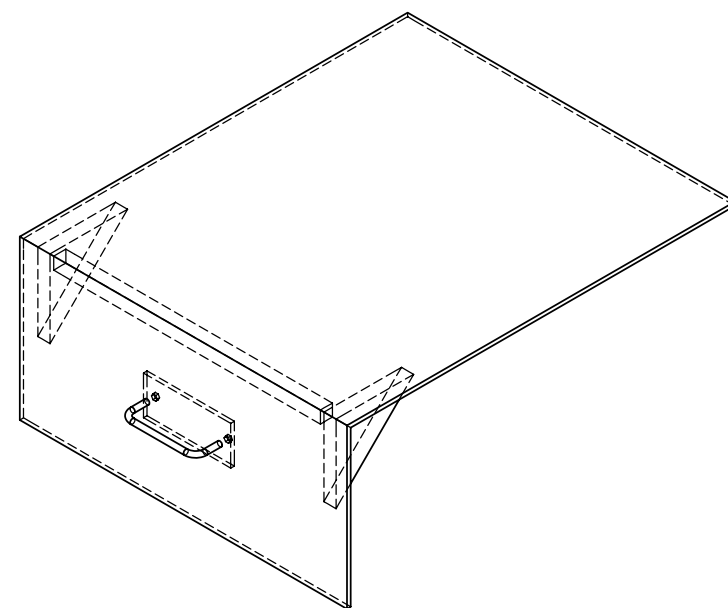
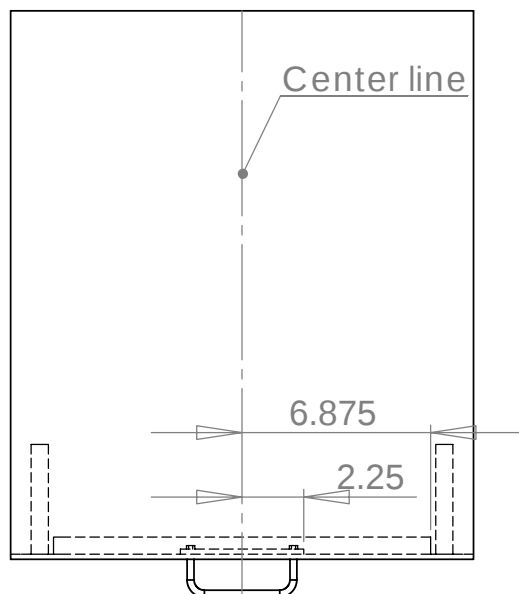
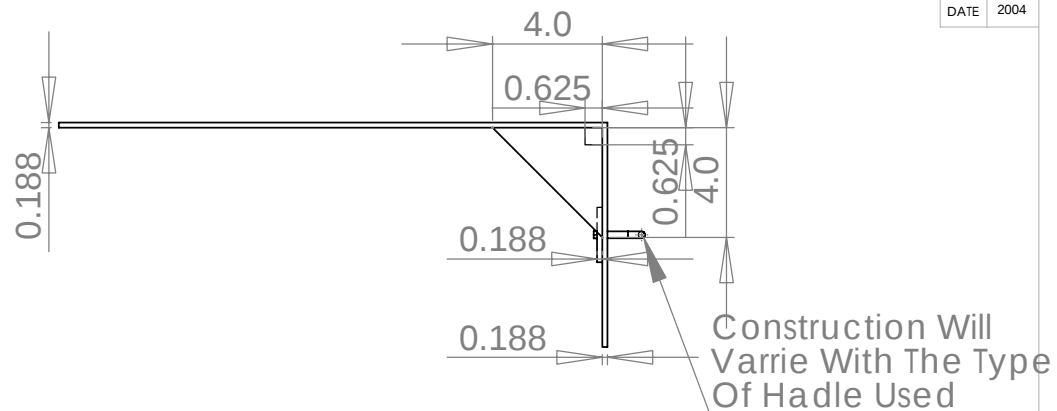
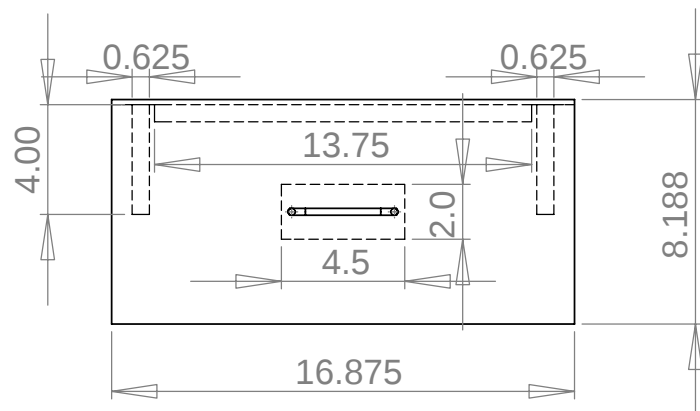




	NAME	DATE
DRAWN/ENG.	JAKE MALLET	2004
UNITS	inches	
TOLERANCES	+/- .01	
MATERIAL	Plastic	
FINISH	None	
COMMENTS	QUANTITY	x 1

Custom Plastic Box Lid Cover used for enclosing the Impactor Box Assemb.



NOAA - CMDL



TITLE:

Impactor Plastic Box Lid Cover

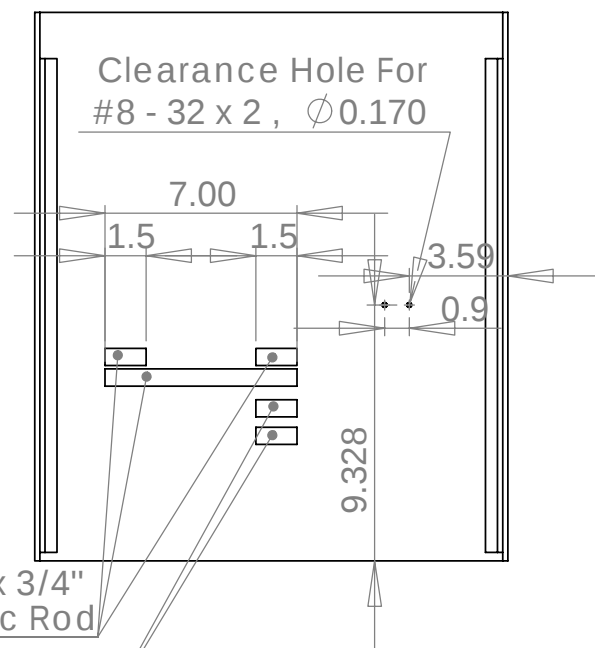
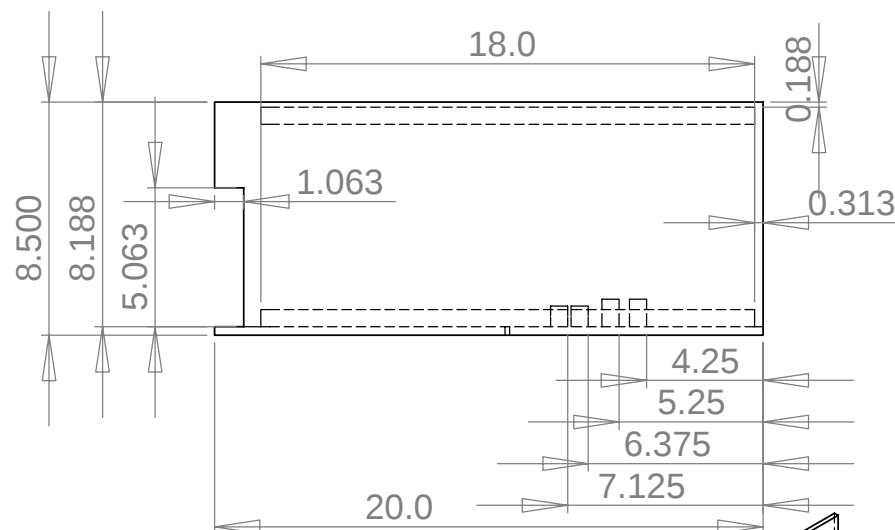
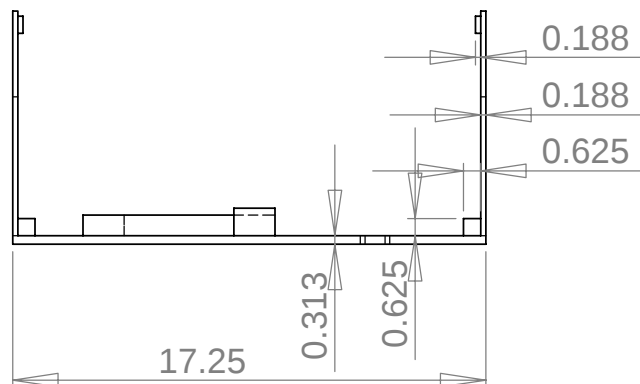
SIZE
A

DWG. NO.

