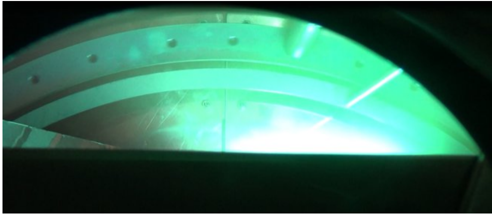
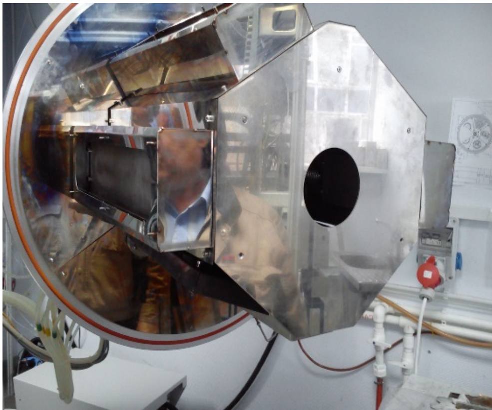
Beams & Plasmas
Laboratory of vacuum technologies plus, LLC

Magnetron M-250





Magnetron M-250

When using a pulsed medium-frequency power supply, it is possible to deposit semiconductors, as well as dielectrics in a reactive mode, from metal targets.
Extended magneton M-250 is designed for applying thin films of various materials on a substrate in a vacuum. In the constant current mode, it is possible to deposit metals, alloys (including resistive ones) while maintaining the stoichiometric composition.

Parameter	Value
Maximum power	12 000 W
Maximum current	20 A
Maximum voltage	2000 V
Target size (length x width)	250 x 94
Height 6 mm (for magnetic, 10 for non-magnetic)	
Weight	8,8 kg (no more than)
Chamber working pressure range	0,10 – 10 Pa
Working gases	Ar,O_2,N_2,Xe,CH_4,C_2H_2
Coolant consumption	2 l/min at 3 kW,
	4 l/min at 7 kW,
	5 l/min at 12 kW

The design allows for various combinations of magnetron placement in the chamber

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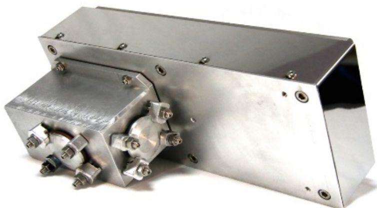
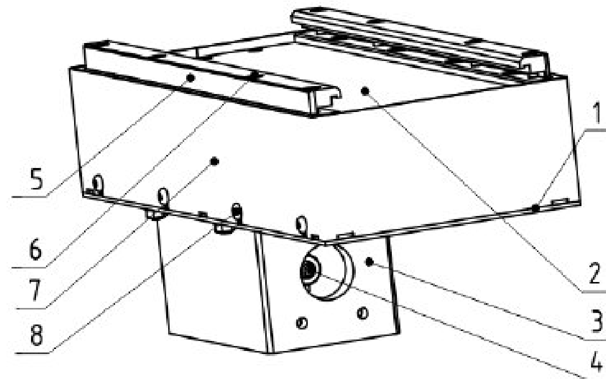
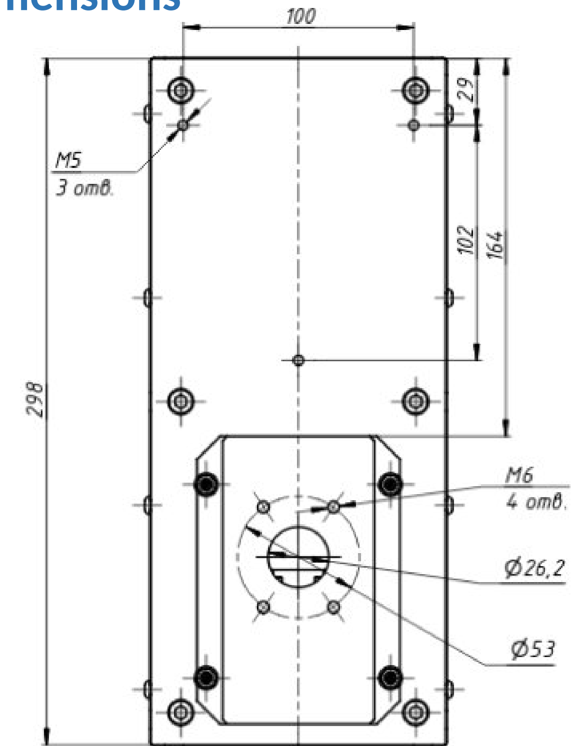
Magnetron M-250
basic dimensions







1. plate with housing and magnetic system
2. refrigerated target holder
3. box
4. coolant vacuum connections and supply voltage
5. clamps
6. clamp screws
7. screen
8. shield fixing screws