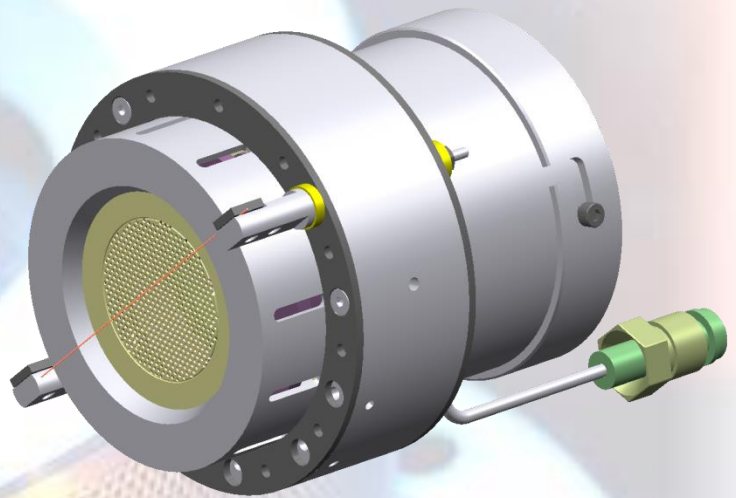


Hot Filament Broad Beam Ion Sources

KF/F 40 and KF/I 40

**Internal mounted
KF/I 40 Ion Source**



Key Design Features

- **Functional system** for easy and quick filament replacement
- **Compact discharge housing**
- **Internal and external mounting configurations**
- **Functional ceramics** for easy and quick maintenance
- **Special grid insulation and adjustment system**

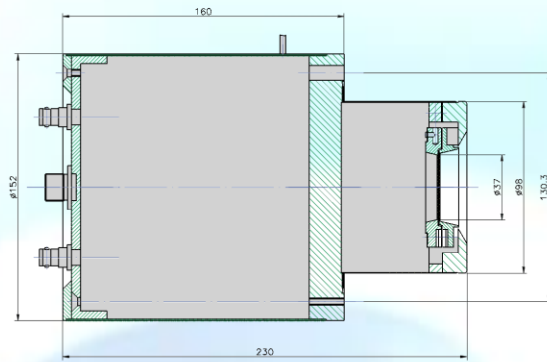
Advantages

- **Fully noble gas, and nitrogen gas capability**
- **Grid systems** from different shape and material for optimum process adaptation
- **Quick and easy maintenance** and long working cycles

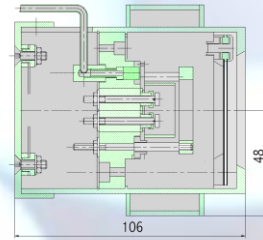
The standard solution for hot filament ion beam processing !



Dimensions / Size



KF/F 40



KF/I 40

Technical Specification

	<u>KF/F 40</u>	<u>KF/I 40</u>
Type:	Flange mounted Kaufman source with multiapertur extraction grid	Internally mounted Kaufman source with multiapertur extraction grid
Source materials:	Discharge lining: Al ₂ O ₃ Grids: C or Mo Filament holder: Mo Permanent magnets: AlNiCo Housing: Stainless steel Filament: Tungsten	
Grid types:	2 or 3 grid system 3 standard systems with different focusing length	
Size:	See Fig. above (without neutralisation)	
Weight:	~4.5 kg	~2.5 kg
Flange:	DN 100 CF	2 DN 40 CF media feedthroughs
Cathode current:	Maximum 30 A	
Discharge current / voltage:	Maximum 6 A / 150 V	
Ion current:	Maximum 25 mA (Dependent on grid type and operation condition)	
Ion energy:	~50 to 1500 eV	
Accelerator voltage:	0 to -1000 V	
Process gases:	Noble gases, N ₂ (no reactive gases)	
Gas flow :	2 to 7 sccm	2 to 7 sccm
	Fitting: 6 mm Swagelock	Fitting: 1/8" Swagelock (Air side and vacuum side)
Electrical connections:	HV-DC: BNC HC-DC: Power push on	Air side: BNC, Power push on Vacuum side: Power push on 0.5 m vacuum cables included

