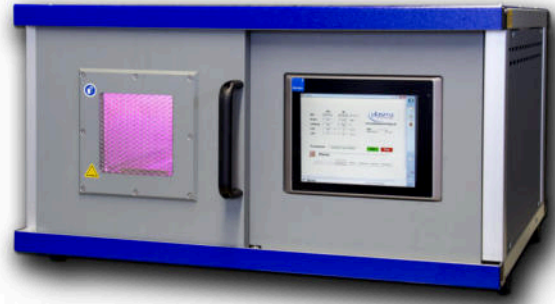# Plasma systems
for laboratories
and small series production

Plasma systems comparison chart

Product	Control	Volume	Process monitoring	Process documentation	Savable processes	More process steps	Vaporizer valve	Support by Teamviewer®	Max. quantity of gas channels	Gas supply
SmartPlasma	Small scale automation module with text display	2,4 l	√	✗	1	✗	√	✗	1	2/2 Way solenoid valve
SmartPlasma 2 Pro	Small scale automation module with text display	2,4 l	√	✗	1	✗	✗	✗	1	Mass-Flow-Controller
MiniFlecto®	Micro controller unit with Industrial-PC	2,4 l	√	√	100	√	1	√*	2	Mass-Flow-Controller
SmartPlasma 10	Small scale automation module with text display	11,5 l	√	✗	1	✗	√	✗	1	2/2 Way solenoid valve
SmartPlasma 10 Pro	Small scale automation module with text display	11,5 l	√	✗	1	✗	✗	✗	1	Mass-Flow-Controller
PlasmaFlecto 10	Micro controller unit with Industrial-PC	11,5 l	√	√	100	√	1	√*	2	Mass-Flow-Controller
SmartPlasma 30	Small scale automation module with text display	32 l	√	✗	1	✗	√	✗	1	2/2 Way solenoid valve
SmartPlasma 30 Pro	Small scale automation module with text display	32 l	√	✗	1	✗	✗	✗	1	Mass-Flow-Controller
PlasmaFlecto 30	Micro controller unit with Industrial-PC	32 l	√	√	100	√	1	√*	2	Mass-Flow-Controller
PlasmaActivate Series	PLC with Industrial-PC	> 50 l	√	√	100	√	1	√*	4	Mass-Flow-Controller

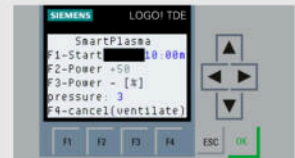√ integrated

✗ not available

√* System need internet connection

SmartPlasma 2 / (Pro)

Technical data:

» Outside dimensions WxHxD: 505 x 255 x 550 mm
» Inner chamber dimensions WxHxD: 110 x 110 x 200 mm
» Usable camber dimensions WxHxD: 110 x 73 x 200 mm
  (Due to the electrode design, not the entire volume can be used)
» Siemens control unit with process monitoring
» Integrated webserver (Remotecontrol via network)
» Adjustable parameters: pump down pressure, stabilization time, process time, process pressure, power
» Plasma generator: 20 - 50 kHz, 80 W
» Pro version works with mass-flow-controller

Cleaning | Activating | Coating | Antifriction coating | Degreasing | Structuring
Hydrophobic finishing | Hydrophilic finishing | Oleophobic finishing | Etching

MiniFlecto®

Technical data:

- » Outside dimensions WxHxD: 505 x 255 x 550 mm
- » Inner chamber dimensions WxHxD: 110 x 110 x 200 mm
- » Usable chamber dimensions WxHxD: 110 x 73 x 200 mm
  (Due to the electrode design, not the entire volume can be used)
- » Microcontroller board with 8" touch industrial computer for visualisation
- » Software: operator and setup level, recording of process diagramms,
  storing of process parameters, several process steps during a process possible
- » Adjustable process parameters: time, pressure, power, monitoring tolerances
- » Plasma generator: 20 - 50 kHz, 80 W

