

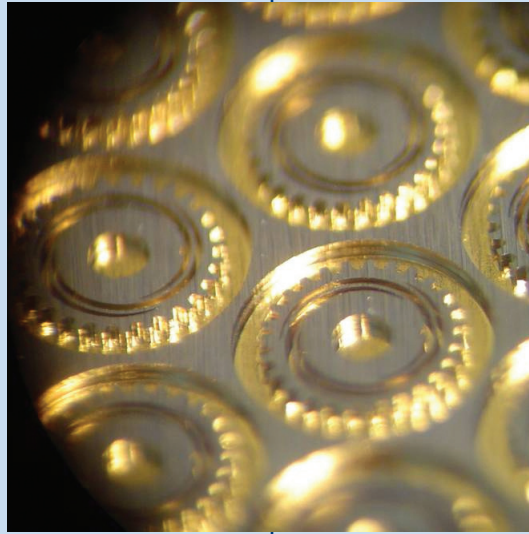
## Plasma Etcher **STP 2020**



R3T's Remote Plasma Source inside  
Water cooled plasma zone  
Very low thermal load for the substrates  
Optimized for SU-8 ashing and  
silicon etching (e.g. MEMS applicatons)  
Etch rates:  
More than 20  $\mu\text{m}/\text{min}$  for SU-8 samples  
Up to 90  $\mu\text{m}/\text{min}$  for silicon samples  
Temperature control up to 120 °C  
Substrate size up to 460 mm x 460 mm  
Field proven  
High Environmental Compliance

  
Plasma Solutions

# Plasma Etcher STP 2020



*Small gears after  
SU-8 resist removal*

## SU-8 ASHING – SPECIAL FEATURES:

- High etch rate i.e. more than 200  $\mu\text{m}/\text{h}$  on large areas (e.g. batch of 9 x 6" wafers) independent of thickness; more than 20  $\mu\text{m}/\text{min}$  for small samples
- Etch rates nearly independent of pretreatment as hard bake conditions: differences in etch rate smaller than 10 % between no HB and 200 °C HB
- Stripping of very thick resist layers (> 1 mm) possible
  - Pure chemical etching: No damage by ions, heat impact only by reaction energy
  - No attack to metals like Ni, Ni/Fe, Au, Cu etc.
  - Only very slight attack to Si and Si compounds as  $\text{SiO}_2$  or  $\text{Si}_3\text{N}_4$
- No organic residues; inorganic residues removable by additional cleaning step
- Simultaneous etching of substrates with different resist thicknesses possible
- End point detection for each individual substrate

## SPECIFICATIONS:

- Compact design, dimensions, w x d x h: 800 mm x 800 mm x 1950 mm
- Plasma chamber, inner w x d x h: 500 mm x 500 mm x 400 mm (e.g. 9 x 6" wafers)
- Pulse mode possible
- Max. Power: 2000 W / 3000 W
- Pressure range: 40 Pa – 530 Pa respective 0.3 Torr – 4.0 Torr
- Excitation frequency: 2.46 GHz +/- 10 MHz

### Also available:

- Commissioning Processing
- Customer tailored process development
- Equipment on loan

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