

Injection/Extraction Status

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**Novosibirsk
28, November, 2019**



Injection/Extraction Elements in the Ring

TCR1

CR

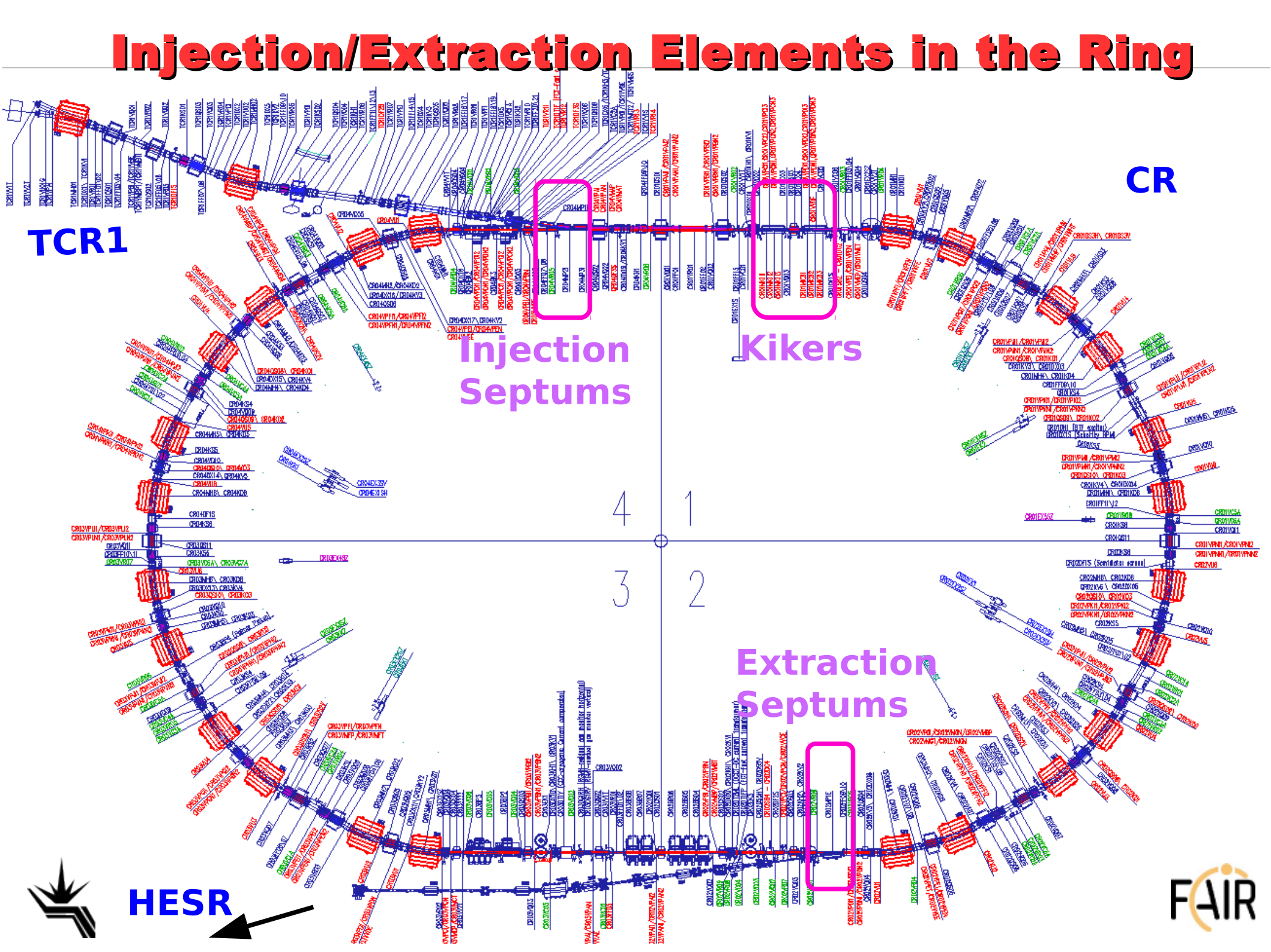
Injection
Septums

Kickers

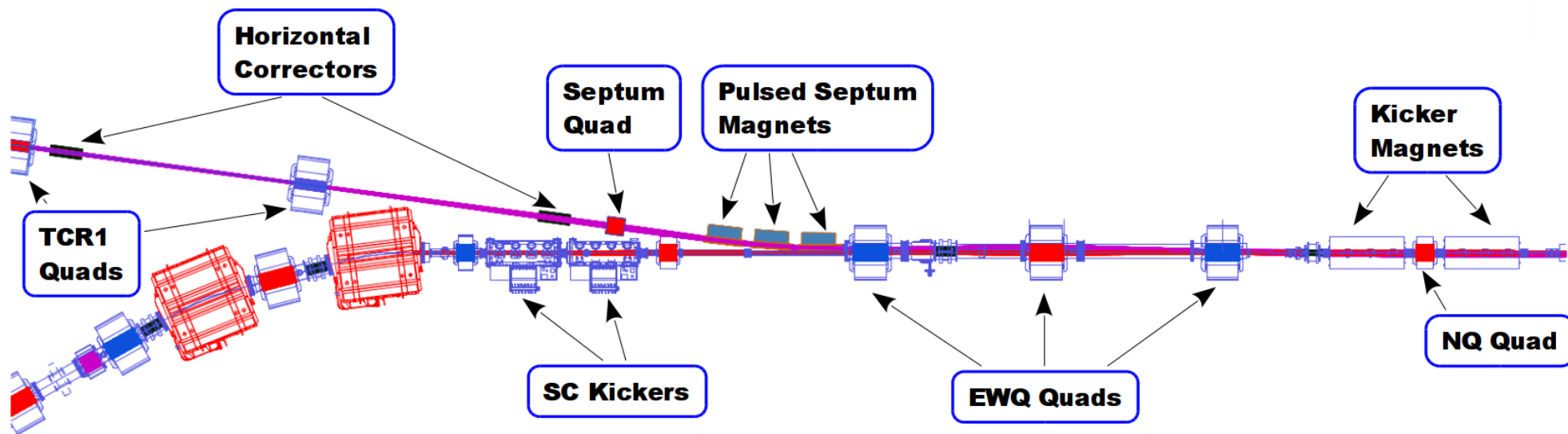
Extraction
Septums

4 1
3 2

