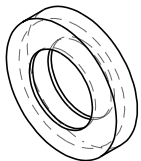


SPLIT CLAMP
SCALE 2/1

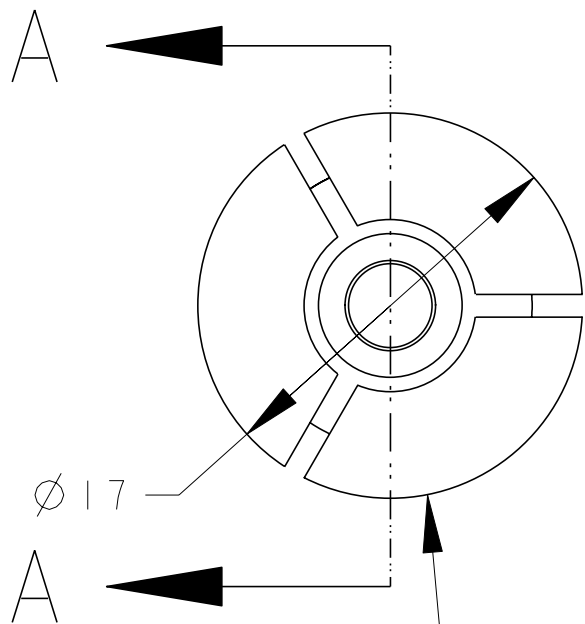


VARISEAL
SCALE 2/1



CENTERING RING
SCALE 2/1

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
7	W48-MS-A-0103-Z80		VARISEAL	UHMWPE
6	21F366		SECTOR FITTING CENTERING RING	ALUMINUM
5	21F349		SECTOR FITTING SPLIT CLAMP	ALUMINUM
4	21F349		SECTOR FITTING SPLIT CLAMP	ALUMINUM
3	21F349		SECTOR FITTING SPLIT CLAMP	ALUMINUM
2	21F348-MOD		SEAL TEST FITTING THRU	ALUMINUM
1	21F348		SEAL TEST FITTING	ALUMINUM



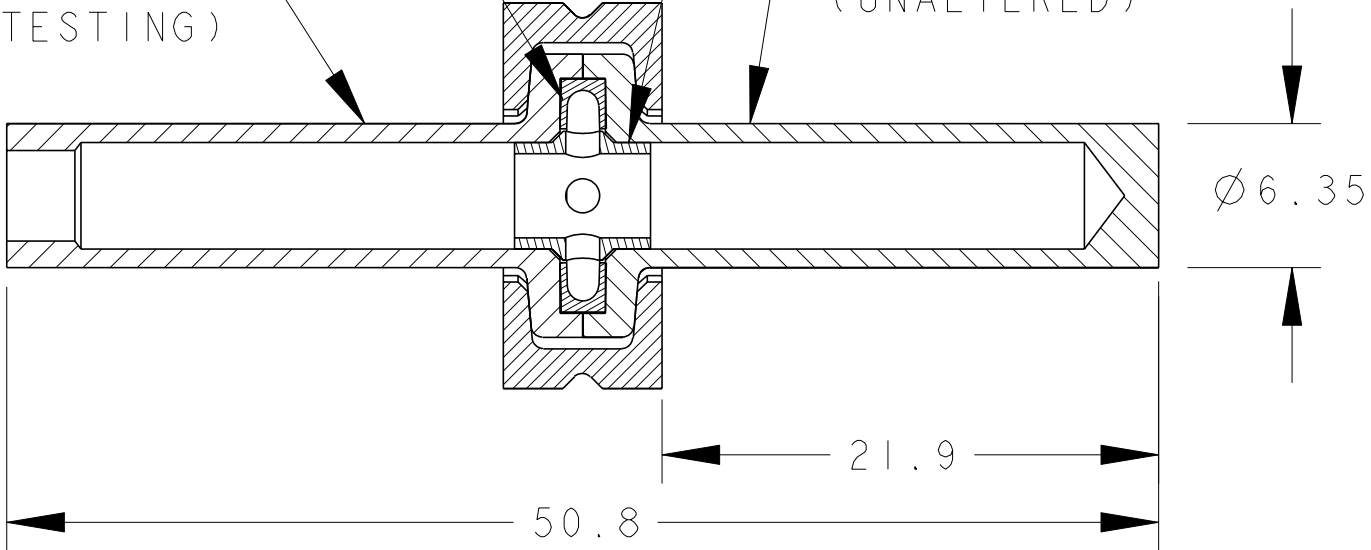
SPLIT CLAMP (3)

