

CFHT Transfer Lines/Systems

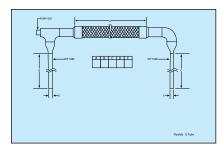




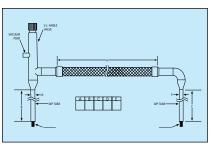


- Efficient transfer apparatus for cryogenic liquid gases with low heat of vaporization such as helium, hydrogen or neon
- · Carefully fabricated using all welded stainless steel construction
- Super insulated to provide the optimum in thermal performance
- Inner configuration features minimum wall thickness to reduce cool-down losses and heat leak on all assemblies
- · Helium mass spectrometer leak tested & fully evacuated before shipping
- Custom built to meet the customer's specific requirements for configuration, diameter and length
- Special features can be added to enhance the product
- Common applications include MRI and NMR re-filling of superconducting magnets, gas distributor trans-fill stations, instrumentation and experimental transfers

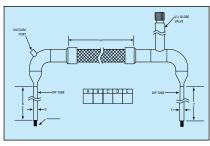
CFHT Series Common Configurations



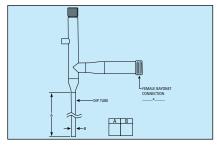
Flexible U Tube



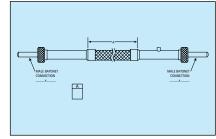
Flexible U Tube with Right Angle Shut Off Valve



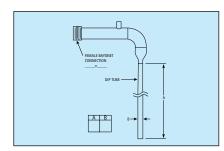
Flexible U Tube with Globe Shut Off Valve*



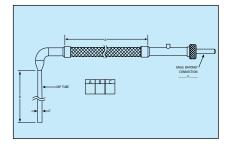
Withdrawal Lance with Right Angle Shut Off Valve



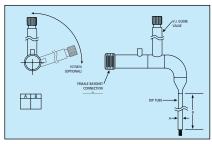
Extension Hose M/M



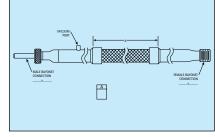
Fill Lance



Fill/Withdrawal Hose with Bayonet Outlet



Fill/Withdrawal Lance with Globe Shut Off Valve*



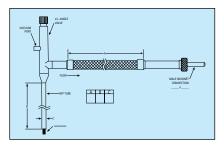
Extension Hose M/F

continued

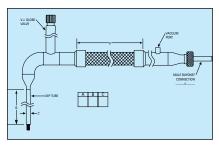




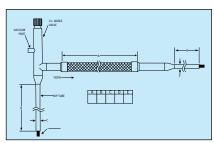
*Globe valve can be tilted to reduce height.



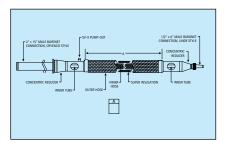
Withdrawal Hose with Right Angle Shut Off Valve



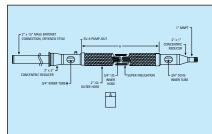
Withdrawal Hose with Globe Shut Off Valve*



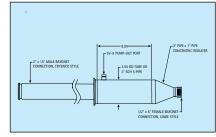
Fill Hose with Right Angle Shut Off Valve



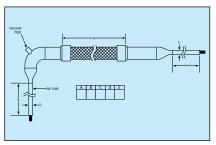
Trailer Liquid Hose



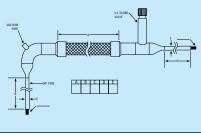
Trailer Gas Hose



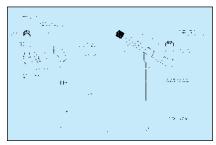
Cryenco to Linde Bayonet Adapter



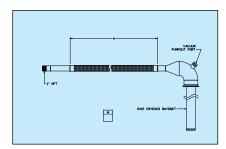
Fill/Withdrawal Hose with Tube Outlet



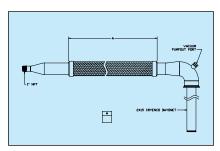
Fill Hose with Globe Shut Off Valve*



GE Stinger Assembly



CP-3 Trailer Hose Un-Insulated



CP-3 Trailer Hose Vacuum Insulated

Available Options:

- Pump Out Operator
- Bellows Valve w/KF25
- Threaded Tip
- Extension Tube







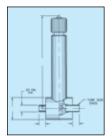


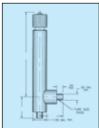
CFHT Series Valves Approximate Heat Leak

	Hose Spec	Heat Leak				
I.D. Inner (IN.)	O.D. Outer (IN.) 1	Non-braided Inner Hose M.A.W.P.	Braided Inner Hose M.A.W.P.	W/M	BTU/HR/FT	
.25"	1.5"	75 PSI	1750 PSI	.68	.71	
.375"	1.8"	159 PSI	1450 PSI	.70	.73	
.5"	2.25"	90 PSI	1350 PSI	.98	1.02	
.75"	2.7"	15 PSI	800 PSI	1.07	1.11	
1.0"	3.5"	14 PSI	550 PSI	1.36	1.41	

^{1.} Outer jacket enlarges once a certain length is reached

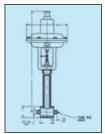
CFHT Series Valves and Bayonet Couplings

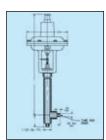




VJ Shut Off Valves

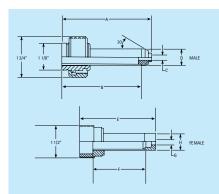
- Offered in laboratory style or industrial grade
- Valves supply a means to interrupt or terminate the flow of liquid cryogens and maintain a minimal heat leak





Actuated Valves

 Actuated Valves for remote and unattended filling of cryostats when incorporated with a controller.



Bayonet Couplings

- · Available as a set or individually as male and female
- Allows for easy disassembly of transfer equipment without removal of a section from an experiment or storage dewar
- Bayonets transform single construction transfer lines into multiple parts for ease of use and flexibility in tight locations

Approximate Steady State Heat Leak

Description	1/4" x 3"	1/4" x 6"	1/4" x 9"	1/2" x 3"	1/2" x 6"	1/2" x 9"	1/2" x 15"	3/4" x 9"
LN ₂ (BTU/hr)	7.38	3.45	2.3	7.38	3.45	2.3	1.2	3.6
LHE (BTU/hr)	8.12	3.79	2.53	8.12	3.79	2.53	1.52	3.96

