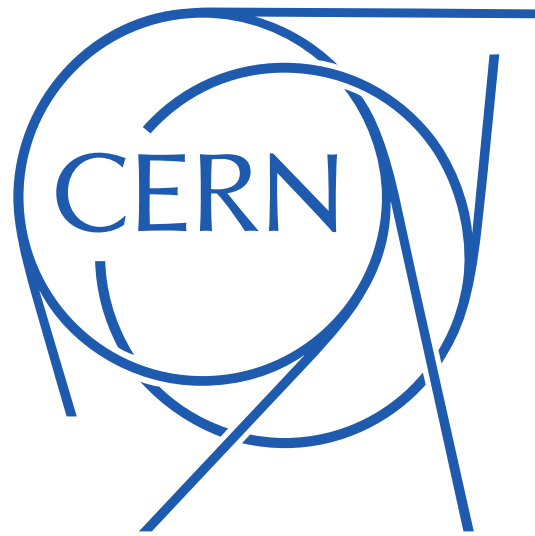
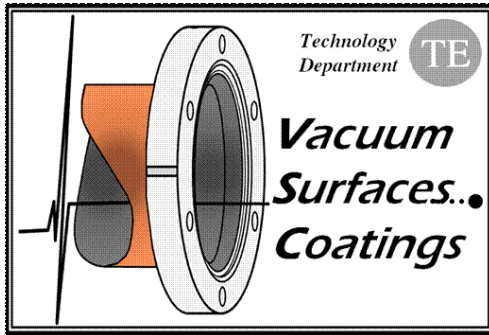


Test Set-Up at ANKA

Task 4.6

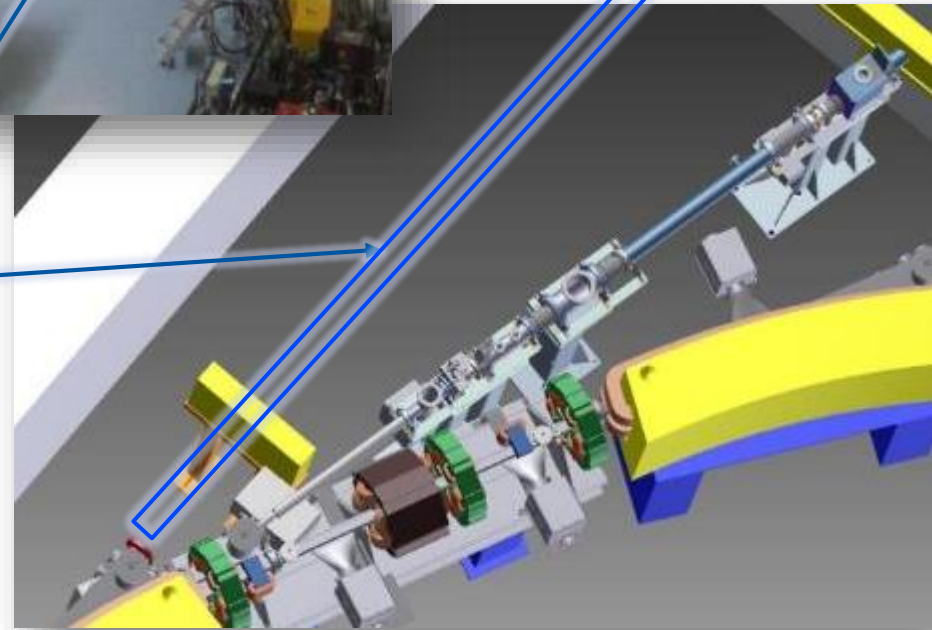
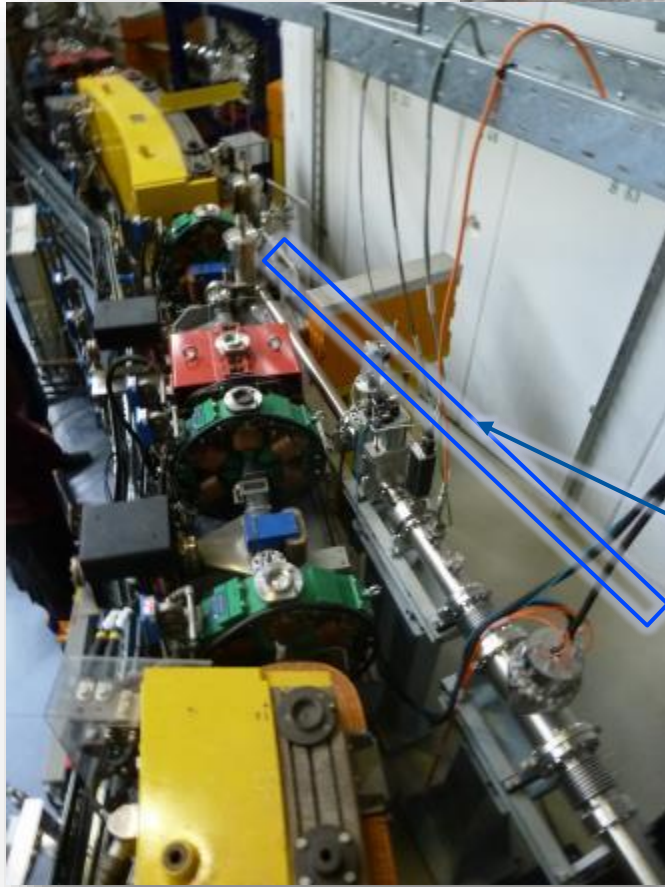


