



## HERMIGA 75 ARC

The HERMIGA 75 ARC has been developed to satisfy the need for high temperature melting and atomisation of materials such as Vanadium, Titanium and Molybdenum.

Equipped with a high current power supply and twin wire arc head which melts the wire feedstock, high velocity gas is used to atomise the resultant droplets which solidify during their flight in the atomisation chamber.

Where lower levels of oxygen and faster pump down rates are required, the system can be specified with an optional uprated vacuum pump system.

The compact size of the system allows it to be installed in laboratory environments and it is design for easy cleaning to reduce contamination between batches.

For safe operation the unit is equipped with a PLC control system and, where specified, the diffusion pump is supplied with a pneumatic valve to ensure correct sequencing and operation of the pump. A range of options is available to enhance functionality.

- Oxygen analysis equipment
- Video monitoring system
- Gas rack to enable processing using different gases such as
  - Argon
  - Helium
  - Nitrogen
  - Oxygen (for passivation)
- Uprated vacuum pump systems

See overleaf



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High temperature atomisation using plasma arc melting in a compact, laboratory scale format.



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#### Typical system data

Melting Method:	Wire fed DC plasma arc
Feed Rate:	Up to 11mm/sec
Atomisation Rate:	Typically 1kg/hr based on Vanadium
Typical median (d <sub>50</sub> ):	25—75 µm
Melt Chamber:	Top opening, 304L stainless steel
Atomisation chamber:	Air cooled, 304L stainless steel
Vacuum:	10 <sup>-2</sup> mbar (standard)
	10 <sup>-5</sup> mbar (with optional system)
Powder handling:	High efficiency cyclone, partial and HEPA filters
Power Requirement:	125kVA, 3 phase, 50—60 Hz
Gas Requirement:	Argon/Nitrogen/Helium max 6kg/min. Min pressure 60 bar.
Systems size (L x D x H):	4.1m x 2.3m x 2.5m
System weight:	4 Tonnes

