



# Plasma Does it!

ION HEAT | Corporate Presentation





## About us

# Plasma is the new power

Due to its capabilities of sputter cleaning the parts to be nitrided, and the repeatability of the process based on advanced control engineering, plasma technology offers the best results of all nitriding processes. [Go to video.](#)

# Expertise



**1983**

**TRATAR**

TRATAR S.A.S is born as a specialized company in heat treatment and metallurgy. TRATAR is the **parent company** Of ION HEAT.



**1995-2011**

**MATURITY**

TRATAR consolidates: **3 own plants** in Medellin, Bogota and Lima (CO - PE), and Wins **3 national awards** for technological innovation.



**2012**

**SPIN-OFF**

ION HEAT was born, and became the fourth manufacturer of plasma nitriding furnaces in the world, with a strategic location in a free trade zone in Colombia.



**2016**

**EXPANSION**

ION HEAT wins worldwide tender for contract manufacturing project to manufacture vacuum sintering furnaces for the **metal 3D printing** industry.



**2020**

**BIOMEDICAL**

Due to the **COVID-19** world pandemic, ION HEAT focuses its engineering capabilities on the creation of mechanical ventilation solutions.

# Leaders



**ANDRÉS BERNAL**  
**President, ION HEAT**

Mechanical Engineer with a Master's degree in Materials Engineering, with emphasis in Materials Processing, from the Royal Institute of Technology, Stockholm, with more than 20 years of experience in the manufacturing of furnaces for the metalworking industry. Experience in LINDE GAS (Germany) and UDDEHOLM TOOLING (Sweden).



**JIMENA BERNAL**  
**President, TRATAR**

Electrical engineer with specialization in senior management, and more than 15 years of experience in the field of heat treatment and metallurgy.

She has managed several sales teams in important companies in the metalworking industry in LATAM



**STEVEN SOSSA**  
**Financial Administrative Director | BDM**

Production Engineer with a Master's Degree in Project Management from Universidad Eafit, with working experience of over ten years in FP&A, project management, consulting in innovation projects and business development at industrial SMEs.



Industrial Line

GlowTech  
0815

**IONHEAT**  
Advanced Process Technologies



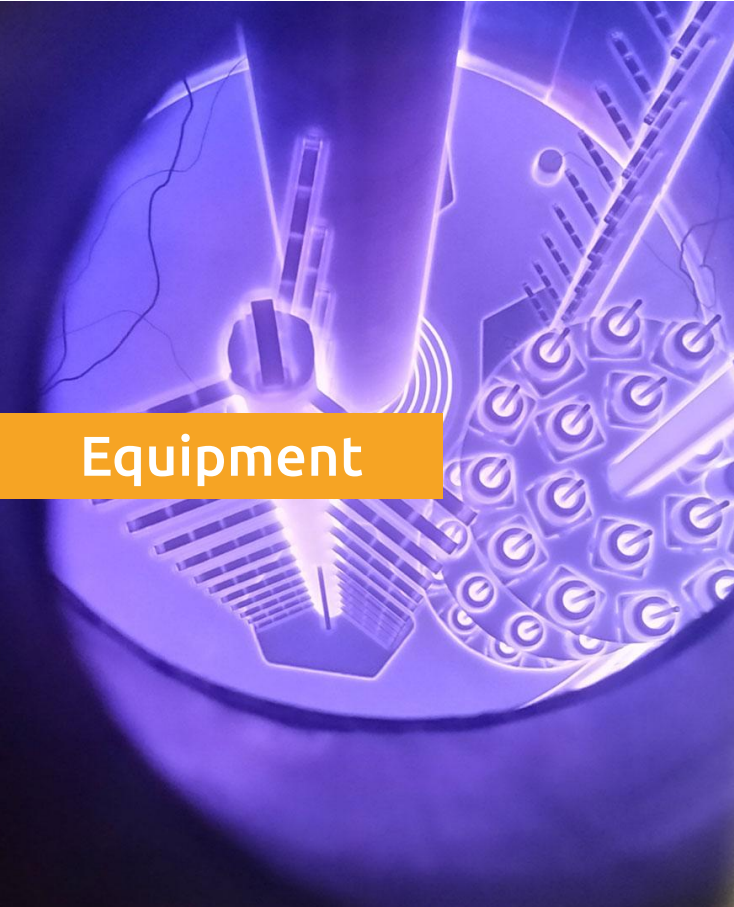
## Industrial line

# Our technology

With a highly advanced automation, our systems reach new heights in Ion/Plasma Nitriding processes. These systems allow the user to build up capabilities step by step as production volumes require it.

