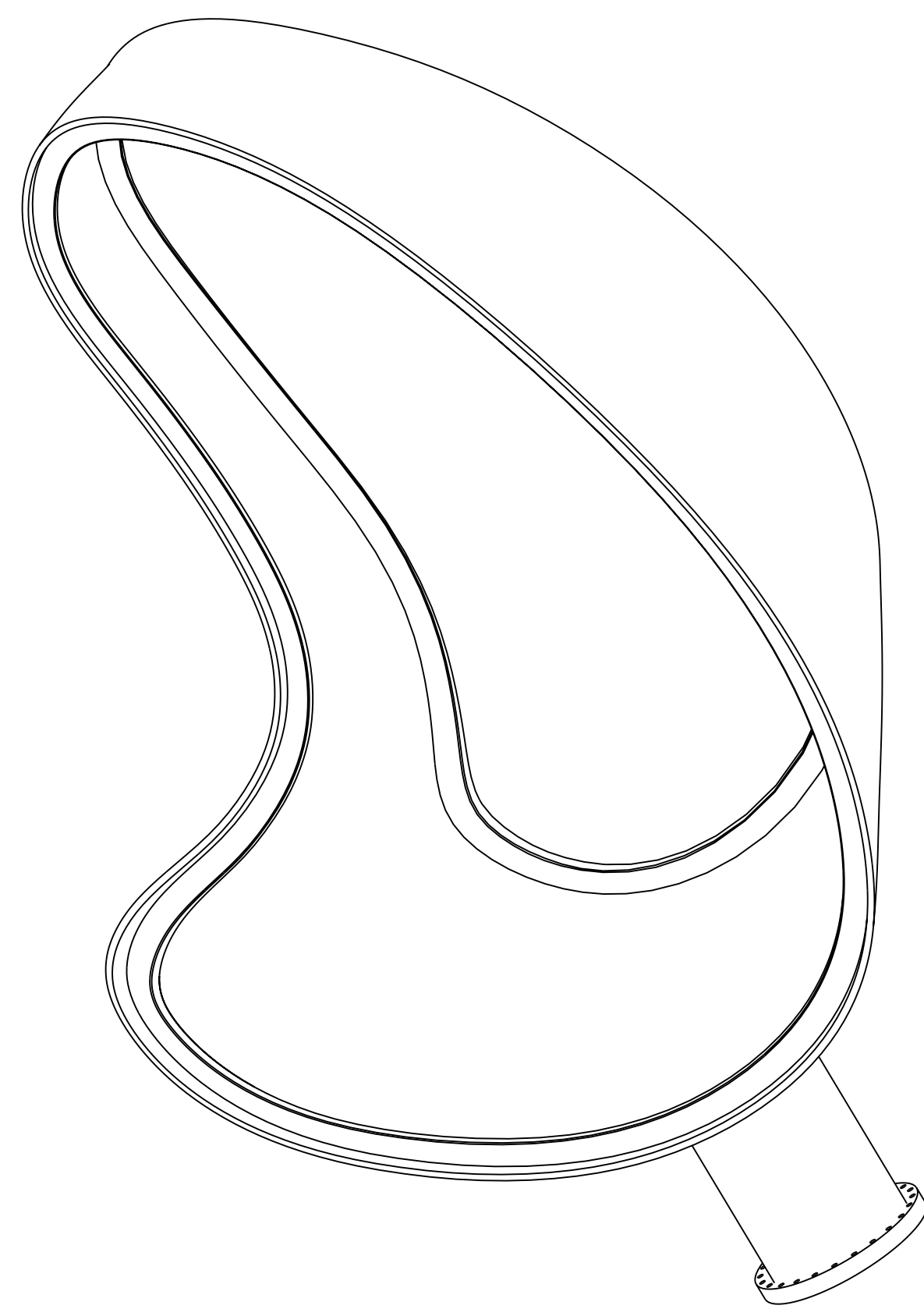
