ECAL-P mechanical frame – Shorter tungsten plates (?)

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ECAL-P shorter W plates: some ideas

Motivation:

- shorter plates allow for better flatness/planarity, but...
- severe difficulties along the merge line

Some ideas:

- additional internal comb: extra dead space, about 10 mm (4 mm 'core' plus 2x 3mm for comb teeth)
- extra upper comb - impossible - each T-frame should be also splited, even more dead space...
- bigger / deeper bottom combs - very difficult to machine keeping the 1mm teeth, even if doable, the teeth will be very fragile, can be damaged during plates insertion

ECAL-P shorter W plates: possible next steps

- order 1-2 “pilot” plates from the most promising company ("Beijing ATAS Metal Materials Co Ltd"?) and measure them in lab then decide what next...
- reconsider the bigger gaps between tungsten plates and keep monolithic long plates
- even with tolerances 200um there is some room for improving the precision like adding extra clearance inside the combs and careful sorting/paring the plates to find best matches