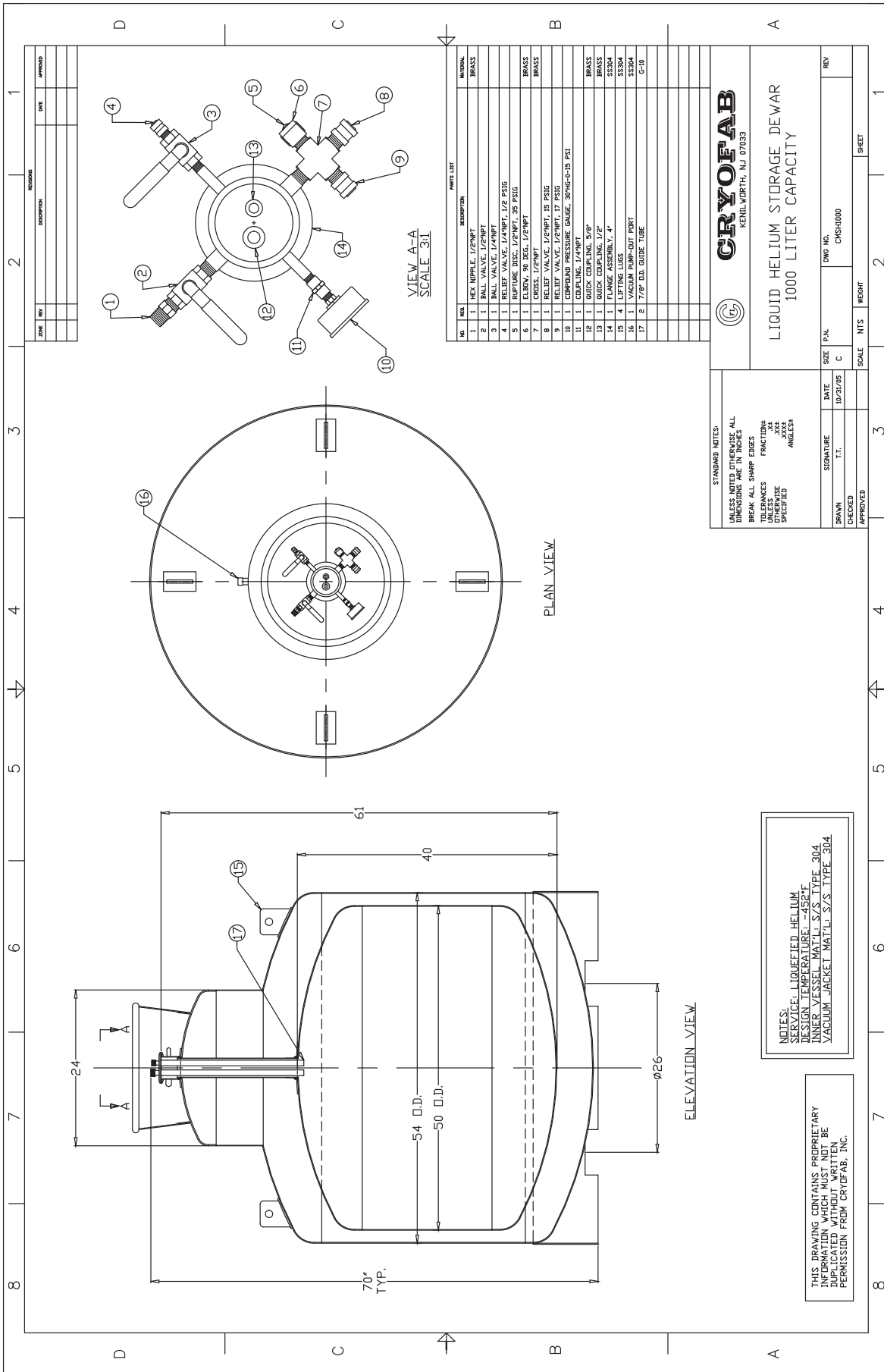




## CMSh 1000 Calibration

in.	liters
1	2.6
2	10.2
3	22.7
4	40.1
5	64.3
6	92.3
7	122.4
8	153.9
9	185.8
10	217.7
11	249.7
12	281.6
13	313.5
14	345.4
15	377.3
16	409.2
17	441.1
18	473.0
19	504.9
20	536.8
21	568.7
22	600.6
23	632.6
24	664.5
25	696.4
26	728.3
27	760.2
28	792.1
29	824.0
30	855.9
31	887.8
32	919.7
33	951.2
34	981.3
35	1009.4
36	1033.6
37	1051.0
38	1063.5
39	1071.1
40	1073.7

cm	liters	cm	liters
1	0.4	51	539.5
2	1.6	52	552.1
3	3.6	53	564.6
4	6.3	54	577.2
5	9.8	55	589.8
6	14.1	56	602.3
7	19.2	57	614.9
8	25.0	58	627.5
9	31.6	59	640.0
10	38.9	60	652.6
11	46.9	61	665.1
12	55.9	62	677.7
13	68.1	63	690.3
14	79.0	64	702.8
15	89.8	65	715.4
16	101.3	66	727.9
17	113.2	67	740.5
18	125.3	68	753.1
19	137.7	69	765.6
20	150.1	70	778.2
21	162.7	71	790.8
22	175.2	72	803.3
23	187.8	73	815.9
24	200.4	74	828.4
25	212.9	75	841.0
26	225.5	76	853.6
27	238.0	77	866.1
28	250.6	78	878.7
29	263.2	79	891.2
30	275.7	80	903.8
31	288.3	81	916.4
32	300.9	82	928.9
33	313.4	83	941.3
34	326.0	84	953.6
35	338.5	85	965.6
36	351.1	86	977.3
37	363.7	87	988.6
38	376.2	88	999.2
39	388.8	89	1010.7
40	401.3	90	1022.0
