

Apr. 23rd, 2009

# Status report of E17 target

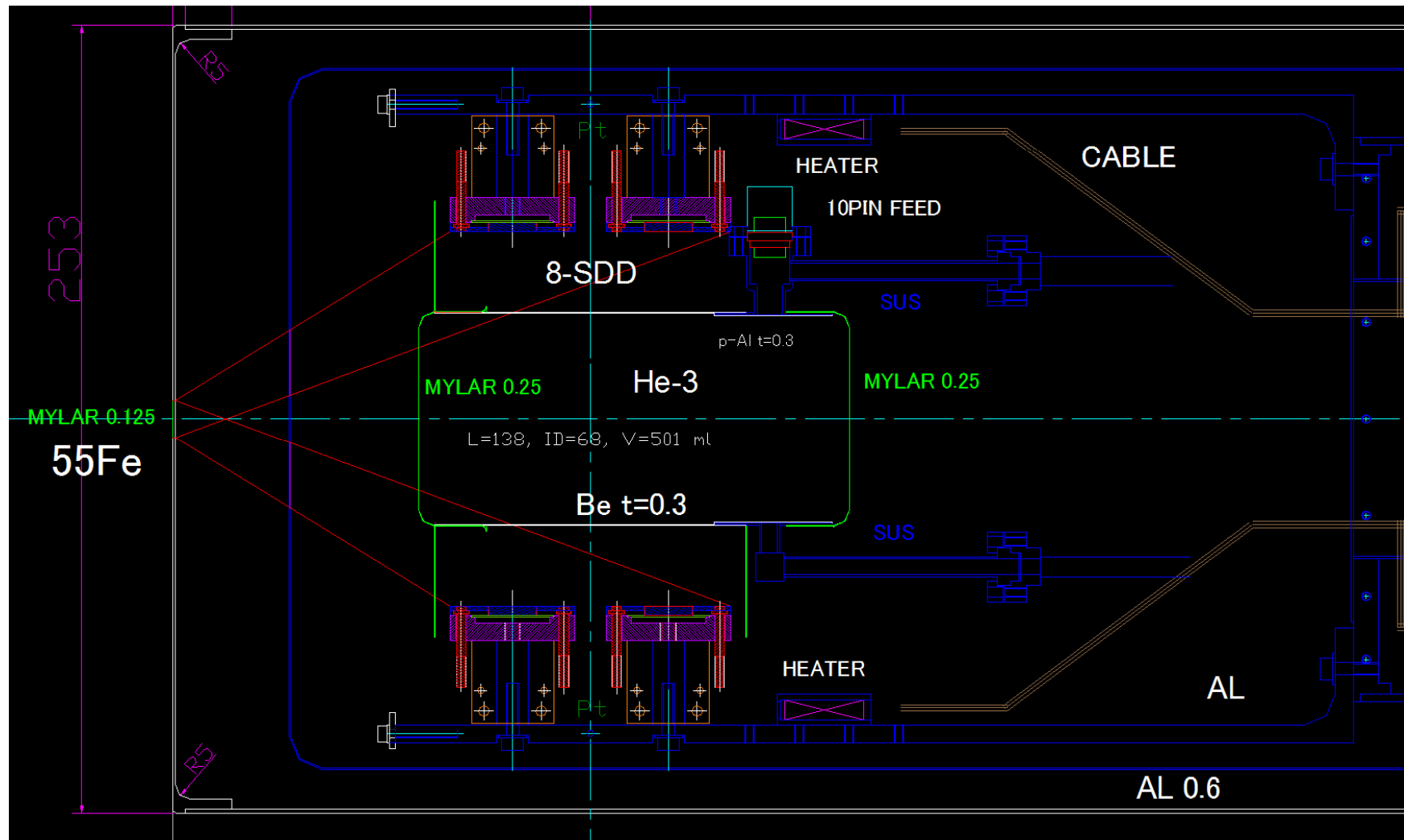
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# New design of the target cell

We changed the design of the frame (All Ti → **SUS** + **MYLAR**)  
The SUS frame is covered by pure Al foil (t=0.3mm)



# Present status

No.RFQ023/2705054R32

No.	品名・サイズ	数量	単位	単価(¥)	金額(¥)
1	Be パイプ PF-60(Be : 99.0%以上) 内径φ68×0.3 mm t×長さ 100 mm	2	個	1,169,000	2,338,000
2	以下余白				
3	<b>Be pipes (x2) were ordered from</b>				
4	<b>BRUSHWELLMAN</b>				
	合計				2,338,000

(消費税別)

**SUS frame parts (x3) were ordered (460k YEN)**

**We advance the R&D of the cell windows made of the MYLAR**

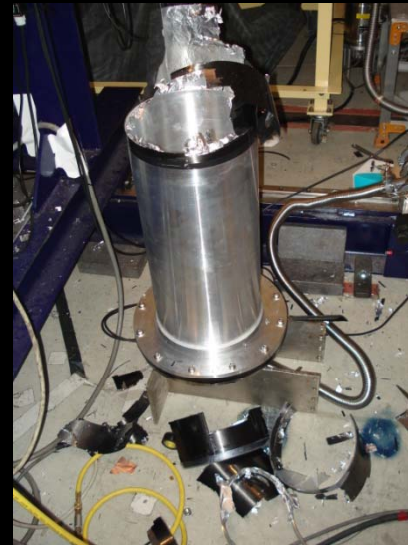
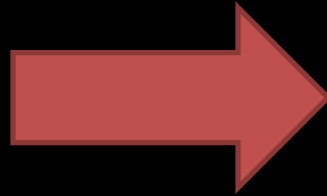
**→We will perform the pressure test. (~9 atm?)**



