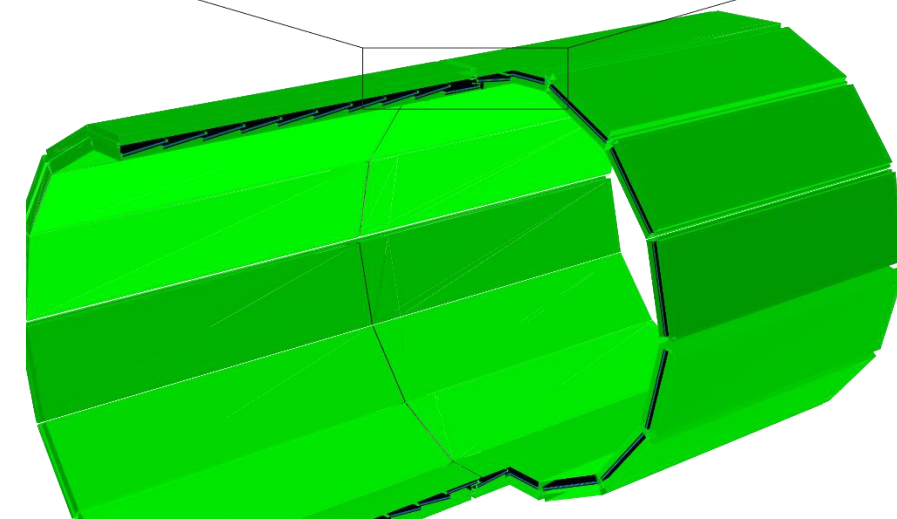
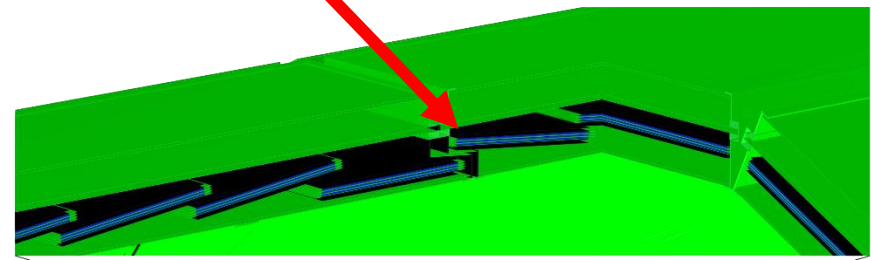
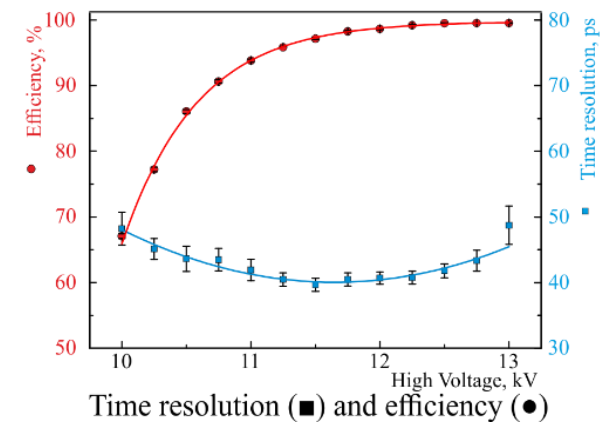
