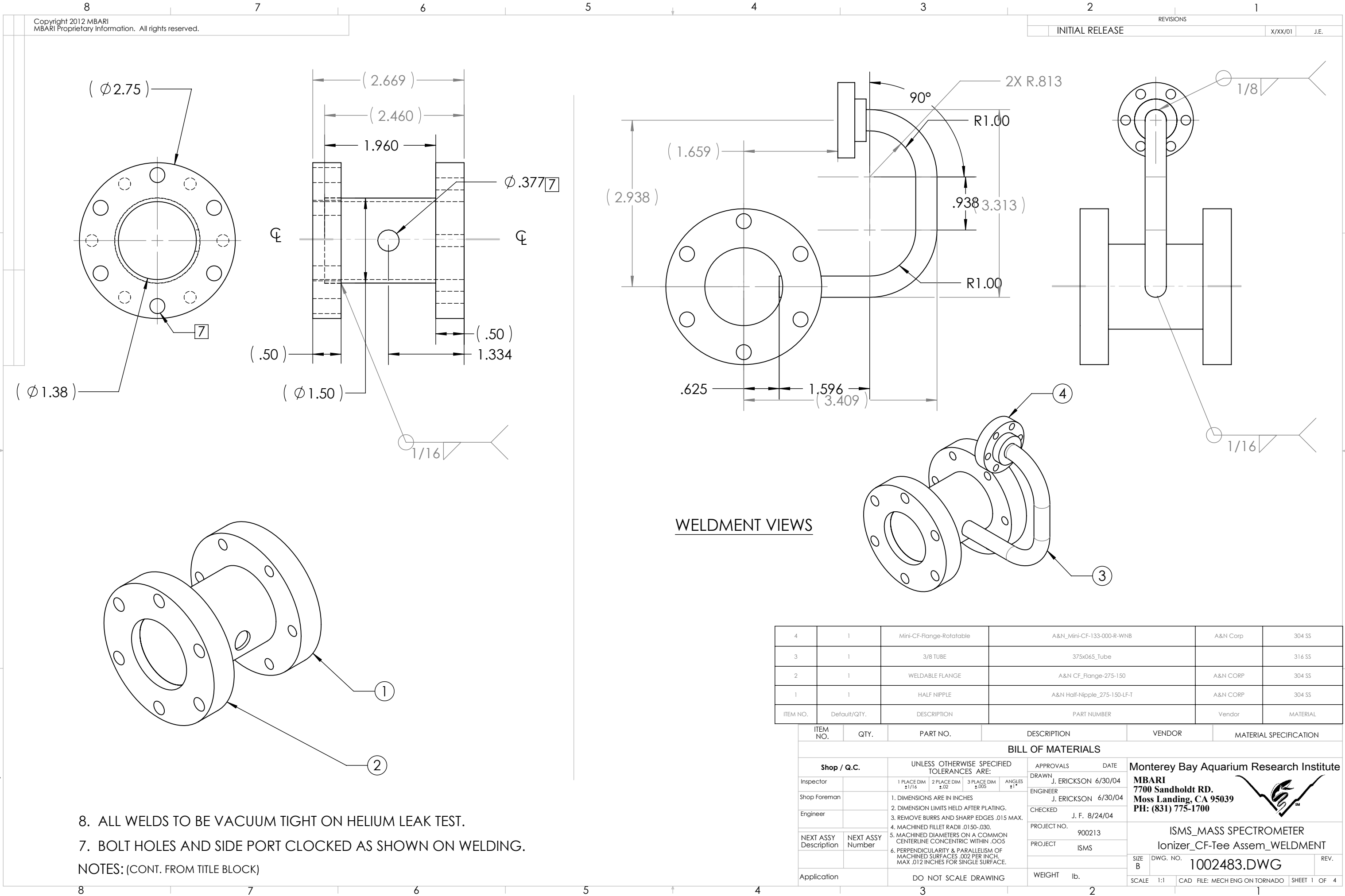




8. ALL WELDS TO BE VACUUM TIGHT ON HELIUM LEAK TEST.

7. BOLT HOLES AND SIDE PORT CLOCKED AS SHOWN ON WELDING.

NOTES: (CONT. FROM TITLE BLOCK)

