Linear Ion Beam Sources

**Features**
- Compact linear design
- Internal and flange mount versions
- Long electrode lifetime
- Self-neutralized ion beam
- High ion density
- Compatible with a wide range of gases
- Wide pressure range up to 1E-1 mBar

Linear ion sources generate wide ion beams with high uniformity along its length. These anode layer type ion beam sources are very reliable and robust devices that can be operated with a wide range of gases and mixtures. They don’t need an extra neutralizer for charge compensation and thus are able to continuously operate using chemically active gases (oxygen, air, halogens, etc.). The source electrodes have almost unlimited lifetime when working with oxygen. For many applications air can be used instead of oxygen.

**Applications:**
- Ion cleaning, ion etching
- Ion beam sputtering (IBS)
- Ion beam assisted deposition (IBAD)
- PECVD & DLC deposition
- Surface modification
Mounting configurations

All linear ion sources are available for internal and external mount configurations. Internally mount sources include a single KF25 utility port. A tilting head option with variable penetration depth e.g. for ion assist in confocal sputtering applications can be ordered for the smaller L125 and L145 sources.

Power supply package

Along with the inverted magnetron ion sources we provide dedicated voltage or current controlled power supplies. When utilizing its integrated gas control feature both ion beam current and anode voltage can be kept constant.

Circular ion source D52

Apart from the linear sources the circular ion source D52 provides a tubular beam profile with 22 mm in diameter and small divergence. Thus it is ideal for ion beam sputtering or etching applications onto small targets or substrates while offering high ion energies with up to 150 mA ion beam current.