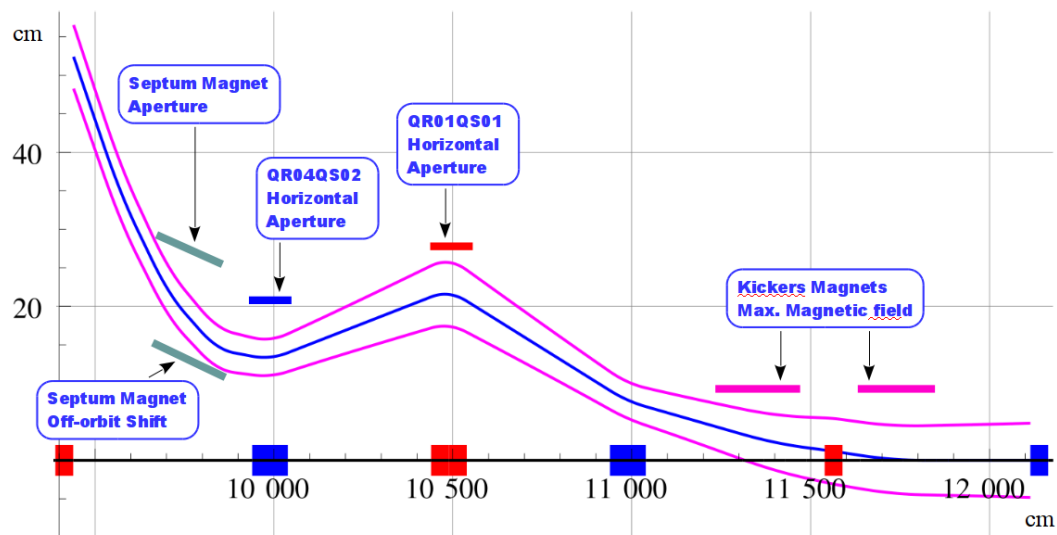
HESR



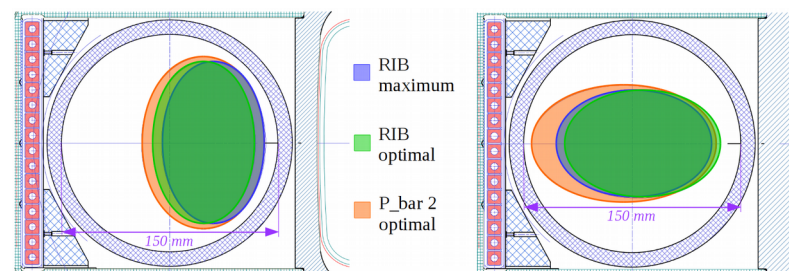
Beams Injection Scheme



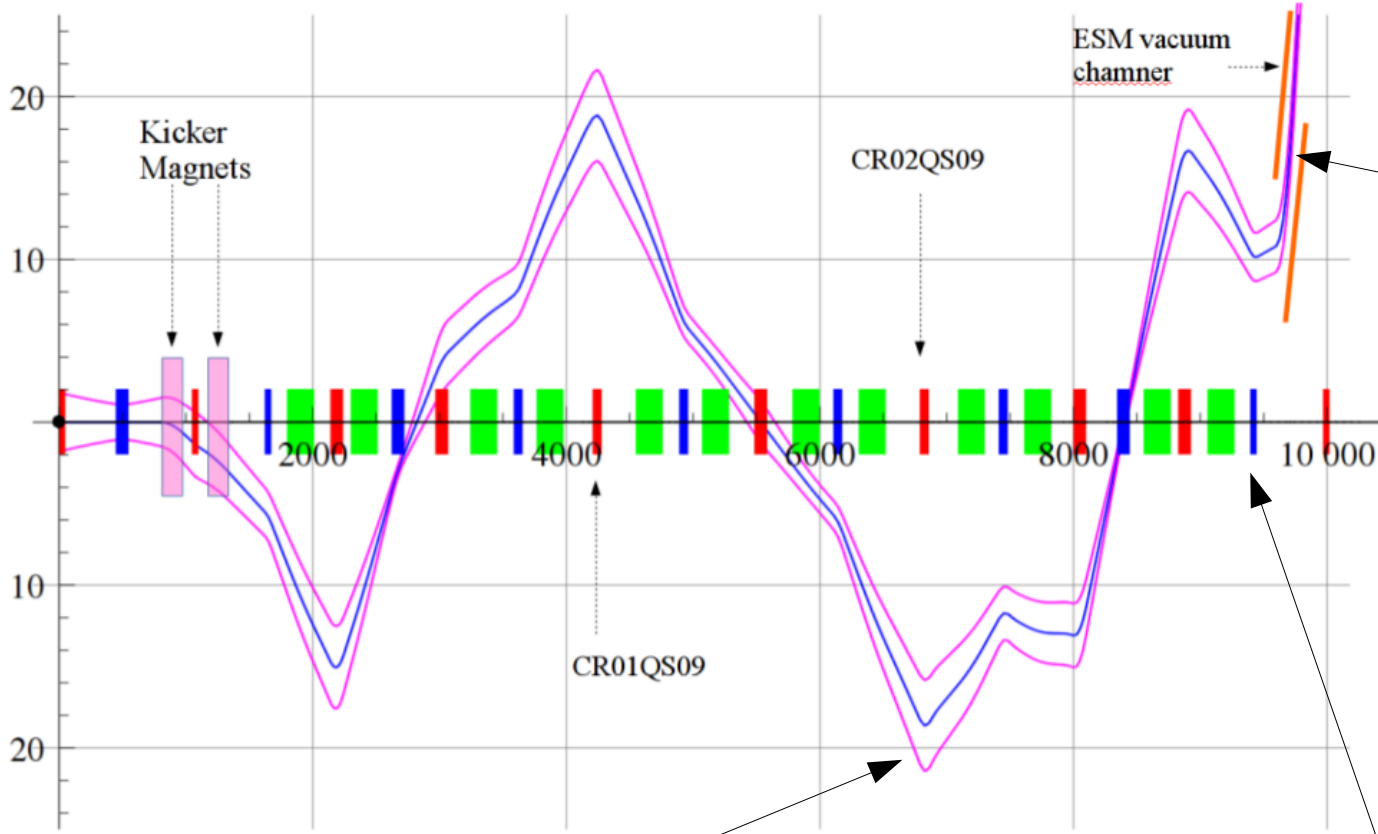
