



**PTH400 FAVORIT THROUGH HOLE
MECHANICAL PRESS
OPERATING INSTRUCTIONS**

FAVORIT THROUGH HOLE PLATING



Hand-operated machine, especially for mechanical through-hole-plating purposes. Professional through-hole-plating by individual tools for each rivet diameter. Optimal contacts, even without soldering. Favorit offers high quality results at a low cost level.

SPECIAL FEATURES

- ◆ Adjustable depth limiter
- ◆ Maximum board size: 400 mm

SUPPLIED WITH:



- ◆ The Favorit Press is offered without the tools and rivets.
- ◆ Please order the sizes you require separately.

AVAILABLE OPTIONS

- ◆ Various tools and rivets are available.
- ◆ Different tools have to be used for different diameters

Rivets	Technical Data	Standard Tubular rivets according to DIN 7340, Form A		
Inner dia. mm	Outer dia $\pm 0.03\text{mm}$	Length $\pm 0.10\text{mm}$	Head dia. $\pm 0.15\text{mm}$	Wall thickness $\pm 10\%$
0.4	0.6	2.2	0.9	0.1
0.6	0.8	2.2	1.3	0.1
0.8	1.0	2.2	1.6	0.1
1.0	1.4	2.5	2.2	0.2
1.2	1.6	2.6	2.6	0.2
1.5	1.9	2.7	3.1	0.2

NOTE: When drilling on CNC machines, the drill diameter should be 0.1mm larger than the above outer diameter

TECHNICAL DATA

Dimension:

Width x height x depth: approx. 9.5 x 21 x 30 cm

Working depth: 200 mm

Weight:: approx. 4 kg

Technical alteration reserved.

FORTEX

User Instructions

Set-up

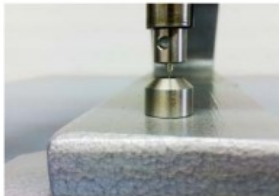
Place the unit on a table in a well lit workplace. You may wish to fix the unit to the table by means of screws going into the two lateral holes on the socket of the unit. The lever normally faces away from the operator.

Proceed as follows to mount the pair of tools, supplied with the unit. The lower tool goes into the hole in the socket of the unit. It is fixed by the lateral Allan screw. (please note that the tool fits the screw very tightly).

Screw the upper tool to the actuator that becomes visible when the lever is lowered. Take care not to damage the tip of the upper tool and the pin in the lower tool. **Do not apply force to the lever when performing the following test:**

Tool Alignment

The tip of the upper tool must line up with the pin in the lower tool. If the tip does not hit the pin follow these instructions



The Favorit undergoes strict quality checks before delivery. If it ever happens that the upper and lower tool of the Favorit is not aligned properly, there is a quick and easy way to recalibrate the tool.



The yellow brass cylinder has a slight conical shape. If you loosen the headless Allen key screw in the grey aluminium body, you can change the position of the upper tool by turning the cylinder.



If upper and lower tool are perfectly aligned again, fix the brass cylinder with the headless screw again.

There is a steel pin with a thread on one end also supplied with the unit. This pin must be mounted on top of the unit. Its purpose is to act as a stop for the lever. The right setting of this pin can be determined by putting a standard 1.6mm board between the upper and the lower tools and applying slight pressure to the lever. Keep the lever in that position and counter-screw the stop pin.

Usage:

Put a rivet with the collar downside onto the pin of the lower tool. With etched boards and under a well lit area you can identify the position of the hole versus the pin through the board. Another targeting aid is to lift the board so that the drill hole fits the tip of the upper tool and then lowering the tool until the boards matches the lower tool with the rivet.

Make sure that the rivet has been inserted into the drill hole as far as possible. Press the lever until it reaches the stop pin.

The spring loaded pin in the lower tools keeps the rivet open during the pressing action. Due to the special geometry of the upper tool, a collar is being formed on the upper side of the board.

The shape of this collar depends on the rivet diameter, the board thickness and the geometry of the upper tool. If it happens that the collar cracks, the pressure was much too high or the boards was significantly thinner than 1.5mm.

A loose rivet indicates a too low pressure or the rivet was not entirely inserted into the board.

If the rivets fits the holes in a way that they do not fall out, you may alternatively insert all rivets into the boards and perform the pressing action with the unit in a second step

Rivets of different diameter require a separate set of tools for each. Changing the tool sets is done according to the set-up instructions previously mentioned.

Hints

A well placed rivet gives a good connection that is resistant to bending and twisting. In order to obtain a good long-term stability, we recommend that you apply our Immersion Tin. This will help to prevent corrosion at the transition layer of the rivet and the copper clad (and will increase solderability).

If you place components leads in the rivet holes and solder them from one side only, you should avoid thermal stress to the rivet. Certainly if solder passes the rivet it can cause the rivet to expand under the heat so that the rivet becomes loose. If this should happen, you should solder fix both rivet collars to the pads before inserting components leads.