Cleaning | Activating | Coating | Antifriction coating | Degreasing | Structuring
Hydrophobic finishing | Hydrophilic finishing | Oleophobic finishing | Etching
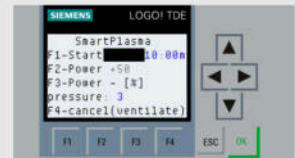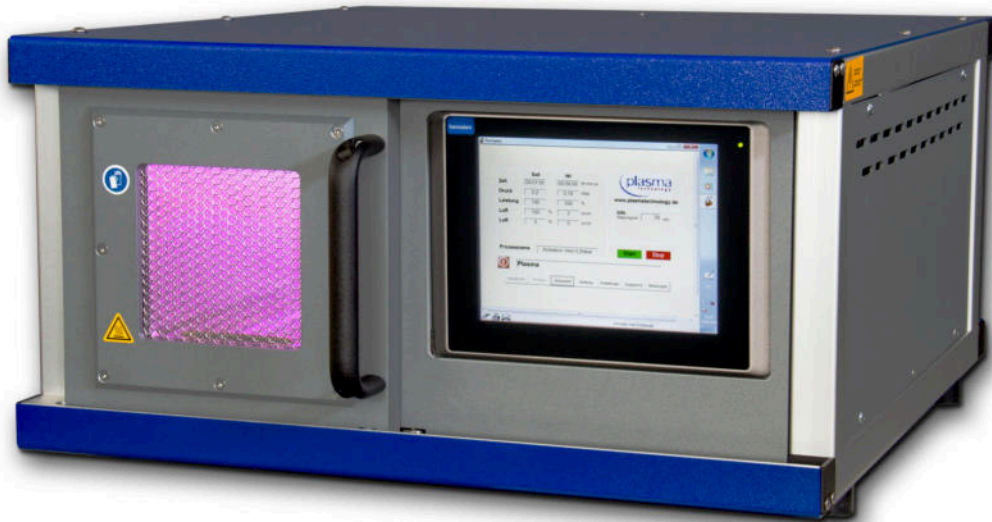
SmartPlasma 10 / (Pro)

Technical data:

- » Outside dimensions WxHxD: 575 x 305 x 645 mm
- » Inner chamber dimensions WxHxD: 190 x 190 x 320 mm
- » Usable camber dimensions WxHxD: 175 x 150 x 320 mm
  (Due to the electrode design, not the entire volume can be used)
- » Siemens control unit with process monitoring
- » Integrated webserver (Remotecontrol via network)
- » Adjustable parameters: pump down pressure, stabilization time, process time, process pressure, power
- » Plasma generator: 20 - 50 kHz, 300 W
- » Pro version works with mass-flow-controller

Cleaning | Activating | Coating | Antifriction coating | Degreasing | Structuring
Hydrophobic finishing | Hydrophilic finishing | Oleophobic finishing | Etching

PlasmaFlecto 10

Technical data:

» Outside dimensions WxHxD: 575 x 305 x 645 mm
» Inner chamber dimensions WxHxD: 190 x 190 x 320 mm
» Usable chamber dimensions WxHxD: 175 x 150 x 320 mm
  (Due to the electrode design, not the entire volume can be used)
» Microcontroller board with 8" touch industrial computer for visualisation
» Software: operator and setup level, recording of process diagramms,
  storing of process parameters, several process steps during a process possible
» Adjustable process parameters: time, pressure, power, monitoring tolerances
» Plasma generator: 40 - 100 kHz, 300 W

Cleaning | Activating | Coating | Antifriction coating | Degreasing | Structuring
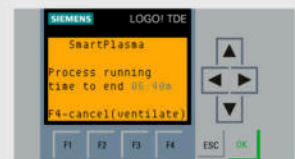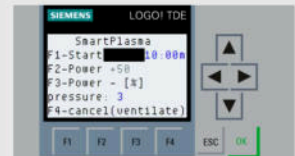**Hydrophobic finishing | Hydrophilic finishing | Oleophobic finishing | Etching**

SmartPlasma 30 / (Pro)

