TBi Industries

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

CE IEC 60974-7

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■ 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. 20 g/min
Cooling method	watercooling
Weight (with 1,5 m cable)	approx. 0.75 kg
Technical specification	according to IEC 60974-7

TBi PLP 50

TBi PLP 50 Aut, Robotic welding torch

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

TBi PL 200-L

TBi PL 200-S

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. 35 g/min

TBi PL 200 Aut, Robotic welding torch

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

PLP 300

PLP 300 Aut, Robotic welding torch

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

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

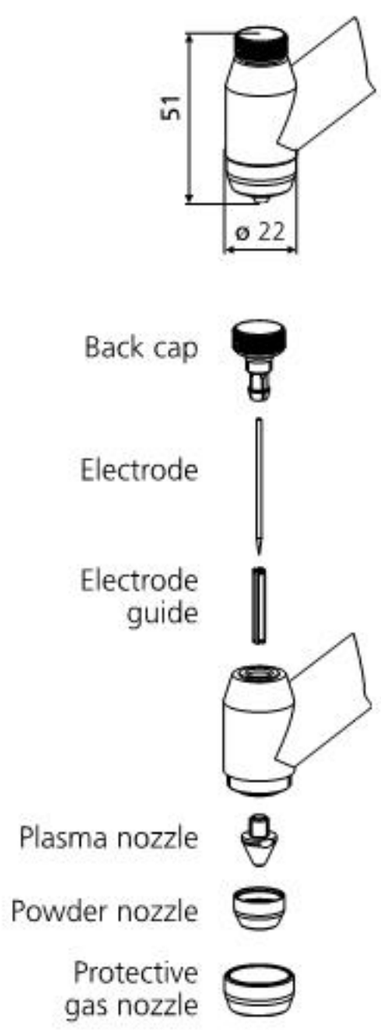
Plasma-powder hard cladding with powder on ploughshare: after outlining the shape, it will be filled with hard coating (Plasma-powder process).

Ready for Tomorrow.

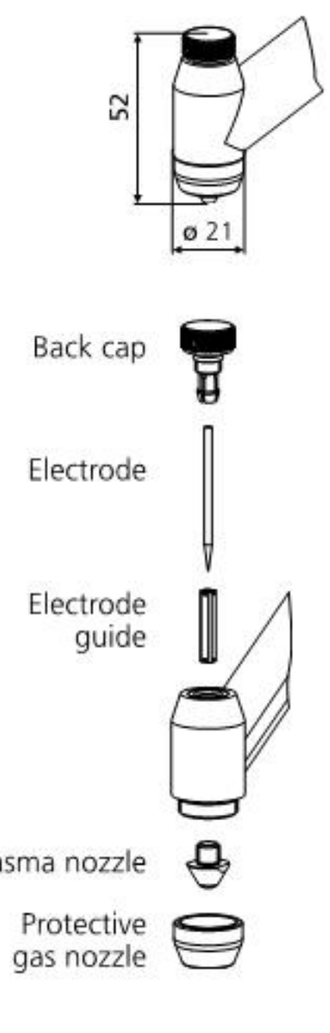
Advantages of TBi Plasma Welding Torches

- 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

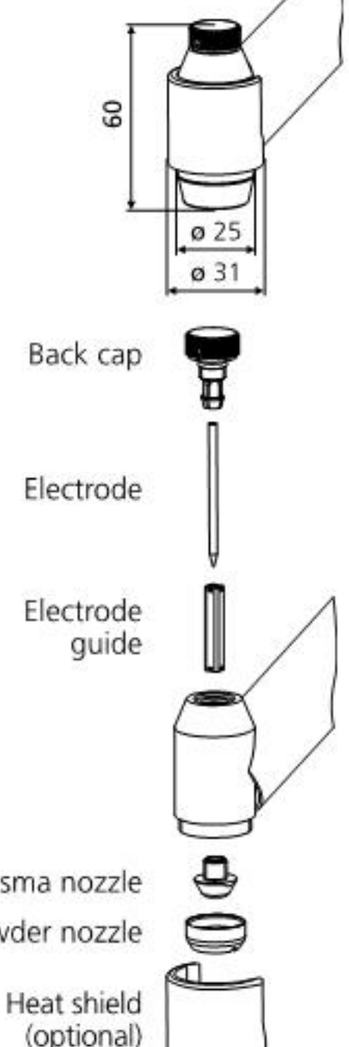
PLP 50



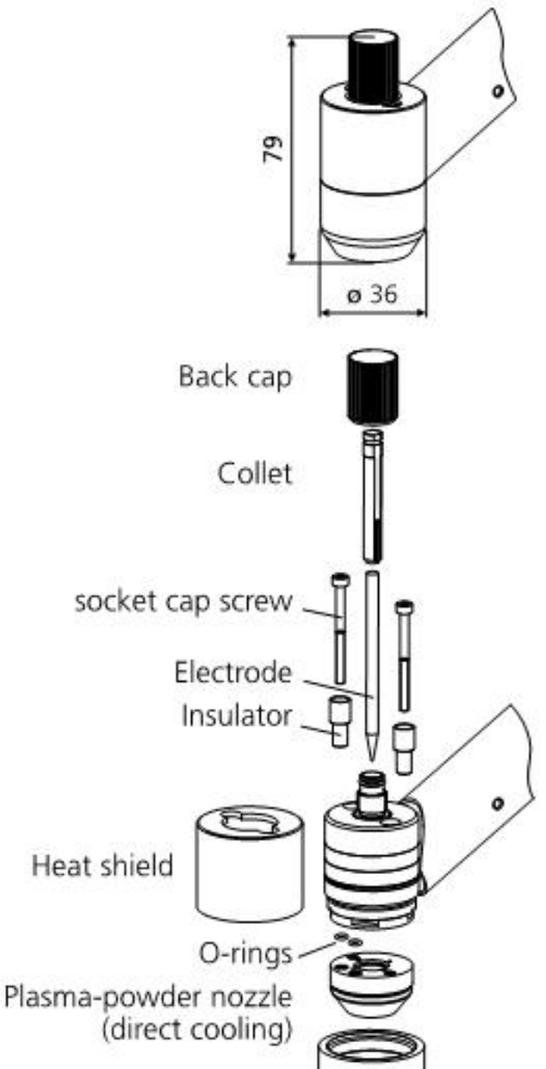
PL 200



PLP 200



PLP 300



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