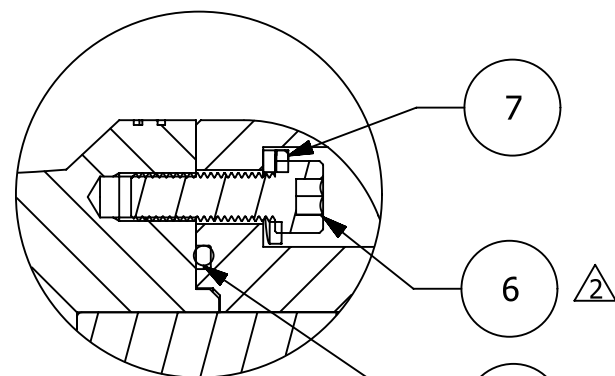


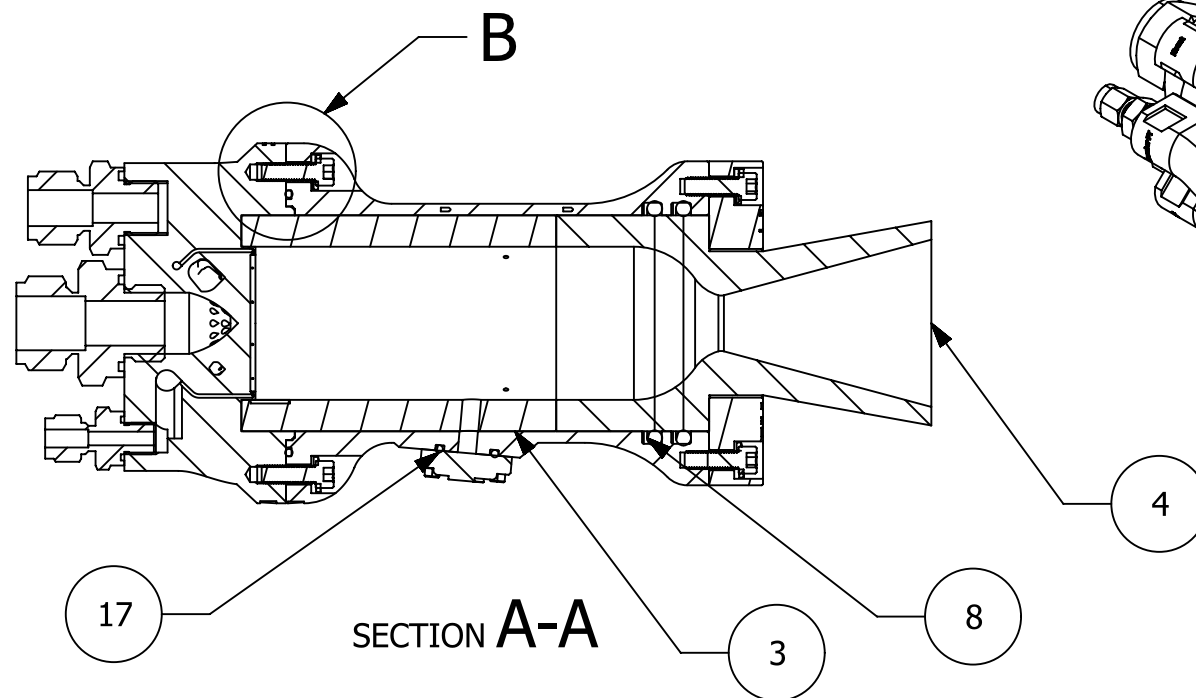
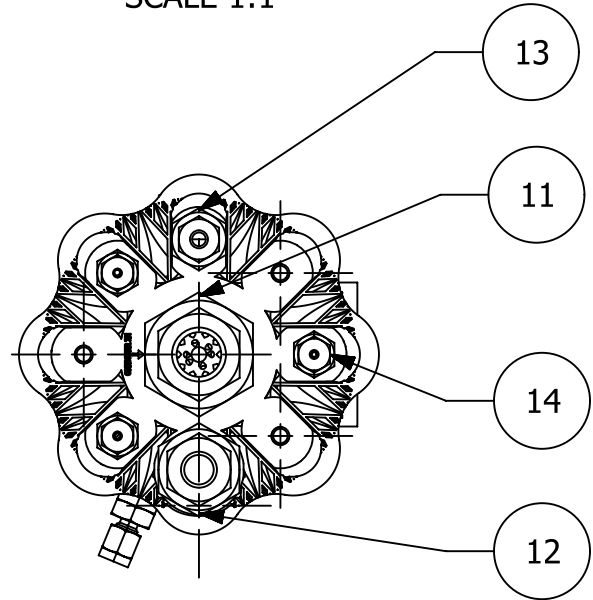
NOTES:

- 1. ALIGN TWO MARKINGS DURING ASSEMBLY
- 2. TORQUE .250-28 FASTENERS TO 82 IN-LBS
- 3. TORQUE .125-44 FASTENERS TO 20 IN-LBS

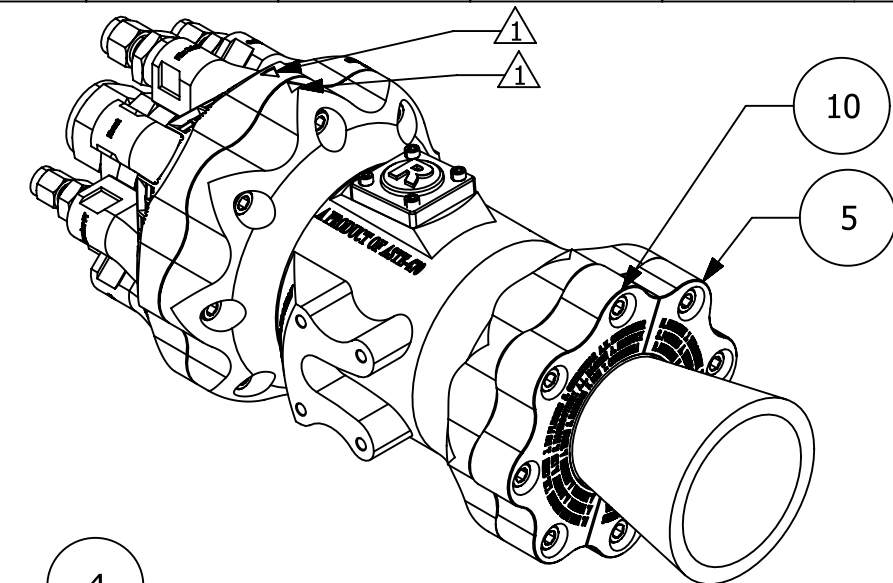
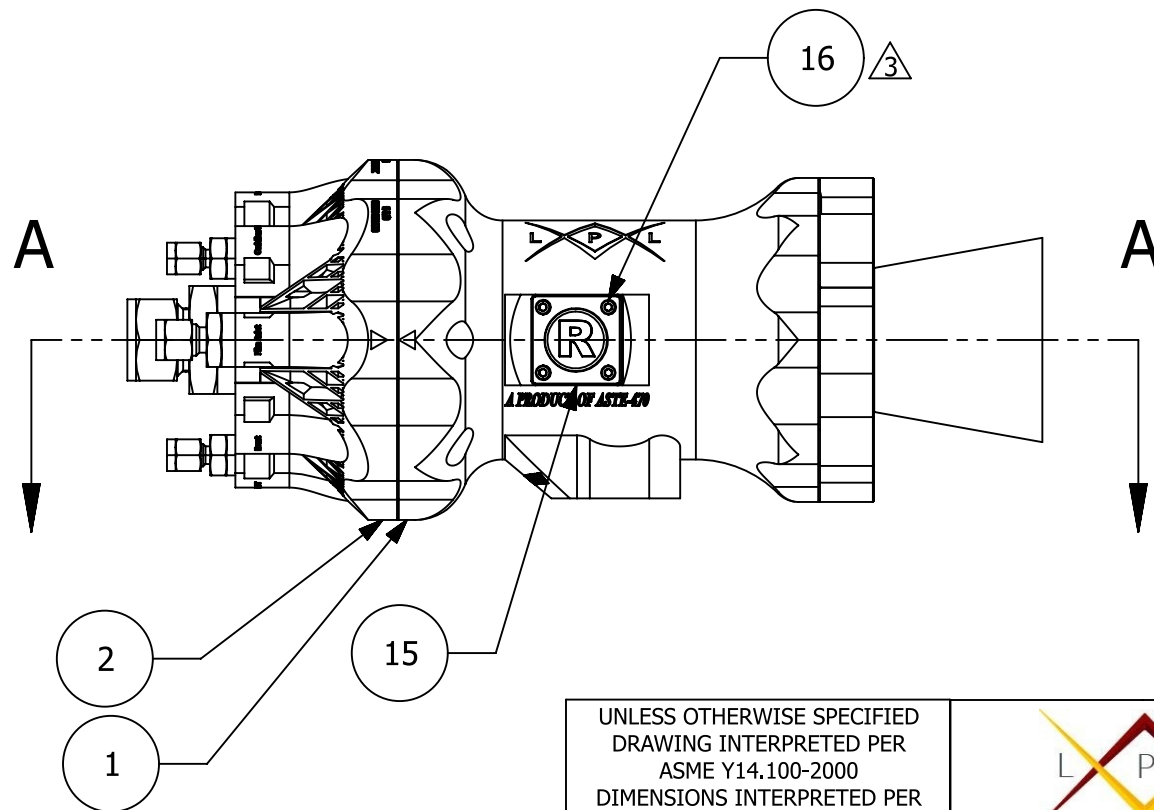
REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	25-Apr-2018	INITIAL RELEASE



