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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Bulkhead Union_SS-810-61_1_2_Swagelok Company__1F798_71AB17	Bulkhead Union	3
2	Union Tee_SS-810-3	Union Tee	1
3	0.5 inch tubing 90 degree Turn		2
4	.5 in. Tubing U shape		2
5	Actuator Bracket		2
6	Volume of Valve Manifold Electronics Board		1
7	6 connection terminal strip	6 Position version of Cinch's 140 (3/8" spacing) series barrier block. This model has all the ascetics and looks good. The screws are raised for installation of crimp-on type connectors. The mounting hole spacing is within tolerance of the manufacture's specs. Can be easily reconfigured to any size of barrier block of this series.	2
8	8 in. Sched. 40 Clear PVC Pipe		1
9	Valve Manifold Circular Top Cap		1
10	HX-SHCS 0.19-24x0.625x0.625-N		12
11	Manifold Board Baseplate		1

--BOM Continued on Sheet 2--

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°
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1. DIMENSIONS ARE IN INCHES

2. DIMENSION LIMITS HELD AFTER PLATING.

3. REMOVE BURRS AND SHARP EDGES .015 MAX.

4. MACHINED FILLET RADII .0150-.030.

5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005

6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.

APPROVALS

DATE

DRAWN F. Shane 13Jan2015

ENGINEER F. Shane

CHECKED

PROJECT NO. 901412

PROJECT SWFOCE

WEIGHT

Monterey Bay Aquarium Research Institute

7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (408) 775-1700

swFOCE
ESW Valve Manifold

SIZE B

DWG. NO. 1-901412-012815

REV.

SCALE NONE

CAD FILE Project Library\901412\SWFOCE

SHEET 1 OF 1

NEXT ASSY

USED ON

APPLICATION

8

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REV.

DESCRIPTION

DATE

APPROVED

INITIAL RELEASE

Continued from Sheet 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
12	HX-SHCS 0.138-32x0.3125x0.3125-N		4
13	HX-SHCS 0.138-40x0.375x0.375-N		16
14	Revised Manifold assembly baseplate		1
15	HX-SHCS 0.19-24x0.375x0.375-N		6
16	HX-SHCS 0.19-24x0.25x0.25-N		1
17	Port Connector_SS-811-PC	Port Connector	1
18	Valve Manifold Circular Bottom Cap		1
19	Baseplate Support		1
20	HX-SHCS 0.19-24x0.75x0.75-N		6
21	4-140	ALL SIZES	2
22	SubConn PNASt 0.5 inches		1
23	P1-130114-901219 MCM Hanbay Actuator Housing		2
24	Swagelok SS-8P6T Plug Valve without handle		2
25	[090] 0.688"		2
26	actuator Interface Handle		2
27	Swagelok SS-8P6T and Hanbay Actuator Mounting Plate		2
28	SCHCSCREW 0.138-32x0.5x0.5-HX-N		8

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°
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F. Shane 13Jan2015

ENGINEER
F. Shane 13Jan2015

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PROJECT NO.
901412

PROJECT
SWFOCE

WEIGHT

Monterey Bay Aquarium Research Institute

7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (408) 775-1700

swFOCE
ESW Valve Manifold

SIZE
B

DWG. NO.
1-901412-012815

REV.

