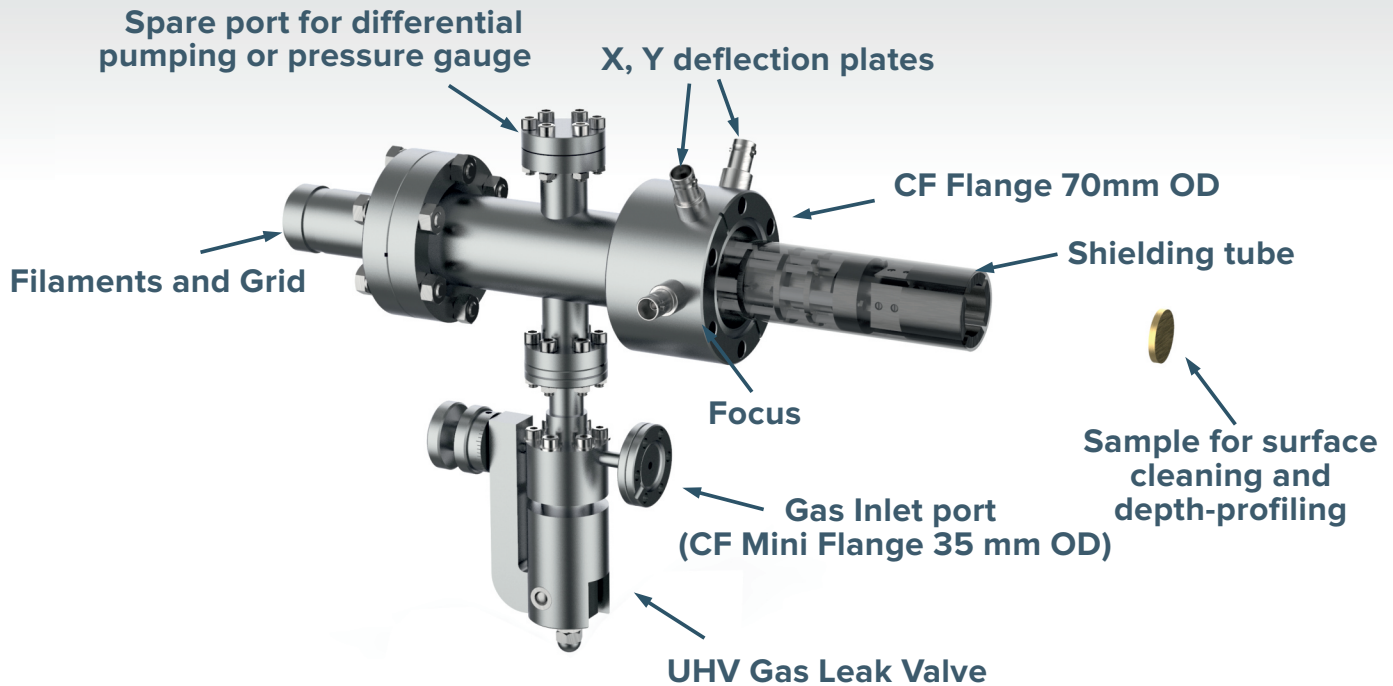


IONEC - Ion Sputter Gun

Model IG70-XY-DP with exchangeable apertures



Applications

The IG70-XY-DP Ion gun is designed for sample surface cleaning and depth profiling with Auger electron spectroscopy.

Surface treatments with IG70-XY-DP are applicable to a wide range of materials from metals, semiconductors, and oxides, to thin films and 2D layers.

Features:

- Precision sputtering for sample cleaning and depth profiling
- X-Y ion beam deflection and rastering
- Low operating gas pressure: 10^{-6} – 10^{-7} Torr
- Wide range of ion beam diameters and sample distances
- Two long life filaments
- Variety of operating gases: Ar, Noble or Reactive

IONEC - MODEL IG70-XY-DP

Specifications

Ion Source	Electron impact ionization in magnetic field
Ionization Cathode	Tungsten - rhenium filament directly mounted on 70 mm OD CF flange
Beam Current	1.0 μ A at 0.25 keV 2.0 μ A at 0.5 keV 5.0 μ A at 1.0 keV 10 μ A at 2.0 keV 15 μ A at 3.0 keV
Operating Ar pressure	5.0×10^{-6} torr - typical
Beam Energy	0 - 3.0 keV
Beam Size	From 5 to 25 mm in diameter
Beam Uniformity	< 5%
Gas Input	Direct gas input to ion source via leak valve
Mounting	2 $\frac{3}{4}$ " (70 mm) OD CF flange
Bakeability	Under vacuum - 250°C max.

Precision Power Supply: Model IPS3-D

Outputs:	Filament current: 3.5 A max Grid voltage: 150 V in reference to filament Beam voltage: 0 – 3.0 kV Focus voltage: Factor 0.3 - 0.85x of Beam Energy Emission current: 0 - 45 mA
Monitoring:	Beam Energy Voltage and Currents: Filament Electron Emission, total Ion Beam
Manual Control:	of all voltages and Filament current via rotary dials and selection buttons
On-board Automation:	9 adjustable operating programs: outgassing, stand-by, filament forming, constant emission current and diagnostics programs
PC Control:	Full control of all functions, PC software is required
Display:	Vacuum fluorescent display
Protection:	Short circuit, arc and over voltage protection
Input:	100/110 V AC 50/60 Hz or 220/240 V AC 50 Hz
Size:	19" Rack mount box with 3U (5.25", 133 mm) in height and 17.5" (440 mm) in depth, 12 kg in weight

Ordering Guide

IG70-XY-DP	Ion sputtering gun with direct gas inlet, X-Y deflection plates, differential pumping, adjustable beam size, and CF 2 $\frac{3}{4}$ " (70 mm) OD mounting flange
IPS3-D	Digital power supply with voltage range 0 – 3.0 kV
LV-UHV	UHV Precision Gas Leak Valve

Schematic