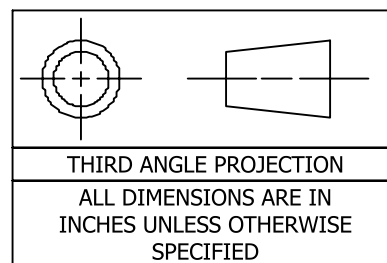
DETAIL B
SCALE 1:1



SECTION A-A



17	O-RING 2-115VM100 9464K280	1
16	5-44 BLACK-OXIDE ALLOY STEEL SOCKET HEAD CAP SCREW 90044A253	4
15	IGNITOR_COVER	1
14	SS-200-1-OR	6
13	SS-400-1-OR	1
12	SS-810-1-OR	1
11	SS-1210-1-OR	1
10	JESSIE_RETENTIONRING2_2	1
9	O-RING 2-153VM100 9464K114	1
8	O-RING 2-337VM100 9464K610	2
7	.250 MIL SPEC 300 SERIES SS LOCK WASHER 91475A029	16
6	.250-28 18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW 92196A321	16
5	JESSIE_RETENTIONRING1_2	1
4	JESSIE_NOZZLE_1000PSIV1	1
3	JESSIE_CHAMBERINSERT	1
2	JESSIE_INJECTOR	1
1	JESSIE_CHAMBER	1
PC NO	PART NAME	QTY



UNLESS OTHERWISE SPECIFIED
DRAWING INTERPRETED PER ASME Y14.100-2000
DIMENSIONS INTERPRETED PER ASME Y14.5-1994
REMOVE BURRS AND BREAK EDGES
.005-.015 250/
SURFACE TEXTURE: ✓
TOLERANCES:
DECIMALS: ANGLES:
.X ±.05 X.±1°
.XX ±.01 X.±.1°
.XXX ±.005

DRAWN BY	J. TARGONSKI
DATE	25-Apr-2018
REVIEWED BY	M. MORUZZI
DATE	25-Apr-2018
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089	

USC LIQUID PROPULSION LABORATORY			
JESSIE ASSEMBLY			
SIZE	ASSEMBLY	SHEET REV	
B	JESSIE	A	
SCALE 3:8		SHEET 1 OF 1	

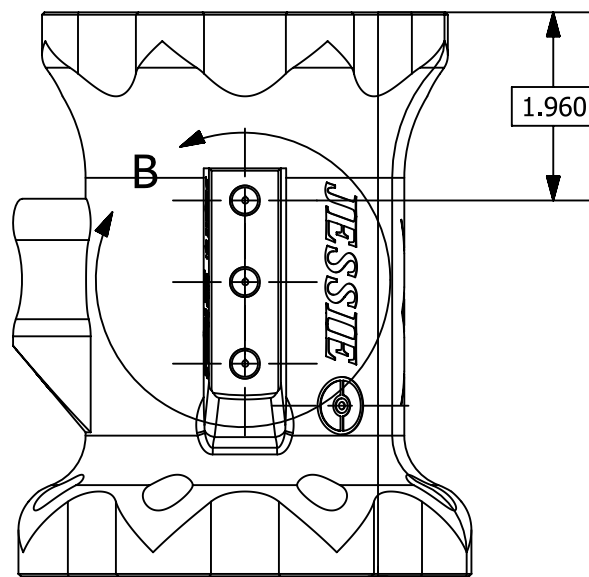
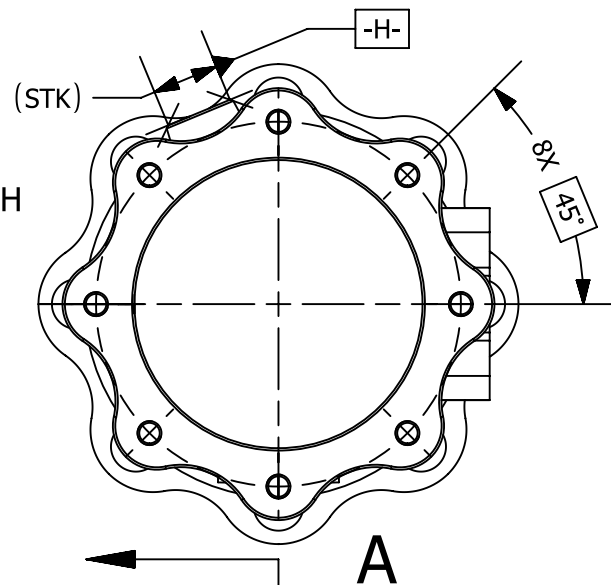
NOTES:

[1] MATERIAL: ADDITIVELY MANUFACTURED EOS MARAGING STEEL MS1

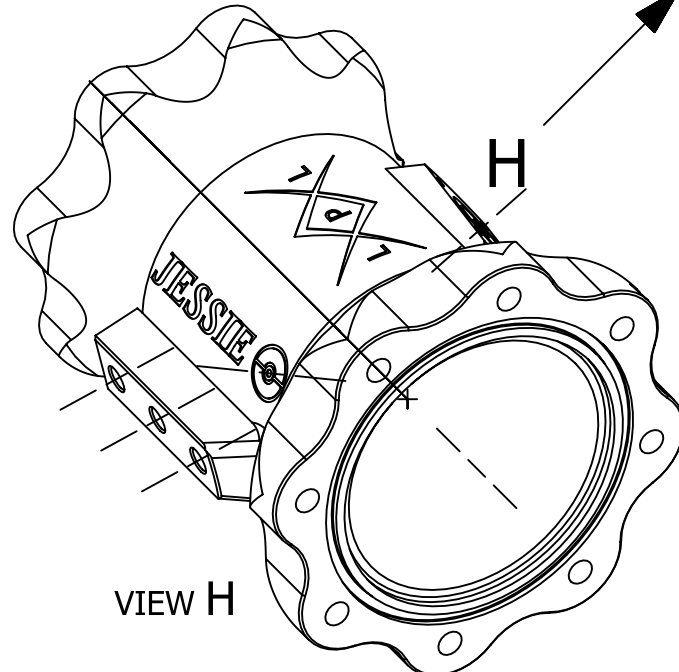
② HOLE PATTERN SHOULD ALIGN TO EXISTING PILOT HOLES

③ TAPPED HOLE IS IN METRIC. HOLE DEPTH AND POSITION ARE IN INCH

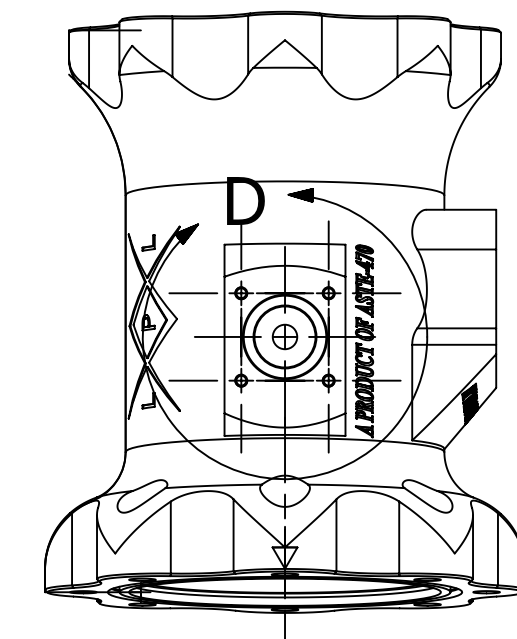
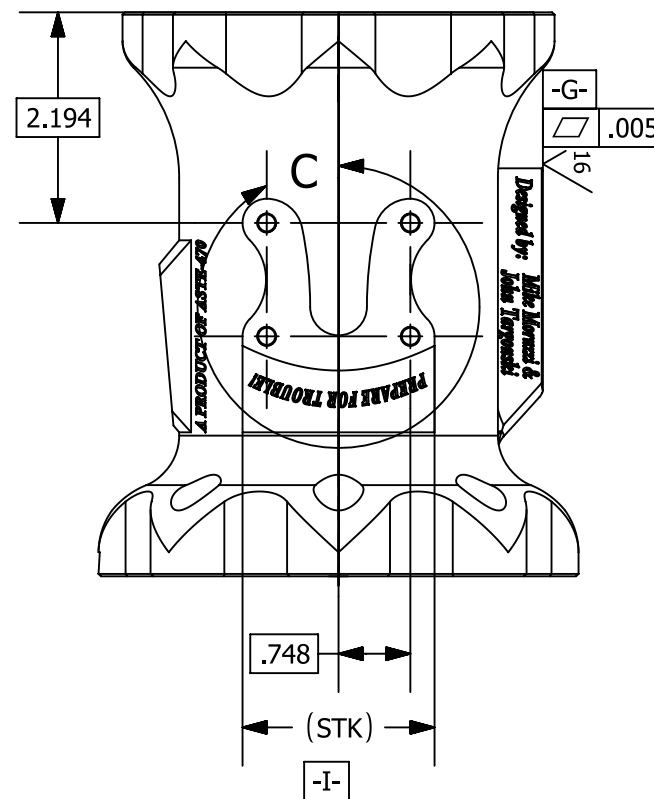
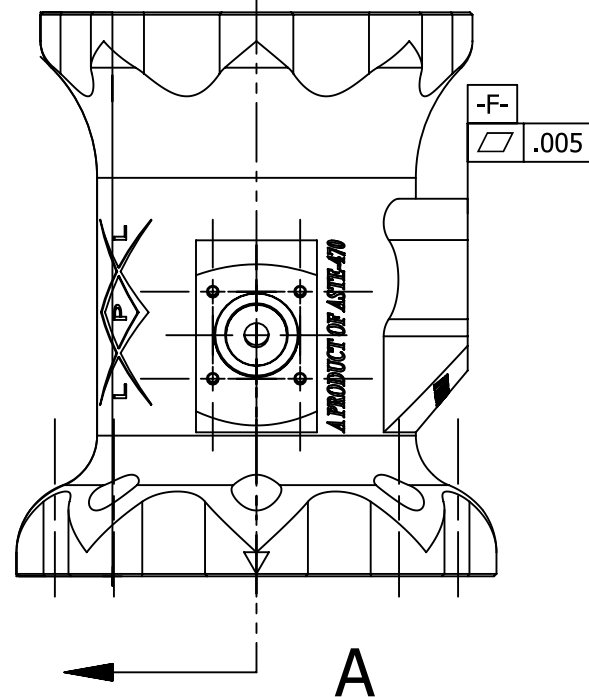
REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	12-Apr-18	INITIAL RELEASE
B	(3) SHEET 2 DETAIL E	J TARGONSKI	18-Apr-18	(1) ADDED DATUM H & I. (2) RELAXED TOLERANCES FOR EASIER MACHINING. (3) CHANGED TOTAL RUNOUT TO POSTIONAL TOLERANCE



