

GlowTech

Modular system to assemble the furnace as your business requires. NADCAP compliant.

With a highly advanced automation, our GlowTech systems reach new heights in Ion/Plasma Nitriding processes. Due to its modularity, these systems allow the user to build up capabilities step by step on the same equipment as production volumes require it.

The plant can be easily expanded after purchase to a semi-tandem, or a full tandem system, and different features like NADCAP compliance add-ons, or controlled post-oxidation can be also added. This model offers the most options of all solutions and guarantees perfectly controlled metallurgical results.

Tailored to your needs: modularity & user expandable.

Technical Specifications

System Size	0610	0815	1220	1522
Useful diameter mm/in	600/24	800/31	1200/47	1500/59
Useful height mm/in	1000/39	1500/59	2000/79	2200/87
Available semi tandem	YES	YES	YES	YES
Available full tandem	YES	YES	YES	YES
Number of heating zones	3	3	3	3
Standard number of plasma modules included	1	1	2	3
Total plasma generator power (kW)	40	40	80	120
Peak power for a single system (kW)	102	116	235	309
Peak power for a semi tandem system (kW)	102	116	235	309
Peak power for a full tandem system (kW)	150	178	372	476

Optional Features

1. Extra Power supply

Extra power supplies are always good when the customer has a high surface area which needs a lot of plasma power. Up to 4 plasma power supplies can be factory or customer added in parallel to the ones that come as standard in the equipment.

2. Extra Gases

Argon and Methane Mass Flow Controllers can be added as needed for processing of stainless steel and/or Ferritic nitrocarburizing. This feature is only available factory added.

3. Post Oxidation

Our GlowTech system can be upgraded with post oxidation capabilities. Standard, or controlled including a vacuum safe oxygen sensor, the Post-Oxidation process provides a nice black corrosion protective finish to the nitrided part.

4. Top Camera-Viewport

Our GlowTech system can be improved with a top viewport which includes a digital camera for monitoring the plasma process from the control software interface. Pictures can be captured to be added to customer reports. This feature can only be factory added.

5. Aerospace package

Our aerospace package allows the user to qualify its furnace to comply with NADCAP requirements. This option can only be factory added.

6. Air cooled center anode

An air-cooled center anode can be factory or customer added to some of our GlowTech systems. The center anode provides improved temperature uniformity between the peripherals and the center of the bell by removing extra heat concentrated in the middle of the vessel.

7. Internal recirculation fan

A vacuum safe, internal recirculation fan can be added to all our GlowTech systems for further improved convection heating and cooling of the load during processing. This feature can be factory or customer added at any point in time.

8. Side Viewports

Up to two side Viewports can be added to our system if the customer would like to look at the plasma discharge inside the furnace. This feature can only be factory added.

9. Tandem Systems Available

the budget calls for a semi-tandem or full 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 plant which allows sharing resources between different production order being ran in the two different chambers.

Adding modules like a second base to convert the system to a semi-tandem furnace and a second bell to convert it to a full tandem system, is a great advantage to our GlowTech units. Modules can be easily added at any point in time with very little installation efforts.

10. Shared Resources

This unique feature complements a full tandem system and can only be ordered if a full tandem configuration has been chosen. It allows the user of our GlowTech units to start a load on the second retort, even if the first one is still under plasma to allow for continuous operation between the two vessels. It includes extra vacuum pumping system and control modifications to allow for higher productivity.

Available configurations



Full Tandem



Semi Tandem



Single