

Current status of works on the barrel EMC at IHEP

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on behalf of the IHEP-Protvino group

Major milestones for the EMC Barrel Mechanics

| Mile-stone | Work Description | Prerequisites to start work / procurement | Validation Criteria | Date |
|-------------------------|--|---|--|----------|
| Pre-Series Slice | | | | |
| 1.1 M6 | Finalise technical specifications | | Technical specifications | Nov 2013 |
| 1.2 | Design and delivery of 3D model and design of main support structures (support beam, support feet, module plate) | 0.0, 1.1 | Delivered 3D model and design drawings | Apr 2014 |
| 1.3 M7 | Develop design documentation for Pre-Series Slice | 0.0, 0.1, 1.1 | Final Design Review for Pre-Series Slice | Sep 2014 |
| 1.4 | Production and delivery of batch 1 of Pre-Series Slice (PSS-B1) | 1.2 | SAT Aa for PSS-B1 | Mar 2015 |
| 1.5 | Production and delivery of all remaining components (batch 2) for Pre-Series Slice (PSS-B2) | 1.3 | SAT Aa for PSS-B2 | Sep 2015 |
| 1.6 M8 | Testing of Pre-Series Slice | 1.5 | SAT Ab for mechanics of Pre-Series Slice | Mar 2016 |

| Mile-stone | Work Description | Prerequisites to start work / procurement | Validation Criteria | Date |
|-------------|--|---|--|-----------|
| Full System | | | | |
| 2.1 M6 | Finalise technical specifications for complete Barrel EMC Mechanics | 1.6 | Technical specifications | Mar 2016 |
| 2.2 M7 | Develop design documentation for complete Barrel EMC Mechanics | 0.0 | Final Design Review allowing for series production | Apr 2016 |
| 2.3 MX1 | Production and delivery of batch 1 of the Barrel EMC Mechanics (BEM-B1) | 2.2 | SAT Aa for BEM-B1 | Jan 2017 |
| 2.4 M9 | Production and delivery of all remaining (batch 2) Barrel EMC Mechanics (BEM-B2) | 2.2 | SAT Aa for BEM-B2 | Oct 2017 |
| 2.5 M10 | Participation in the assembly of the Barrel EMC Mechanics | 2.3 | SAT Ba for complete Barrel EMC Mechanics | June 2018 |

