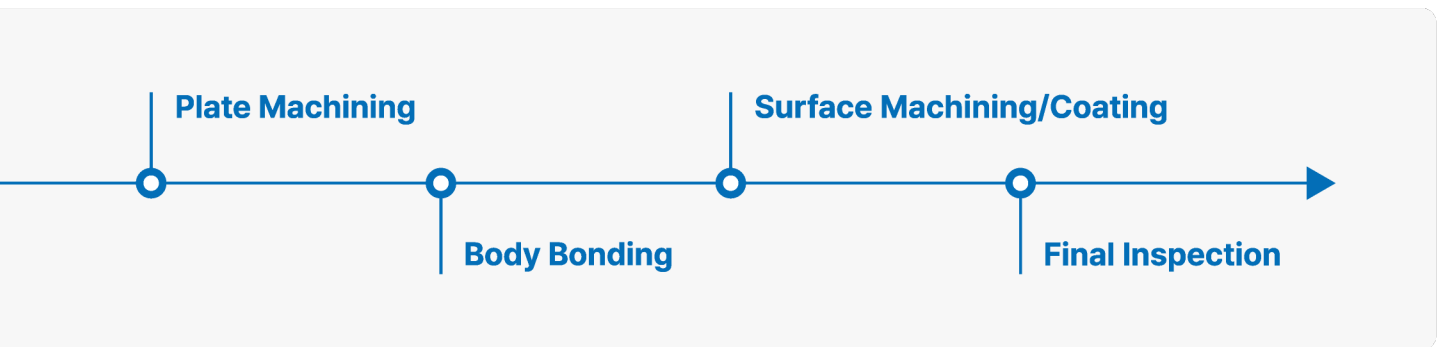
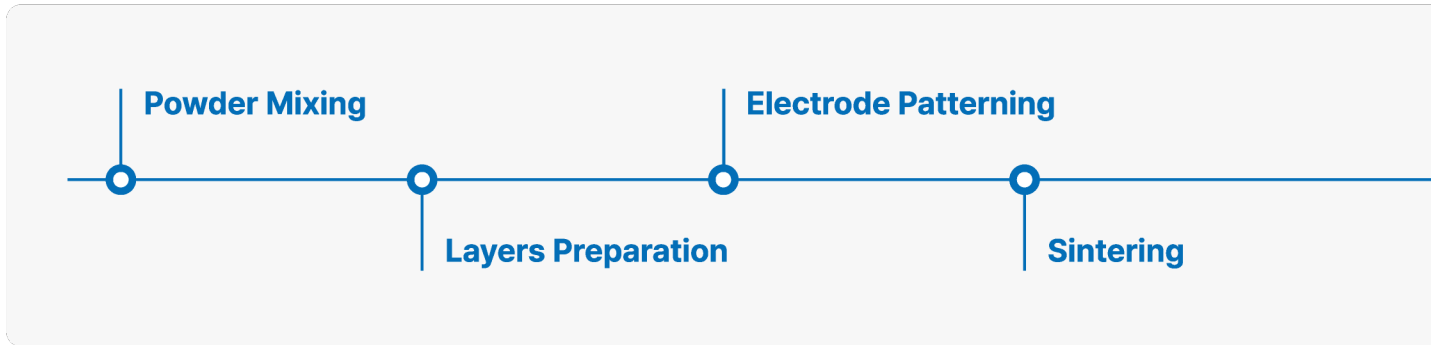
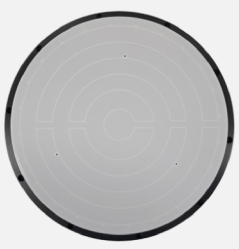
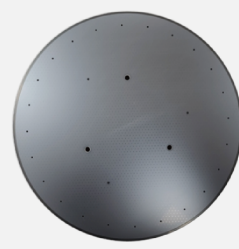
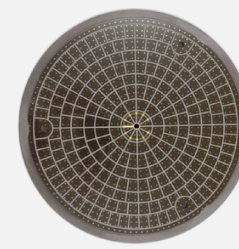