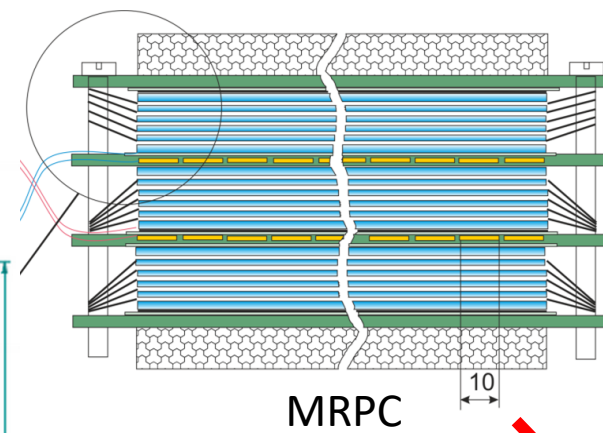
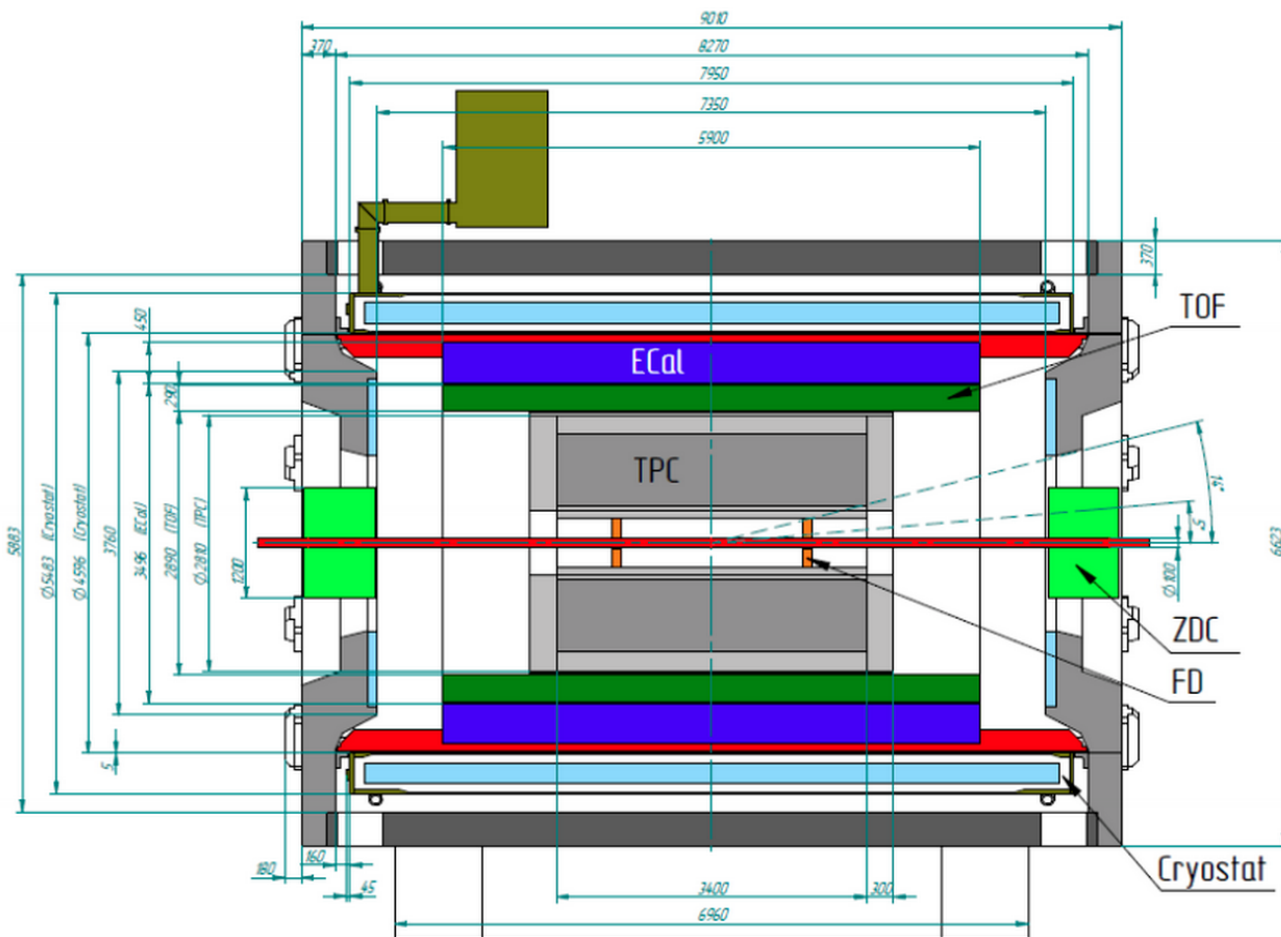


