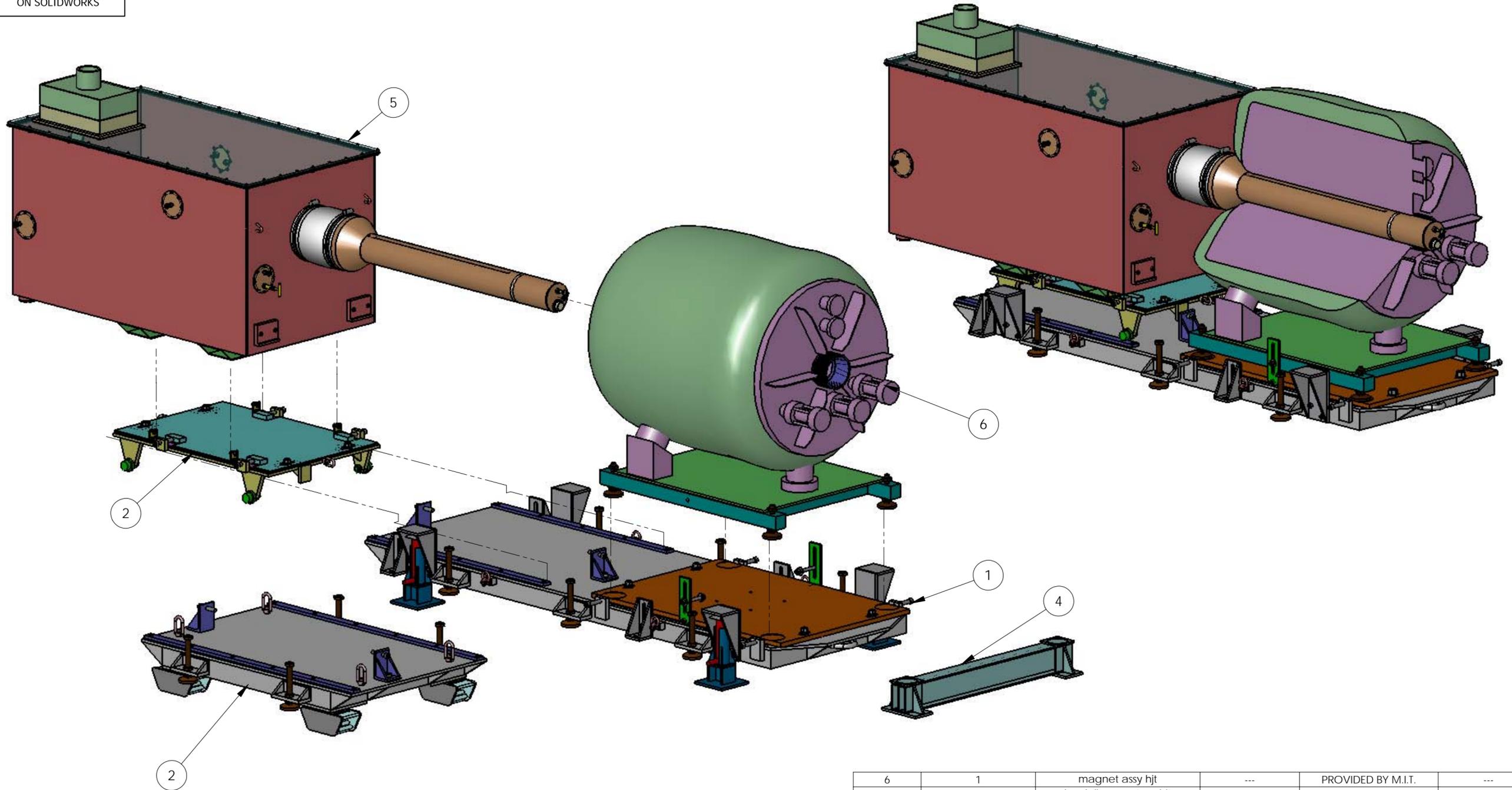


S THIS DRAWING PRODUCED ON SOLIDWORKS



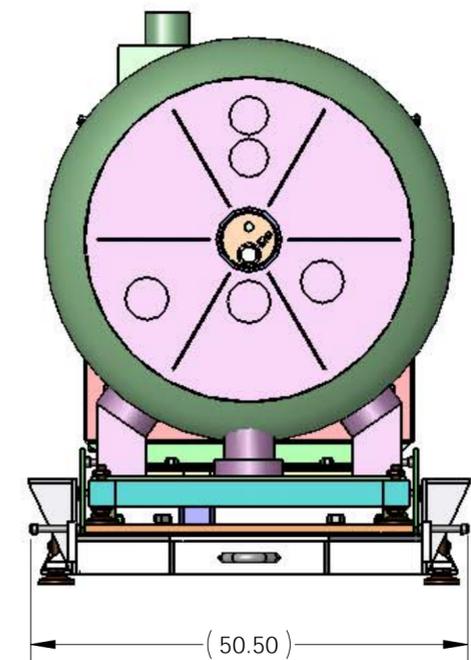
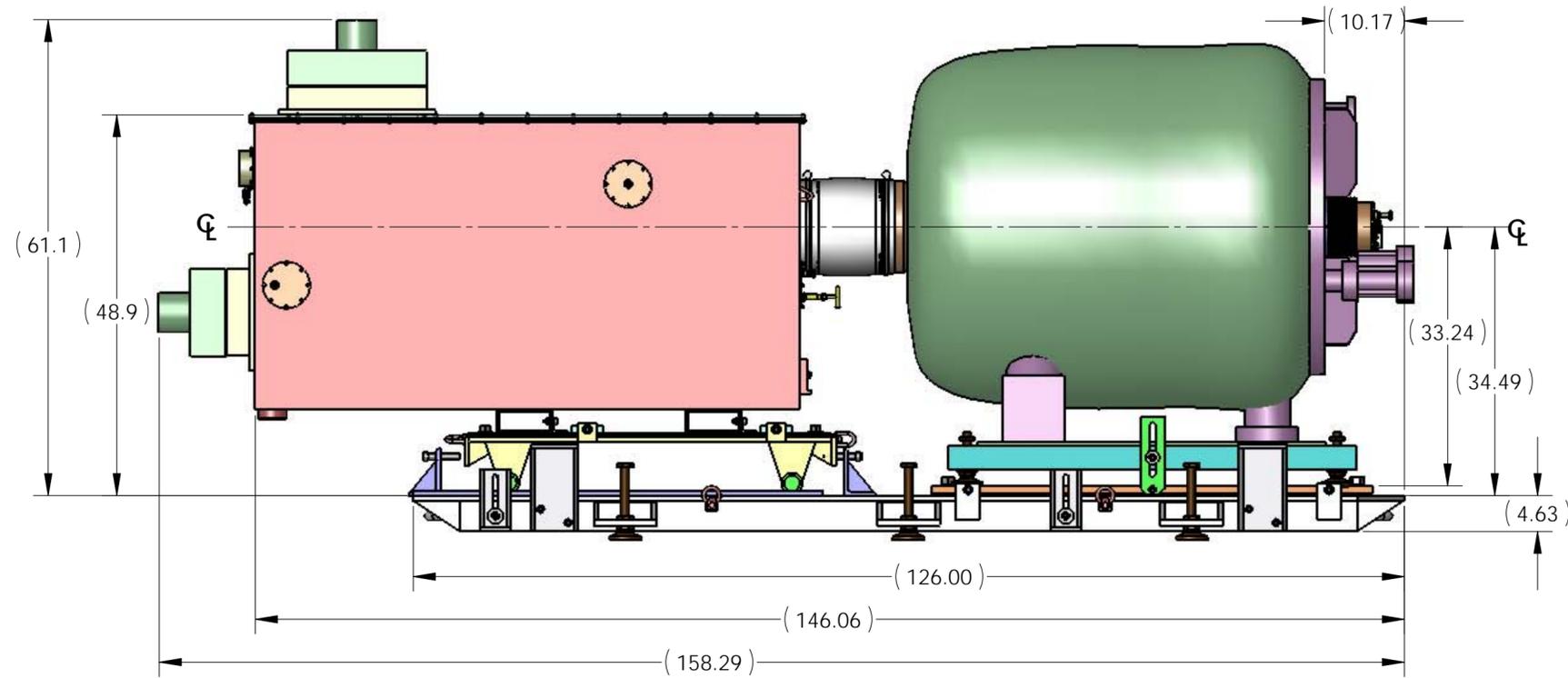
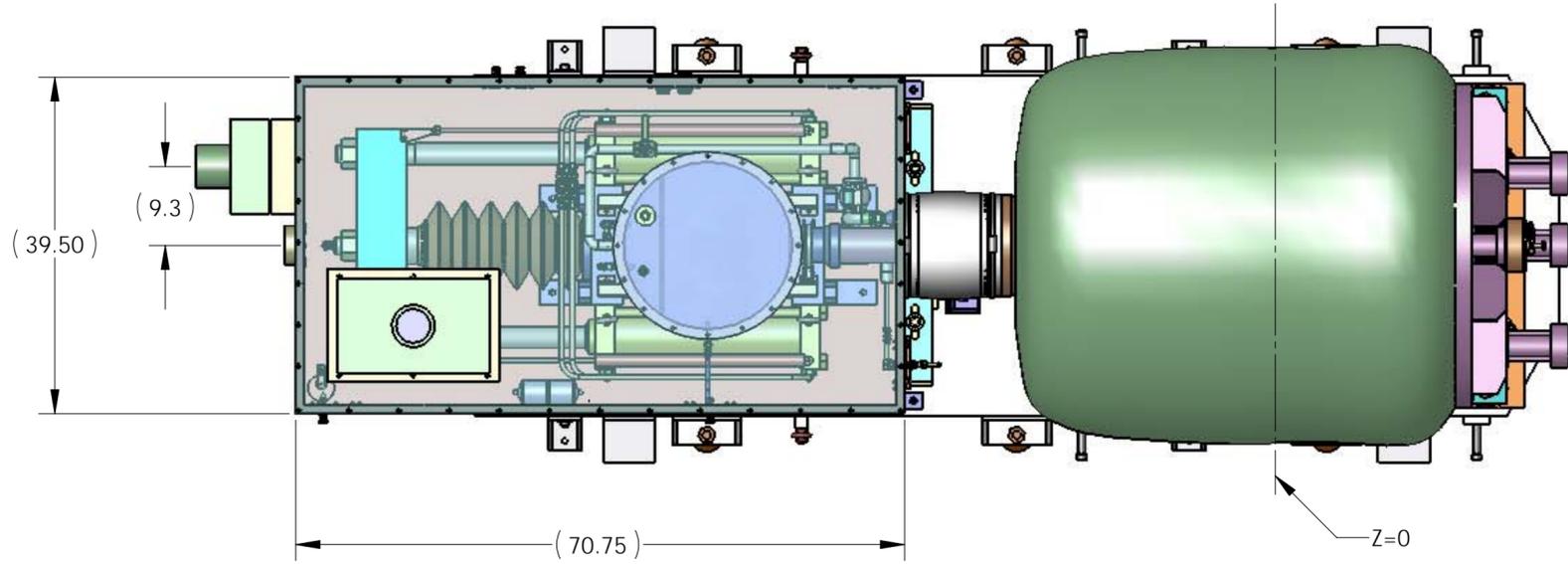
6	1	magnet assy hjt	---	PROVIDED BY M.I.T.	---
5	1	hg delivery system hjt	---	HG DELIVERY SYSTEM	203-HJT-0500
4	1	magnet end support hjt	---	USED TO RAISE MAGNET END	203-HJT-0400
2	1	cart assy hjt	---	TARGET CART ASSY	203-HJT-0300
2	1	target transporter assy hjt	---	TRANSPORTER BASE WELDMENT	203-HJT-0200
1	1	common base assy hjt	---	---	203-HJT-0100

ITEM	for dwg with carrier/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
		<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. FORMED ANGLES ±1°</p> <p>7. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>			
		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			
		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p> <p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>			
		<p>MERCURY INTENSE TARGET (MERIT) TOP-LEVEL ASSEMBLY</p>			
		<p>CAD FILE COMMON BASE LOADED HJT</p>		<p>PREV ASSY ---</p>	<p>SCALE 1:16</p>
		<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>SHEET 1 of 3</p>
		<p>SIZE C</p>		<p>DWG NO. 203-HJT-0001</p>	<p>REV 1</p>

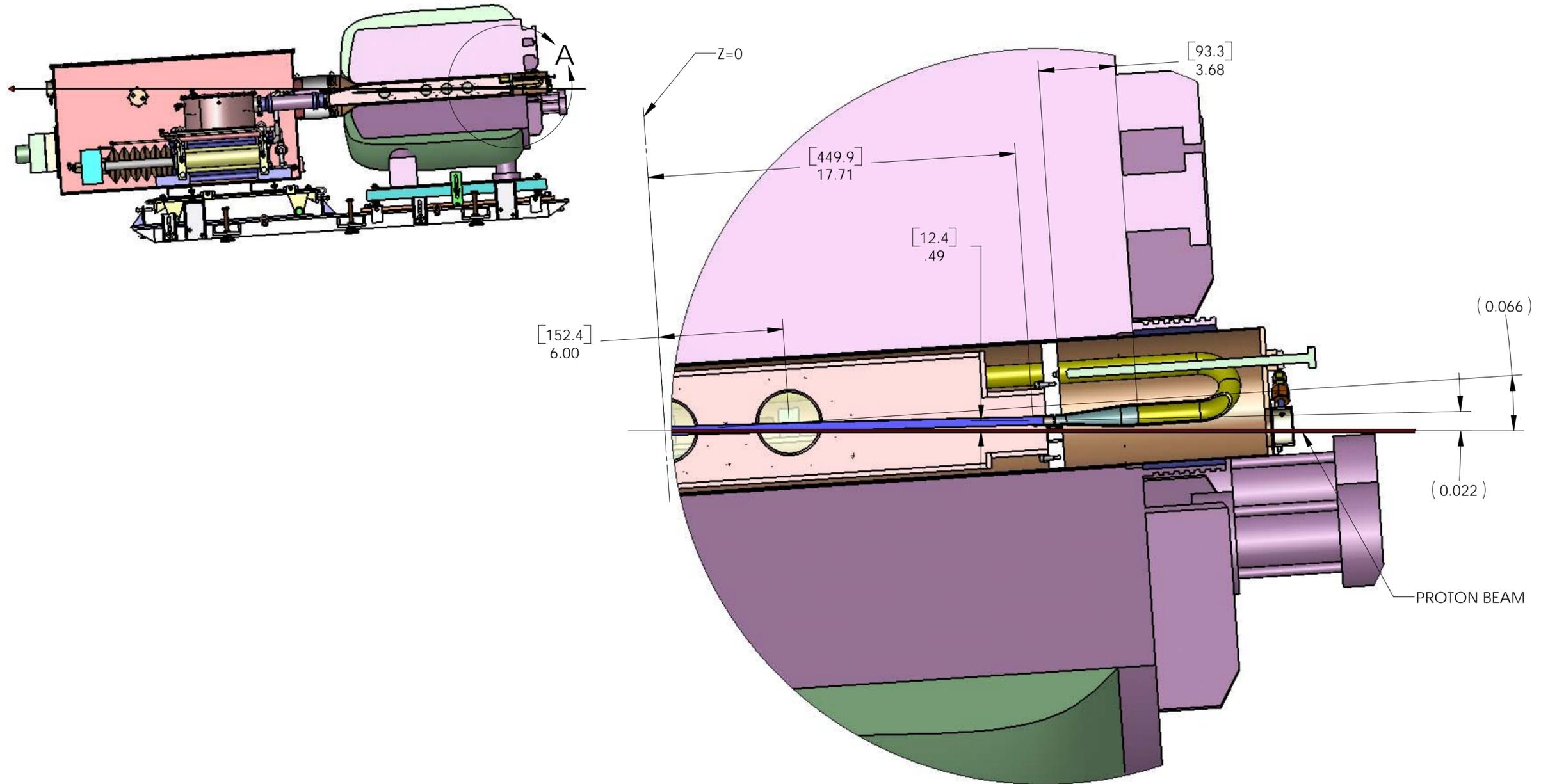
REV	DESCRIPTION	DATE	BY	APPROVED
1	SHEET 3 UPDATED WITH NEW MODELS	4/13/2006	VBG	VBG

DWG NO. 203-HJT-0001

1. MATERIAL CERTIFICATIONS REQUIRED

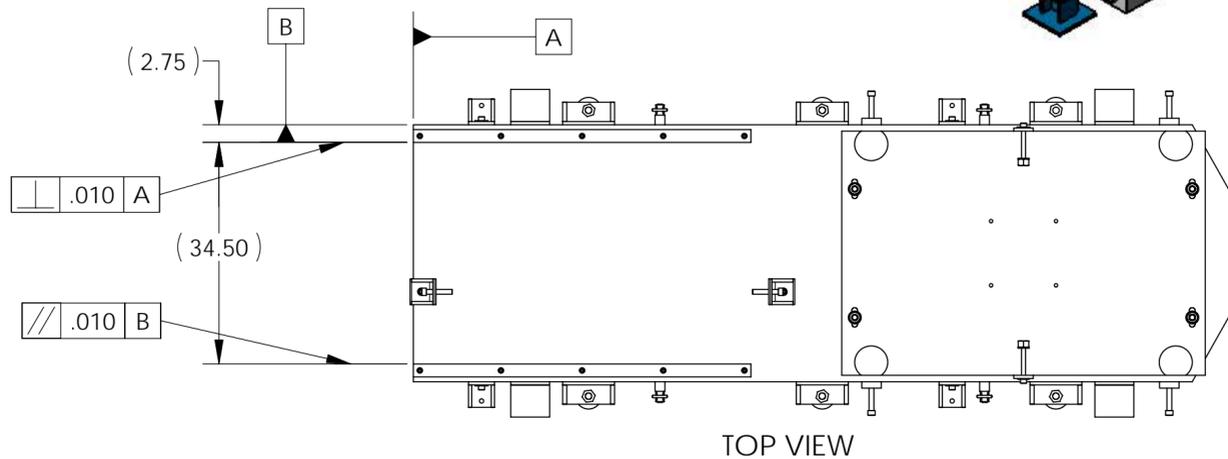
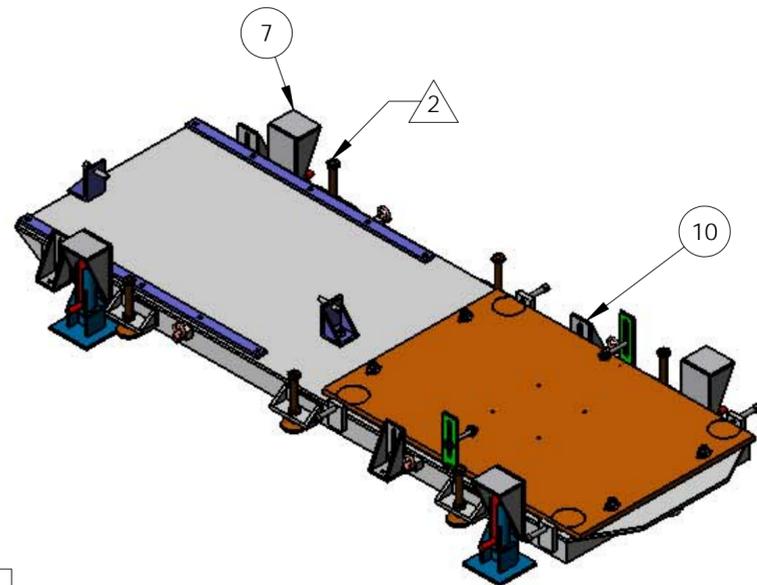
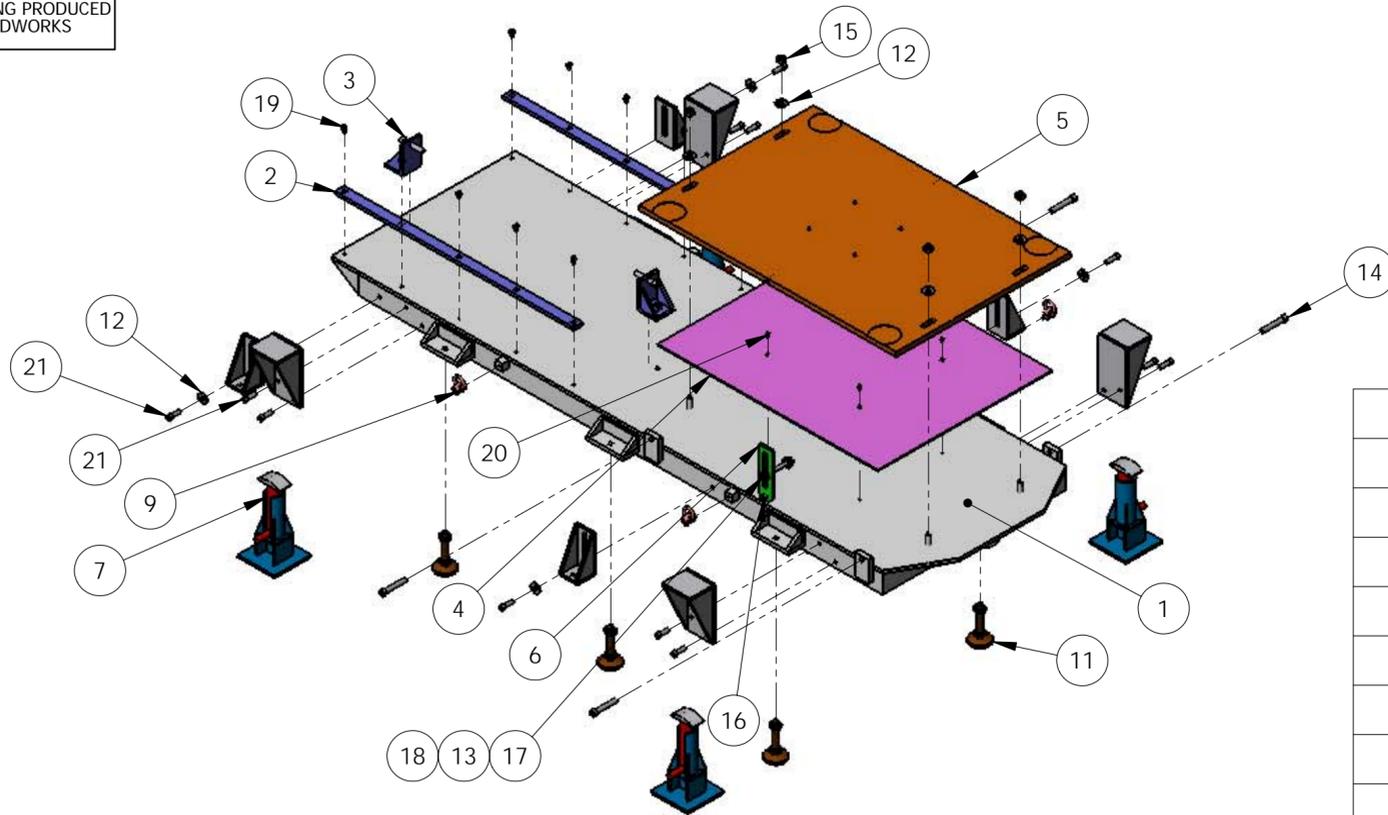


<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>
	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005 			
DES	V GRAVES	06/04/2005	<p>MERCURY INTENSE TARGET (MERIT) TOP-LEVEL ASSEMBLY</p>	
DRW	T OQUIN	06/04/2005		
CHK	P SPAMPINATO	01/10/2006		
ENG	V GRAVES	06/04/2005		
QA				
DRAWING APPROVALS			DATE	<p>CAD FILE COMMON BASE LOADED HJT</p> <p>PREV ASSY ---</p> <p>SCALE 1:15</p> <p>SHEET 2 of 3</p> <p>SIZE DWG NO. 203-HJT-0001</p> <p>REV 1</p>



DETAIL A
SCALE 1 : 4

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>															
	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-INCHES RMS CONCENTRICITY .010 TIR MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND FRACTIONS ±1/16 X DECIMALS ±.030 XX DECIMALS ±.010 XXX DECIMALS ±.005 			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>															
<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>06/04/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>06/04/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/10/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>06/04/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>			DES	V GRAVES	06/04/2005	DRW	T OQUIN	06/04/2005	CHK	P SPAMPINATO	01/10/2006	ENG	V GRAVES	06/04/2005	QA			<p>MERCURY INTENSE TARGET (MERIT) TOP-LEVEL ASSEMBLY</p>	
DES	V GRAVES	06/04/2005																	
DRW	T OQUIN	06/04/2005																	
CHK	P SPAMPINATO	01/10/2006																	
ENG	V GRAVES	06/04/2005																	
QA																			
<p>DRAWING APPROVALS DATE</p>			<p>CAD FILE COMMON BASE LOADED</p>	<p>PREV ASSY HJT</p>	<p>SCALE 1:24</p>	<p>SHEET 3 of 3</p>													
<p>SIZE DWG NO.</p>			<p>C</p>	<p>203-HJT-0001</p>	<p>REV 1</p>														



TOP VIEW

NOTES

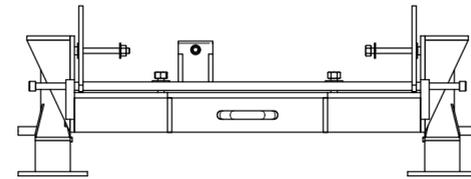
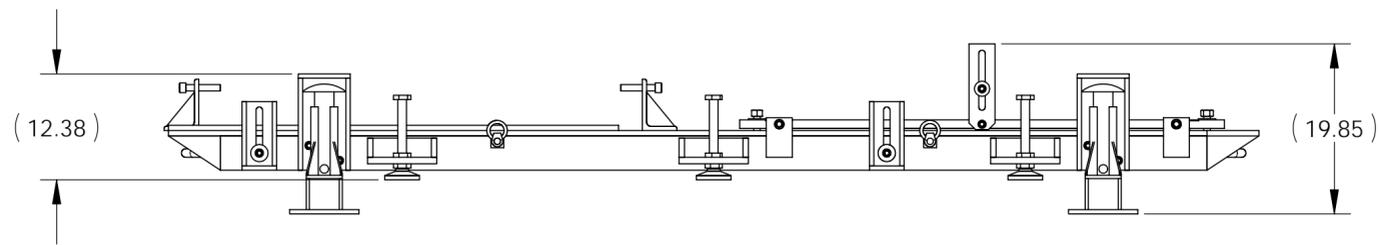
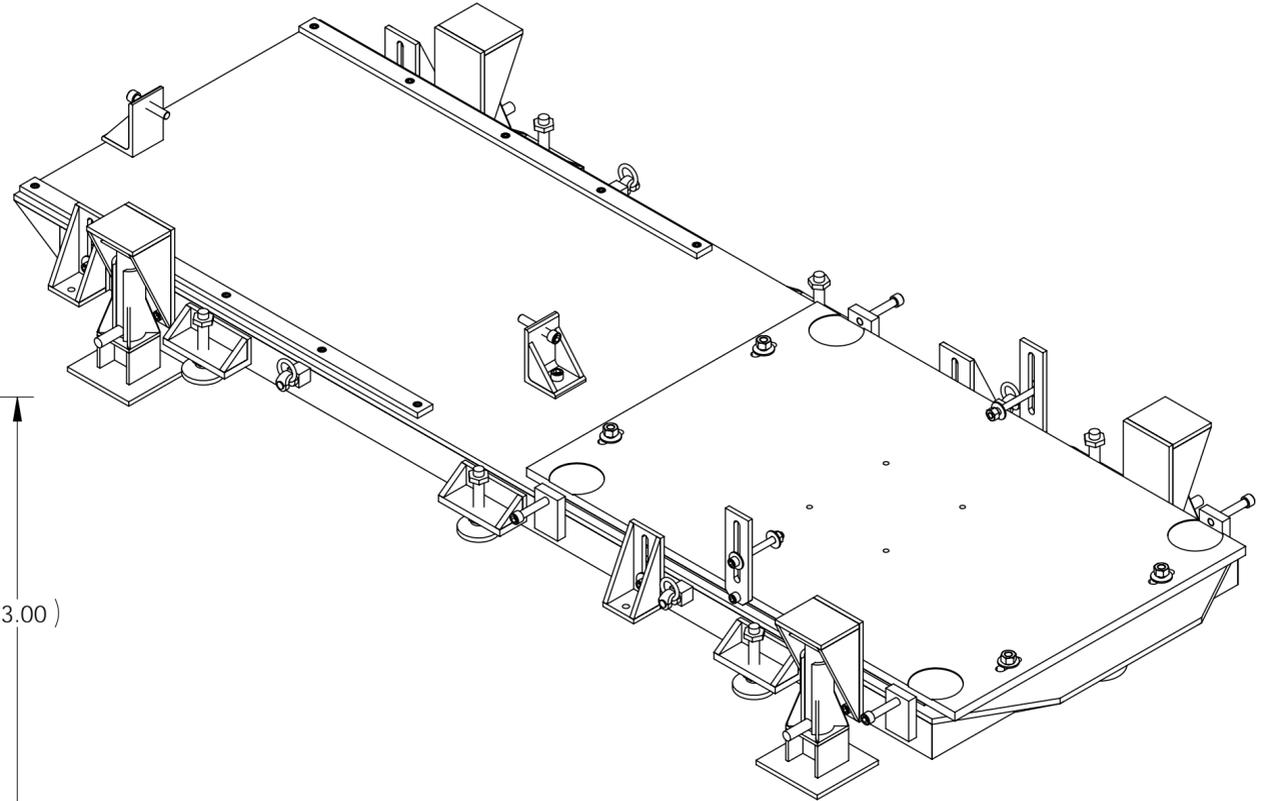
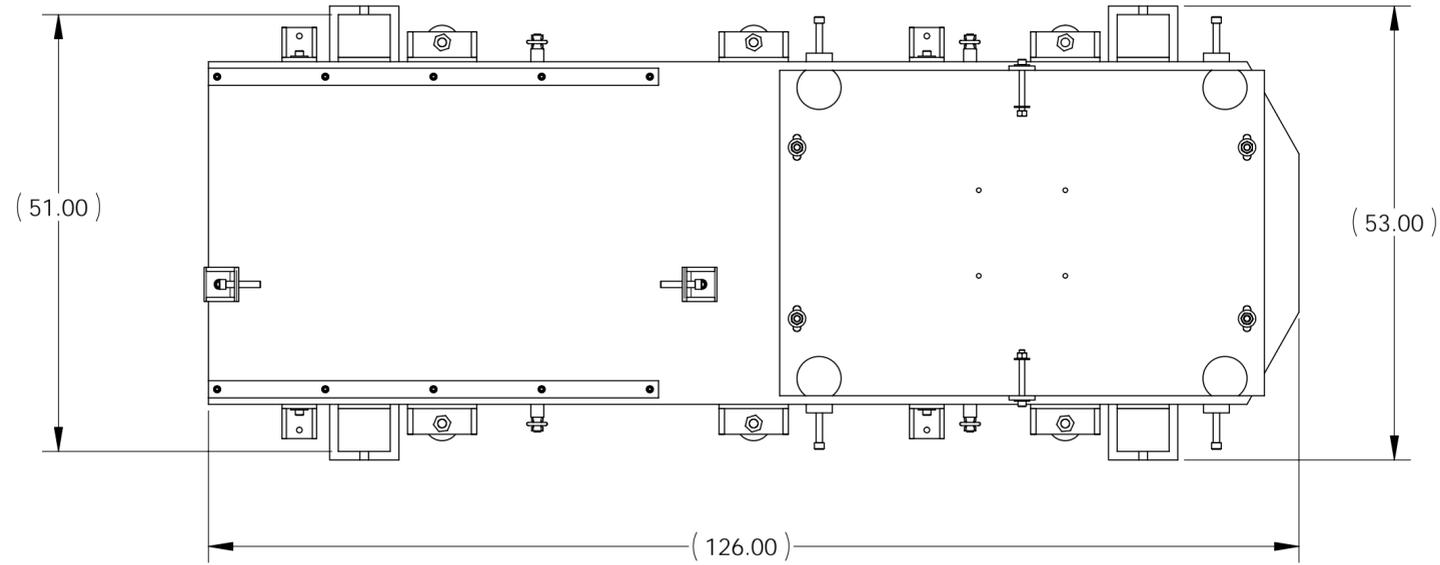
1. MATERIAL CERTIFICATIONS REQUIRED
2. TACK WELD NUTS ON ENDS OF LEVELING FEET (ITEM 11) AFTER MOUNTING TO SUPPORT BRACKET

