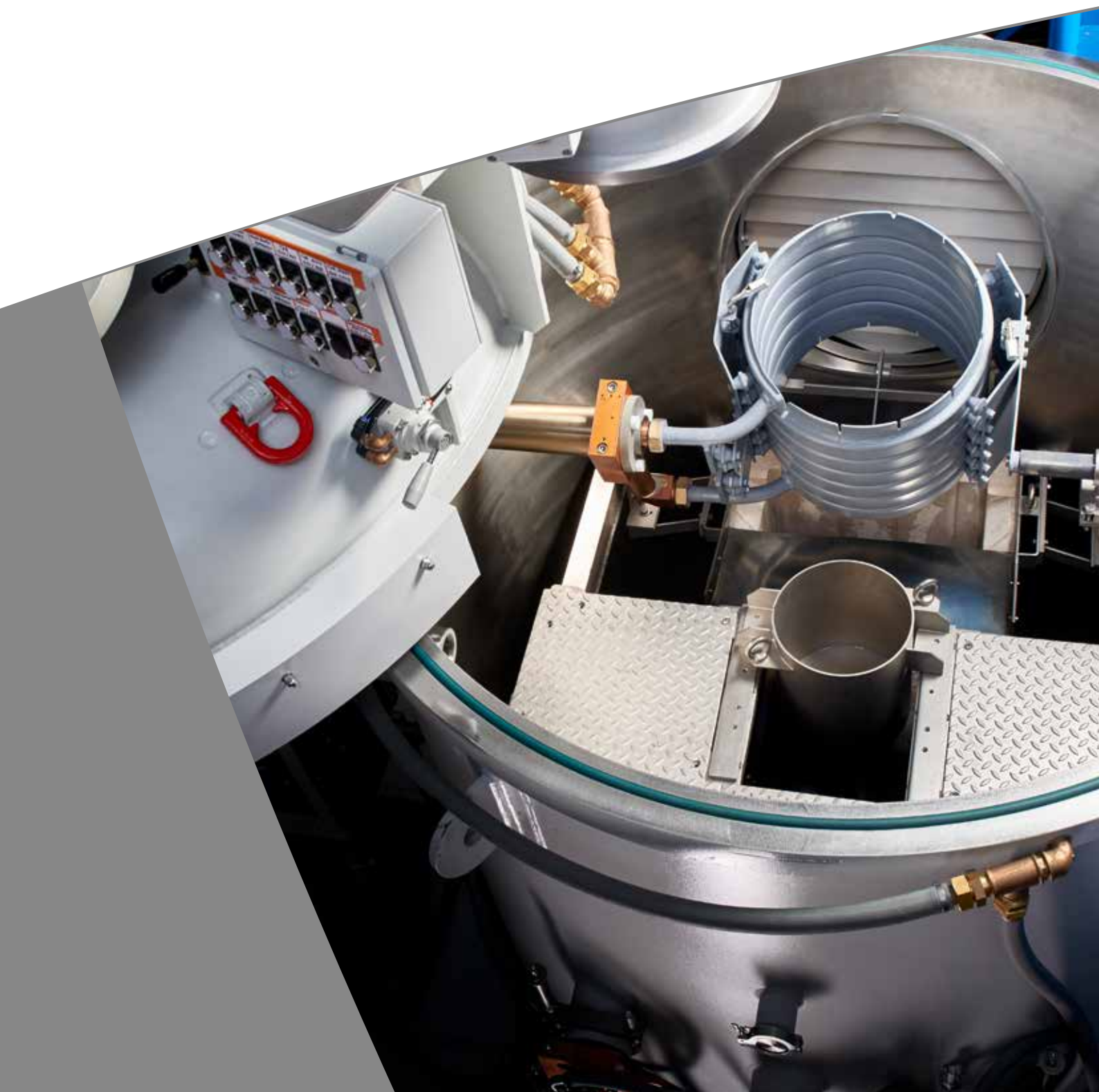


Melting Metallurgy

Inductive Melting and Casting under Vacuum



Melting Metallurgy:

Inductive Melting and Casting under Vacuum

Vacuum melting and casting systems (type VSG) allow universal application in the inductive melting of metals, alloys and special materials under high vacuum, fine vacuum and controlled gas atmosphere. In the laboratory and in industrial production, entire blocks and molded parts are cast with maximum precision and purity. The main areas of application include processing precious metals such as platinum, gold and silver, high purity and fine-alloy metals as well as high-precision special alloys and silicon for solar cells. In addition to melting processes such as remelting, degassing, cleaning and homogenization, VSG systems are also the right solution for precision casting with directional solidification of high-temperature Fe-Ni-Co-based materials.



Melting process



Turbo charger



Precious metal alloyS



Vacuum Melting and Casting Systems - Type VSG

Applications

Melt treatment

- Re-melting und alloying
- Degassing and Refining
- Homogenization melting
- Recycling



Investment casting

- Precision casting
- Directional solidification
- Single crystal growing



Material application

- Precious metals: Platinum, Gold, Silver, etc.
- Highly pure, highly alloyed steel
- High temperature resistant materials on Fe-, Ni-, Co-basis
- Nonferrous metals
- Solar silicone and special materials
- Special- / superalloys



Characteristics

- Stainless steel furnace
- Water cooled vessel
- Tilttable coil
- Graphite crucible
- Ceramic crucible
- High melting metal crucible
- Single or multi chamber design



PVA Industrial Vacuum Systems GmbH is a subsidiary of PVA TePla AG. The Wetzlar-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 |
|---------------|-------------------------|---------------|