

PRODUCT INFORMATION

# VARIABLE PLASMA VP4

**bdtronic**  
IN-HOUSE DEVELOPMENT



- > Dynamic and continuous power adjustment (incl. gas flow regulation)
- > Integrated transformer in plasma head
- > Robust and vibration resistant design
- > Silicone and lead-free
- > Active cooling of the plasma head
- > Suitable for energy chains (optional for robot)
- > High power density
- > Larger distances to parts possible

EMC tested according to  
DIN EN 61000-6-2 and DIN EN 61000-6-4

## **Atmospheric pressure plasma device for all standard and high-performance plasma applications on various materials**

The plasma technology VP4 is suitable for all ultra-fine cleaning or activation processes prior to bonding, potting or any other process that requires a clean and sufficient surface energy to create adhesion. A repeatable and stable process is guaranteed by a continuous process control of the relevant parameters. All VP4 systems can be easily integrated into your production, whether manual, lean or fully automated productions lines.

Thanks to the compact plasma head design, a high-voltage cable is no longer required. This results in high energy efficiency, as there are hardly any power losses any more.

**bdtronic**

DISPENSING  
IMPREGNATION  
PLASMA  
HOT RIVETING

# VARIABLE PLASMA VP4

## ELECTRICAL CABINET

- > Plasma generator
- > Integrated panel PLC control
- > User management
- > Error management with clear text messages
- > Data logging of clear error messages
- > Process analyses
- > Unlimited program memory
- > On-screen process data
- > Maintenance function
- > Digital interface standard
- > Profibus/ Profinet/ Ethercat, optional

## TECHNICAL DATA

Size (W x H x D)	600 x 600 x 300 mm
Protection	IP54
EMC	DIN EN 61000-6-2 and DIN EN 61000-6-4
Control	Beckhoff SPS Windows 7 embedded
Operation	Touch panel, colored
Power consumption	max. 1.300 W
Electrical power supply	230 V L N PE 50 / 60 Hz 10 A
Weight	approx. 50 kg
Color	RAL 7035 (ESD)

## AIR PRESSURE TREATMENT

- > Filter regulator (5µm) with condensate trap
- > Micro filter unit (0,01µm)
- > Activated carbon filter
- > Gas pressure sensor
- > Gas flow sensor
- > Filter change notification

## TECHNICAL DATA

Air pressure supply	6 bar
Connection	DN 6
Air quality	Class 7:4:4 according ISO 8573-1:2013
Standard process gas	Pressurized air
Air consumption	max. 65 l/min
Weight	approx. 3,7 kg

## PLASMA HEAD

- > Active cooling
- > Base plate for fixing
- > Quick-change system nozzle and electrode
- > Nozzle for electronics, optional
- > Electrical cable to cabinet (standard plug-in coupling)
- > Air supply connection

## TECHNICAL DATA

Length	approx. 286 mm (incl. standard nozzle)
Diameter	104 mm
Weight	approx. 4,5 kg
Protection	IP54
Air supply	DN 6, Festo quick-release
Electrical connection	Ø 12 mm, length up to 30 m, Plug-in coupling

## PROCESS CONTROL / ANALYSIS

- > Power monitoring
- > Working voltage monitoring
- > Ignition check
- > Gas pressure monitoring
- > Gas flow monitoring and regulation
- > Operation counter

## SET POINTS

- > Power 50 - 100 %

(Errors and changes reserved, as of July 2017)

- > Service hotline (German/English/French)
- > Response service MO - FR
- > Spare parts service
- > Service and maintenance
- > Process and component optimization in internal development areas
- > Trials and development in well equipped technical center
- > Trainings for machine user, machine setter and maintenance personnel
- > Workshops for machine user, machine setter and maintenance personnel

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