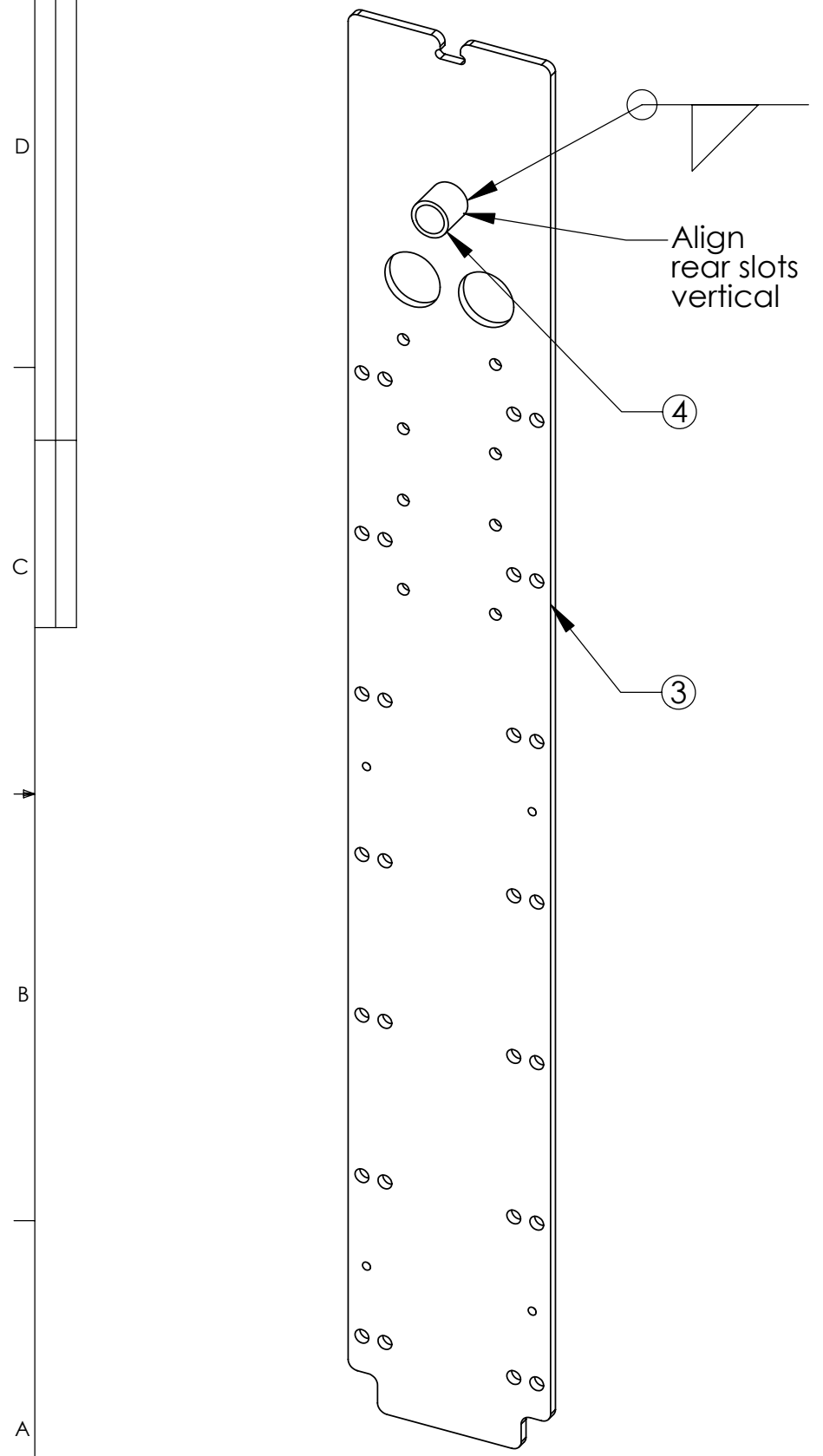