Aperture limitations for injected beam



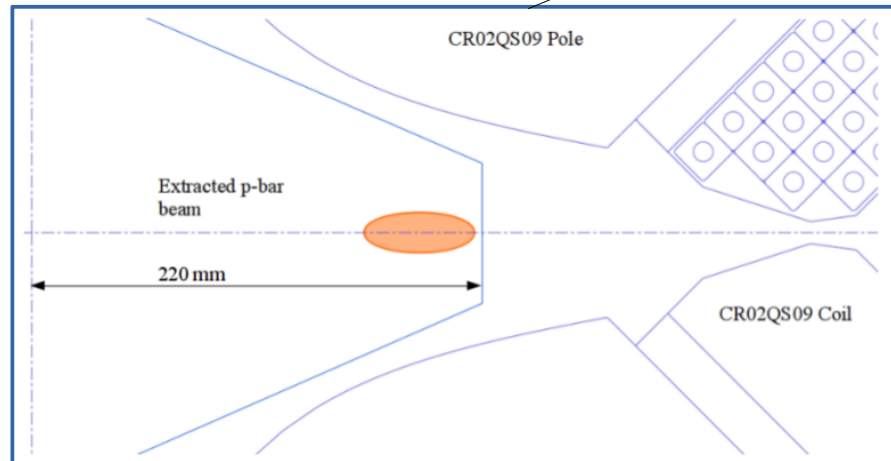
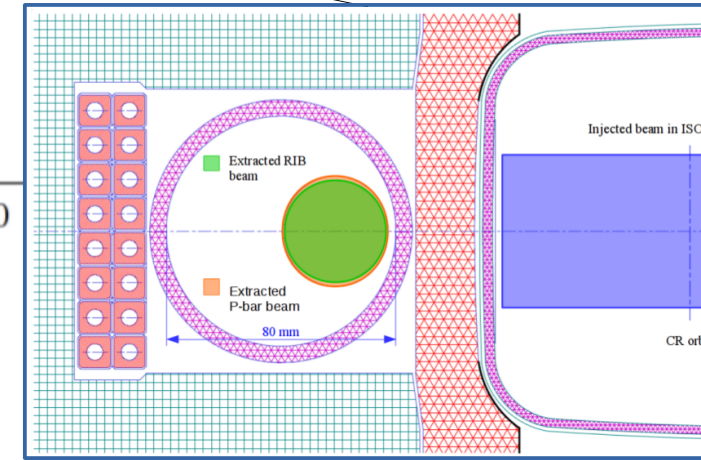
Beam cross-sections @ septa



