

# PSI Phoenix Scientific Industries



High performance process solutions

## HERMIGA 120/500 V3I ATOMISER

The new HERMIGA 120/500 V3I is a high performance production scale atomiser using PSI's close-coupled die technology; accordingly fine powder production down to 10 microns median with rapid solidification rates in the region of  $10^5$  to  $10^6$  Ksec<sup>-1</sup> are possible.

As a result of the continuous development program the revised HERMIGA 120/500 benefits from a reduced footprint and shorter cycle times using PSI's unique geometry die design allowing consistent and reproducible production of high quality spherical metal powders.

A wide range of options are available in order to produce the system that best suits your requirements.

- Gas rack system available to enable processing using various gases such as;
  - Argon, Helium, Nitrogen
- Melting capacity is 500 kg of steel or equivalent volumes of other alloys.
- Control system includes sophisticated data logging facility
- Automated cone opening / clamping systems
- Options available include;
  - Automated melt chamber door opening / clamping systems
  - Oxygen monitoring
  - Optical Pyrometry
  - Booster pump upgrade
  - Melt charging / sampling
  - Gas superheat, gas cooling
  - Particle injection system
  - Additional primary hoppers
  - Retrofitability of 2<sup>nd</sup> furnace

See overleaf



### HERMIGA 120/500 V3I

A capable, sophisticated and user friendly large scale atomiser for the production of even greater quantities of metal powders.

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# PSI



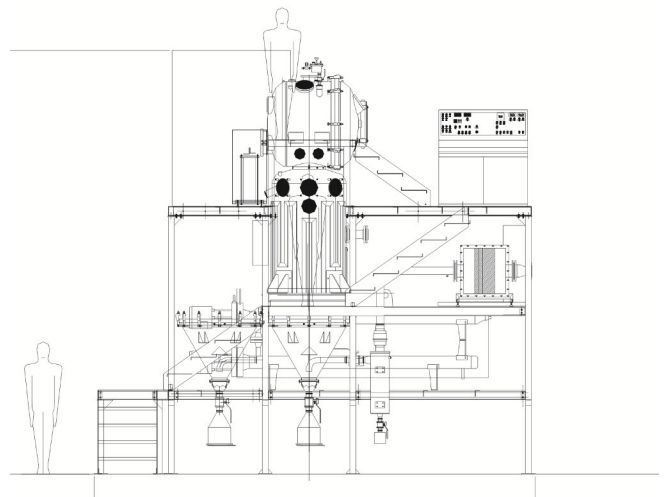
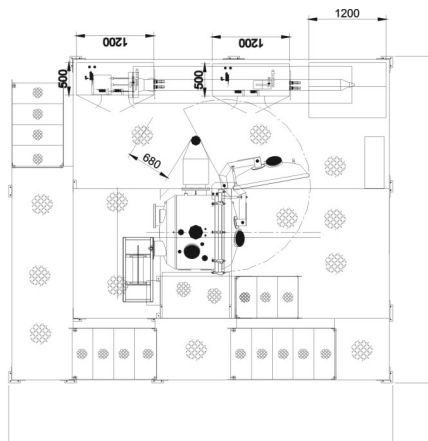
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## HERMIGA 120/500 V3I ATOMISER

### Typical system data

Furnace Type:	Induction heated tilt and pour furnace
Tundish Type:	Induction heated tundish to ensure good temperature control
Melt Capacity:	500 kg steel or equivalent volume of other alloys
Atomisation Die Type:	Supersonic invariable type 'close-coupled' die
Atomisation Rate:	Typically 6—10 kg/minute of steel
Typical Median ( $d_{50}$ ):	In range 10 to 100 $\mu\text{m}$
Atomisation Chamber:	Water cooled, dual section 304L stainless steel
Powder Handling:	High efficiency cyclone, partial and HEPA filters
Gas Requirement:	Argon/Nitrogen/Helium max 6kg/min. Min pressure 30 bar.
Systems Size (L x D x H):	Dimensions of 10 m x 9.0 m x 13.5 m
System Weight:	Approx. 90 Tonnes



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