SEAL TEST FITTING - THRU
(DRILLED THRU FOR TESTING)

SEAL
(VARISEAL OR C-RING)

CENTERING RING
(MAY OR MAY NOT BE NEEDED)

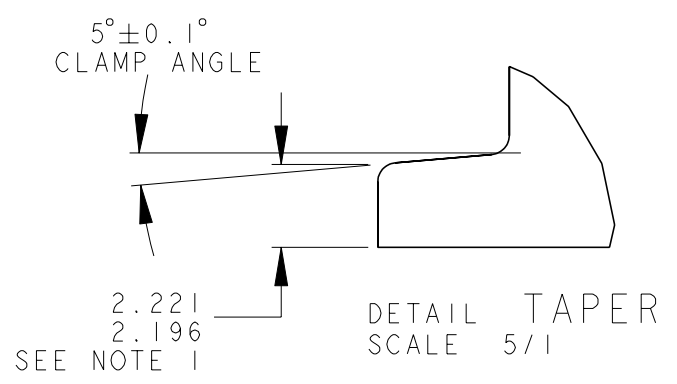
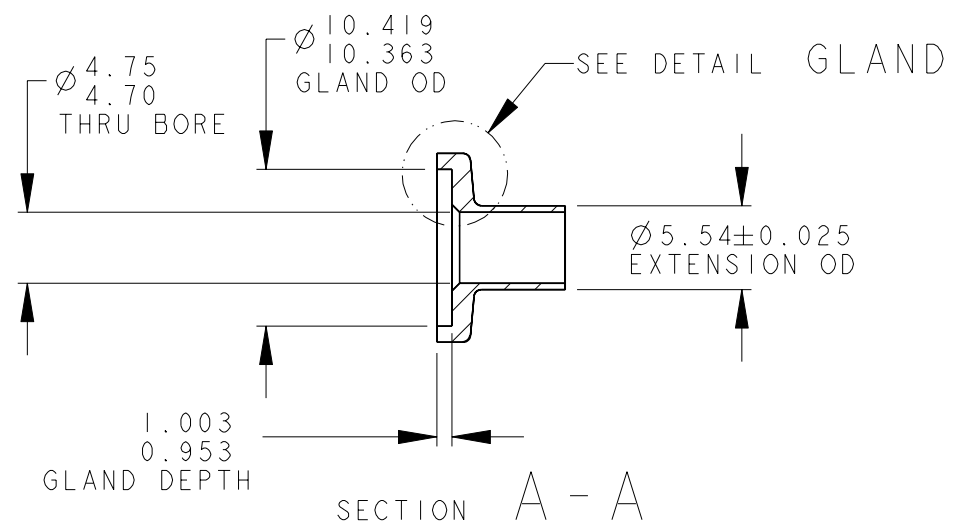
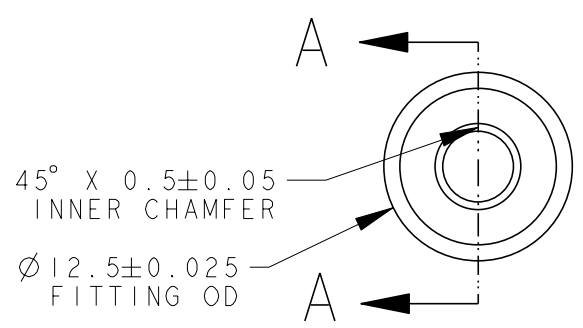
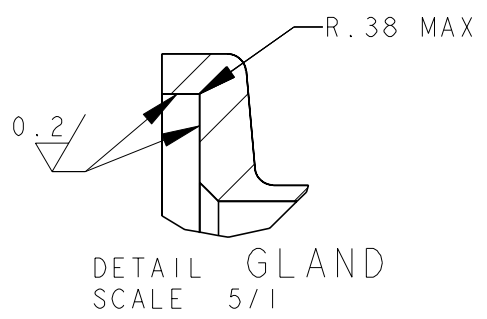
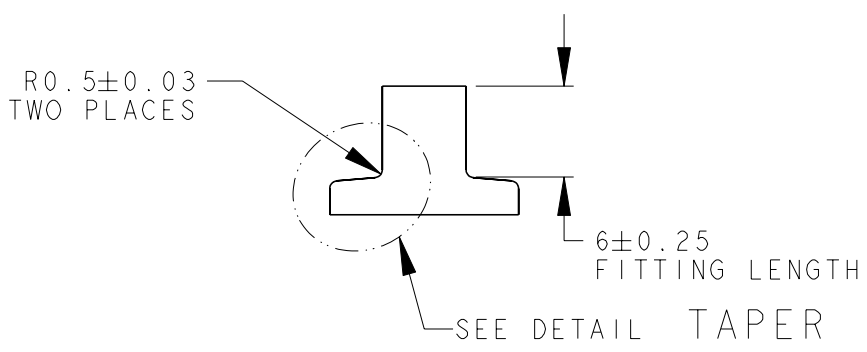
SEAL TEST FITTING - BLANK
(UNALTERED)



