

# The vessel at Stony Brook

## pfRICH project

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on behalf of the Stony Brook team

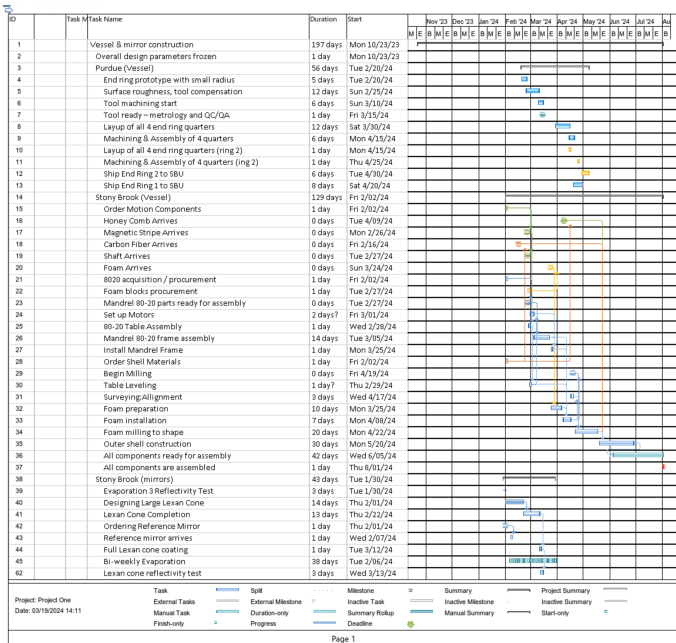
*Center for Frontiers in Nuclear Science*

**pfRICH group meeting**

March 28, 2024



# Time Line of the pFRICH vessel



# Material Procurement Summary

Item	Measurements	Quantity	Delivery Time	Total Price (\$)
<b>8020</b>				
Double T Slotted	Length (ft): 10	8	1 week	1230,88
Single T Slotted	Length (ft): 10	5	1 week	396,85
Table Quad	3 ft long, 3 x 3 (inch)	4	1 week	309,68
T-Slotted Framing	-	30	1 week	291,90
Silver Bracket				
<b>Machinable Foam</b>	H3 x L48 x W96	4	3 weeks	5,687.12
<b>Carbon Fiber</b>	Inner: 0.5 (mm) x 80.4569 (in) x 2 19.3307 (in) Outer: 0.5 (mm) x 82.875 (in) x 2 19.3307 (in)		2 weeks	1274.32
<b>HoneyComb</b>	H0.750 x L48 x W96	2	9 weeks	1775.32 + 400 (max)
<b>Shaft</b>	4 (ft) x 2 (in)	1	7 days	242.00
<b>Magnetic strip</b>	3 ft	1	20 days	122
<b>DP460</b>	-	-	few days	-
<b>Total</b>	-	-	-	11730,07
<b>Machine shop</b>				832
<b>Total</b>	-	-	-	12562,07

# Mandrel building in pictures I

[Link to the photos](#)



# Mandrel building in pictures II

[Link to the photos](#)



► Building the 8020 frame: step done.

## Focus on the attachments - mandrel building

- ▶ **Adjusting the junctions** can enhance alignment, with the primary goal being perfect alignment of the outer part of the dodecagon.
- ▶ Further alignment refinement will be carried out when **applying the foam to each side** of the dodecagon.

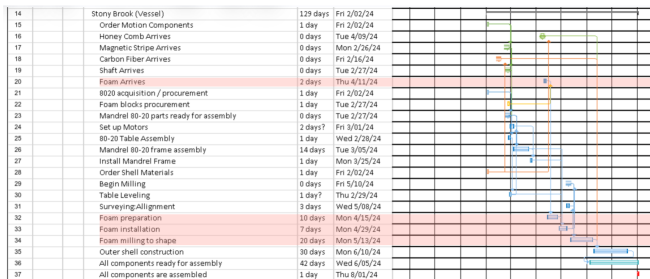


## Next steps

- ▶ Poor vendor-university communication causing a **15-day delay**.
- ▶ All components assembly: ready for  $\pm$  June/July.

## Foam preparation

- ▶ **Foam arriving**: max. April 11.
- ▶ **In meaning**: foam design/motor setup.



## Link to the report

- ▶ [pFRICH Vessel: Engineering and Design report](#)