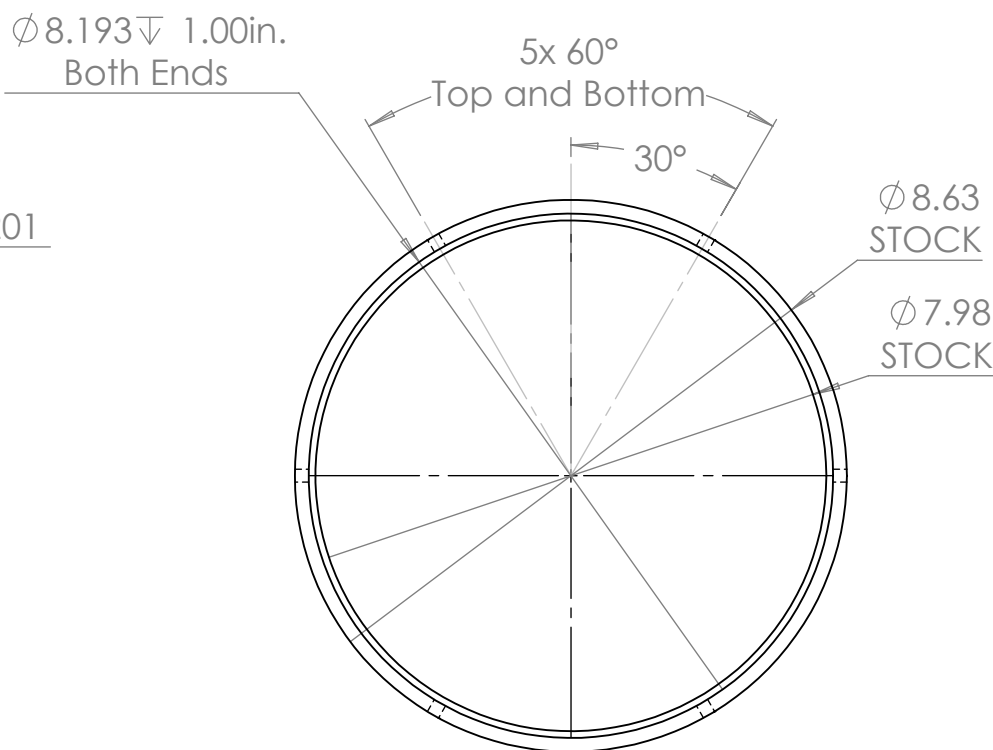
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CAD FILE:
Project Library\901412\SWFOCE