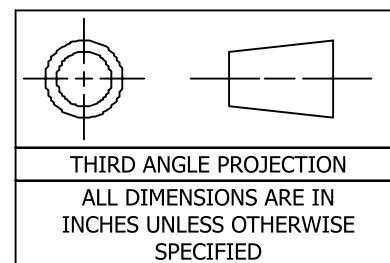
ROTATED 157.5 DEG CW FROM PARENT VIEW



VIEW H



TILTED 5 DEG BACK FROM PARENT VIEW



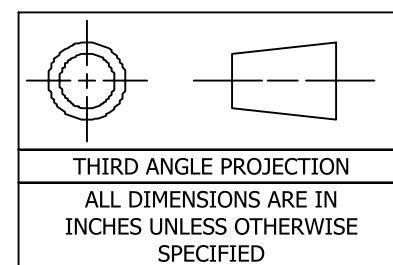
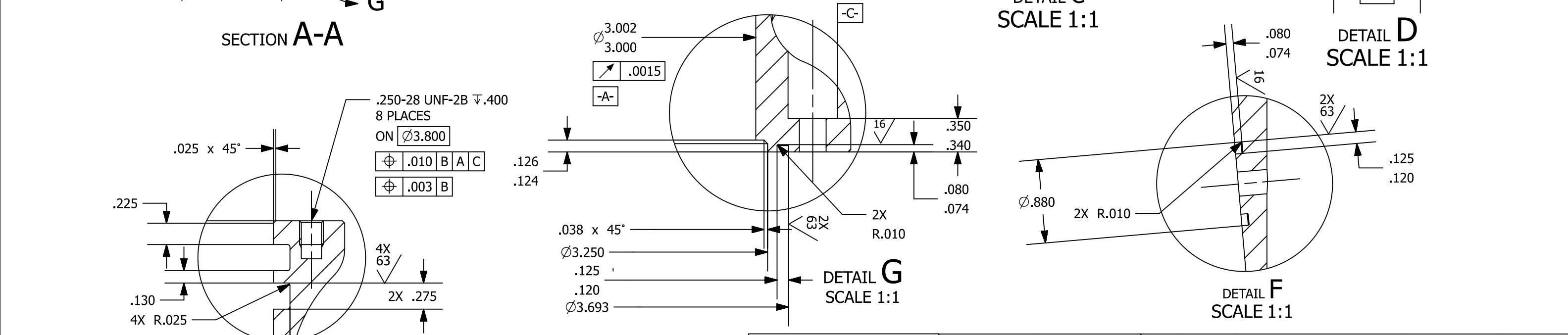
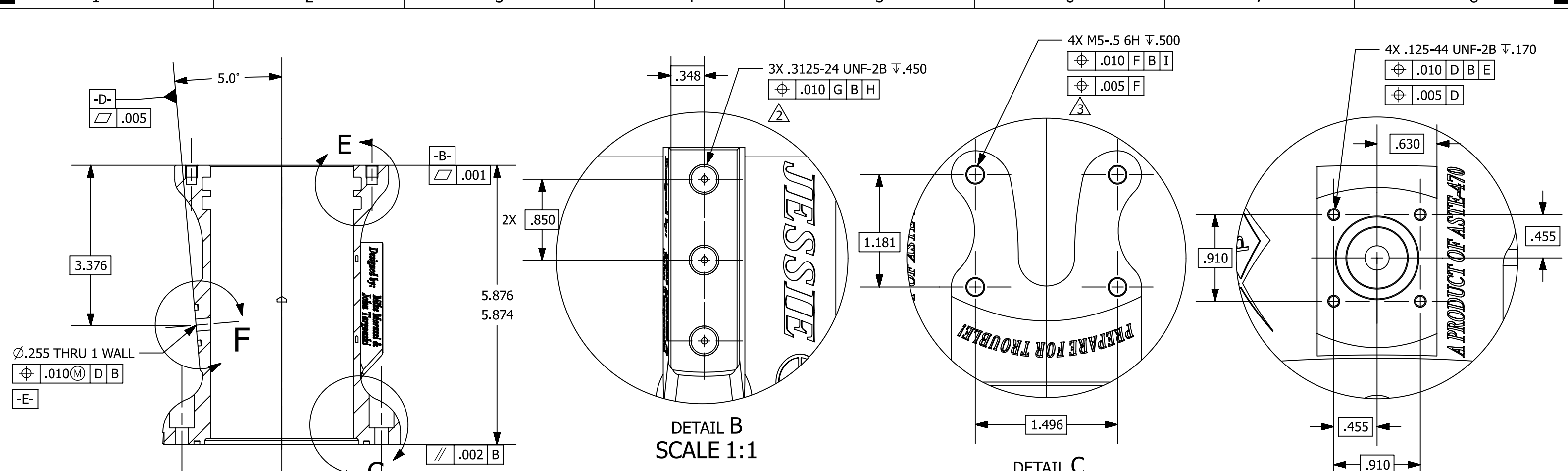
UNLESS OTHERWISE SPECIFIED
DRAWING INTERPRETED PER
ASME Y14.100-2000
DIMENSIONS INTERPRETED PER
ASME Y14.5-1994
REMOVE BURRS AND BREAK
EDGES
.005-.015 250/
SURFACE TEXTURE: ✓
TOLERANCES:
DECIMALS: ANGLES:
.X ±.05 X.±1°
.XX ±.01 X.±.1°
.XXX ±.005



USC LIQUID PROPULSION LABORATORY

DRAWN BY	J. TARGONSKI
DATE	18-APR-2018
REVIEWED BY	M. MORUZZI
DATE	18-APR-2018
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089	

TITLE		JESSIE_chamber	
SIZE	ASSEMBLY	JESSIE	SHEET REV
B			B
SCALE 1/2		SHEET 1 OF 2	



UNLESS OTHERWISE SPECIFIED
DRAWING INTERPRETED PER
ASME Y14.100-2000
DIMENSIONS INTERPRETED PER
ASME Y14.5-1994
REMOVE BURRS AND BREAK
EDGES
.005-.015 250/
SURFACE TEXTURE: ✓
TOLERANCES:

DECIMALS: ANGLES:
.X ±.05 X.±1°
.XX ±.01 X.±.1°
.XXX ±.005

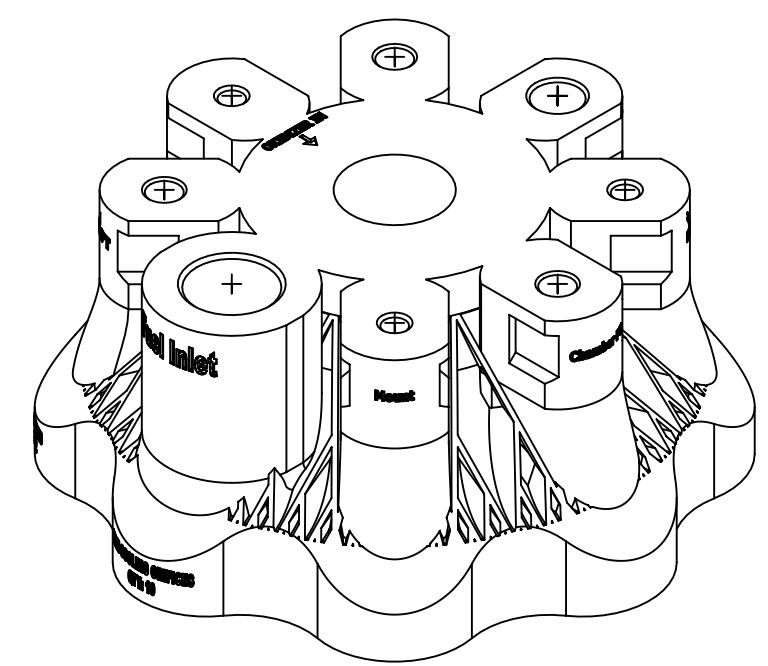
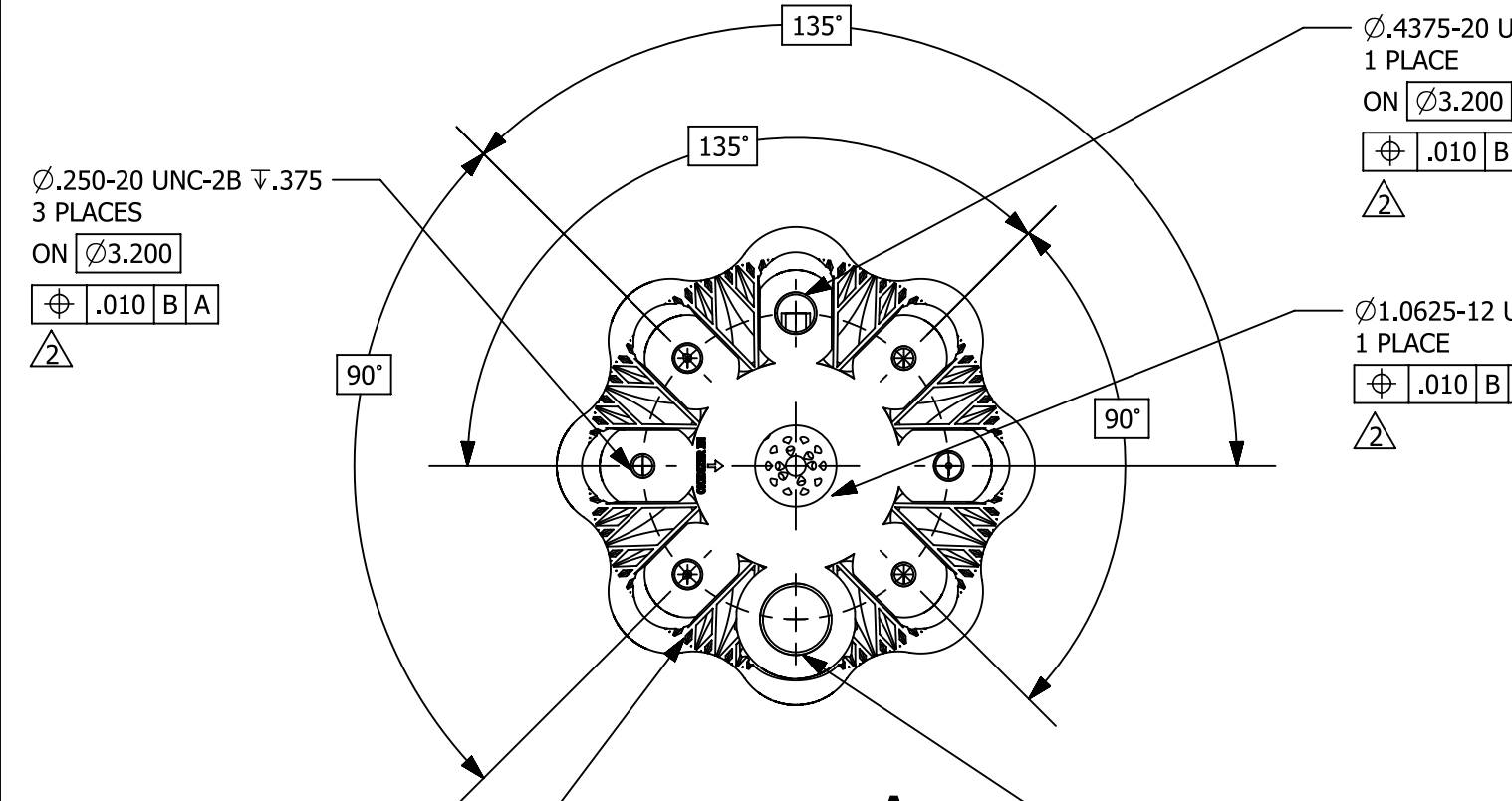
DRAWN BY	J. TARGONSKI
DATE	18-APR-2018
REVIEWED BY	M. MORUZZI
DATE	18-APR-2018
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089	