Replanning of milestones for the EMC Barrel Mechanics

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

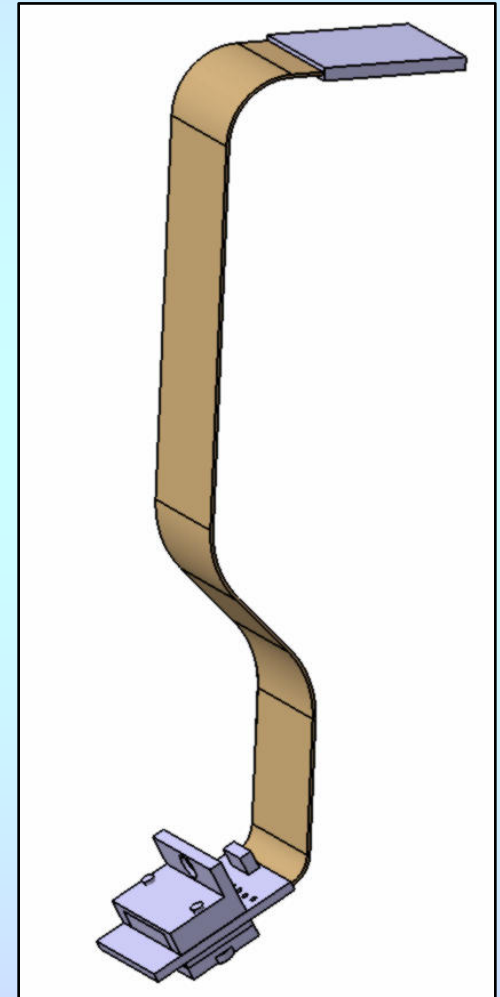
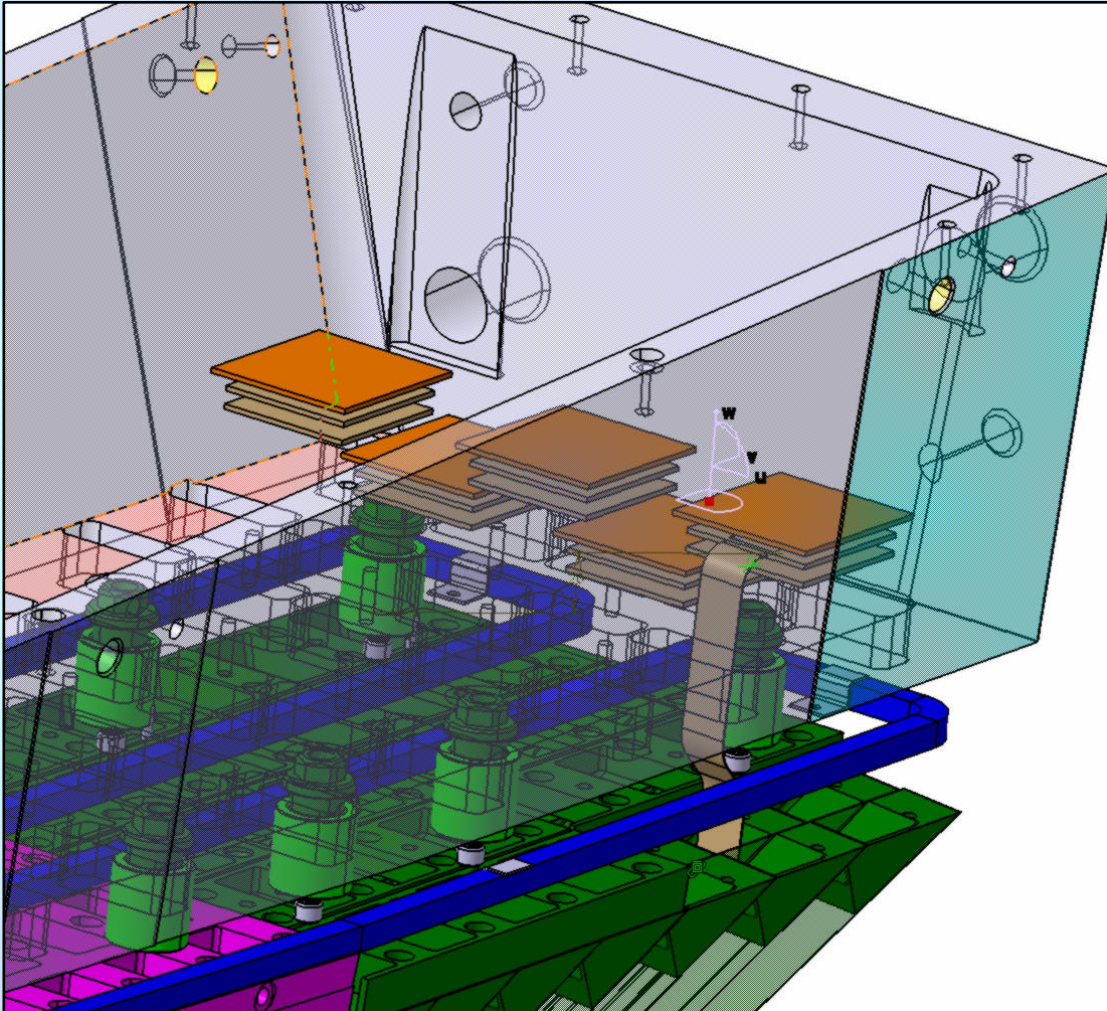
Current work at IHEP



About 1500 single carbon fiber alveoli units have to be prepared for gluing in packs.

Each cell must have rough internal surfaces for gluing rear and front inserts.

Possible solution for positioning of PCBs in narrow part



- *18 modules were assembled in Giessen by IHEP specialists during three visits;*
- *Assembling of super-modules and their mounting to the support beam was delayed due to delay with flex PCBs procurement;*
- *Gluing of single alveoli units in packs of five units will be possible after returning the assembling devices from Giessen (after assembling of super-modules). Preparation for gluing is in progress at IHEP;*
- *New schedule of milestones was preliminary agreed, and draft of Addendum 5 to the Collaboration Contract was written and sent to FAIR for the approval and signing.*