TOF Status

Contents

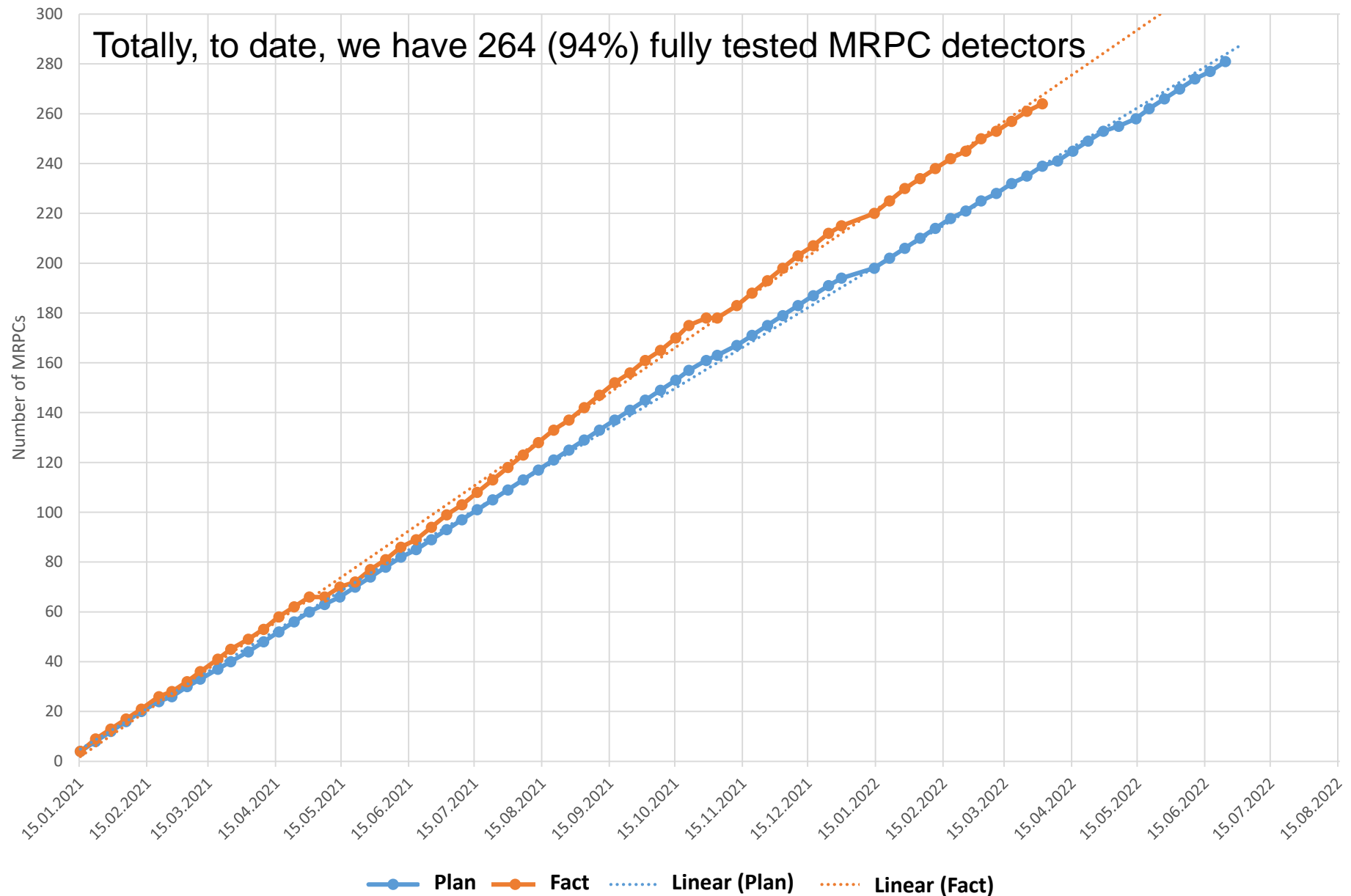
- 1) TOF introduction
- 2) Current situation of TOF production in accordance of time schedule
- 3) Installation equipment status
- 4) Position of TOF crates on the MPD yoke & cabling
- 5) Conclusions

