PVA TePla

Precision Joining Technology

Diffusion Bonding Hot-Press in High-Vacuum

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Hot-Press furnaces are specially designed for diffusion bonding in a high vacuum. At high pressing forces, materials of the same and different types can be joined pore-free. Thanks to fast cooling devices, the production times can be significally shortened. Consequently, PVA reactors are known to provide maximum system uptimes.

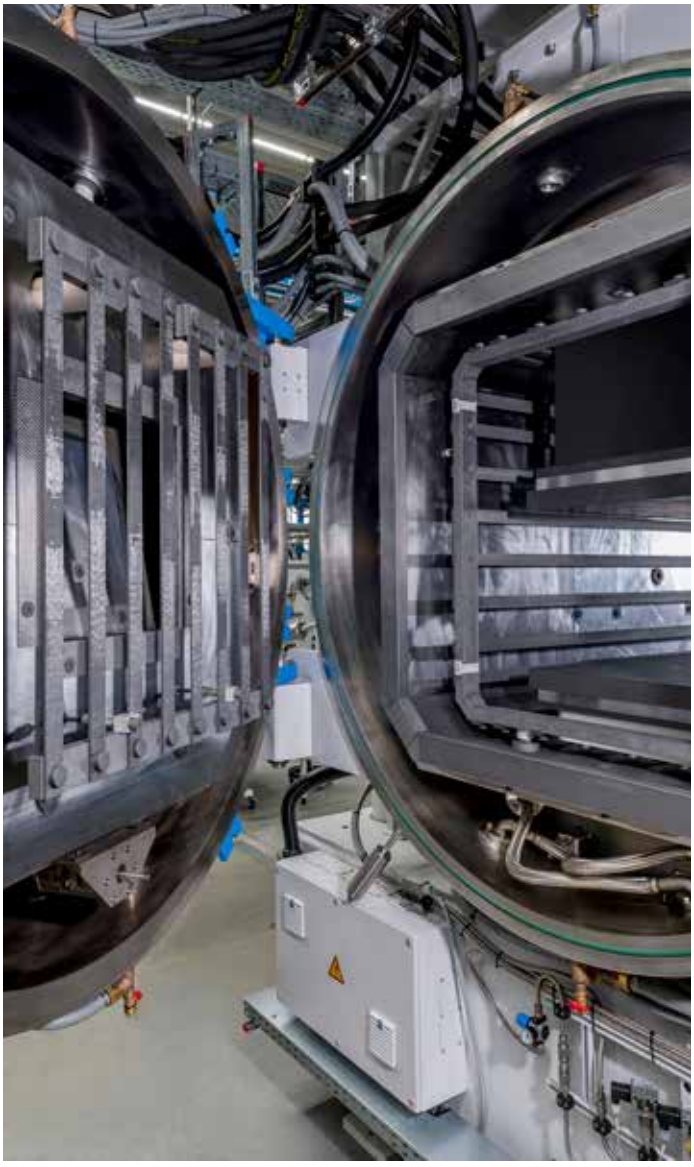
Advantages for the customer:

- Fully automatic furnace operation
- Long lifetime
- Homogeneous force distribution
- Unlimited freedom thanks to laminated object manufacturing
- Strength of the joint approximates that of base material
- Pore-free, visually imperceptible joints

Aluminum plates

Features:

- Molybdenum or graphite heaters
- Max. temperature: 1.700°C
- Max. pressing force: 10.000 kN
- Temperature homogenity up to ± 5 K
- High vacuum bonding atmosphere: 1x 10^{-6} mbar
- Fast cooling device



Typical Models:

Type	Pressing plate dimension (mm)	Pressing plate dimension (mm)
MOV 343HP	300 x 500	1500 kN
MOV 643HP	600 x 800	3750 kN
MOV 743HP	600 x 1500	6000 kN
MOV 843HP	950 x 1500	8000 kN
COV 843HP	800 x 1700	10.000 kN

Hot runners

Micro heat exchangers

PVA Industrial Vacuum Systems GmbH is a subsidiary of PVA TePla AG. The Wettenberg-based company is a leading manufacturer of highly innovative vacuum systems. With more than 1,000 plants on the market and 50 years of experience in the high-temperature field, PVA Industrial Vacuum Systems GmbH builds and markets thermal process plants and systems for the development, manufacture and treatment of high-quality materials at high temperatures. In conjunction with its own Application & Innovation Lab, PVA Industrial Vacuum Systems GmbH also supports its customers with individual system and application developments - right up to series production.

PVA Industrial Vacuum Systems GmbH is an internationally established supplier of systems and facilities for developing, producing, treating and refining sophisticated industrial materials using:

Vacuum	High temperature	Plasma