REV

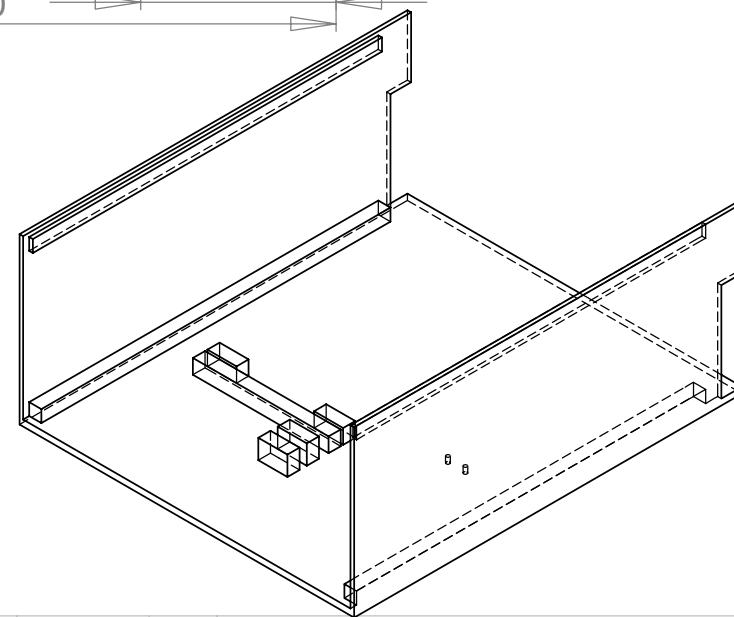
SCALE: 1:7

SHEET 1 OF 1



5/8" x 3/4"
Plastic Rod

5/8" x 1"
Plastic Rod



	NAME	DATE
DRAWN/ENG.	JAKE MALLET	2004
UNITS	inches	
TOLERANCES	+/- .01	
MATERIAL	Plastic	
FINISH	None	
COMMENTS	QUANTITY	x 1

Custom Plastic Box used for housing the Impactor Box Assemb.



NOAA - CMDL



TITLE:

Impactor Plastic
Box

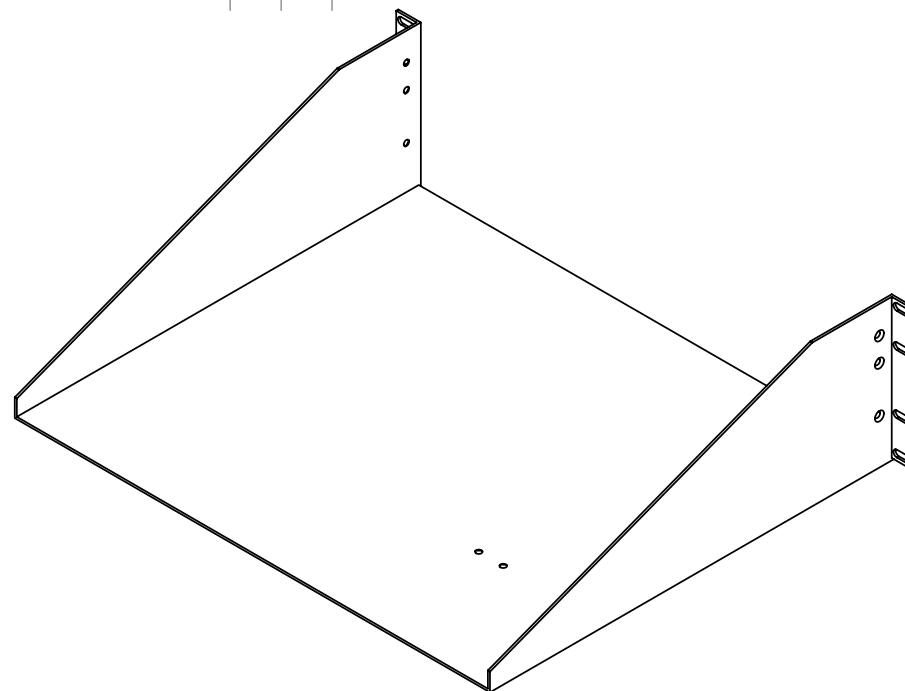
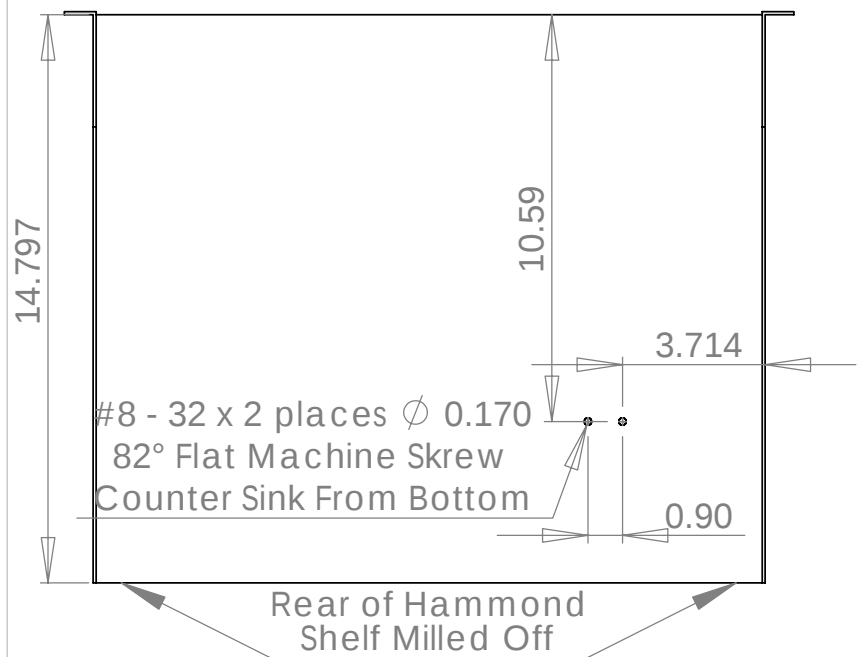
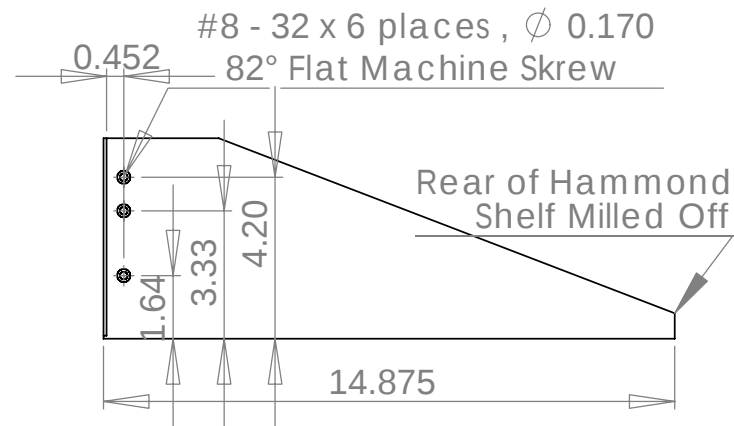
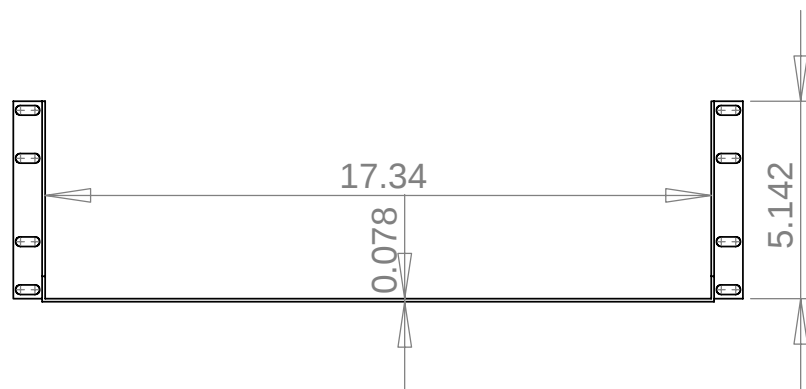
SIZE
A

DWG. NO.

REV

SCALE: 1:7

SHEET 1 OF 1



	NAME	DATE
DRAWN/ENG.	JAKE MALLET	2004
UNITS	inches	
TOLERANCES	+/- .01	
MATERIAL	Aluminum	
FINISH	None	
COMMENTS	QUANTITY	x 1

Hammond Rack Shelf RASU190515BK1
for Custom Mod.



NOAA - CMDL



TITLE:

Hammond Rack
For Impactor Box

SIZE

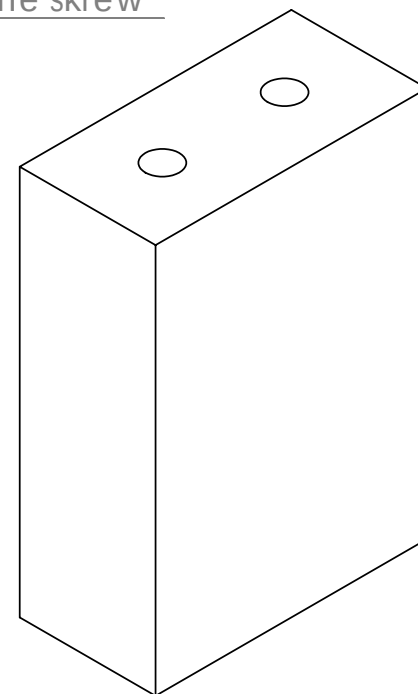
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DWG. NO.