SHEET 1 OF 1

DO NOT SCALE DRAWING

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

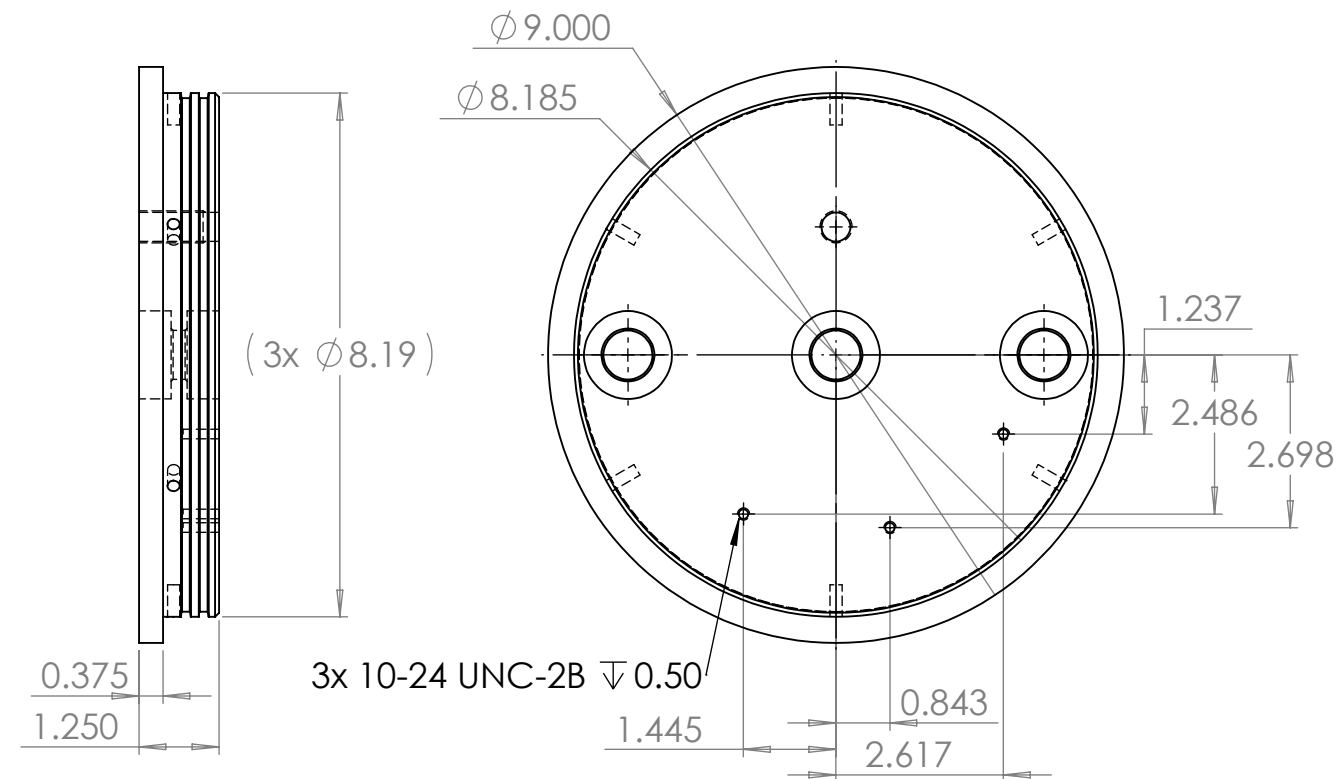


Technical drawing of a rectangular frame. The drawing shows a central rectangular area surrounded by a frame. The frame has a thickness of 1.00 and a height of 32. The drawing includes dimension lines and arrows indicating the measurements.

SECTION A-A
SCALE 1 : 3

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS DATE		Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (408) 775-1700 swFOCE ESW Valve Manifold							
1 PLACE DIM ±.1/16		2 PLACE DIM ±.02		3 PLACE DIM ±.005						ANGLES ±1°		DRAWN F. Shane 13Jan2015	
1. DIMENSIONS ARE IN INCHES										ENGINEER F. Shane			
2. DIMENSION LIMITS HELD AFTER PLATING.										CHECKED			
3. REMOVE BURRS AND SHARP EDGES .015 MAX.						PROJECT NO.							
4. MACHINED FILLET RADII .0150-.030.						901412							
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						PROJECT							
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.						SWFOCE							
DO NOT SCALE DRAWING						WEIGHT		SIZE B		DWG. NO. 1-901412-012815		REV.	
								SCALE NONE		CAD FILE: Project Library\901412\SWFOCE		SHEET 1 OF 1	

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

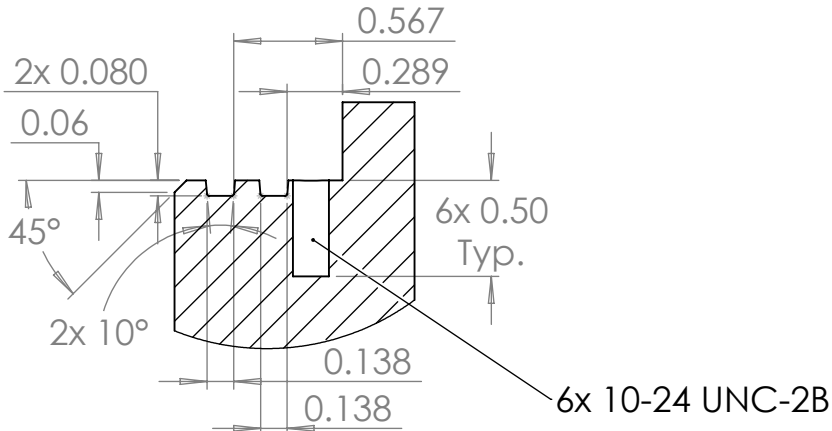


1 ea. Material: PVC

NEXT ASSY USED ON		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (408) 775-1700 swFOCE ESW Valve Manifold SIZE B DWG. NO. 1-901412-012815 REV. SCALE NONE CAD FILE Project Library\901412\SWFOCE SHEET 1 OF 1							
		1 PLACE DIM ±.1/16				2 PLACE DIM ±.02		3 PLACE DIM ±.005						ANGLES ±1°		DRAWN F. Shane 13Jan2015	
		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH MAX .012 INCHES FOR SINGLE SURFACE.												ENGINEER F. Shane			
														CHECKED			
														PROJECT NO. 901412			
						PROJECT SWFOCE											

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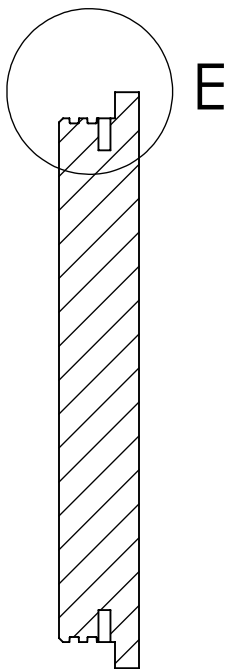
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