41	413.9	91	1030.4
42	426.5	92	1038.2
43	439.0	93	1045.2
44	451.6	94	1051.4
45	464.2	95	1056.9
46	476.7	96	1061.7
47	489.3	97	1065.7
48	501.8	98	1068.9
49	514.4	99	1071.3
50	527.0	100	1073.0



ZONE	REV	DESCRIPTION	DATE	APPROVED

NO.	QTY	DESCRIPTION	MATERIAL
1	1	REL. VALVE, 1/2" NPT	BRASS
2	1	REL. VALVE, 1/2" NPT	BRASS
3	1	REL. VALVE, 1/2" NPT	BRASS
4	1	RELIEF VALVE, 1/4" NPT, 1/2 PSIG	BRASS
5	1	RUPTURE DISC, 1/2" NPT, 25 PSIG	BRASS
6	1	ELBOW, 90 DEG, 1/2" NPT	BRASS
7	1	CROSS, 1/2" NPT	BRASS
8	1	RELIEF VALVE, 1/2" NPT, 15 PSIG	BRASS
9	1	RELIEF VALVE, 1/2" NPT, 15 PSIG	BRASS
10	1	COMPOUND PRESSURE GAUGE, 5000-15 PSI	BRASS
11	1	COUPLING, 1/2" NPT	BRASS
12	1	QUICK COUPLING, 3/8"	BRASS
13	1	QUICK COUPLING, 1/2"	BRASS
14	1	FLANGE ASSEMBLY, 4"	SS304
15	4	LIFTING LUGS	SS304
16	1	VACUUM PUMP-OUT PORT	SS304
17	2	1/8" O.D. GUIDE TUBE	316

**CRYOFAB**  
KENILWORTH, NJ 07033

LIQUID HELIUM STORAGE DEWAR  
1000 LITER CAPACITY

UNLESS NOTED OTHERWISE ALL DIMENSIONS ARE IN INCHES  
BREAK ALL SHARP EDGES  
UNLESS OTHERWISE SPECIFIED ANGLES

STANDARD NOTES:

DATE: 10/21/05  
SCALE: NTS  
SHEET: 1

DESIGN NO.: CMSH1000  
REV: 1

SIGNATURE: \_\_\_\_\_  
T.T.