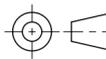
ESTIMATED WEIGHT 847 LBS

ITEM	EXPLODED/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
21	12	Socket Head Cap Screw_AI	SS - 18-8	SHCS - 5/8-11 x 2.00	N/A
20	4	CSBOLT 0.3125-18x0.625x0.625-S-N	SS - 18-8	FHMS - 5/16-18 UNC x 5/8	N/A
19	10	HX-SHCS 0.5-13x0.625x0.625-N	SS - 18-8	SHCS - 1/2-13 x .63	N/A
18	2	HHNUT 0.6250-11-D-N	SS - 18-8	HEX NUT - 5/8-11 UNC	N/A
17	2	HX-SHCS 0.625-11x6x2.25-N	SS - 18-8	SHCS - 5/8-11 x 6.00	N/A
16	2	HX-SHCS 0.625-11x1x1-N	SS - 18-8	SHCS - 5/8-11 x 1.00	N/A
15	4	HHNUT 0.7500-10-D-N	SS - 18-8	HEX NUT - 3/4-10 UNC	N/A
14	4	HX-SHCS 0.75-16x4.5x4.5-N	SS - 18-8	SHCS - 3/4-16 x 4.50	N/A
13	4	FW 0.625	SS - 18-8	FLAT WASHER - 5/8"	N/A
12	8	FW 0.75	SS - 18-8	FLAT WASHER - 3/4"	N/A
11	6	leveling foot hjt	SS - 303	S & W MFG. CO., Bensenville, IL, Phone 888-538-3548, #SSW-5G	N/A
10	4	hyd jack weldment hjt	AL 6061-T6	ANCHOR SUPPORT WELDMENT	
9	4	sidemount swivel hoist ring	ALLOY STEEL	MCMaster CARR 29525T83	N/A
8	4	hyd jack weldment hjt	AL 6061-T6	HYD JACK BRACKET WELDMENT	
7	4	hyd jack assy hjt	---	---	203-HJT-0130
6	2	magnet restraint plate hjt	AL - 6061 T6511, ASTM B-221	PLATE - 3" X 8" X .50"	203-HJT-0114
5	1	magnet support plate hjt	AL - 6061 T651, ASTM B-209	MAGNET SUPPORT PLATE	203-HJT-0113
4	1	slick sheet hjt	UHMW	MCMaster CARR #8752K813	203-HJT-0112
3	2	cart anchor assy hjt	---	CART ANCHOR ASSY	203-HJT-0120
2	2	flat rail hjt	SS - 316L	BAR - 2.00 X 52.00 X .63	203-HJT-0111
1	1	base weldment hjt	AL - 6061 T6	BASE WELDMENT	203-HJT-0110

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16 ±.030</p> <p>8. X DECIMALS ±.010</p> <p>9. XX DECIMALS ±.005</p> <p>10. XXX DECIMALS ±.005</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		<p>OAK RIDGE NATIONAL LABORATORY</p> <p>operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>
	<p>REMOTE SYSTEMS GROUP</p> <p>NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT</p> <p>COMMON BASE ASSY</p>
DES V GRAVES 12/10/2005 DRW T OQUIN 06/02/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 12/10/2005 QA	CAD FILE COMMON BASE ASSY HJT SIZE DWG NO.	PREV ASSY 203-HJT-0001 SCALE 1:20 SHEET 1 of 2	REV 0
DRAWING APPROVALS	DATE	203-HJT-0100	0

S THIS DRAWING PRODUCED ON SOLIDWORKS



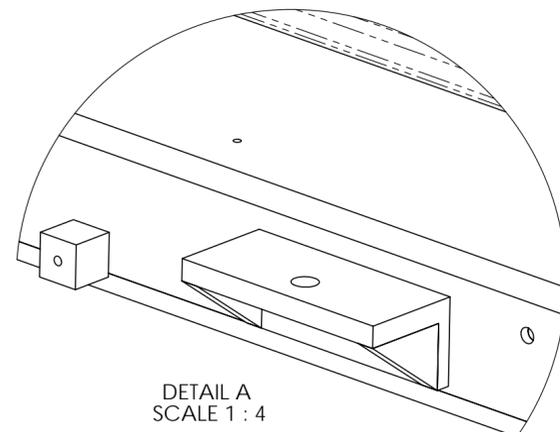
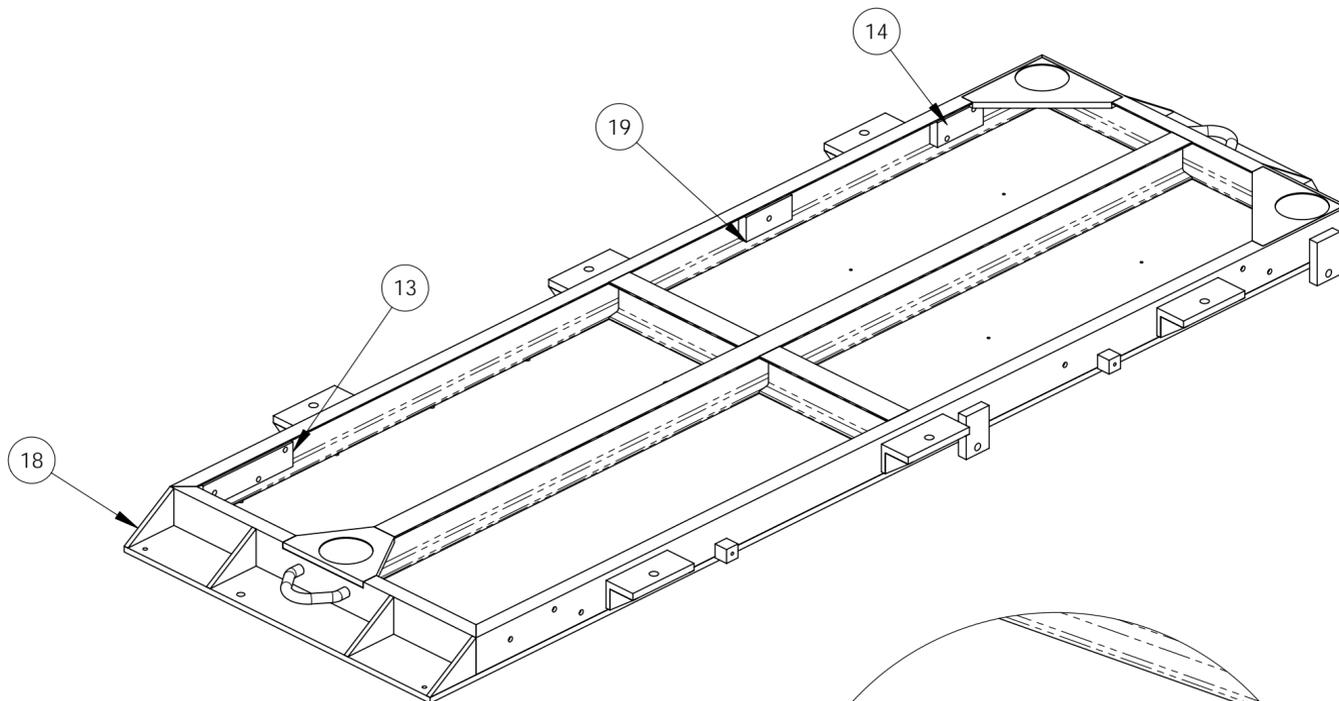
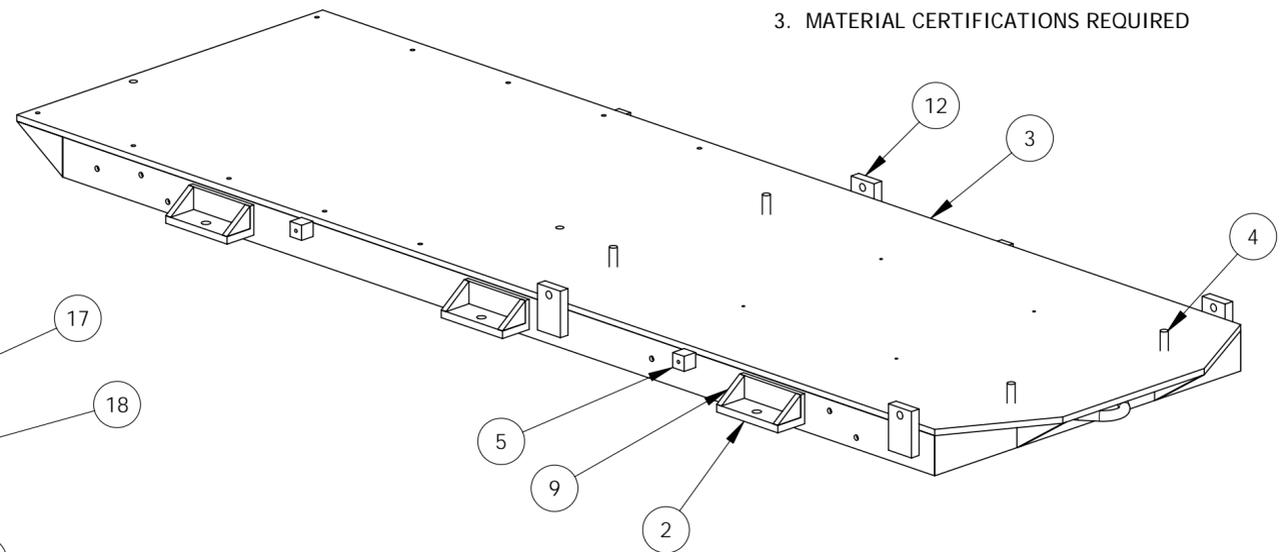
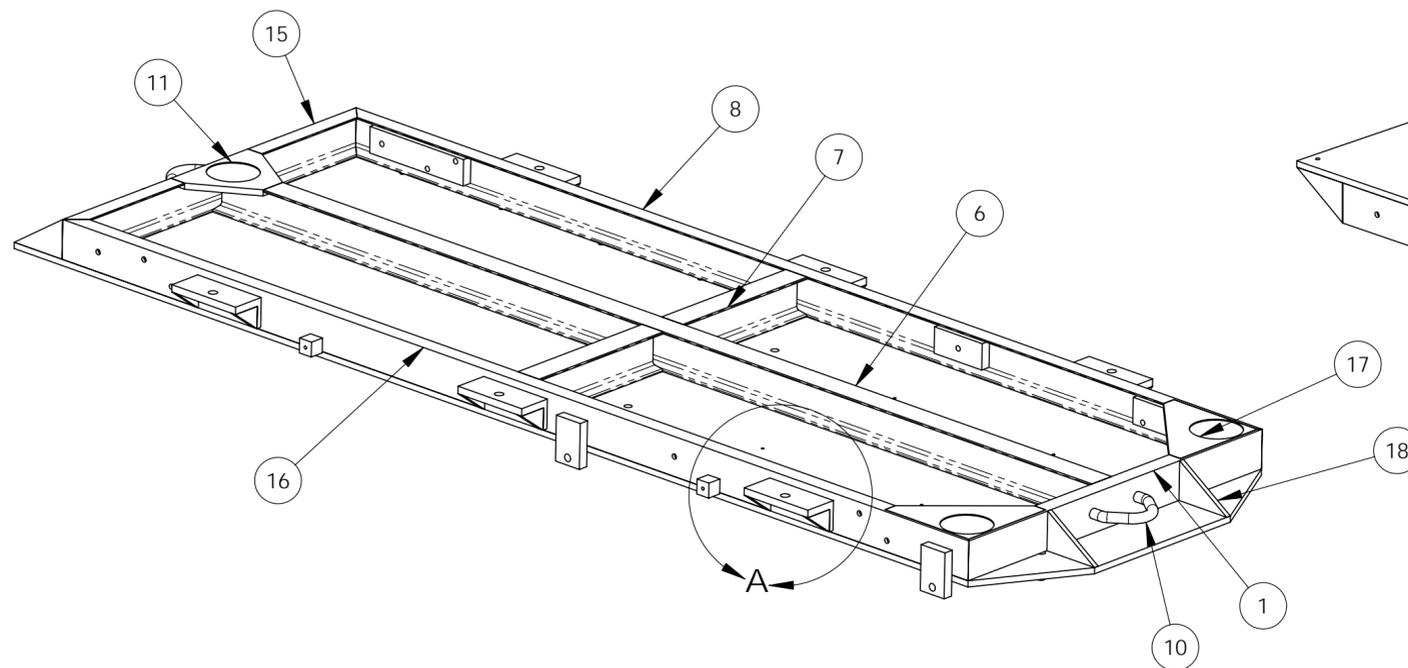
 THIRD-ANGLE PROJECTION UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. WHOLE NUMBERS AND FRACTIONS ±1/16 9. X DECIMALS ±.030 10. XX DECIMALS ±.010 11. XXX DECIMALS ±.005	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			 OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN			
	DES V GRAVES 12/10/2005 DRW T OQUIN 06/02/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 12/10/2005 QA			 REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION			
MERIT EXPERIMENT COMMON BASE ASSY			CAD FILE	PREV ASSY	SCALE	SHEET	
DRAWING APPROVALS			DATE	COMMON BASE ASSY HJT	203-HJT-0001	1:15	2 of 2
				SIZE	DWG NO.		REV
				C	203-HJT-0100		0

DWG NO. 203-HJT-0100

S THIS DRAWING PRODUCED ON SOLIDWORKS

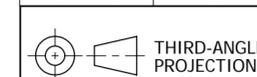
NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



ESTIMATED WEIGHT 455 LBS

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
19	2	PLATE, 6.00 x 2.66 x 1.00	AL - 6061 T6 T6511, ASTM B-221	6.00
18	6	PLATE, 4.00 x 6.00 x .50	AL - 6061 T6511, ASTM B-221	---
17	2	PLATE, 10.50 x 10.50 x .63	AL - 6061 T6511, ASTM B-221	10.50
16	1	AMER STD "C", 4.00 X 1.72 X .32	AL - 6061 T6, ASTM B-308	114
15	1	AMER STD "C", 4.00 X 1.72 X .32	AL - 6061 T6, ASTM B-308	40
14	2	PLATE, 2.66 x 6.00 x 1.00	AL - 6061 T6511, ASTM B-221	6.00
13	2	PLATE, 2.66 x 11.75 x 1.00	AL - 6061 T6511, ASTM B-221	11.75
12	4	PLATE, 3.00 x 4.63 x 1.00	AL - 6061 T6511, ASTM B-221	4.63
11	1	PLATE, 8.00 x 10.50 x .63	AL - 6061 T6511, ASTM B-221	10.50
10	2	ROUND, 1.00 OD x 11.00	AL - 6061 T6, ASTM B-211	11.00
9	12	PLATE - 2.50 X 3.00 X .63	AL - 6061 T6511, ASTM B-221	---
8	1	AMER STD "C", 4.00 X 1.72 X .32	AL - 6061 T6, ASTM B-308	114
7	2	AMER STD "I", 4.00 x 2.66 x .19	AL - 6061 T6, ASTM B-308	16.95
6	1	AMER STD "I", 4.00 X 2.66 X .19	AL - 6061 T6, ASTM B-308	110.56
5	4	BAR, 1.50 x 1.50 x 1.50	AL - 6061 T6511, ASTM B-221	1.50
4	4	STUD, 3/4-10 UNC	SS ALL-THREAD	2.625
3	1	PLATE, 40.00 x 126.00 x .63	AL - 6061 T651, ASTM B-209	126.00
2	6	ANGLE - 3.00 X 3.50 X .50	AL - 6061 T6511, ASTM B-221	8.00
1	1	AMER STD "C", 4.00 X 1.72 X .32	AL - 6061 T6, ASTM B-308	40



UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
6. FORMED ANGLES ±1°
7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
8. WHOLE NUMBERS AND FRACTIONS ±1/16
9. X DECIMALS ±.030
10. XX DECIMALS ±.010
11. XXX DECIMALS ±.005

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DES	V GRAVES	12/10/2005
DRW	T OQUIN	12/10/2005
CHK	P SPAMPINATO	01/10/2006
ENG	V GRAVES	12/10/2005
QA		

oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

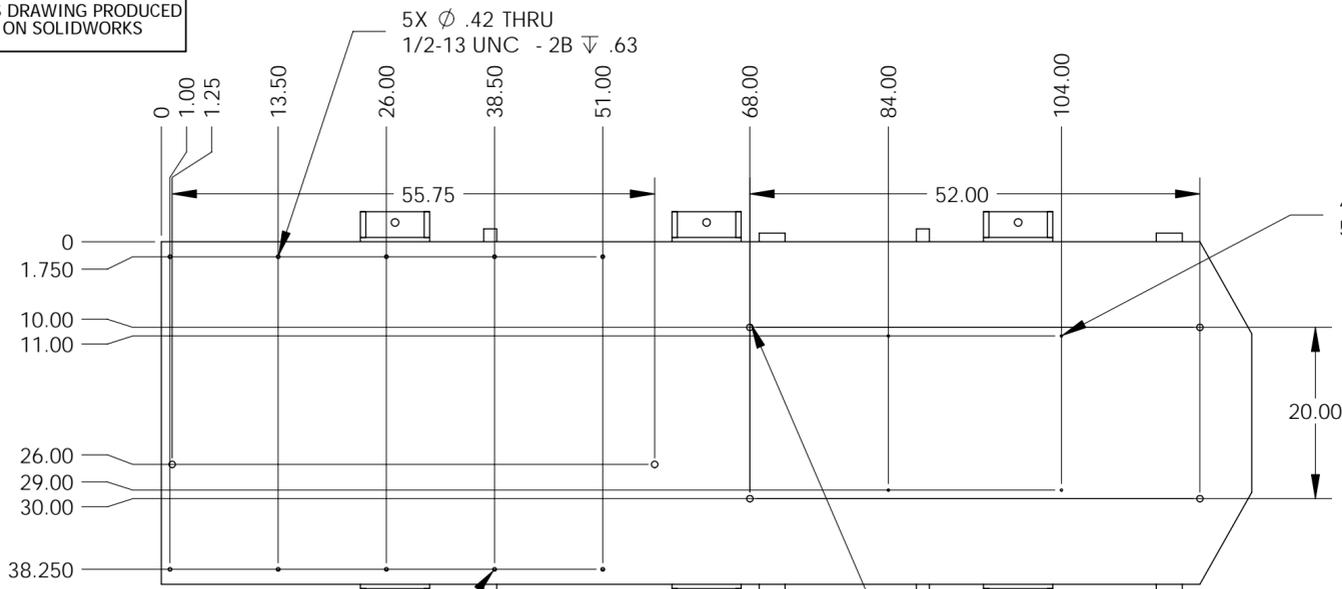
**MERIT EXPERIMENT
COMMON BASEPLATE ASSY
BASE WELDMENT**

CAD FILE	PREV ASSY	SCALE	SHEET
BASE WELDMENT HJT	203-HJT-0100	1:12	1 of 4
SIZE	DWG NO.	REV	
C	203-HJT-0110	0	

DRAWING APPROVALS DATE

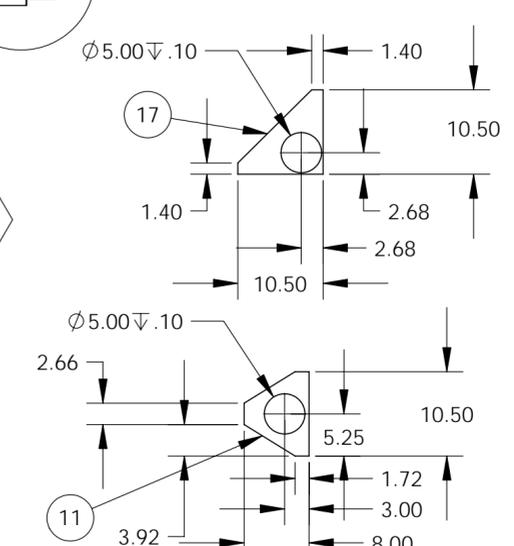
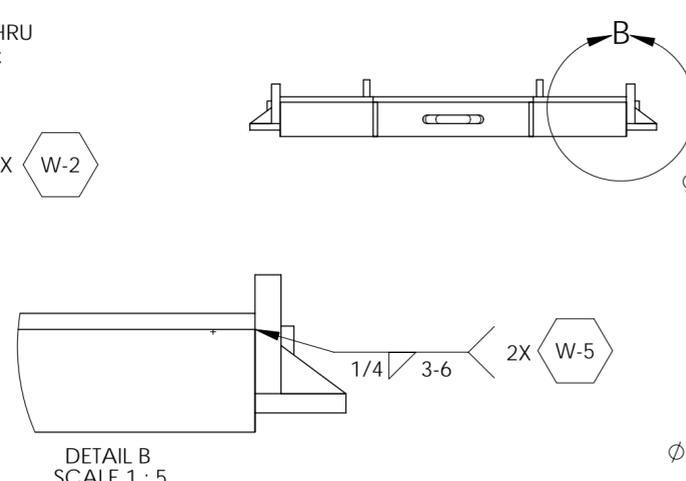
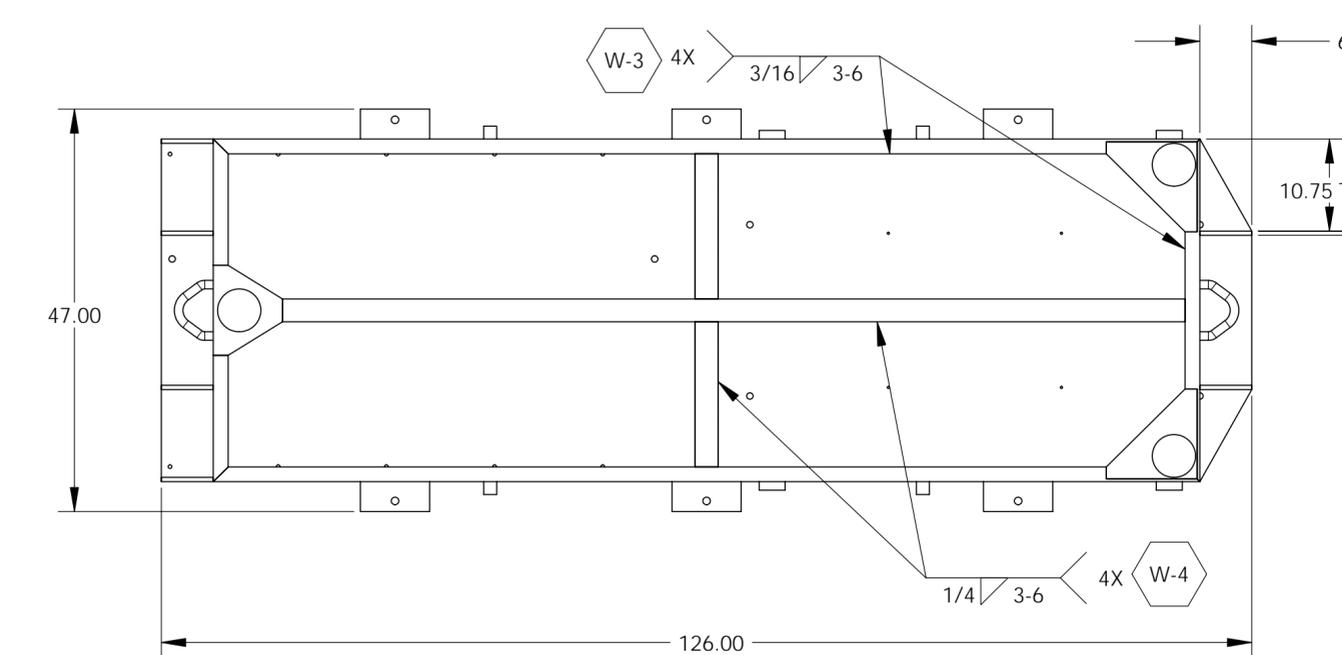
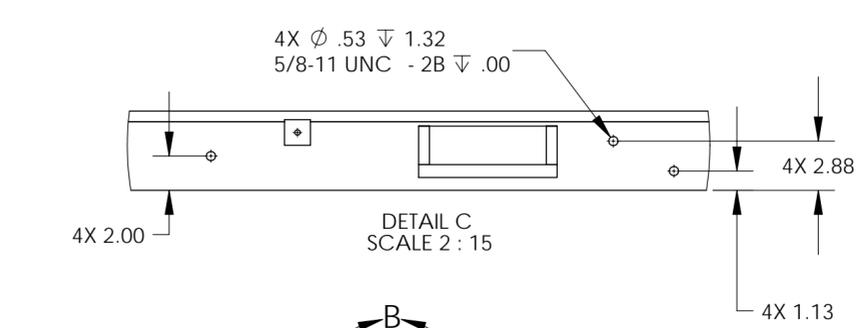
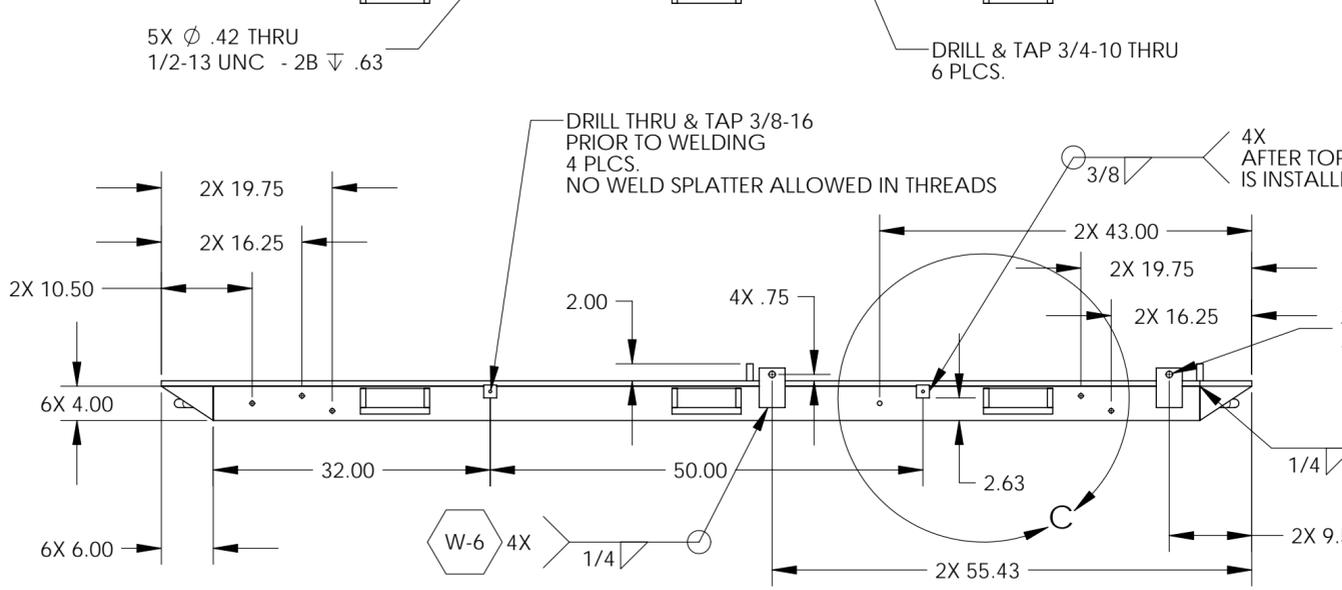
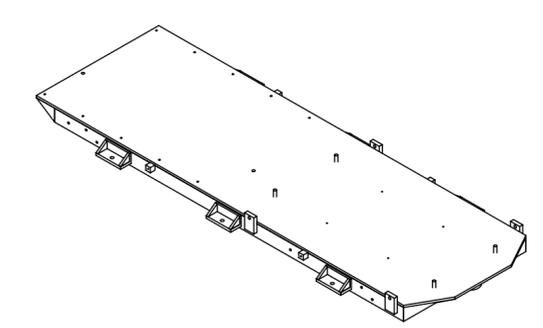
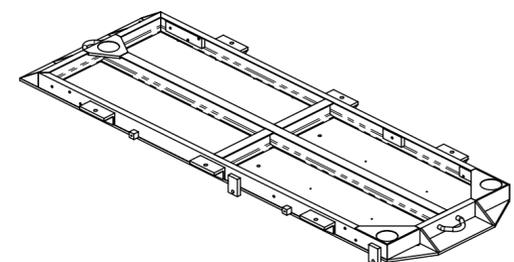
DWG NO. 203-HJT-0110