Time-of-Flight system design

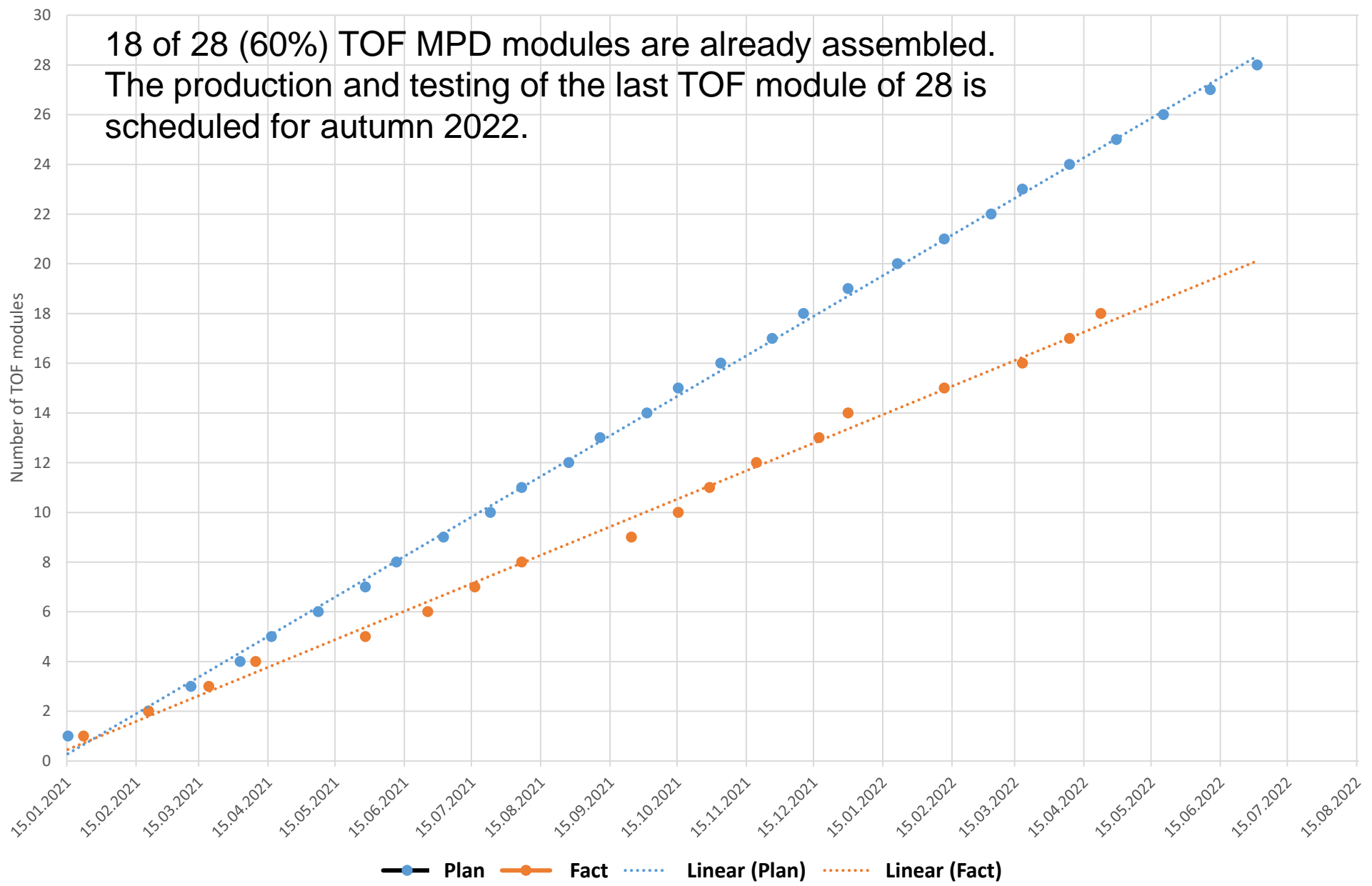


	Number of detectors	Number of readout strips	Sensitive area, m ²	Number of FEE cards	Number of FEE channels
MRPC	1	24	0.192	2	48
Module	10	240	1.848	20	480
Barrel (28 modules)	280	6720	51.8	560	13440 (1680 NINO)