Test Set-Up at ANKA

Outline:

- ANKA Facility
- Current Status/Next Steps
 - FCC Beam Screen Prototype
 - Test Bench
- Next Steps
 - ANKA Test Line full definition
- Schedule
- Conclusion

ANKA Facility



position

ANKA Facility

Current Status

Next Steps

Schedule

Conclusion



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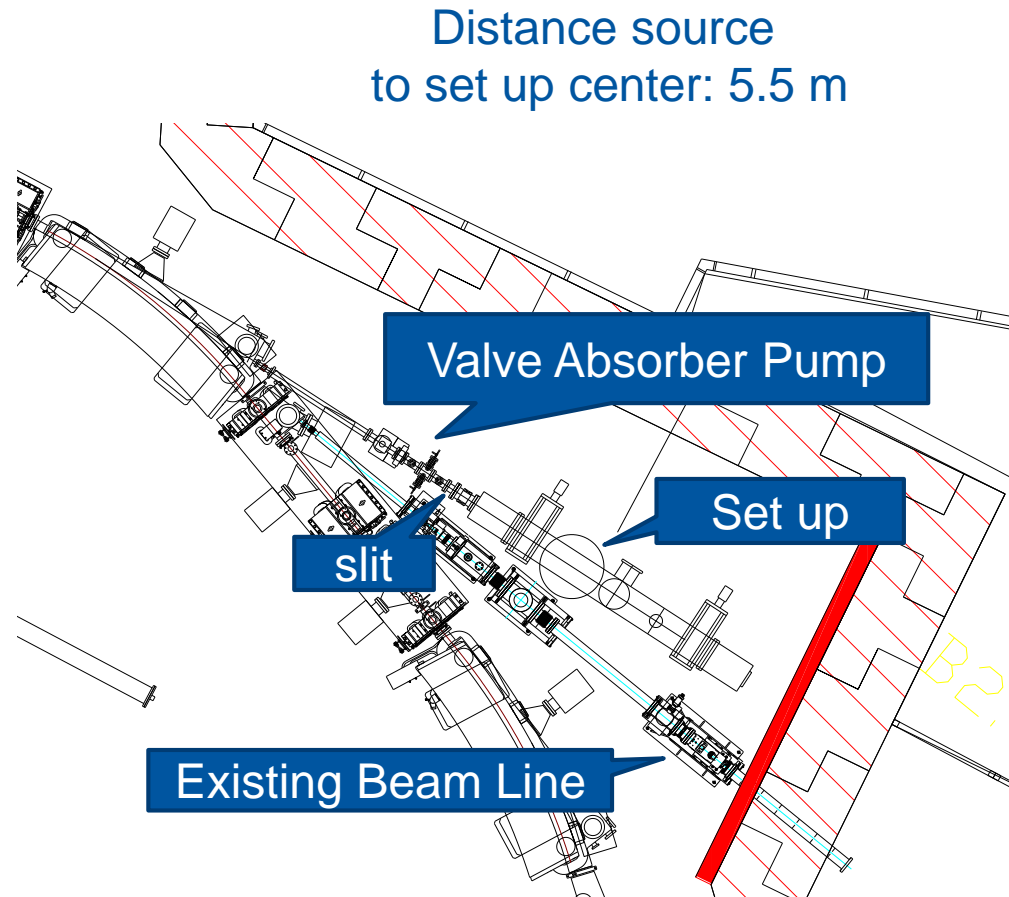
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Information summary:

- Free space
 - Length from the source to the wall:
~ 7 m
 - “Useful” length? (~ up to 2-3 m ?)
- Beam height: 1.4 m
- Incidence angle: 6.4 mrad
- Operating ANKA at 2.2 GeV
- Horizontal slit opening at 4m: 6.2 mrad
- SR load : ~ 110 W
- Flux: ~ $4 \cdot 10^{20}$ ph/s



ANKA Facility

Current Status

Next Steps

Schedule

Conclusion



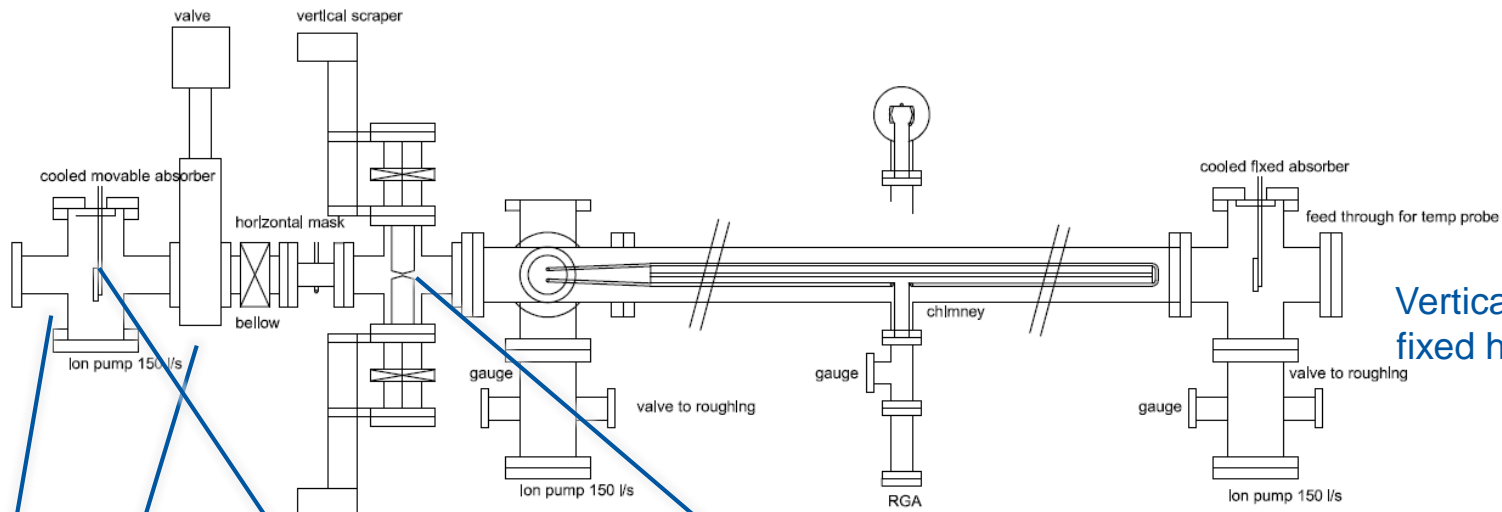
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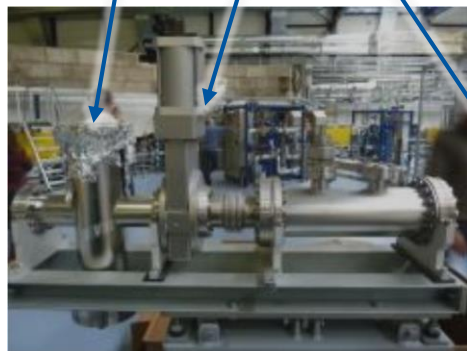
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- Some components are available on site
- Proposition Sketch beam line + set up (thanks to E. Huttel)