For 2-171 O-Rings

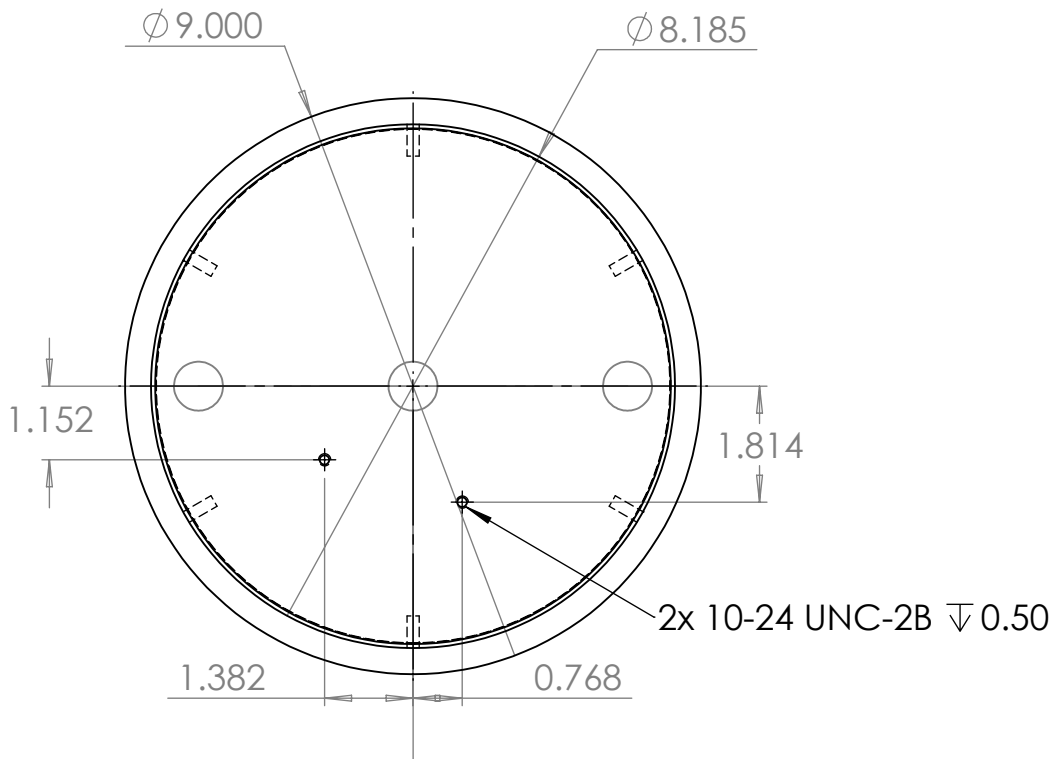
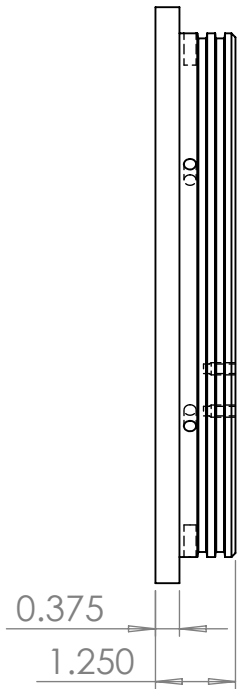
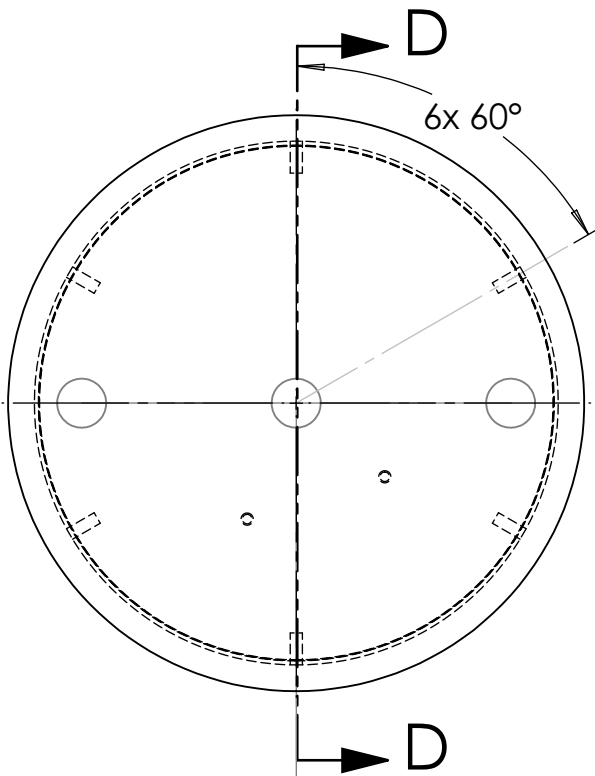
DETAIL E