4	1	Mini-CF-Flange-Rotatable	A&N_Mini-CF-133-000-R-WNB	A&N Corp	304 SS
3	1	3/8 TUBE	375x065_Tube		316 SS
2	1	WELDABLE FLANGE	A&N_CF_Flange-275-150	A&N CORP	304 SS
1	1	HALF NIPPLE	A&N Half-Nipple_275-150-LF-T	A&N CORP	304 SS
ITEM NO.	Default/QTY.	DESCRIPTION	PART NUMBER	Vendor	MATERIAL

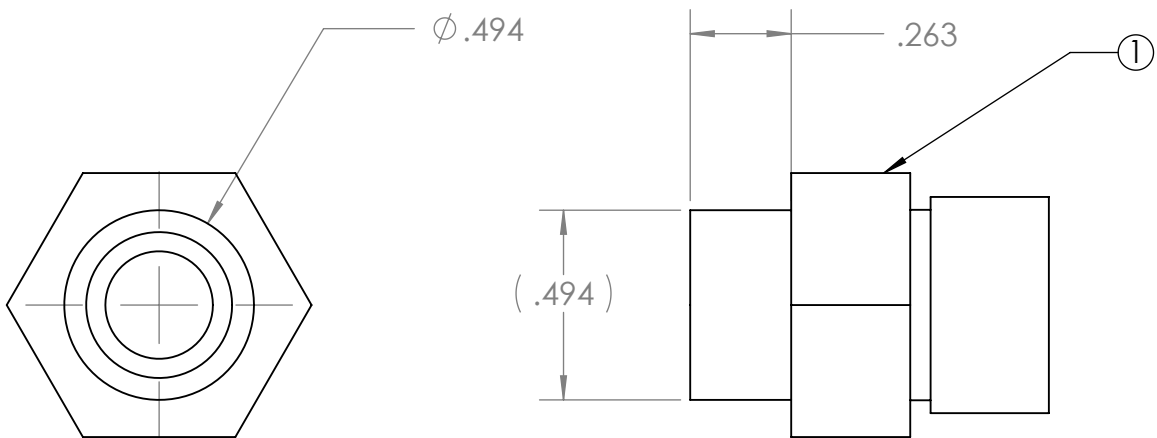
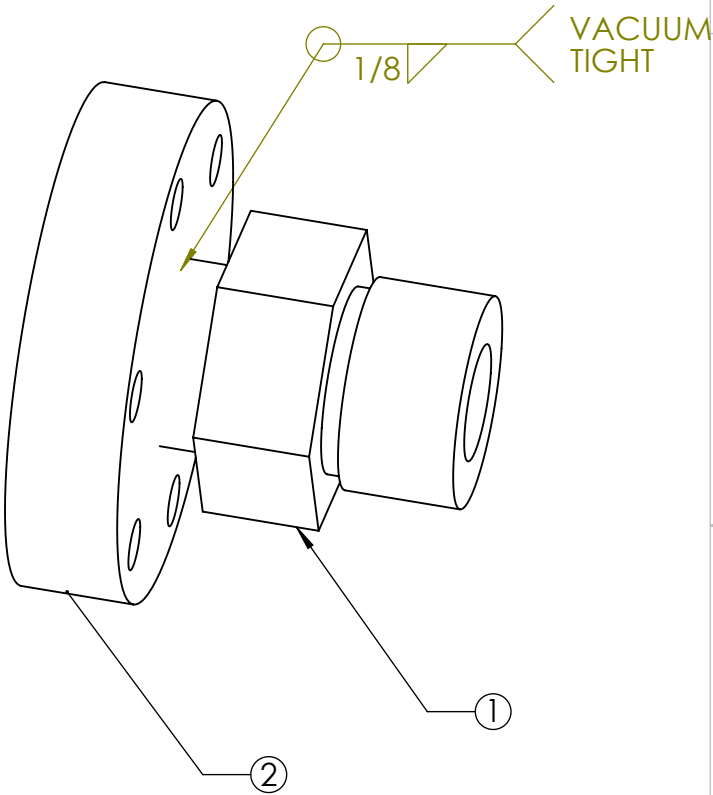
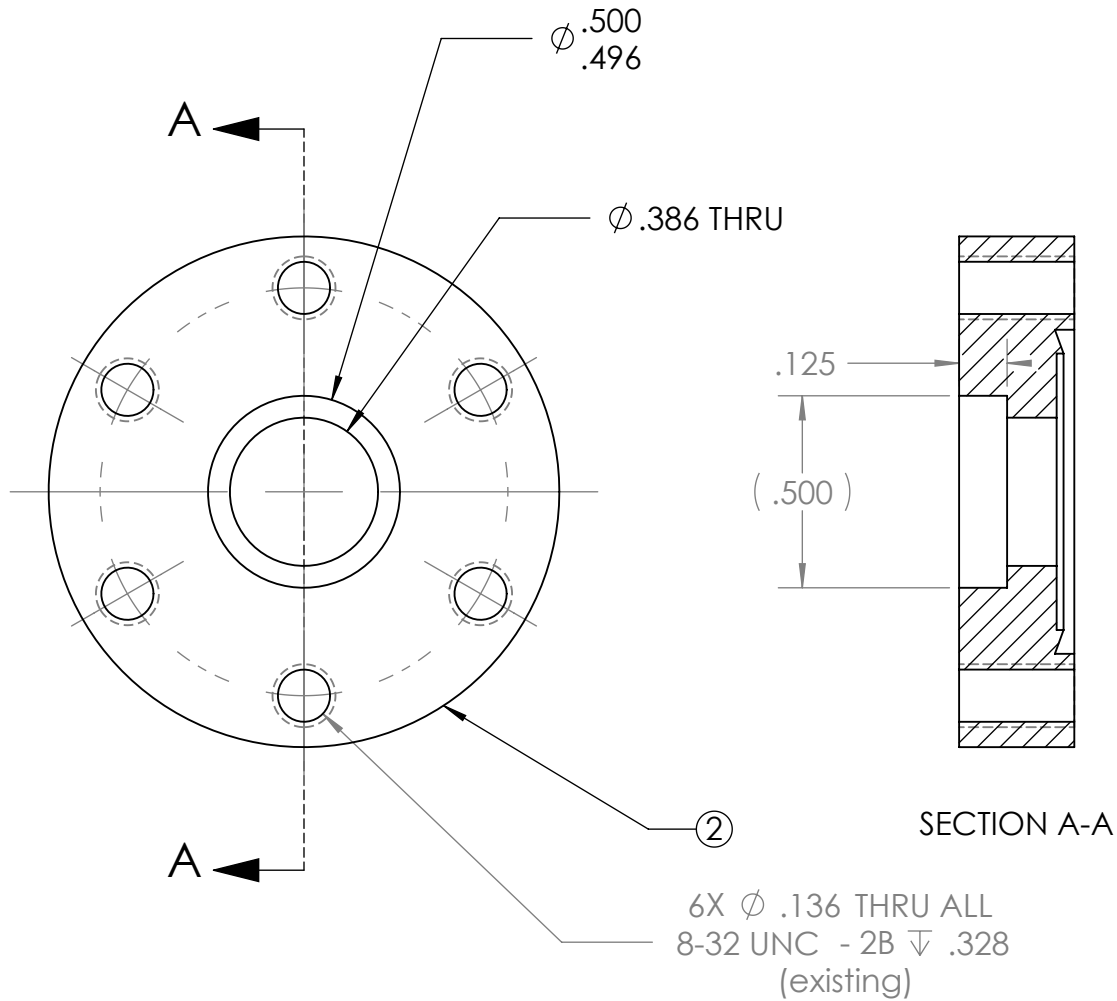
ITEM NO.	QTY.	PART NO.	DESCRIPTION	VENDOR	MATERIAL SPECIFICATION
BILL OF MATERIALS					
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°
Shop Foreman		1. DIMENSIONS ARE IN INCHES		DRAWN J. ERICKSON 6/30/04	
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.		ENGINEER J. ERICKSON 6/30/04	
		3. REMOVE BURRS AND SHARP EDGES .015 MAX.		CHECKED J. F. 8/24/04	
		4. MACHINED FILLET RADII .0150-.030.		PROJECT NO. 900213	
NEXT ASSY Description	NEXT ASSY Number	5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		PROJECT ISMS	
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.		WEIGHT lb.	
Application		DO NOT SCALE DRAWING		SIZE B DWG. NO. 1002483.DWG	
				SCALE 1:1 CAD FILE: MECH ENG ON TORNADO SHEET 1 OF 4	

