

# Exchange Your old ISE10 Sputter Gun with a new FDG15 Sputter Source and Controller

Every successful story comes to an end!

The ISE10 ion sputter source, which has been used by many customers for almost 20 years, is no exception. Since all spare parts are no longer available, we are no longer able to service all repair orders.

Therefore, we are pleased to offer the FDG15 as a replacement for the ISE10 for a special price.

The FDG15 is our recommended replacement for your ISE10 and the perfect solution for sample cleaning and basic depth profiling. Its Gaussian ion beam produces a variable spot size from 300  $\mu\text{m}$  up to 10 mm. Differential pumping is possible, but not mandatory.

The FDG15 provides a high beam current intensity of  $> 2 \text{ mA/cm}^2$  at a working distance of 50 mm and a beam energy of 5 keV. It will be mounted on a DN40CF flange, is bakeable up to 180°C, has a port for differential pumping and an integrated port aligner which allows  $\pm 3^\circ$  adjustment range.

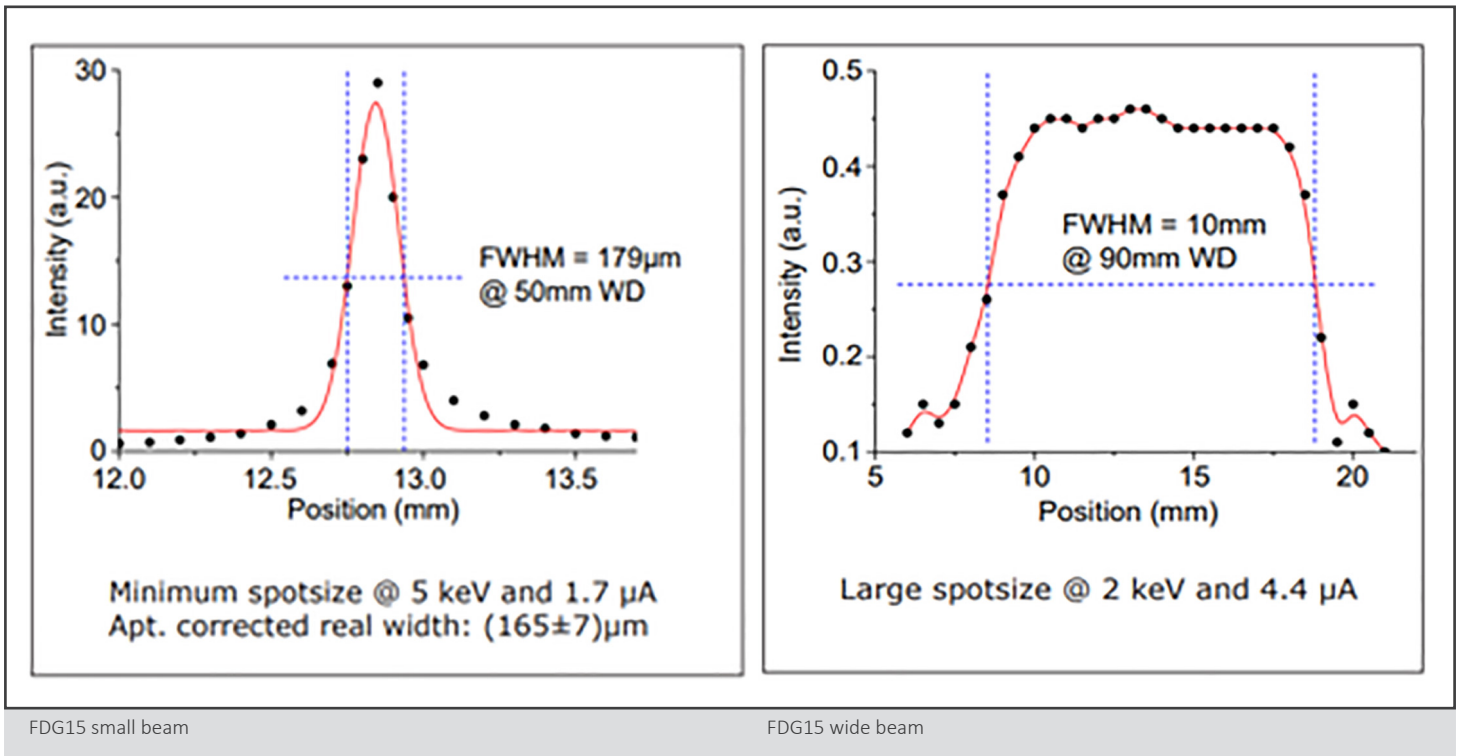
A working distance between 30 and 300 mm is possible. A suitable spacer (if needed) is included in the delivery. The controller and a modern, Labview based software package are included. However, manual operation from the controller is also possible.

