

COPRA Plasma Technology

COPRA IS200

Built In Source for Precision Optical Assist

COPRA IS200

The IS200

The COPRA IS200 is the youngest member of CCR's built in Sources and completes the COPRA IS-Series. Like the comparable IS300/IS400/IS500 built in-series the whole source body including the inbuilt matching network is mounted inside the vacuum chamber. The source is connected via a DN40KF bellow carrying all supply lines. The COPRA IS200 is designed for calotte/planetary systems sizes of up to 760mm diameter.

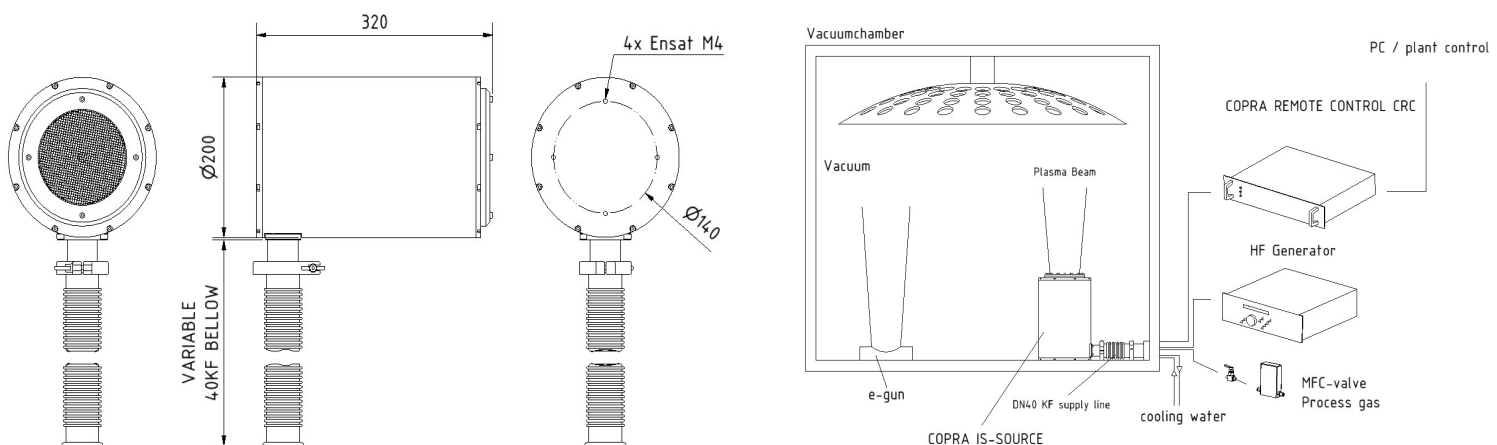


IS200/IS301/IS400

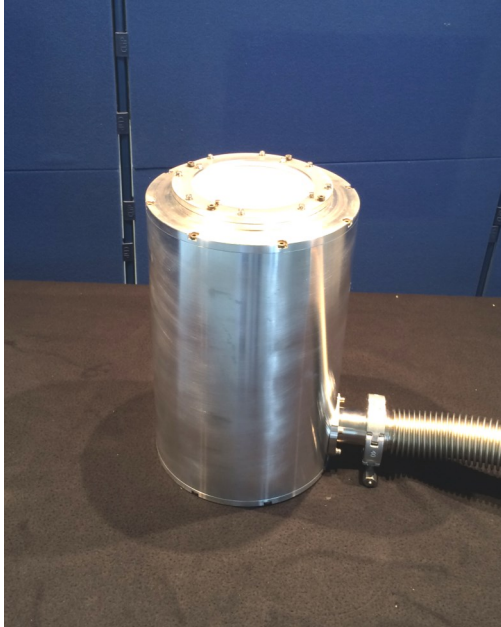
Main Features

- Long Term Process stability
- Easy to handle
- Quasi Maintenance free
- Low operating costs
- Integrated Matchbox
- Low contamination level
- High Amount of O+
- Current Control independent from Energy
- Simple to integrate
- Selective activation of surface

Dimensions/Installation Drawing

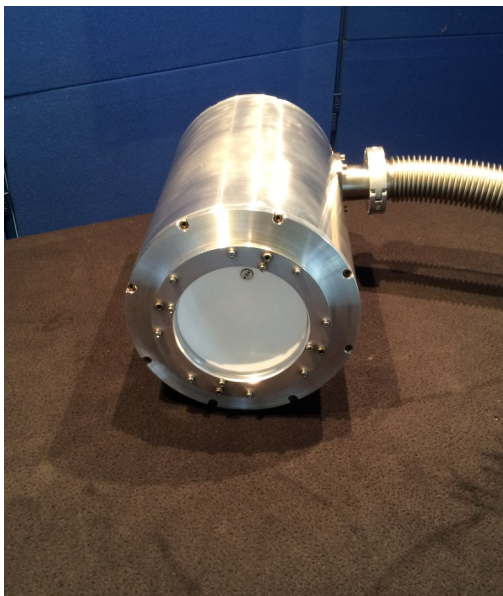


COPRA IS200



IS200

Specifications	
Extraction Diameter	110mm
Pressure Range	1E-4 to 1E-3 mbar
Plasma Density	10^9 to 10^{12} mbar ⁻³
Ion Current Density	0,01 to 2,0 mA/cm ²
Ion Energy	20 to 200 eV
Beam Neutrality	Quasi neutral Plasma Beam
Match	Remote control via CRC
Max Power	max. 1.200 W
Frequency	13,56 MHz
Process Gas	Ar, O2, N2
Extraction System	Tungsten grid (GT) on ground potential
Plasma Volume	Ceramic liner protected



IS200-Front

Technical Data	
Dimensions	∅ 200 x 300
Excitation Frequency	13,56 MHz
Impedance Matching	integrated Matchbox - 50 Ohm
RF-Power	up to 1200 W
RF-Connection	N
CRC-Connection	Sub-D15
Water Connection	2x flex tube 6 mm
Water Flow	>2 l / min
Operation Gas Pressure	1x10 ⁻⁴ bis 5x10 ⁻² mbar
Process-/Ignition Gas connect.	Swagelok 4 mm
Weight	approx.25 kg
Calotte-Size	550-760mm



IS400/IS200

Regular Spare Parts
1.) Tungsten Grid (completely mounted)
2.) Tungsten Grid (only Grid)
3.) Ceramic Liner

COPRA IS200



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The COPRA technology is patent protected!

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