SCALE 1 : 1



SECTION D-D

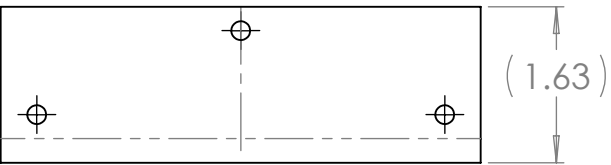
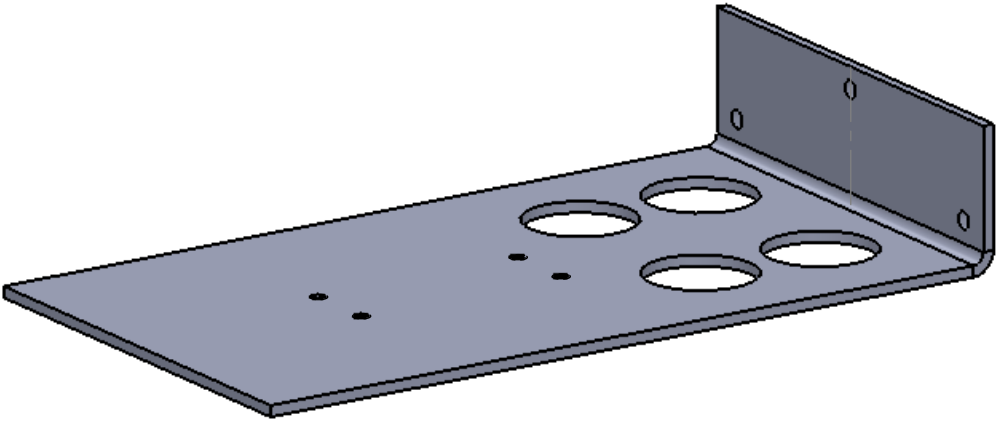
SCALE 1 : 3