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NOTES

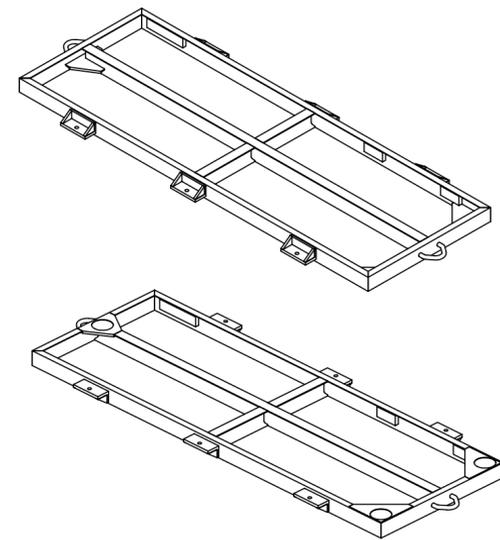
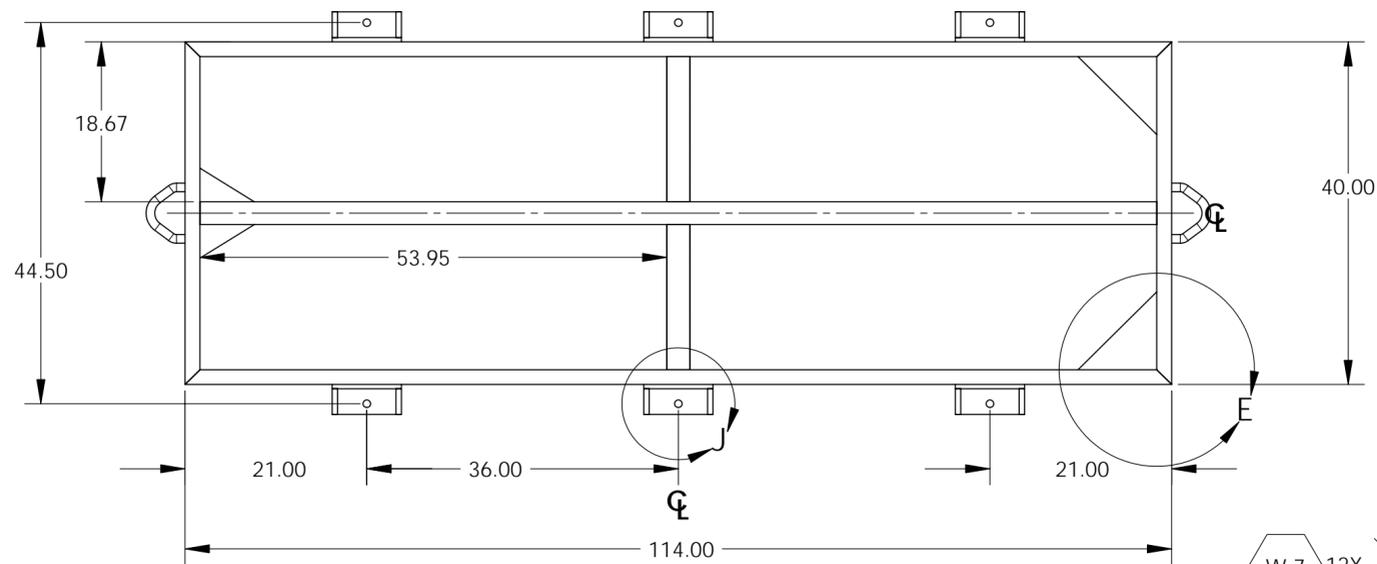
1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES $\pm 1/2^\circ$ 6. FORMED ANGLES $\pm 1^\circ$ 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS $\pm .030$ 9. XX DECIMALS $\pm .010$ 10. XXX DECIMALS $\pm .005$ 	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT COMMON BASEPLATE ASSY BASE WELDMENT</p>	
<p>CAD FILE BASE WELDMENT HJT</p>	<p>PREV ASSY 203-HJT-0100</p>	<p>SCALE 1:15</p>	<p>SHEET 2 of 4</p>	
<p>SIZE C</p>	<p>DWG NO. 203-HJT-0110</p>	<p>REV 0</p>	<p>DRAWING APPROVALS</p>	

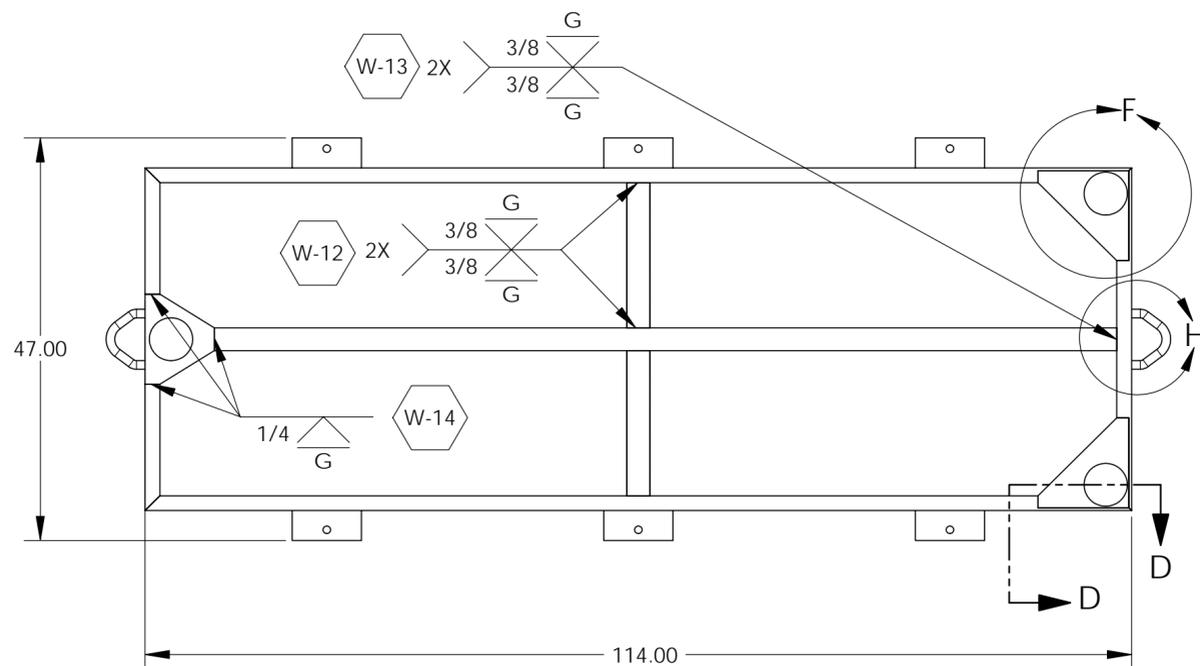
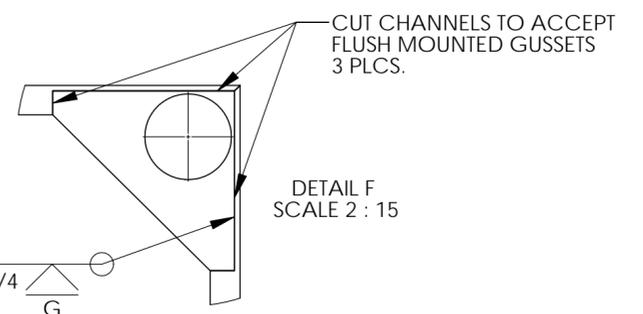
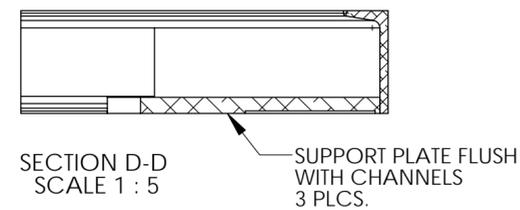
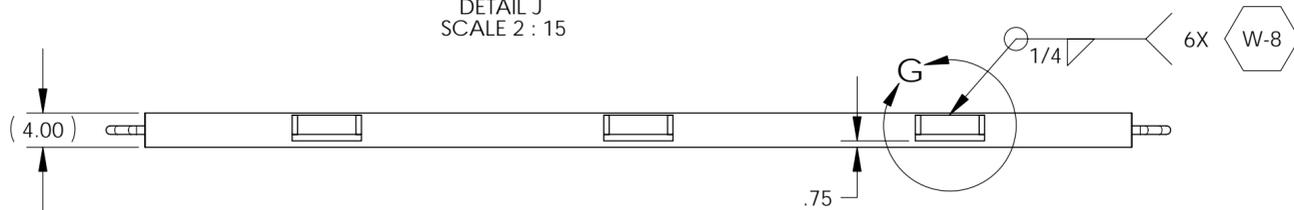
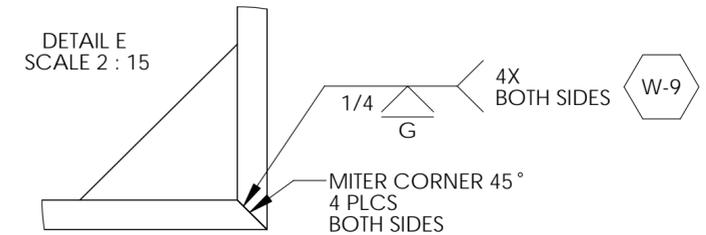
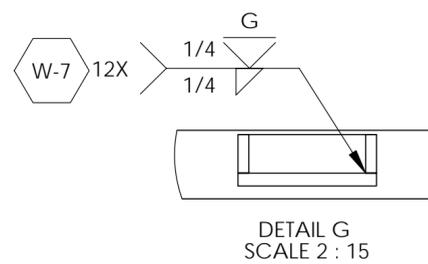
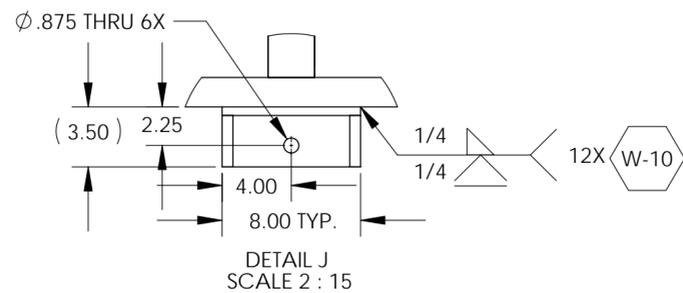
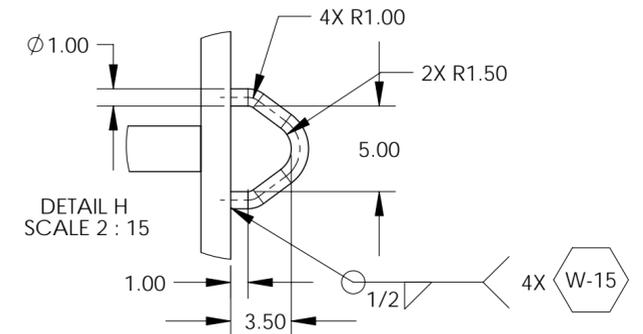
DWG NO. 203-HJT-0110

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



- UNLESS OTHERWISE NOTED
1. ALL DIMENSIONS ARE IN INCHES
 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
 3. MACHINED FINISH 125 MICRO-INCHES RMS
 4. CONCENTRICITY .010 TIR
 5. MACHINED ANGLES ±1/2°
 6. FORMED ANGLES ±1°
 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
 8. WHOLE NUMBERS AND FRACTIONS ±.010
 9. X DECIMALS ±.030
 10. XX DECIMALS ±.010
 11. XXX DECIMALS ±.005

This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.



OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



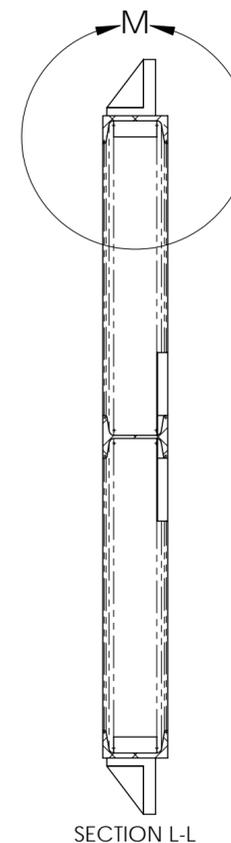
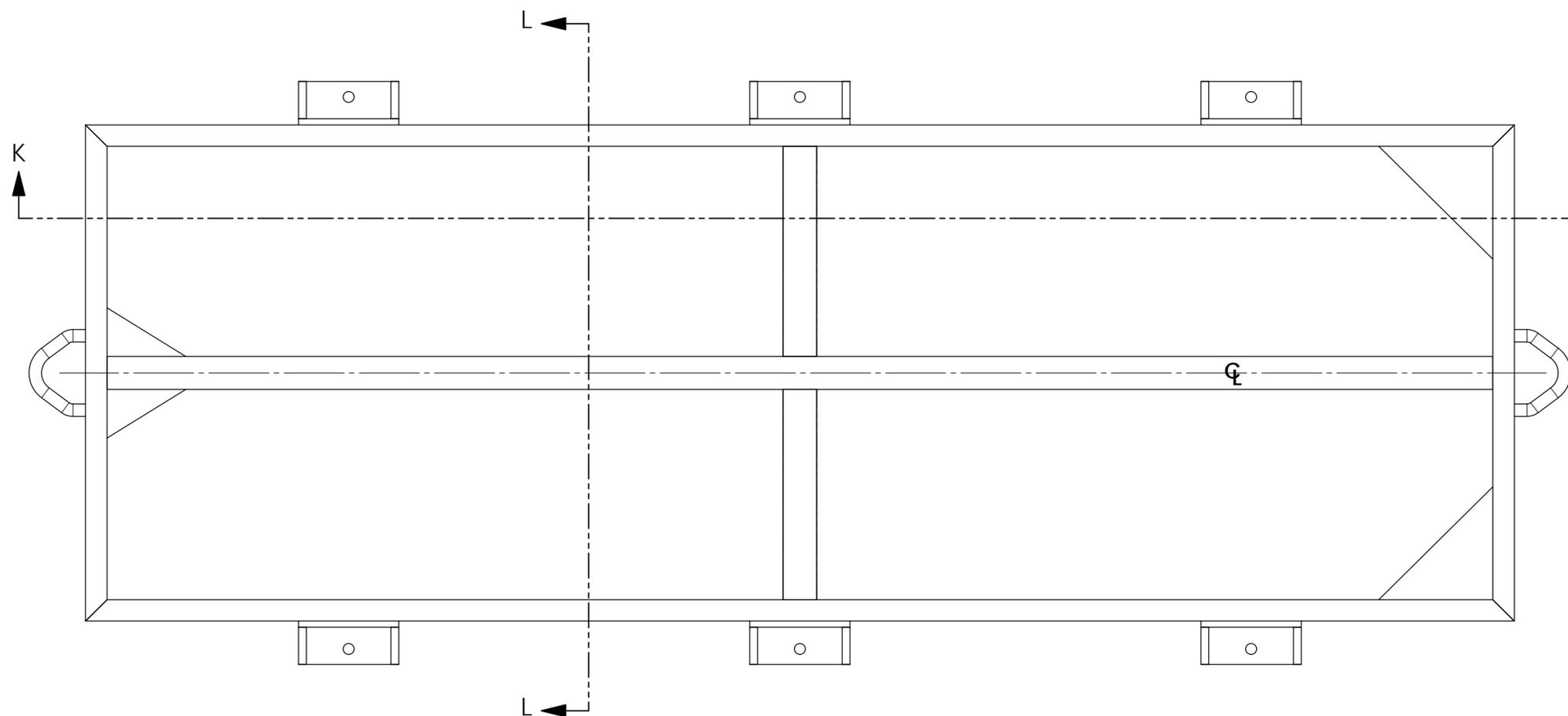
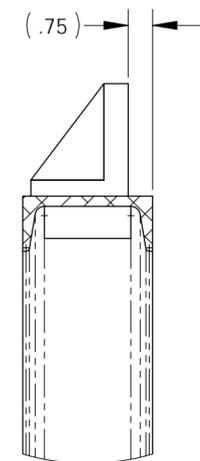
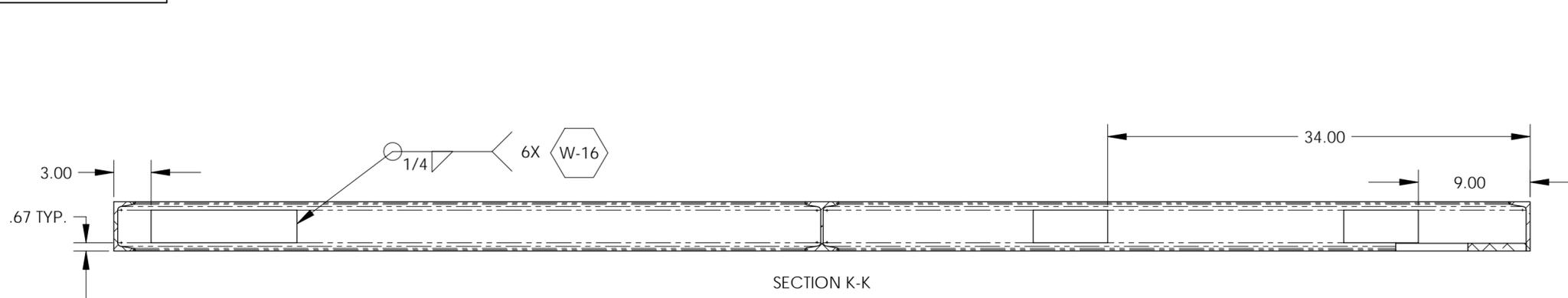
REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION

DES	V GRAVES	12/10/2005
DRW	T OQUIN	12/10/2005
CHK	P SPAMPINATO	01/10/2006
ENG	V GRAVES	12/10/2005
QA		

CAD FILE BASE WELDMENT HJT		PREV ASSY 203-HJT-0100	SCALE 1:10	SHEET 3 of 4
SIZE C	DWG NO. 203-HJT-0110			REV 0

DRAWING APPROVALS	DATE
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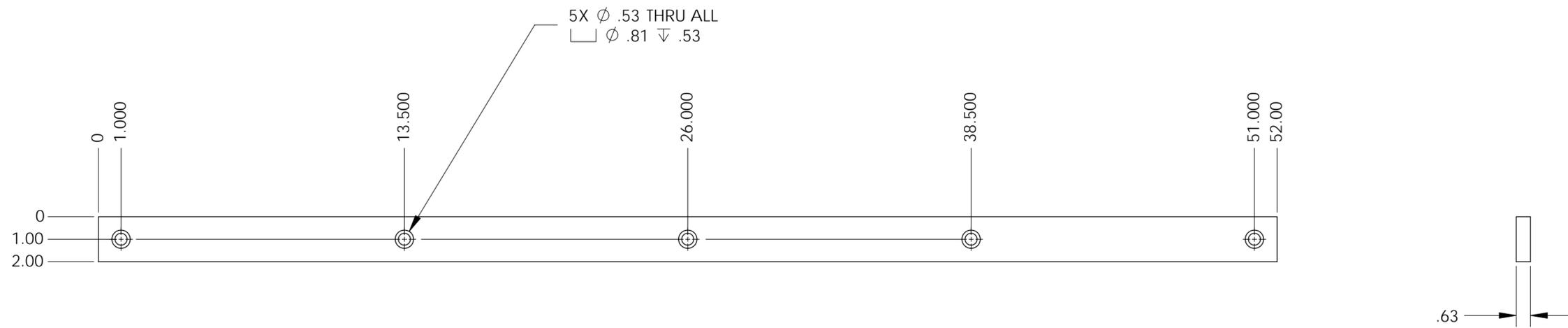
DWG NO. 203-HJT-0110



<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	12/10/2005	MERIT EXPERIMENT COMMON BASEPLATE ASSY BASE WELDMENT			
DRW	T OQUIN	12/10/2005				
CHK	P SPAMPINATO	01/10/2006				
ENG	V GRAVES	12/10/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			BASE WELDMENT HJT	203-HJT-0100	1:8	4 of 4
DRAWING APPROVALS			DATE	SIZE	DWG NO.	REV
				C	203-HJT-0110	0

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



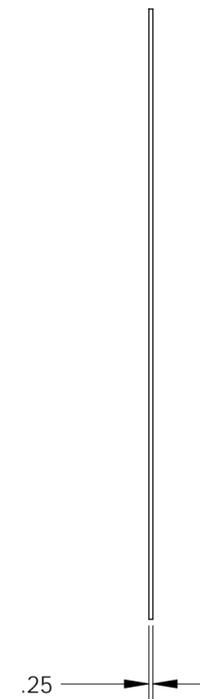
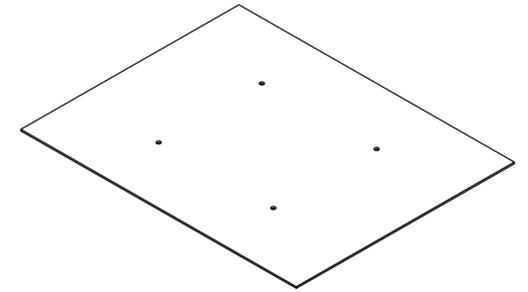
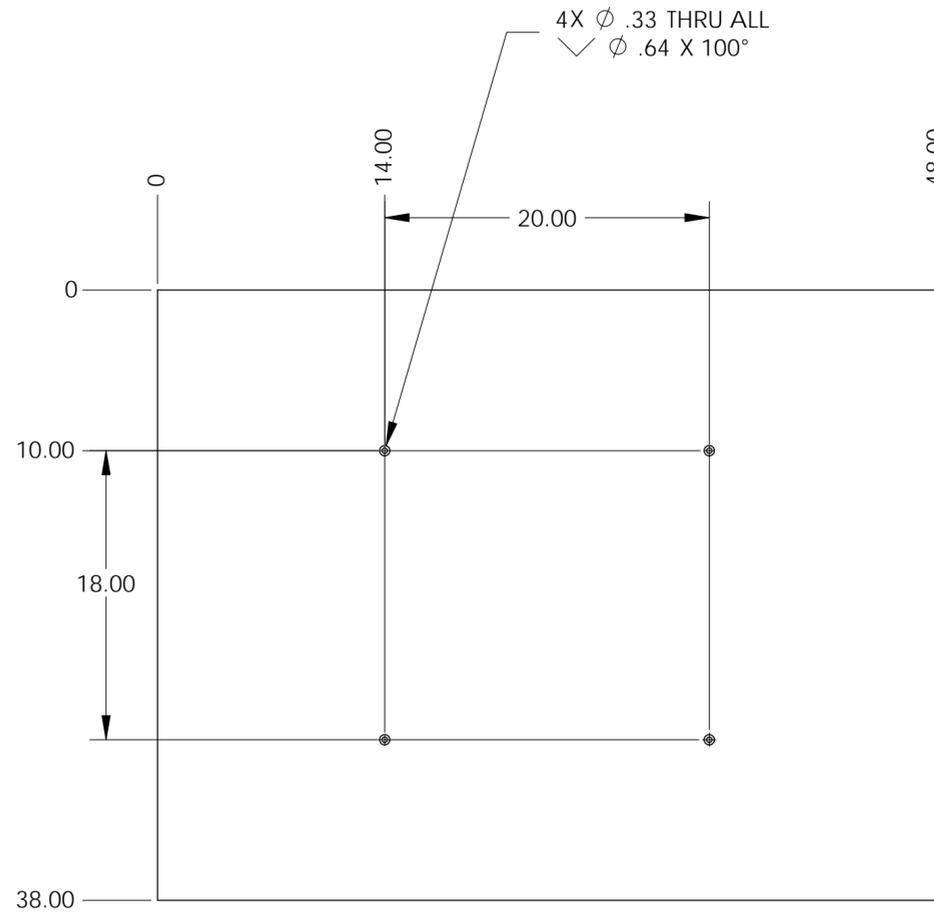
MATERIAL: SS - 316L

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES $\pm 1/2^\circ$ FORMED ANGLES $\pm 1^\circ$ 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS $\pm 1/16$ 8. X DECIMALS $\pm .030$ 9. XX DECIMALS $\pm .010$ 10. XXX DECIMALS $\pm .005$			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES V GRAVES 12/10/2005 DRW T OQUIN 12/10/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 12/10/2005 QA			<p align="center">MERIT EXPERIMENT COMMON BASEPLATE ASSY FLAT RAIL - COMMON BASEPLATE</p>			
DRAWING APPROVALS DATE						CAD FILE FLAT RAIL HJT
			SIZE C	DWG NO. 203-HJT-0111	REV 0	