Vertical scraper with fixed horizontal mask



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Current Status



Next Steps

Schedule



Conclusion

Information to be defined:

- Design of absorbers needed or they are existent elements?
- Dimensions of existent elements to integrate on CATIA model?
- Alignment and survey system?
- Control and acquisition system ?
- Definition of the set up functionalities
- Finalisation of the instrumentation needs

ANKA Facility

Current Status

Next Steps

Schedule

Conclusion



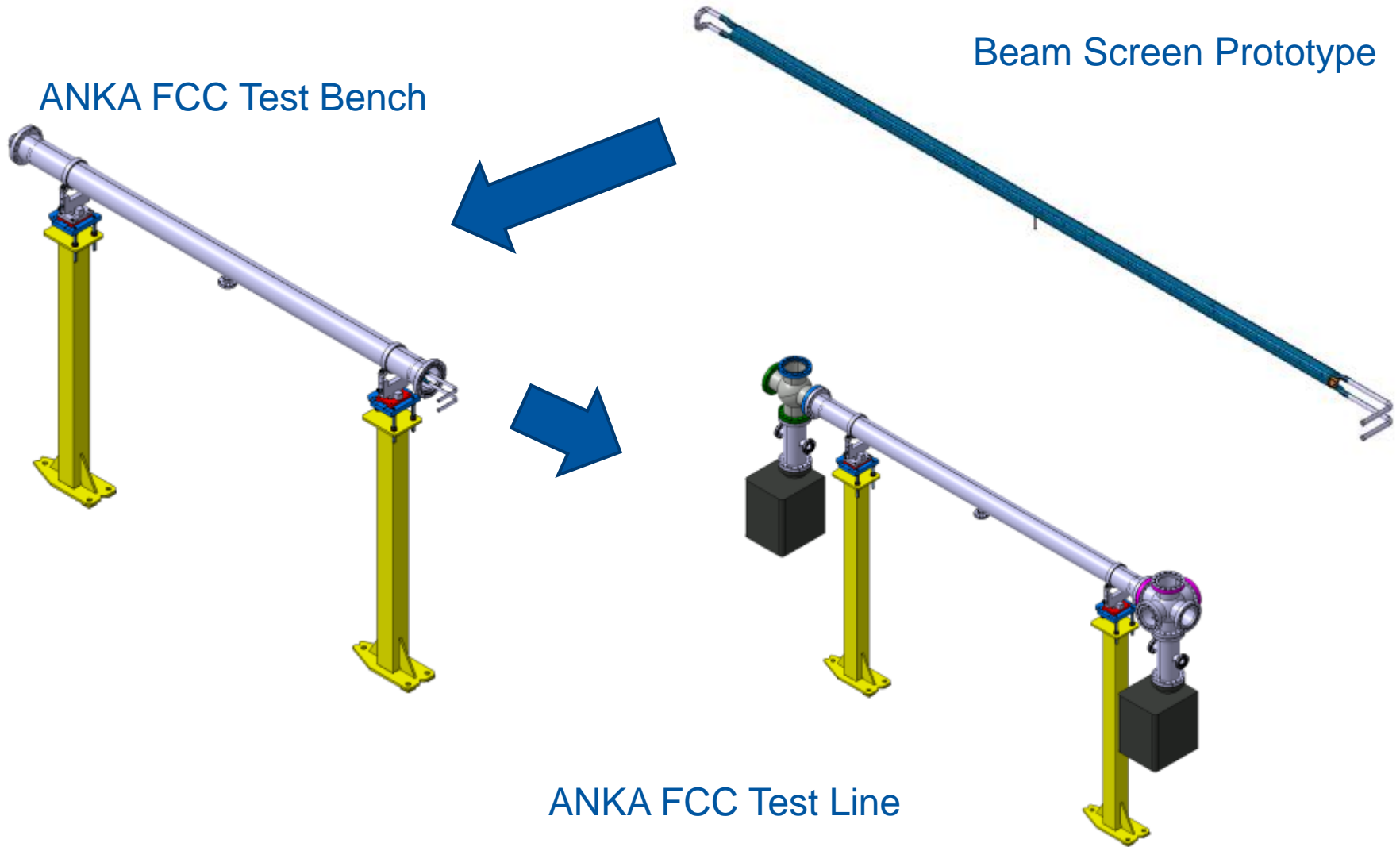
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Current Status / Next Steps



