



## Plasma Welding Torch Plasma-Powder Welding Torch

Highly effective 2-circuit cooling system

Small torch neck measurements

Optional use of filler metal powder with PLP-torches

### Advantages of Plasma Welding

- High energy density of the arc
- Very high welding speed, much higher than with MSG- or TIG-processes
- Highest quality welding process for homogeneous and pore free welding seams
- Spatter free, almost no rework needed
- Very reliable ignition
- Fusion penetration and intermixture of materials can be influenced precisely (for cladding)



TBi PLP 300  
Plasma- / Plasma-Powder-Welding up to  
350 A with a very small torch head



TBi PL 200 Aut  
Robotic welding torch assembly  
with adjustable cold-wire guiding unit

■ **TBi PLP 50 (Aut)**  
Plasma-Powder Welding Torch

**Technical data**

Voltage type	DC and AC voltage
Operating voltage	15 - 40 V
Welding current	3 - 50 A DC
Duty cycle	100% (10 min. cycle)
Pilot current	5 - 10 A, 100% duty cycle
Tungsten electrode	Ø 1.6 mm
Filler metal	Metal powder, carbide powder
Powder flow rate	max. 20g/min
Cooling method	watercooling
Weight (with 1,5 m cable)	approx. 0.75 kg
Technical specification	according to IEC 60974-7



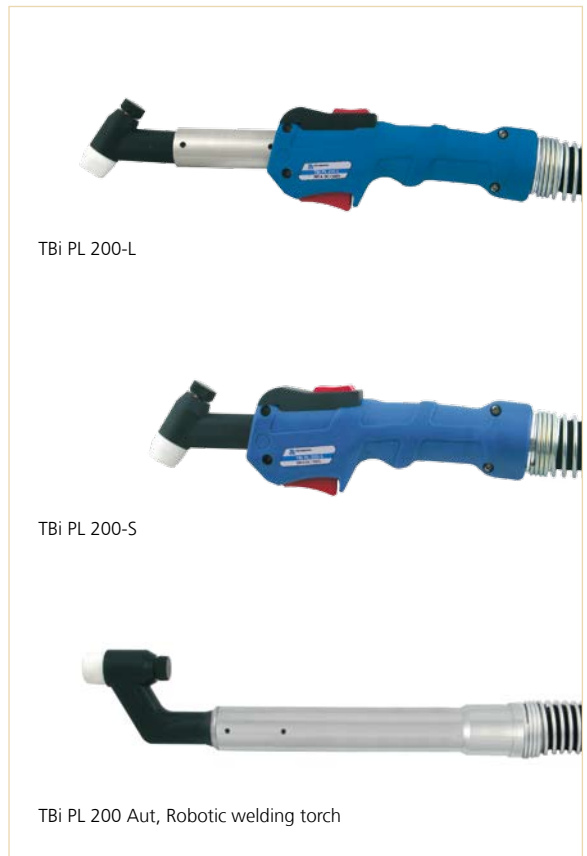
**Highlights of the TBi PLP 50**

- Very manageable and lightweight design

■ **TBi PL 200 (S, L, Aut) / PLP 200 Aut**  
Plasma- / Plasma-Powder Welding Torch

**Technical data**

Voltage type	DC and AC voltage
Operating voltage	15 - 40 V
Welding current	50 - 200 A DC
Duty cycle	100% (10 min. cycle), with use of an active cooling unit
Pilot current	5 - 10 A, 100% duty cycle
Tungsten electrode	Ø 2.4 mm
Cooling method	2-circuit watercooling
Weight (with 1,5 m cable)	approx. 1.10 kg (PL 200-S)
Technical specification	according to IEC 60974-7



**Highlights of the TBi PL 200 (S, L, Aut)**

- Optimized useability due to remote control and display (optionally) in torch handle
- Very efficient cooling of the plasma nozzle

**Additional technical data for PLP 200 Aut:**

Filler metal	Metal powder, carbide powder
Powder flow rate	max. 35g/min

■ **TBi PLP 300 (Aut)**  
**Plasma-Powder Welding Torch**

**Technical data**

Voltage type	DC and AC voltage
Operating voltage	15 - 40 V
Welding current	50 - 350 A DC
Duty cycle	100% (10 min. cycle) with use of an active cooling unit
Pilot current	5 - 10 A, 100% duty cycle
Tungsten electrode	Ø 3.2 or 4.0 mm
Filler metal	Metal powder, carbide powder
Powder flow rate	max. 80 g/min
Cooling method	2-circuit watercooling
Weight (with 1,5 m cable)	approx. 1.50 kg
Technical specification	according to IEC 60974-7

**Highlights of the TBi PLP 300 (Aut)**

- Optimized useability due to remote control and display (optionally) in torch handle
- Very efficient cooling of the plasma nozzle

**Options for all torches**

- Following protective gas nozzle to protect seam and surfaces from oxidation
- All torches can be equipped with connectors to any kind of machine
- TBi cold-wire guiding unit and TBi Power-Pull planetary wire feeding system provide highly dynamical and consistent wire transport



PLP 300



PLP 300 Aut, Robotic welding torch

**Please note**

All torches may be operated with DC or AC voltage. The tungsten electrode is connected to minus or AC voltage. Torch rating is reduced with the use of AC voltage.

**Application example**

Plasma-powder hard cladding with powder on ploughshare: after outlining the shape, it will be filled with hard coating (Plasma-powder process).



# Ready for Tomorrow.

## Advantages of Tbi Plasma Welding Torches

- Highly effective 2-circuit cooling system for a long life of torches and spare parts (PL 200 (Aut), PLP 200 Aut, PLP 300 (Aut))
- Small torch dimensions with high welding capacity allow for good access to the workpiece
- Plasma torches with multiple uses for joining and cladding (without filler metal, with rods, with wires, with powder), in manual or automatic versions