1 ea. Material: PVC

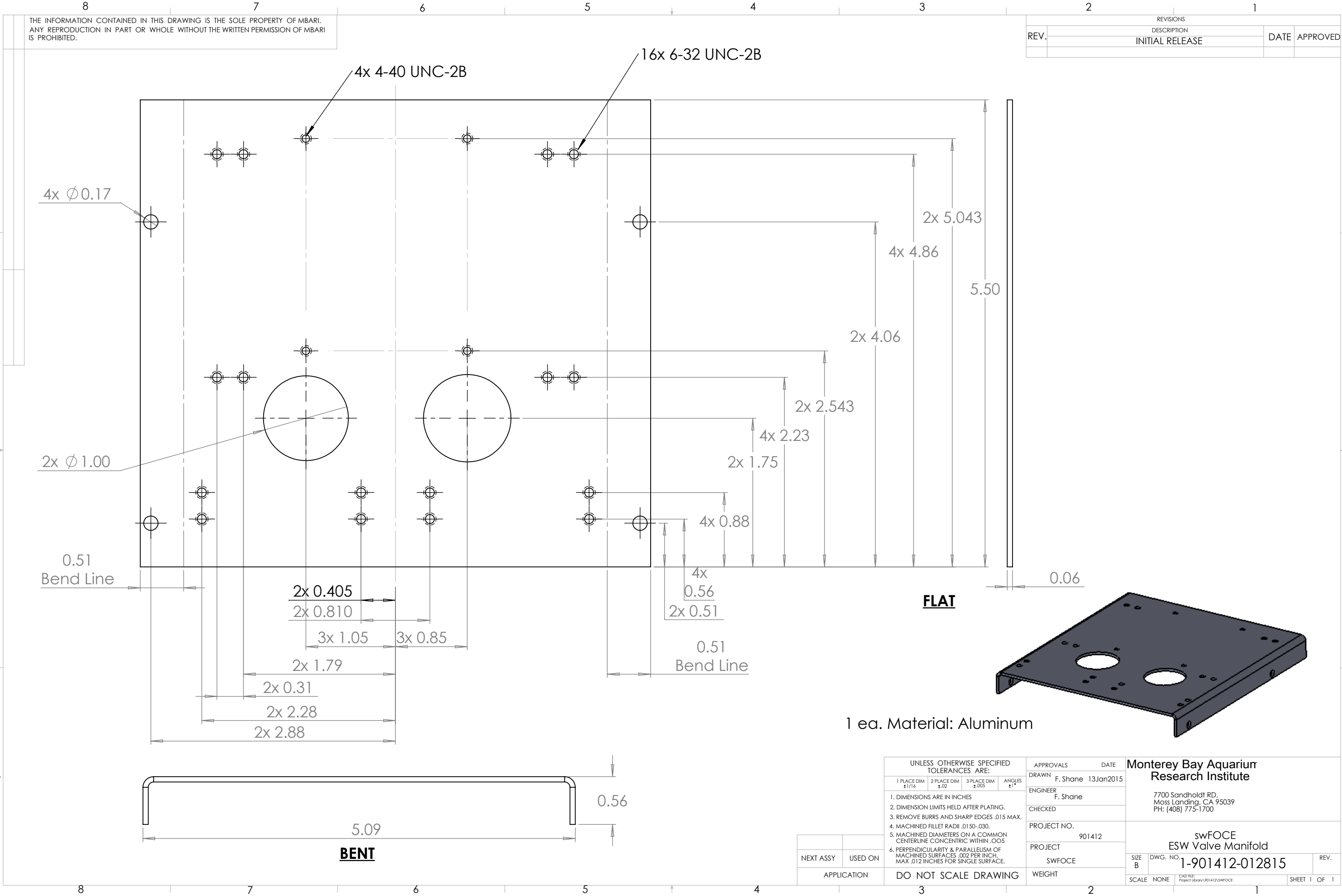
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: 1 PLACE DIM ±1/16 2 PLACE DIM ±.02 3 PLACE DIM ±.005 ANGLES ±1° 1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.				APPROVALS		DATE		Monterey Bay Aquarium Research Institute 7700 Sandholdt RD, Moss Landing, CA 95039 PH: (408) 775-1700			
				DRAWN		F. Shane 13Jan2015					
				ENGINEER		F. Shane					
				CHECKED							
				PROJECT NO.		901412					
PROJECT		SWFOCE		SIZE B		DWG. NO.		1-901412-012815		REV.	
WEIGHT				SCALE		NONE		CAD FILE Project Library\901412\SWFOCE		SHEET 1 OF 1	