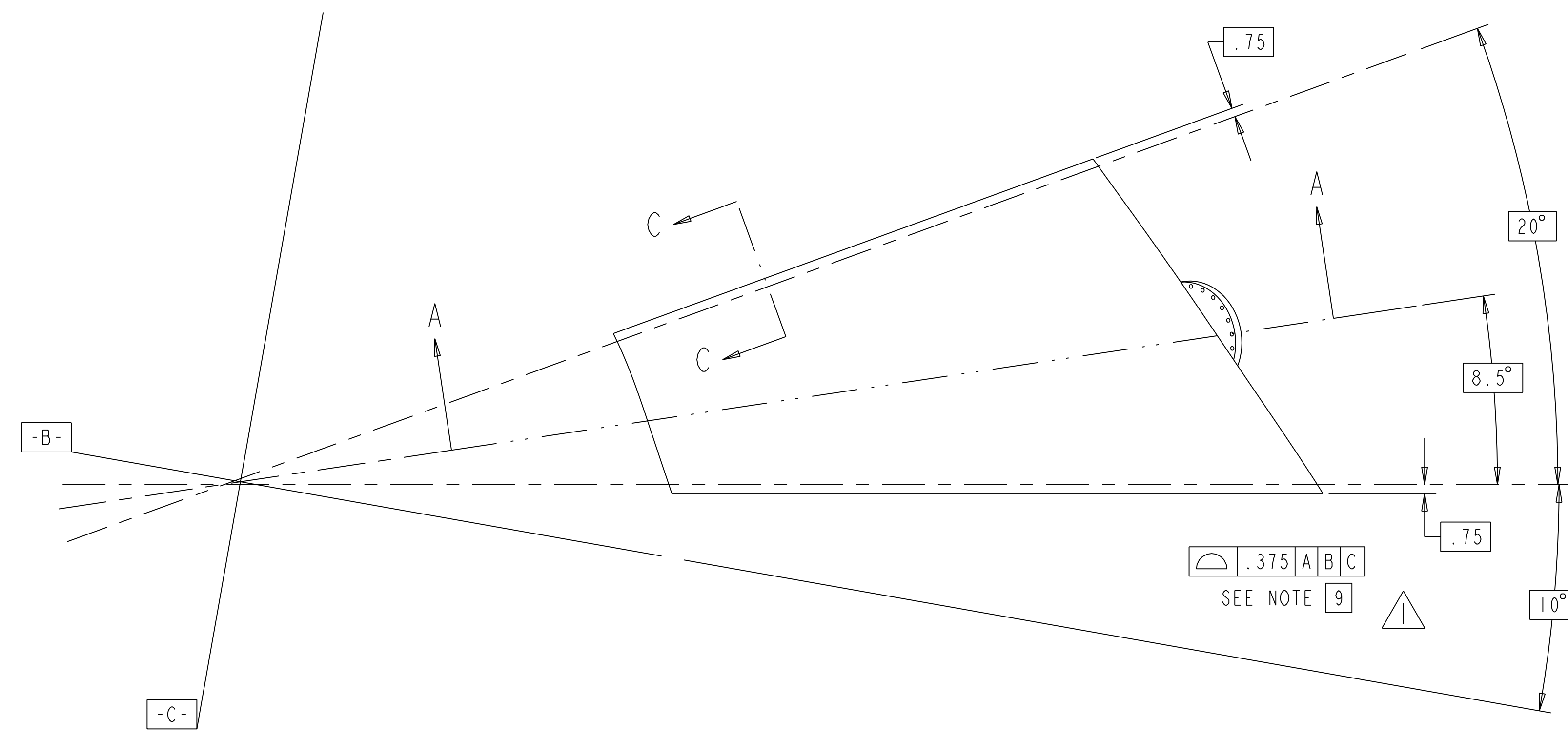


