

Preproduction status update



November shipment:

- **8 CuW** For TITF, **8CuW** for IHEP ready for shipment
- Still no **Titanium baseplates** (as of Thursday evening)

December shipment status:

- **3/3 CuW-Full** [Full glue]
- **1/3 Ti-Full** [Full glue]
- **9/76 CuW-Full** [Hybrid gluing]
- **0/44 Ti-Full** [Hybrid gluing]

Operation bottlenecks [Hybrid method]

Single plate op.

- **QC Measurements [8-12 min/plate]**

Current rate is “*at most*”
~5 plates per half day

Batch op.
(~5-7 per batch)

- **Alignment (30 min- 90min !!)**
 - Align to largest plate in batch
 - Cross check with second largest plate
 - Assume this same alignment can work for each batch
- Intermediate glue tape (~3min/plate)
- Press for Glue tape activation | Glue preparation (10-15min/batch)
- **Glue dispensing** + kapton gluing (10min/plate)
- Press for initial curing (~1 hr/ 0 duty cycle task)

Single plate op.

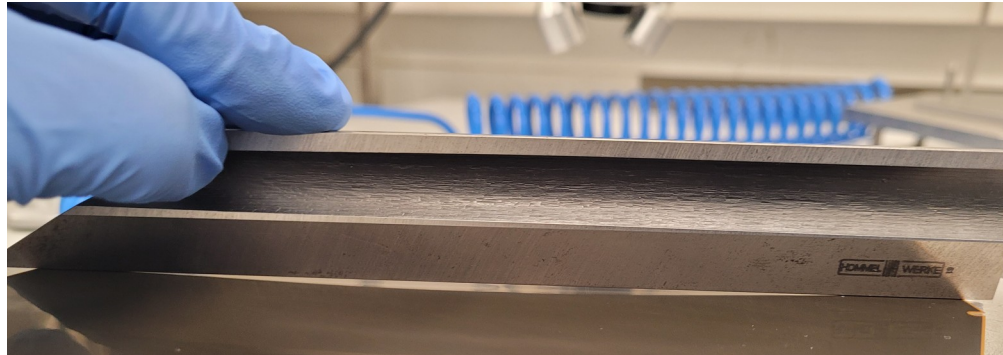
- Glue overflow cleaning and inspection (~3 min/plate)
- Full cure (12-20 hr/ 0 duty cycle task)
- Top glue tape (3 min/plate)

Eliminating bottlenecks - Alignment



Too many interconnected variables:

- 1) Larger plates leave very little margin of error
- 2) Kapton bend-plate is “active” during alignment (see image)
Kapton will appear smaller than it actually is (even smaller margin for error)



Solutions in progress:

- 1) **We have no more reasonably sized baseplates...**

Optimistically, we “may” have ~10 plates in the remaining pile, realistically: <5

- 2) Modifications to the jigs will be arriving soon (*and should be prioritized!*)

Eliminating bottlenecks – glue dispensing



Currently we only have **a single** functional baseplate jig that is used for

- Alignment (require 10um precision)
- Glue dispensing (req. ~0.5mm precision)
- Glue tape application (req. ~1mm precision)

Preproduction work means no glue dispensing testing

Glue dispensing testing means no lamination

A second (low precision) jig with less nobs would massively help with ongoing work. Both for completion of a faster glue dispensing routing (hybrid) and to get a reliable/reproduction path for full glue.