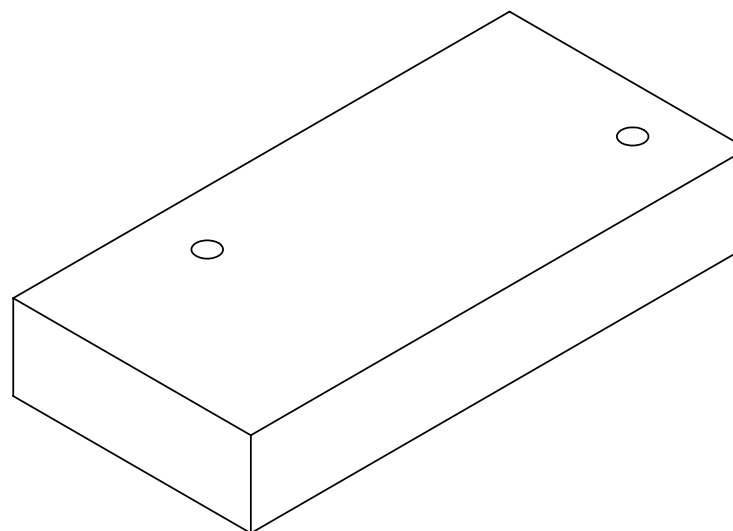
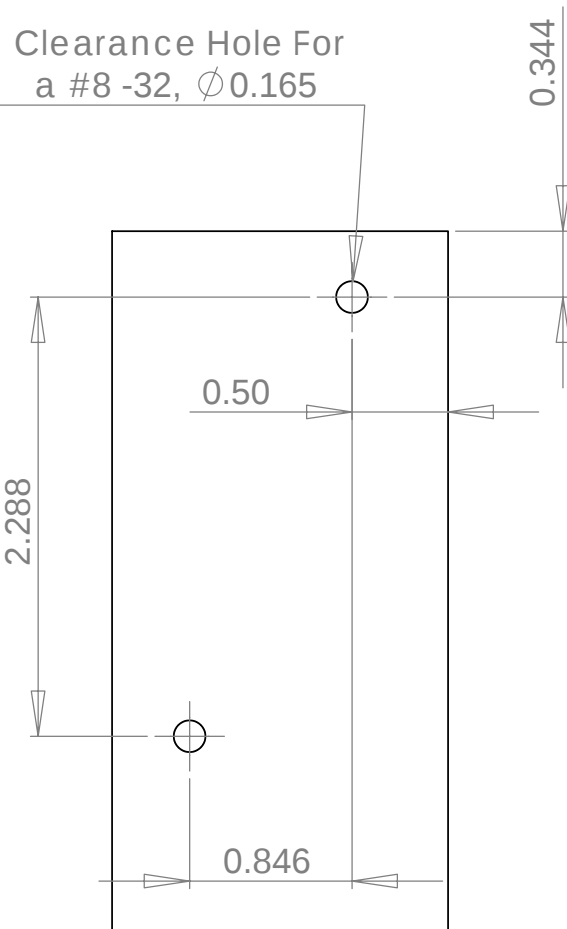
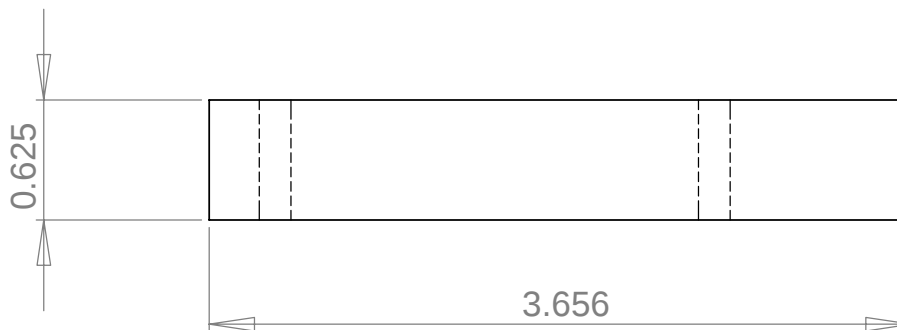
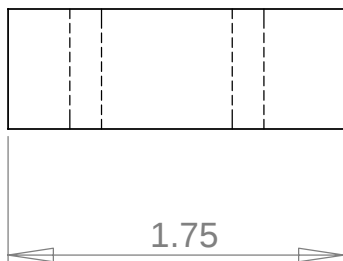
REV

SCALE: 1:1

SHEET 1 OF 1



SHEET 1 OF 1



	NAME	DATE
DRAWN/ENG.	JAKE MALLET	2004
UNITS	inches	
TOLERANCES	+/- .001	
MATERIAL	Aluminum	
FINISH	None	
COMMENTS	QUANTITY	x 1

Spacer block to support the Mass Flow Controller 5851E



NOAA - CMDL



TITLE:

Mass Flow Cont.
Alum. Spacer

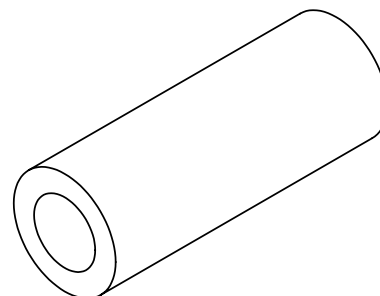
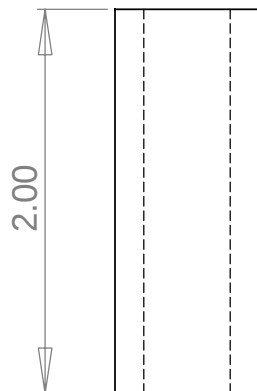
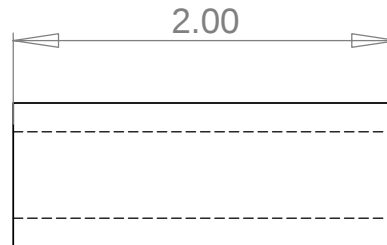
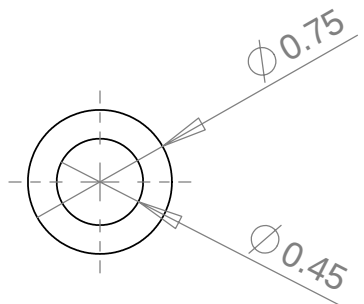
SIZE
A

DWG. NO.

REV

SCALE: 1:1

SHEET 1 OF 1



	NAME	DATE
DRAWN/ENG.	JAKE MALLET	2004
UNITS	inches	
TOLERANCES	+/- .05	
MATERIAL	Nylon	
FINISH	None	
COMMENTS	QUANTITY	x 1

Nylon Tube Spacer to support the Vaisala Sensor Humitter.



NOAA - CMDL



TITLE:

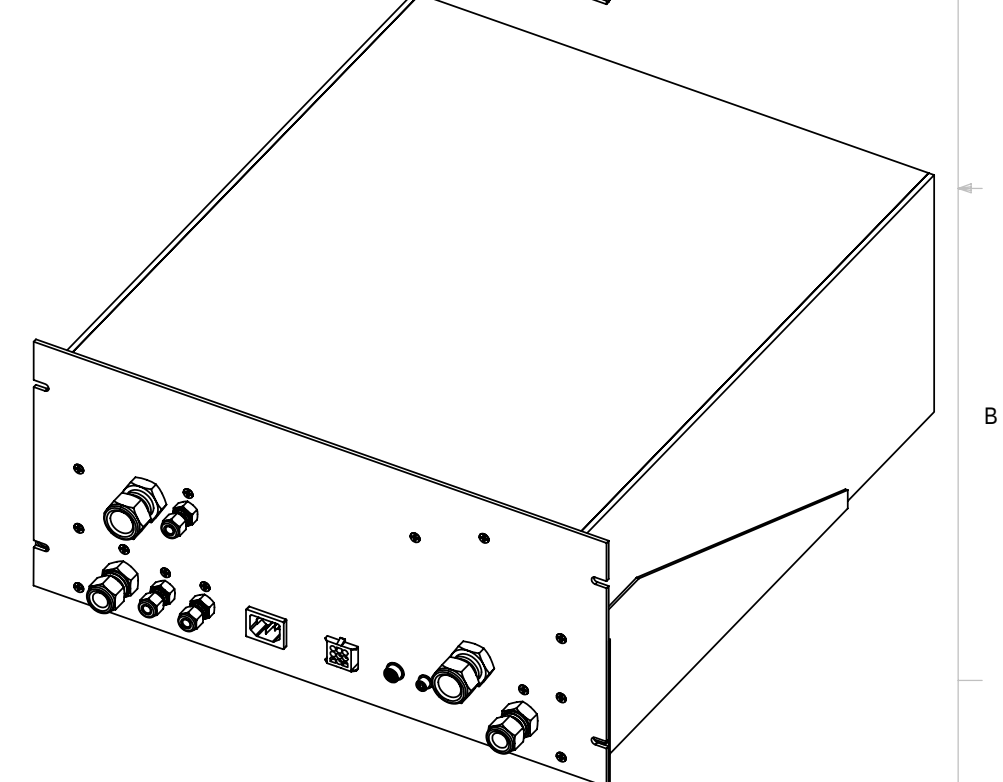
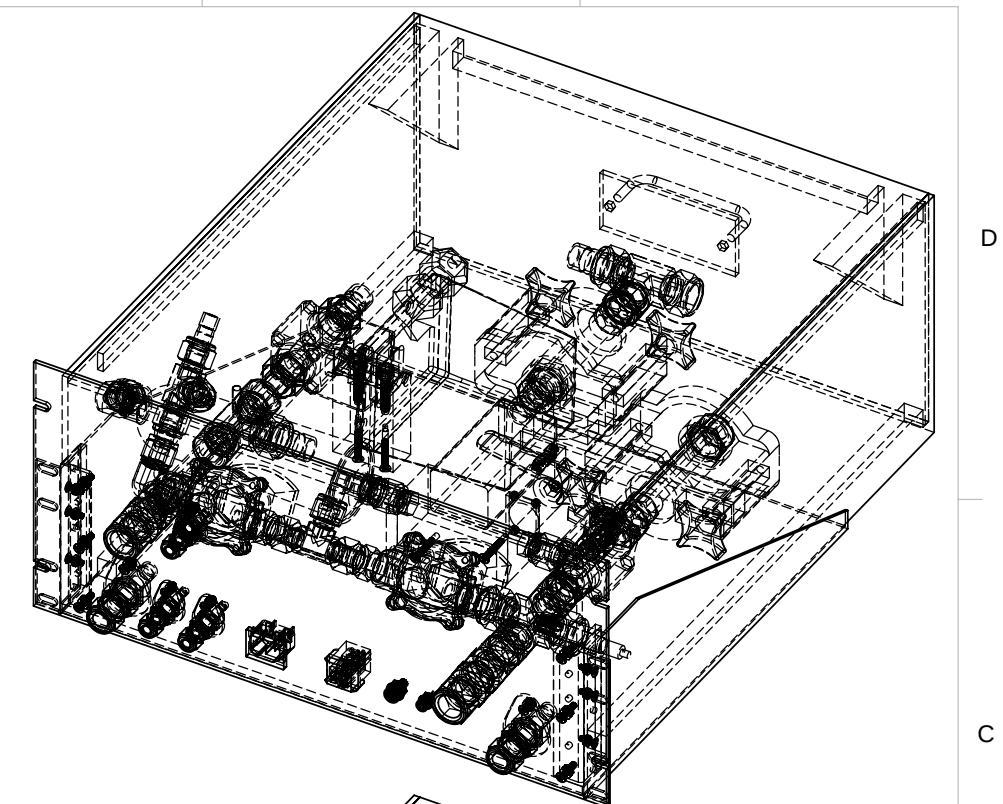
Vaisala Sensor
Humitter Spacer