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Current Status

Next Steps

Schedule

Conclusion



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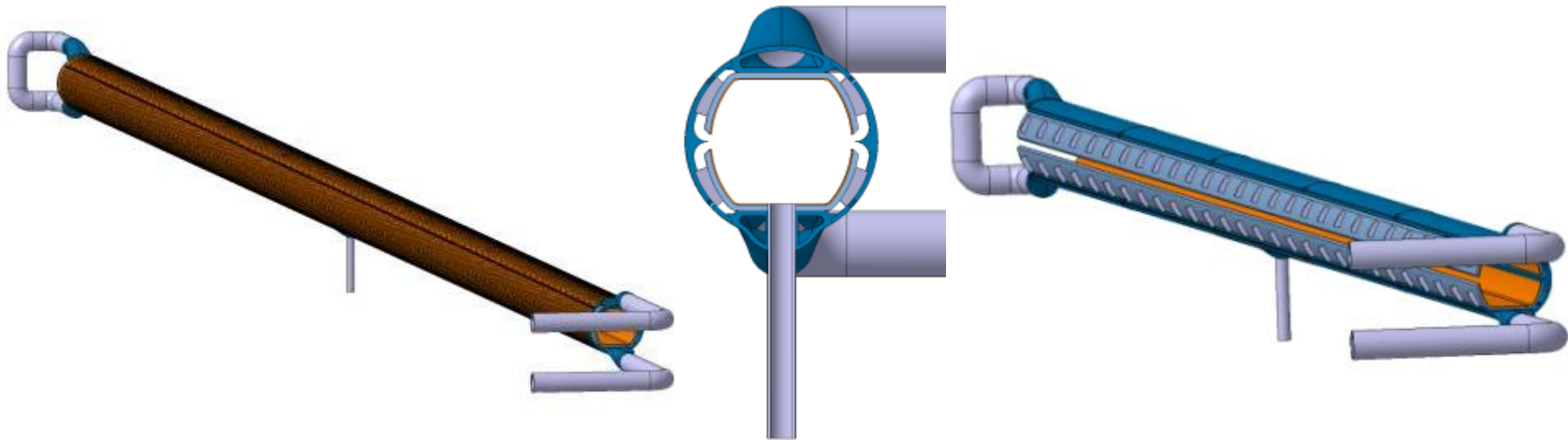
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Beam Screen (15m long)



Beam Screen Prototype (≈2m)



ANKA Facility

Current Status

Next Steps

Schedule

Conclusion



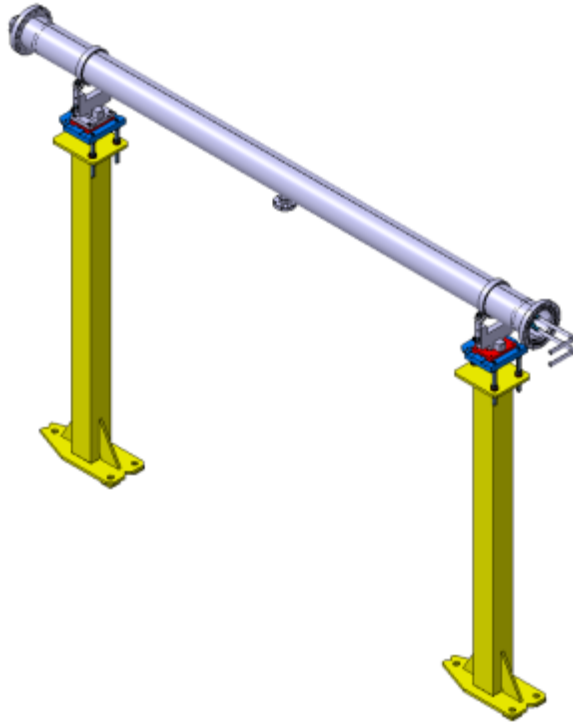
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ANKA FCC Test Bench



