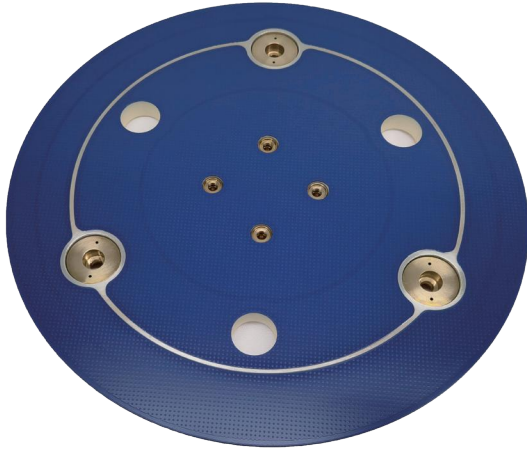




Features

- Coulomb's Law or Gradient Force electrostatic chuck
- Support Bi-polar, multi-polar electrode, interdigitated electrode design etc.
- Suitable for UHV environments up to 10^{-5} Pa
- High clamping force
- Typical global flatness: $5\mu\text{m PV}$ ($D = 300\text{ mm}$)
- Flexible surface pattern design
- Suitable for non-magnetic environment
- Substrates include wafer, dielectric materials such as sapphire, glass and more.

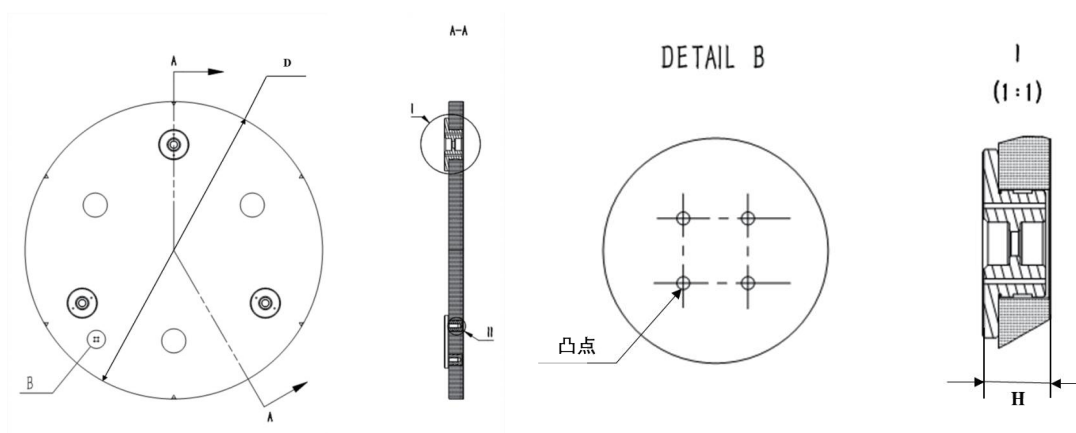
Description

The Electrostatic Chuck (ESC) is a holding tool for substrates such as silicon wafers in semiconductor processes. Based on the principle of electrostatic adsorption, the ESC fixes substrates like silicon wafers through Coulomb force or gradient force generated by the chuck after the application of an external high voltage.

Applications

- Wafer Metrology: EBI, CD-SEM, Review-SEM
- Thin Film Deposition (CVD, PVD etc.)
- Wafer Manufacturing
- Ion Implanter etc.

Interface Definition



General dimension, Unit: mm

Technical Specifications

6inch ESC		8inch ESC	12inch ESC	Unit
Electrostatic type	Coulombic or Gradient	Coulombic or Gradient	Coulombic or Gradient	
Electrode type	Bi-polar or interdigitated electrode			
Accuracy				
Global flatness	<2	<2	<5	μm
Parallelism	<30	<30	<30	μm
Electrical properties				
Standard clamping voltage	1000	1000	1000	V
Leakage current	<5	<5	<5	nA
Performance parameter				
Clamping force	≥8(Coulomb)	≥12(Coulomb)	≥30(Coulomb)	N
Dimensions				
Diameter	144	194	294	mm
Thickness	12.6	12.6	12.6	mm

*Customized requirements accepted