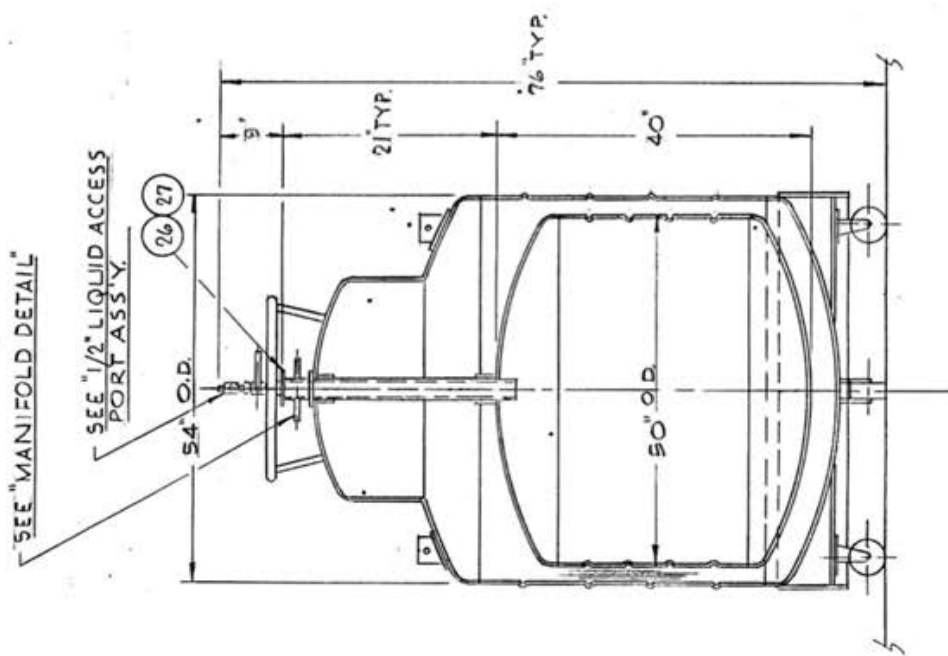
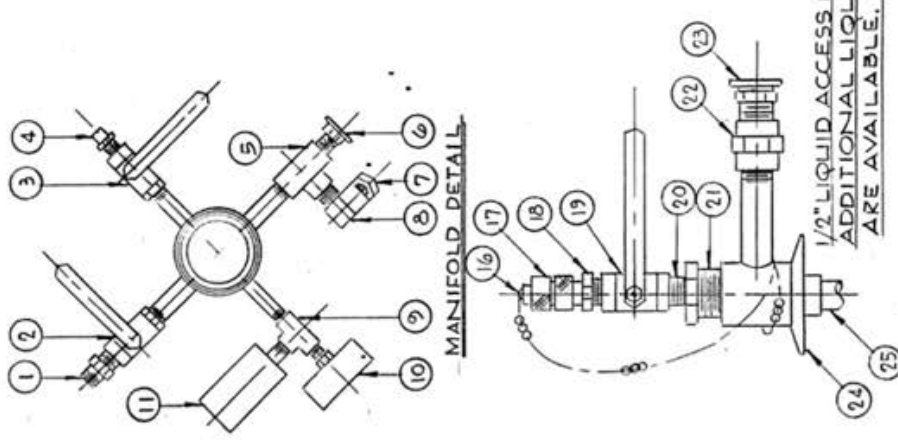
DATE: 10/21/05  
SCALE: NTS  
SHEET: 1

DESIGN NO.: CMSH1000  
REV: 1

NOTES:  
SERVICE: LIQUEFIED HELIUM  
DESIGN TEMPERATURE: -452°F  
INNER VESSEL MAT'L: S/S TYPE 304  
VACUUM JACKET MAT'L: S/S TYPE 304

THIS DRAWING CONTAINS PROPRIETARY INFORMATION WHICH SHOULD NOT BE REPRODUCED OR COPIED WITHOUT THE WRITTEN PERMISSION FROM CRYOFAB, INC.

