

PSI Phoenix Scientific Industries



High performance process solutions

HERMIGA 120/25 COLD CRUCIBLE ATOMISER

Produced in response to the growing demand for production quantities of gas atomised reactive metal powders such as titanium and nickel, the HERMIGA 120/25 CC is equipped with a 10 litre cold crucible which enables the production of sufficient quantities to support downstream process such as additive layer manufacturing (ALM) and metal injection moulding (MIM).

The compact size of the system allows it to be installed in a limited factory space and it is design for easy cleaning to reduce contamination between batches. The unit is equipped with datalogging to record all main parameters for later analysis and a wide range of options are available to enhance functionality.

The options available include:-

- Oxygen analysis equipment
- Video monitoring system
- Optical Pyrometer
- Gas rack to enable processing using different gases such as
 - Argon
 - Helium
 - Nitrogen
 - Oxygen (for passivation)
- Additional powder storage hoppers
- Uprated vacuum pumpset
- Gas superheating system

See overleaf



HERMIGA 120/25 CC

Cold Crucible technology for production environments. Supporting development of new alloys for the latest technologies such as ALM and MIM.

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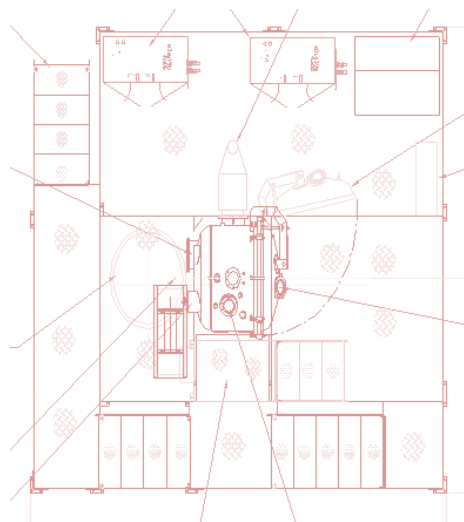
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Typical system data

| | |
|------------------------------|---|
| Crucible Type: | Water cooled copper (cold crucible) |
| Crucible Capacity: | 10 litre (approximately 25kg titanium) |
| Atomisation Die: | Free fall type |
| Atomisation Rate: | 3—6 kg/minute titanium |
| Typical Median (d_{50}): | 75 μm or greater |
| Melt Chamber: | Side access, water cooled, 304L stainless steel |
| Atomisation Chamber: | Water cooled, 304L stainless steel |
| Powder Handling: | High efficiency cyclone, partial and HEPA filters |
| Power Requirement: | 525kVA, 3 phase, 50Hz |
| Water Requirement: | Approx. 250 litres/min, 5 bar |
| Gas Requirement: | Argon is recommended. Min pressure 60 bar. |
| Systems Size (L x D x H): | 6m x 5.1m x 5.7m |
| System Weight: | 5 tonnes |



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