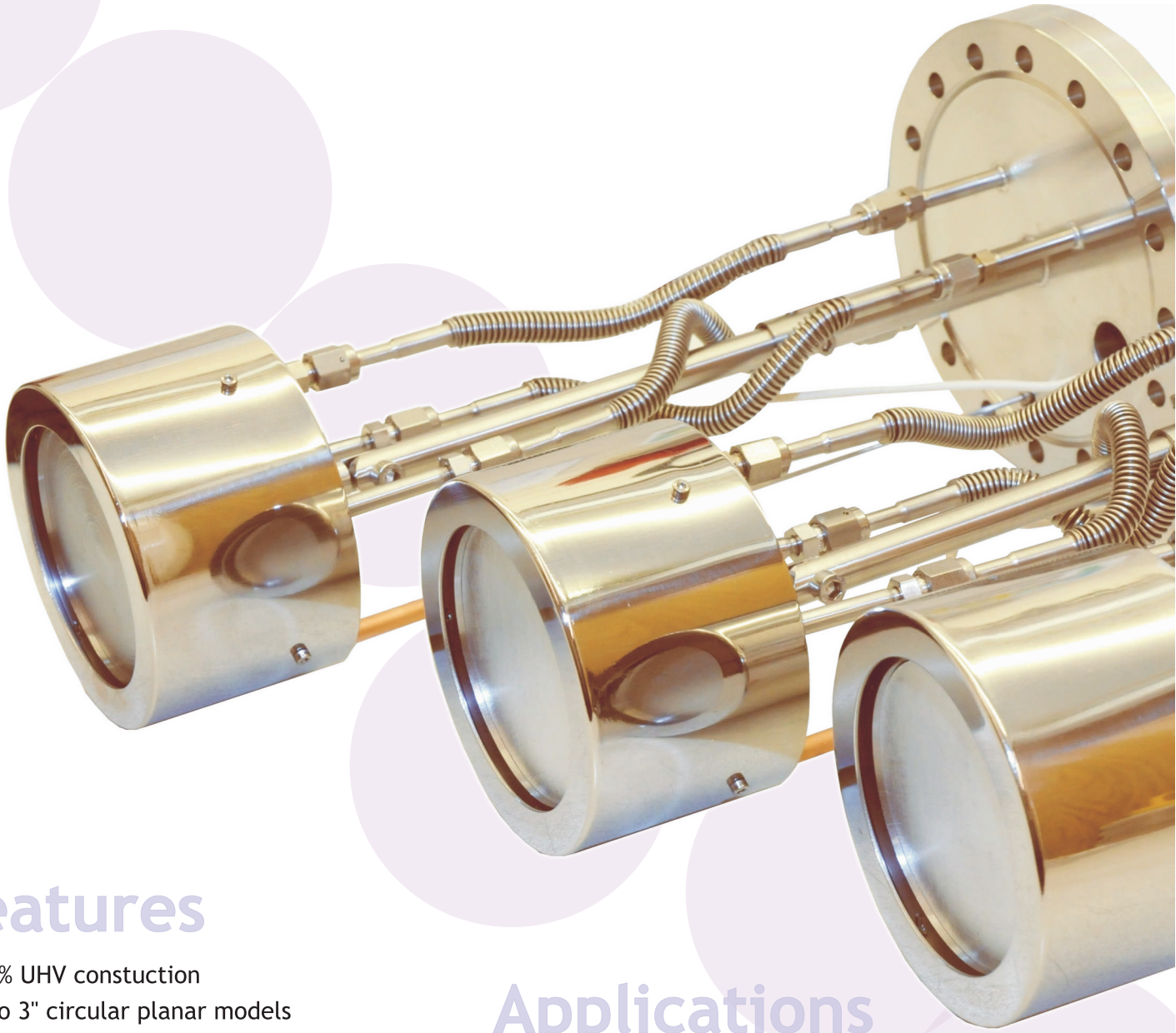


CUSP Series

UHV Sputter Sources



Features

- 100% UHV construction
- 1" to 3" circular planar models
- Linear models
- Unique radial model for tube-core coating
- In-situ z-shift and tilt (optional)
- No live water or in-vacuum water break
- Balanced or unbalanced configuration
- High strength magnets for magnetic material sputter deposition

Applications

- PVD
- Metallisation
- Nanostructured films
- Multilayers
- Reactive sputtering
- RF, DC or pulsed DC sputtering
- Hard coatings



MANTIS
MANTIS DEPOSITION LTD

Specifications

The CUSP series magnetron sputter sources are designed for high-rate, large area coatings. All sources are equipped as standard with integral gas-feed allowing a higher local pressure to exist immediately above the sputter target than in the surrounding chamber with the consequence that the source can be operated at lower overall chamber pressure.

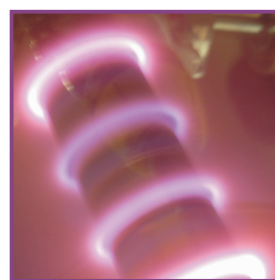
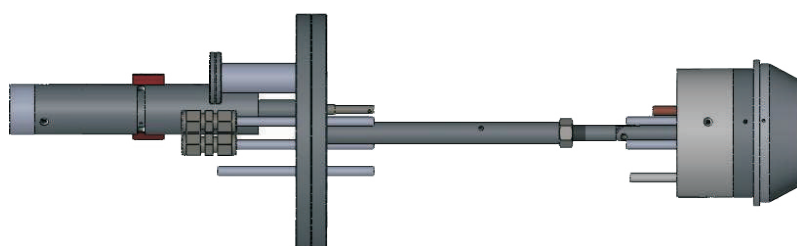
All sources use a grounded cooling circuit, avoiding the need for lengthy plastic tubing to insulate the cooling water and allowing simple mains water to be used.

The sources are manufactured entirely from UHV-compatible materials. Flange-mounted sources can be removed without first needing to remove gas-

injectors or shutters (if installed).

We offer three sizes of planar, circular magnetrons, 1", 2" and 3". Each size can be CF or ISO mounted or alternatively internally mounted with a variety of mounting options.

CUSP 1i/2i/3i



Radial source in operation

	CUSP-1i	CUSP-2i	CUSP-3i
Mounting flange	NW63CF	NW100CF	NW100CF
In-vacuum length (mm)	150min 400max	150min 400max	150min 400max
In-vacuum diameter	60	70 (no gas hood) 93 (with gas hood)	96
Target diameter	1" (25mm)	2" (50mm)	3" (75mm)
Max target thickness	4mm	6mm	6mm
Cooling	Water (0.5 l/min)	Water (0.5 l/min)	Water (0.5 l/min)

Linear and radial sources are designed to match specific applications
- please contact Mantis for more details

Utilities

Water: minimum flow 0.5 l/min. Clean mains water acceptable.
Standard cable length: 5m
Input: DC Power supply: Single Phase, 100-240V, 50/60 HZ.
RF Power supply: Single Phase, 100-240V, 50/60 HZ
Gas: Ar

Accessories

DC power supply
RF Power supply and automatic matching network
Pulsed DC power supplies
Mass flow controllers
Integral manual and automatic (servo) shutters
In-situ Z-shift and tilt options
Gas hood



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