**ION HEAT technology** uses plasma as a source of energy for chemically modifying the surface of parts made of steel, nickel alloys or titanium by diffusing Nitrogen, or Nitrogen + Carbon into the surface.





## Equipment

# Consistent results =

Right Furnace + Correct Fixturing +  
Perfect Process Recipe

- 01** GlowTech  
NADCAP compliant\* and  
modular [expandable system](#)



- 02** NitrEos  
Stand alone standard solution for  
machinery components applications



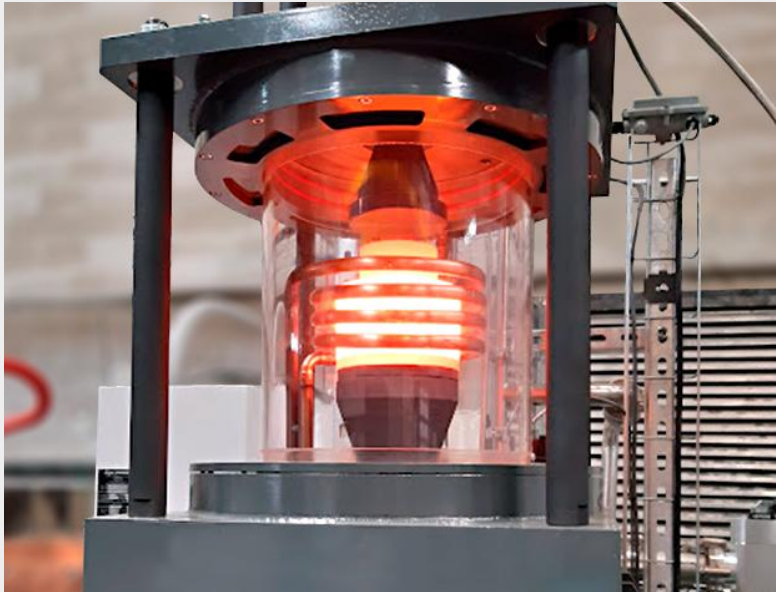
- 03** GlowFit  
Retrofitting kit which allows you to  
modernize existing furnaces.





Other furnace technologies





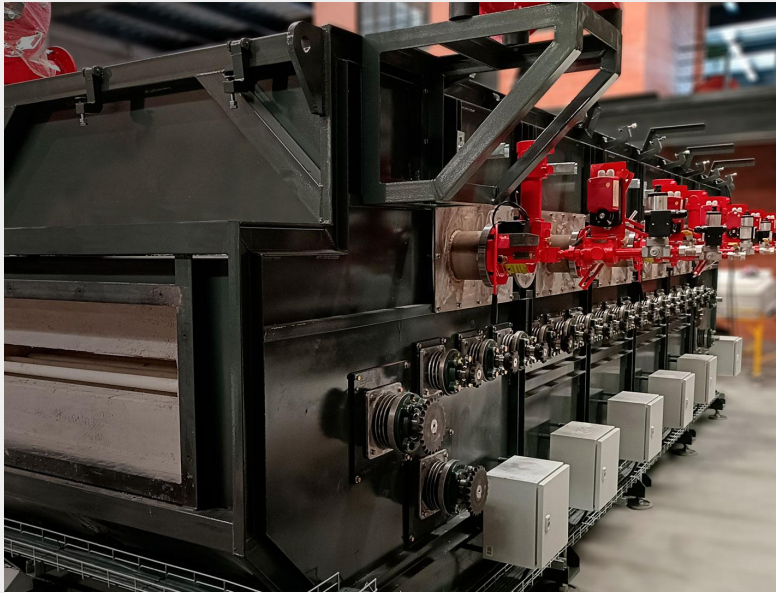
## Vacuum Induction Infiltration

Vacuum Induction furnace for vacuum induction sintering of drill bits for the mining industry.



## Carbon Materials Processing

Lab furnace for carbon materials processing for the oil & gas state company.



## Mesh Belt Carburizing Line

Including: carburizing furnace, tempering furnace, quenching tanks, washers and endo-gas generator.



## Drop Bottom Aluminum Aging

High-efficiency furnace for aging aluminum alloys with rapid quenching capabilities.