USC LIQUID PROPULSION LABORATORY			
TITLE		JESSIE_chamber	
SIZE	ASSEMBLY	JESSIE	
B		SHEET REV B	
SCALE 1/2		SHEET 2 OF 2	

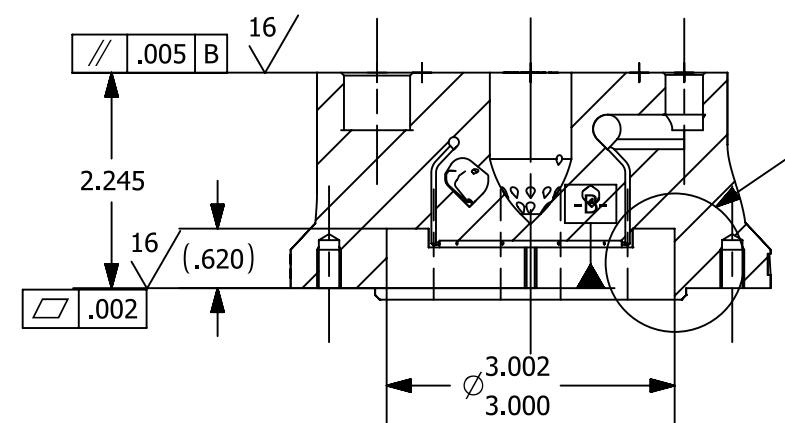
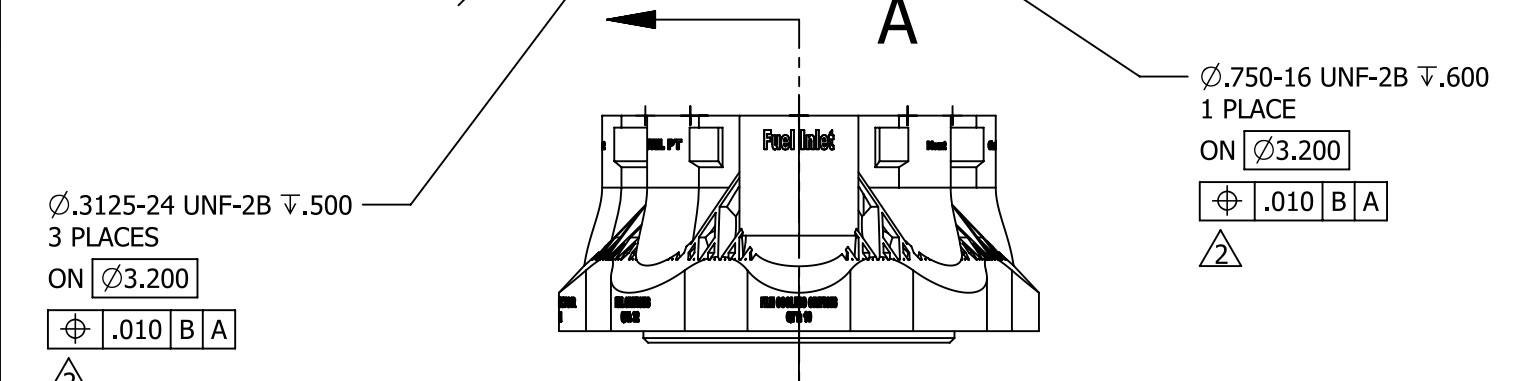
NOTES:
 [1] MATERIAL: ADDITIVELY MANUFACTURED EOS MARAGING STEEL MS1

REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	25-Apr-2018	INITIAL RELEASE

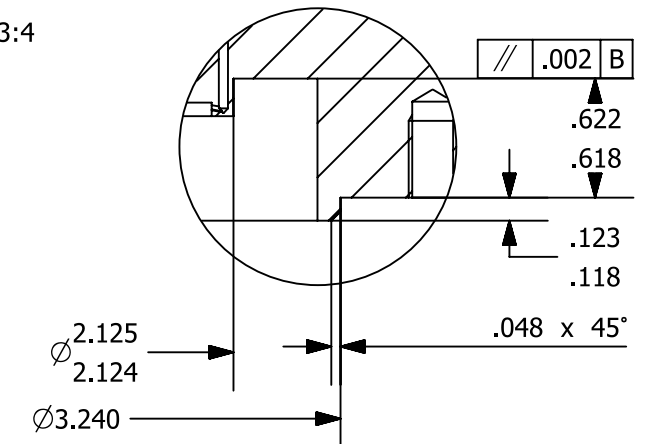
△ HOLE PATTERN SHOULD ALIGN TO EXISTING PILOT HOLES



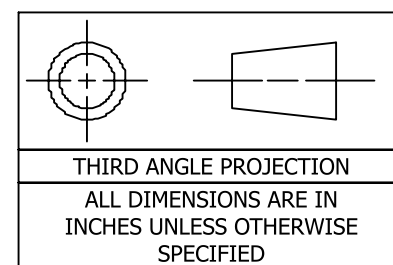
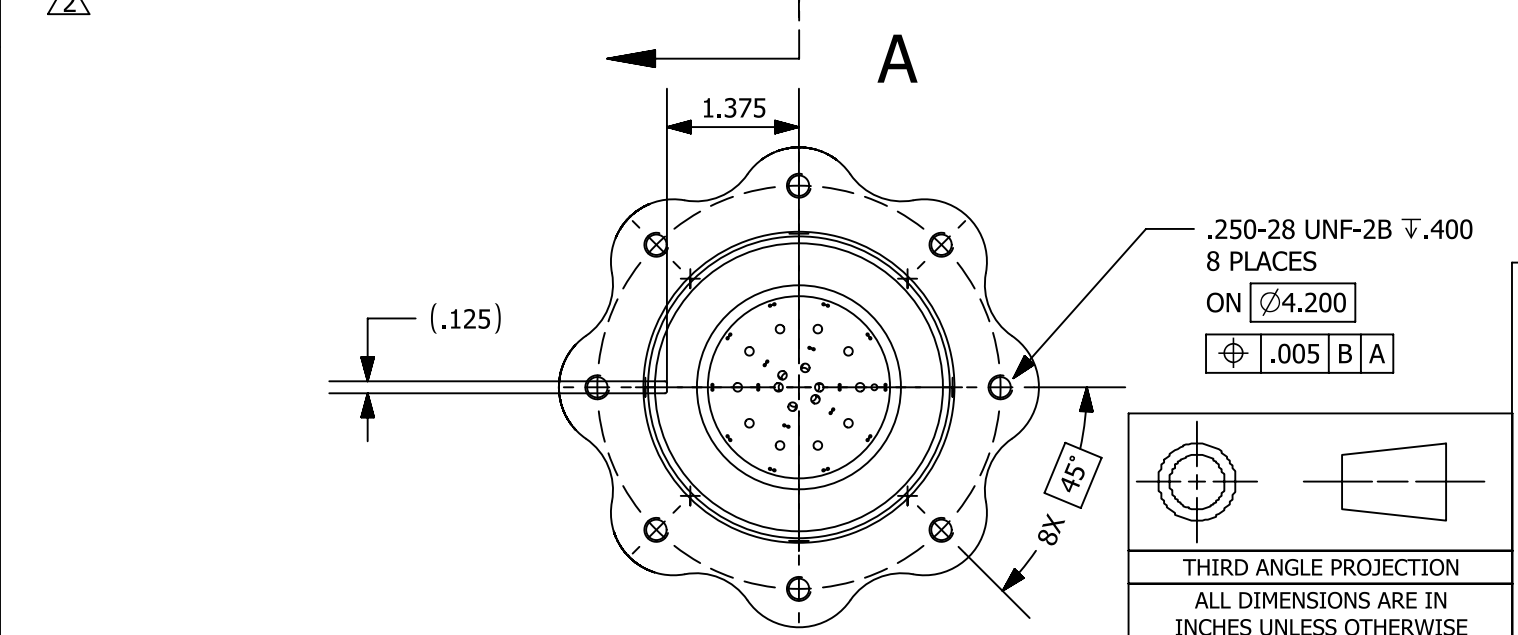
SCALE 3:4