DWG NO. 203-HJT-0111

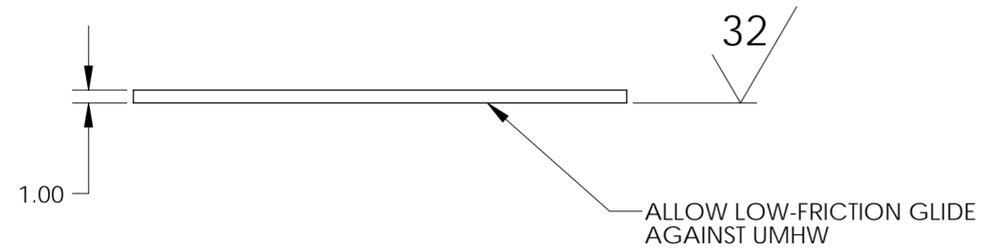
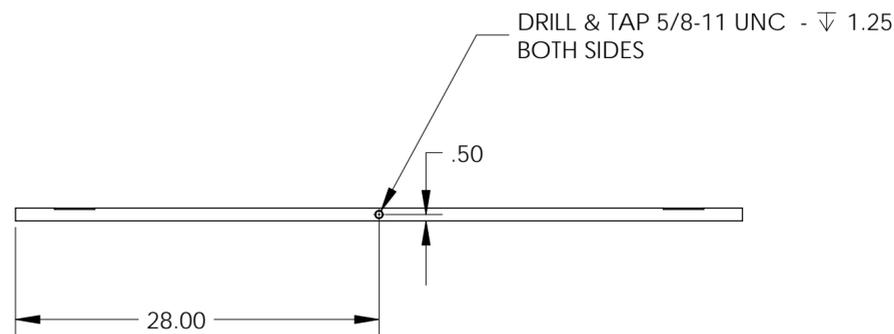
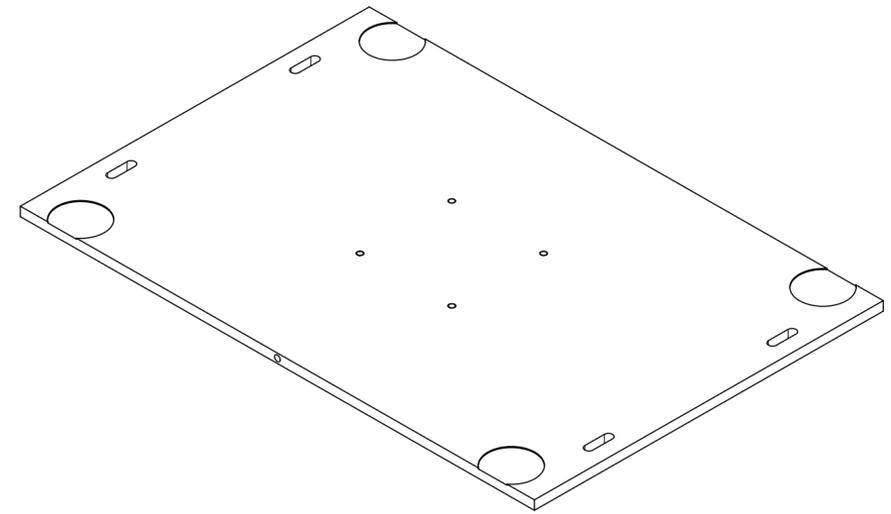
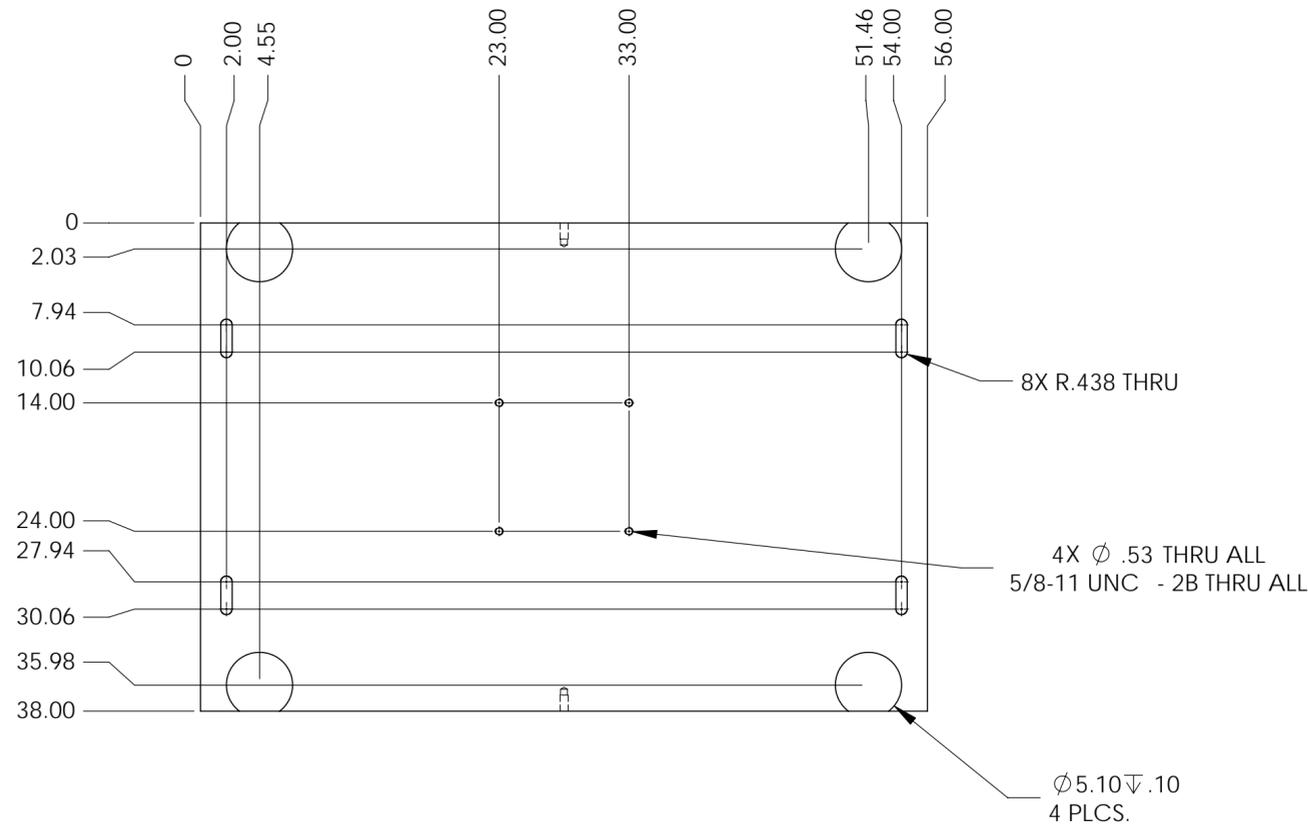
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



MATERIAL: UHMW

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	06/03/2005	MERIT EXPERIMENT COMMON BASEPLATE ASSY MAGNET SHEET			
DRW	T OQUIN	06/03/2005				
CHK	P SPAMPINATO	01/10/2006				
ENG	V GRAVES	06/03/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			SLICK SHEET HJT	203-HJT-0100	1:8	1 of 1
DRAWING APPROVALS			DATE	SIZE	DWG NO.	REV
				C	203-HJT-0112	0

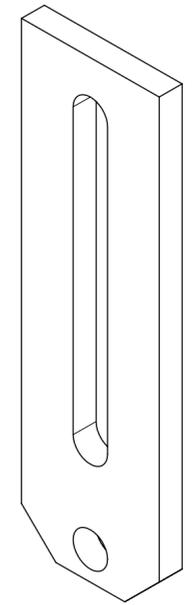
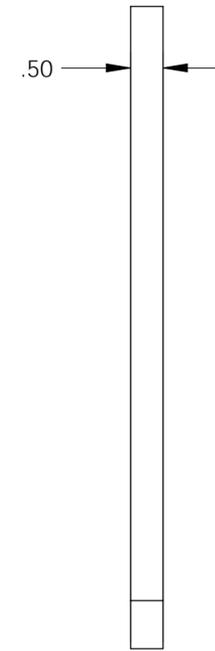
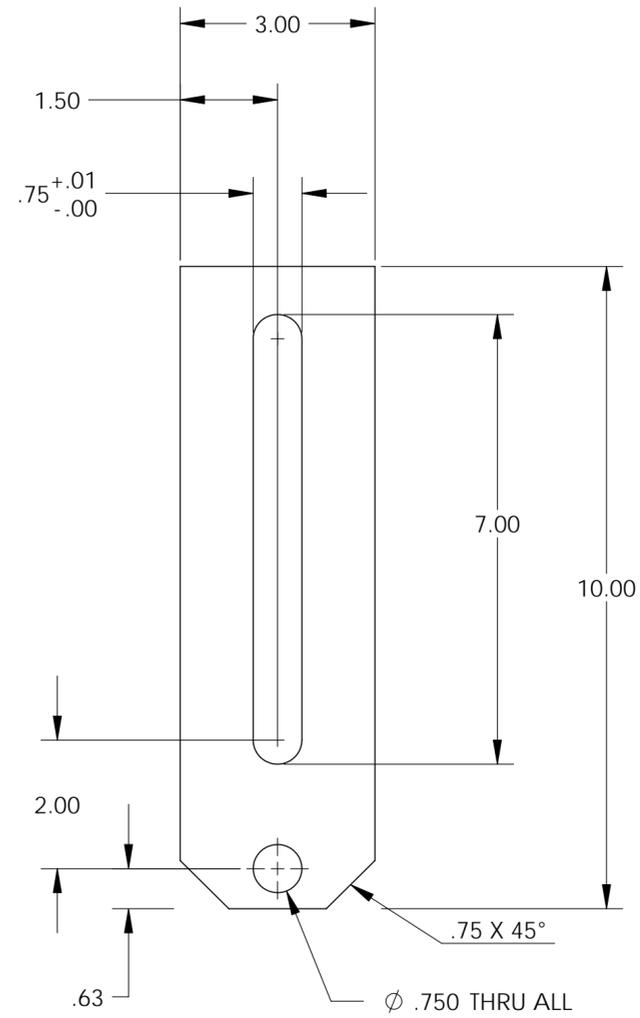


MATERIAL: AL - 6061 T651, ASTM B-209

<p>THIRD-ANGLE PROJECTION</p>		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																
<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-INCHES RMS CONCENTRICITY .010 TIR MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND FRACTIONS ±1/16 X DECIMALS ±.030 XX DECIMALS ±.010 XXX DECIMALS ±.005 		<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>06/03/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>06/03/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/10/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>06/03/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>		DES	V GRAVES	06/03/2005	DRW	T OQUIN	06/03/2005	CHK	P SPAMPINATO	01/10/2006	ENG	V GRAVES	06/03/2005	QA			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
DES	V GRAVES	06/03/2005																		
DRW	T OQUIN	06/03/2005																		
CHK	P SPAMPINATO	01/10/2006																		
ENG	V GRAVES	06/03/2005																		
QA																				
		<p>MERIT EXPERIMENT COMMON BASEPLATE ASSY MAGNET SUPPORT PLATE</p>		CAD FILE	PREV ASSY	SCALE	SHEET													
				MAGNET SUPPORT PLATE HJT	203-HJT-0100	1:10	1 of 1													
		DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV #B													
					C	203-HJT-0113														

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED

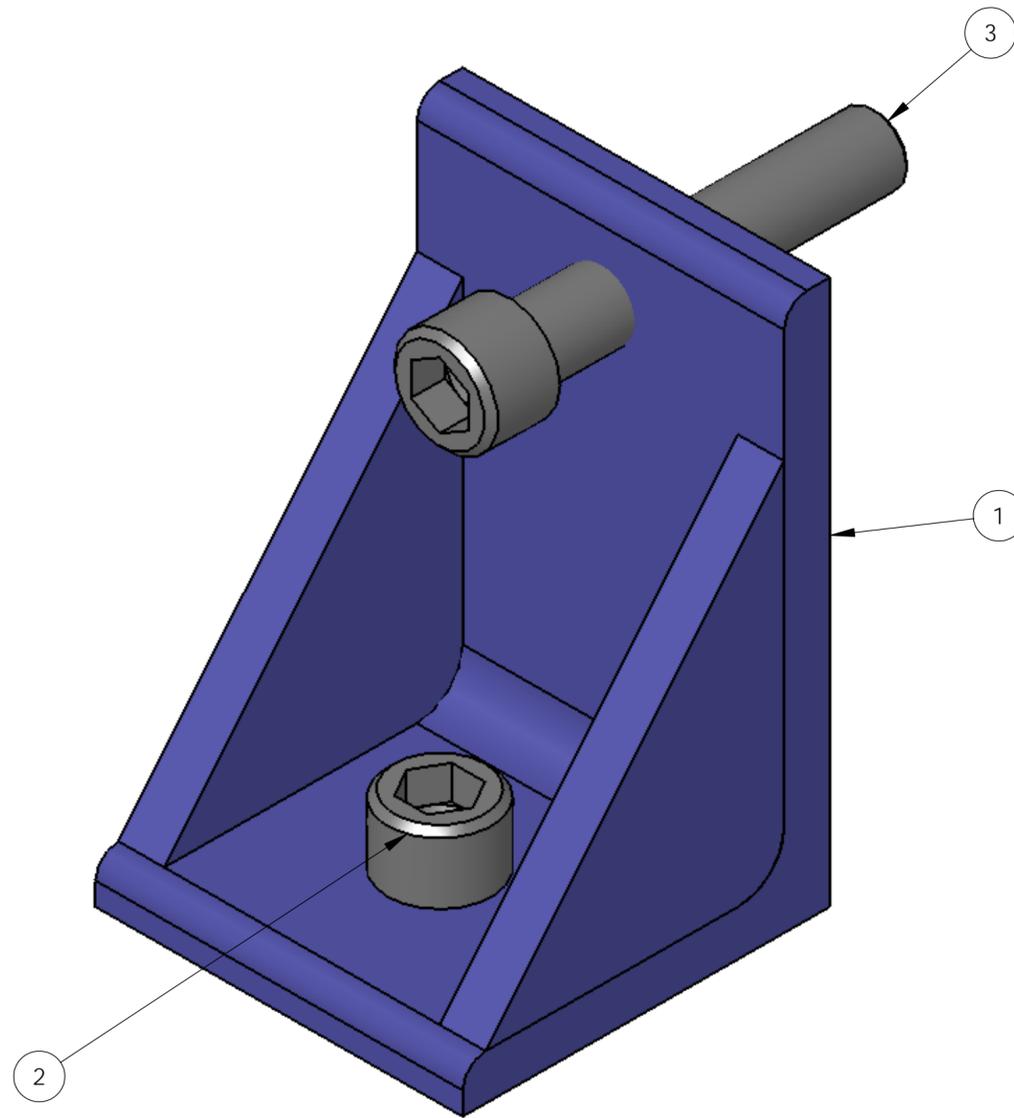


MATERIAL: AL - 6061 T6511, ASTM B-221

THIRD-ANGLE PROJECTION		This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN	
UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		DES V GRAVES 06/03/2005 DRW T OQUIN 06/03/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 06/03/2005 QA		REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION	
		MERIT EXPERIMENT COMMON BASEPLATE ASSY MAGNET RESTRAINT PLATE		CAD FILE MAGNET RESTRAINT PLATE HJT	PREV ASSY 203-HJT-0100
		DRAWING APPROVALS	DATE	SIZE C	DWG NO. 203-HJT-0114
				SCALE 1:2	SHEET 1 of 1
				REV 0	

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED

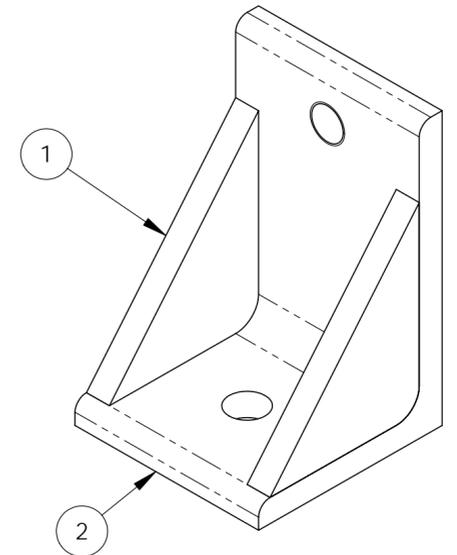
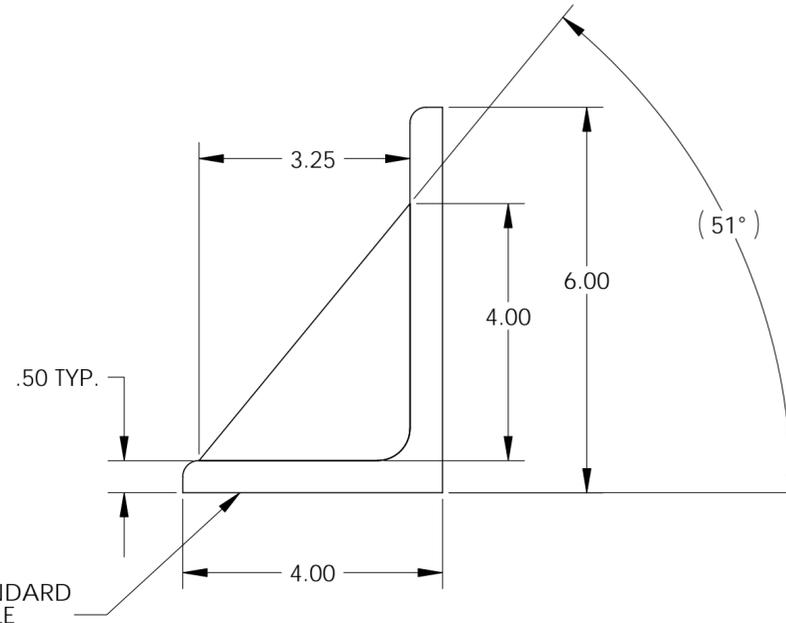
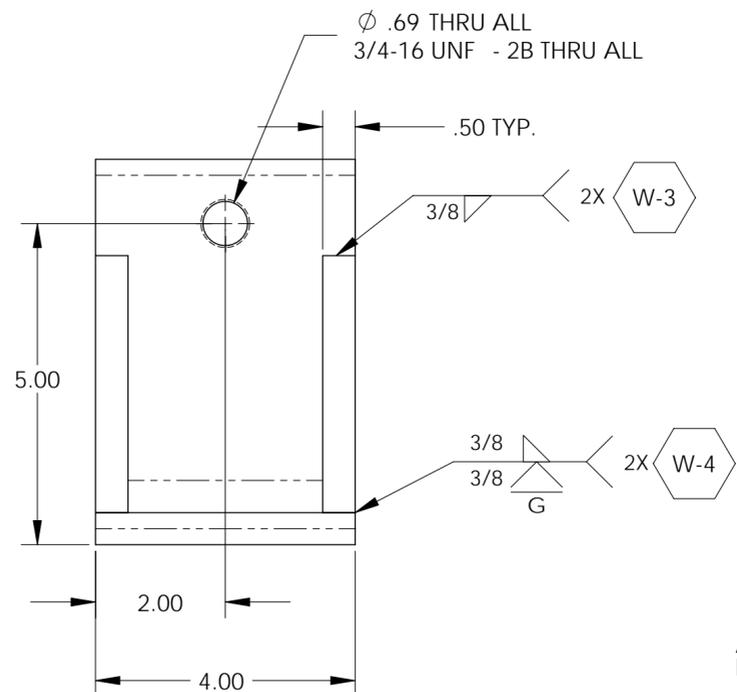
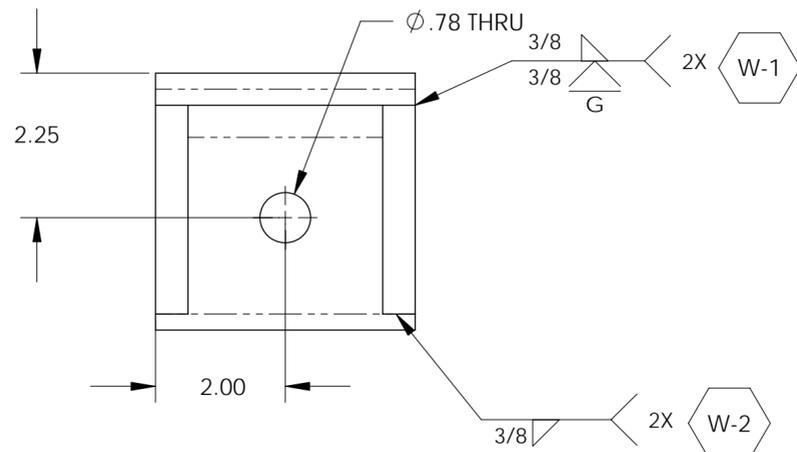


ITEM	QTY.	NAME	MATERIAL	DESCRIPTION	DWG
3	1	HX-SHCS 0.75-16x4x4-N	SS - 18-8	SHCS - 3/4-16 x 4.00	N/A
2	1	HX-SHCS 0.75-16x1.5x1.5-N	SS - 18-8	SHCS - 3/4-16 x 1.50	N/A
1	1	cart jacking plate hjt	AL - 6061 T6, ASTM B-308	AM STD ANGLE - 4" X 4"	203 HJT 0121

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>															
	<p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>FORMED ANGLES ±1°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>															
<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>05/19/2005</td> </tr> <tr> <td>DRW</td> <td>T. OQUIN</td> <td>05/19/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/10/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>05/19/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>			DES	V GRAVES	05/19/2005	DRW	T. OQUIN	05/19/2005	CHK	P SPAMPINATO	01/10/2006	ENG	V GRAVES	05/19/2005	QA			<p>MERIT EXPERIMENT COMMON BASEPLATE ASSY CART ANCHOR ASSY</p>	
DES	V GRAVES	05/19/2005																	
DRW	T. OQUIN	05/19/2005																	
CHK	P SPAMPINATO	01/10/2006																	
ENG	V GRAVES	05/19/2005																	
QA																			
<p>CAD FILE CART ANCHOR ASSY HJT</p>		<p>PREV ASSY 203-HJT-0100</p>	<p>SCALE 1:1</p>	<p>SHEET 1 of 1</p>															
<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>SIZE C</p>	<p>DWG NO. 203-HJT-0120</p>	<p>REV 0</p>														

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



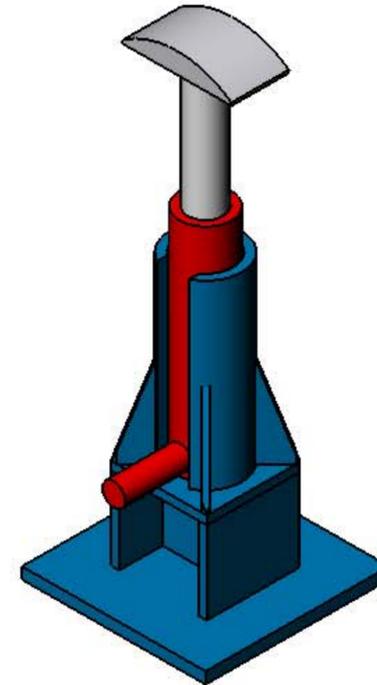
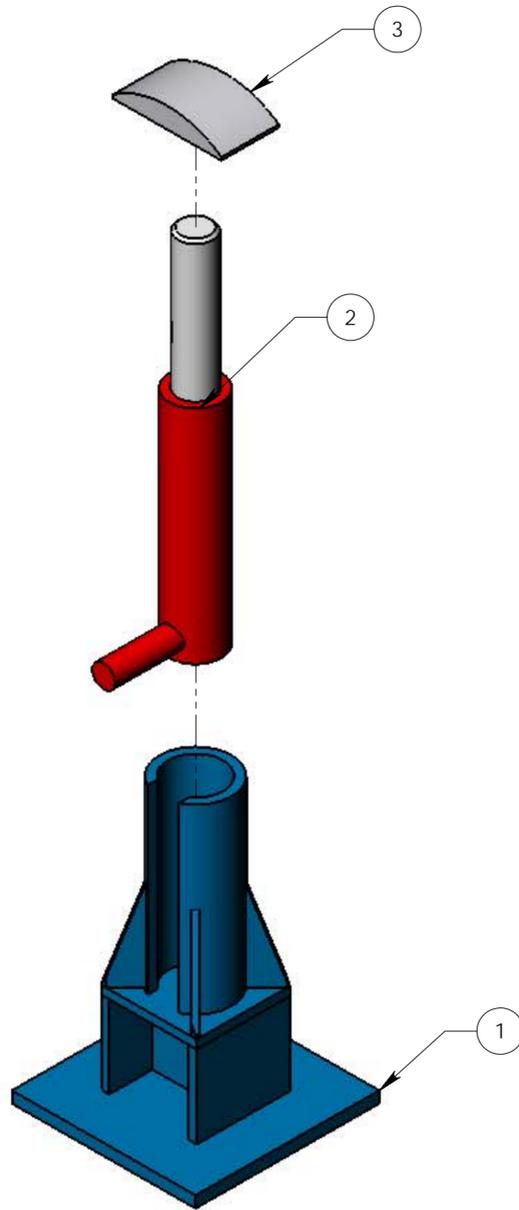
AMERICAN STANDARD EXTRUDED ANGLE

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
2	1	AM STD ANGLE - 6.00 x 6.00 x .50	AL - 6061 T6, ASTM B-308	4.00
1	2	PLATE, 4.00 x 3.25 x .50	AL - 6061 T6511, ASTM B-221	---

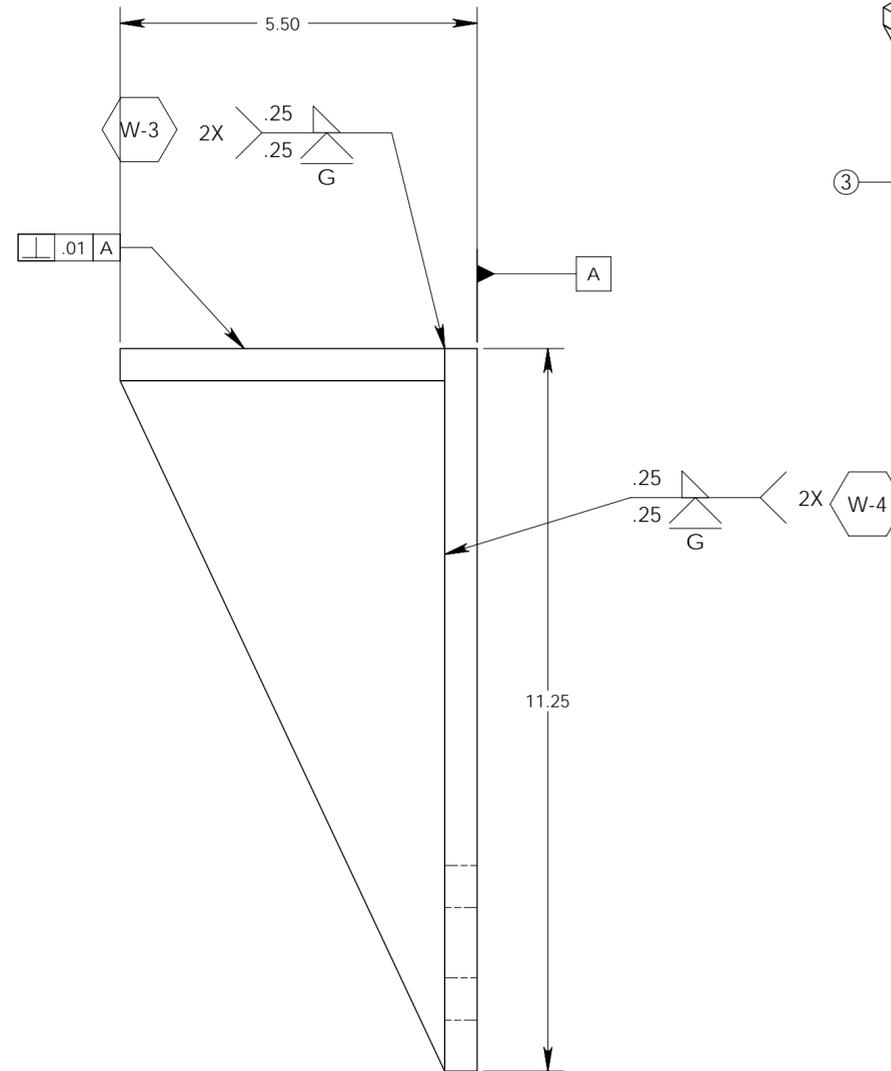
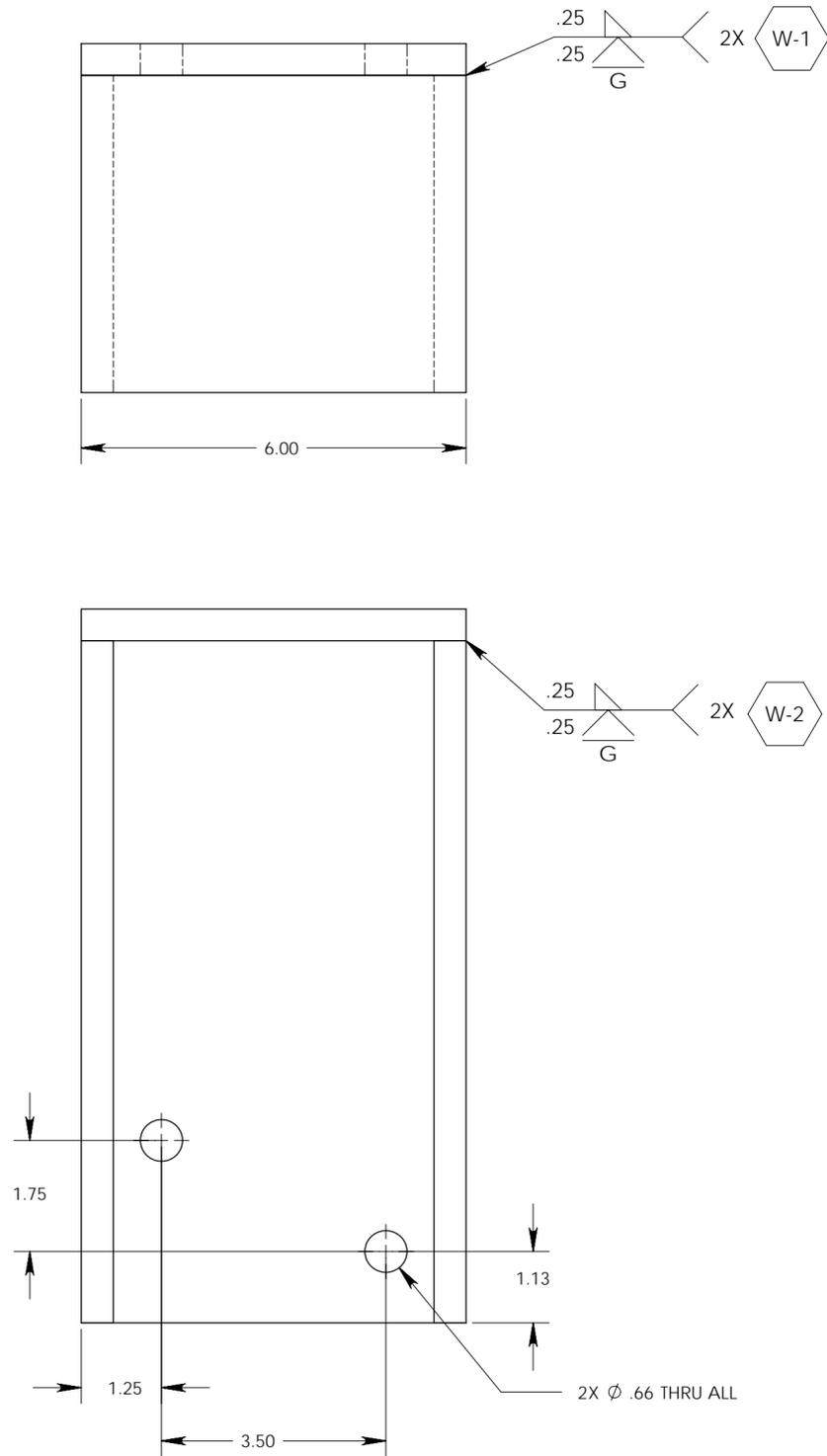
<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. FORMED ANGLES ±1°</p> <p>7. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	DES	V GRAVES	05/19/2005	<p>oak ridge national laboratory operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p> <p>NSTB REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p> <p>MERIT EXPERIMENT CART ANCHOR ASSY CART JACKING WELDMENT</p>
	DRW	T OQUIN	05/19/2005	
	CHK	P SPAMPINATO	01/10/2006	
	ENG	V GRAVES	05/19/2005	
	QA			
DRAWING APPROVALS		DATE		<p>CAD FILE: CART JACKING PLATE HJT</p> <p>PREV ASSY: 203 HJT 0120</p> <p>SCALE: 1:2</p> <p>SHEET: 1 of 1</p> <p>SIZE: C</p> <p>DWG NO.: 203 HJT 0121</p> <p>REV: 0</p>

