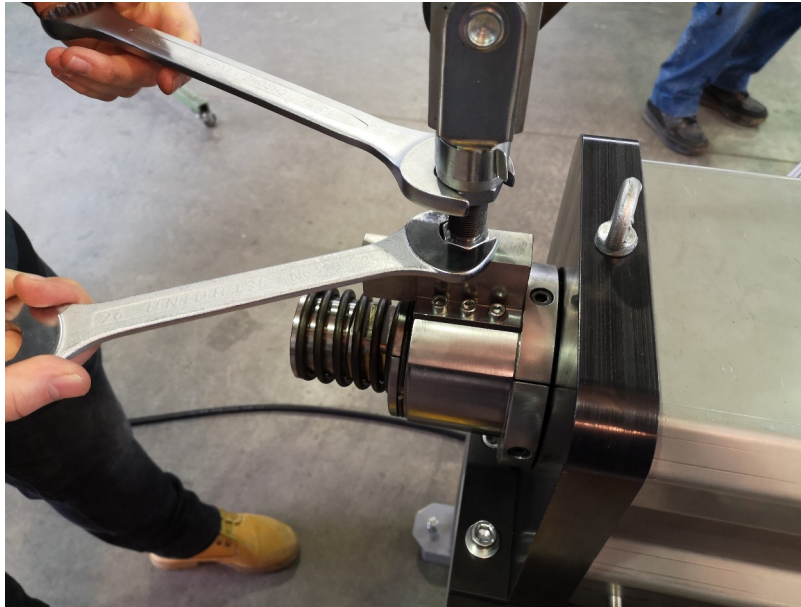


Mount the new head and put the pin back in place.

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## 9.) ADJUSTING THE HEAD FOR DIFFERENT MATERIALS

To adjust the head for different materials, or different sheet thickness, use two wrenches. Tighten or loosen the lower nut on the seam holder, while holding the other nut to keep it from rotating.



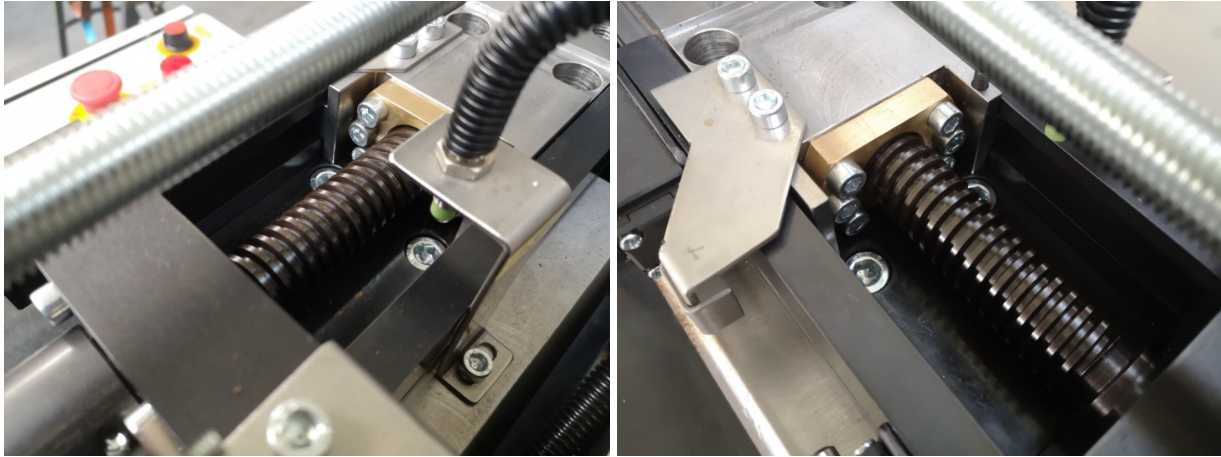
## 10.) PIPE SUPPORT

For longer pipes a support can be used with the machine, to hold the other end of the pipe while it is expanded

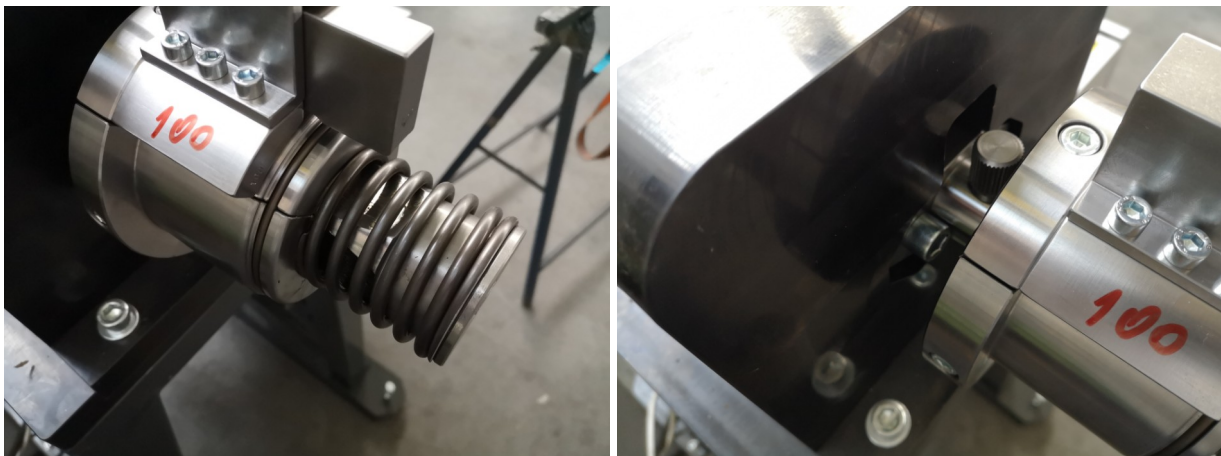


## 11.) OILING MAINTENANCE

### 1.) INSIDE PART OF THE MACHINE – spindle and guide rails



### 2.) EXPANDER HEAD – conic pin and stop plate surface



### 3.) EXPANDER HEAD – eccentric press