SIZE	DWG. NO.	REV
A		

SCALE: 1:1

SHEET 1 OF 1

	8	7	6	5	4	3	2	1
	ITEM NO.	QTY.	PART NO.		DESCRIPTION			
	1	1	HAMMOND Rack Shelf RASU190515BK1					
	2	1	Impactor Plastic Box					
	3	1	Impactor Plastic Box Lid					
	4	1	Impactor Box Mounting Face Plate					
D	5	2	1x1x5in aluminum angle Al					
	6	1	Mass Flow Controller Al. Spacer					
	7	1	Aluminum Block Spacer 1 x 2 x 2.875 in					
	8	1	Flow Filter					
	9	1	Brooks Mass Flow Controller 5851E					
	10	1	Red Hat Gen. Pur. Valve 104R 1_2in (NO, 8210G34)					
	11	1	Red Hat Shutoff Valve 104R 1_2in (NC, 8210G94)					
	12	2	Swagelok Bulkhead Union - SS-1210-61 3_4Tubing		Bulkhead Union - Fractional			
	13	1	Swagelok Male Connector - NY-810-1-6 1_2Tubing		Male Connector (Tapered Thread) - Fractional			
	14	1	Swagelok Union Cross - SS-1210-4 3_4Tubing		Union Cross - Fractional			
	15	6	Swagelok Port Connector - SS-1211-PC 3_4Tubing		Port Connector - Fractional			
	16	2	Swagelok Bulkhead Reducer - SS-400-R1-4 1_4Tubing		Bulkhead Reducer - Fractional/Fractional			
	17	2	Bulkhead Retainer S-812-61F 15_16		Bulkhead Retainer			
C	18	3	Bulkhead Retainer S-402-61F 5_8		Bulkhead Retainer			
	19	1	Swagelok Bulkhead Reducer - B-400-R1-4 1_4Tubing		Bulkhead Reducer - Fractional/Fractional			
	20	2	Swagelok Bulkhead Reducer - B-810-R1-8 1_2Tubing		Bulkhead Reducer - Fractional/Fractional			
	21	1	Swagelok Ball Valve SS_63 TS 12_w90deg					
	22	1	Swagelok Male Elbow - NY-810-2-6 1_2Tubing		Male Elbow (Tapered Thread) - Fractional			
	23	1	Swagelok Male Adapter - SS-12-TA-1-8 3_4Tubing		Male Adapter (Tapered Thread)- Fractional			
	24	2	Swagelok Union Tee - B-810-3 1_2Tubing		Union Tee - Fractional			
	25	2	Swagelok Male Adapter - B-8-TA-1-8 1_2Tubing		Male Adapter (Tapered Thread)- Fractional			
	26	5	Swagelok Port Connector - B-811-PC 1_2Tubing		Port Connector - Fractional			
	27	1	Swagelok Male Elbow - B-810-2-8 1_2Tubing		Male Elbow (Tapered Thread) - Fractional			
	28	1	Swagelok Ball Valve SS_63 TS 12_42 AC					
	29	1	Swagelok Union Elbow - NY-810-9 1_2Tubing		Union Elbow - Fractional			
	30	1	Swagelok Reducing Port Connector - B-811-PC-4 1_2Tubing		Reducing Port Connector - Fractional			
B	31	1	Swagelok Union Tee - SS-1210-3 3_4Tubing with 1_4 Tube Mod.		Union Tee - Fractional			
	32	1	Swagelok Union Tee - SS-1210-3 3_4Tubing		Union Tee - Fractional			
	33	3	#6 - 32 x .5 - 82deg flat head machine skrew					
	34	3	Machine Skrew Nut - #6 - 32					
	35	8	#8 - 32 x .5 - 82deg flat head machine skrew					
	36	14	Machine Skrew Nut - #8 - 32					
	37	6	#8 - 32 x .75 - 82deg flat head machine skrew					
	38	4	#8 - 32 x 1.0 - 82deg flat head machine skrew					
	39	2	Socket Cap 1_4 - 20 x 1.5 Machine Skrew					
	40	1	S.S. Tubing 3_4 x 2in		Length can vary for instaltion 2" - 3"			
	41	1	Custom 3_4 x 4in S.S. Tubing with Pitot tube					
	42	1	Impactor (10 micro meter)					
	43	1	Impactor (1 micro meter)					
	44	1	AMP Mate 'n LoK connector		For 1/8" face plate mounting			
A	45	1	120V IEC Connector					
	46	1	Vaisala Bulkhead Surface Mount Connector - Hi Rose HR10A					
	47	1	Flow Meter Bulkhead Surface Mount Connector - Hi Rose HR10A					
	48	1	Vaisala Sensor NYLON Custom Space Reducer					
	49	1	Vaisala - Humitter					



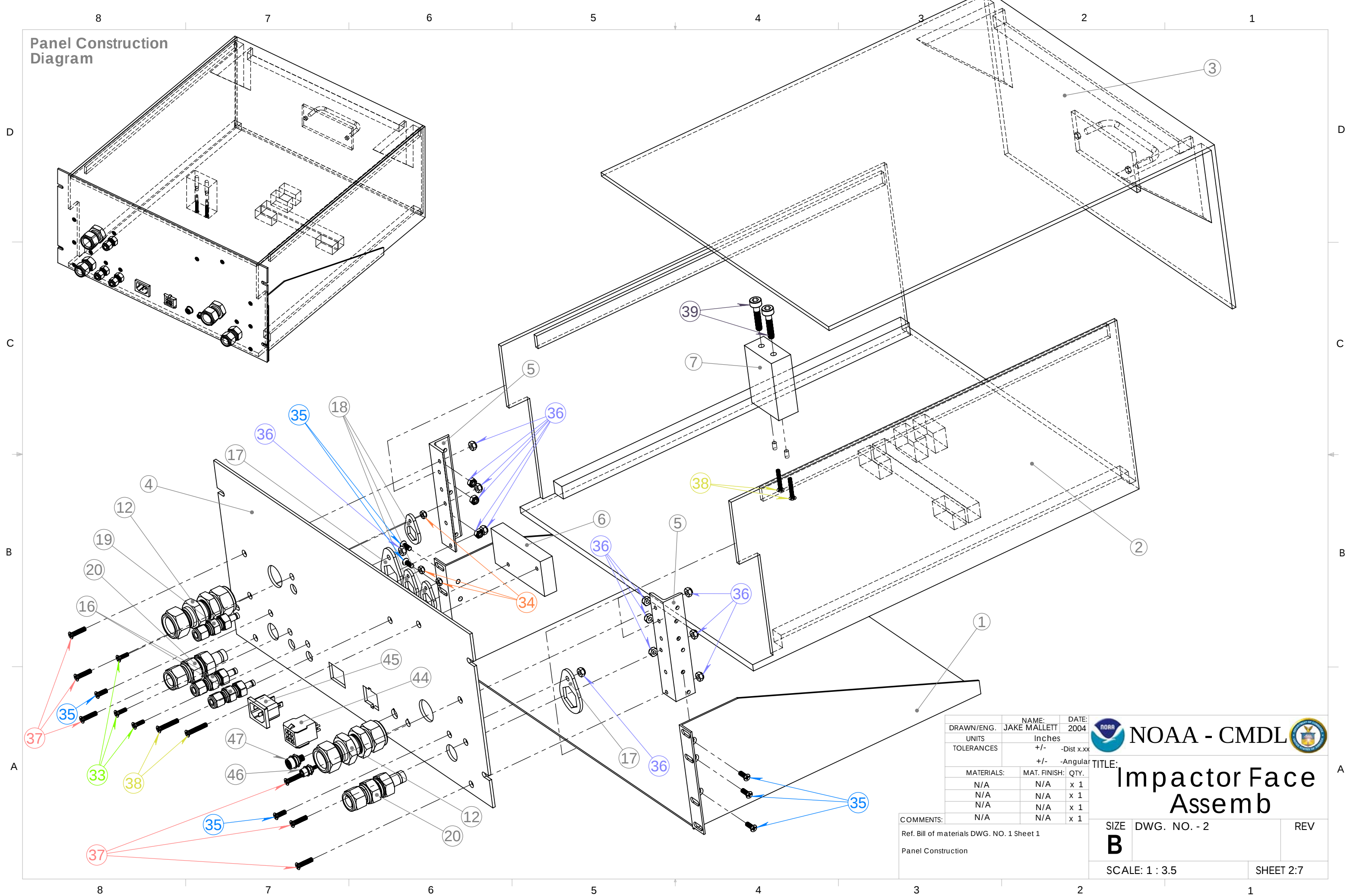
DRAWN/ENG.	NAME:	DATE:
JAKE MALLETT	JAKE MALLETT	2004
UNITS	Inches	
TOLERANCES	+/- -Dist x.xx	
	+/- -Angular	
MATERIALS:	MAT. FINISH:	QTY.
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1
COMMENTS:		
Ref. for Bill of materials		