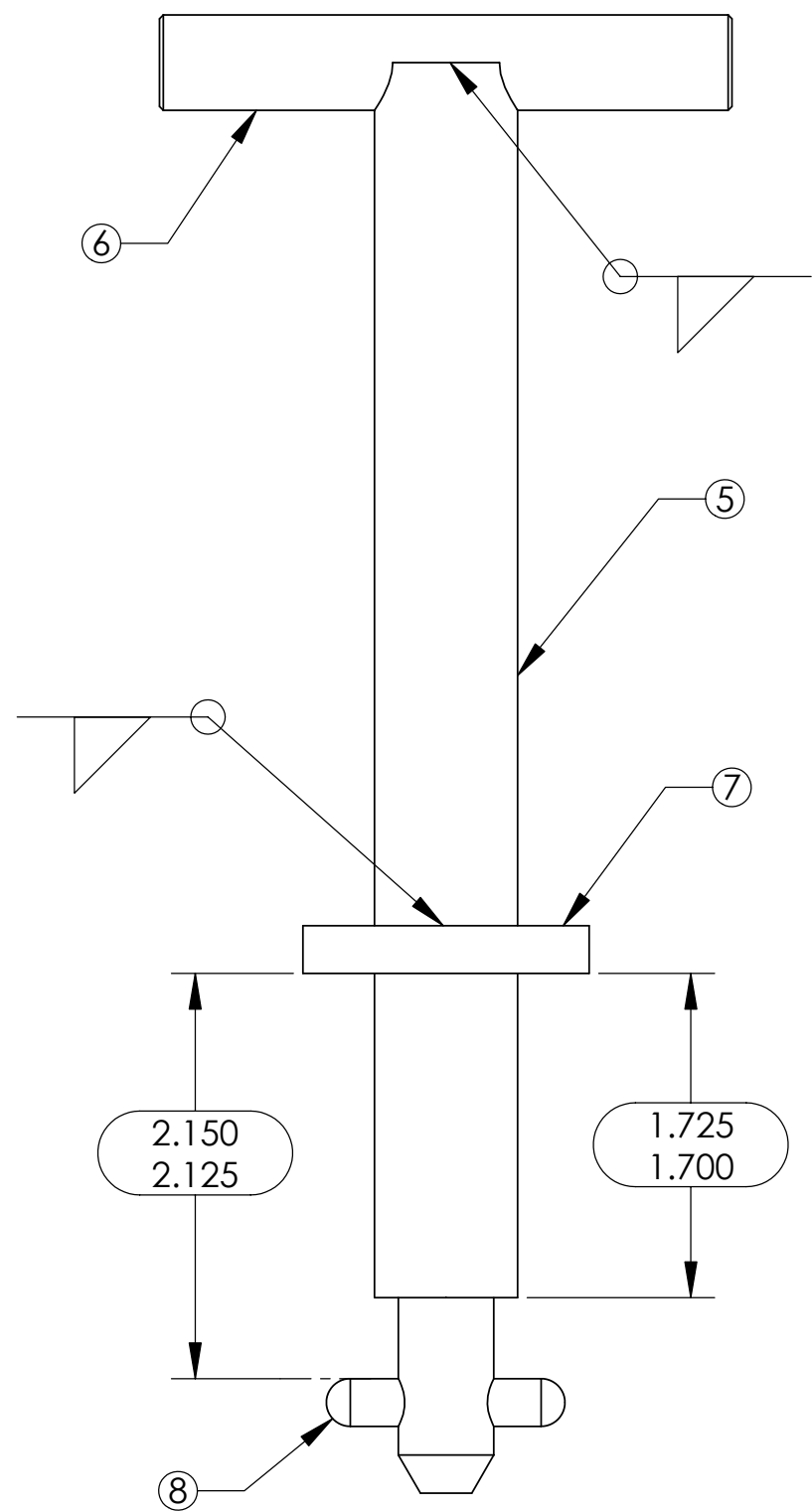