SECTION A - A

NOTES:
1. SPLIT CLAMP SHOWN WITHOUT
FIXING MECHANISM (POTENTIALLY
WIRE LOOP).
2. ASSEMBLY SHOWN WITH VARISEAL
(NOT C-RING) IN PLACE.

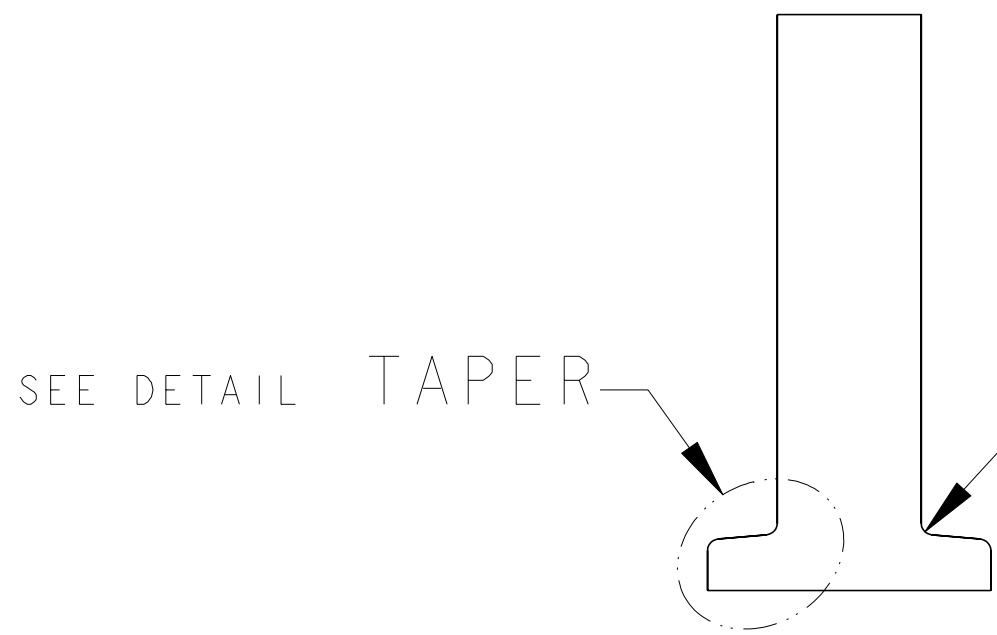
UNLESS OTHERWISE SPECIFIED			SHOP ORDERS		SER NO.	ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY ATLAS PIXEL DETECTPR COOLING SERVICES SEAL TEST FITTING ASSEMBLY			
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT NO.	NO. REQD	DATE ISSD				
	X.XX ± 0.03	Angles ± 1.00°	DEL TO		DATE REQD				
	X.XXX ± 0.010	FINISH $125\sqrt{\mu in}$	SURFACE TREATMT						
DO NOT SCALE PRINT THREADS ARE CLASS 2 CHAMFER ENDS OF ALL SCREW TREADS 30° CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS BREAK EDGES .016 MAX. ON MACHINED WORK REMOVE BURRS, WELD SPLATTER & LOOSE SCALE IN ACCORDANCE WITH ASME Y14.5M & B46.1			IDENT METHOD	TAG		MICROFILMED: DWG. TYPE ASSEM SHOWN ON SCALE: 3/1 DO NOT SCALE PRINTS			
			PROJECT NUMBER	N/A					
			PROJECT NAME			PATENT CLEAR: CATEGORY CODE AP8220 DWG. NO. 21F3462 SIZE 1			
			DWG BY	N. HARTMAN	DATE 01-Mar-01				
			CHK BY	None	DATE				
			APR BY	E. ANDERSSSEN	DATE				