**NOAA - CMDL**

TITLE:
**Impactor Box
Bill Of Materials**

SIZE	DWG. NO. - 1	REV
B		
SCALE: 1 : 6		SHEET 1:7

Panel Construction
Diagram



DRAWN/ENG.	NAME:	DATE:
JAKE MALLET	JAKE MALLET	2004
UNITS	Inches	
TOLERANCES	+/- -Dist x.xx	
	+/- -Angular	
MATERIALS:	MAT. FINISH:	QTY.
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1

COMMENTS:
Ref. Bill of materials DWG. NO. 1 Sheet 1
Panel Construction

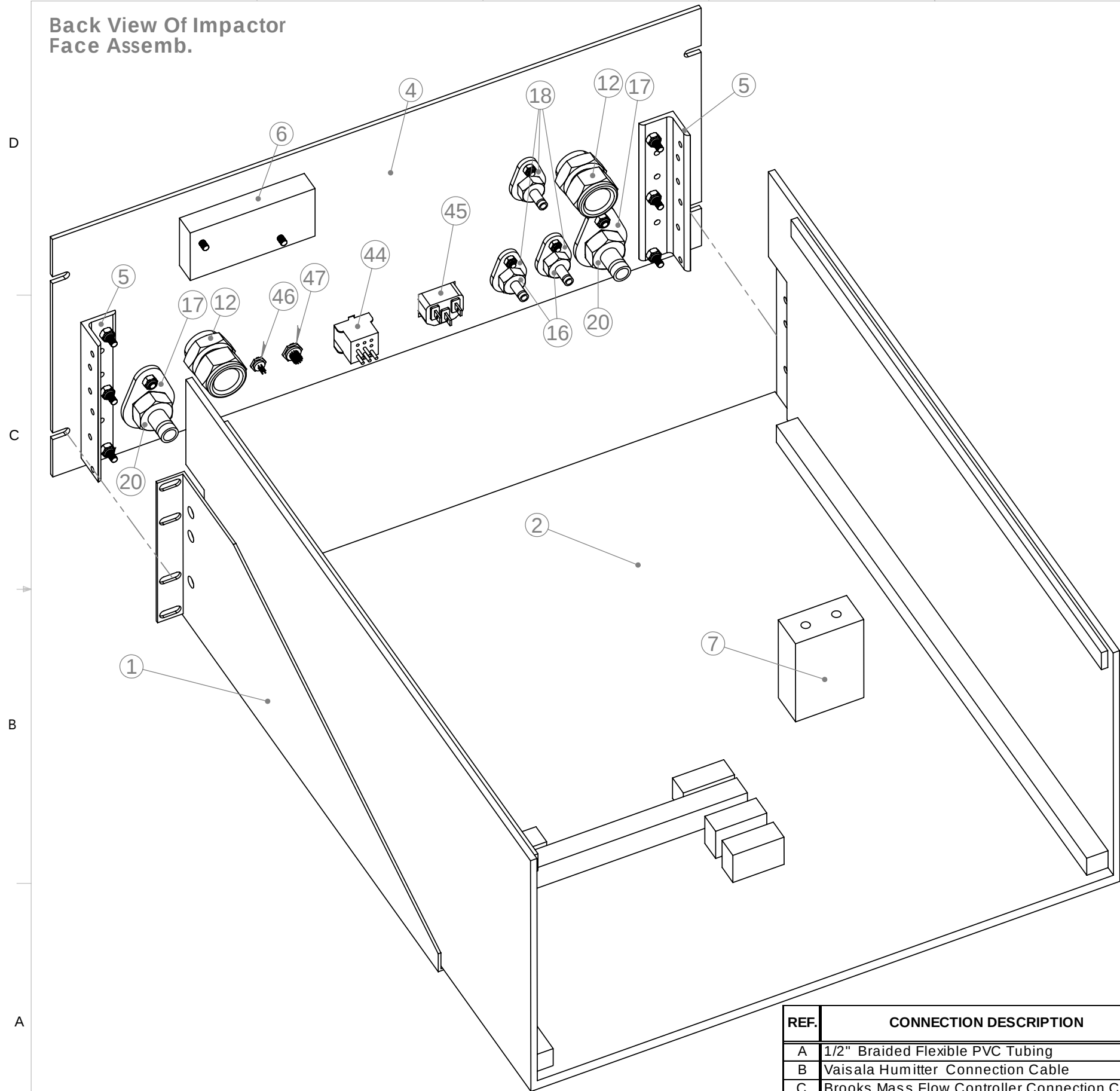


TITLE:
**Impactor Face
Assemb**

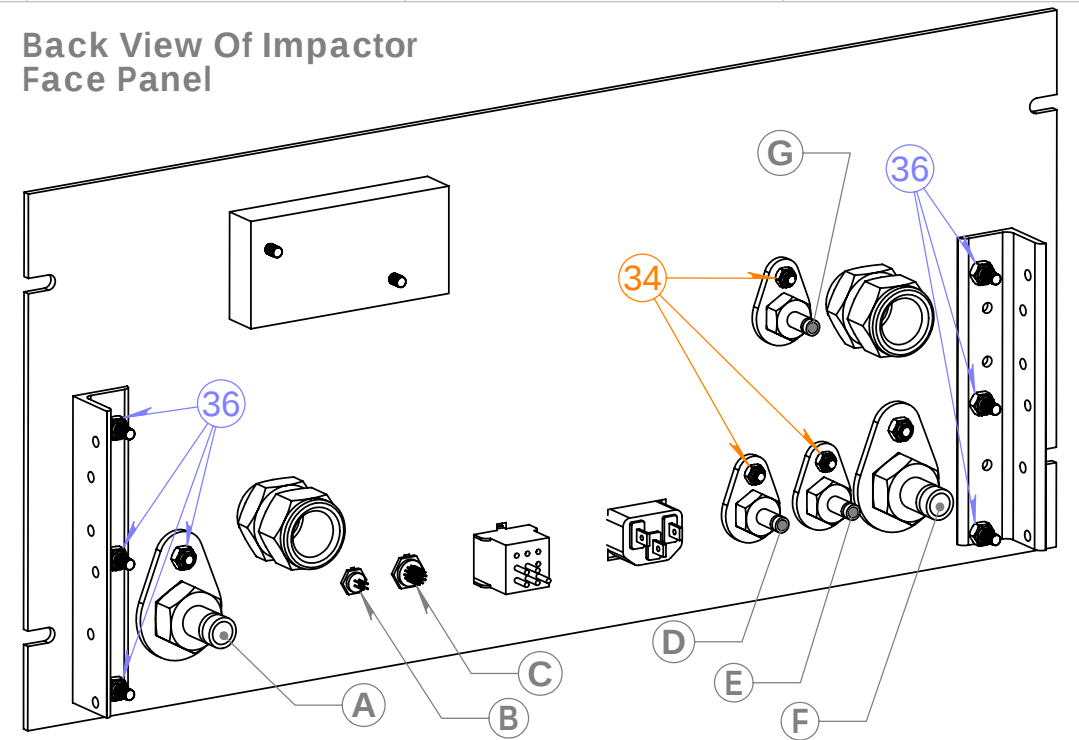
SIZE DWG. NO. - 2 REV

SCALE: 1 : 3.5 SHEET 2:7

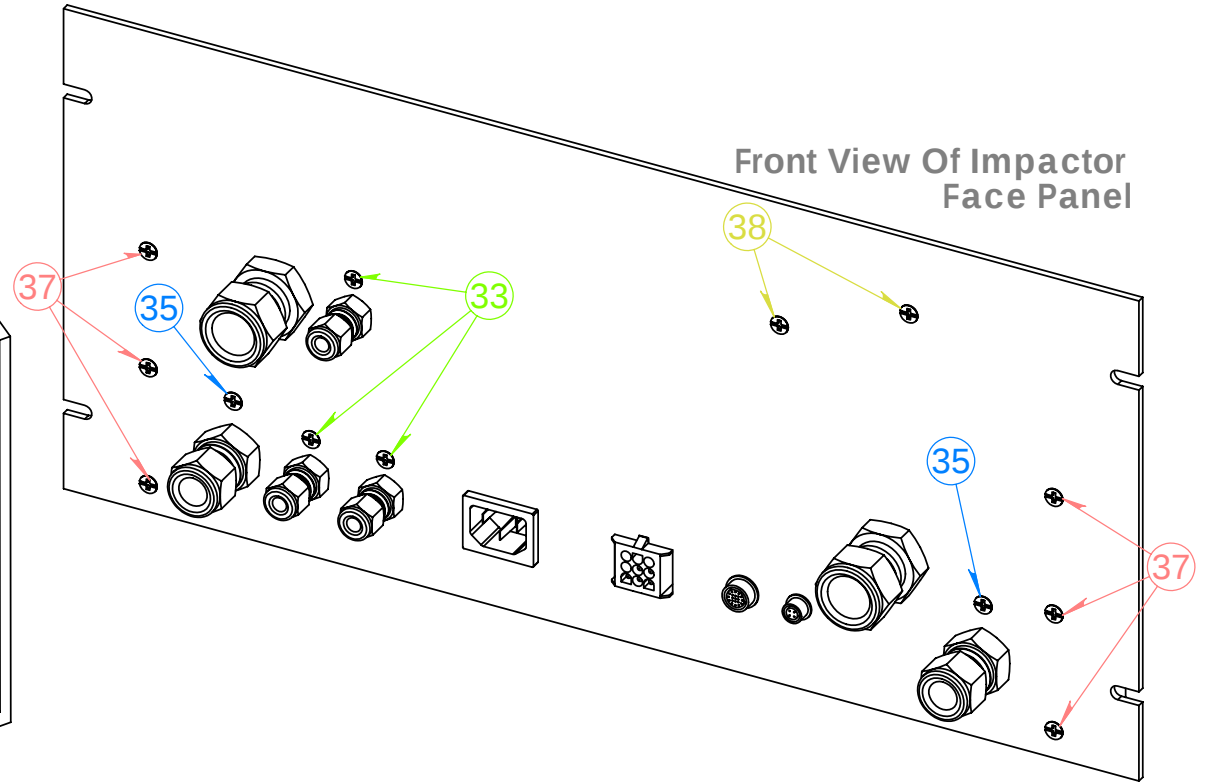
Back View Of Impactor
Face Assemb.