Monterey Bay Aquarium Research Institute
MBARI
7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700



ISMS_MASS SPECTROMETER
Ionizer_CF-Tee Assem_WELDMENT

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE	X/XX/00	J.E.



PART MODIFICATION DRAWING

2	1	A&N_Mini-CF-133-000-T			
1	1	SS-600-1-6ST_V2	XXXXXXXXXX		
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	VENDOR	MATERIAL

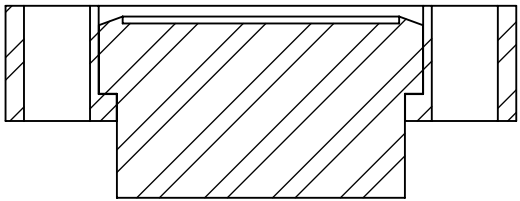
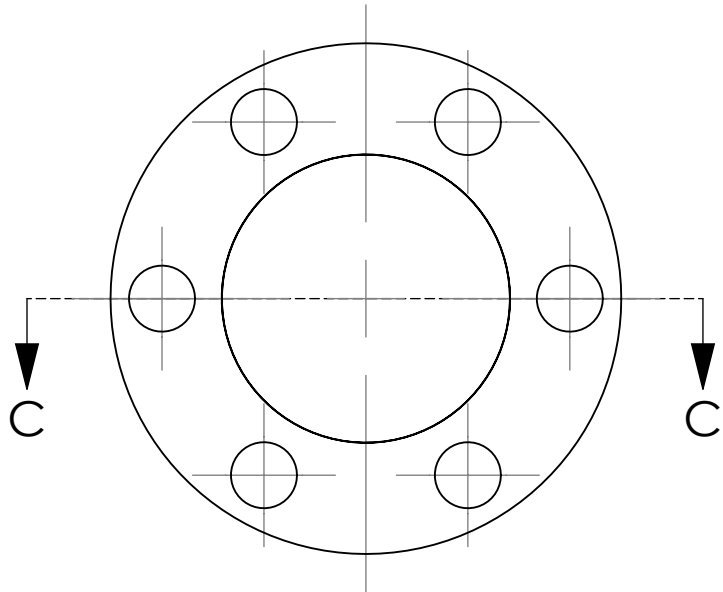
BILL OF MATERIALS

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute			
Inspector		1 PLACE DIM $\pm 1/16$	2 PLACE DIM $\pm .02$	3 PLACE DIM $\pm .005$	ANGLES $\pm 1^\circ$	DRAWN	J. ERICKSON 6/30/04	MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700			
Shop Foreman		1. DIMENSIONS ARE IN INCHES				ENGINEER	J. ERICKSON 6/30/04				
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.				CHECKED	J. F. 8/24/04				
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.				PROJECT NO.	900213	ISMS_MASS SPECTROMETER Ionizer_CF-Tee Assem ADAPTOR			
		4. MACHINED FILLET RADII .0150-.030.				PROJECT	ISMS				
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						SIZE B	DWG. NO.	1002483.DWG	REV.
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.						SCALE	2:1	CAD FILE: MECH ENG ON TORNADO	SHEET 2 OF 4
Application		DO NOT SCALE DRAWING				WEIGHT					

