PlaTeG.Nitride 4400

The Origin of PulsPlasma® Nitriding

The Origin of PulsPlasma® Nitriding

Mastering process engineering for exceptional results

PlaTeG.Nitride 4400 – Advanced. Efficient. Economic.

The **PlaTeG.Nitride 4400** is a high quality PulsPlasma® furnace made for nitriding, nitrocarburizing, low-temperature carburizing and oxidizing of surfaces.

Multiple **active heating and cooling zones** combined with **advanced process controls** lead to an excellent **temperature uniformity** and **best-in-class power-consumption**. The surface properties can be **tailored to your needs** and the treated parts are ready to be used in the next production step with **no post-process treatment** thanks to the **low temperature PulsPlasma® treatment**. PlaTeG technology uses **environmentally friendly gases**.

We rely on **premium components** and strict quality control to ensure **outstanding reliability** and a **long service life**. Our global **service team** supports you with maintenance, adjustments, and upgrades—keeping you ready for the future.

Technical data – PlaTeG.Nitride 4400 (base trim)

Performance / Output	Pulse current PP Generator [A]	500
	Charge weight max. [kg]	8000
	Usable dimensions max. (øxH) [mm]	1600 x 2200
	Usable volume [l]	4400
	Temperature range [°C]	350 - 600
	Temperature uniformity [°C]	±5 (400 – 600)
	Pump-down time 10 Pa [min.]	<10
	Process gases	N_2, H_2, CH_4
Set-up / Dimensions	Machine footprint (WxHxD) [mm]	6700 x 4000 x 600
Consumption / Input / Connection	Cooling water (Size | Flowrate | Pressure)	G ¾" | 15 l/min. | 4 - 6 bar
	Pressurized air (Size | Pressure)	G ½" | 5 - 7 bar
	Rated power total [kW]	110
	Vacuum exhaust	DN40 KF
Data / Communication / Industry 4.0	Remote access	VPN
	External Input for EMS signal	Power On-Off
	MES Interface	OPC UA/SQL/XML
Safety	Built according to	CE

Customization PlaTeG.Nitride 4400

Modular system (options)

Lifting and moving device
Add convenience! No fiddling around with the over-head-crane when opening and closing the furnace. This device does the job for you!

Shuttle Layout
Increase your productivity by using 2 instead of 1 chamber bottom. The insulated treatment chamber is shared by both bottoms of the furnace. Works best with lifting and moving device. Up to 60% higher throughput.

Tandem Layout
Maximize your productivity with this layout. 2 chamber bottoms and two insulated chambers. Works best with lifting and moving device. Up to 100% higher throughput

Fast cooling system
Productivity! Built-in fans increase the cooling speed of the system –> quicker cool-down rates for shorter process times.

Oxidation unit for post oxidation
More variety! For a nice dark grey to anthracite nish and further increased corrosion resistance of your parts.

800A generator upgrade
Need more power in your system? This package fits a bigger generator to your furnace. Especially good for large combined parts surfaces.

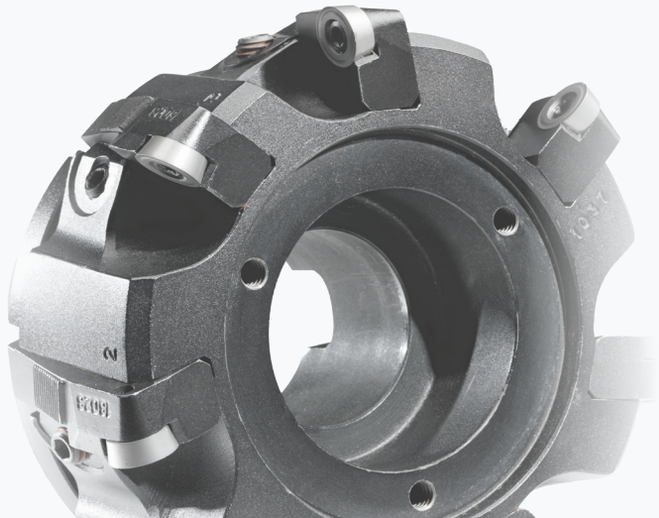
AMS 2750-H / AMS 2759/8B trim
Producing for the Aerospace Industry requires some extras in temperature measurement, repeatability and documentation. This option includes all necessary upgrades and measurements.

Additional gas option
Adds an additional gas line incl. MFC to gas distribution system. E.g. Argon (Ar) for complex geometries or CO_2 for special processes

Individualization (on request)

Tailored furnace
You are looking for some special PulsPlasma® equipment? Talk to us – we have a long history of individually designed furnaces. Examples?

- Plasma nitrinding furnace for very long parts
- Horizontal large volume PulsPlasma® nitriding furnaces
- Challenge us!



Our promise

We bring together deep expertise in industrial furnace technology, solution-oriented thinking, and uncompromising quality standards across all technological disciplines. The result: **future-ready high-tech systems** featuring **industry-leading process technology** and **premium quality** – **Made in Germany**.

From initial consultation to dependable after-sales support, we accompany our customers through every stage of the project with **personalized, expert service**. Our clients appreciate our flexibility – backed by the financial strength of **PVA TePla AG**, a publicly listed company.

That's how we deliver on our promise – **cutting-edge system technology for even better products**.

PVA TePla

PVA Industrial Vacuum Systems GmbH
Im Westpark 10 - 12
D-35435 Wettenberg
T: +49 (0) 641/68690-0
ivsinfo@pvatepla.com
www.pvatepla-ivs.com

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