Progress of the TOF detectors assembling



Progress of the TOF modules assembling



Shelving for storing tested TOF modules with cartridges



Cosmic rays test of TOF modules

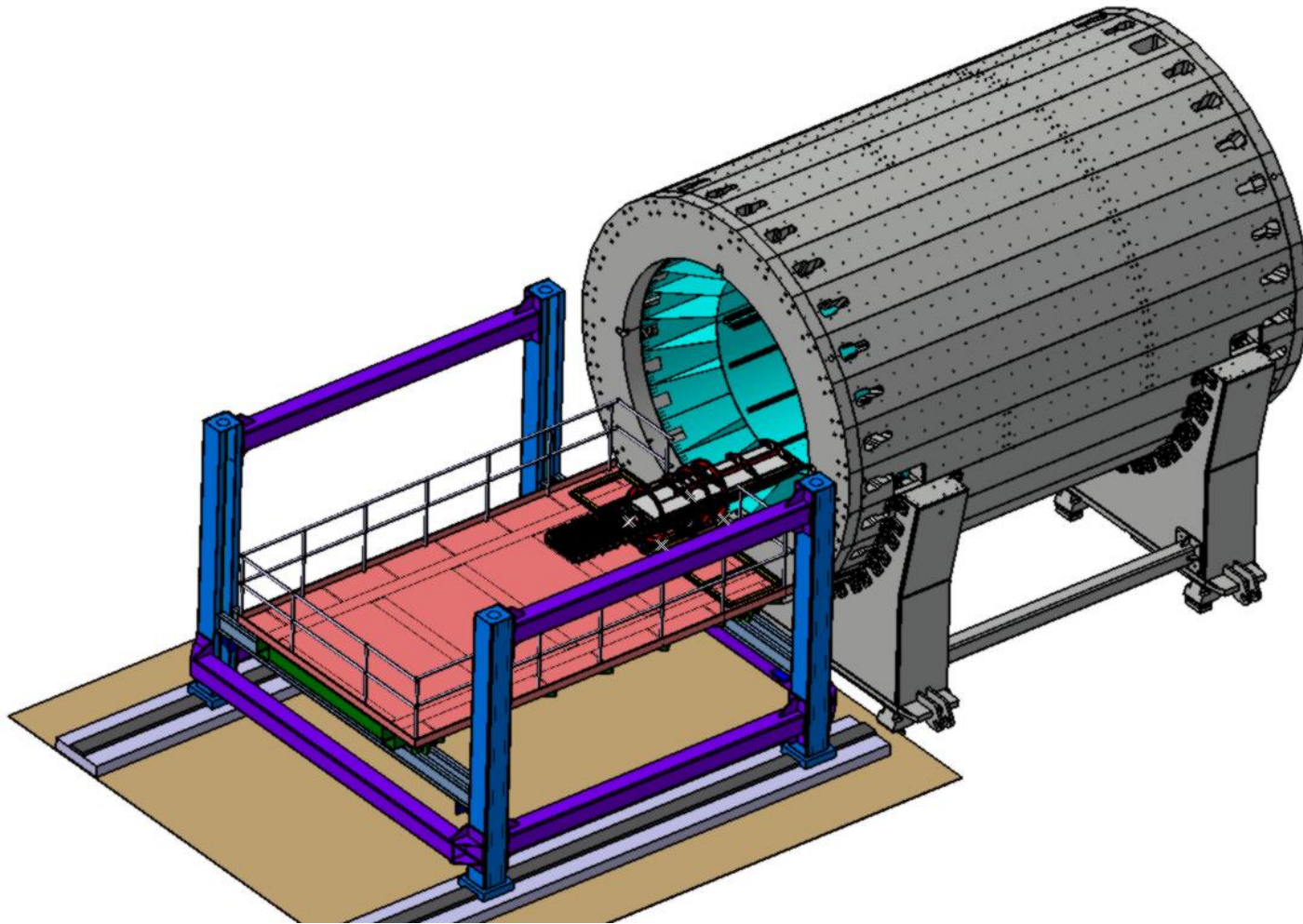


Laboratory stand for testing TOF modules on cosmic rays operate in full power since beginning of August 2021