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REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



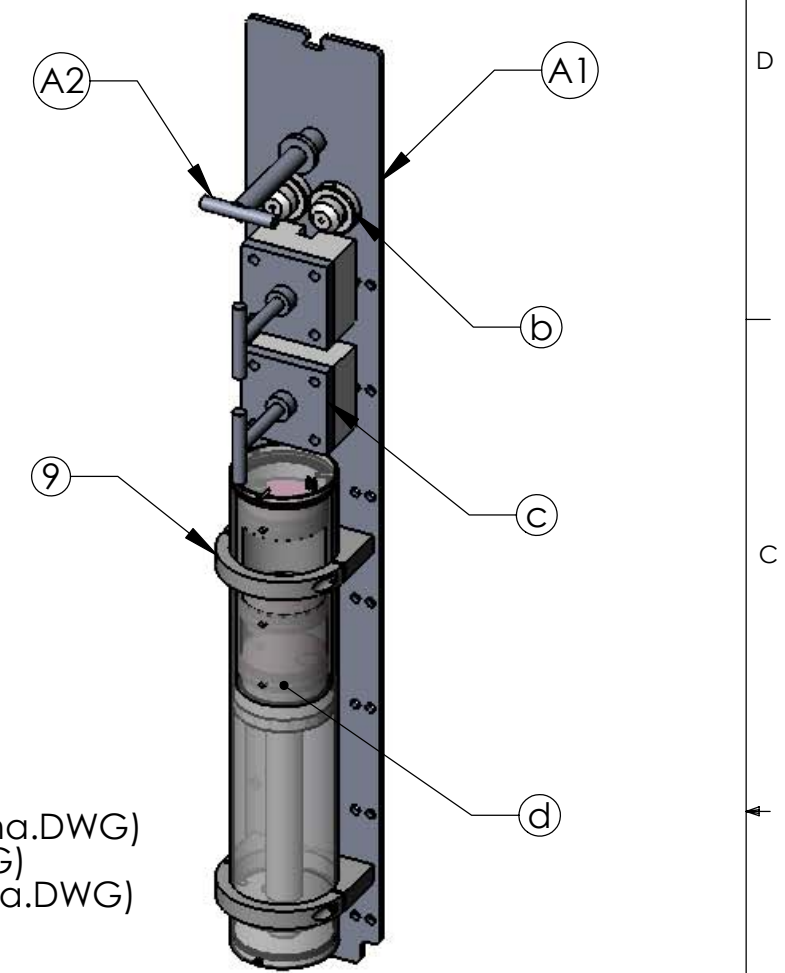
OsmoSampler Plate (Welded Assembly)



Lock Handle (Welded Assembly)

NOTE: T-handle Pin(p8) will be field installed

Other parts include:
 b: Fluid Connections (152jaha.DWG)
 c: Mini Valves (150jaha.DWG)
 d: 4in OsmoSampler (157jaha.DWG)