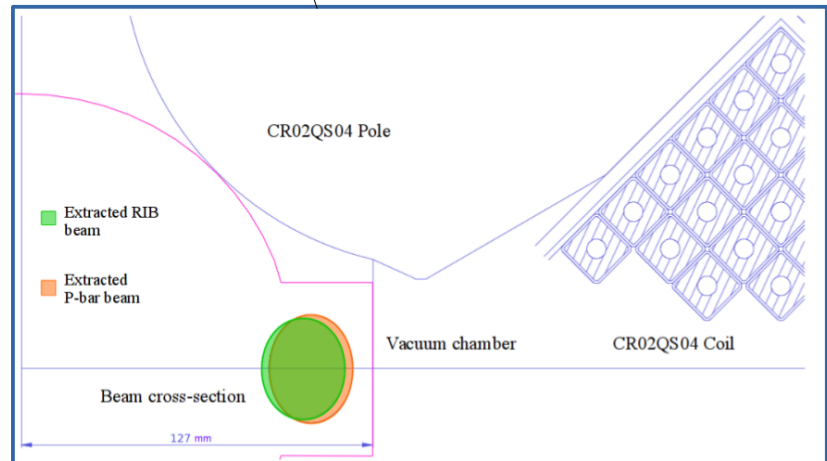
Beams Extraction Scheme



Beam cross-sections @ septa



Beam cross-sections @CR02QS09 WQ



Beam cross-sections @CR02QS04 NQ



Status: Injection Septums

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|------------------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
| 2.5.2.5.1-2 | Injection and extraction septum magnets | P. Shatunov | X | 😊 | 😊 | 😊 | | | | | | | | |
| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | | | | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | | | | | | | | | | | |
| 2.9.2 | Magnets | A. <u>Starostenko,</u> | X | | | | | | | | | | | |
| 2.9.3 | Power Converters | <u>D.Senkov,</u> | X | | | | | | | | | | | |
| 2.9.6 | Diagnostics | <u>Yu.Rogovsky</u> | X | | | | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | | | | | | | | | | | | |

- Design is finished
- Drawings are fully prepared
- Ready for CDR+FDR
- Procurement started
- Production preparations - started

- Expected delay for CDR ~4 months
- Expected delay for FDR ~2 months
- Expected production — in time.



Status: Extraction Septum

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|------------------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
| 2.5.2.5.1-2 | Injection and extraction septum magnets | P. Shatunov | X | 😊 | 😊 | | | | 😊 | | | | | |
| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | | | | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | | | | | | | | | | | |
| 2.9.2 | Magnets | <u>A. Starostenko,</u> | X | | | | | | | | | | | |
| 2.9.3 | Power Converters | <u>D.Senkov,</u> | X | | | | | | | | | | | |
| 2.9.6 | Diagnostics | <u>Yu.Rogovsky</u> | X | | | | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | | | | | | | | | | | | |

- Design is ongoing ~2 month needed
- Procurement started
- Production preparations - started
- Expected delay for CDR ~4 months
- Expected delay for FDR ~2 months
- Expected production — in time.



Status: Septums Power Supply

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|-----------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
| 2.5.2.5.1-2 | Injection and extraction septum magnets | P. Shatunov | X | | | | | | | | | | | |
| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | 😊 | 😊 | 😊 | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | | | | | | | | | | | |
| 2.9.2 | Magnets | A. Starostenko, | X | | | | | | | | | | | |
| 2.9.3 | Power Converters | D.Senkov, | X | | | | | | | | | | | |
| 2.9.6 | Diagnostics | Yu.Rogovsky | X | | | | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | | | | | | | | | | | | |

- Design is finished
- Procurement started
- Production preparations - started

- Expected some delay for CDR
- Production limits → second half of 2021



Status: Kickers

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|------------------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
| 2.5.2.5.1-2 | Injection and extraction septum magnets | P. Shatunov | X | | | | | | | | | | | |
| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | | | | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | 😊 | 😊 | 😊 | | | | | | | | |
| 2.9.2 | Magnets | A. <u>Starostenko,</u> | X | | | | | | | | | | | |
| 2.9.3 | Power Converters | <u>D.Senkov,</u> | X | | | | | | | | | | | |
| 2.9.6 | Diagnostics | <u>Yu.Rogovsky</u> | X | | | | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | | | | | | | | | | | | |

- Design is finished
- Procurement started

- Expected some delay for CDR+FDR
- Production rates should be in time



Status: Magnets+PS

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|------------------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
| 2.5.2.5.1-2 | Injection and extraction septum magnets | P. Shatunov | X | | | | | | | | | | | |
| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | | | | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | | | | | | | | | | | |
| 2.9.2 | Magnets | <u>A. Starostenko,</u> | X | 😊 | 😊 | 😊 | | | | | | | | |
| 2.9.3 | Power Converters | <u>D.Senkov,</u> | X | 😊 | 😊 | 😊 | | | | | | | | |
| 2.9.6 | Diagnostics | <u>Yu.Rogovsky</u> | X | | | | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | | | | | | | | | | | | |

2xDipoles 5xWideQuads 2xSexts 3xVertSteerers 2xHorizSteerers 1xSeptQuad 1xCombSteer

- Design is finished
- CDRs at this workshop
- Procurement started
- Production preparation started
- Corrector design is still ongoing
- Septum Quad design is ongoing