NOTES: (CONT. FROM TITLE BLOCK)

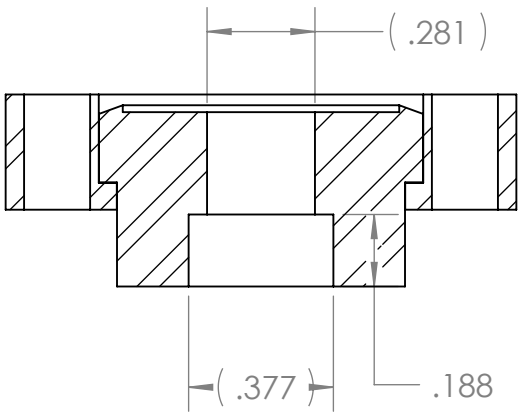
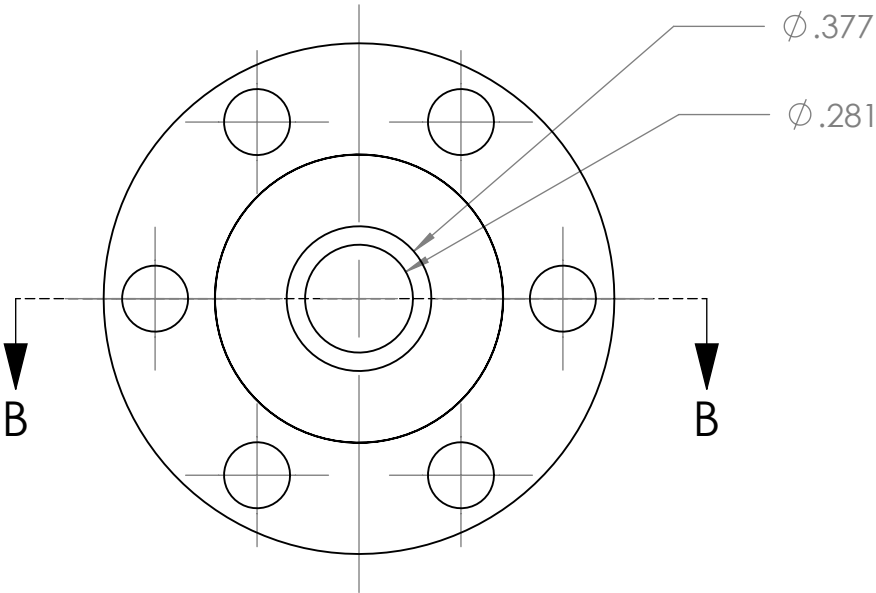
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE	X/XX/00	J.E.