# Previous problem of the Vacuum jacket



**Crash**



**DANGER!**



**We performed the test in CFRP pipe only many times**

- Long-term stability of several months
- Cycle test



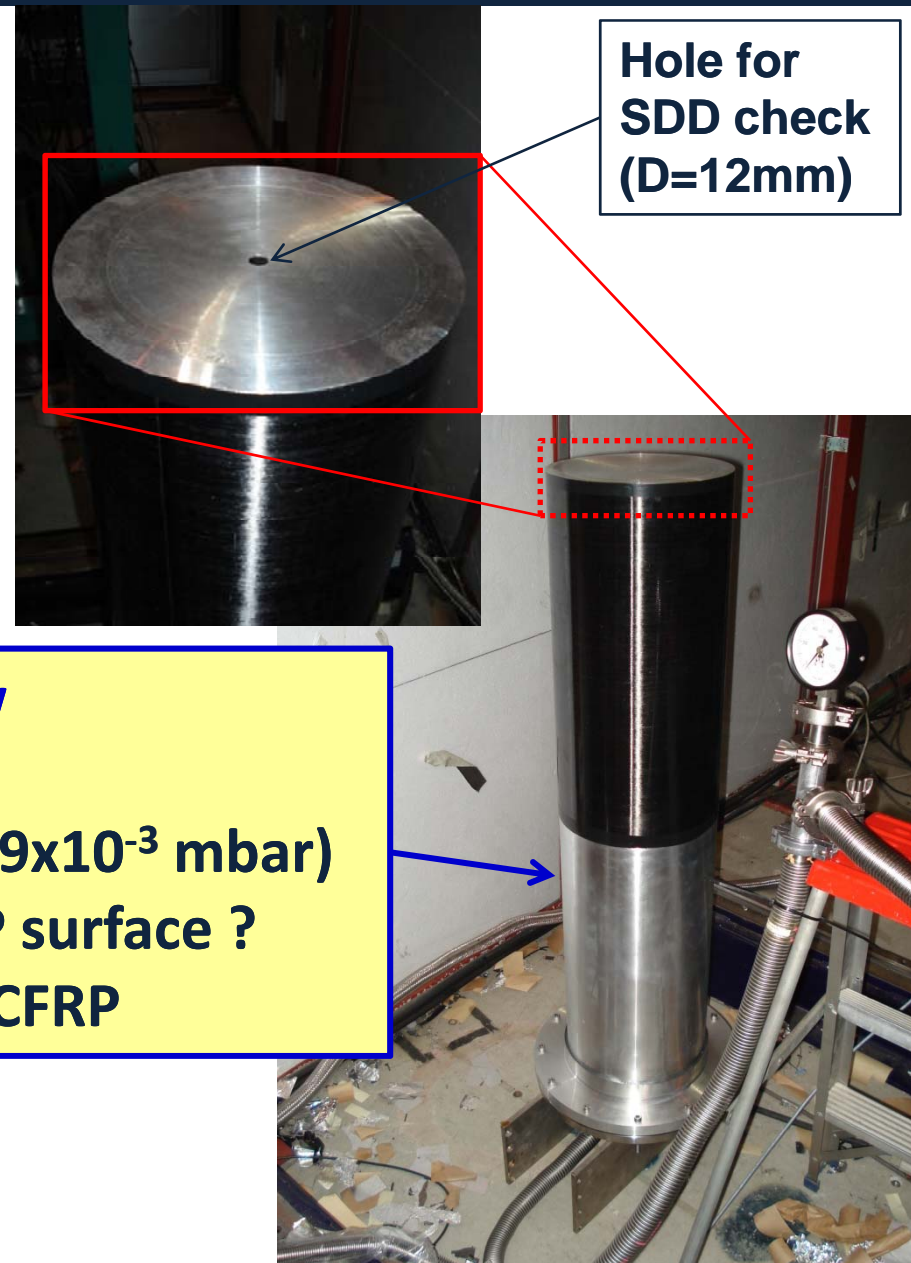
**We confirm that the CFRP pipe have **no problem****  
**We gave up the use of the MYLAR window**



# Assembling of the Vacuum Jacket

We produced the window of the jacket with aluminum (t=0.7mm)

Hole for SDD check (D=12mm)



**Its vacuum test is performed now**

- It have no leak
- Degree of vacuum is bit low (  $\sim 9 \times 10^{-3}$  mbar)  
The cause is out gas from CFRP surface ?  
→ We should coat the inside CFRP

# Development schedule

## Schedule of J-PARC Hadron Facility

- A He recovery line is provided for the hall in September
- The beam time schedule?

K1.8BR beam tune : late Oct. - end of Dec. (2 months)

K1.8 beam tune : early Jan. - end of Feb. (2 months)

K1.8BR data taking : early Mar. ~ (a few week)

Item	Place	2009									2010		
		Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Improvement of the radiation shield	KEK	→											
R&D of the target cell	KEK	→											
Fabrication of the vacuum jacket	KEK	→											
R&D of SDD (test bench)	KEK		→										
Cooling test	KEK				→								
Relocation of the all system	KEK, J-PARC									→			
Final test & Operation	J-PARC										→		

We start the installation of target system to K1.8BR area from Jan.