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED

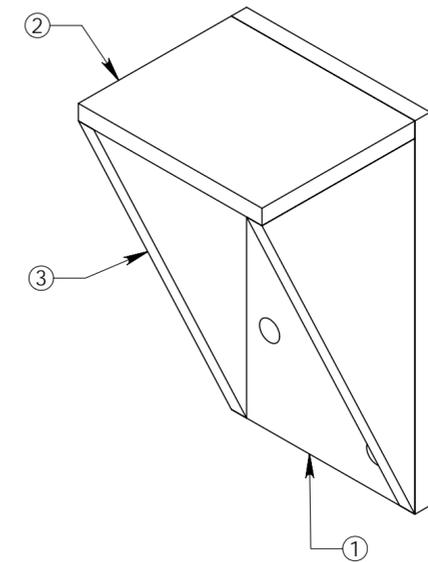


3	1	hyd jack rocker hjt	CRS - 1018	ROUND - 4.000" OD X 2.500	203-HJT-0133
2	1	hyd jack #2990T18 hjt	---	MCMaster-CARR #2990T18	N/A
1	1	hyd jack baseplate hjt	AL 6061-T6	HYD JACK BASEPLATE WELDMENT	203-HJT-0132
ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
THIRD-ANGLE PROJECTION		This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			
UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN		REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION	
		DES	T. OQUIN	07/21/2005	MERIT EXPERIMENT COMMON BASEPLATE ASSY HYDRAULIC JACK ASSY
		DRW	T OQUIN	07/21/2005	
		CHK	P SPAMPINATO	01/10/2006	
		ENG	T. OQUIN	07/21/2005	
		QA			
		DRAWING APPROVALS		DATE	CAD FILE: HYD JACK ASSY HJT SIZE: C DWG NO.: 203-HJT-0130
		PREV ASSY: 203-HJT-0100		SCALE: 1:4	SHEET: 1 of 1 REV: #A



NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
3	2	PLATE, 5.00 x 10.75 x .50	AL 6061-T6511, ASTM B-221	10.75
2	1	PLATE, 5.00 x 6.00 x .50	AL 6061-T6511, ASTM B-221	5.00
1	1	PLATE, 6.00 x 11.25 x .50	AL 6061-T6511, ASTM B-221	11.25

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
6. FORMED ANGLES ±1°
7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
8. WHOLE NUMBERS AND FRACTIONS ±1/16
9. X DECIMALS ±.030
10. XX DECIMALS ±.010
11. XXX DECIMALS ±.005

DES	T. OQUIN	07/20/2005
DRW	T OQUIN	07/20/2005
CHK	P SPAMPINATO	01/10/2006
ENG	T. OQUIN	07/20/2005
QA		

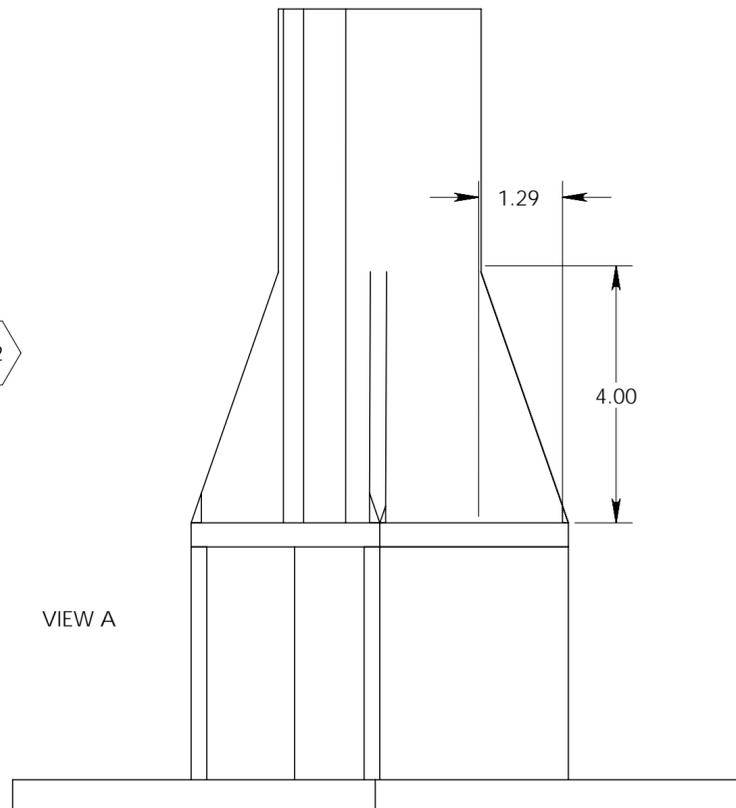
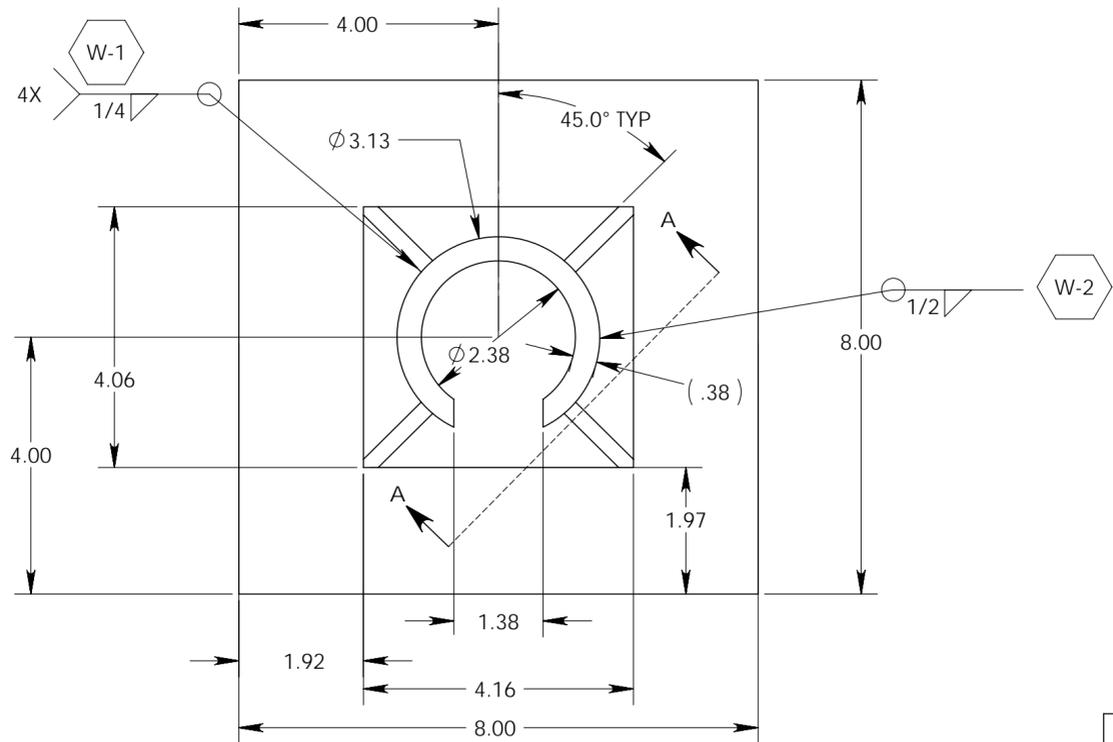
DRAWING APPROVALS DATE

oml OAK RIDGE NATIONAL LABORATORY
 operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
 NUCLEAR SCIENCE & TECHNOLOGY DIVISION

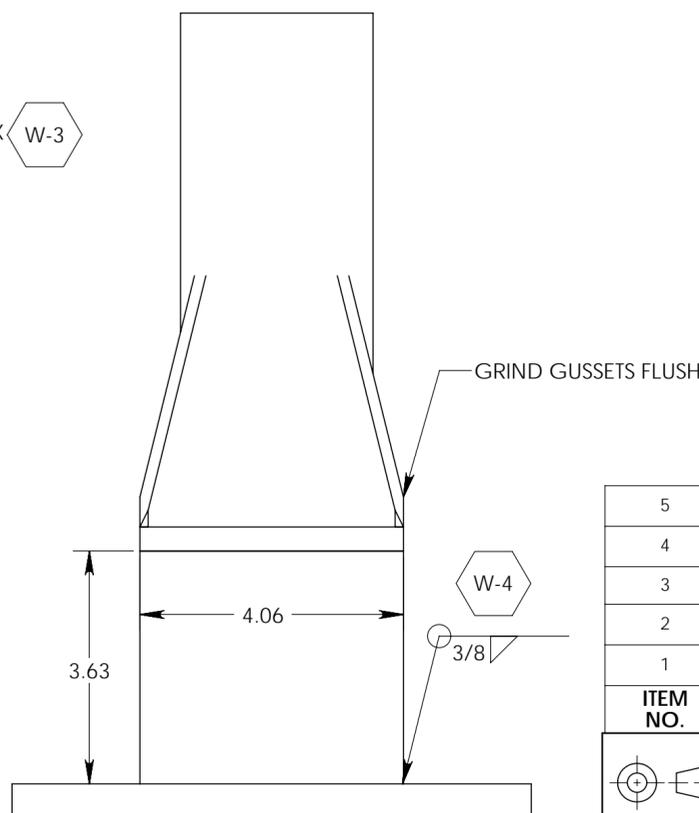
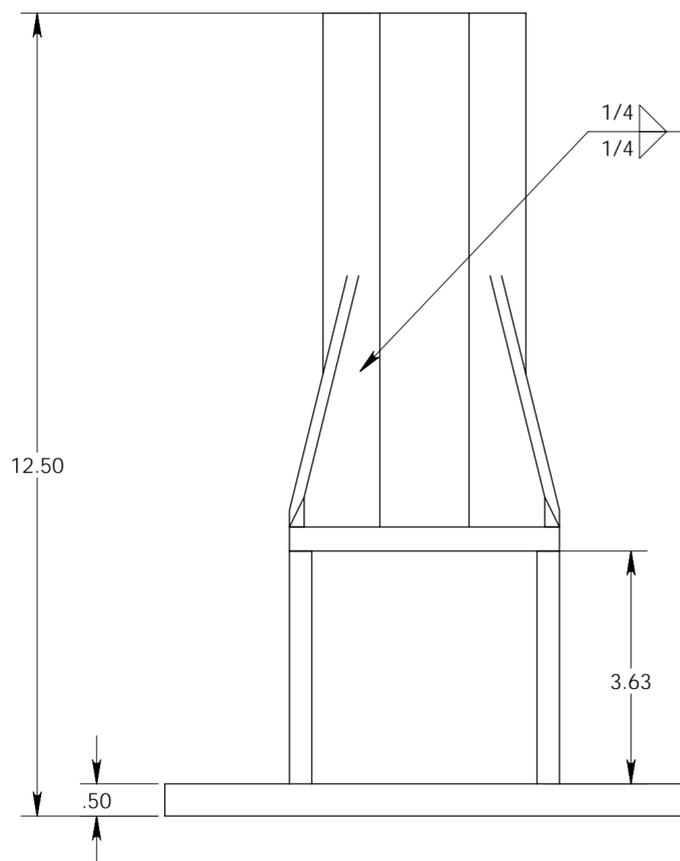
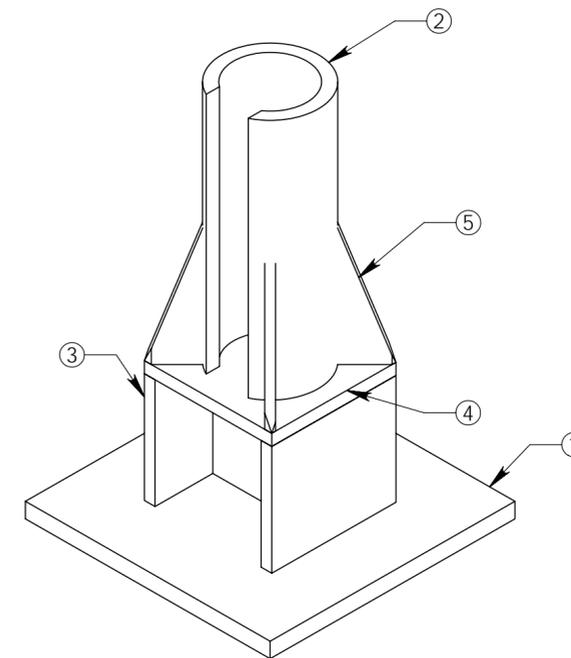
MERIT EXPERIMENT COMMON BASEPLATE ASSY HYD JACK BRACKET WELDMENT			
CAD FILE HYD JACK WELDMENT HJT	PREV ASSY 203-HJT-0100	SCALE 1:2	SHEET 1 of 1
SIZE C	DWG NO. 203-HJT-0131	REV 0	

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
5	4	PLATE, 4.00 X 1.38 X .25	AL 6061-T6	4.00
4	1	PLATE, 4.16 X 4.06 X .38	AL 6061-T6	4.16
3	1	W-4x13	AL 6061-T6	3.63
2	1	TUBE, D.O.M. - 3.13 OD x .38 WALL	AL 6061-T6	8.00
1	1	PLATE, 8.00 x 8.00 x .50	AL 6061-T6	8.00

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

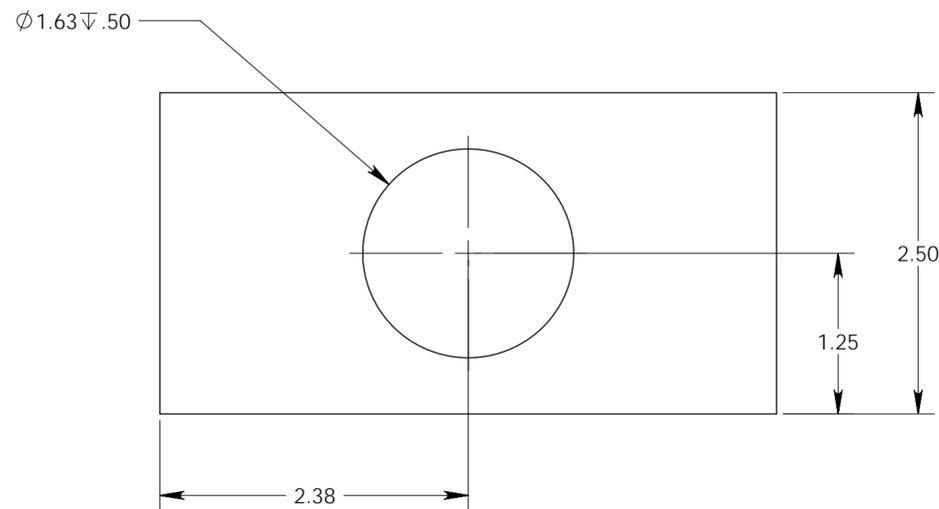
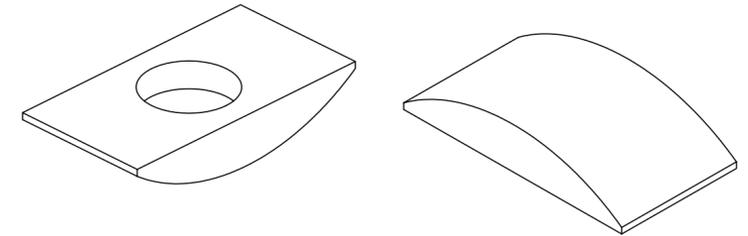
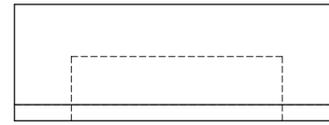
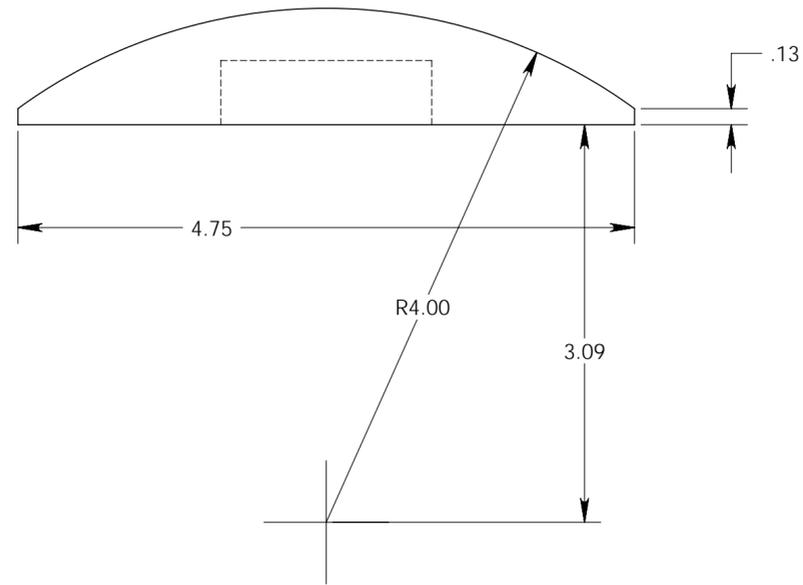
ORNL OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

**MERIT EXPERIMENT
COMMON BASEPLATE ASSY
HYD JACK BASEPLATE WELDMENT**

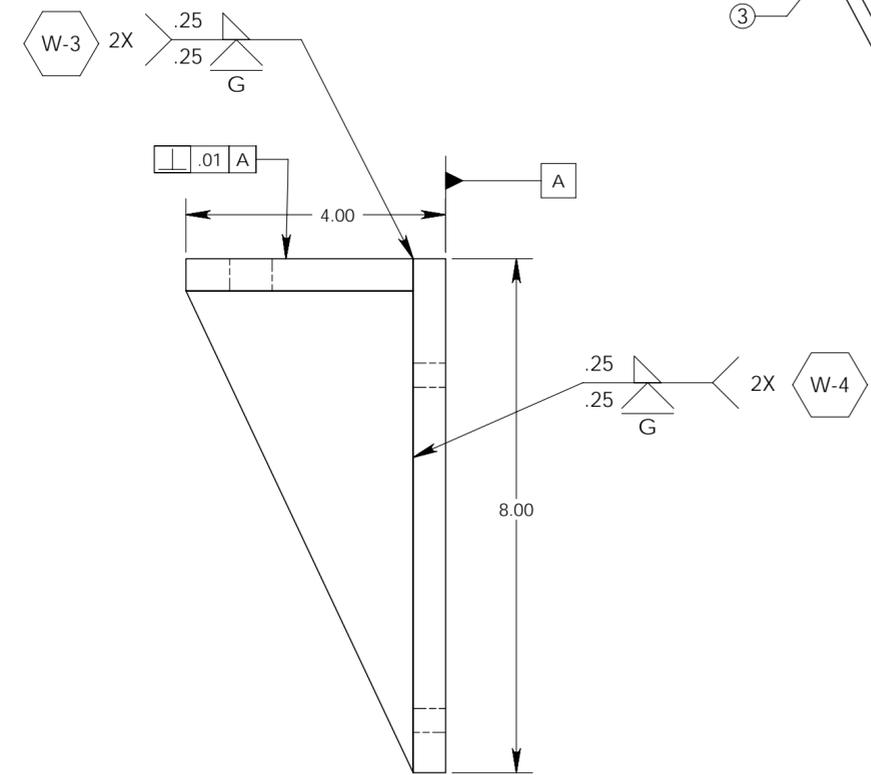
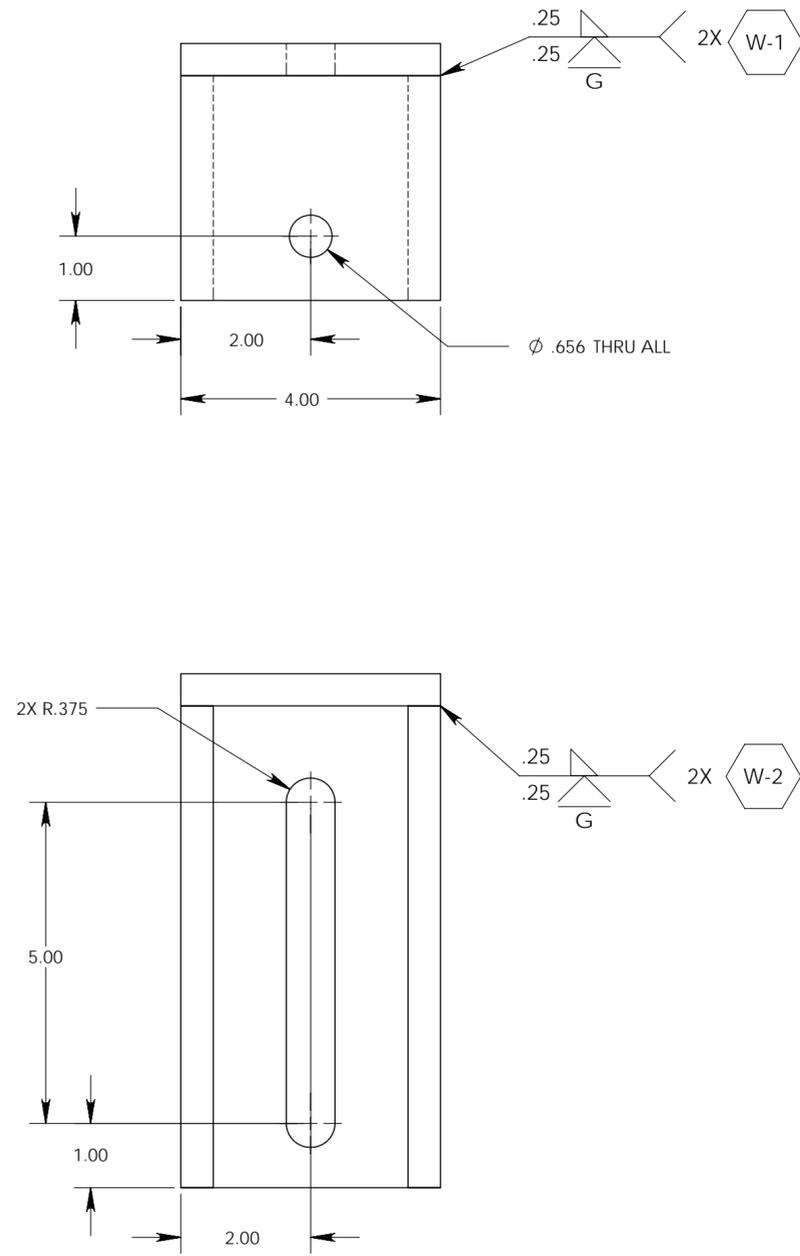
CAD FILE HYD JACK BASEPLATE HJT	PREV ASSY 203-HJT-0100	SCALE 1:2	SHEET 1 of 1
SIZE C	DWG NO. 203-HJT-0132	REV 0	

DWG NO. 203-HJT-0132

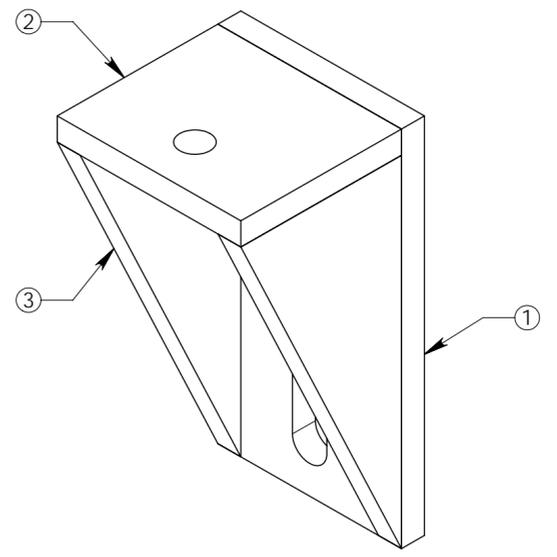


MATERIAL: CRS - 1018

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	07/21/2005	NUFACT HG JET EXPERIMENT COMMON BASEPLATE ASSY HYD JACK ROCKER			
DRW	T OQUIN	07/21/2005				
CHK	P SPAMPINATO	01/10/2006				
ENG	V GRAVES	07/21/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			HYD JACK ROCKER HJT	203-HJT-0100	1:1	1 of 1
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0133	0	



- NOTES
1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
 2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
 3. MATERIAL CERTIFICATIONS REQUIRED

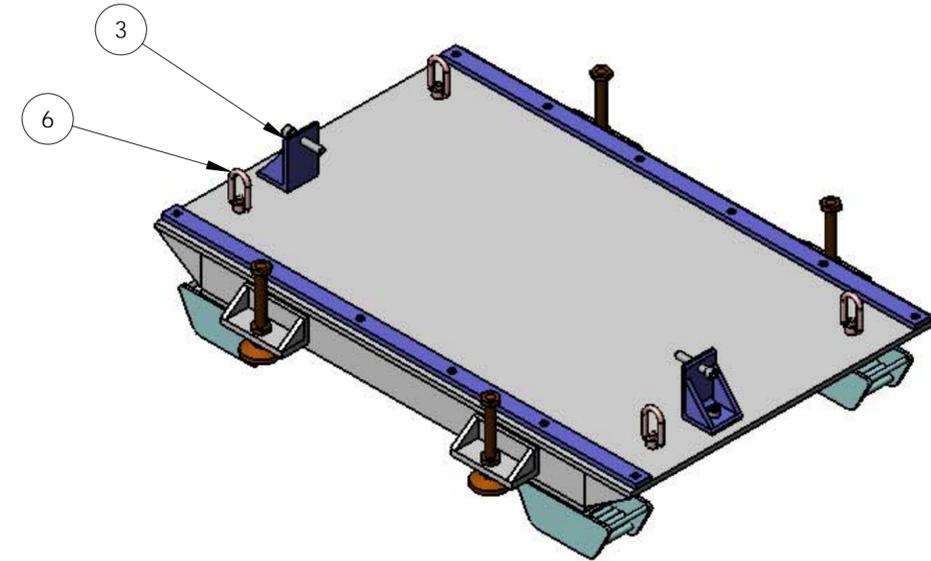
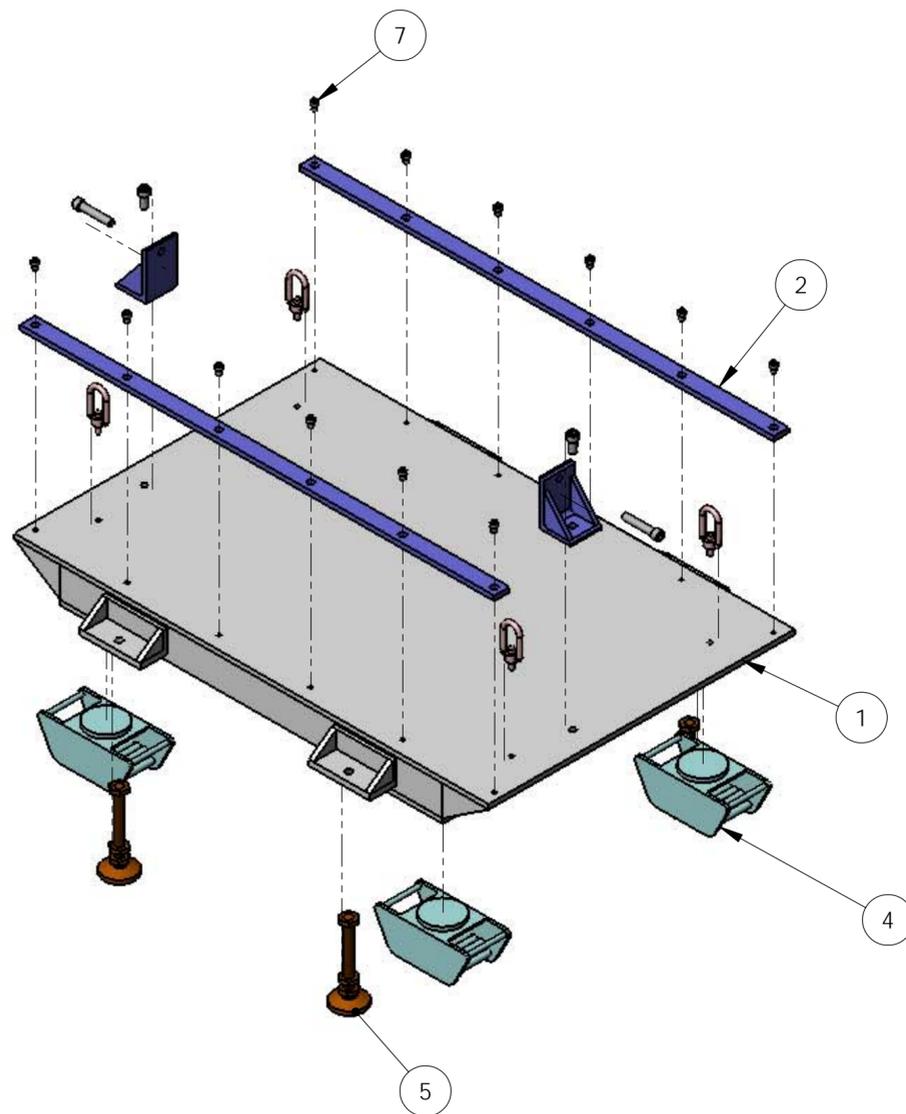


ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
3	2	PLATE, 3.50 x 7.50 x .50	AL 6061-T6511, ASTM B-221	7.50
2	1	PLATE, 3.50 x 4.00 x .50	AL 6061-T6511, ASTM B-221	3.50
1	1	PLATE, 4.00 x 8.00 x .50	AL 6061-T6511, ASTM B-221	8.00

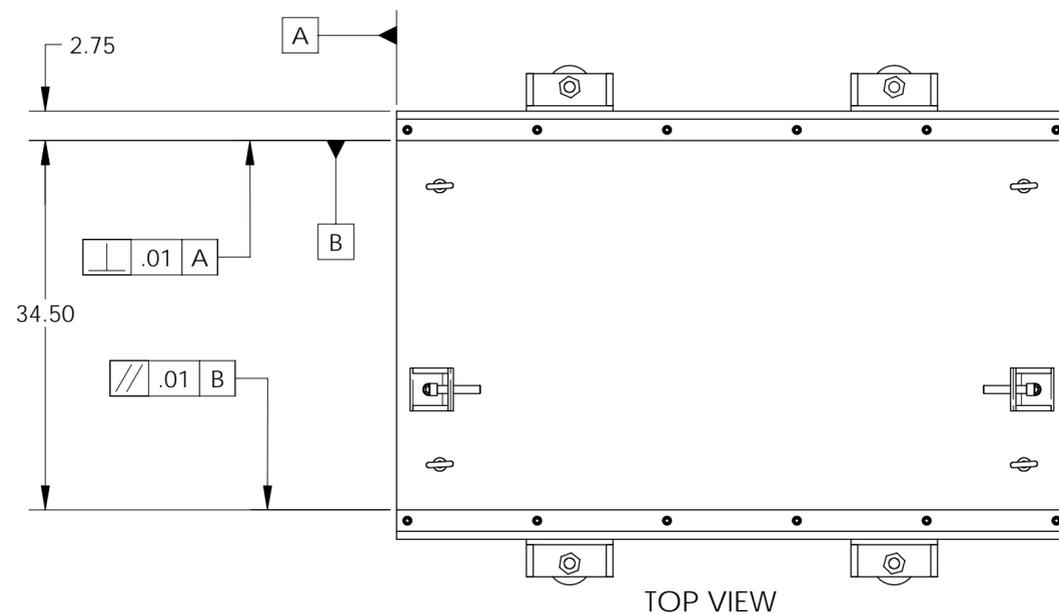
<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. WHOLE NUMBERS AND FRACTIONS ±1/16 9. X DECIMALS ±.030 10. XX DECIMALS ±.010 11. XXX DECIMALS ±.005 	DES	T. OQUIN	07/20/2005	<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p> <p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p> <p>MERIT EXPERIMENT COMMON BASEPLATE ASSY ANCHOR SUPPORT WELDMENT</p>
	DRW	T OQUIN	07/20/2005	
	CHK	P SPAMPINATO	01/10/2006	
	ENG	T. OQUIN	07/20/2005	
	QA			
DRAWING APPROVALS		DATE		<p>CAD FILE: HYD JACK WELDMENT HJT</p> <p>PREV ASSY: 203-HJT-0100</p> <p>SCALE: 1:2</p> <p>SHEET: 1 of 1</p> <p>SIZE: C</p> <p>DWG NO.: 203-HJT-0134</p> <p>REV: 0</p>

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



ESTIMATED WEIGHT 406 LBS WITH ROLLERS



TOP VIEW

ITEM	with Hilmans/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
7	12	HX-SHCS 0.5-13x0.625x0.625-N	SS - 18-8	SHCS - 1/2-13 x .63	N/A
6	4	swivel hoist ring hjt	ALLOY STEEL - MACHINED	McMASTER-CARR #3145T23	N/A
5	4	leveling foot hjt	SS - 303	S & W MFG. CO., Bensenville, IL, Phone 888-538-3548, #SSW-5G	N/A
4	1 kit	hilman hjt	---	HILMAN ROLLER #KRS-15-SLP	N/A
3	2	cart anchor assy hjt	---	CART ANCHOR ASSY	203-HJT-0120
2	2	flat rail hjt	SS - 316L	BAR - 2.00 X 62.00 X .63	203-HJT-0202
1	1	base weldment hjt	AL - 6061 T6	BASE WELDMENT	203-HJT-0201



THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

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OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

DES	V GRAVES	05/30/2005
DRW	T OQUIN	05/30/2005
CHK	P SPAMPINATO	01/10/2006
ENG	V GRAVES	05/30/2005

**MERIT EXPERIMENT
TARGET TRANSPORTER ASSY**

QA		
-	-	-

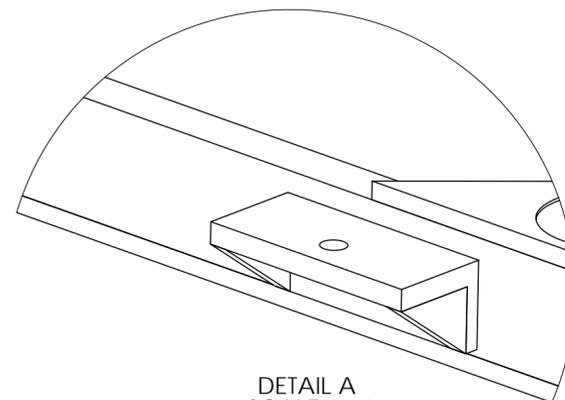
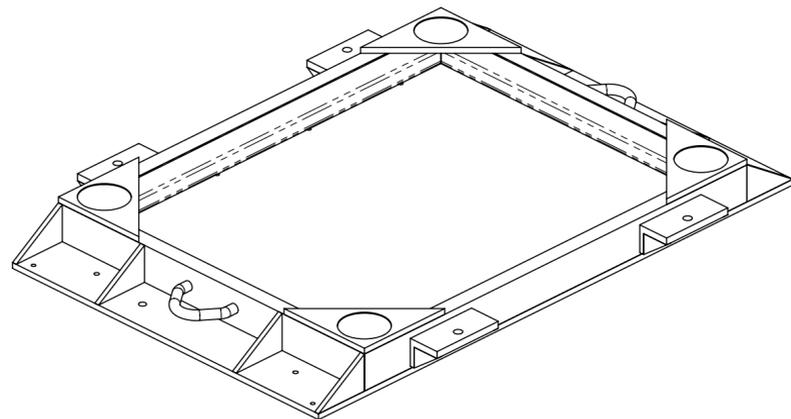
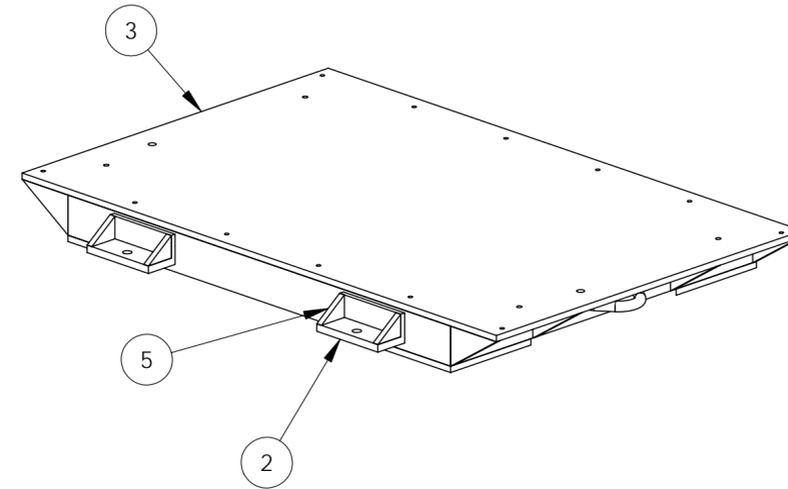
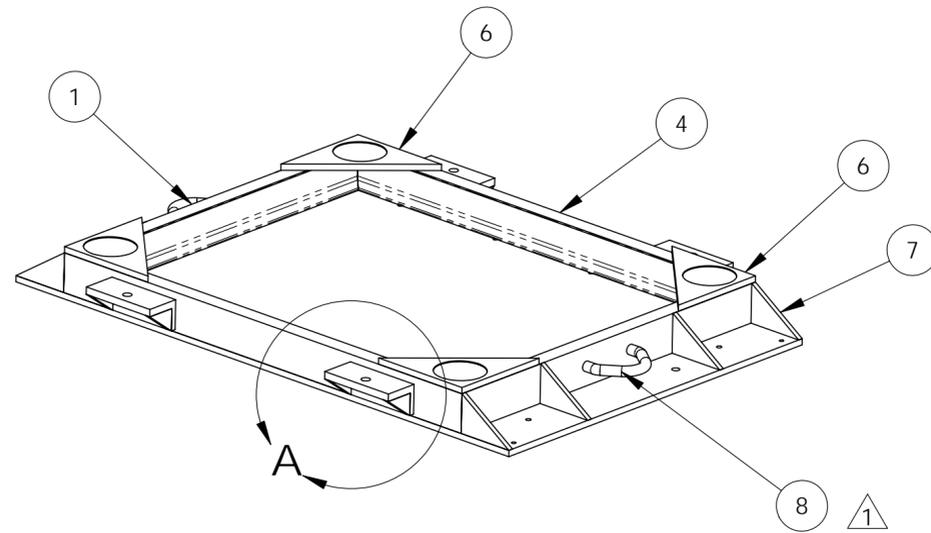
CAD FILE	PREV ASSY	SCALE	SHEET
TARGET TRANSPORTER ASSY HJT	203-HJT-0001	1:12	1 of 1
SIZE	DWG NO.	REV	
C	203-HJT-0200	0	

DRAWING APPROVALS

DATE

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



DETAIL A
SCALE 1 : 4

1

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
8	2	ROUND, 1.00 OD x 11.00	AL - 6061 T6, ASTM B-211	11.00
7	8	PLATE, 4.00 x 6.00 x .50	AL - 6061 T6511, ASTM B-221	---
6	4	PLATE, 10.50 x 10.50 x .63	AL - 6061 T651, ASTM B-209	---
5	8	PLATE - 3.00 x 2.25 x .63	AL - 6061 T6511, ASTM B-221	---
4	2	AMER STD "C", 4.00 X 1.72 X .32	AL - 6061 T6, ASTM B-308	50
3	1	PLATE, 40.00 x 62.00 x .63	AL - 6061 T651, ASTM B-209	62.00
2	4	ANGLE - 3.00 X 3.50 X .50	AL - 6061 T6511, ASTM B-221	8.00
1	2	AMER STD "C", 4.00 X 1.72 X .32	AL - 6061 T6, ASTM B-308	40



THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

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3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
6. FORMED ANGLES ±1°
7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

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OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



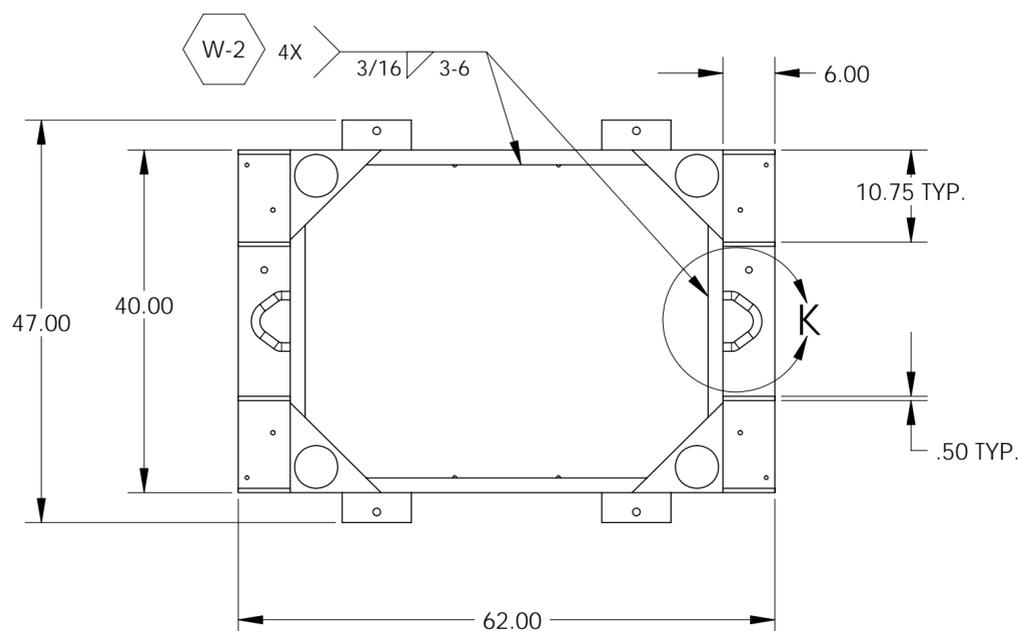
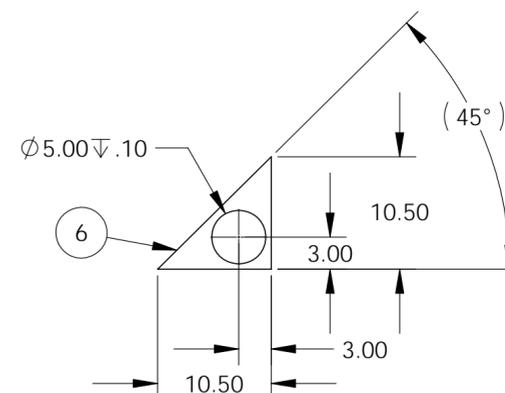
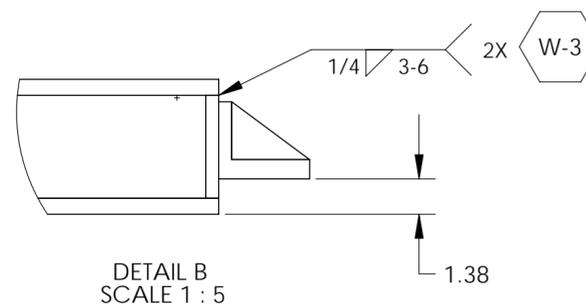
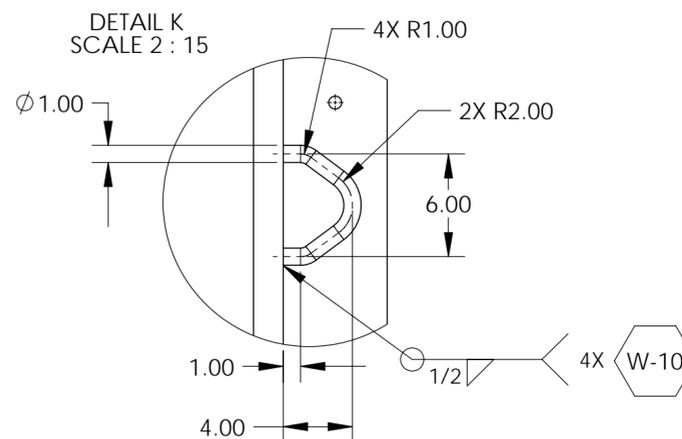
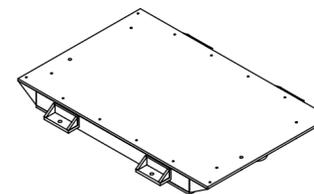
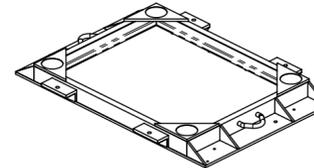
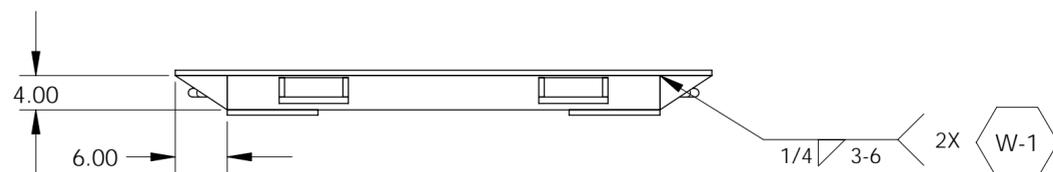
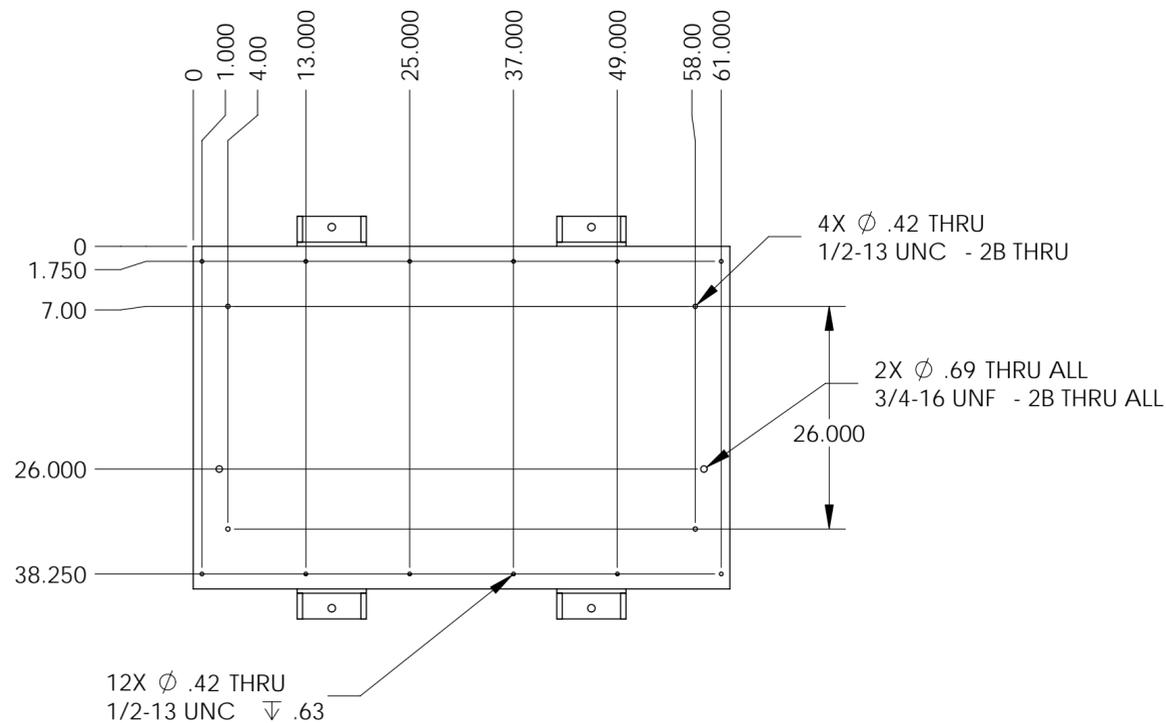
REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

DES	V GRAVES	12/10/2005
DRW	T OQUIN	12/10/2005
CHK	P SPAMPINATO	01/10/2006
ENG	V GRAVES	12/10/2005
QA		

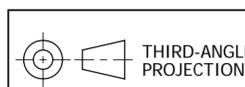
**MERIT EXPERIMENT
TARGET TRANSPORTER ASSY
TRANSPORTER BASE WELDMENT**

1	ADDED TOW HOOKS	5/9/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

CAD FILE	PREV ASSY	SCALE	SHEET
BASE WELDMENT HJT	203-HJT-0200	1:12	1 of 3
SIZE	DWG NO.		REV
C	203-HJT-0201		1



- NOTES
1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
 2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
 3. MATERIAL CERTIFICATIONS REQUIRED



- UNLESS OTHERWISE NOTED
1. ALL DIMENSIONS ARE IN INCHES
 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
 3. MACHINED FINISH 125 MICRO-INCHES RMS
 4. CONCENTRICITY .010 TIR
 5. MACHINED ANGLES \pm 1/2°
 6. FORMED ANGLES \pm 1°
 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
 8. WHOLE NUMBERS AND FRACTIONS \pm 1/16
 9. X DECIMALS \pm .030
 10. XX DECIMALS \pm .010
 11. XXX DECIMALS \pm .005

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DES	V GRAVES	12/10/2005
DRW	T OQUIN	12/10/2005
CHK	P SPAMPINATO	01/10/2006
ENG	V GRAVES	12/10/2005
QA		

oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

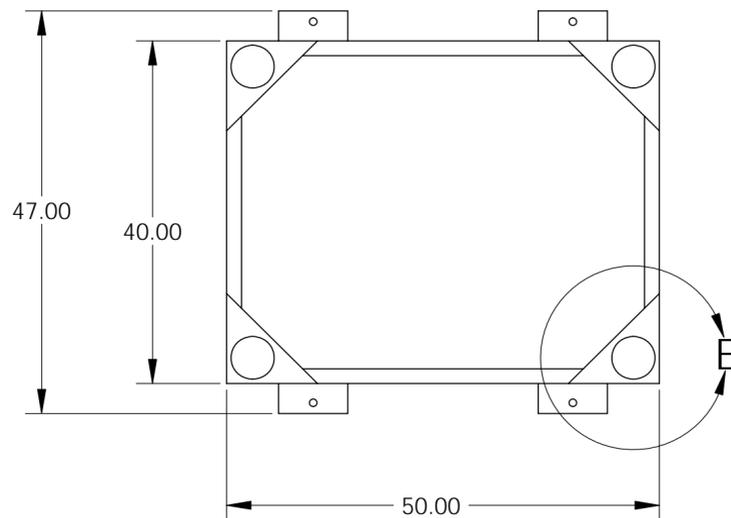
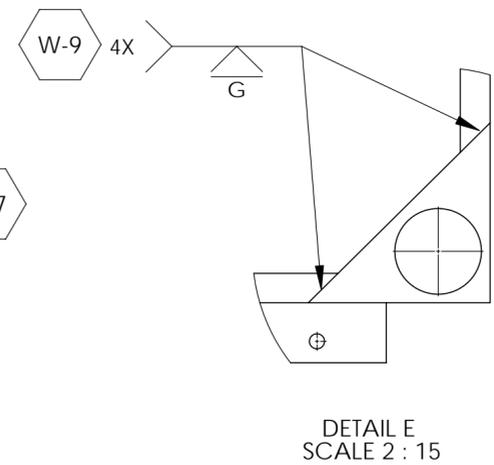
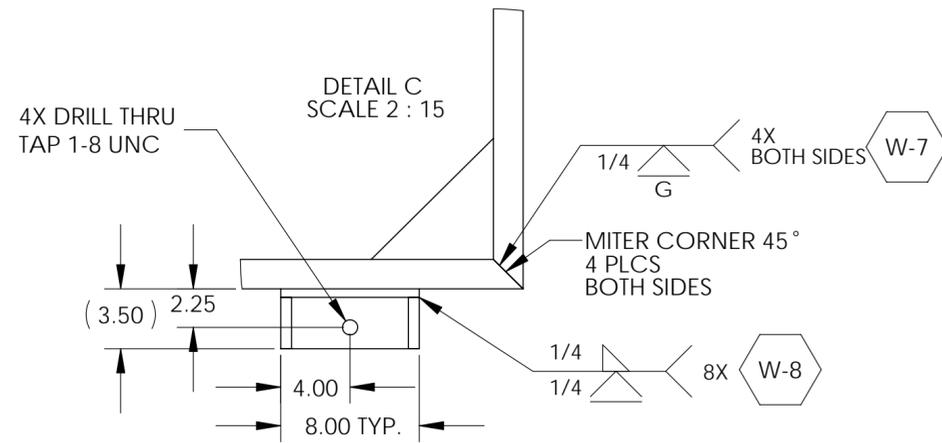
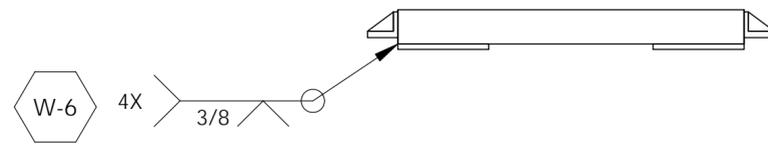
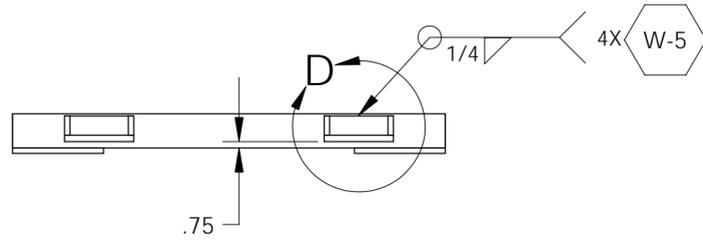
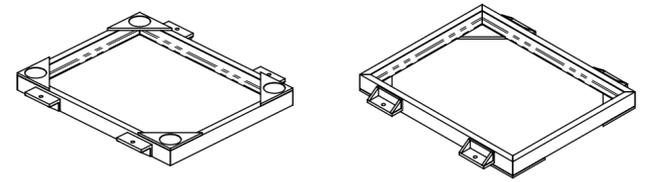
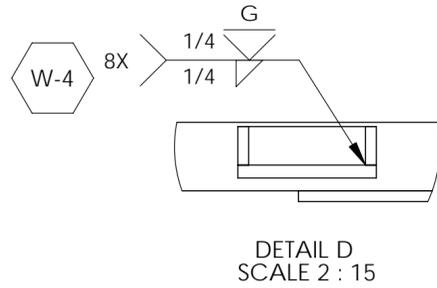
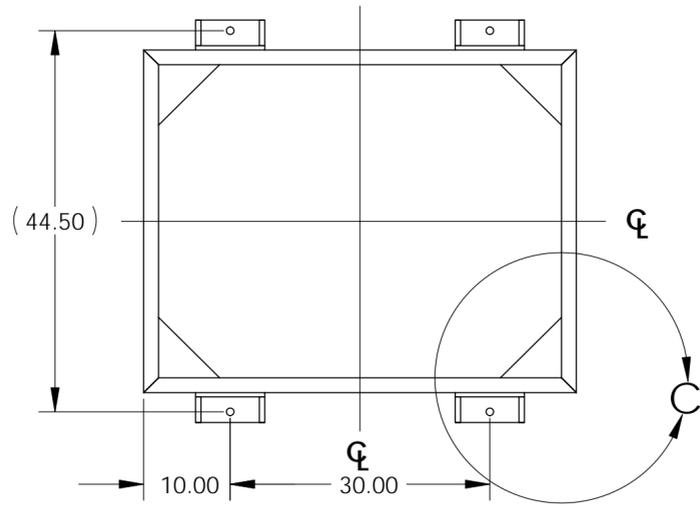
**MERIT EXPERIMENT
TARGET TRANSPORTER ASSY
TRANSPORTER BASE WELDMENT**

CAD FILE	PREV ASSY	SCALE	SHEET
BASE WELDMENT HJT	203-HJT-0200	1:15	2 of 3
SIZE	DWG NO.		REV
C	203-HJT-0201		1

DRAWING APPROVALS DATE

NOTES

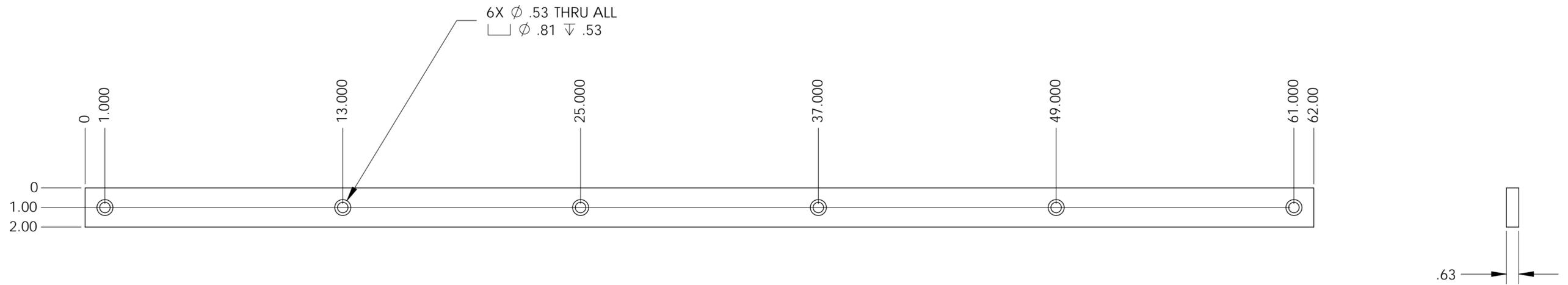
1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	12/10/2005	<p align="center">MERIT EXPERIMENT TARGET TRANSPORTER ASSY TRANSPORTER BASEPLATE WELDMENT</p>			
DRW	T OQUIN	12/10/2005				
CHK	P SPAMPINATO	01/10/2006				
ENG	V GRAVES	12/10/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			BASE WELDMENT HJT	203-HJT-0200	1:10	3 of 3
			SIZE	DWG NO.		REV
			C	203-HJT-0201		1
DRAWING APPROVALS		DATE				