Seafloor OsmoSampler Assembly

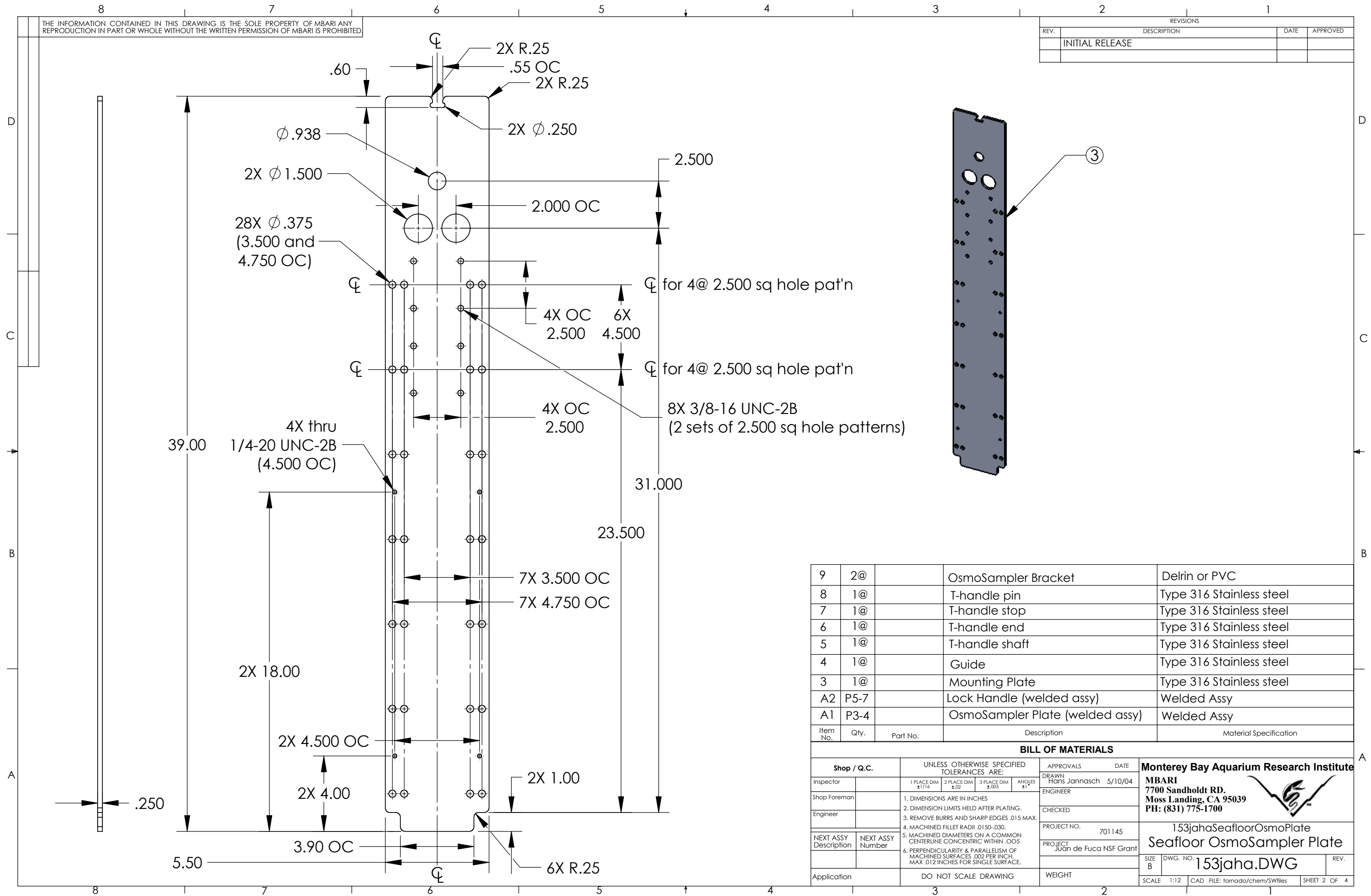
Item No.	Qty.	Part No.	Description	Material Specification
9	2@		OsmoSampler Bracket	Delrin or PVC
8	1@		T-handle pin	Type 316 Stainless steel
7	1@		T-handle stop	Type 316 Stainless steel
6	1@		T-handle end	Type 316 Stainless steel
5	1@		T-handle shaft	Type 316 Stainless steel
4	1@		Guide	Type 316 Stainless steel
3	1@		Mounting Plate	Type 316 Stainless steel
A2	P5-7		Lock Handle (welded assy)	Welded Assy
A1	P3-4		OsmoSampler Plate (welded assy)	Welded Assy

BILL OF MATERIALS

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	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°	DRAWN	5/10/04		
Shop Foreman		1. DIMENSIONS ARE IN INCHES				ENGINEER		PROJECT NO. 701145 PROJECT Juan de Fuca NSF Grant	
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.				CHECKED		153jahaSeaFloorOsmoPlate SeaFloor OsmoSampler Plate	
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.						SIZE B	DWG. NO. 153jaha.DWG
		4. MACHINED FILLET RADII .0150-.030.						SCALE 1:2	CAD FILE: tornado/chem/SWfiles
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						WEIGHT	SHEET 1 OF 4
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.							
Application		DO NOT SCALE DRAWING							