Several further options regarding system integration and automation are available on request.

Read more about the technical details of the FDG15 and possible options on the next page.

Please contact us if you have any questions about the FDG15 and/or its system integration.

Please contact your local Scienta Omicron representative for more information.



# Summary

## Part number UF10002 FDG15 ion source package upgrade

Possible options (on request):

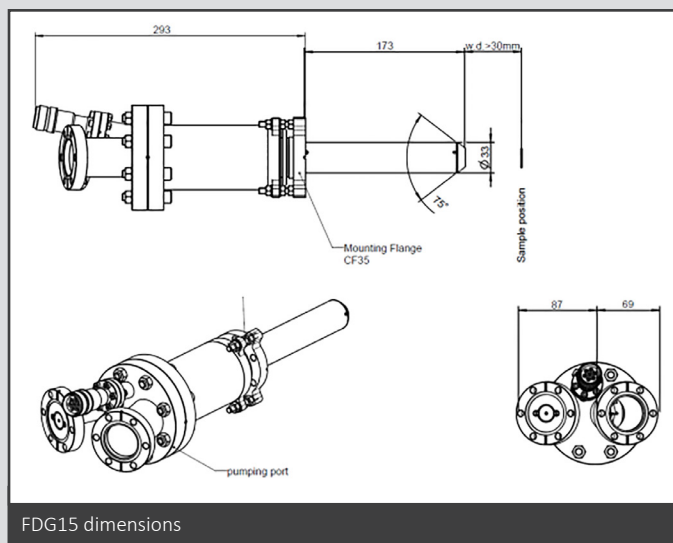
- UF10003 manual gas dosing valve for Argon
- UF10005 Argon gas inlet assembly (without gas dosing valve)
- UF10006 Modification of one baking panel (with return of baking panel to Taunusstein/Germany)
- UF10007 One new baking panel
- UF10008 Matrix e-spec 4.x for automated depth profiling (with Argus CU analyser only)
- UF10010 Separate differential pumping with turbo and scroll pump (manually)
- UF10011 Separate differential pumping with turbo and scroll pump (pneumatic)
- UF10012 Differential pumping through FEL
- UF10013 DCU for manual operation of the turbo pump
- UF10014 Mistral system integration (only for systems with Mistral control system)
- UF10015 Low energy option providing  $> 1 \mu\text{A}@50 \text{ eV}$  for sputtering of semiconductors down to 10 eV with ion currents  $> 100 \text{ nA}$  as for example used in charge neutralization for XPS applications.

### Prerequisites:

- ScientaOmicron UHV system with base vacuum  $< 5 \cdot 10^{-9} \text{ mbar}$
- ISE10 Ion sputter gun

### Technical specifications:

FDG15	
Mounting flange	DN40 CF
Working distance (WD)	30-300 mm
Insertion depth	173 mm
Beam diameter (D)	$< 300 \mu\text{m}$ up to 10 mm
Beam energy	Up to 5 keV
Beam current density	$> 2 \text{ mA/cm}^2$ (@ 5 keV and 50 mm WD)



## How to contact us:

Europe and other regions:  
[services@scientaomicron.com](mailto:services@scientaomicron.com)

North America:  
[services-NA@scientaomicron.com](mailto:services-NA@scientaomicron.com)

China:  
[services-CN@scientaomicron.com](mailto:services-CN@scientaomicron.com)

Japan:  
[services-JP@scientaomicron.com](mailto:services-JP@scientaomicron.com)