



## 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.

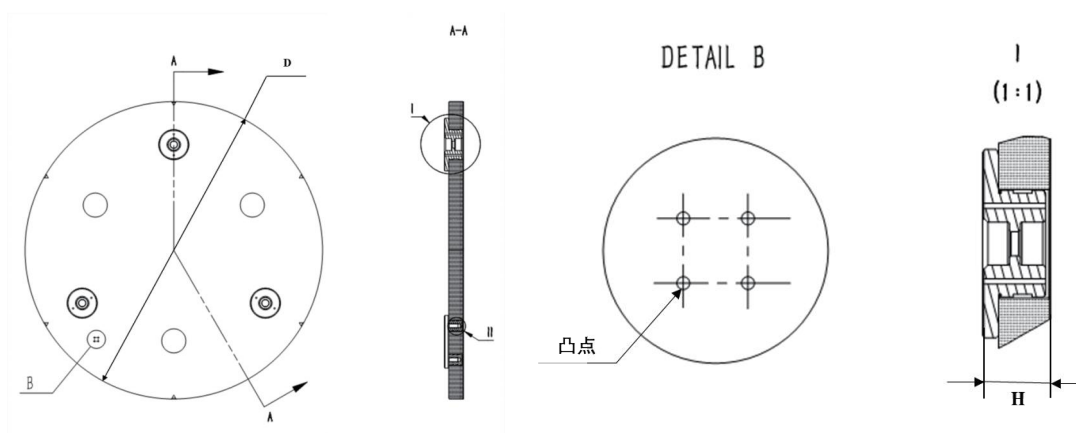
## Description

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