SECTION A-A



DETAIL C
SCALE 1:1



UNLESS OTHERWISE SPECIFIED
 DRAWING INTERPRETED PER
 ASME Y14.100-2000
 DIMENSIONS INTERPRETED PER
 ASME Y14.5-1994
 REMOVE BURRS AND BREAK
 EDGES
 .005-.015 250/
 SURFACE TEXTURE:
 TOLERANCES:
 DECIMALS: ANGLES:
 .X ±.05 X ±.1°
 .XX ±.01 X ±.1°
 .XXX ±.005

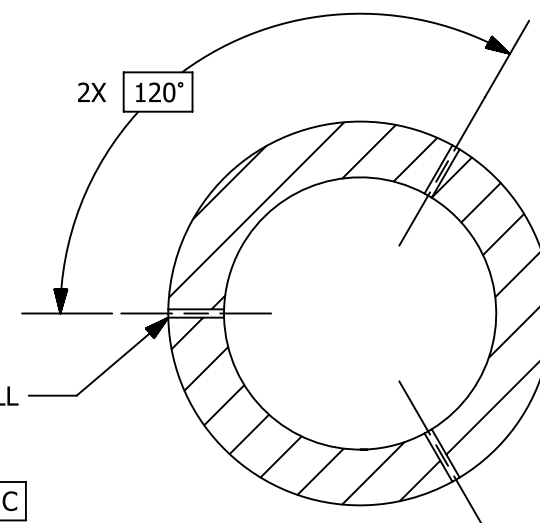
		TITLE	
		JESSIE_injector	
DRAWN BY	J. TARGONSKI	SIZE	ASSEMBLY
DATE ISSUED	25-Apr-2018	B	JESSIE
APPROVED BY	M. MORUZZI	SCALE 1:2	
DATE APPROVED	25-Apr-2018	SHEET REV	
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089		A	

USC LIQUID PROPULSION LABORATORY			
TITLE			
JESSIE_injector			
SIZE	ASSEMBLY	SHEET REV	
B	JESSIE	A	
SCALE 1:2		SHEET 1 OF 1	

NOTES:
 [1] MATERIAL: ISOMOLDED GRAPHITE

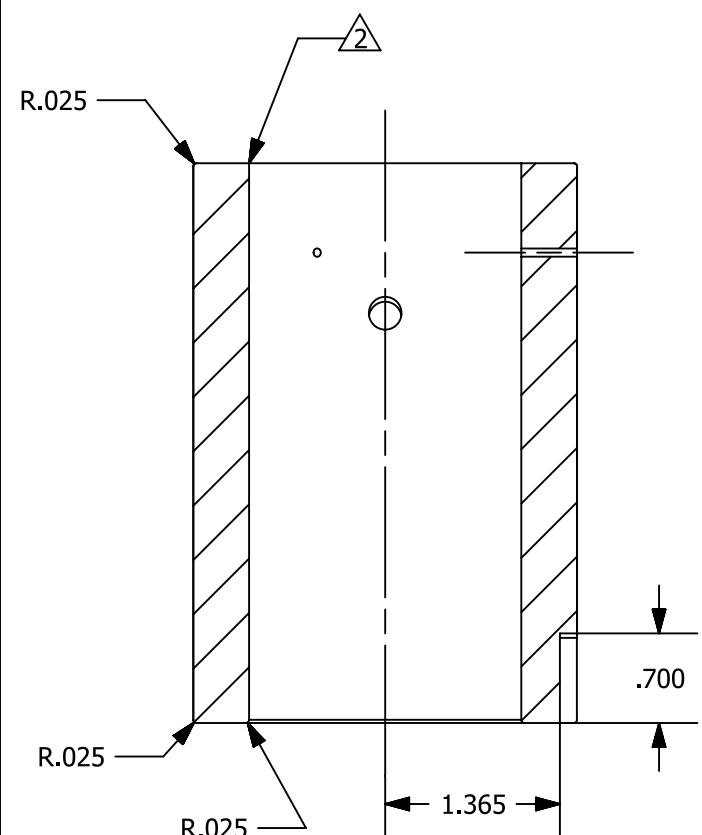
△ KEEP EDGE SHARP

REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	25-Apr-2018	INITIAL RELEASE

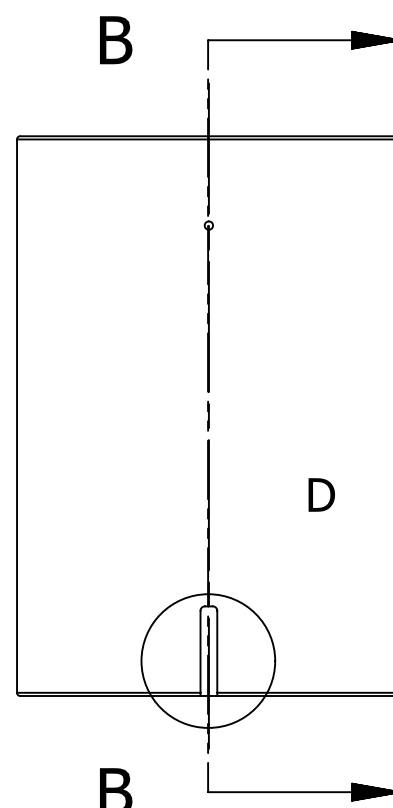


Ø.065 THRU 1 WALL
 TYP 3 PLACES
 EQ SPACED
 ⊕ .005 M A B C

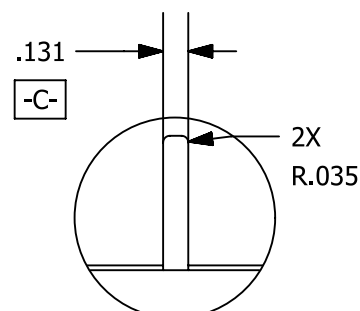
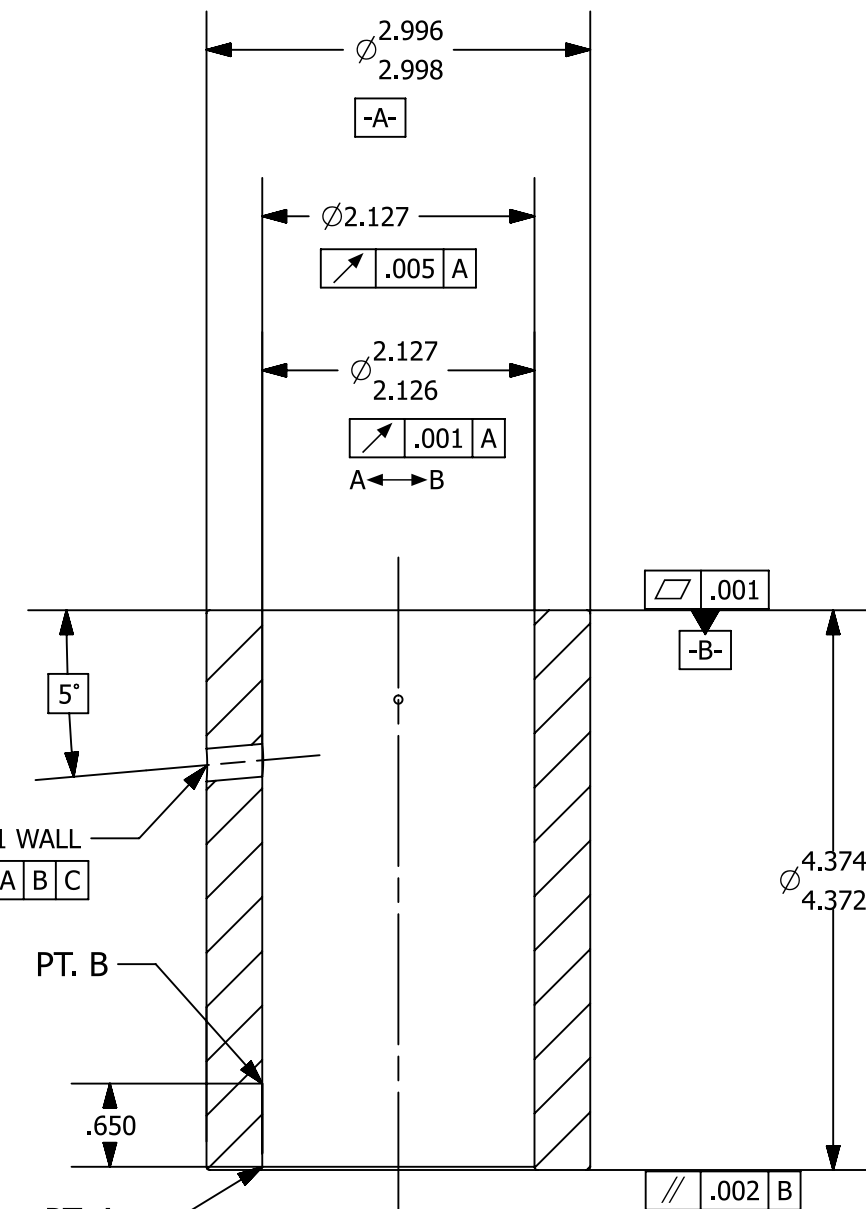
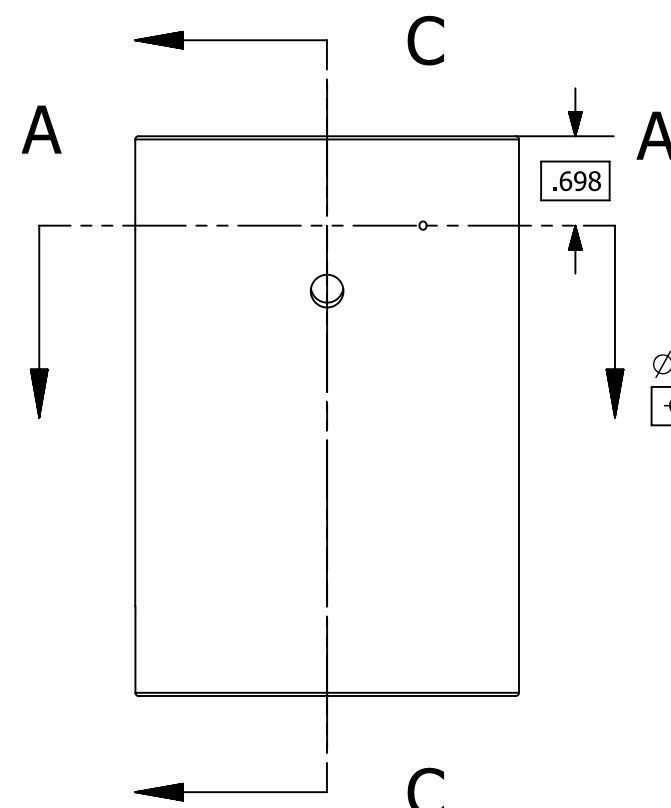
SECTION A-A