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	INITIAL RELEASE		



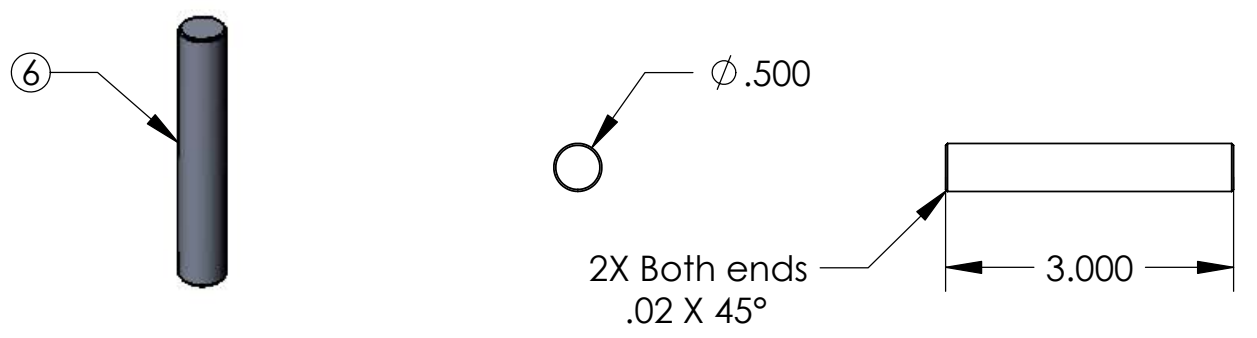
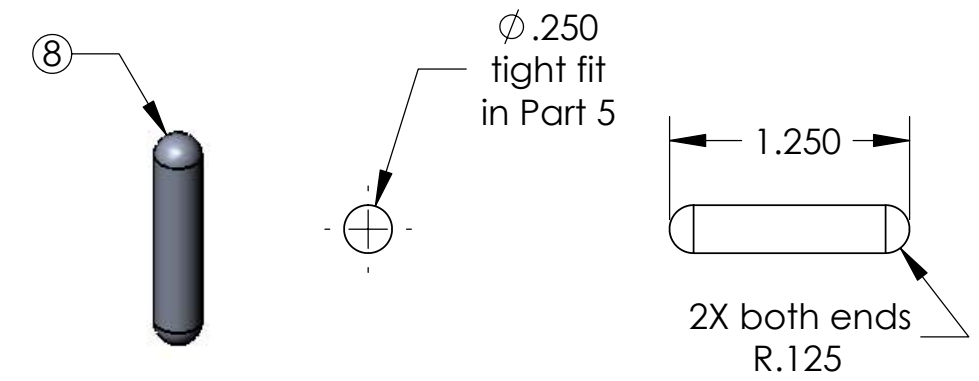
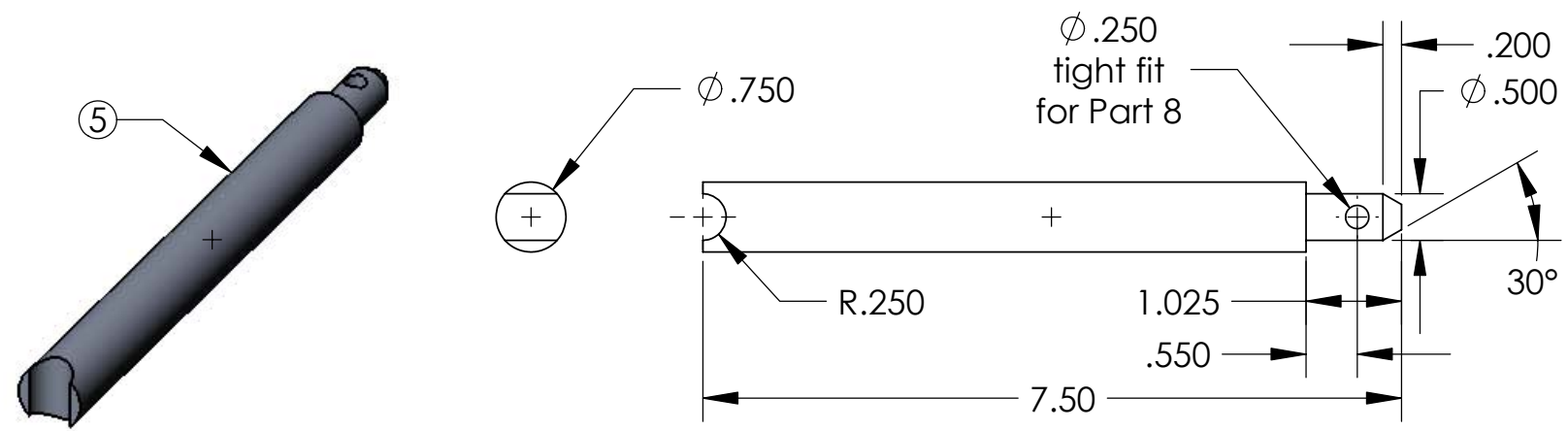
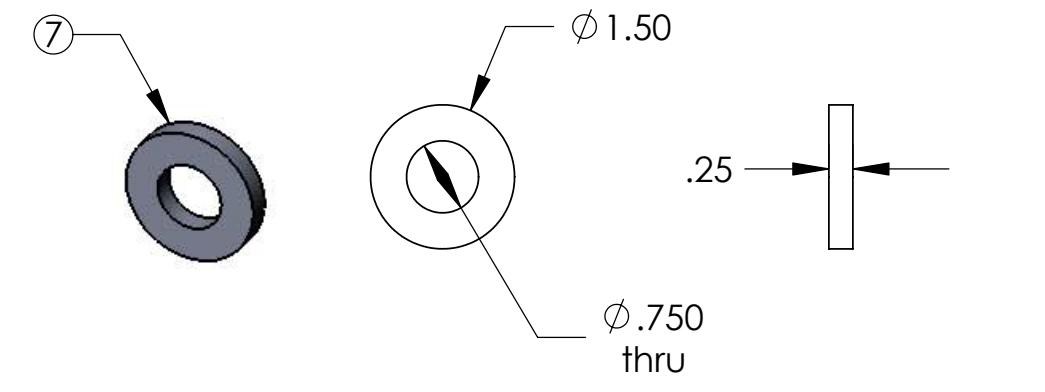
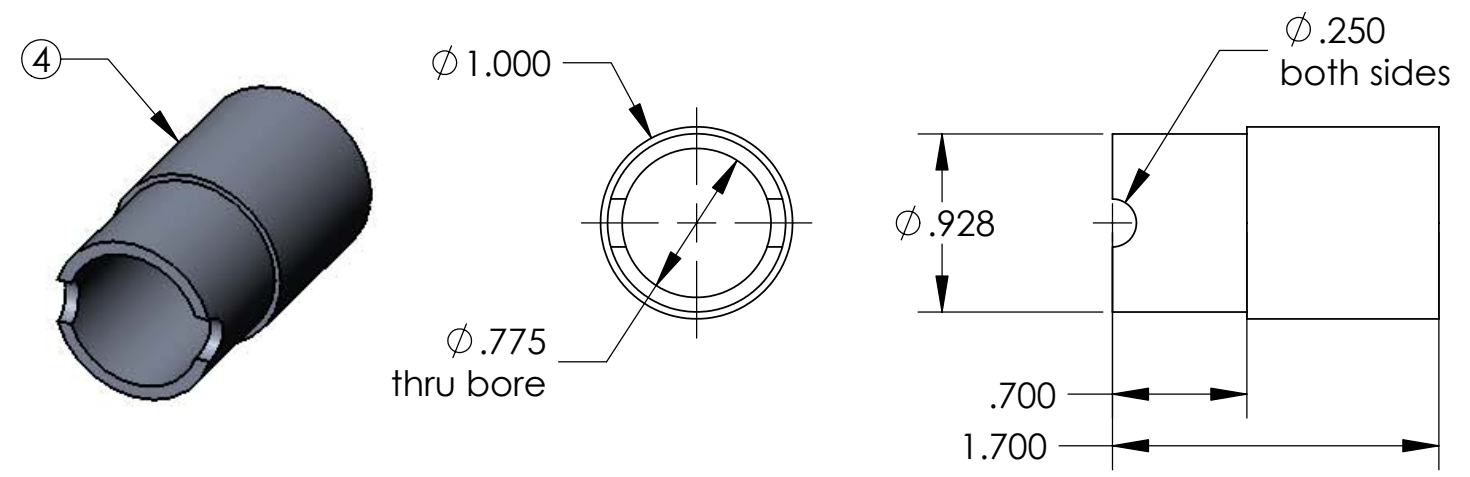
Item No.	Qty.	Part No.	Description	Material Specification
9	2@		OsmoSampler Bracket	Delrin or PVC
8	1@		T-handle pin	Type 316 Stainless steel
7	1@		T-handle stop	Type 316 Stainless steel
6	1@		T-handle end	Type 316 Stainless steel
5	1@		T-handle shaft	Type 316 Stainless steel
4	1@		Guide	Type 316 Stainless steel
3	1@		Mounting Plate	Type 316 Stainless steel
A2	P5-7		Lock Handle (welded assy)	Welded Assy
A1	P3-4		OsmoSampler Plate (welded assy)	Welded Assy

