# Carbon.Pure 2400

## Graphite for PURE Performance

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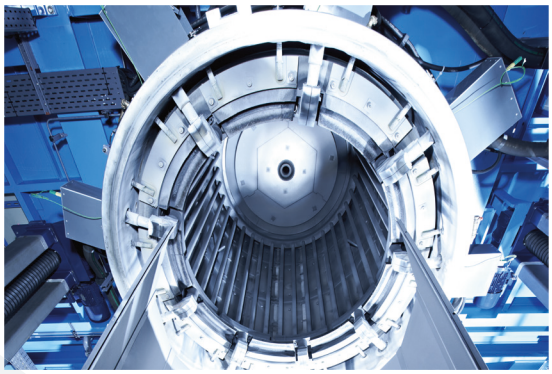
## High temperature and reactive gas processes

### Carbon.Pure 2400 – Excellent. Precise. Proven.

Our **Carbon.Pure 2400** is a quality-made furnace specialized in the **purification of graphite- and CFC-parts** in vacuum. Impurities are removed at **high temperatures** using **reactive or non-reactive gases**.
The **vertical set-up** and **top loading** layout make it easy to use in daily production.



With optimized **temperature distribution** and **intelligent gas handling** impurity levels of **less than 15ppm** are achieved repeatedly. As a consequence, PVA TePla reactors are known to provide **maximum system uptimes** and high customer satisfaction.

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 – Carbon.Pure 2400 (base trim)

| | | |
|---|---|---|
| Performance / Output | Charge weight max. [kg] | 2000 |
| | Usable dimensions max. (ØxH) [mm] | 1420 x 1500 |
| | Usable volume [l] | 2400 |
| | Max. process temperature [°C] | 2400 |
| | Temperature uniformity [K] | ±50 |
| | Operating pressure range [mbar] | 0.01-950 |
| | Leak rate max. [mbar*l/s] | 0.05 |
| | Process gases | Ar, $N_2$, Freon, $Cl_2$ |
| Set-up / Dimensions | Machine footprint (WxHxD) [m] | 8.8 x 6.3 |
| | Total space needed [$m^2$] | 56 |
| Consumption / Input / Connection | Water (Size \| Flowrate \| Pressure) | G 2 ½ in \| 650 l/min. \| 2-4bar |
| | Process gas (Size \| Pressure) | ø 12 mm \| +4 bar |
| | Pressurized air (Size \| Pressure) | G ½" \| 5-8bar |
| | Rated power total [kW] | 800 |
| | Heater power [kW] | 750 |
| | Vacuum pump exhaust | DN65 PN 16 |
| Data / Communication / Industry 4.0 | Data connection | RJ45 |
| | Hardware connection | USB |
| | Remote access | VPN |
| Safety | Built according to | CE (UL/CSA) |

# Customization Carbon.Pure 2400

## Modular system (options)

**Wet scrubber for exhaust gas**
Highly reactive gases need to be neutralized or removed from exhaust gas, released to the environment – we offer a compliant scrubber system for your reactor.

**Chiller for cooling water**
No cold water supply on site? No problem – we have a suitable solution to keep your furnace cool.

**Process gas bottle storage**
For a safe exchange and storage of your reactive and harmful process gas bottles.

**Individual RAL Colour**
Represent! Choose your companies RAL Colours for Frame and/or Pipes and/or Vessel.

**UL ready version**
For customers that need clearance by a UL inspector we offer a version build in accordance with UL standards.

**Loading hoist**
Use our loading hoist to load / unload your furnace with your existing overhead crane.

## Individualization (on request)

**Tailored furnace**
Looking for something different in this size? Talk to us – we have a long history of individually designed furnaces of this size.

**Fast cooling**
You need shortest cycle times? We can provide active or passive fast cooling systems that help to boost your throughput.

**High pressure**
You want to put pressure on your purification? We offer an increased pressure version (up to 850 mbar / 635 Torr) to increase the reactivity.

**Added value**
Want to add functionality to your purification reactor? We will find the right solution to add for example PyC chamical vapor deposition, hydrogen treatment, or anything else you need.

## 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**.

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