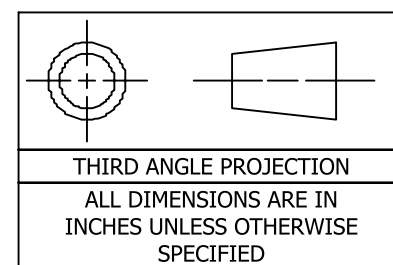
SECTION B-B



SECTION C-C



DETAIL D
 SCALE 1:1



THIRD ANGLE PROJECTION
 ALL DIMENSIONS ARE IN
 INCHES UNLESS OTHERWISE
 SPECIFIED

UNLESS OTHERWISE SPECIFIED
 DRAWING INTERPRETED PER
 ASME Y14.100-2000
 DIMENSIONS INTERPRETED PER
 ASME Y14.5-1994
 REMOVE BURRS AND BREAK
 EDGES
 .005-.015 250/
 SURFACE TEXTURE:
 TOLERANCES:
 DECIMALS: ANGLES:
 .X ±.05 X.±1°
 .XX ±.01 X.±.1°
 .XXX ±.005



DRAWN BY	J. TARGONSKI
DATE	25-Apr-2018
REVIEWED BY	M. MORUZZI
DATE	25-Apr-2018
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USC LIQUID PROPULSION LABORATORY

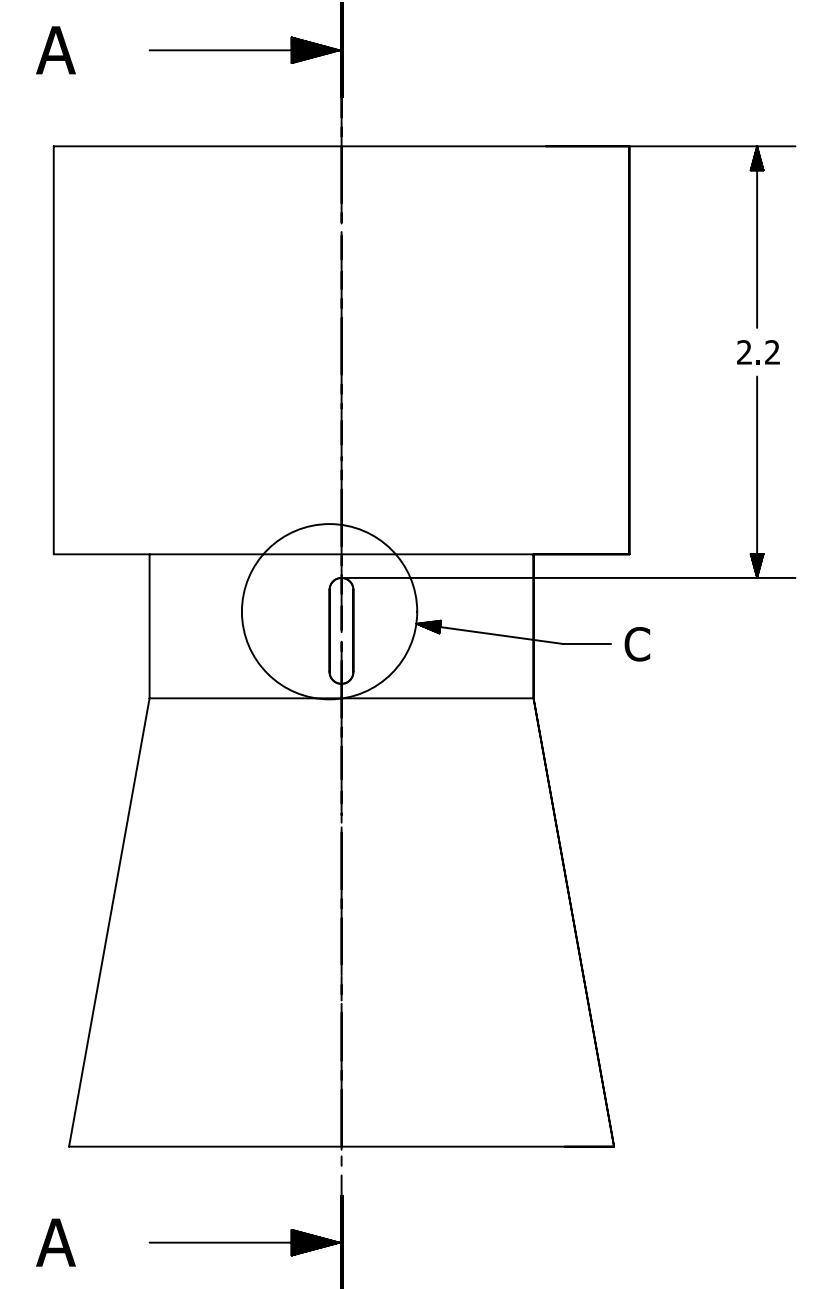
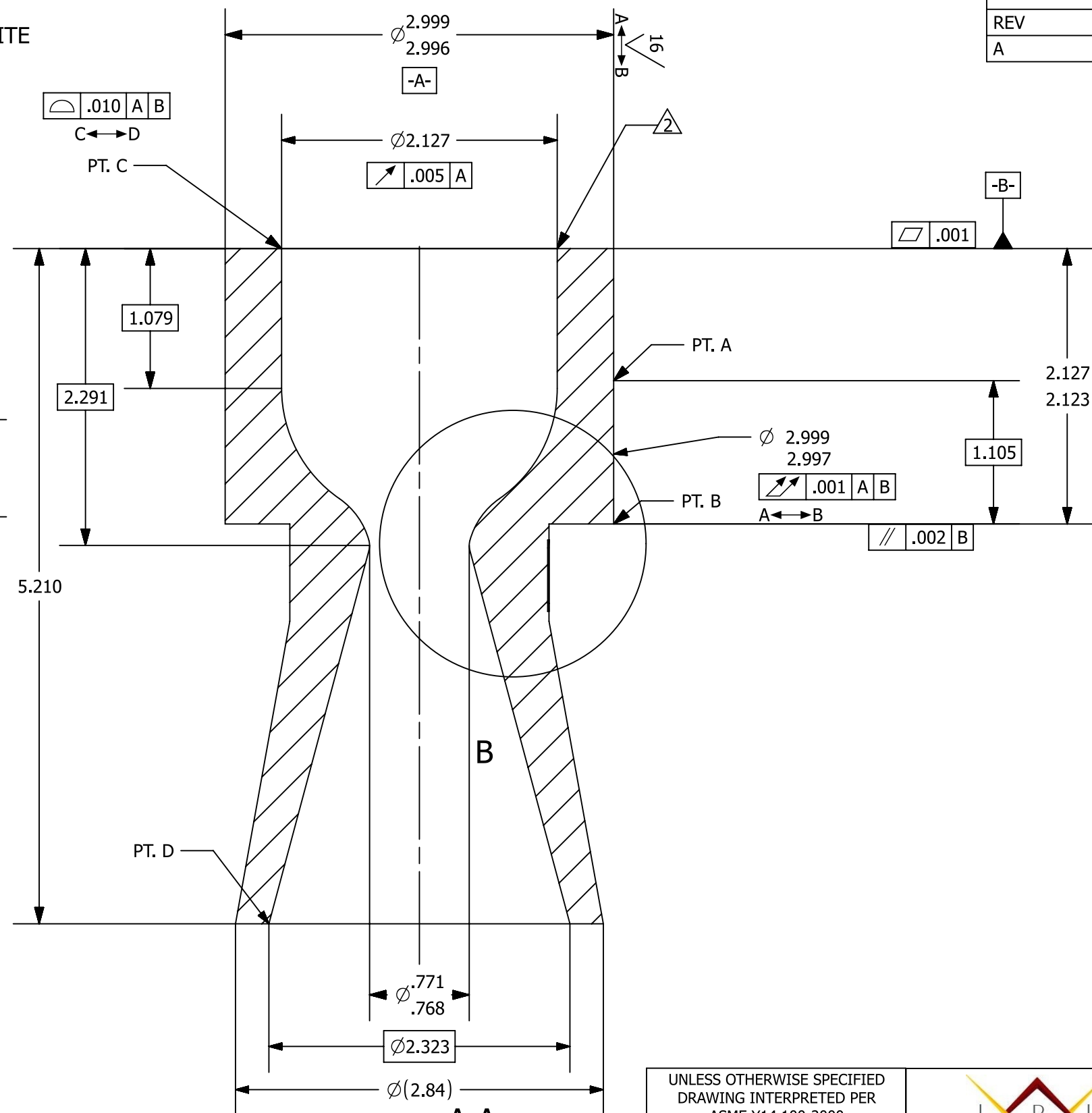
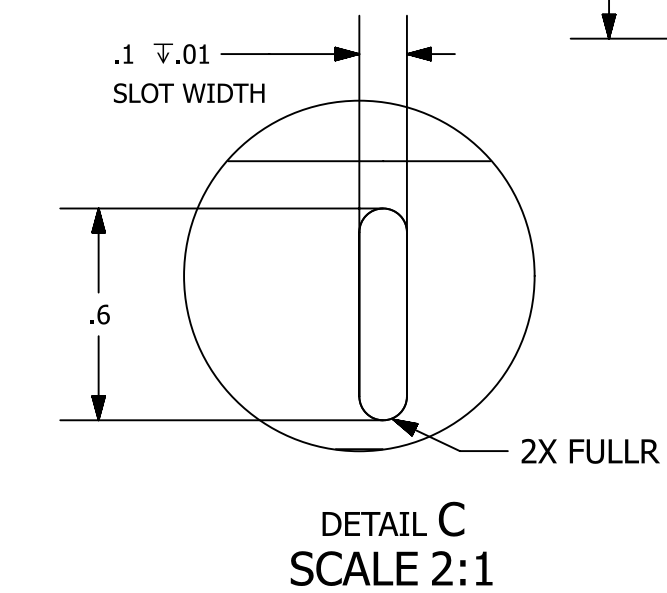
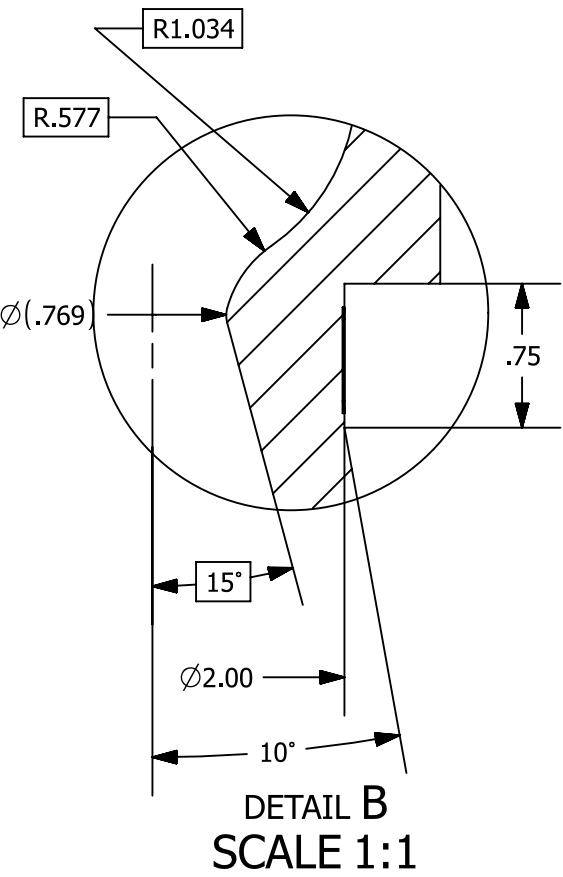
JESSIE chamber insert