PRELIMINARY



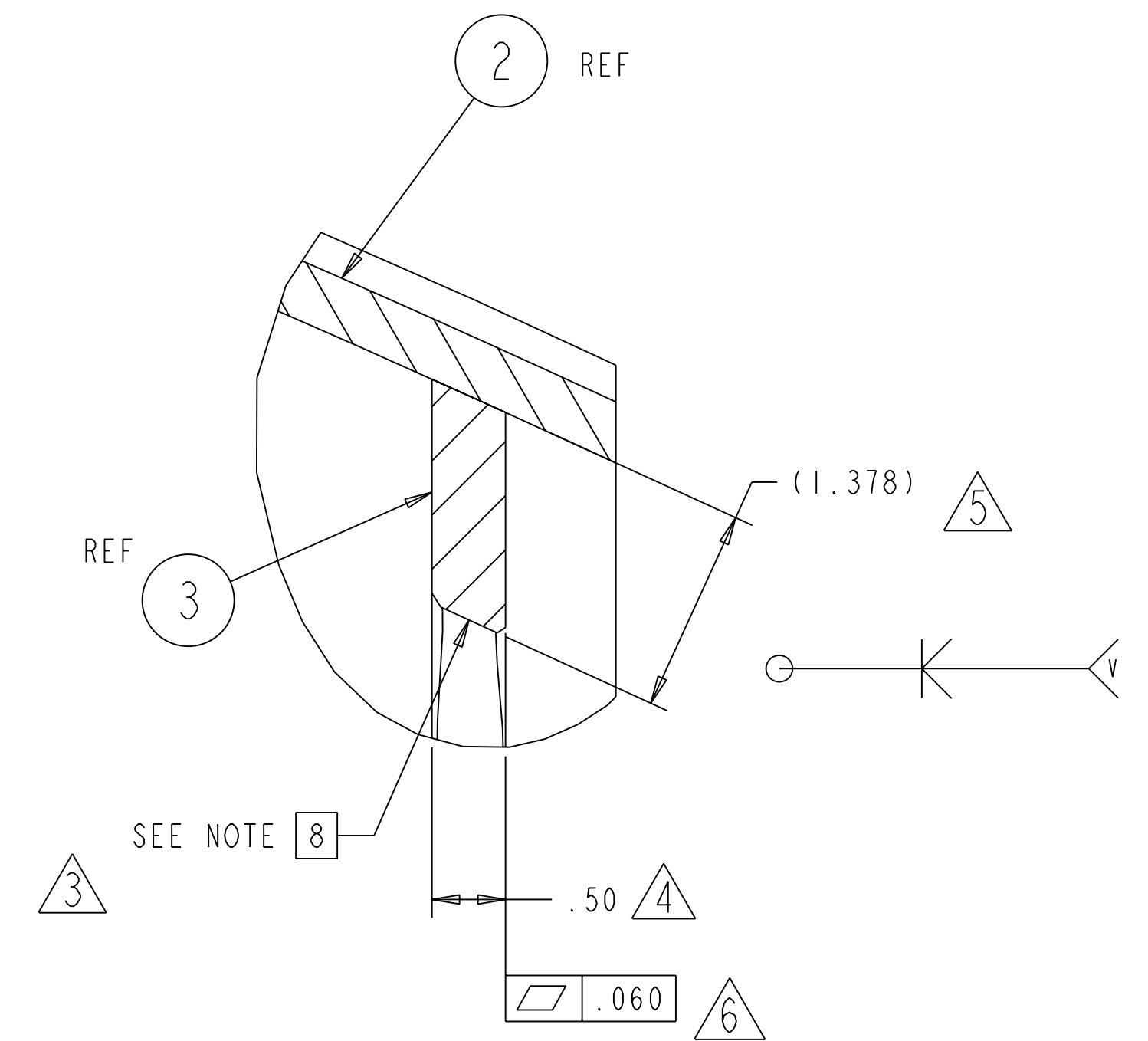