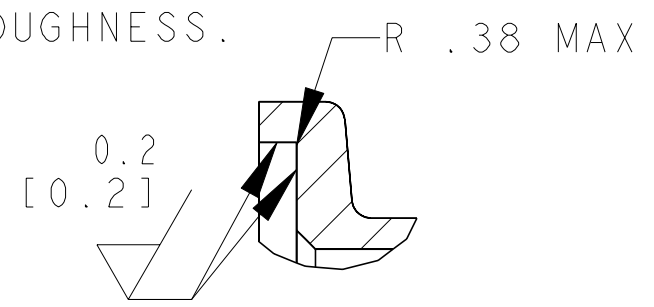
NOTES:
1. TAPER POSITION IS DIMENTIONED TO OD OF FITTING PRIOR TO FILLETING.
2. SURFACE FINISH GIVEN IN MICRONS AVERAGE ROUGHNESS.
3. ALL DIMENSIONS IN MM.

REV DWG CHK DATE				CHANGES				DESCRIPTION				ALUMINUM						
UNLESS OTHERWISE SPECIFIED				SHOP ORDERS				ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY				MATERIAL						
TOLERANCES		X.X ±0.1		FRAC. ±1/64		ACCT DEL TO		NO. RECD		SER NO. - DATE ISSD - DATE RECD -								
		X.XX ±0.03		Angles ±0.25°														
		X.XXX ±0.015		FINISH 125µm														
DO NOT SCALE PRINT				SURFACE TREATMENT				DEGREASE				ATLAS PIXEL DETECTOR COOLING SERVICES SECTOR COOLANT FITTING						
THREADS ARE CLASS 2				IDENT METHOD TAG														
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NUMBER														
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				PROJECT NAME														
BREAK EDGES .016 MAX. ON MACHINED WORK				DWG BY N. HARTMAN				DATE 01-Mar-01										
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				CHK BY				DATE				MICROFILMED:		DWG. TYPE	SHOWN ON	SCALE: 2/1	DO NOT SCALE PRINTS	
IN ACCORDANCE WITH ASME Y14.5M & B46.1				APR BY E. ANDERSEN				DATE				PATENT CLEAR:		DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	SIZE	REV.
														AP8220	21F3471	2		
Dwg. File: SECTOR-COOLANT-FITTINGS Model File: SECTOR-END-FITTING																		

- NOTES:
- 1. TAPER POSITION IS DIMENSIONED TO THEORETICAL OD OF FITTING WITHOUT FILLET.
 - 2. SURFACE FINISH GIVEN IN MICRONS AVERAGE ROUGHNESS.
 - 3. ALL DIMENSIONS IN MM.