SIZE	ASSEMBLY	SHEET REV
B	JESSIE	A
SCALE 2:3		SHEET 1 OF 1

NOTES:
 [1] MATERIAL: ISOMOLDED GRAPHITE

△ KEEP EDGE SHARP

REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	25-Apr-2018	INITIAL RELEASE



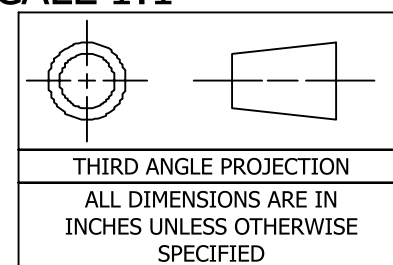
UNLESS OTHERWISE SPECIFIED
 DRAWING INTERPRETED PER
 ASME Y14.100-2000
 DIMENSIONS INTERPRETED PER
 ASME Y14.5-1994
 REMOVE BURRS AND BREAK
 EDGES
 .005-.015 250/
 SURFACE TEXTURE: ✓
 TOLERANCES:
 DECIMALS: ANGLES:
 .X ±.05 X.±1°
 .XX ±.01 X.±.1°
 .XXX ±.005



USC LIQUID PROPULSION LABORATORY

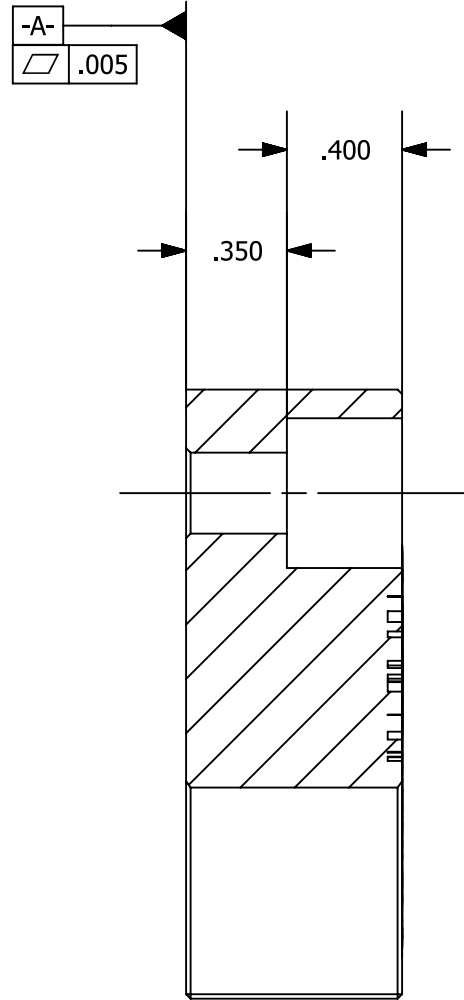
DRAWN BY	J. TARGONSKI
DATE	25-Apr-2018
REVIEWED BY	M. MORUZZI
DATE	25-Apr-2018
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089	

TITLE		JESSIE nozzle 1000 psi V1	
SIZE	ASSEMBLY	SHEET REV	
B	JESSIE	A	
SCALE 1/1		SHEET 1 OF 1	

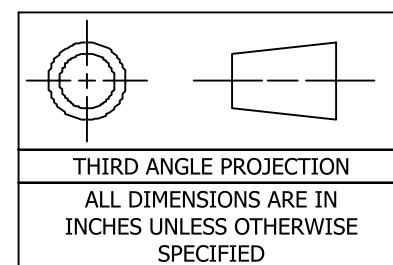
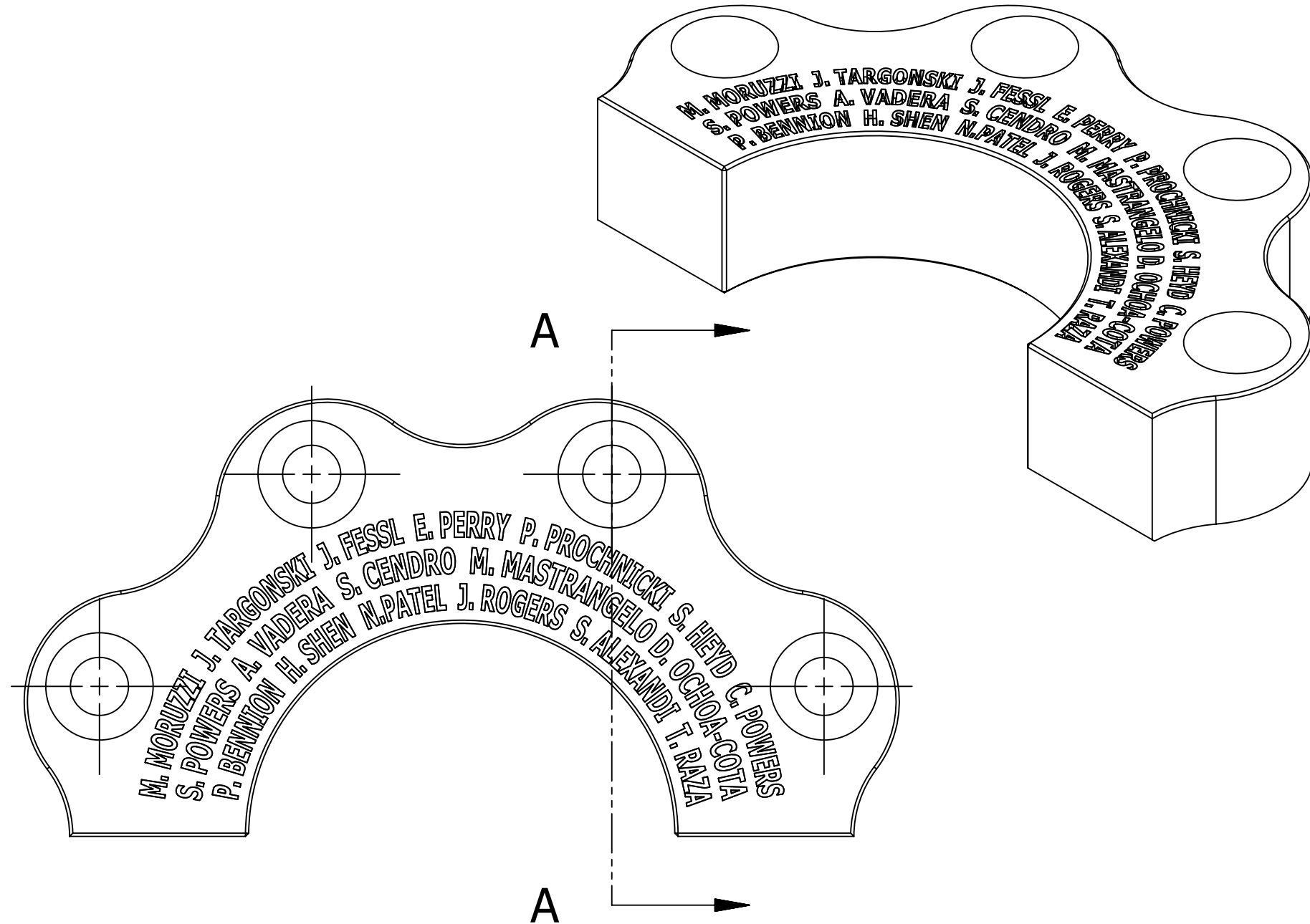


