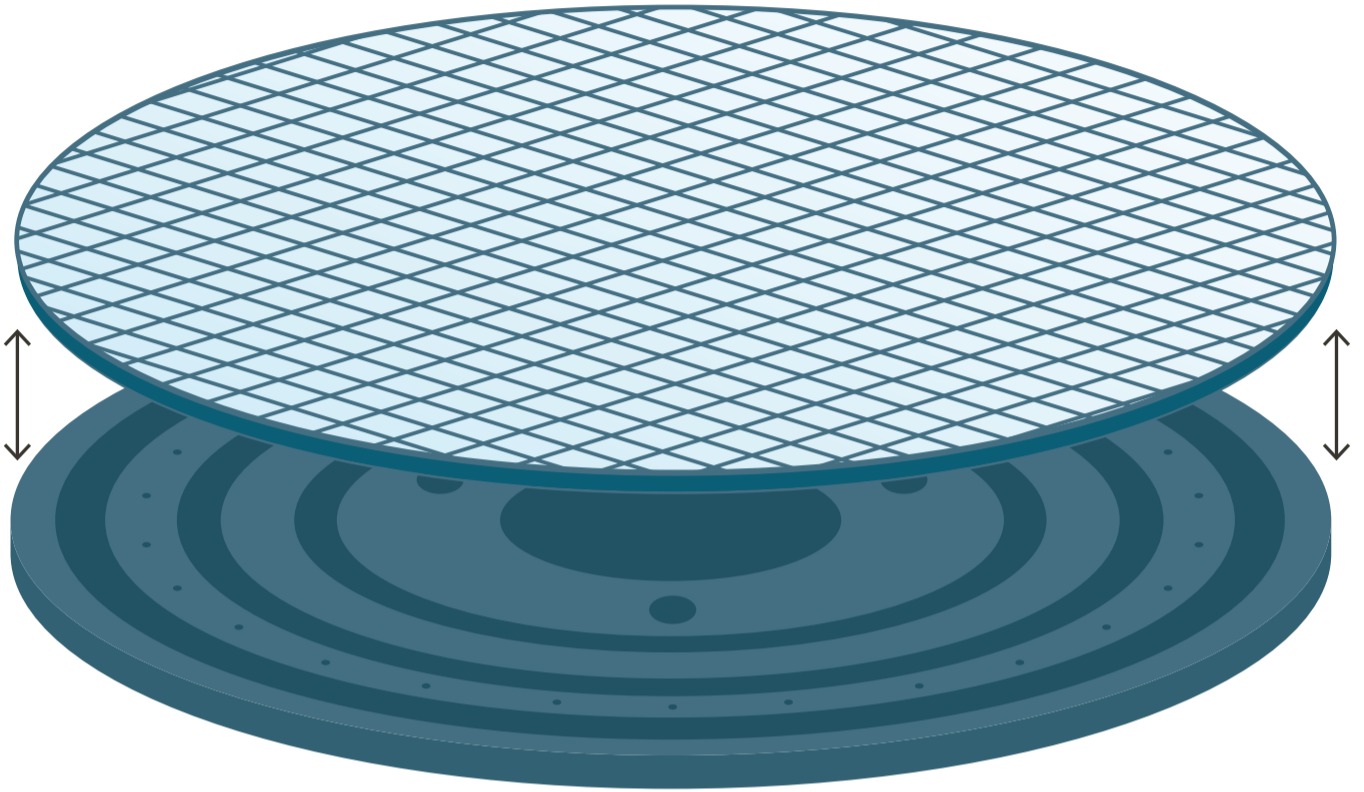


# Handling wafers with E-Chucks

Advanced and smart solution through continuous technical innovation and collaboration for 20 years



## Tailorable Clamp Force

**3** → **100**  
Torr Torr

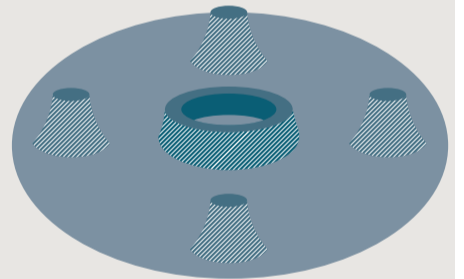
Back-side gas pressure

## Fast Clamp and Declamp Time

**<1**  
Sec

Hundred of clamps and declamps per chip fabrication process

## Minimal Contact Surface Reduces Contamination



## Customized Wafer Contact Surface Solution

1994

Polished alumina

1996

Hard carbon-based coatings

1998

Elastomer-based with silicon- and carbon-based composite coatings

2011

Embossed polymer-based coatings

2004

Embossed silicon-based coatings

2013

Embossed plasma etch-resistant coatings

2017

Embossed electrically conductive coatings