Technical data:
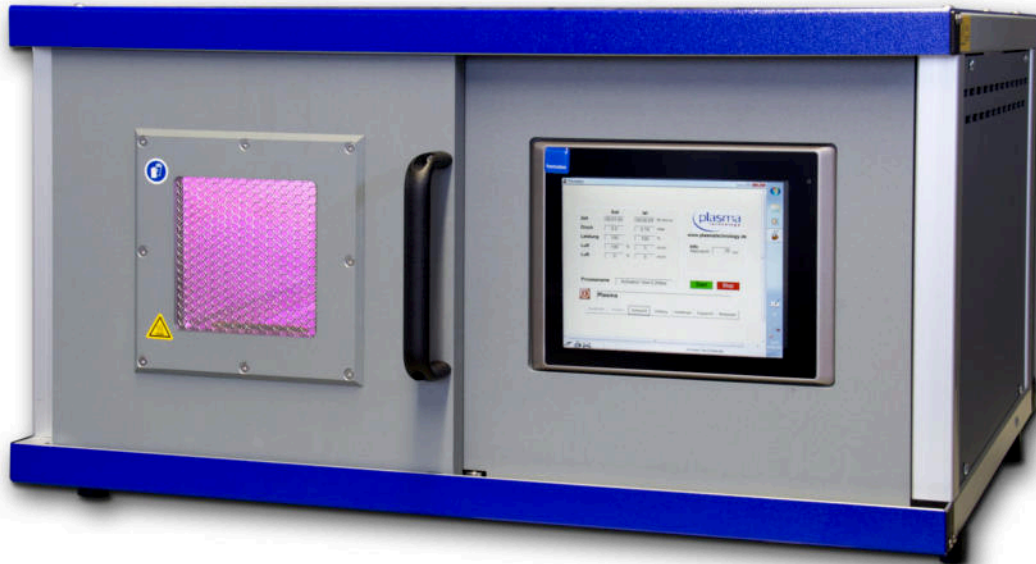
» Outside dimensions WxHxD: 740 x 415 x 665 mm
» Inner chamber dimensions WxHxD: 290 x 290 x 380 mm
» Usable camber dimensions WxHxD: 275 x 240 x 380 mm
  (Due to the electrode design, not the entire volume can be used)
» Siemens control unit with process monitoring
» Integrated webserver (Remotecontrol via network)
» Adjustable parameters: pump down pressure, stabilization time, process time, process pressure, power
» Plasma generator: 20 - 50 kHz, 300 W
» Pro version works with mass-flow-controller

Cleaning | Activating | Coating | Antifriction coating | Degreasing | Structuring
Hydrophobic finishing | Hydrophilic finishing | Oleophobic finishing | Etching

PlasmaFlecto 30

🇬🇧 Technical data:

- » Outside dimensions WxHxD: 740 x 415 x 665 mm
- » Inner chamber dimensions WxHxD: 290 x 290 x 380 mm
- » Usable chamber dimensions WxHxD: 275 x 240 x 380 mm
  (Due to the electrode design, not the entire volume can be used)
- » Microcontroller board with 8" touch industrial computer for visualisation
- » Software: operator and setup level, recording of process diagramms,
  storing of process parameters, several process steps during a process possible
- » Adjustable process parameters: time, pressure, power, monitoring tolerances
- » Plasma generator: 40 - 100 kHz, 600 W

- » Rotary drum for bulk material treatment
  (optionally)

**Cleaning | Activating | Coating | Antifriction coating | Degreasing | Structuring
Hydrophobic finishing | Hydrophilic finishing | Oleophobic finishing | Etching**

Vacuum pumps

Rotary vane pumps

Pfeiffer DUO 3M
Pfeiffer DUO 5M
Pfeiffer DUO 10M

Edwards E2M28

Dry pumps

Edwards nXDS6ic
Edwards nXDS10ic
Edwards nXDS15ic
Edwards nXDS20ic

Ebara EV-A06
Ebara EV-A10