R0.5±0.03
TWO PLACES



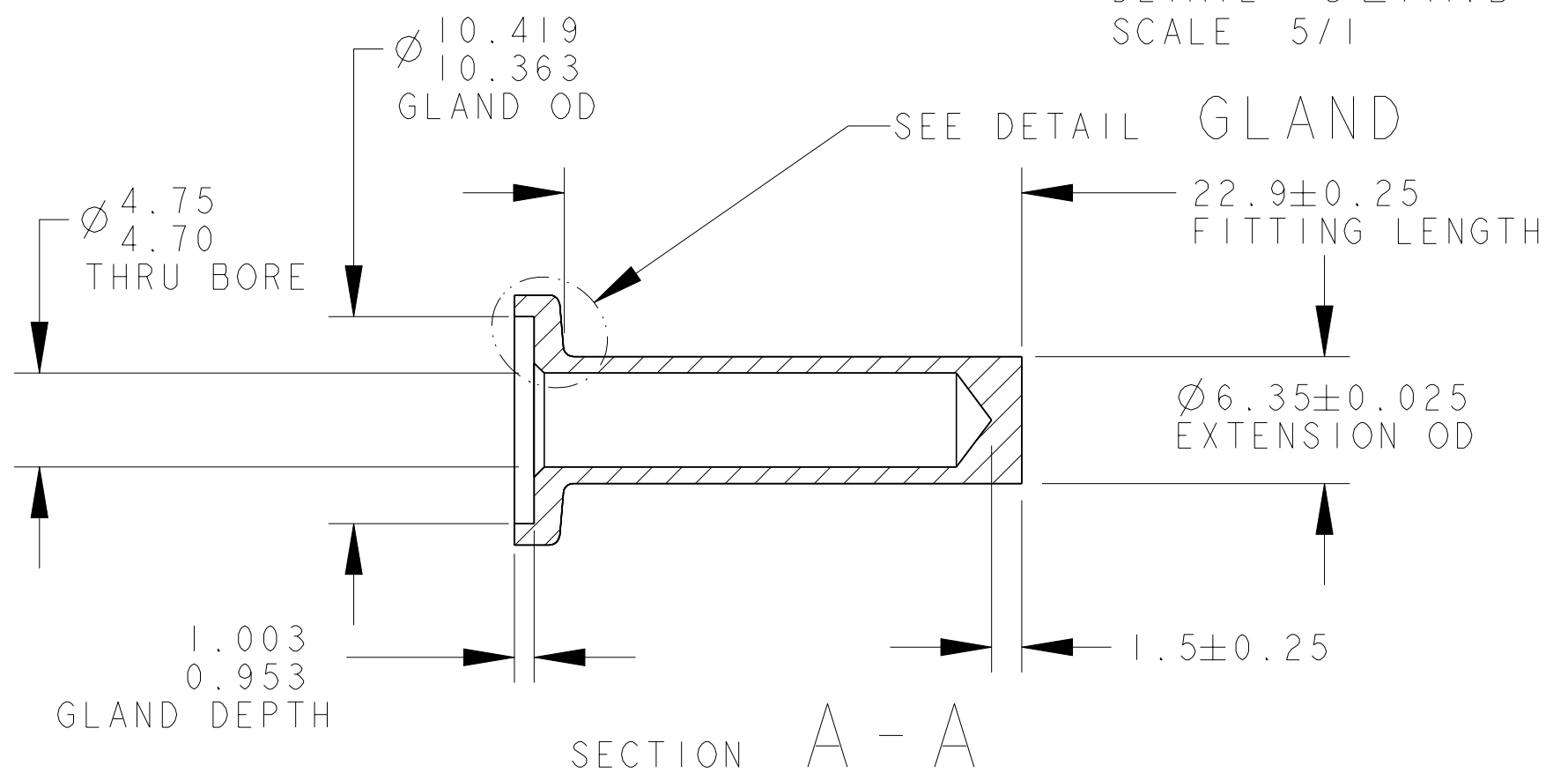
DETAIL GLAND
SCALE 5/1

45° X 0.5±0.05
INNER CHAMFER

Ø12.5±0.025