ORIGINAL



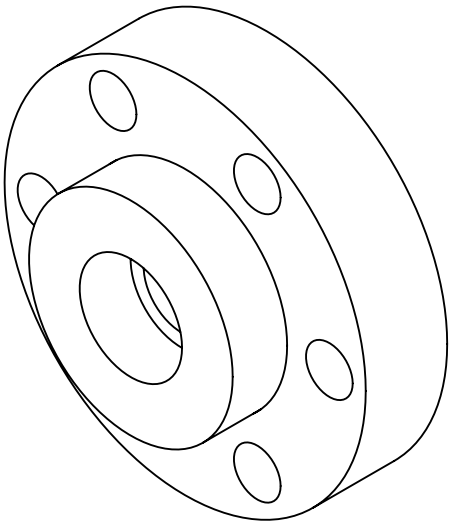
SECTION C-C

MODIFIED



SECTION B-B

PART MODIFICATION DRAWING



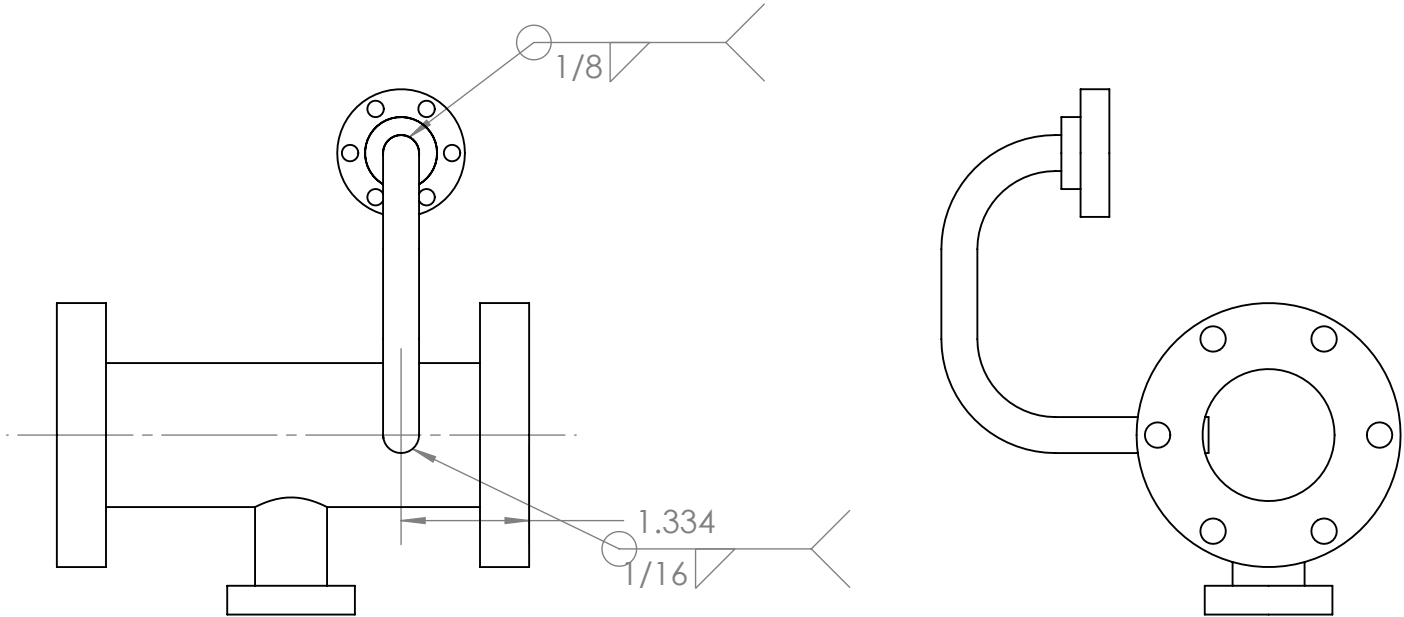
NOTES: (CONT. FROM TITLE BLOCK)

1	1	133-000-R-WNB	Mini-CF-Flange-Rotatable		304 SS
ITEM NO.	QTY.	Part_Number	DESCRIPTION	VENDOR	MATERIAL
BILL OF MATERIALS					
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	DRAWN J. ERICKSON	6/30/04
Shop Foreman		3 PLACE DIM ±.005	ANGLES ±1°	ENGINEER J. ERICKSON	6/30/04
Engineer		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.		CHECKED J. F.	8/24/04
NEXT ASSY Description	NEXT ASSY Number			PROJECT NO. 900213	
				PROJECT ISMS	
Application		DO NOT SCALE DRAWING		WEIGHT	
				SIZE B	DWG. NO. 1002483.DWG
				SCALE 2:1	CAD FILE: MECH ENG ON TORNADO SHEET 3 OF 4

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ISMS_MASS SPECTROMETER
Ionizer_CF-Tee Assem FLANGE



ITEM NO.	QTY.	PART NO.	DESCRIPTION	VENDOR	MATERIAL SPECIFICATION
BILL OF MATERIALS					
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°
Shop Foreman		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.			
Engineer		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.			
NEXT ASSY Description	NEXT ASSY Number	PROJECT NO.		900213	
		PROJECT		ISMS	
Application		DO NOT SCALE DRAWING		WEIGHT	
		SIZE B		DWG. NO. 1002483.DWG	
		SCALE 1:2		CAD FILE: MECH ENG ON TORNADO SHEET 4 OF 4	