## Vacuum Hardening

For high-temperature heat treatment of precision tools.



# A common brain for all solutions

Control software



An user-friendly interface, and data logging of all production variables. The software package includes a module for inserting lab results from each production order for **perfect traceability** and combined customer reports.



## Contract manufacturing

Desktop Metal



## 360° Services

# Contract Manufacturing

Wide range of **Engineering and Manufacturing** services for subcontracting the development / manufacture of spare parts or white label. We provide support in any stage and throughout the product development chain.

Working with Desktop Metal Inc, this business unit was consolidated with the fabrication of more than 350 sets of components and parts for vacuum sintering furnaces for the metal 3D printing Industry in the US.



A photograph of two yellow construction vehicles on a dirt site at sunset. In the foreground, a yellow excavator with a large bucket is positioned on the right. Behind it, a yellow wheel loader is visible. The sky is filled with dramatic, colorful clouds in shades of orange, yellow, and blue. The ground is uneven dirt.

Our customers

## Our customers

# Industries

### **Additive manufacturing**

Equipment and components for sintering furnaces for the metal 3D printing industry.

### **Automotive and aerospace**

Plasma nitriding furnaces for heat treatment of aircraft, automotive, yellow goods and Formula 2 single-seater components.

### **Commercial heat treatment**

For heat treatment service providers around the globe.



# Some of our customers



## **Desktop Metal Inc.**

Sets of structural components and parts for vacuum sintering furnaces for the metal 3D printing industry. Boston, Massachusetts, USA.

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## **KOMATSU MINING CORP**

Plasma nitriding furnace, with specific recipe for mining components. Longview, Texas. USA

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## **Standard Motor Products Inc.**

Plasma nitriding equipment optimized for the manufacture of engine parts. USA .

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## **Hindustan Aeronautics Limited**

Aerospace company that manufactures engines for the Indian and Russian air forces, located in Koraput.

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## **Advanced Heat Treat Corp**

Commercial heat treater in USA. It is currently the largest provider of plasma nitriding services in the world.

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## **Electron Thermal Processing Equipment BV**

Electron, our partner in the Netherlands, uses our software in their furnaces for aerospace companies such as SAFRAN in France, SUMEC and SIGMATECH in China, PATON in Ukraine and General Electric in the US.

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## **Rodin Cars**

Plasma nitriding furnace with titanium nitriding capabilities for a Formula 2 racing team in New Zealand which designs and builds its own single-seater racing cars.





## Contact

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President

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# Representatives

## Canada

Jordan Montgomery

US - California, Oregon, Washington, Nevada

Jerald Balinnang

US - Illinois, Wisconsin, Iowa, Minnesota

Tim Josephs

US - Michigan, Ohio

Ignio Systems

US - Texas, Louisiana, Oklahoma, Arizona

Randy Rowland

US - Texas, Louisiana, Oklahoma, Arizona

Mike Daymude

US - Florida, Georgia, Mississippi, Alabama

Ray Monahan

## Europe

Electron Thermal Processing

South America - Colombia

Jimena Bernal

South America - Argentina

IONAR - Esteban Karges

Asia - China

CJ Zhou, P.E.

Asia - India

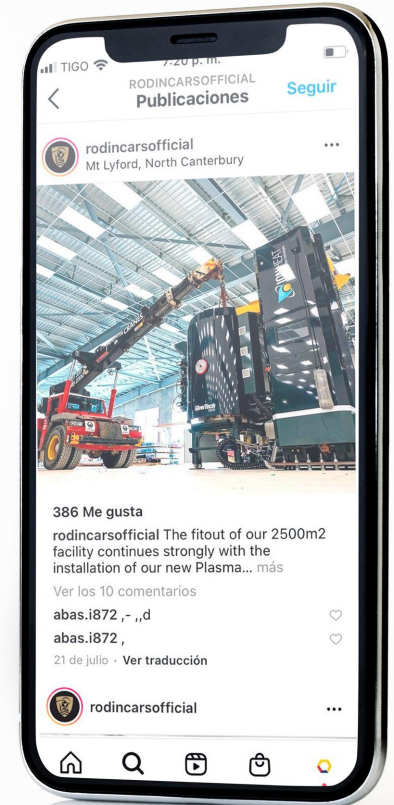
CP Agencies

Asia - India - Chennai and Kerala Region

CP Agencies - P Ghuhan

Asia - India - Bangalore Region

CP Agencies - K Murali



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