FITTING OD

5°±0.1°
CLAMP ANGLE

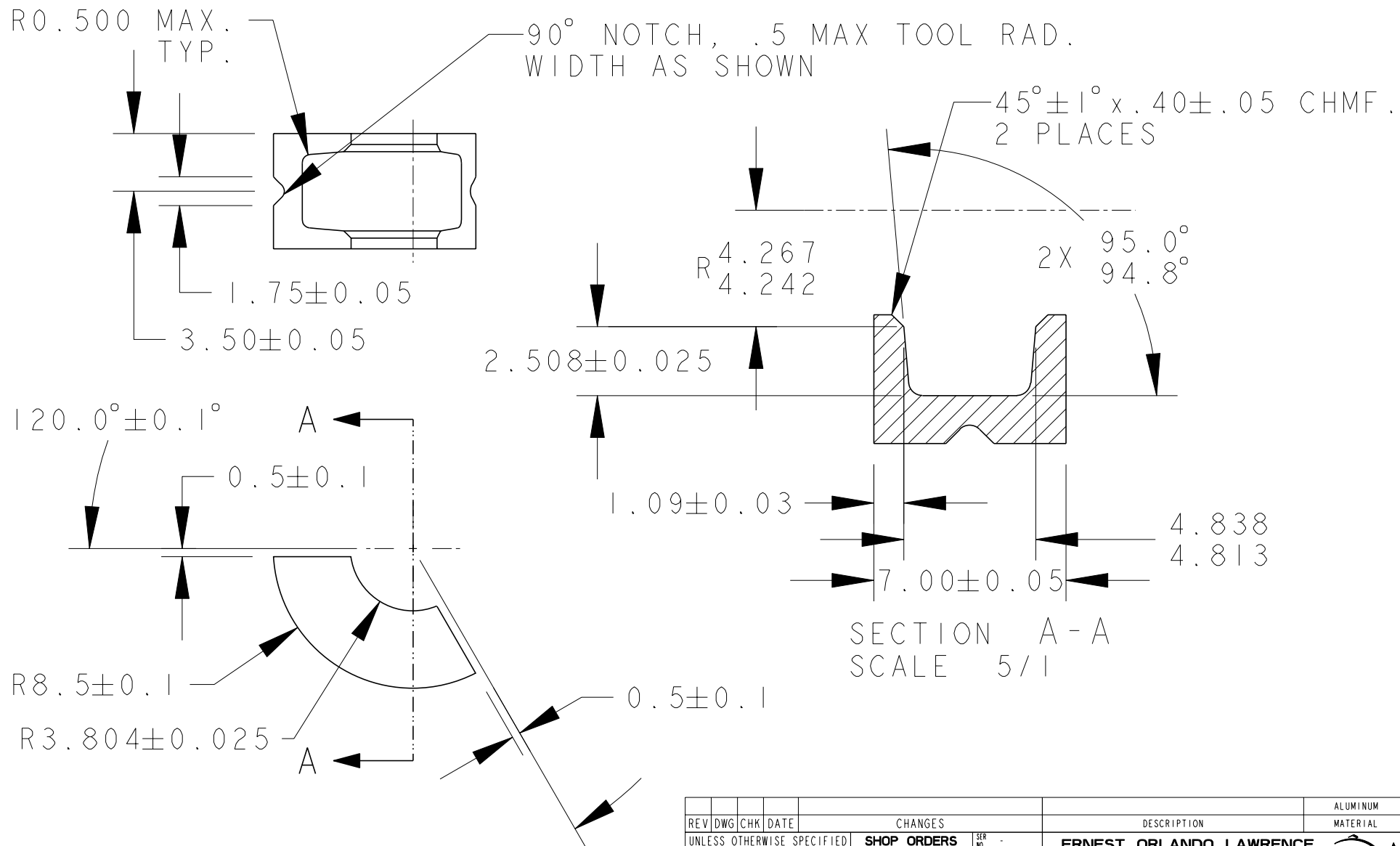
2.5^{+0.025}₀
FITTING THICKNESS
SEE NOTE 1