- Supports adaptation from an existent design
- Vacuum Chamber
- FCC Beam Screen Prototype Centring System

ANKA Facility

Current Status

Next Steps

Schedule

Conclusion



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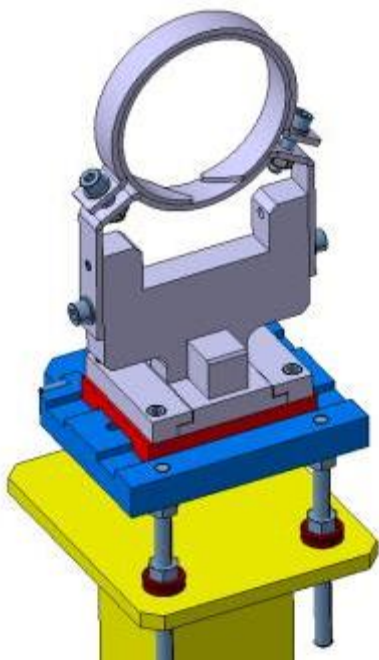
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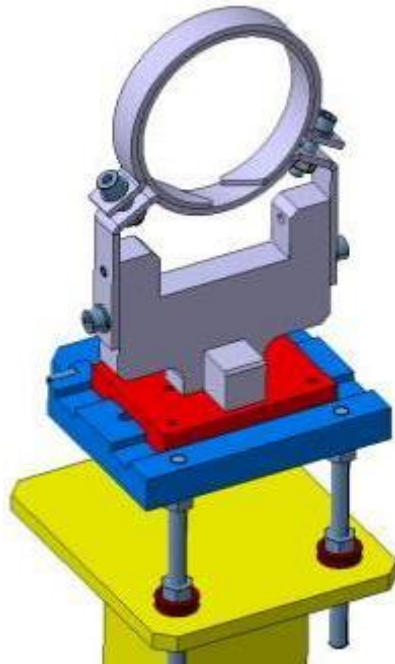
ANKA FCC Test Bench