Back View Of Impactor
Face Panel



Front View Of Impactor
Face Panel



REF.	CONNECTION DESCRIPTION	Hose Clamp Req.
A	1/2" Braided Flexible PVC Tubing	Y
B	Vaisala Humitter Connection Cable	N
C	Brooks Mass Flow Controller Connection Cable	N
D	1/4" Braided Flexible PVC Tubing	Y
E	1/4" Black Flexible Conductive Tubing	Y
F	1/2" Black Flexible Conductive Tubing	Y
G	1/4" Black Flexible Conductive Tubing	Y

DRAWN/ENG. JAKE MALLETT

NAME: JAKE MALLETT

DATE: 2004

UNITS Inches

TOLERANCES +/- -Dist x.xx

MATERIALS: N/A

MAT. FINISH: N/A

QTY. x 1

COMMENTS:

Ref. Bill of materials DWG. NO. 1 Sheet 1

NOAA - CMDL

NOAA

IMPACTOR ASSEMBLY

TITLE: Impactor Assemb.

SIZE B

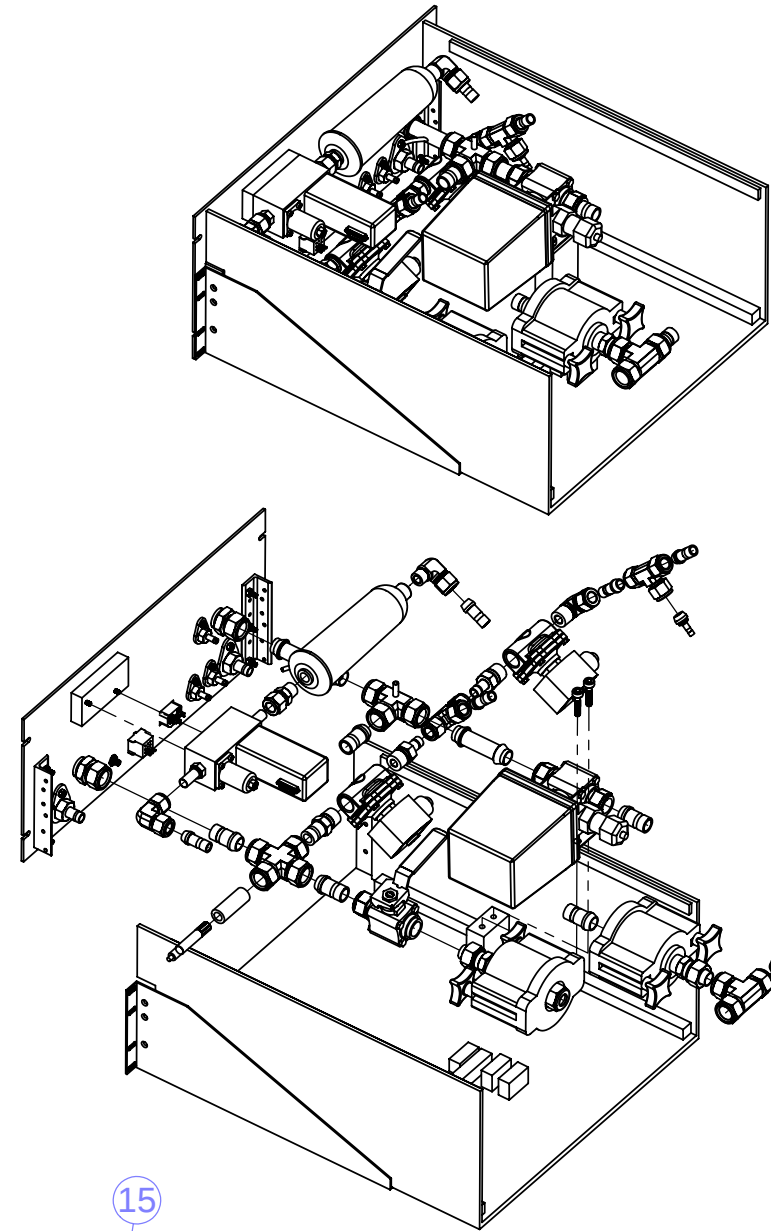
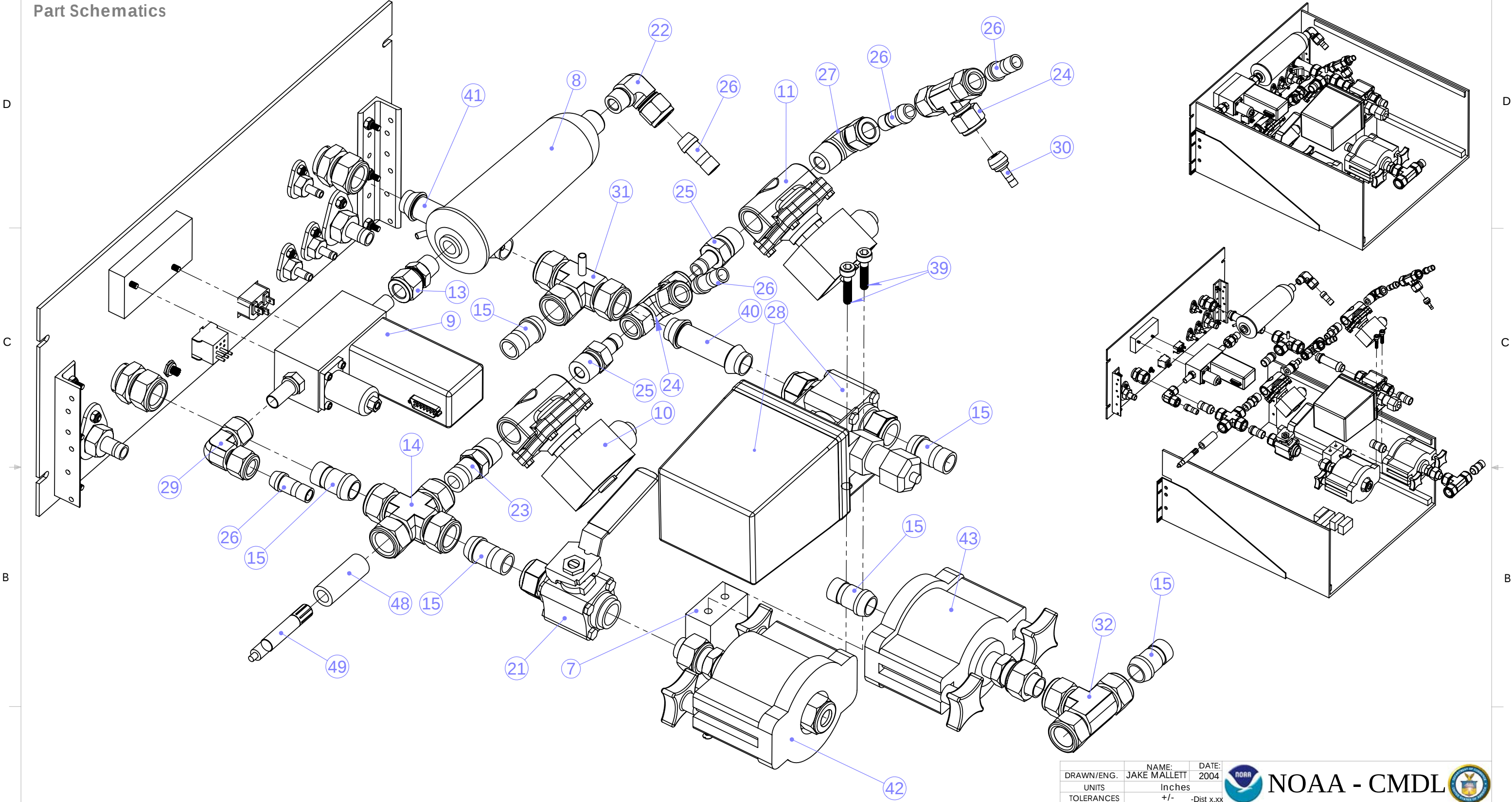
DWG. NO. - 3

REV

SCALE: 1 : 3

SHEET 3:7

Part Schematics



DRAWN/ENG. JAKE MALLET		NAME: JAKE MALLET	DATE: 2004
UNITS +/-		Inches	
TOLERANCES +/-		-Dist x.xx -Angular	
MATERIALS:		MAT. FINISH:	QTY.
N/A		N/A	x 1
N/A		N/A	x 1
N/A		N/A	x 1
N/A		N/A	x 1