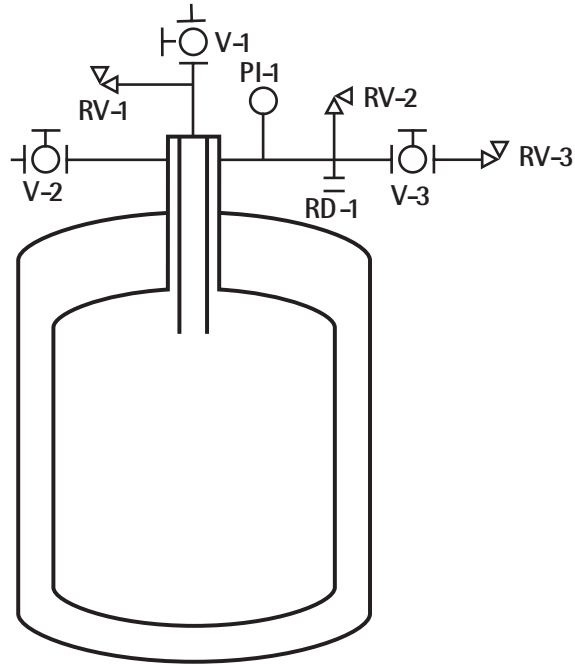
PARTS LIST		
NO REQ	DESCRIPTION	MAT'L
1	HEX NIPPLE, 1/2" NPT	BRASS
2	BALL VALVE, 1/2" NPT	BRONZE
3	BALL VALVE, 1/4" NPT	BRONZE
4	RELIEF VALVE, 1/4" NPT, 1/2" PSIG	BRASS
5	TEE, 1/2" NPT	BRASS
6	RELIEF VALVE, 1/2" NPT, 10 PSIG	BRASS
7	RUPTURE DISC, 1/2" NPT, 35 PSIG	BRASS
8	ELBOW, 1/2" NPT	BRASS
9	TEE, 1/4" NPT	BRASS
10	COMPOUND GAUGE, 30" HG-O-30PSIG	5/5
11	OSCILLATION CHAMBER	304S/5
16	PLUG & CHAIN, 3/8"	BRASS
17	QUICK COUPLING, 3/8"	BRASS
18	QUICK COUPLING, THRD, 1/2"	BRASS
19	BALL VALVE, 1/2" NPT	BRASS
20	CLOSE NIPPLE, 1/2" NPT	BRASS
21	BUSHING, 1/2" FNPT x 1" MNPT	BRASS
22	COUPLING, 1/2" NPT	BRASS
23	RELIEF VALVE, 1/2" NPT, 15 PSIG	BRASS
24	FLANGE ASSY	5/5
25	GUIDE TUBE, 1 1/4" O.D.	G-10
26	CLAMP HEAVY DUTY, 2 1/2"	BLINA
27	GASKET, 2 1/2"	
28	PUMP OUT (NOT SHOWN)	



NOTE:  
L FORKLIFT PROVISIONS CAN BE PROVIDED  
INSTEAD OF, OR IN ADDITION TO, CASTERS.