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Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS	DATE	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°		DRAWN Hans Jannasch 5/10/04 ENGINEER
Shop Foreman		1. DIMENSIONS ARE IN INCHES					CHECKED
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.					
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.				PROJECT NO.	701145
		4. MACHINED FILLET RADII .0150-.030.				PROJECT	Juan de Fuca NSF Grant
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				SIZE	B
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.				DWG. NO.	153jaha.DWG
Application		DO NOT SCALE DRAWING				WEIGHT	
						SCALE	1:12
						CAD FILE:	tornado/chem/SWfiles
						SHEET	2 OF 4


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REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



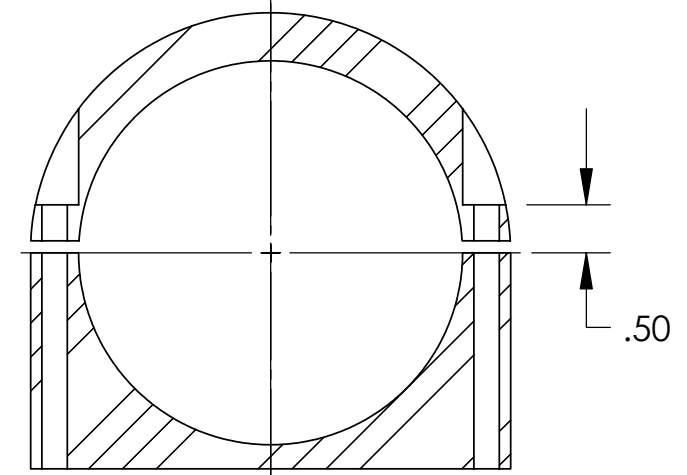
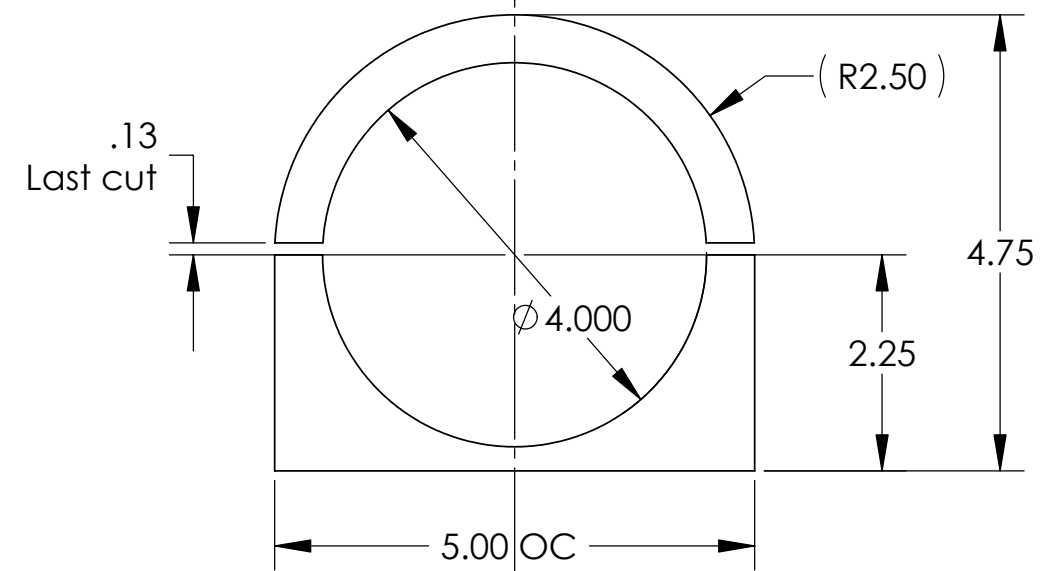
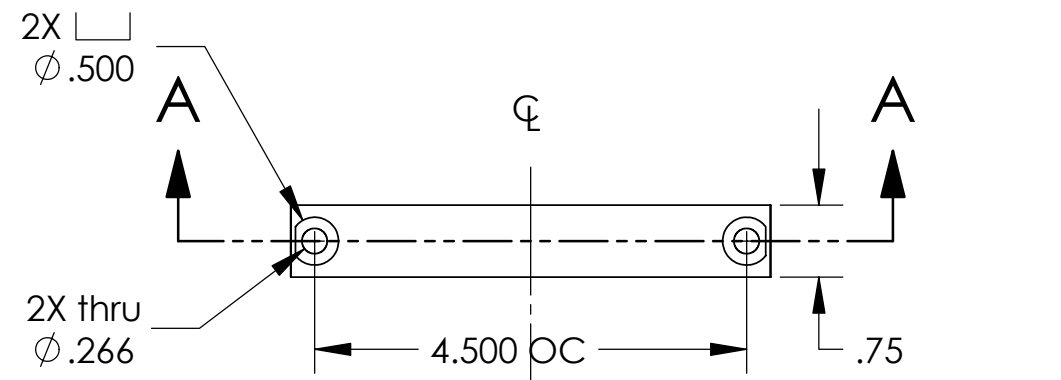
Item No.	Qty.	Part No.	Description	Material Specification
9	2@		OsmoSampler Bracket	Delrin or PVC
8	1@		T-handle pin	Type 316 Stainless steel
7	1@		T-handle stop	Type 316 Stainless steel
6	1@		T-handle end	Type 316 Stainless steel
5	1@		T-handle shaft	Type 316 Stainless steel
4	1@		Guide	Type 316 Stainless steel
3	1@		Mounting Plate	Type 316 Stainless steel
A2	P5-7		Lock Handle (welded assy)	Welded Assy
A1	P3-4		OsmoSampler Plate (welded assy)	Welded Assy