ISOMETRIC VIEW



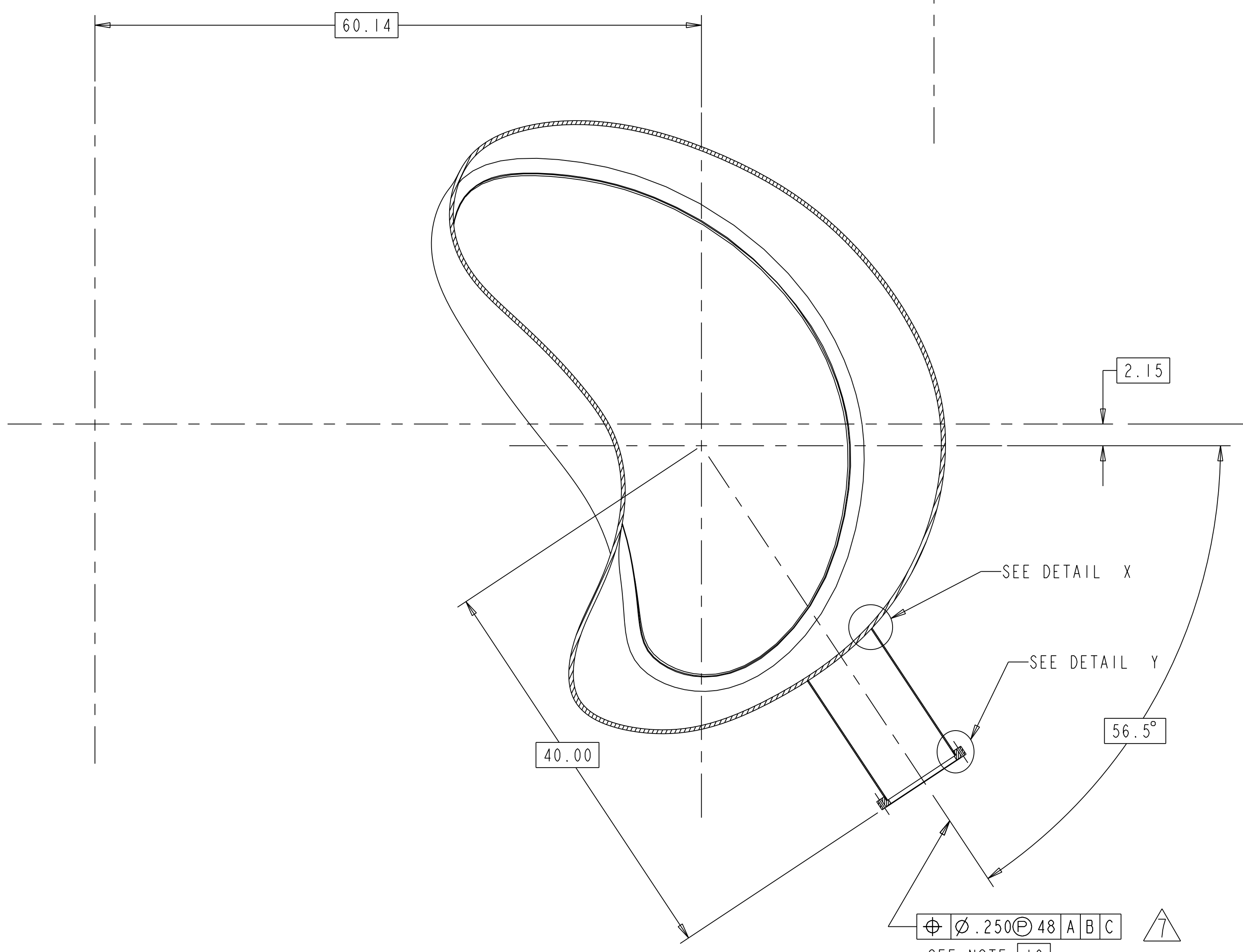
NOTES:

1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M.
2. DIMENSIONS ARE IN INCHES.
3. REQUIREMENTS FOR FABRICATING THE VACUUM VESSEL PROTOTYPE ARE DEFINED IN THE DRAWINGS, MODELS, AND SPECIFICATION.
4. GEOMETRY OF VACUUM VESSEL PROTOTYPE IS DEFINED IN CAD MODELS/FILES SE121-001P.ASM, SE121-002P.ASM, AND SE121-003P.ASM.
5. SURFACE FINISH REQUIREMENTS ARE DEFINED IN SPECIFICATION NCSX-CSPEC-120-01-00 SECTION 3.2.1.2.
6. MATERIAL REQUIREMENTS ARE DEFINED IN SPECIFICATION NCSX-CSPEC-120-01-00 SECTION 3.3.2.1
7. CLEANING REQUIREMENTS ARE DEFINED IN SPECIFICATION NCSX-CSPEC-120-01-00 SECTION 3.3.2.4

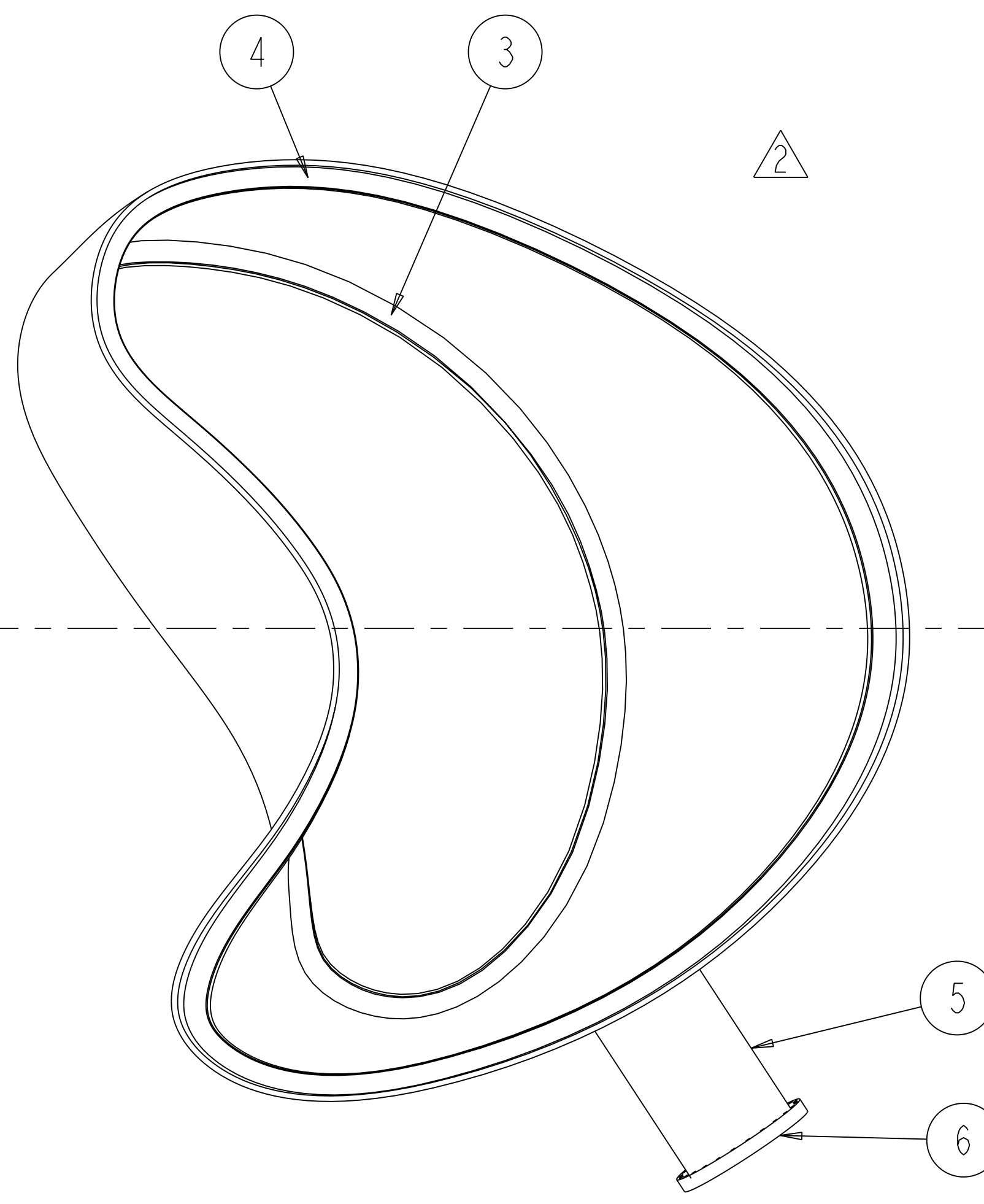
8. RIB SURFACE SHALL FOLLOW THE INSIDE SURFACE OF THE SHELL WITHIN ± 0.020 INCH.
9. PROFILE TOLERANCE ON OUTER VACUUM SURFACE IS BILATERAL, i.e. 0.1875 EITHER SIDE OF REFERENCE SURFACE.
10. PROJECTED TOLERANCE ZONE STARTS AT INTERSECTION OF PORT AXIS AND VACUUM VESSEL OUTER SURFACE AND EXTENDS OUTWARD.