Electrostatic Chuck

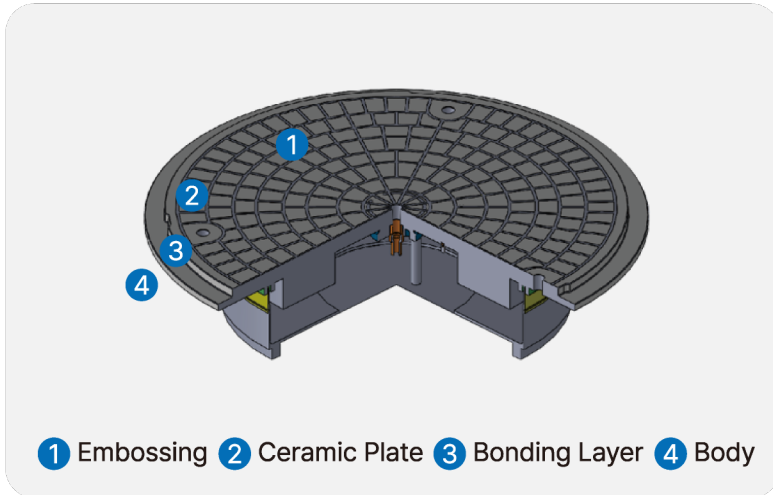
세라믹 소재의 플레이트와 메탈 바디로 구성되며 전기력을 이용하여 웨이퍼를 고정하고 내장 히터 회로로 웨이퍼의 공정 온도와 열균일성을 제어합니다. 세라믹 플레이트의 우수한 내플라즈마성과 전기력 고정으로 인해 정밀한 정렬이 동시 가능하여 다양하고 가혹한 공정에서 핵심 부품으로 사용됩니다.

Manufacturing Process Flow



Applications	Dry Etch	Oxide Process	Poly Process	Ion Implantation	PVD
 611	 VIISTA	 MCA			

