



NOTES

1. Use riveted copper pipe straps to hold pipe to heat sink. Apply Dow Corning SE 4486 conductive RTV along edge of interface between pipe and aluminum sheet.
2. Use 3M Scotch-Weld 2216 two part epoxy to cement all metal sheets and styrofoam together.
3. Use contact adhesive to cement formica to Styrofoam.
4. Dry fit all parts before using adhesive.
5. Rivets and pipe straps not shown.

ITEM	QTY	DESCRIPTION	PART NUMBER
13	2	Swage-Lok Elbow 1/2" to 1/4 NPT	-
12	2	Quick Disconnect Coupling MCM1077T17	-
11.5	12	1/8 X .313 Std Pop Rivet	-
11.4	4	Hex nut 1/4-20	-
11.3	4	Washer, ANSI A, Normal 0.25	-
11.2	2	Threaded Rod MCM98743A230	-
11.1	1	Insulation Handle Attachment Plate	PFS03035
11	4	Handle Assembly	-
10	2	1/4 NPT Ball Valve	-
9	1	Formica, black	-
8	2	Formica, black	-
7	2	Formica, black	-
6	1	Insulation End 3" Foam	PFS03024
5	1	Styrofoam 3/4" Layer	-
4	1	Insulation End Water Jacket	PFS03028
3	1	Insulation End 1 Heat Sink	PFS03010
2	1	Insulation End 4" Foam	PFS03021
1	1	Insulation End 1 Outer Sheet	PFS03009

Bill of Material

**THE OBSERVATORIES
OF THE CARNEGIE INSTITUTION OF WASHINGTON**
813 Santa Barbara Street
Pasadena, CA 91101

MATERIAL	UNLESS OTHERWISE SPECIFIED FRACTIONAL DECIMAL ANGULAR +/- 1/32 .XX +/- 0.01 +/- 0.1 DEG .XXX +/- 0.002 GOAL .XXX +/- 0.005 REQD BREAK SHARP EDGES MACHINED SURFACES 125		
EST WEIGHT	53 lb		
SCALE	1:10		P lanet F nder S pectrograph
DWN	CRANE	5/20/2009	
APVD	BY	DATE	Insulation End 1 Assembly
SHEET	DRAWING NUMBER		
B	PFS00030		SHT 1 OF 1
			REV 1