



## PLASMA NITRIDING SYSTEMS

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## HOT WALL PULSED PLASMA NITRIDING SYSTEMS

Plasma Nitriding also called Ion Nitriding is an environmentally friendly and efficient nitriding process which uses plasma as a source of energy and as a source of nitriding elements.

Due to its capability of sputter cleaning the parts to be treated, and the repeatability of the process based on control technology, plasma nitriding offers the most consistent results of all nitriding processes. Plasma is the future for many thermochemical processes.



ION-HEAT has developed an affordable plasma nitriding system with the following characteristics

### HOTWALL

- The Hot-wall configuration is responsible for better process control and repeatability. The system is equipped with independent heating and cooling zones for load temperature uniformity. Everything is controlled from a PLC without the operator concern.

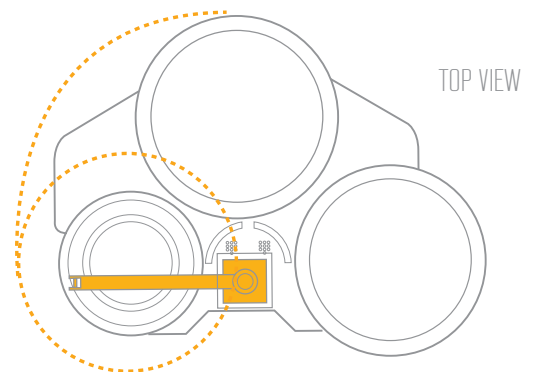
3 independently controlled heating and cooling zones allow high temperature uniformity between lower, middle and upper zones and allow different geometries to be processed in the same load.

Heating element and wall contact thermocouples for safer operation and longer element life.



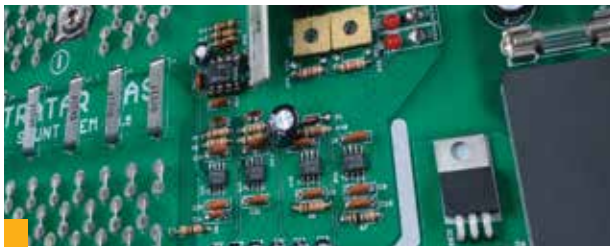
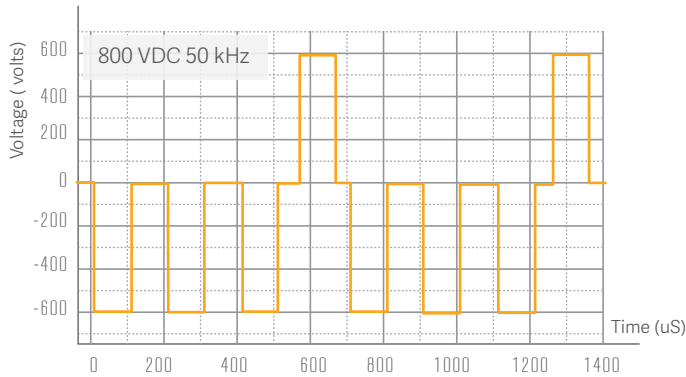
### SMALL FLOOR SPACE NEEDED

- Our system design, occupies less floor space than many others in the market. A single rotating column, lifts and rotates both vessels in a tandem system or in an individual system.



## BIPOLAR PULSED PLASMA

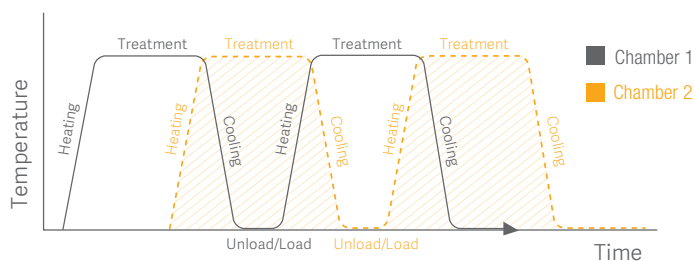
■ The right power electronics were developed in order to be able to manufacture a power supply with the highest standards. DC over current protection, ultra fast arc detection system and frequency and duty cycle flexibility allows for perfect and repeatable results.



## TANDEM SYSTEMS AVAILABLE

■ If the budget calls for a tandem system, ION-HEAT can do it for you. Tandem systems use the same power supply, vacuum systems and gas input for two separated chambers. This gives the customer the flexibility needed for increased productivity at a lower initial investment.

GlowTech tandem systems are the most efficient of its class in the market, they allow continuous treatment between the two chambers when maximum productivity is needed. This is due to a unique feature of our GlowTech products which allows sharing resources between different production orders being ran in the two chambers.



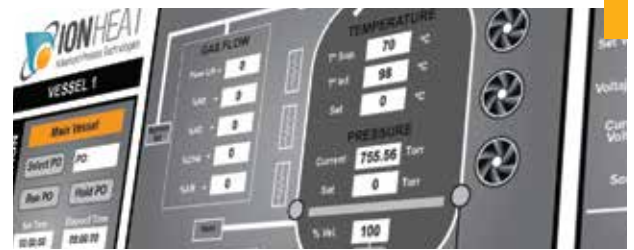
## COMPLEMENTARY NITRIDING TREATMENTS



■ GlowTech systems can perform any nitriding related treatment, be it nitrocarburizing, control of white layer, or post oxidation, necessary to meet the high and vast demands on parts and tools of today's industry.

## ADVANCED AND USER FRIENDLY INTERFACE

■ Man/machine interface is provided with several security levels, alarm systems, and full user traceability to control machine settings. It allows for live online monitoring and cost estimation of the process, enabling the highest degree of process control.



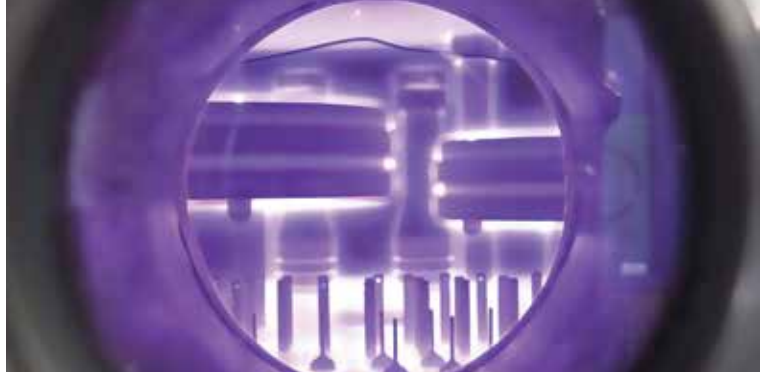
## PLUG AND PLAY INSTALLATION SYSTEM

■ Plug and Play installation system: GlowTech plants are equipped with an efficient Plug and Play system, allowing for an easy and highly cost effective installation.



## EQUIPMENT TAILORED TO YOUR NEEDS

■ Our bell type plants are available in different dimensions, and can be adapted to customer demands. New designs provide the option of placing plant base on floor or to have it built in such that loading of system occurs at ground level, the latter being a good option in case height of the installation site is a limiting factor. Please contact our sales representatives in order to find the best solution for your company



	Glow Tech 600 x 1000	Glow Tech 800 x 1500	Glow Tech 1200 x 2000	Glow Tech 1500 x 2200
Useful diameter (mm/in)	600/24	800/31	1200/47	1500/59
Useful height (mm/in)	1000/40	1500/60	2000/79	2200/87
Total Plasma generator power (kw)	40	40	80	120
Peak power for a single system (kw)	90	110	195	285
Peak Power for a semi-tandem system (kw)	100	120	210	300
Peak Power for a full tandem system (kw)	140	180	310	450



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