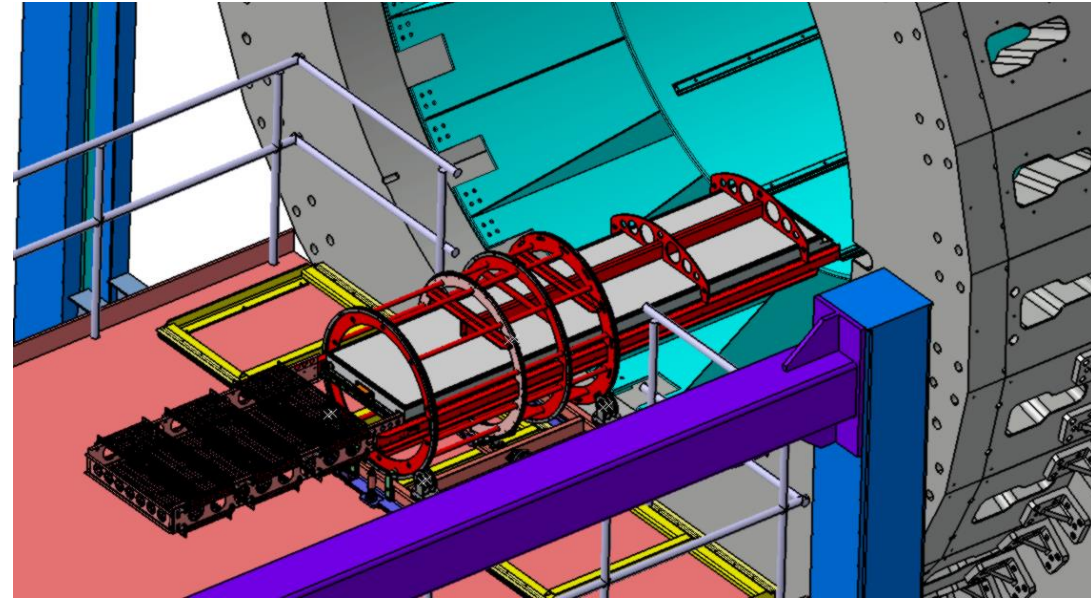
The main tasks of this testing:

- long-term stability of operation parameters;
- measuring the efficiencies of all channels;
- time-over-threshold preliminary calibration;
- determination of the time resolution of the TOF detectors. It is not yet implemented due to lack of scintillation trigger system (MCORD).

