ETH STUDENT PROJECT HOUSE

Spot Welder

Telwin PTE 18

Mild Steel, Stainless Steel
Up to 6 mm total thickness

SAFETY

This is a brief manual. Consider also **manufacturer's manual** and **ask supervisor in case of doubts**.

- **STRONG ELECTROMAGNETIC FIELDS**
- **STAY AWAY IF YOU HAVE A PACEMAKER, RESPIRATOR, METHAL PROSTHESES or similar medical equipment**

- **Wear leather apron**
- **Wear thick leather gloves**
- **Wear safety shoes**
- **Wear long thick pants**
- **Wear safety glasses**
- **Keep distance to moving parts**
- **Keep distance to hot parts (arms, rods)**
- **Don't touch workpiece near the welding area**

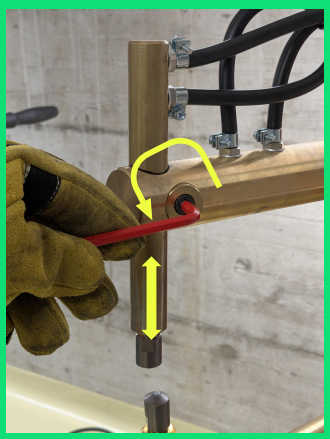
PREPARING THE MACHINE

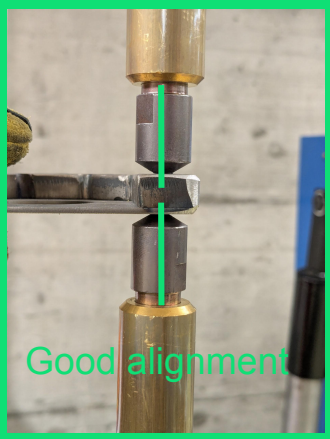
1. Clean workpieces

All surfaces through which the current flows must be clean for proper welding.

2. Check/Adjust electrode alignment

Place your workpieces or a placeholder of same thickness between the electrodes. Check if the top electrode is centered with respect to the bottom electrode. If not, align them by loosening the allen bolt and adjusting the height of the top electrode.





USING THE MACHINE

3. Start the machine

- Rotate main power switch to ON position.
- Hit the “START” button.

4. Set Power & Time

[table on next page]

- Set POWER to the value that corresponds to the total thickness of your workpieces using the + / - buttons.
- Hit the MODE button.
- Set CYCLES to the value that corresponds to the value that corresponds to the thickness of your stack.

PARAMETER TABLES

Mild Steel

Total Stack (mm)	Power (%)	Cycles
1	50	20
2	60	40
3	70	60
4	80	80
5	90	100
6	100	100

Stainless Steel

Total Stack (mm)	Power (%)	Cycles
1	40	20
2	50	40
3	60	70
4	70	90
5	80	100
6	90	100

PREPARING THE MACHINE

5. Position workpieces

-> Hold your hands as **far away from the electrodes** as possible.

6. Press foot pedal completely down

-> Current starts flowing
-> Keep pressed until current stops

7. Release foot pedal and remove workpiece

8. Repeat steps 5 - 7 if you need to weld more spots

CAUTION: HOT! WAIT FOR THE WORKPIECE TO COOL DOWN BEFORE YOU TOUCH IT NEAR THE WELDED SPOT.