- Supports adaptation from an existent design

- FCC Beam Screen Prototype Centring System

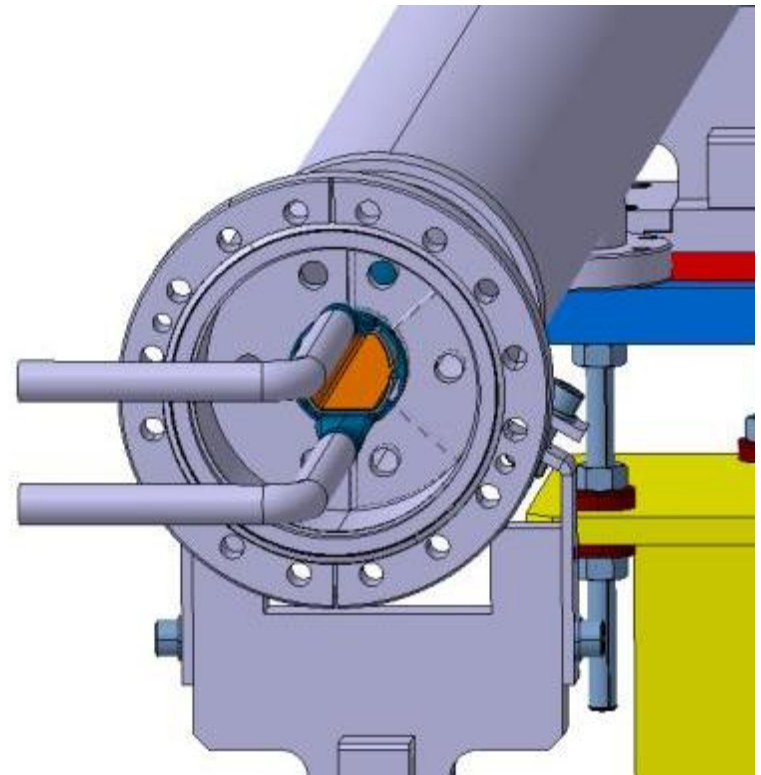


ANKA Facility



Current Status

Next Steps

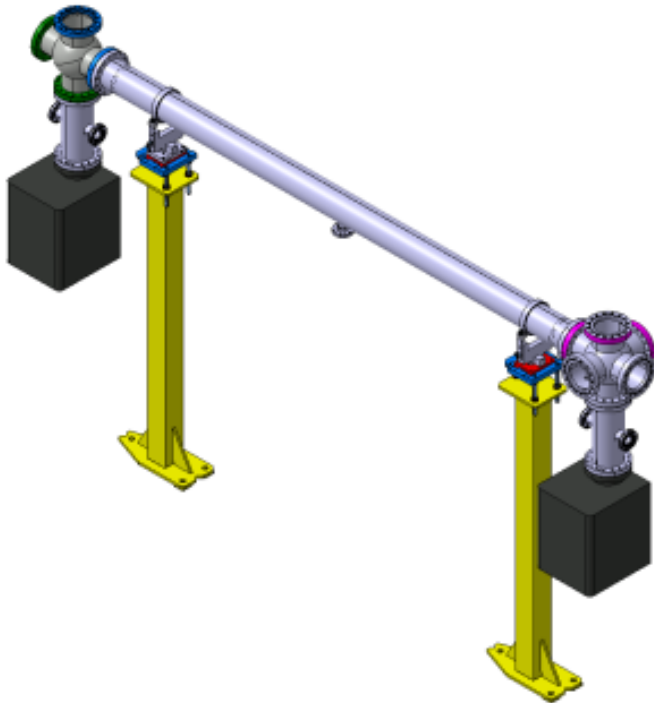


Schedule

Conclusion

Next Steps

ANKA FCC Test Line



- Complete definition of the line with the inputs taken in the last days
- Check integration with ANKA
- Listing components and costs
- Start of production and material orders

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Current Status

Next Steps

Schedule

Conclusion



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Schedule

Milest	Task Name	Duration	Start	Finish	Predecessors	Resource Names	1st Half									1st Half									
							Qtr 3, 2015			Qtr 1, 2016			Qtr 3, 2016			Qtr 1, 2017			Qtr 3, 2017			Qtr 1, 2018			
							Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	
17	Yes	Measurement set-up at ANKA operational	349 days	Wed 01/07/15	Mon 31/10/16		INFN,CERN,ANKA								◆ 31/10										
18	No	Definition of measurements	44 days	Wed 01/07/15	Mon 31/08/15		CERN,INFN	█																	
19	No	Design of the set-up and list of the components to be purchased	65 days	Tue 01/09/15	Mon 30/11/15	18	CERN	█																	
20	No	Procurements, tests in lab, definition of measurement	262 days	Tue 01/12/15	Wed 30/11/16	19,6	INFN,CERN,ANKA									█									
21	No	Modification of ANKA's beamline	130 days	Thu 01/12/16	Wed 31/05/17	20	ANKA,INFN,CERN																		
22	No	Installation in ANKA	130 days	Thu 01/12/16	Wed 31/05/17	20,31	CERN,INFN,ANKA																		
23	No	Measurement campaign at ANKA	218 days	Thu 01/06/17	Mon 02/04/18	22	INFN,CERN																		

- Design phase end expected by end of November 2015
- Fully definition of the line is not yet defined

Seems difficult to be finished in one week

Conclusions

- Beam Screen prototype production definition and 3D model is well advanced.
- Test Bench design proposition is presented and need to be discussed for further development and future design versions.
- ANKA Test Line for FCC prototypes has to be defined on the following weeks with priority based on the gathered information after discussion during Orsay meeting.
- Design Schedule might have to be reconsidered, trying to maintain the same deadline for the next step (procurement/tests in lab)

ANKA Facility

Current Status

Next Steps

Schedule

Conclusion



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Thanks for your attention



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