Equipment for installation



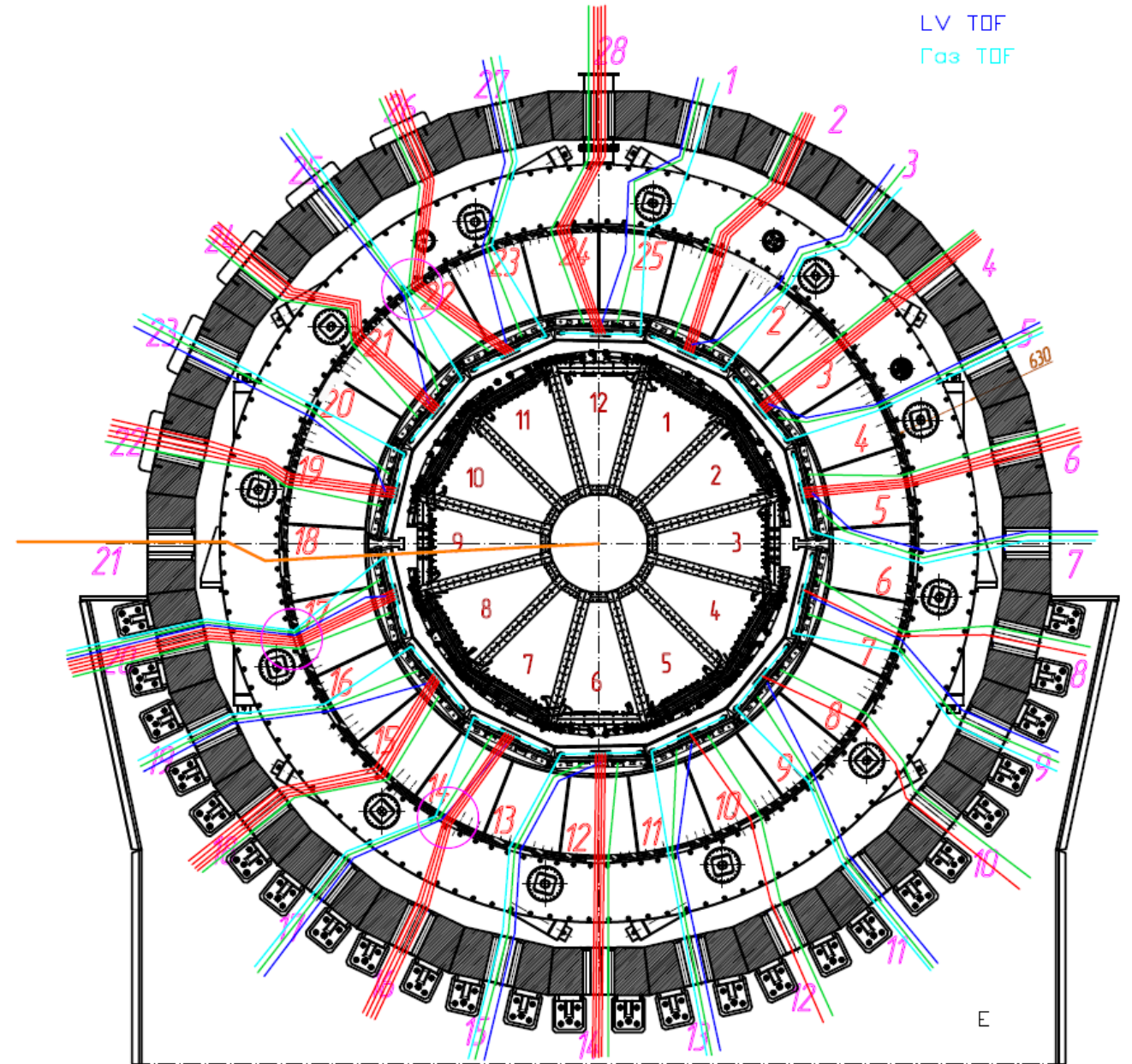
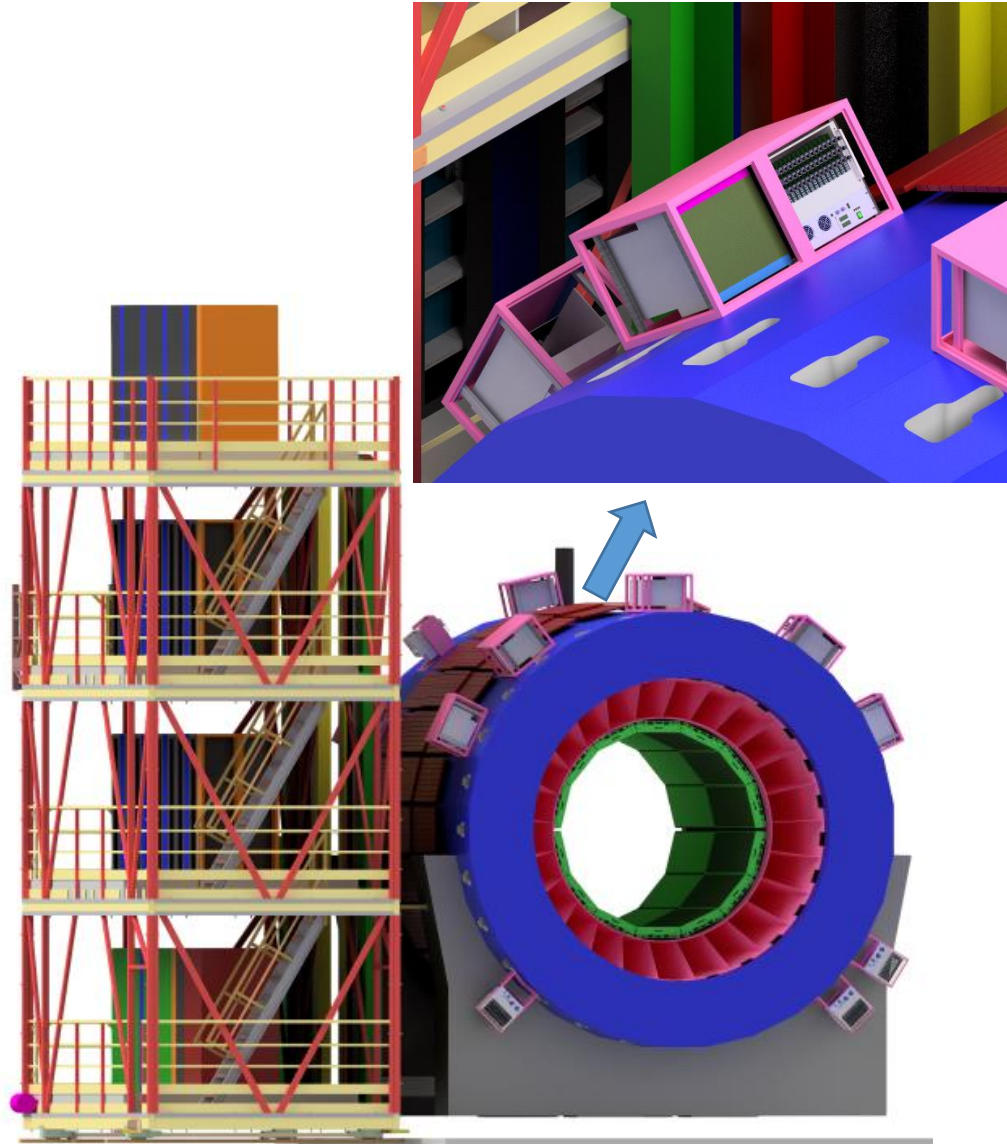
The lifting platform is under development