SECTION C-C
SCALE 1.00

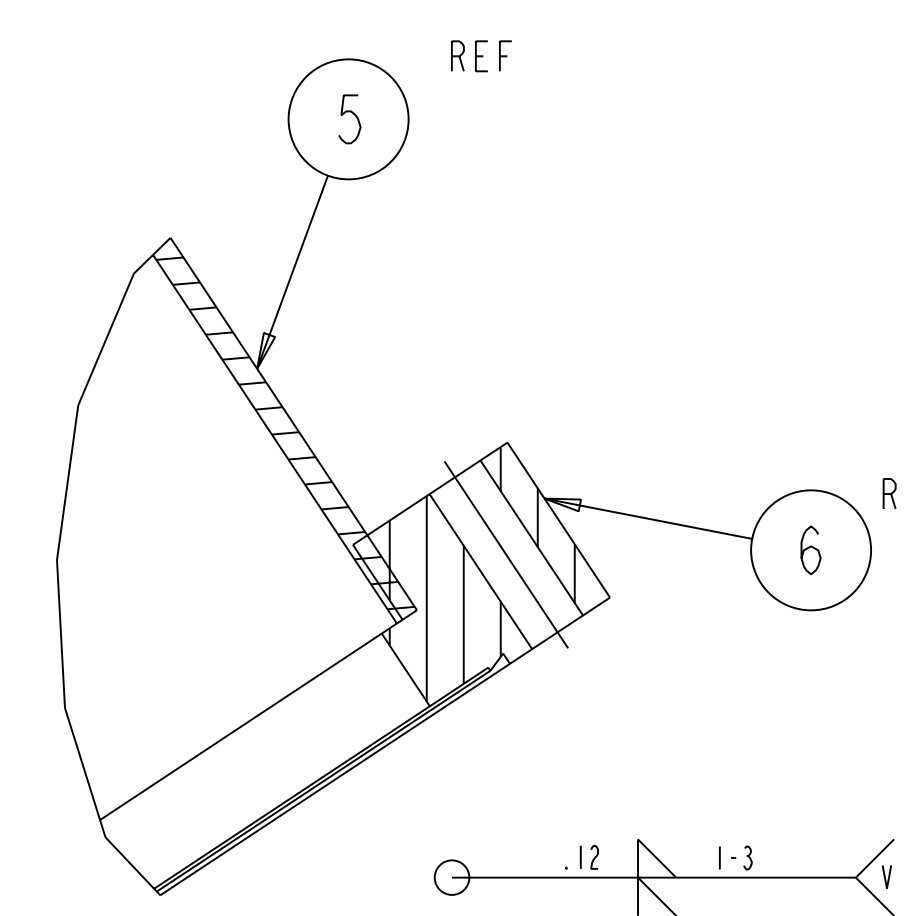


SECTION A-A



SCALE: 1.25

DETAIL X
SCALE 1.00



DETAIL Y
SCALE 1.00

AR	-7	WELD, FILLER METAL			7
I	F1000000NC4	FLANGE CONFLAT 10.0 O.D. NON-ROTATABLE	VARIAN VACUUM TECHNOLOGIES 121 HARTWELL AVENUE LEXINGTON, MA. 02421		6
I	-5	TUBE 8.0 O.D. X .12 WALL	INCONEL 625		5
I	-4	PROTOTYPE RIB #2	INCONEL 625		4
I	-3	PROTOTYPE RIB #1	INCONEL 625		3
I	-2	PROTOTYPE VACUUM VESSEL SHELL	INCONEL 625		2
I	-1	PROTOTYPE VACUUM VESSEL SEGMENT PORT AND RIB WELDMENT			1

SET121-002P	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO

← NEXT ASSEMBLY

QV CLAUSE	DOCUMENTS REQUIRED	APPLICABLE TO PART NO
303	MATERIAL MILL TEST REPORT	
325	MATERIAL SELLER CERT	X
326	SPECIM MATERIAL INSPECTION REPORT	
205	WELDING, INSPECTION AND TEST PLAN	
312	FIELD INSPECTION AND TEST PLAN	
321	WELD AND BRAZE INSPECTION REPORT	
322	HEAT TREAT REPORT (W/MART)	
318	LEAK TEST REPORT	X
315	CLEANING CERT	X
318	DEVIATION REQUEST	X
319	NONCONFORMANCE REPORT	X
323	DIMENSIONAL REPORT	X
330	FUNCTIONAL TEST REPORT	

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P THIS DRAWING PRODUCED ON PRO-ENGINEER