BILL OF MATERIALS

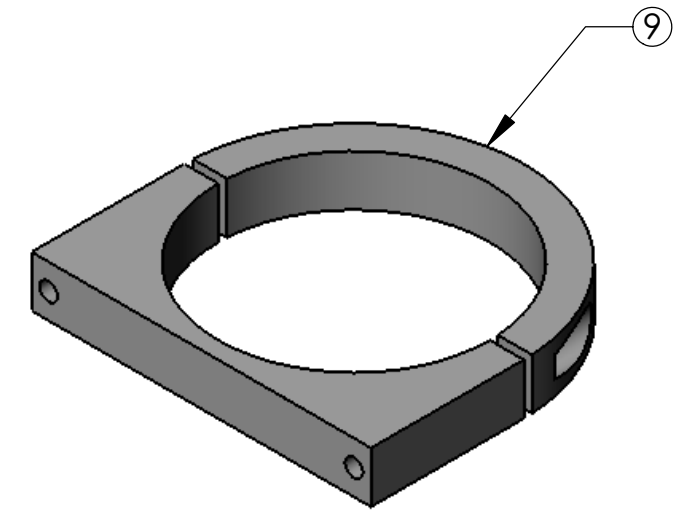
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	5/10/04	153jahaSeafloorOsmoPlate Seafloor OsmoSampler Plate	
Shop Foreman		1. DIMENSIONS ARE IN INCHES				ENGINEER		PROJECT NO. 701145 PROJECT Juan de Fuca NSF Grant	
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.				CHECKED		SIZE B DWG. NO. 153jaha.DWG REV.	
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.						SCALE 4:1 CAD FILE: tornado/chem/SWfiles SHEET 3 OF 4	
		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.							
Application		DO NOT SCALE DRAWING				WEIGHT			

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SECTION A-A



Item No.	Qty.	Part No.	Description	Material Specification
9	2@		OsmoSampler Bracket	Delrin or PVC
8	1@		T-handle pin	Type 316 Stainless steel
7	1@		T-handle stop	Type 316 Stainless steel
6	1@		T-handle end	Type 316 Stainless steel
5	1@		T-handle shaft	Type 316 Stainless steel
4	1@		Guide	Type 316 Stainless steel
3	1@		Mounting Plate	Type 316 Stainless steel
A2	P5-7		Lock Handle (welded assy)	Welded Assy
A1	P3-4		OsmoSampler Plate (welded assy)	Welded Assy

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 $\pm 1'$	DRAWN Hans Jannasch	5/10/04	MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
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. 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		 153jahaSeafloorOsmoPlate Seafloor OsmoSampler Plate	
Engineer						CHECKED			
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.	701145		
Application		PROJECT	Juan de Fuca NSF Grant	DO NOT SCALE DRAWING	WEIGHT	SIZE B	DWG. NO.	153jaha.DWG	REV.
		SCALE	1:2	CAD FILE:	tornado/chem/SWfiles	SHEET 4 OF 4			