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



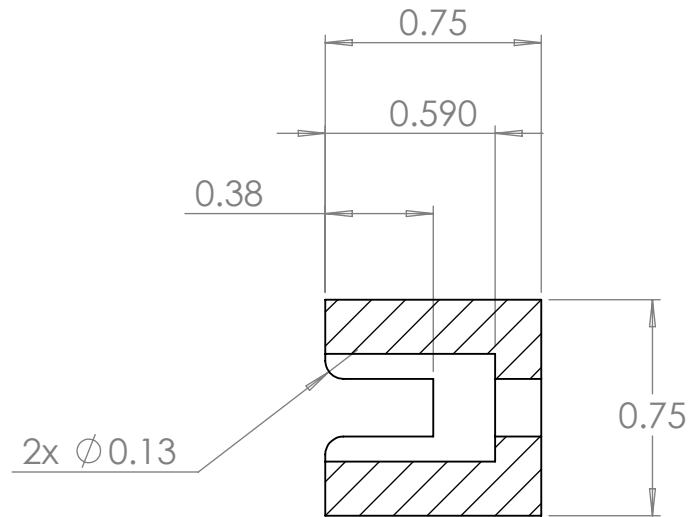
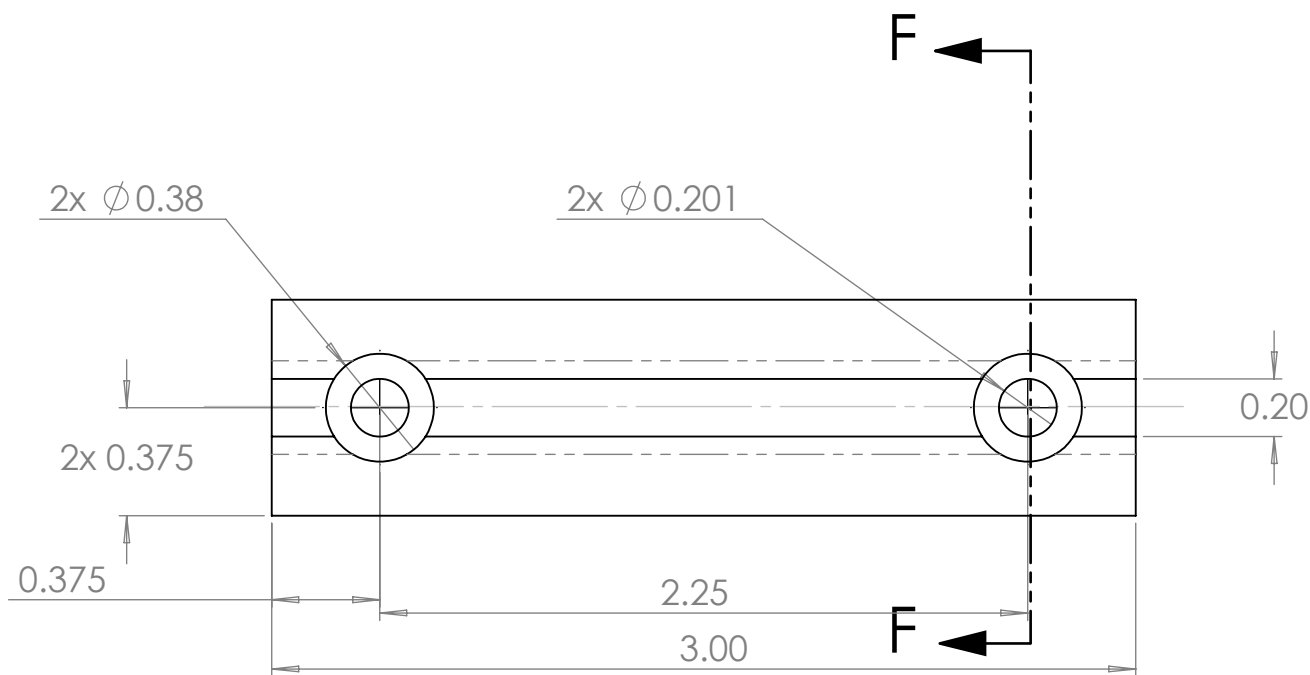
1 ea. Material: Aluminum

		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (408) 775-1700					
		1 PLACE DIM ±1/16		2 PLACE DIM ±.02		3 PLACE DIM ±.005		ANGLES ±1°						DRAWN F. Shane 13Jan2015	
NEXT ASSY		USED ON		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.				ENGINEER F. Shane		swFOCE ESW Valve Manifold SHEET 1 OF 1					
								CHECKED							
								PROJECT NO. 901412							
								PROJECT SWFOCE		SIZE B		DWG. NO. 1-901412-012815		REV.	
								WEIGHT		SCALE NONE		CAD FILE Project Library\901412\SWFOCE			
APPLICATION		DO NOT SCALE DRAWING						2				1			



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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



SECTION F-F
SCALE 1.5 : 1

2							
1	1 Ea.			Baseplate Support			Acetal
ITEM NO.	QTY	PART NO.		DESCRIPTION			MATERIAL SPECIFICATION
BILL OF MATERIALS							
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS DATE DRAWN F. Shane 13Jan2015 ENGINEER F. Shane CHECKED PROJECT NO. 901412 PROJECT SWFOCE			
1 PLACE DIM ±.1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (408) 775-1700 swFOCE ESW Valve Manifold			
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DO NOT SCALE DRAWING				SCALE NONE CAD FILE Project Library\901412\SWFOCE SHEET 1 OF 1			

NEXT ASSY	USED ON
APPLICATION	