



PMI - 200 TL₃ Factsheet

The soft plasma welding machine is used for sheet metal up to 3mm. Mainly used materials for plasma welding are stainless steels, steels, titanium, zirconium and copper.

TECHNICAL DETAILS

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

OPTIONEN:

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

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

MCU-MI: Motor control card for controlling one wire/powder feeder

Applicable Welding Methods

- PLASMA Coating
- PLASMA Brazing
- PLASMA Powder
- PLASMA Spot Welding
- TIG Welding
- PLASMA Seam Welding

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

~ 0,5 – 3 mm

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

~ 0,5 – 3 mm

Automation

• Capable for automation

Operating modes

DC

Supply Voltage

3 × 400 V-460 V ±15 % 50/60Hz

Phase

3 Phase

Power connection4 × 16 A CCE plug, 2,5 mm²**Max. welding current at 35 % duty cycle (40 °C)**

200A

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

150A

Adjustment range welding current

3 – 200 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 – 200 A

Cooling

Liquid

Degree of protection

IP 21 S

Length

700mm

Width

340mm

Height

555mm

Weight

60kg

Features

- Power source with HF-ignition
- 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 and free wheel encoder (MCU-MI)
- Integrated automation interface
- Software for external controlling via computer (diagnostics, parameter setup, documentation)
- Flowmeter plasma gas
- Flowmeter shielding gas
- Remote Control RC-S
- Foot control of the current
- Touch Screen 7,0"
- Pilotinverter with HF-ignition

Automation Interface "Tiny"

• Included

Digital Inputs

4 × 24 V

Digital Outputs

4 × 24 V

Analog Inputs

2 × 0 – 10 V

Analog Outputs

2 × 0 – 10 V

CAN Bus (SBI protocol)

• 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

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.