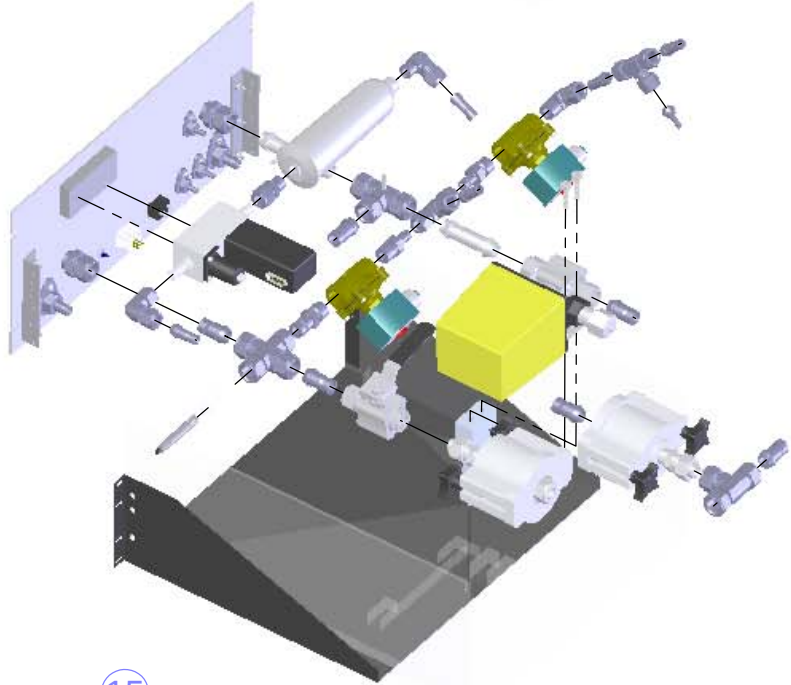
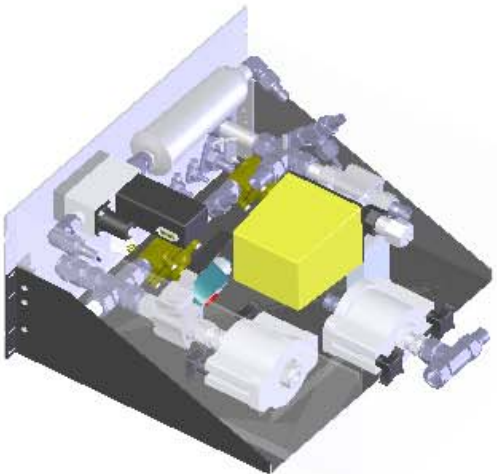
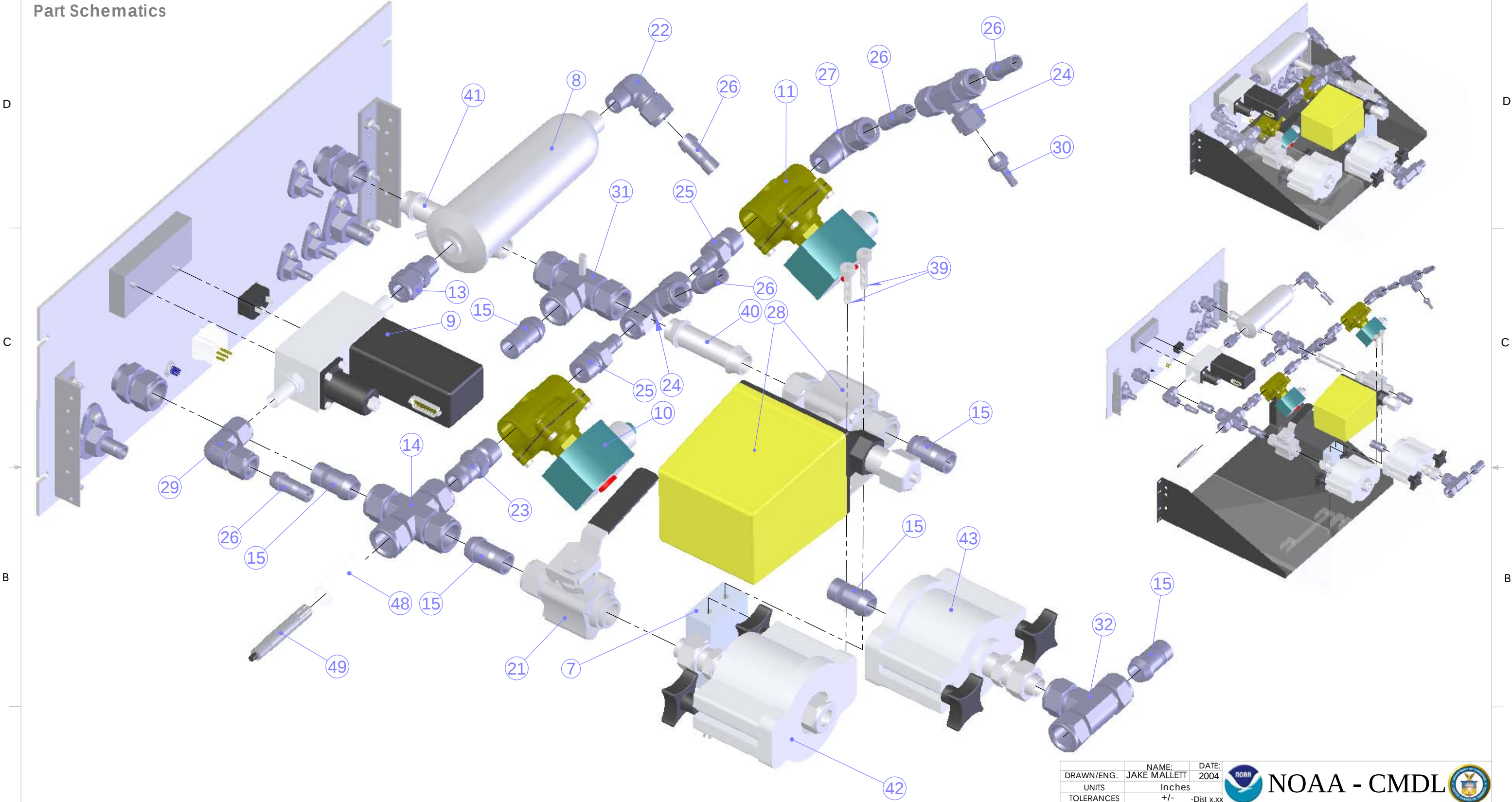
COMMENTS:
Ref. Bill of materials DWG. NO. 1 Sheet 1
Use For Part Layout/Schematic

**NOAA - CMDL**

TITLE: **Impactor Interior Assemb.**

SIZE B	DWG. NO. - 4	REV
SCALE: 1 : 3		SHEET 4:7

Part Schematics



DRAWN/ENG. JAKE MALLET		NAME: JAKE MALLET	DATE: 2004
UNITS +/-		Inches	
TOLERANCES +/-		-Dist x.xx -Angular	
MATERIALS:		MAT. FINISH:	QTY.
N/A		N/A	x 1
N/A		N/A	x 1
N/A		N/A	x 1
N/A		N/A	x 1

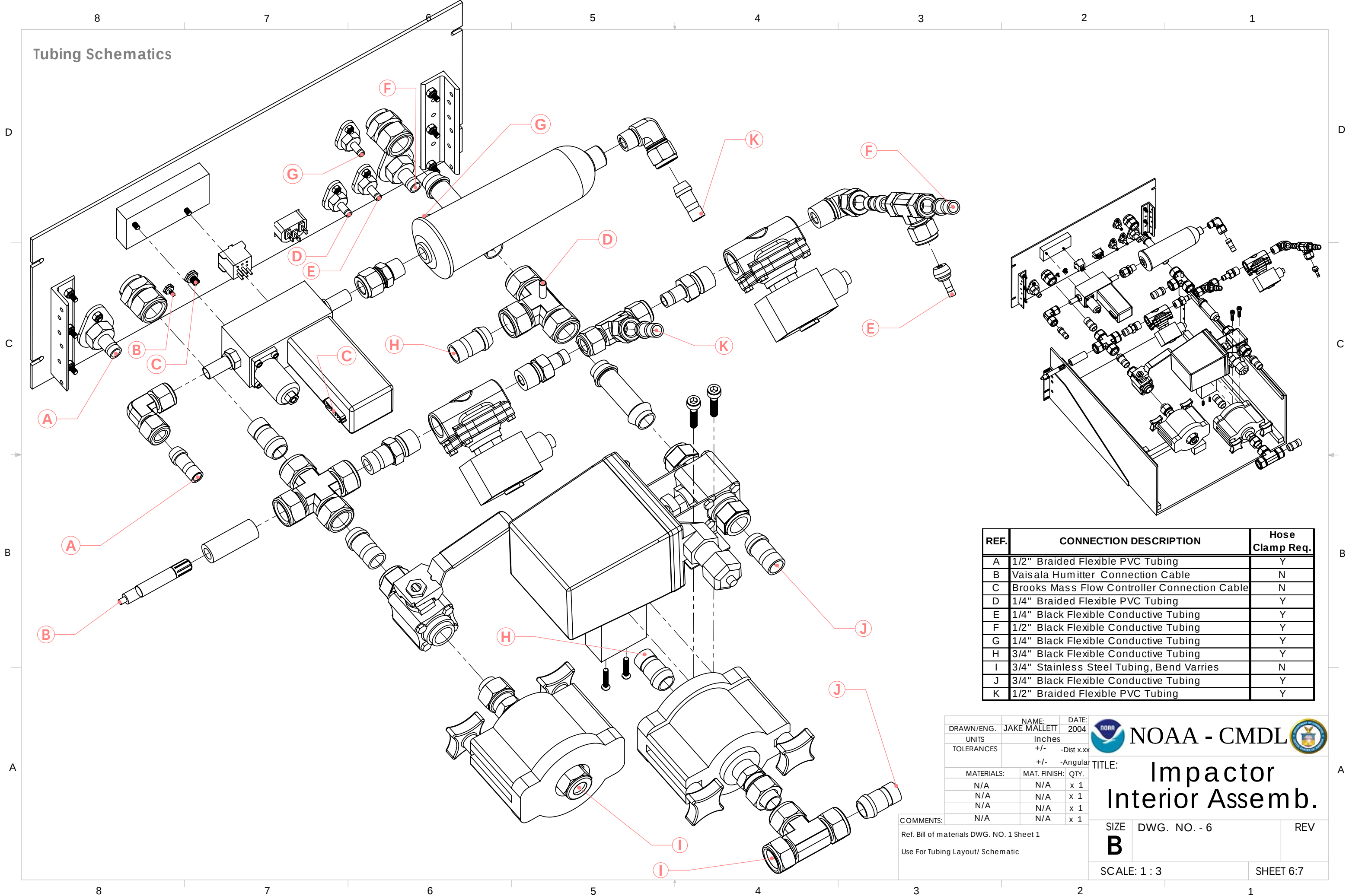
COMMENTS:
Ref. Bill of materials DWG. NO. 1 Sheet 1
Use For Part Layout/Schematic