The installation bench is fully assembled

VME crates, HV distributors and signal cables on the yoke

Сигнальные TOF
HV TOF
LV TOF
Газ TOF



Current status of production and equipment purchasing

Task	Current status	Readiness
TOF modules		
Materials for detectors	Purchased all the materials and components.	100%
TOF module box	In stock – 28 pcs.	100%
TOF cosmic test stand	In operation.	100%
TOF front-end electronics	In stock – ~600 (560 needed).	100%
DAQ sysytem		
Signal cables	In stock – 680 pcs (560 needed).	100%
VME64x VXS crates	In stock – 16 pcs (14 needed).	100%
TDC72VHL modules	In stock – 210 pcs (v4) (196 needed).	100%
Gas system	Gas system for building 17 in production.	80%
TOF integration	The installation bench for the TOF is in stock.	100%
HV & LV systems		
Mpod LV+HV power crate	In stock – 8 pcs (6 needed).	100%
LV modules	In stock – 16 pcs (14 needed).	100%
HV modules	In stock – 32 pcs (28 needed).	100%
HV&LV cables	All new HV and LV cables are in stock.	100%
HV distribution modules	In stock – 25 pcs (28 needed). 5 – in production.	90%

Conclusions

- 1) Mass production of MRPCs – **ahead of the plan** (264 of 280 are ready (~94%))
- 2) Mass production of TOF modules – **behind schedule** (18 of 28 are ready (~64%))
- 3) Integration equipment – **completed**
- 4) VME crates, switches, and HV distributors on the MPD yoke – **in development**
- 5) Gas supply and storage for the gas system in building 17 – **in development**

Thank you for the attention!