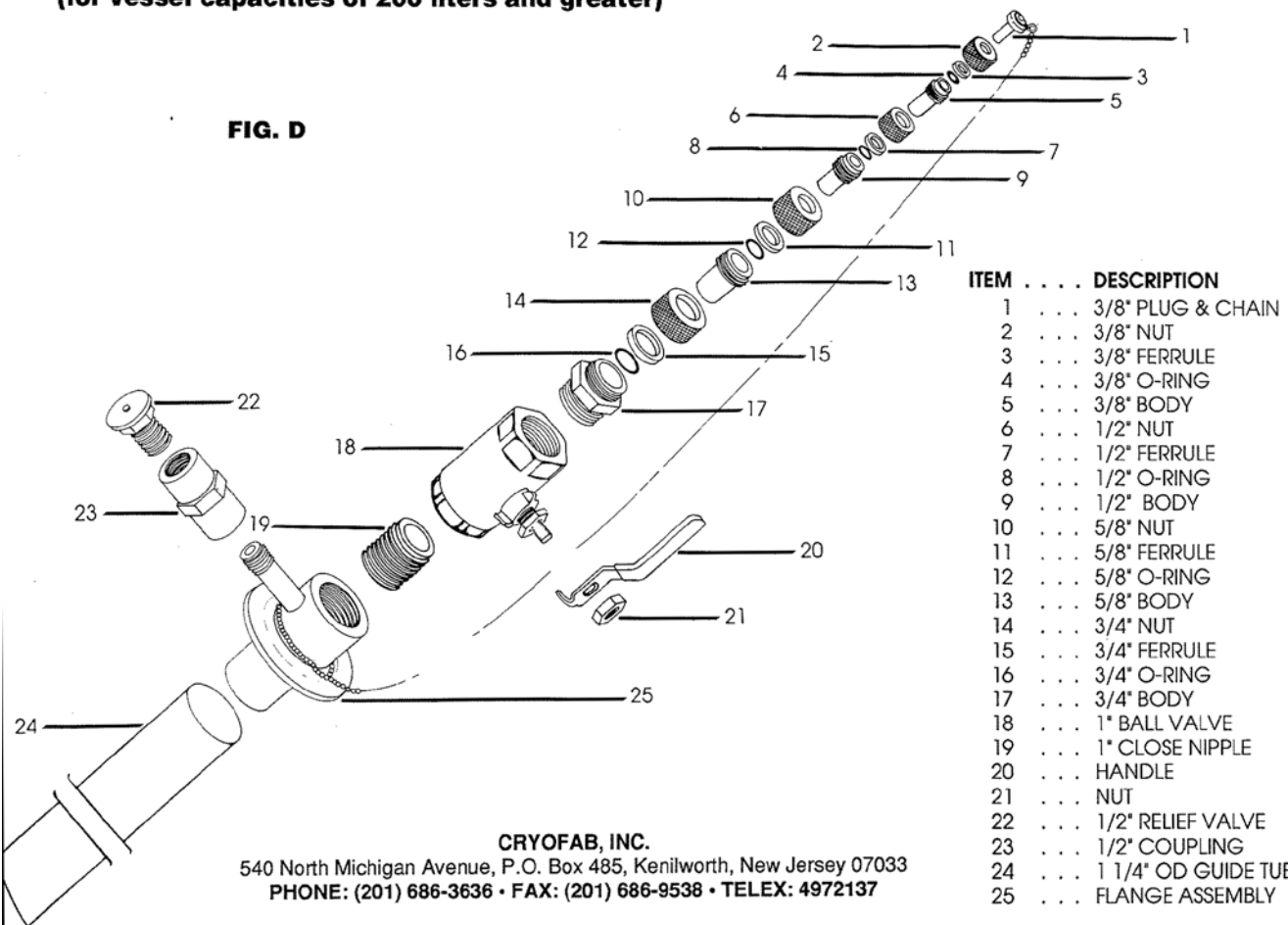
		KENILWORTH, N.J. 07033	
		MULTISHIELDED LIQUID HELIUM STORAGE DEWAR, 1000 LITER CAPACITY	
DATE: _____ DRAWN BY: _____ CHECKED BY: _____	REVISIONS	NTS	CSMH-1000

### Piping Schematic



### 3/4" Liquid Access Port Assembly (for vessel capacities of 200 liters and greater)

FIG. D



CRYOFAB, INC.

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