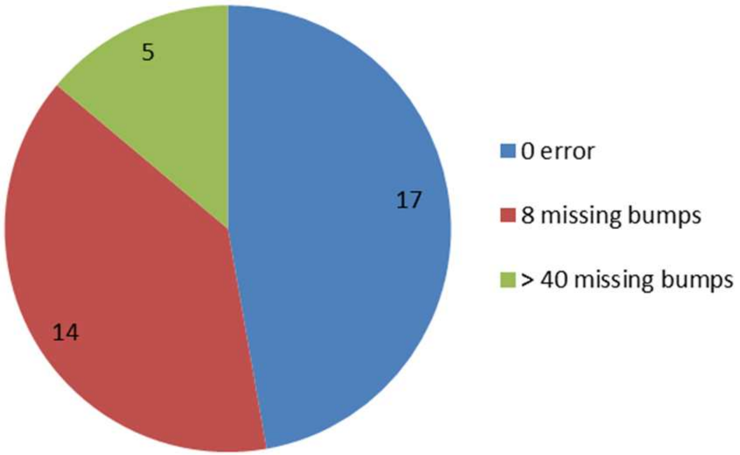
- 2 wafers with UBM have been bumped
- Third wafer still processing

- 1 wafer checked

- Bumping Speed : 1 ROC / h → 16 hours per module

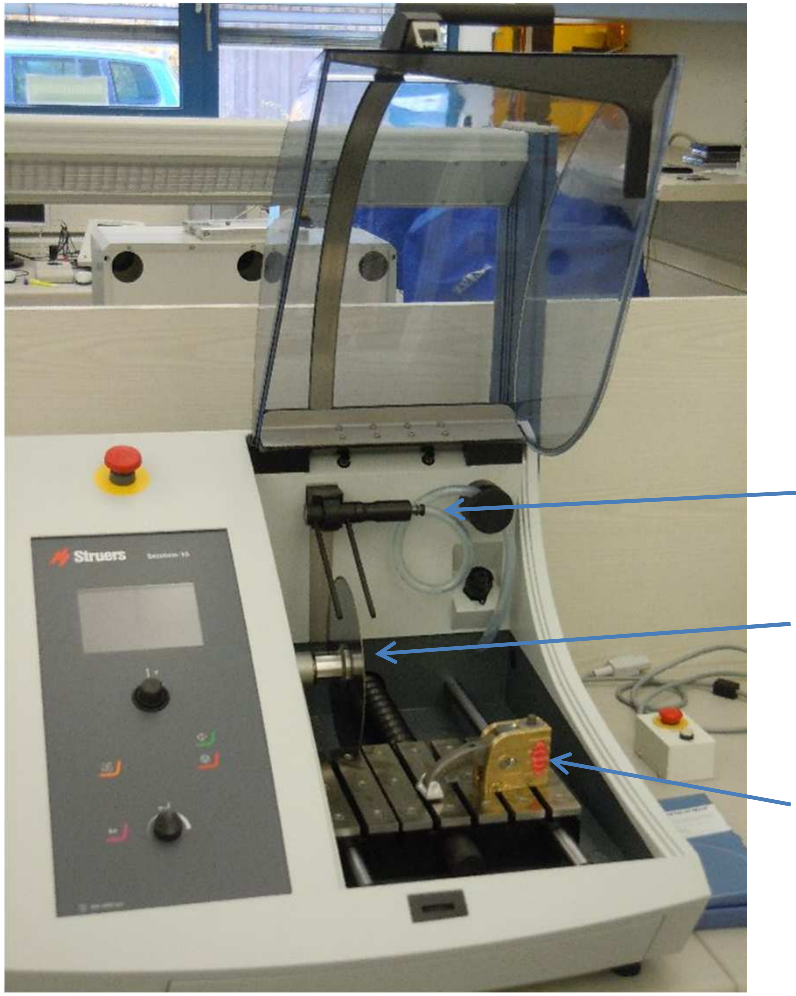
36 ROCs total
17 no failures (47%)
6 Up to 8 missing bumps (17%)
8 Up to 8 missing bumps
plus up to 3 macro bumps (22%)
5 With 40 to 100 missing bumps (14%)



- Further statistics coming
- This week 18 new wafers from CiS to Pac Tech
- Improvement by UBM with thicker gold layer?