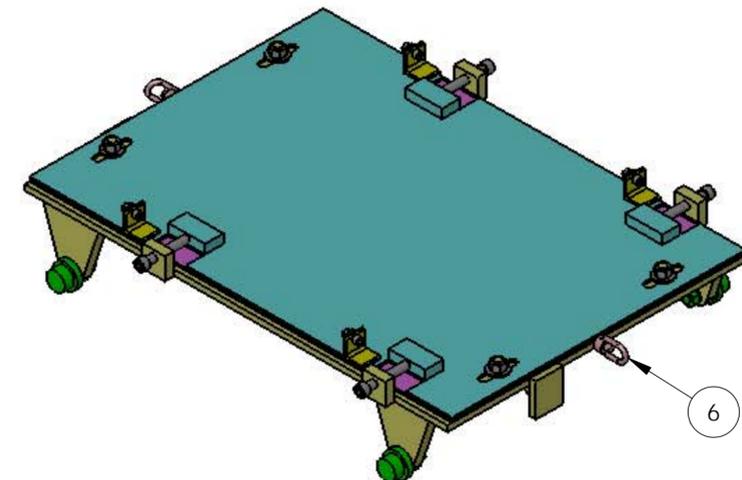
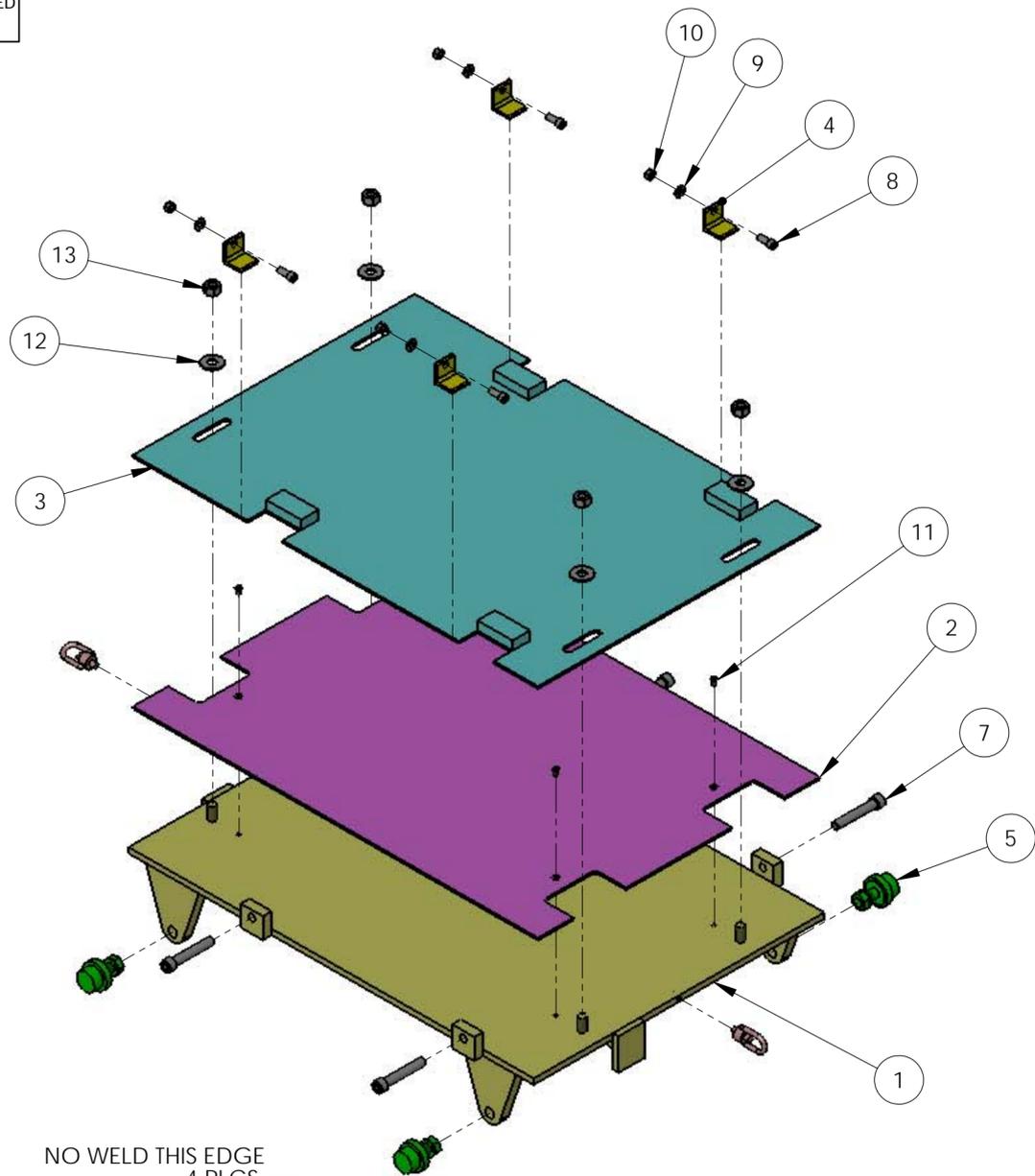
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



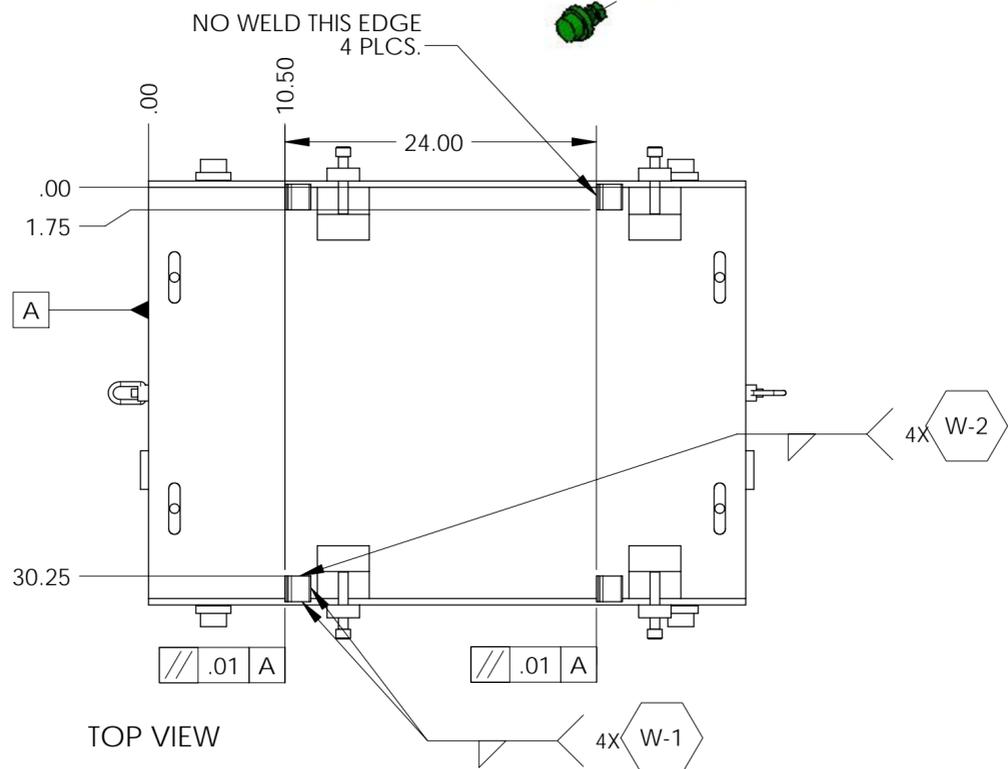
MATERIAL: SS - 316L

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
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DES V GRAVES 12/10/2005 DRW T OQUIN 12/10/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 12/10/2005 QA			<p align="center">MERIT EXPERIMENT TARGET TRANSPORTER ASSY FLAT RAIL - TRANSPORTER ASSY</p>			
DRAWING APPROVALS DATE						CAD FILE FLAT RAIL HJT
			SIZE C	DWG NO. 203-HJT-0202	REV 0	



ESTIMATED WEIGHT 176 LBS

- NOTES
1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
 2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
 3. MATERIAL CERTIFICATIONS REQUIRED



13	4	HHNUT 0.7500-10-D-N	SS - 18-8	HEX NUT - 3/4-10 UNC	N/A
12	4	FW 0.75	SS - 18-8	FLAT WASHER - 3/4"	N/A
11	4	CSBOLT 0.3125-18x0.625x0.625-S-N	SS - 18-8	FHMS - 5/16-18 UNC x 5/8	N/A
10	4	HNUT 0.5000-13-D-N	SS - 18-8	HEX NUT - 1/2-13 UNC	N/A
9	4	FW 0.5	SS - 18-8	FLAT WASHER - 1/2" NARROW	N/A
8	4	HX-SHCS 0.5-13x1.25x1.25-N	SS - 18-8	SHCS - 1/2-13 x 1.25	N/A
7	4	HX-SHCS 0.75-16x4.5x4.5-N	SS - 18-8	SHCS - 3/4-16 x 4.50	N/A
6	2	swivel hoist ring hjt	ALLOY STEEL - MACHINED	McMASTER-CARR #2949T32	N/A
5	4	track roller hjt	SS	TRACK ROLLER, MCMMASTER-CARR 2091K44	N/A
4	4	hg sys locating bkt hjt	AL - 6061 T6, ASTM B-308	AM STD AL ANGLE, 2" X 2" X 1/4"	203-HJT-0304
3	1	cart upper plate hjt	AL - 6061 T651, ASTM B-209	PLATE - 32" X 46" X 1/4"	203-HJT-0303
2	1	slick sheet hjt	UHMW	MCMMASTER CARR #8752K813	203-HJT-0302
1	1	cart lower plate hjt	AL - 6061 T651, ASTM B-209	PLATE - 32" X 46" X 1.25"	203-HJT-0301
ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG



UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

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DES	V GRAVES	06/03/2005
DRW	T OQUIN	06/03/2005
CHK	P SPAMPINATO	01/10/2006
ENG	V GRAVES	06/03/2005
QA		

DRAWING APPROVALS	DATE
C	

oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

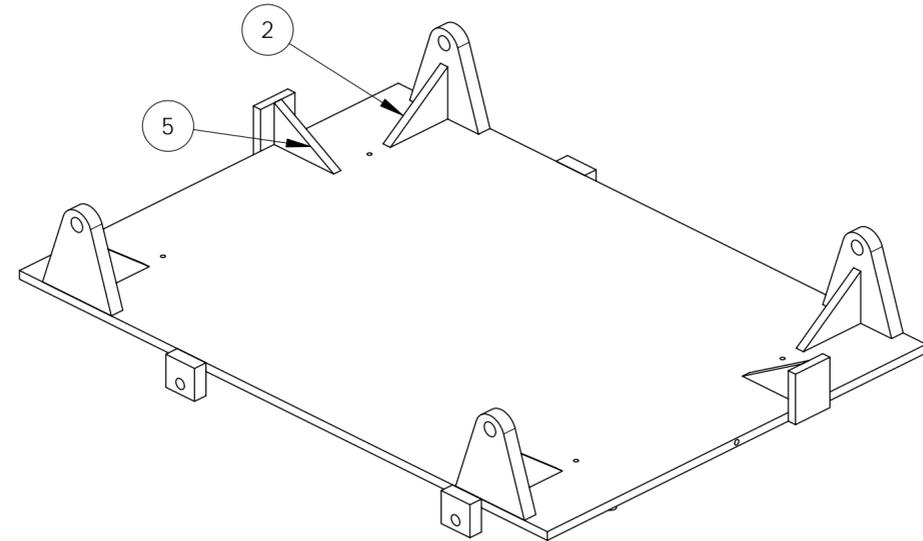
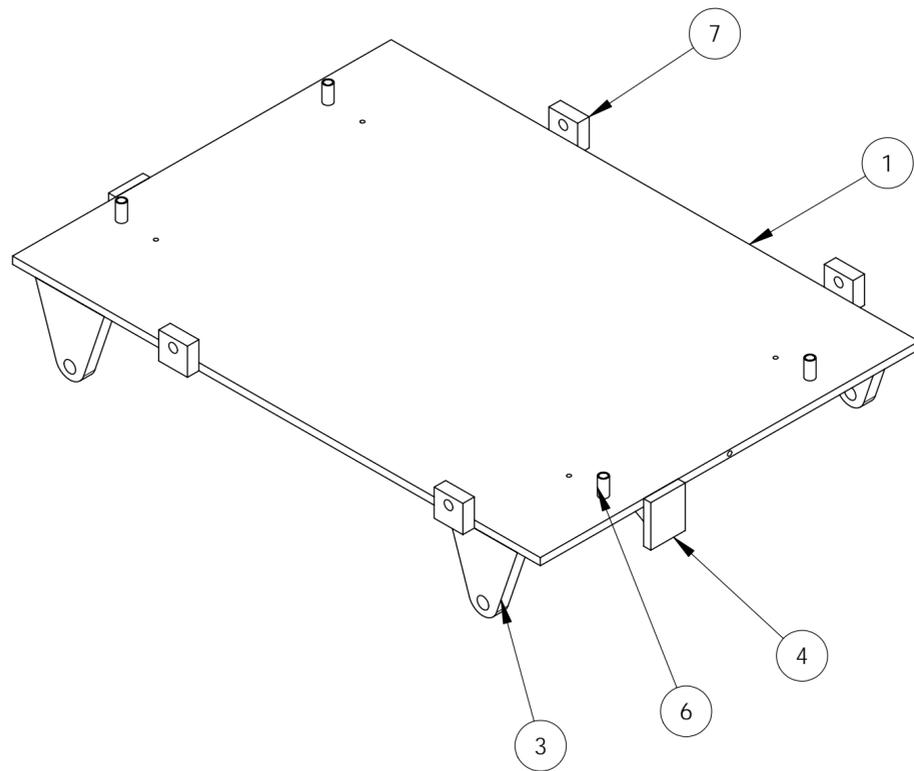
NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

**MERIT EXPERIMENT
TARGET CART ASSY**

CAD FILE	PREV ASSY	SCALE	SHEET
CART ASSY HJT	203-HJT-0001	1:10	1 of 1
SIZE	DWG NO.	REV	
C	203-HJT-0300	0	

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED

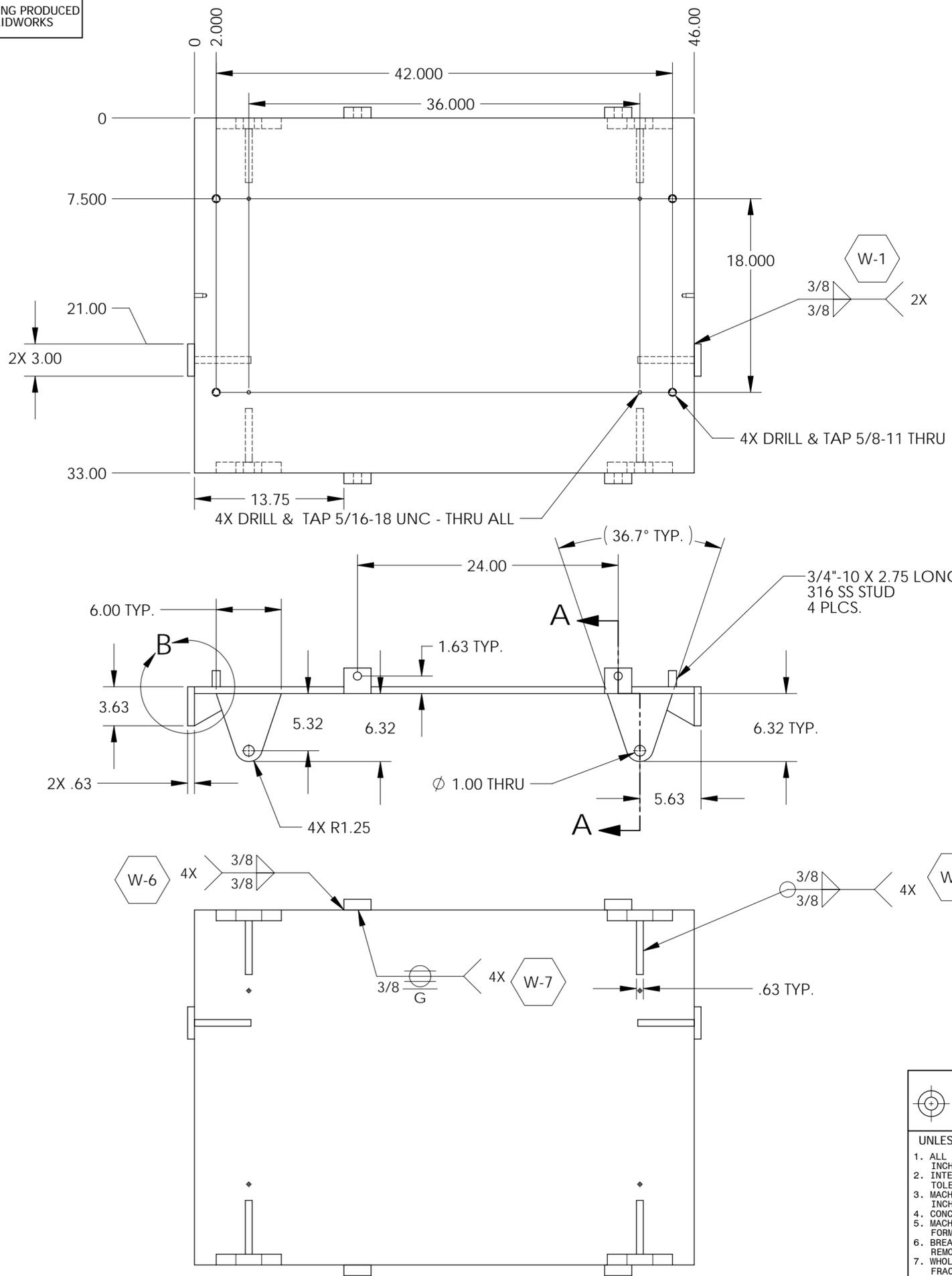


ESTIMATED WEIGHT 109 LBS

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
7	4	PLATE, 2.50" x 2.38" x 1.00"	AL - 6061 T651, ASTM B-209	2.38"
6	4	STUD, 3/4-10 UNC	SS - 8-18 ALL-THREAD	2.75"
5	2	PLATE, 3.00 x 5.20 x .63"	AL - 6061 T651, ASTM B-209	---
4	2	PLATE, 3.00 x 3.00 x .63"	AL - 6061 T651, ASTM B-209	---
3	4	PLATE, 6.32" x 6.00" x 1.00"	AL - 6061 T651, ASTM B-209	---
2	4	PLATE, 3.75" x 5.00" x .63"	AL - 6061 T651, ASTM B-209	---
1	1	PLATE, 33.00" x 46.00" x .63"	AL - 6061 T651, ASTM B-209	46.00"

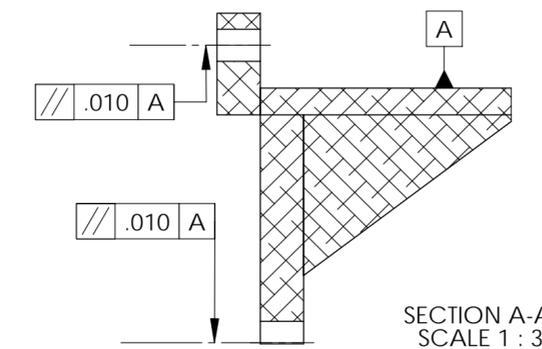
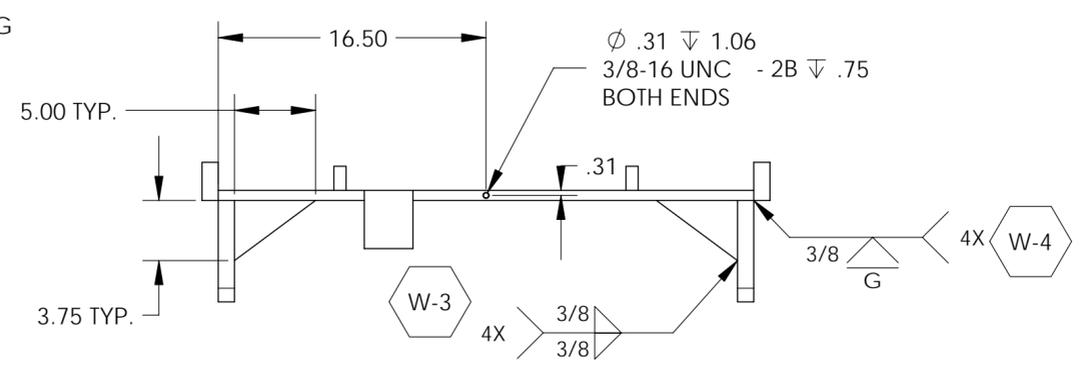
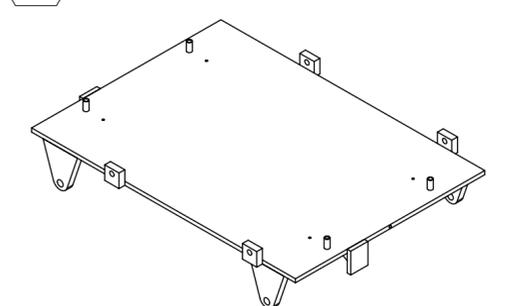
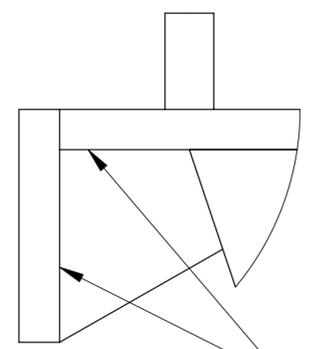
<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
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DES	V GRAVES	06/03/2005	MERIT EXPERIMENT TARGET CART ASSY CART LOWER PLATE WELDMENT			
DRW	T OQUIN	06/03/2005				
CHK	P SPAMPINATO	01/10/2006				
ENG	V GRAVES	06/03/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			CART LOWER PLATE HJT	203-HJT-0300	1:8	1 of 2
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0301	0	

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
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3. MATERIAL CERTIFICATIONS REQUIRED

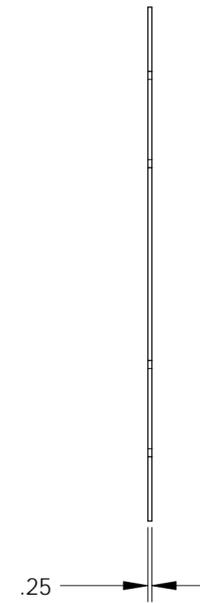
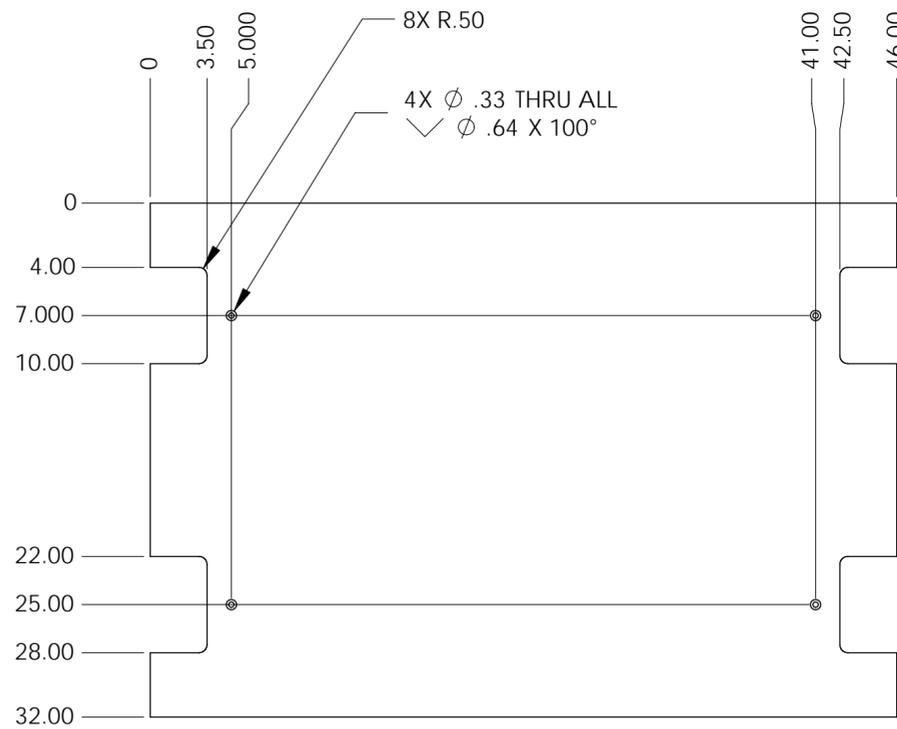
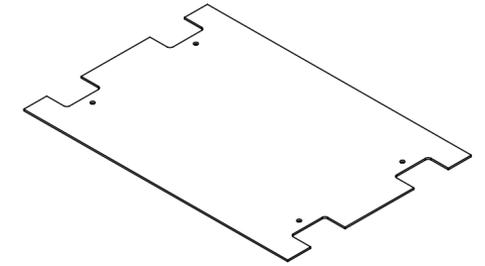


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	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005 			
<p>DES V GRAVES 06/03/2005</p> <p>DRW T OQUIN 06/03/2005</p> <p>CHK P SPAMPINATO 01/10/2006</p> <p>ENG V GRAVES 06/03/2005</p> <p>QA</p>		<p>MERIT EXPERIMENT TARGET CART ASSY CART LOWER PLATE WELDMENT</p>		
<p>CAD FILE CART LOWER PLATE HJT</p>		<p>PREV ASSY 203-HJT-0300</p>	<p>SCALE 1:8</p>	<p>SHEET 2 of 2</p>
<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>SIZE DWG NO. C 203-HJT-0301</p>	<p>REV 0</p>

DWG NO. 203-HJT-0301

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED

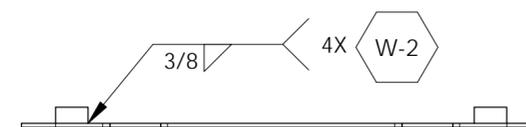
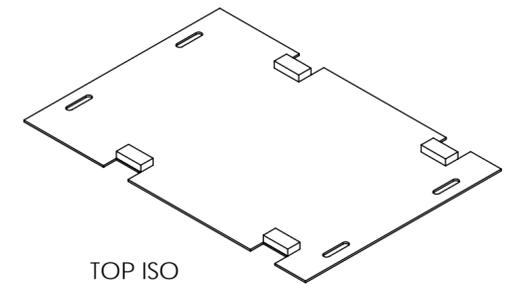
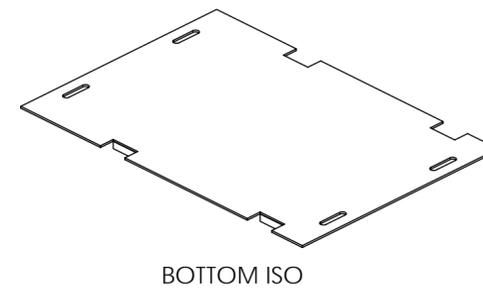
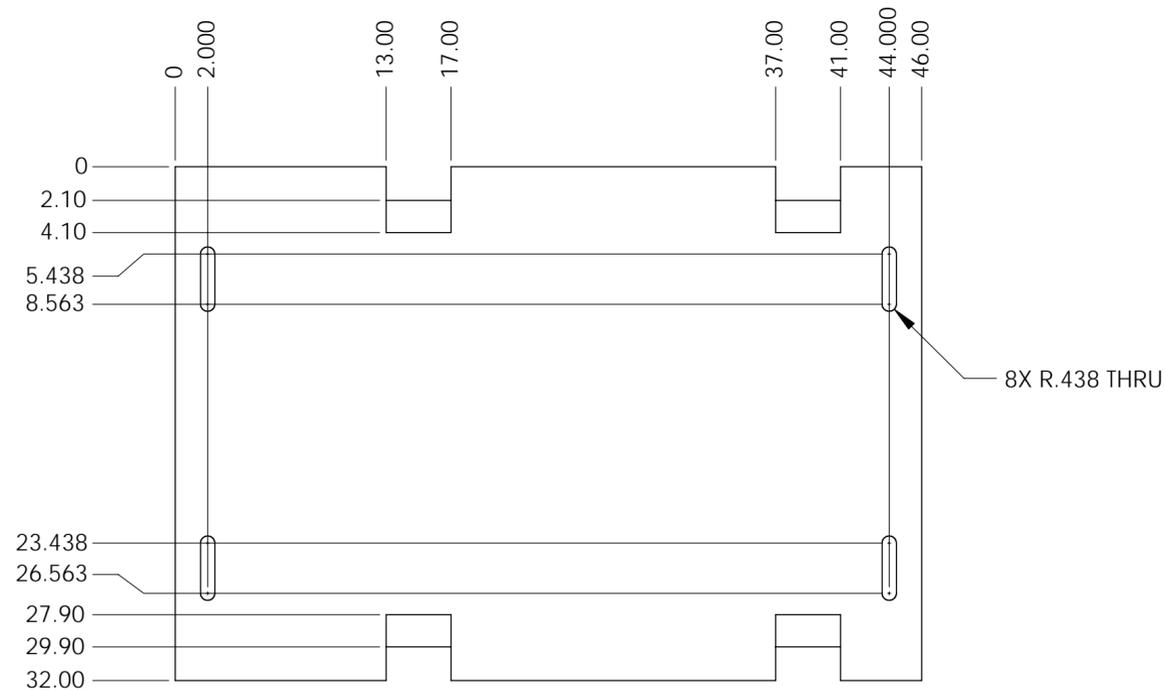


