

HFIR Sample Environment Inventory

Closed Cycle Refrigerators - Bottom Loading

Name / Description	Temperature Range [K]	Bore Size (mm)	Interface Connection	Distance from Interface to Beam Center	Stick Distance to Beam Center	Special Features/Comments
High Temp Displex- 1AF	5 - 800	N/A	1/4" Hole	2"	N/A	
Displex- 1A	11 - 300	N/A	1/4-28 Female	2.325"	N/A	For use with Standard Sample Can
Displex- A	4 - 300	N/A	1/4-28 Female	2.325"	N/A	
Displex- B	6.5 - 300	N/A	1/4-28 Female	2.325"	N/A	
Displex- H	8 - 300	N/A	1/4-28 Female	2.325"	N/A	Optional Sapphire window for SANS
Displex- I	8 - 300	N/A	1/4-28 Female	2.325"	N/A	Turbo- 1 Hour RT to Base Temp
Displex- M	14 - 300	N/A	1/4-28 Female	2.325"	N/A	High Capacity for use with High Pressure Cells

Closed Cycle Refrigerators - Top Loading, Sample in Exchange Gas

Omniplex- O	6 to 300	50	1/4-28 Female	1.5" w/ +/-2" adj.	19-7/8"	Top Loading Displex
Omniplex- O2	5 to 300	50	1/4-28 Female	1.5" w/ +/-2" adj.	19-7/8"	Top Loading Displex
JANIS	4 to 300			Recent addition		

Furnaces

Name / Description	T[K]	Bore Size (mm)	Sample Space (see figure)	Distance from interface to beam center	Stick distance to Beam Center	Special features
ILL niobium foil vacuum furnace	ambient to 1600	40	D = 40 mm	1.5" w/ +/-2" adj.		
HOT-02 controlled atmosphere furnace	ambient to 1073	40	special sample holders - consult SE team	1.5" w/ +/-2" adj.		controlled gas atmosphere

Magnet Systems

Description	Temperature Range [K]	Bore Size (mm)	Interface Connection	Distance from Interface to Beam Center	Stick Distance to Beam Center	Special Features/Comments
4.5 Tesla Horizontal Field Magnet	1.8 - 300	40	M6 Male	2.325"/59mm	44.325"/1125mm	Access is for SANS use only
5 Tesla Vertical Field Magnet	2 - 300	50	Custom	1.97"/50mm	33.75"/857mm +/-15mm	WAND mount capable
7 Tesla Vertical Field Magnet	2 - 300	25	M6 Male	Nominal 1.5"	46"	Field Limited to 5.5T at HB-1A

Liquid Helium Cryostats

Description	Temperature Range [K]	Bore Size (mm)	Interface Connection	Distance from Interface to Beam Center	Stick Distance to Beam Center	Special Features/Comments
Helium Cryostat- Variox 1	1.5 - 300	50	M8 Female	Nominal 1.5"	46"	
Helium Cryostat- Old Blue	Variable	50	Custom	N/A	N/A	For use with High Pressure Cells
Helium Cryostat- ILL -01	1.5 - 300	50	M8 Male	2.5"	37.25"	
Furnace- HOT-02	300 - 1900	50	Custom	N/A	N/A	