

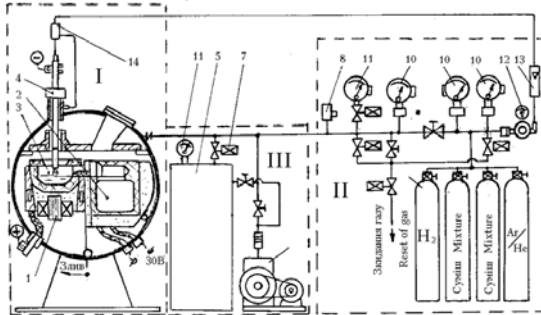


## Multipurpose plasma-arc unit

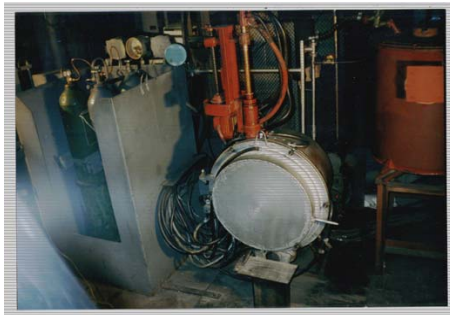
Multipurpose plasma-arc units (MPAU) designed for:

- pilot and small-scale production of cast products;
- artistic casting;
- spare part casting, lab and research purposes

*Scheme of experimental installation*



1 - Electromagnet for melting mixing; 2 - Camera of the form; 3 - Melting Garnisage Crucible; 4 - Plasmatron; 5 - Receiver; 6 - Forvacuum Pump; 7 - Vacuum Valve; 8 - Sensor of remote registrations of pressure; 9 - Electromagnetic valve; 10 - Manometer; 11 - Vacuummeter; 12 - Reductor; 13 - Rotameter; 14 - Collector.



Multipurpose plasma arc unit for melting, refining and casting of metals under controlled pressure

Main features of the MPAU basic set:

Capacity of crucible (kg)	1-45
Plasmatron power consumption (kWt)	20-50
Pressure in the melting chamber (Atm)	$10^{-5}$ -6,0
Metal melting capability (kg/min)	0,5-1,5
Productivity of refining process (kg/hour)	up 500
Plasma forming gas	Ar, He, N, air or mixtures thereof
Plasma forming gas consumption (l/min)	3-20
Types of melting crucibles	scull-type (metal based), graphite, ceramic
Methods of pouring	In vacuum, controlled atmosphere, under controlled pressure, free pouring in the open air
Types of re-melting metals	ferrous, non-ferrous, refractory
Methods of melting	By direct or indirect plasma arc
Methods of metal agitation in the melting crucible	Convection, electro-magnetic, mechanical, and combinations thereof

As a power supply for MPAU the regular commercial de-rectifiers can be used.

**Please forward your proposals and suggestions to:**

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