



# S13

Carsten Mühle

11.11.2021

7th BINP-FAIR Collaboration Coordination Workshop

# Status 6<sup>th</sup> BINP-FAIR-Workshop



- Replacement of S13 by CR/pbar-steering magnet is a feasible solution.
- It is expected to be time and cost effective.
- Power supply should be changed accordingly.
- Engineering change request must be prepared.

# Engineering Change Request 0535



- Request to replace S13 by CR/TCR1/pbar-Steerer
  - Main changes:
    - Reduced bending angle 2mrad (26mTm) -> 1.5mrad (20mTm) (measured value @10A 1.88mTm → 1.445mrad) → acceptable
    - Field quality according to specification  $\pm 1\%$  →  $\pm 1.5\%$  (measured  $\sim \pm 0,5\%$ )
    - No fast ramping → not needed for a DC beam line
    - No water cooling → advantage
    - Completely different power supply → CR/TCR1/pbar power supply can be used easily
  - Approval process going on
    - System design, magnets, power supply already done

Configuration Management & Documentation	Dokumenttyp/ Document Type	Antragsnummer/ Request No.	Antragsdatum/ Date of Request
FAIR GSI	Änderungsantrag/ Engineering Change Request	.....535.....	..21.09/2021..
		Vorlagennummer/ Template Number:	Seite/Page
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**Erstellung / Application**

*vom Antragsteller auszufüllen/ to be filled in by applicant*

<b>Name Antragsteller / Applicant</b> Frank Hagenbuck		<b>Abteilung / Department</b> HEB	
<b>Unterschrift / Signature</b> _____		falls zutreffend, bitte angeben/ if applicable, please specify:	
<b>Datum / Date</b> 21/09/2021		GAP: Thorsten Zipsach Gebäude/Building Nr.: H0209A (G007) APL/WPL: Carsten Mühle	
<b>AID</b> : 0002629, 0002630, 0002645		<b>PSP</b> : 2.3.2.4.3.2	
<b>Betroffenes Objekt, Gerätetyp / Affected object, device type</b> Steering Magnet HEBT18 (large aperture), auch bezeichnet als Steering Magnet s13			
<b>Bezeichnung der Änderung / Name of change</b> Ersetzen des Steerer-Typs Steering Magnet s13 durch den Steerer-Typ CR-TCR1-pbar-Steering Magnet			
<b>Ausschreibungs- oder vertragsrelevant / subject of tender or contract?</b> <input checked="" type="checkbox"/>			
<b>Betroffene Unterlagen / Affected documents mit/with Storage ID</b>		<b>Storage ID</b>	
Spezifikation/Specification Nr. 1: F-06-MT-02e_HEBT-NC-Magnets_Batch3 GSH/MT-Psb-2013-04_1 (die zu ändernden Gerätetypen/if the device type to be changed)		1541676 HEBT 18	
Spezifikation/Specification Nr. 2: _____ (von anderen, von der Änderung betroffenen Gerätetypen/ of other device types affected from the change)		HEBT 18	
Spezifikation/Specification Nr. 3: _____		HEBT 18	
<b>FDR</b> Zeichnung/Drawing (see Subdocument(s) + subdocument)		HEBT 18	
<b>TDR</b> Parameterliste/Parameter List:		HEBT 18	
Vertrag/Contract: (see Subdocument(s) + subdocument) FAIR Contract No. CC2.3.2-2 HEBT magnets Batch283		1558285 HEBT 18	
Andere/Other documentation:		HEBT 18	

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 Autor: CMD-Team F-FO-CMD-01-0008\_Form\_Change\_Application-V007.pdf

# Next Steps



- Next steps
  - New parameter table to be prepared (draft exists)
  - New specification drawings to be prepared
  - Formal change order

