



PMI 350 TL2/2R Factsheet

The soft plasma welding machine is used for sheet metal up to 6mm. Mainly used materials for plasma welding are stainless steels, steels, titanium, zirconium and copper.

TECHNICAL DETAILS

Compared to the TL, the PMI 350 TL2 offers a much more comfortable input surface with a 7" touch control panel. The PMI TL2R uses a 7" remote control as standard for operating the device and reading out data.

The arc is constricted by a copper nozzle, which results in a high power density. The concentrated arc, in conjunction with the controllable plasma gas, enables higher welding speeds and deeper penetration (root welding) to be achieved, which saves time and money. The strong bundling of the arc and the welding speed mean that only a narrow heat-affected zone is formed, which results in less thermal distortion in the component.

- high quality of the seam
- high procedural security
- high degree of automation
- high productivity due to high welding speed

OPTIONS:

PGR-05: electr. Plasma gas regulation, range 0.1 ÷ 5 l / min

SGR-20: electr. Shielding gas control, range 0.5 ÷ 20 l / min

MCC: Motor control card for controlling an SBI wire case

Applicable Welding Methods

- PLASMA Seam Welding
- PLASMA Keyhole Welding
- PLASMA Brazing
- PLASMA Coating
- PLASMA Powder

**Range of suitable material thickness
(Plasma seam welding)**

~ 0.5 – 3 mm

**Range of suitable material thickness
(Plasma spot welding)**

~ 0.5 – 1.5 mm

Automation

• Capable for automation

Operating modes

DC

Supply Voltage

3 × 400 V-460 V ±15 % 50/60Hz

Phase

3 Phase

Power connection4 × 32 A CCE plug, 6 mm²**Max. welding current at 35 % PMI50; duty cycle
(40 °C)**

350A

Max. welding current at 100 % duty cycle (40 °C)

290A

Adjustment range welding current

3 – 350 A

Max. pilot current at 35 % duty cycle (40 °C)

50A

Max. pilot current at 100 % duty cycle (40 °C)

30A

Adjustment range pilot current

0.5 – 50 A

Adjustment range TIG mode

3 – 350 A

Adjustment range MMA mode

20 – 330 A

Cooling

Liquid

Degree of protection

IP 21 S

Length

1120mm

Width

450mm

Height

935mm

Weight

105kg

Features

- Power source with HF-ignition
- Pilotinverter with HF-ignition
- Touch Screen 7,0"
- USB interface
- Ethernet interface
- Integrated welding program memory
- Integrated cooling
- Integrated monitoring / gaging of cooling medium
- Integrated electronic gas regulation (PGR)
- Integrated control of wire feeder / powder feeder (MCC)
- Integrated control of wire feeder / powder feeder (MCU-M)
- Integrated control of wire feeder and free wheel encoder (MCU-MI)
- Integrated control of 2 wire feeders and free wheel encoder (MCU-MSI)
- Integrated CSO - control stop
- Integrated ECO - emergency cut off
- Integrated automation interface
- Software for external controlling via computer (diagnostics, parameter setup, documentation)
- Flowmeter plasma gas
- Flowmeter shielding gas
- Parking area for 20l gas bottle
- Mobility by wheels
- Foot control of the current
- Remote Control RC-S
- HPP1 - High Pressure Pump (1 circuit)
- HPP2 - High Pressure Pump (2 circuits)
- Plate Heat Exchanger
- Remote control RC-TL2R, 7,0" Touch Screen

Automation Interface "Tiny"	• Included
Digital Inputs	2 × 24 V
Digital Outputs	3 × 24 V
Analog Inputs	2 × 0 – 10 V
Analog Outputs	2 × 0 – 10 V
CAN Bus (SBI protocol)	• Included
Automation Interface "AS/AD Basic"	• Included
Digital Inputs	10
Digital Outputs	10
Analog Inputs	4
Analog Outputs	4
KTY Input	1
CAN Interface	• Included
Connection cable	5m
Capability for / availability of specific bus interfaces	• Included

Torches Recommended for Use



PP150-M



TP200-M



PS250-M



PP280-M



PP200-R



TP200-R



TP350-R

About SBI GmbH

SBI was founded in 1999 with the aim of developing rapid prototyping technologies. SBI has therefore developed its plasma technologies and built welding solutions. From automated solutions for coating technologies to the repair of forging dies or plasma arc deposition machines for the maintenance of aircraft turbines, SBI has established world-renowned references in the field of arc deposition plasma. Since 2009, SBI has established itself as the main supplier of its plasma-based technology for the 3D manufacturing of aeronautical parts.

Besides its renown portfolio of superior plasma inverter systems and plasma welding equipment, SBI has been developing its own additive manufacturing machines. The manufacturer put the metal additive manufacturing system M3DP on the market in 2019.

