



Explorer 600 Flex

The Cryofox Explorer 600 flex is a compact high vacuum unit for Thin Film production.

The Explorer 600 Flex is ideal for general material research and nanotech and is special developed for research and small scale production.

The process technology is based on medium distance E-beam deposition and short distance DC/RF sputtering deposition. There is a free selection of E-Beam and sputtering layer combination without breaking vacuum. The Explorer 600 Flex is very suitable for reactive and non-reactive deposition.

The Explorer 600 Flex is a very versatile unit for small scale production and research and development.



Due to the very compact size of the plant, it is easy to transport and fit into existing laboratory facilities. It requires only an 850 mm wide and 1900 mm high door opening.

All Cryofox systems can be integrated in clean room facilities.

All Cryofox systems are developed, designed, and manufactured by Polyteknik AS.

Mechanics

- Deposition throwing distance:
E-Beam: 350 mm approx.
DC/RF: 100-150 mm approx.
- Stainless steel chamber (optional: Electro polished)
- Substrate tool with tilt and rotation for plane substrates (wafers) – up to 4 inch/100 mm
- Substrate cooling
- Horizontal spindle for 3D objects without cooling (optional)
- Substrate heating (optional)
- Footprint:
Vacuum unit: D1047 x W816 x H1848 mm
Control unit: D1044 x W624 x H1848 mm

Process

- E-Beam – single or multiple pockets
- Magnetrons DC/RF – circular (2 pcs.)
- Thermal evaporation (optional)
- Plasma pre-treatment in load lock
- Ion etch system (optional)

Process supply

- Oil backing pump (optional: Dry pump)
- Turbo or Cryopump for high vacuum
- One or multiple mass flow controllers for gas supply
- Water cooling

Process Control

- Receipt control with fully automatic process
- Fully automatic or manual control of the process
- Very good HMI on top of robust PLC control
- Internet access for machine control and operation (optional)
- Data logging function (optional)
- Thickness monitor with double crystals and connected to the control system
- RGA (residual gas analyzer) and logging PC (optional)

AUX. Equip.

- Chiller (optional)