**NOAA - CMDL**

TITLE: **Impactor Interior Assemb.**

SIZE B	DWG. NO. - 5	REV
SCALE: 1 : 3		SHEET 5:7

Tubing Schematics



REF.	CONNECTION DESCRIPTION	Hose Clamp Req.
A	1/2" Braided Flexible PVC Tubing	Y
B	Vaisala Humitter Connection Cable	N
C	Brooks Mass Flow Controller Connection Cable	N
D	1/4" Braided Flexible PVC Tubing	Y
E	1/4" Black Flexible Conductive Tubing	Y
F	1/2" Black Flexible Conductive Tubing	Y
G	1/4" Black Flexible Conductive Tubing	Y
H	3/4" Black Flexible Conductive Tubing	Y
I	3/4" Stainless Steel Tubing, Bend Varries	N
J	3/4" Black Flexible Conductive Tubing	Y
K	1/2" Braided Flexible PVC Tubing	Y

DRAWN/ENG. JAKE MALLETT

NAME: JAKE MALLETT

DATE: 2004

UNITS Inches

TOLERANCES +/- -Dist x.xx

+/- -Angular

MATERIALS: N/A

MAT. FINISH: N/A

QTY. x 1

N/A

N/A

x 1

N/A

N/A

x 1

N/A

N/A

x 1

NOAA - CMDL

TITLE: Impactor Interior Assemb.

SIZE B

DWG. NO. - 6

REV

SCALE: 1 : 3

SHEET 6:7

COMMENTS:

Ref. Bill of materials DWG. NO. 1 Sheet 1

Use For Tubing Layout/ Schematic

Tubing Schematics

D

C

B

A

D

C

B

A

REF.	CONNECTION DESCRIPTION	Hose Clamp Req.
A	1/2" Braided Flexible PVC Tubing	Y
B	Vaisala Humitter Connection Cable	N
C	Brooks Mass Flow Controller Connection Cable	N
D	1/4" Braided Flexible PVC Tubing	Y
E	1/4" Black Flexible Conductive Tubing	Y
F	1/2" Black Flexible Conductive Tubing	Y
G	1/4" Black Flexible Conductive Tubing	Y
H	3/4" Black Flexible Conductive Tubing	Y
I	3/4" Stainless Steel Tubing, Bend Varries	N
J	3/4" Black Flexible Conductive Tubing	Y
K	1/2" Braided Flexible PVC Tubing	Y

DRAWN/ENG.	NAME:	DATE:
JAKE MALLET	JAKE MALLET	2004
UNITS	Inches	
TOLERANCES	+/-	-Dist x.xx
	+/-	-Angular
MATERIALS:	MAT. FINISH:	QTY.
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1

COMMENTS:
Ref. Bill of materials DWG. NO. 1 Sheet 1
Use For Tubing Layout/ Schematic



NOAA - CMDL



TITLE:
**Impactor
Interior Assemb.**

SIZE
B

DWG. NO. - 7

REV

SCALE: 1 : 3

SHEET 7:7

8

7

6

5

4

3

2

1

8

7

6

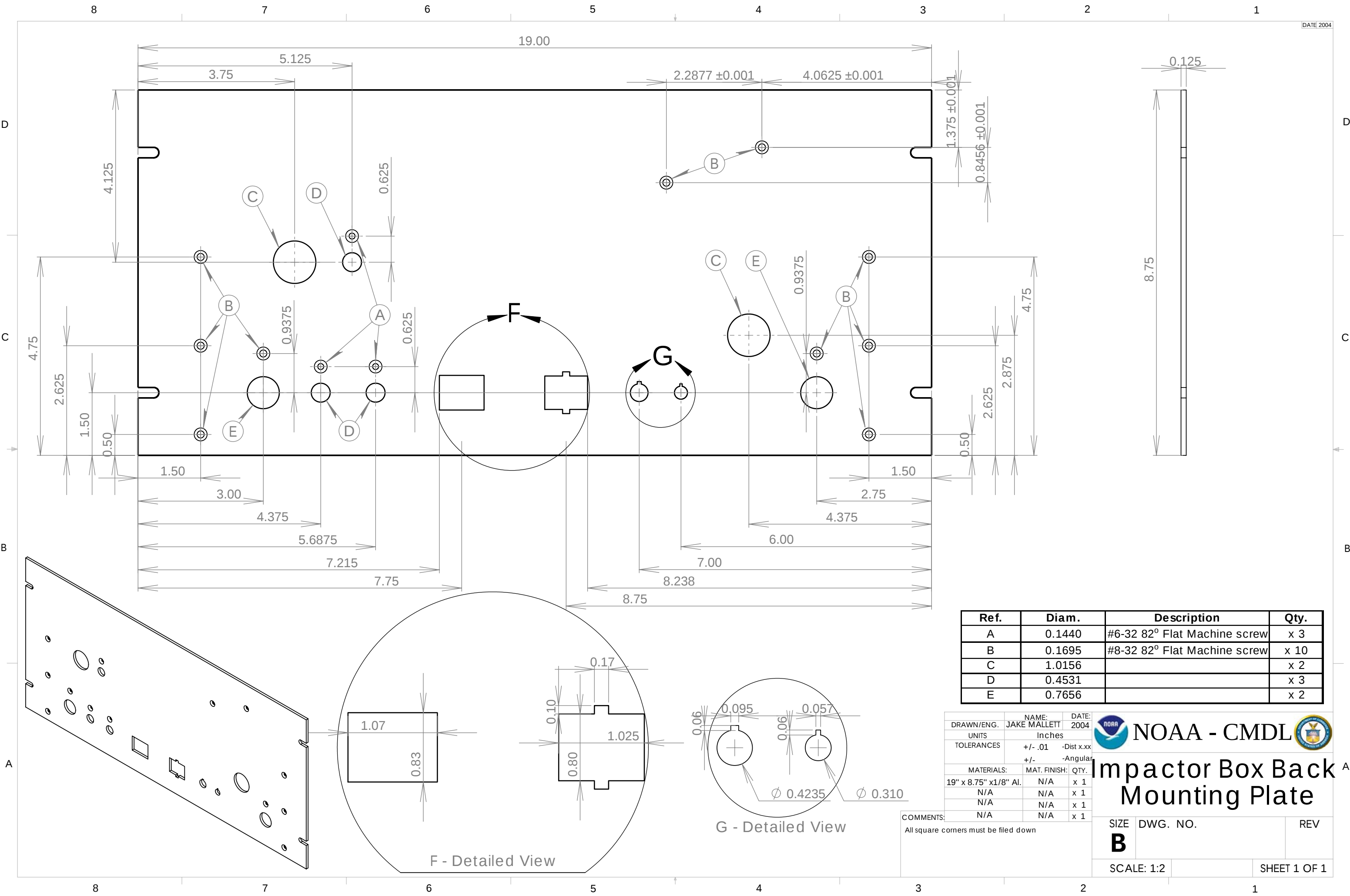
5

4

3

2

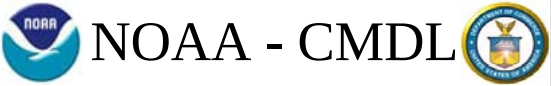
1



Ref.	Diam.	Description	Qty.
A	0.1440	#6-32 82° Flat Machine screw	x 3
B	0.1695	#8-32 82° Flat Machine screw	x 10
C	1.0156		x 2
D	0.4531		x 3
E	0.7656		x 2

DRAWN/ENG.	NAME:	DATE:
JAKE MALLET	JAKE MALLET	2004
UNITS	Inches	
TOLERANCES	+/- .01	-Dist x.xx
	+/-	-Angular
MATERIALS:	MAT. FINISH:	QTY.
19" x 8.75" x 1/8" Al.	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1
N/A	N/A	x 1

COMMENTS:
All square corners must be filed down



Impactor Box Back Mounting Plate

SIZE DWG. NO. REV

B

SCALE: 1:2 SHEET 1 OF 1