Status: Diagnostics

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|------------------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
| 2.5.2.5.1-2 | Injection and extraction septum magnets | P. Shatunov | X | | | | | | | | | | | |
| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | | | | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | | | | | | | | | | | |
| 2.9.2 | Magnets | A. <u>Starostenko,</u> | X | | | | | | | | | | | |
| 2.9.3 | Power Converters | <u>D.Senkov,</u> | X | | | | | | | | | | | |
| 2.9.6 | Diagnostics | <u>Yu.Rogovsky</u> | X | 😊 | 😊 | 😊 | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | | | | | | | | | | | | |

5xBPMs 3xScintillators 1xFCT

- Design is finished
- CDR is passed
- FDR at this workshop
- Additional BPMs agreed



Status: Kickers

| PSP | Subproject | Responsibility | S | CDR | FDR | PR FoS | FAT FoS | SAT FoS | SP | FAT SP | DL | SAT SP | IN | CO |
|-------------|----------------------------------------------|------------------------|---|-----|-----|--------|---------|---------|----|--------|----|--------|----|----|
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| 2.5.3.3.1-2 | Injection and extraction septum power supply | D. Senkov | X | | | | | | | | | | | |
| 2.5.5.1-2 | Injection/ Extraction Kicker | A. Kasaev | X | | | | | | | | | | | |
| 2.9.2 | Magnets | A. <u>Starostenko,</u> | X | | | | | | | | | | | |
| 2.9.3 | Power Converters | <u>D.Senkov,</u> | X | | | | | | | | | | | |
| 2.9.6 | Diagnostics | <u>Yu.Rogovsky</u> | X | | | | | | | | | | | |
| 2.9.7 | Vacuum | A.Krasnov | 😊 | 😊 | | | | | | | | | | |

- Design is finished
- 3D Models are prepared
- Procurement started

- SPECS+CDR+FDR → 2020
- Production dates should be in time

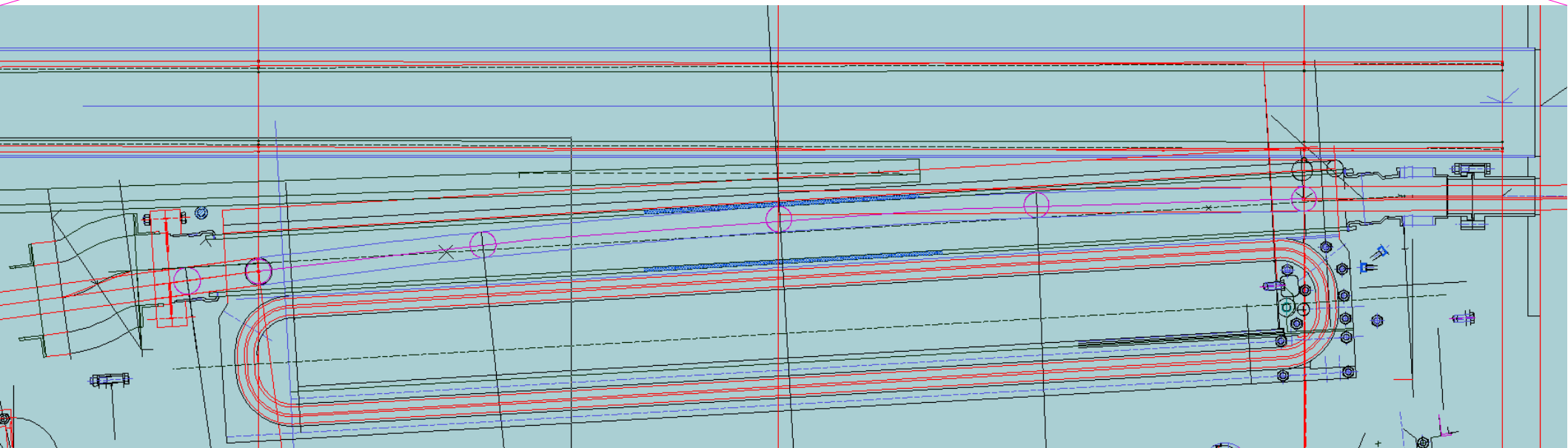


Extraction Septum Update

CR02QS03

CR02QS04

Extraction Septum



Thank you!