Metallographic sample preparation setup is installed in FEC labs

SECOTOM 15 - PRECISION CUTTING MACHINE - BY STRUERS



- 0.8 kW
- 300 to 5000 rpm (steps of 100 rpm)
- 50 mm cutting range
- 20 mm/s max. cutting speed
- Working area:
  250mm/180mm/160mm (W/D/H)

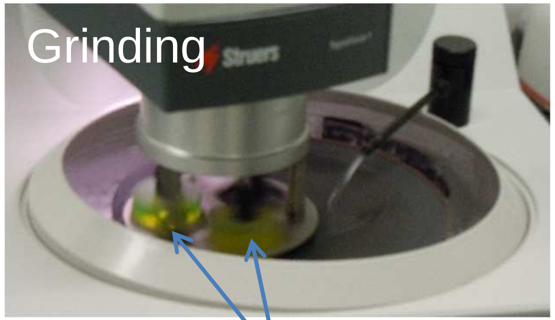
Cooling liquid hose

Diamond cutting wheel

Clamping fixture

Metallographic sample preparation setup is installed in FEC labs

TEGRASYSTEM - GRINDING / POLISHING MASCHINE -
BY STRUERS



Typical epoxy embedded sample

- 50 to 300 rpm (50 to 150 rpm)
- 5.7 Nm (3 Nm)
- 10 to 50 N force

Sample mover (lifted position)
Up to 3 samples of 30 mm diam.

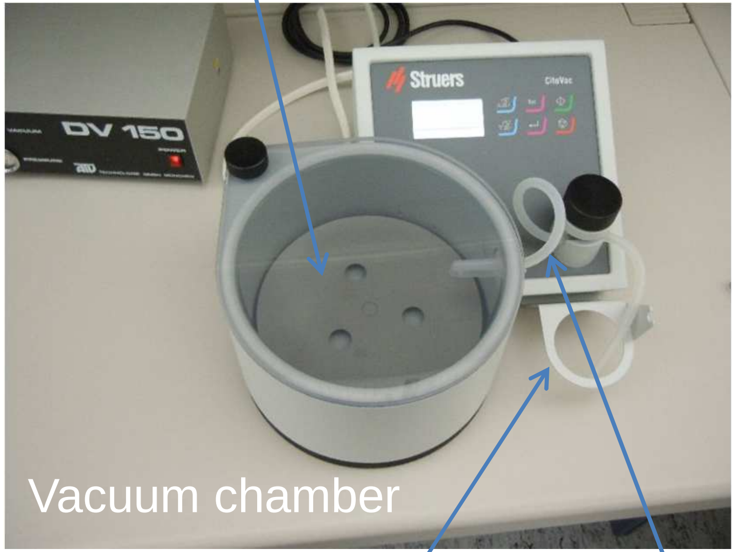
LED lighting

Polishing tissue (200 mm diam.)

Metallographic sample preparation setup is installed in FEC labs

CITOVAC - VACUUM IMPREGNATION UNIT -
BY STRUERS

Revolvable plate to position molds below epoxy inlet

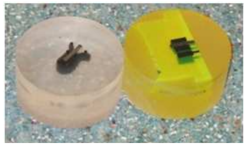


Tube for epoxy delivery

Holder for epoxy filled cups

Chip hold upright by clip

Mounting cup



Cold mounted samples

Chamber:
- 200 mm diam.
- 100 mm height

Vacuum:
- Down to 0.1 of ambient pressure