SECTION A - A

UNLESS OTHERWISE SPECIFIED			SHOP ORDERS		SER NO. -	ERNEST ORLANDO LAWRENCE								
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT NO.	NO. REQD	DATE ISSD -	BERKELEY NATIONAL LABORATORY								
	X.XX ± 0.03	Angles ± 0.25°	DEL TO		DATE REQD -	UNIVERSITY OF CALIFORNIA - BERKELEY								
	X.XXX ± 0.015	FINISH 125√(μin)	SURFACE TREATMT DEGREASE		ATLAS PIXEL DETECTOR COOLING SERVICES SEAL TEST FITTING									
DO NOT SCALE PRINT THREADS ARE CLASS 2 CHAMFER ENDS OF ALL SCREW TREADS 30° CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS BREAK EDGES .016 MAX. ON MACHINED WORK REMOVE BURRS, WELD SPLATTER & LOOSE SCALE IN ACCORDANCE WITH ASME Y14.5M & B46.1		IDENT METHOD TAG		(Logo)										
		PROJECT NUMBER												
		PROJECT NAME							MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 3/1	DO NOT SCALE PRINTS	
		DWG BY N. HARTMAN							DATE 01-Mar-01	PART		SHEET 1 OF 1		
				CHK BY	DATE	PATENT CLEAR:		CATEGORY CODE	DWG. NO.	SIZE	REV.			
		APR BY E. ANDERSSON	DATE		DESIGN ACCT. NO.	AP8220	21F3482		1					

DETAIL TAPER
SCALE 5/1



NOTES:

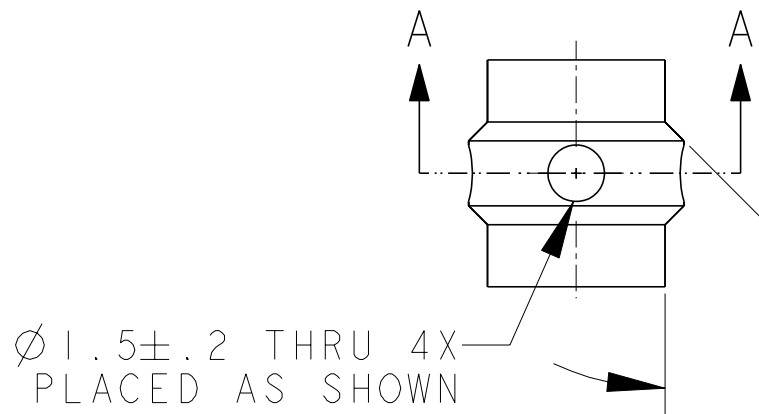
1. ALL DIMENSIONS IN MM.
2. DEBUR ALL EDGES AFTER MACHINING.

REV	DWG	CHK	DATE	CHANGES	DESCRIPTION	ALUMINUM MATERIAL
UNLESS OTHERWISE SPECIFIED				SHOP ORDERS	ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY	
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT NO.	SER NO.	ATLAS PIXEL DETECTOR COOLING SERVICES SECTOR FITTING SPLIT CLAMP	
	X.XX ± 0.03	Angles ± 0.25°	DEL TO	DATE ISSD		
	X.XXX ± 0.015	FINISH 125 μm	DATE RECD	DATE RECD		
DO NOT SCALE PRINT				SURFACE TREATMENT	MICROFILMED: DWG. TYPE PART	
THREADS ARE CLASS 2				IDENT. METHOD TAG		
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NUMBER	SCALE: 3/1 DO NOT SCALE PRINTS	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				PROJECT NAME		
BREAK EDGES .016 MAX. ON MACHINED WORK				DWG BY N. HARTMAN	SHEET 1 OF 1	
REMOVE BURRS, WELD SPATTER & LOOSE SCALE				CHK BY		
IN ACCORDANCE WITH ASME Y14.5M & B46.1				DATE 01-Mar-01	DWG. NO. 21F3491	
				APR BY E. ANDERSEN		
				DATE	REV. 1	

