

# Notable items from MAC meeting (1)



- **There will be a design change for one partials!**
  - Hard geometry clash at cassette-level
  - Design file changes will be announced “soon™”
  - It has been requested that such changes be announced globally, so hopefully we get this announcement soon.

# Notable items from MAC meeting (2)



IHEP claiming that 3 (out of 14) plates in the November shipment **did not pass** hole dimension checks

- CuW-LD-Full-00019 (**passed** on our side)
- CuW-LD-Full-00131 (**NO DATA**)
- CuW-LD-Full-00126 (**passed** on our side)

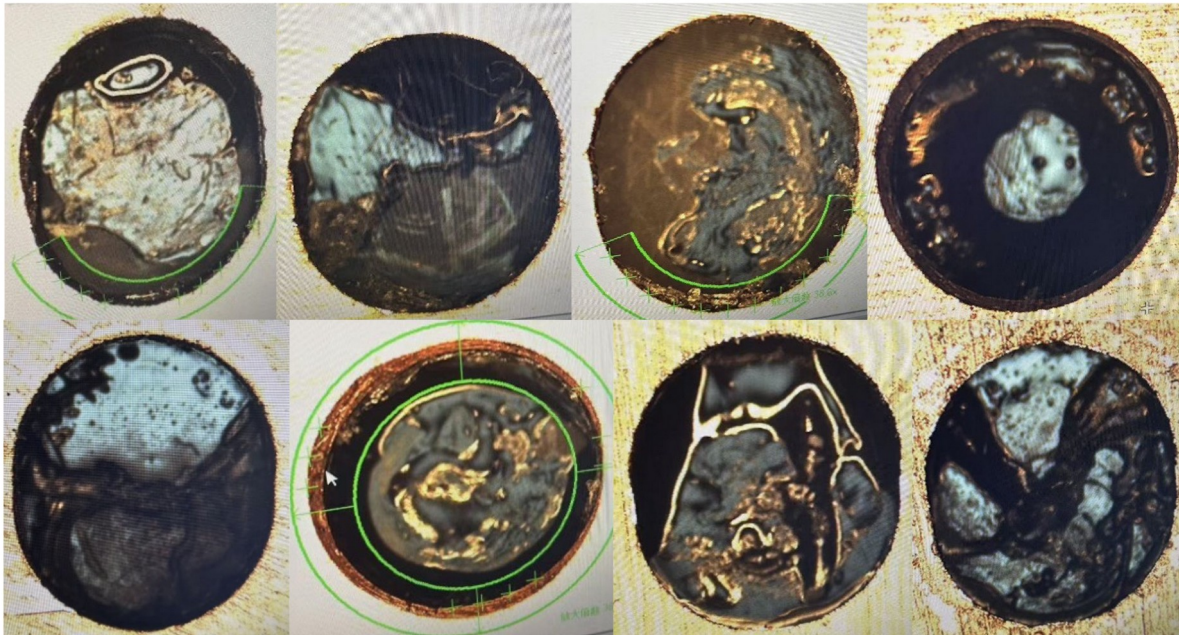
They are doing CV measurements, we are performing mechanical tests. Which do we trust more?? (They did attempt to place this on their assembly jig, are we able to get this jig?)

# Notable items from MAC meeting (3)

Non-clean plates might be the only culprit for plates not fitting on their jig. Offending plates still uses **Hybrid** method, I think what they are seeing is incomplete cleaning of residual glue tape. **Do they still see this problem with the new full glue method?**

KIT Baseplates

IHEP Baseplates



All photos taken by OGP

# Notable items from MAC meeting (4)



?????

TTU is reporting that the holes are **too large**? Some numbers are a bit of a mystery....

They have only measured 3 plates out of 8.

(mm)	CuW_18	CuW_30	CuW_37	Specifications
Flat-to-Flat ?????	167.061	167.013	167.064	166.74+/- 0.1
	167.078	167.064	167.070	
	167.046	167.042	167.066	
Hole Dia	3.357	3.355	3.347	3.050±0.025
Hole Depth	1.467	1.525	1.444	
Slot X	3.137	3.061	3.080	3.050±0.025
Slot Y	3.619	3.557	3.565	3.55
Slot Depth	1.457	1.450	1.418	
Thickness	1.83	1.71	1.71	1.77+/- 0.1
Flatness	0.301	0.255	0.214	

More measurement feedback from IHEP and TTU has been requested.

# Notable items from MAC meeting (5)



- **NTU** does not know what the 3 full glue plates were for...
- Our notes made on **November**:  
“send 3 full CuW plates to NTU laminated using the full glue procedure so that they can perform an **epoxy-only** test.”
- UCSB commented the plan is the same as our notes, but the instructions were not passed to NTU...