Manufacturing Specifications



Sizes

200mm, 300mm

Chucking Types

Coulomb, Johnsen-Rahbek

Plate Sintering

Hot Press, Multi-Layer Ceramic

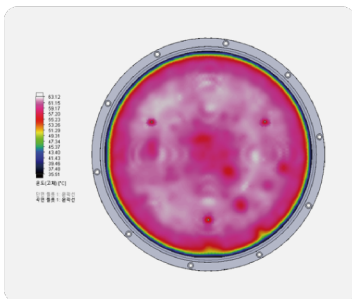
Materials

AlN, Al₂O₃

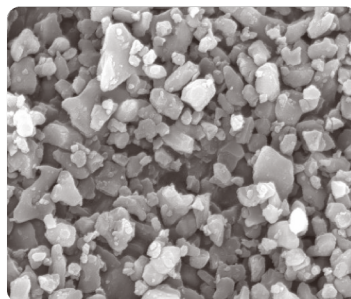
Heater Types

Normal Zone, Multi Zone

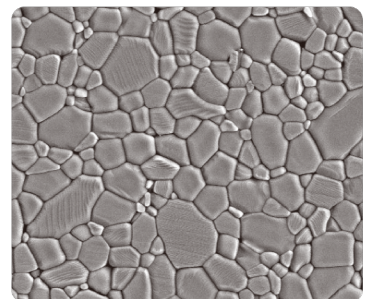
Design/Simulation



Materials



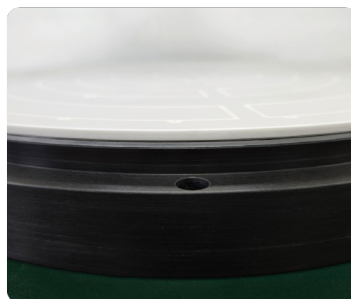
Sintering



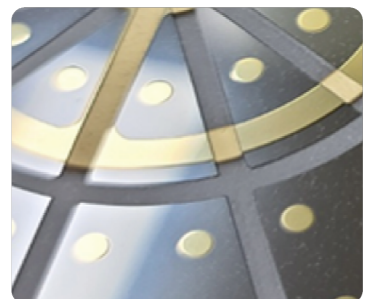
Machining



Bonding



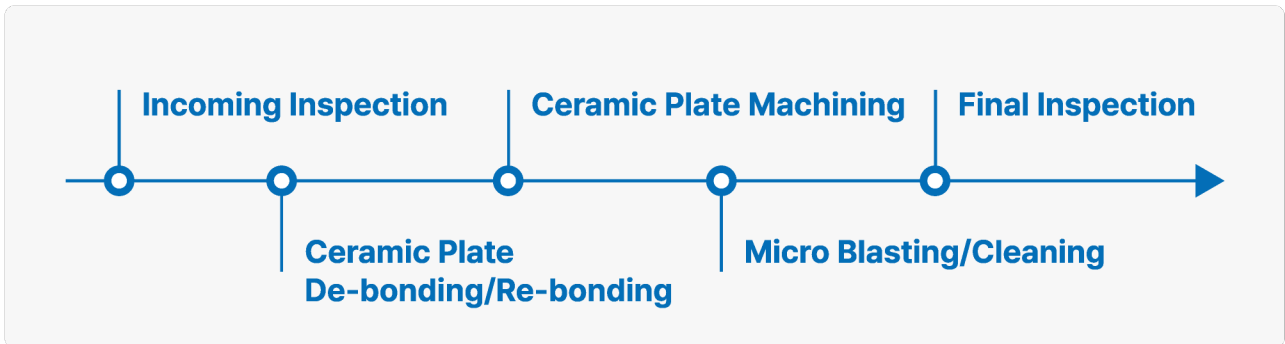
Emboss Machining



Refurbishment Services

보부하이테크는 ESC의 Electrode Plate와 Heater를 De-bonding, Re-bonding 할 수 있는 기술을 갖추었으며 고객의 세부적 Needs에 따라 세정, 수리 및 제작이 가능합니다.

Manufacturing Process Flow



Inspection Criteria



- Ultrasonic inspection of ceramic plate and heater
- Dimensional inspection of surface flatness, step height, thickness
- Roughness inspection of ceramic plate
- Electrical inspection of current leakage, chucking, withstanding voltage
- Leakage inspection of bonding layer
- Thermal inspection of temperature profile

Repair Service Outline



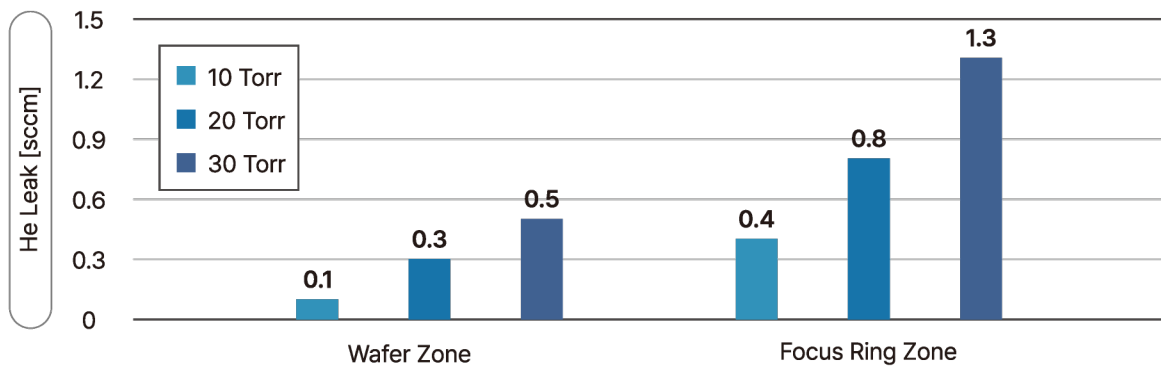
Repair Level	Description
Level 1	Surface Reconditioning
Level 2	Bonding Layer Reconditioning
Level 3	Ceramic Plate Replacement
Level 4	Heater Replacement

New Product Development

VIGUS(RK4, RK5) ESC 300mm



He Leakage by He Pressure



Chucking/Dechucking Force @ Vacuum Chamber