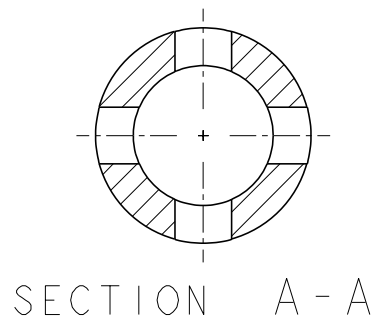
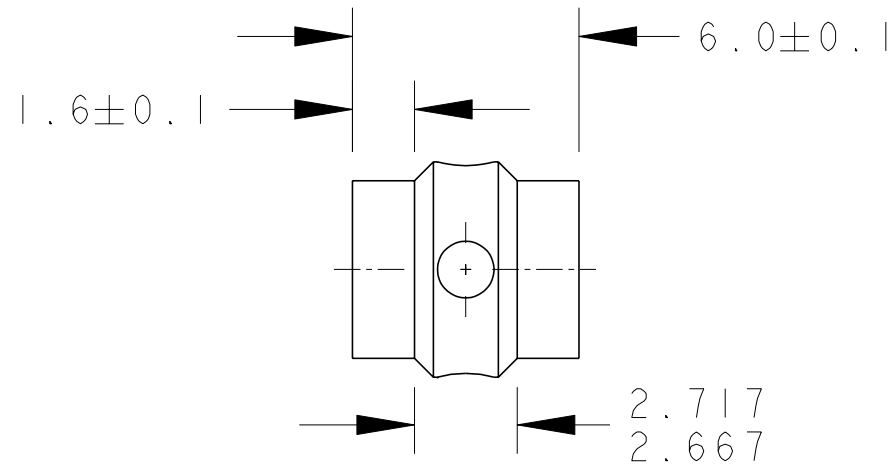
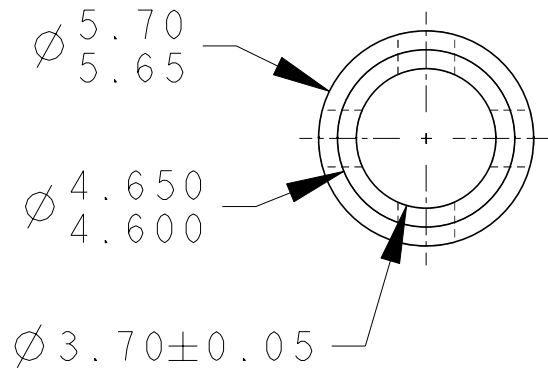
Dwg. File: FITTING_SPLIT_CLAMP.DRW Model File: SECTOR-FITTING-SPLIT-CLAMP

NOTES:

1. ALL DIMENSIONS IN MM.
2. DEBUR ALL EDGES AFTER MACHINING.



$45.0^\circ \pm 0.1^\circ$
 TYP.



REV	DWG	CHK	DATE	CHANGES			ITEM	PART NO	REQD	DESCRIPTION			
UNLESS OTHERWISE SPECIFIED				SHOP ORDERS			SER. NO.	-					
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64		ACCT. NO.	NO. REQD	12	DATE ISSD	-					
	X.XX ± 0.03	Angles ± 0.25°		DEL. TO	JON WIRTH		DATE REQD	-					
	X.XXX ± 0.015	FINISH 125 μm		SURFACE TREATMENT			DEGREASE						
DO NOT SCALE PRINT				IDENT. TAG			ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY 						
THREADS ARE CLASS 2				PROJECT NUMBER									
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NAME									
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				DWG. BY N. HARTMAN			DATE	01-Mar-01		MICROFILMED:			
BREAK EDGES .016 MAX. ON MACHINED WORK				CHK BY			DATE			DWG. TYPE			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				APR BY E. ANDERSSSEN			DATE			PART			
IN ACCORDANCE WITH ASME Y14.5M & B46.1									CATEGORY CODE		SHOWN ON		
									PATENT CLEAR:		SCALE: 5/1		
									DESIGN ACCT. NO.		SHEET 1 OF 1		
									AP8220		DO NOT SCALE PRINTS		
											DWG. NO. 21F3661		
											SIZE 1		
											REV. 1		

Dwg. File: FITTING_CENTERING_RING.DWG Model File: SECTOR_FITTING_CENTERING_RING