REV	DESCRIPTION	A-E	BY	CHK	SECT	DEPT	DATE	PE	REQ	DATE	ORNL	DATE	DOE	DATE	QA	CV	EC	EE	EM	IE	M	PD	SE	ST	XAD	PES
	ADDED PROJECTED TOL ZONE AND NOTE 10		MJC				7/14/03																			
	ADDED FLATNESS TOLERANCE																									
	ADDED 1.378 DIMENSION																									
	.50 WAS REFERENCE DIMENSION																									
	ADDED NOTE 8																									
	DELETED PROFILE TOLERANCE																									
A	0.375 WAS 0.020, ADDED NOTE 9																									

SCALE NOTED
TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS .1
XX DECIMALS ±.01
XXX DECIMALS ±.005
ANGLES ±0°15'
BREAK SHARP EDGES OR MAX
FINISH .125 UNLESS OTHERWISE SPECIFIED

DESIGN: P. L. GORANSON 11/26/02
DRAWN: G. H. JONES 11/26/02

UT-BATTELLE
Oak Ridge National Laboratory
managed for the DEPARTMENT OF ENERGY under
U.S. GOVERNMENT CONTRACT DE-AC05-00OR22725
UT-BATTELLE, LLC, Oak Ridge, Tennessee
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT

PROTOTYPE VACUUM VESSEL SEGMENT PORT AND RIB WELDMENT

VERSION NO. 5
PLANT Y-12
BLDG 9201-2
FL 2
SHT 1
OF 1
TYPE I
CLASS A
U

RELEASE LEVEL WIP
DRAWING APPROVALS DATE

SE121-001P