NOTES:
 [1] MATERIAL: ADDITIVELY MANUFACTURED EOS MARAGING STEEL MS1

REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	24-Apr-2018	INITIAL RELEASE



SECTION A-A



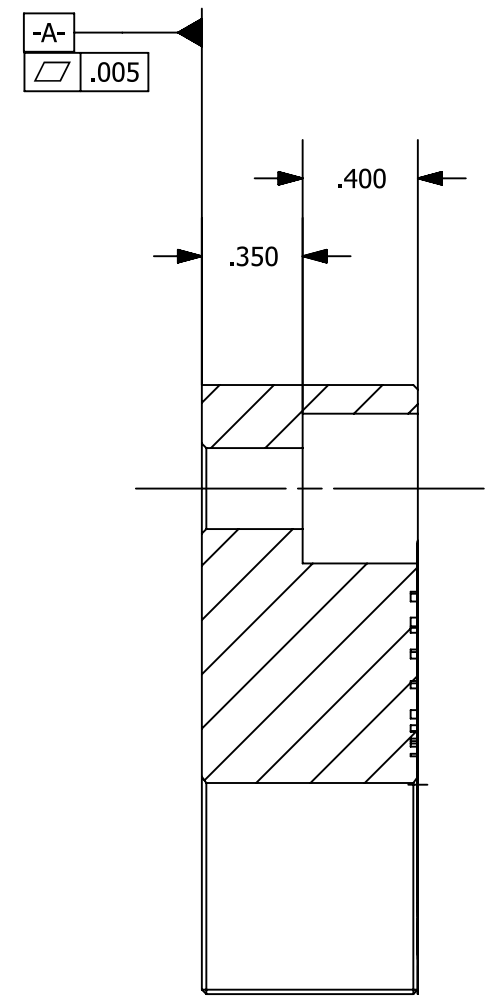
UNLESS OTHERWISE SPECIFIED
 DRAWING INTERPRETED PER
 ASME Y14.100-2000
 DIMENSIONS INTERPRETED PER
 ASME Y14.5-1994
 REMOVE BURRS AND BREAK
 EDGES
 .005-.015 250/
 SURFACE TEXTURE:
 TOLERANCES:
 DECIMALS: ANGLES:
 .X ±.05 X.±1°
 .XX±.01 .X±.1°
 .XXX±.005

		USC LIQUID PROPULSION LABORATORY	
		TITLE	
		JESSIE retention ring 1_2	
		SIZE	ASSEMBLY
DRAWN BY J. TARGONSKI DATE 24-Apr-2018 REVIEWED BY M. MORUZZI DATE 24-Apr-2018		SCALE 3:2 JESSIE SHEET REV A SHEET 1 OF 1	
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089			

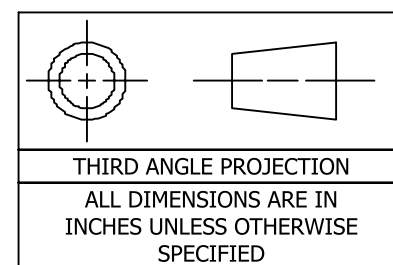
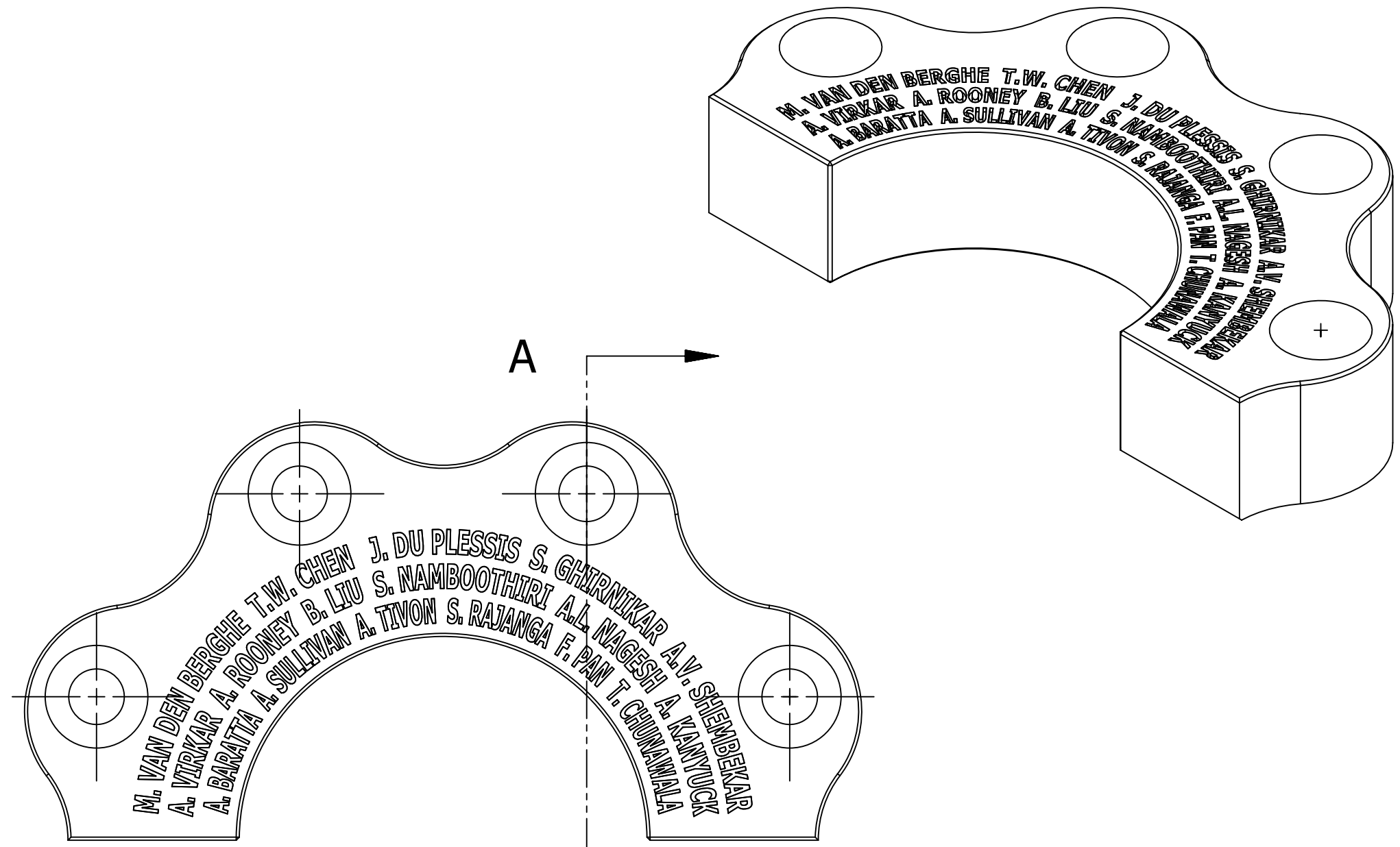
USC LIQUID PROPULSION LABORATORY	
TITLE	
JESSIE retention ring 1_2	
SIZE	ASSEMBLY
B	JESSIE
SHEET REV A	
SHEET 1 OF 1	

NOTES:
 [1] MATERIAL: ADDITIVELY MANUFACTURED EOS MARAGING STEEL MS1

REVISIONS				
REV	LOCATION	NAME	DATE	DESCRIPTION
A		J TARGONSKI	24-Apr-2018	INITIAL RELEASE



SECTION A-A



UNLESS OTHERWISE SPECIFIED
 DRAWING INTERPRETED PER
 ASME Y14.100-2000
 DIMENSIONS INTERPRETED PER
 ASME Y14.5-1994
 REMOVE BURRS AND BREAK
 EDGES
 .005-.015 250/
 SURFACE TEXTURE:
 TOLERANCES:
 DECIMALS: ANGLES:
 .X ±.05 X±.1°
 .XX±.01 X±.1°
 .XXX±.005



USC LIQUID PROPULSION LABORATORY

DRAWN BY	J. TARGONSKI
DATE ISSUED	24-Apr-2018
APPROVED BY	M. MORUZZI
DATE APPROVED	24-Apr-2018
USC Astronautical Engineering Department 854 Downey Way Los Angeles, CA 90089	

TITLE		JESSIE retention ring 2_2	
SIZE	ASSEMBLY	SHEET REV	
B	JESSIE	A	
SCALE 3:2		SHEET 1 OF 1	