# Notable items from MAC meeting (6)



- Expected **Jan+Feb** shipments:
  - **20 Ti LD Full** → **Limited by metal availability** (can provide 10)
  - **18 CuW LD Full** → **(!) Close to depleting top glue plate**
  - **63 CuW HD Full**
  - **\*5 CuW HD Bottom** (NTU radiation test)

At the production rate of **30-40** per week, we can complete this order by **Jan 17<sup>th</sup>** if we have full production capacity immediately on Jan 6<sup>th</sup> (I will be back then, but lamination is currently a 2 person job)

*We can start building backlog of materials next year!*

# Recovery attempts - Procedure

Attempting some recovery on some plates (to see requirements on personnel efforts)

- Soak assembly in Isopropanol (24 hr)
- Attempt to remove kapton (**Destructive**)
- Soak contaminated base plate in isopropanol (24 hr)
- Attempt to clean residual glue.



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**Kapton will NOT survive removal process**



**Large glue deposits become hand-peelable “flakes”**

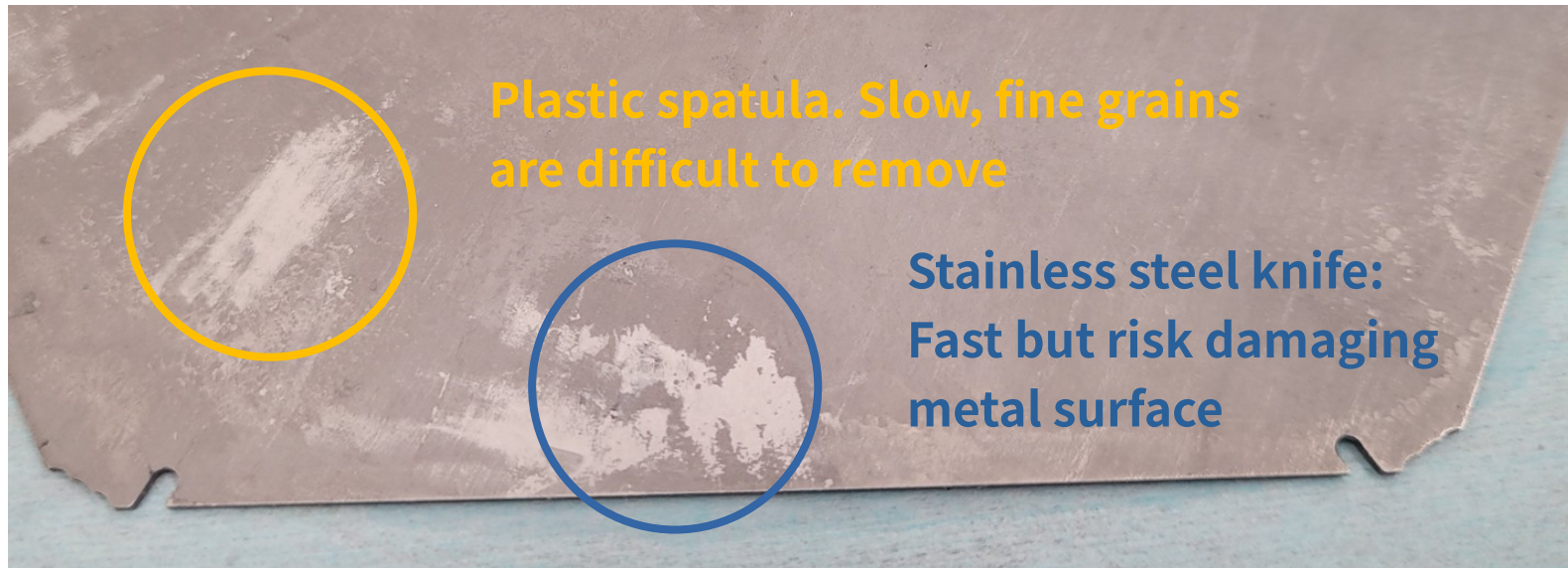




# Recovery attempts - Procedure

Attempting some recovery on some plates (to see requirements on personnel efforts)

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- Attempt to remove kapton **(Destructive)**
- Soak contaminated base plate in isopropanol (24 hr)
- Attempt to clean residual glue “films” **(this step is very hard...)**.



# Additional tasks – final afternoon in lab

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- END-OF-YEAR clean up!
  - Fully stick-clean of all surfaces.
  - All disposable personnel items will be discarded:
    - Hair net
    - Shoe guards
    - Entrance stick matt

# Additional tasks – holiday task list



- Discussion with NTU MAC
- Documentation
  - All in-lab equipment usage steps
  - Production pipeline formalizing (how many people do what)
- Lamination Jigs v2:
  - What is required? (Getting inspiration from NTU)
  - Vacuum hole layout for partials and their Kapton/glue tape.
- Purchase files for all top glue tapes  
(Amount target is to our bare kapton inventory)

## I will be visiting the NTU MAC during the holidays!

- Aggregating questions to ask MAC managers and **operators!**
- **HD-hexaboard** had a misassembly (wrong LDO resistor value, both for NTU and UCSB), all boards are sent back to manufacturer for correction. ~~Likely no live assembly when I am in Taiwan : - (~~
  - I will still ask to see where the baseplate will go and what checks will be performed on the MAC side.
  - They graciously delayed a HD bottom assembly so I can see assembly in person!