



# Current status of works on Collaboration contract at IHEP

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# **Major milestones for the EMC Barrel Mechanics**



Work is in
progress, delay is
not due to IHEP:
waiting for the
final decision on
pattern of
openings and
mounting holes

In progress

**Prerequisites** Mile-**Work Description** Validation Criteria Date stone to start work/ procurement **Pre-Series Slice Testing of Pre-Series Slice** 1.6 1.5 SAT Ab for Aug mechanics of Pre-**M8** 2017 **Series Slice Full System** Finalise technical specifications for **Technical specifica-**2.1 Sep 1.6 **M6** complete Barrel EMC Mechanics tions 2017 2.2 **Develop design documentation for Final Design Review** Oct complete Barrel EMC Mechanics 0.0 **M7** allowing for series 2017 production 2.3 Production and delivery of batch 1.1 2.2 SAT Aa for BEM-Nov of the Barrel EMC Mechanics (BEM-MX1 **B1.1** 2017 **B1.1**) 2.4 Production and delivery of batch 1.2 2.2 **SAT Aa for BEM-**Sep MX1 of the Barrel EMC Mechanics (BEM-**B1.2** 2018 **B1.2**) 2.5 Production and delivery of batch 2.1 2.2 SAT Aa for BEM-**June** of the Barrel EMC Mechanics (BEM-MX1 **B2.1** 2019 B2.1) 2.6 Production and delivery of all SAT Aa for BEM-Nov remaining (batch 2.2) Barrel EMC 2.2 **B2.2** M9 2019 Mechanics (BEM-B2.2) SAT Ba for complete Dec 2.7 Participation in the assembly of the **Barrel EMC Mechanics** 2.3 **Barrel EMC** M10 2020 Mechanics



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# **Assembling of the Pre-series slice**





## **October 2018:**

Specialists From IHEP
visited Giessen University
to study a progress in the
cooling system design and
discuss suggested modifications
in the design of Module plates
and Support beam for their
mass production



#### **Current work at IHEP**



Training of the personnel to perform precise gluing of single alveoli into the alveoli packs and mass production of alveoli packs of eighteen different types for the whole barrel started immediately after receiving of the assembling devices in June 2018



Precise gluing in packs of five units using devices, Special hardening technology in oven.





<u>Production rate:</u>
three packs per working day



#### **Current work at IHEP**





## **Redness by the end of October 2018:**

Alveoli packs – types from 1(+) through 6(+) were produced (about 33% of total number);

Rear inserts and intermediate plates – 100% were produced and delivered to IHEP





## **Current work at IHEP**



Quality control (measurements with the CMM according to Quality Plan) of rear inserts and intermediate plates of types 4(-) through 7(-) and 4(+) through 11(+) is in progress







## **Summary**



- Nearest milestone: production of components included in batch 1.2 of the Barrel EMC Mechanics (BEM-B2.1) is in a steady progress. Plan for delivery May-June, 2019. We need "OK" for the current design of front inserts (related to the Monitoring system).
- <u>Next goal:</u> production and delivery of two support rings, all support beams, support feet and module plates (BEM-B2.1) <u>can not be started yet</u>.

Waiting for finalization of technical specifications for complete Barrel EMC Mechanics including parameters of a cooling system.