MATERIAL: UHMW

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DES V GRAVES 06/03/2005 DRW T OQUIN 06/03/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 06/03/2005 QA			<p>MERIT EXPERIMENT TARGET CART ASSY CART SHEET</p>		
DRAWING APPROVALS DATE					CAD FILE SLICK SHEET HJT SIZE DWG NO.
			203-HJT-0302		0

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED

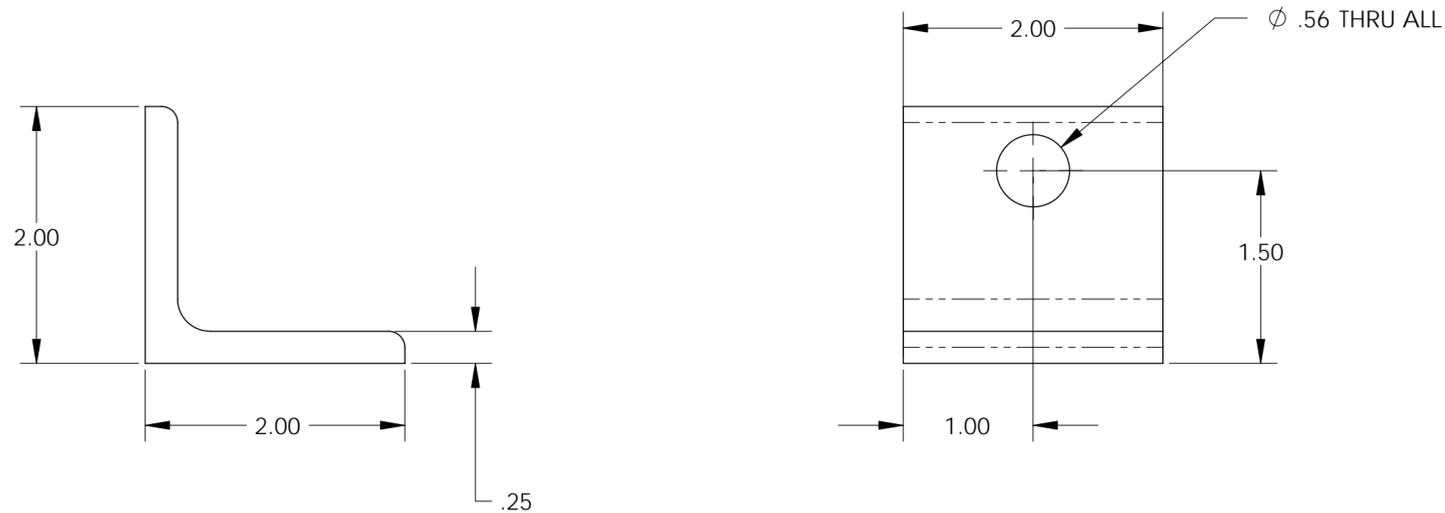
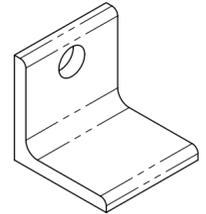


ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
2	4	BLOCK	AL - 6061 T6	
1	1	PLATE, 32.00 x 46.00 x .25	AL - 6061-T651, ASTM B-209	46.00

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>FORMED ANGLES ±1°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	DES	V GRAVES	06/03/2005	<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p> <p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p> <p>MERIT EXPERIMENT TARGET CART ASSY UPPER PLATE WELDMENT</p>
	DRW	T OQUIN	06/03/2005	
	CHK	P SPAMPINATO	01/10/2006	
	ENG	V GRAVES	06/03/2005	
	QA			
<p>CAD FILE: CART UPPER PLATE HJT</p> <p>PREV ASSY: 203-HJT-0300</p> <p>SCALE: 1:8</p> <p>SHEET: 1 of 1</p>			<p>SIZE: C</p> <p>DWG NO.: 203-HJT-0303</p> <p>REV: 0</p>	
DRAWING APPROVALS		DATE		

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED

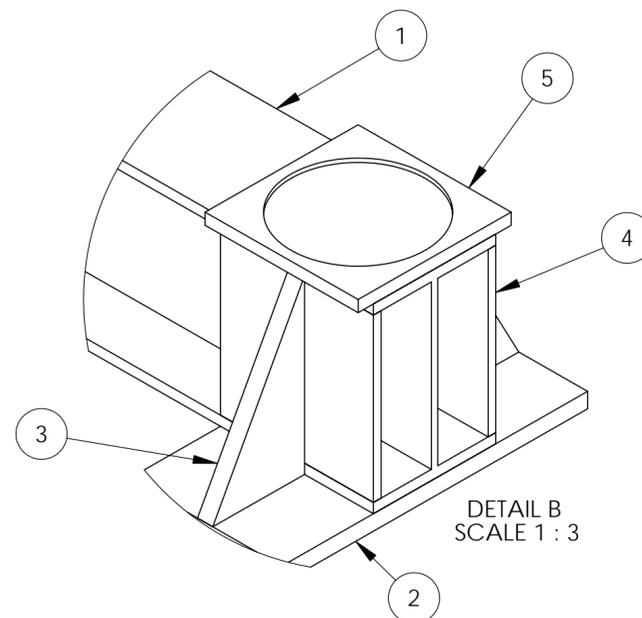
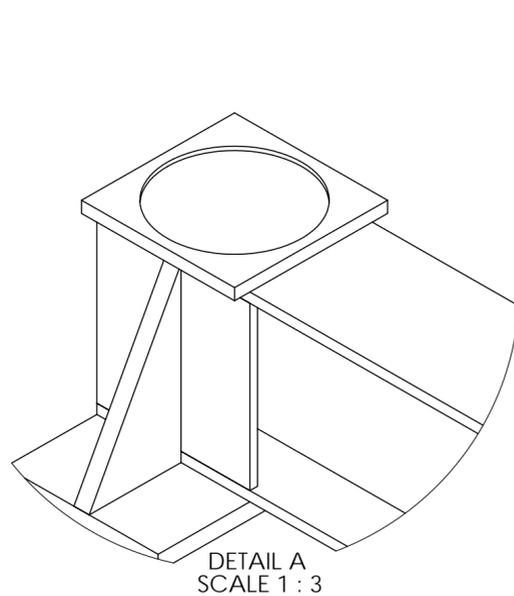
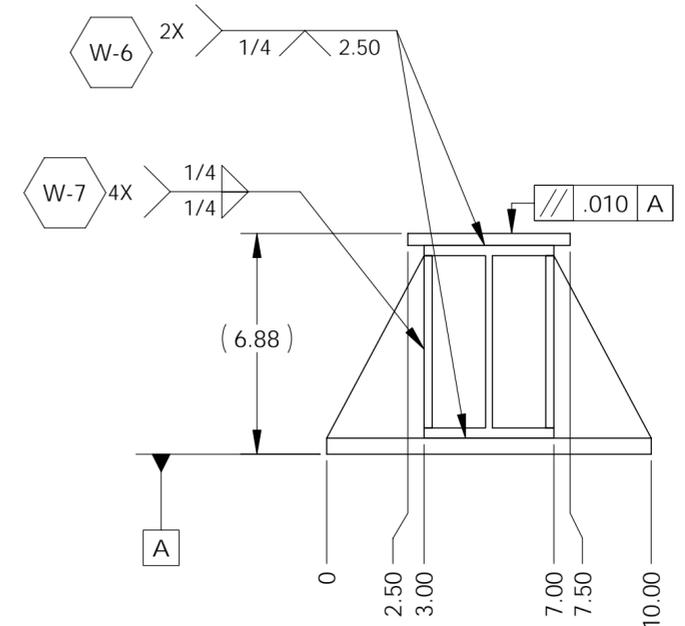
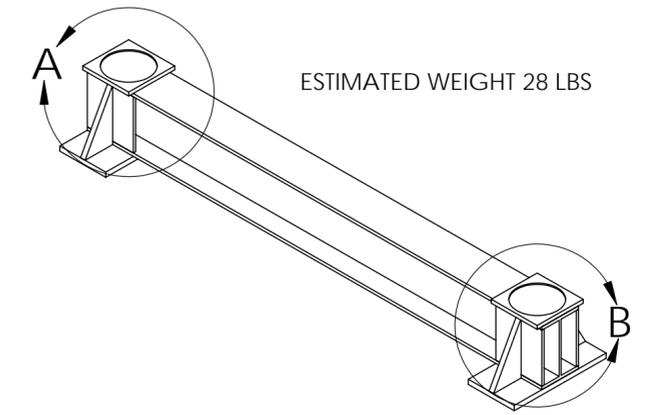
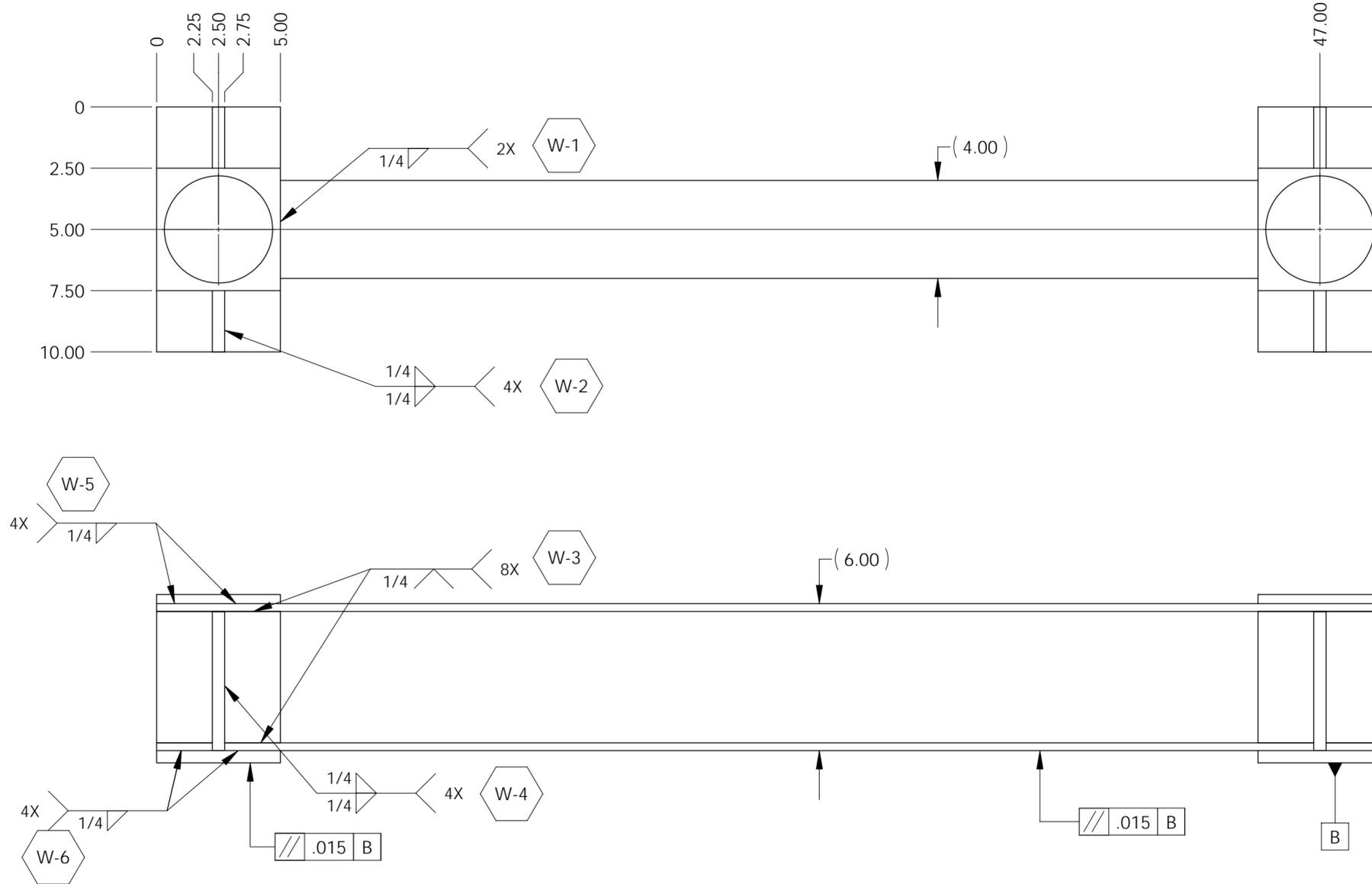


MATERIAL: AL - 6061 T6, ASTM B-308

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
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DES V GRAVES 06/03/2005 DRW T OQUIN 06/03/2005 CHK P SPAMPINATO 01/10/2006 ENG V GRAVES 06/03/2005 QA			<p align="center">MERIT EXPERIMENT TARGET CART ASSY HG SYS LOCATING BKT</p>		
DRAWING APPROVALS DATE			CAD FILE HG SYS LOCATING BKT HJT SIZE C	PREV ASSY 203-HJT-0300 DWG NO. 203-HJT-0304	SCALE 1:1 SHEET 1 of 1 REV 0

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
5	2	PLATE, 5.00 x 5.00 x .38	AL 6061 T651, ASTM B-209	5.00
4	4	PLATE, 5.68 x 5.00 x .25	AL 6061 T651, ASTM B-209	5.00
3	4	PLATE, 3.00 x 5.68 x .50	AL 6061 T651, ASTM B-209	---
2	2	PLATE, 5.00 x 10.00 x .50	AL 6061 T651, ASTM B-209	10.00
1	1	I-BEAM, ALUM. ASSOC. 6.00 x 4.00 x .21	AL 6061-T6, ASTM B-308	49.50

THIRD-ANGLE PROJECTION

- UNLESS OTHERWISE NOTED
1. ALL DIMENSIONS ARE IN INCHES
 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
 3. MACHINED FINISH 125 MICRO-INCHES RMS
 4. CONCENTRICITY .010 TIR
 5. MACHINED ANGLES ±1/2°
 6. FORMED ANGLES ±1°
 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
 8. FRACTIONS ±1/16
 9. X DECIMALS ±.030
 10. XX DECIMALS ±.010
 11. XXX DECIMALS ±.005

This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.

oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

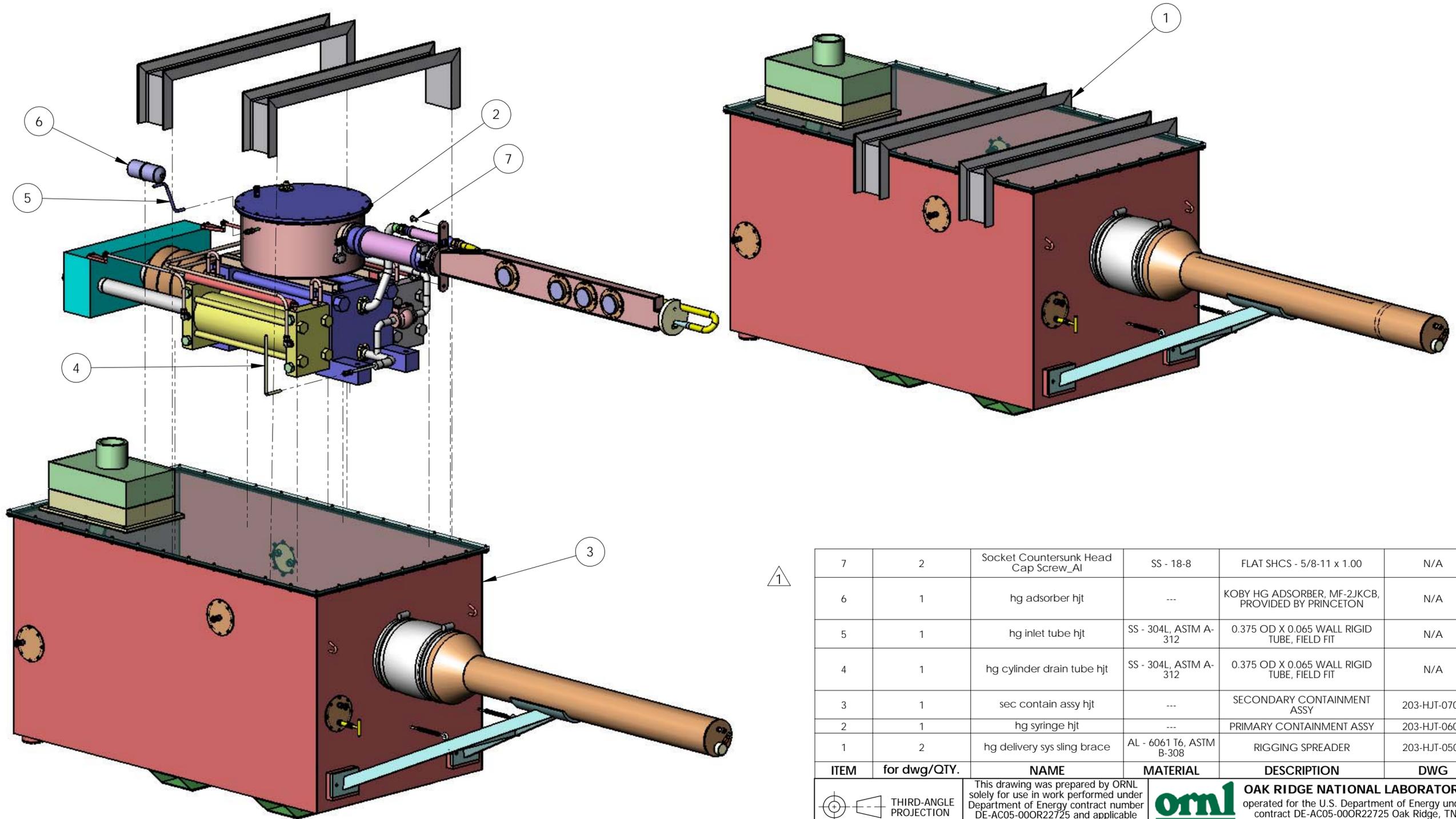
NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

MERIT EXPERIMENT
MAGNET END SUPPORT WELDMENT

CAD FILE	PREV ASSY	SCALE	SHEET
MAGNET END SUPPORT HJT	203-HJT-0001	1:4	1 of 1
SIZE	DWG NO.	REV	
C	203-HJT-0400	0	

DRAWING APPROVALS DATE

NOTE:
HG ADSORBER (ITEM 7) ATTACHED TO SIDE WALL OF CONTAINMENT BOX WITH SS STRAPS. FLEX TUBING CONNECTS ADSORBER TO SUMP TANK CHKVALVE AND LID-MOUNTED FILTER



ITEM	for dwg/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
7	2	Socket Countersunk Head Cap Screw_Al	SS - 18-8	FLAT SHCS - 5/8-11 x 1.00	N/A
6	1	hg adsorber hjt	---	KOBY HG ADSORBER, MF-2JKCB, PROVIDED BY PRINCETON	N/A
5	1	hg inlet tube hjt	SS - 304L, ASTM A-312	0.375 OD X 0.065 WALL RIGID TUBE, FIELD FIT	N/A
4	1	hg cylinder drain tube hjt	SS - 304L, ASTM A-312	0.375 OD X 0.065 WALL RIGID TUBE, FIELD FIT	N/A
3	1	sec contain assy hjt	---	SECONDARY CONTAINMENT ASSY	203-HJT-0700
2	1	hg syringe hjt	---	PRIMARY CONTAINMENT ASSY	203-HJT-0600
1	2	hg delivery sys sling brace	AL - 6061 T6, ASTM B-308	RIGGING SPREADER	203-HJT-0501

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

- ALL DIMENSIONS ARE IN INCHES
- INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
- MACHINED FINISH 125 MICRO-INCHES RMS
- CONCENTRICITY .010 TIR
- MACHINED ANGLES ±1/2°
FORMED ANGLES ±1°
- BREAK SHARP CORNERS AND REMOVE ALL BURRS
- WHOLE NUMBERS AND FRACTIONS ±1/16
X DECIMALS ±.030
XX DECIMALS ±.010
XXX DECIMALS ±.005

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DES	V GRAVES	06/04/2005
DRW	T OQUIN	06/04/2005
CHK	P SPAMPINATO	02/07/2006
ENG	V GRAVES	06/04/2005
QA		

oak ridge national laboratory
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB
REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

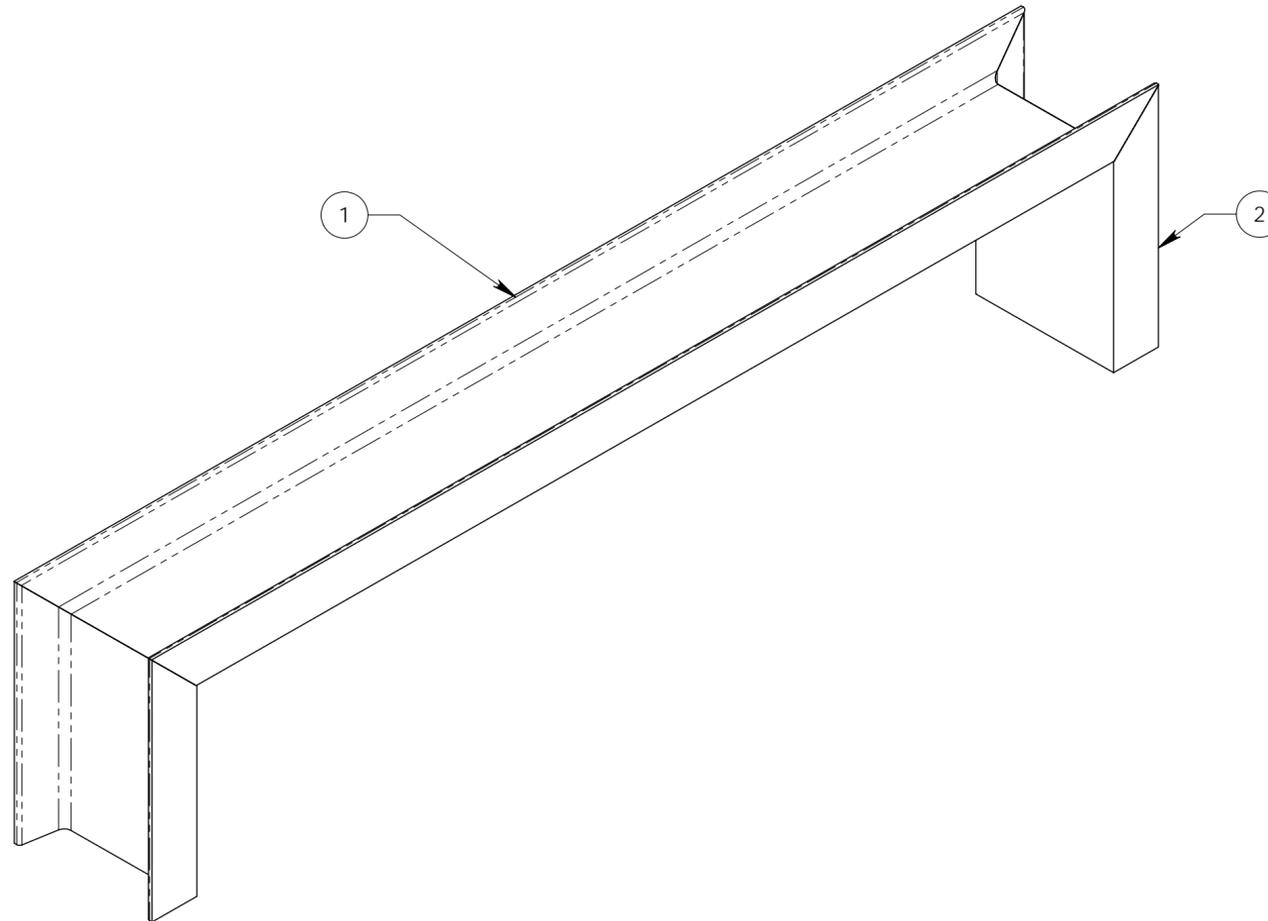
**MERIT EXPERIMENT
HG TARGET SYSTEM ASSY
HG DELIVERY SYSTEM ASSY**

CAD FILE	PREV ASSY	SCALE	SHEET
HG DELIVERY SYSTEM HJT	203-HJT-0001	1:12	1 of 1
SIZE	DWG NO.	REV	
C	203-HJT-0500	1	

1	ADDED HG ADSORBER	3/2/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



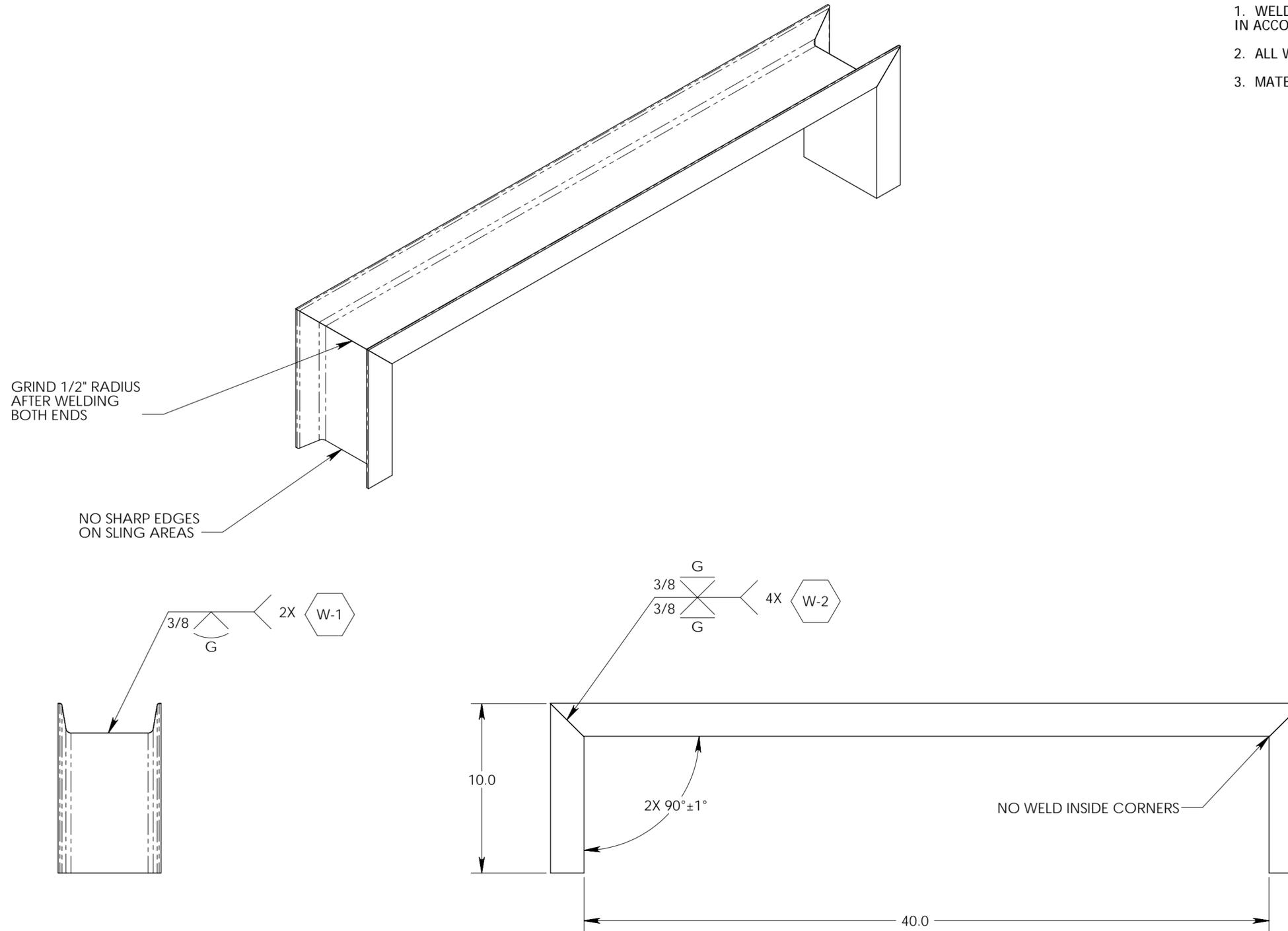
ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
2	2	AMER STD "C", 6.00 x 1.95 x .20	AL - 6061 T6, ASTM B-308	10.00
1	1	AMER STD "C", 6.00 x 1.95 x .20	AL - 6061 T6, ASTM B-308	43.90

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
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DES	V GRAVES	07/29/2005	MERIT EXPERIMENT HG DELIVERY SYSTEM ASSY HG DELIVERY SYS SLING BRACE			
DRW	T OQUIN	07/29/2005				
CHK						
ENG	V GRAVES	07/29/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			HG DELIVERY SYS SLING BRACE	203-HJT-0500	1:4	1 of 2
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0501	0	

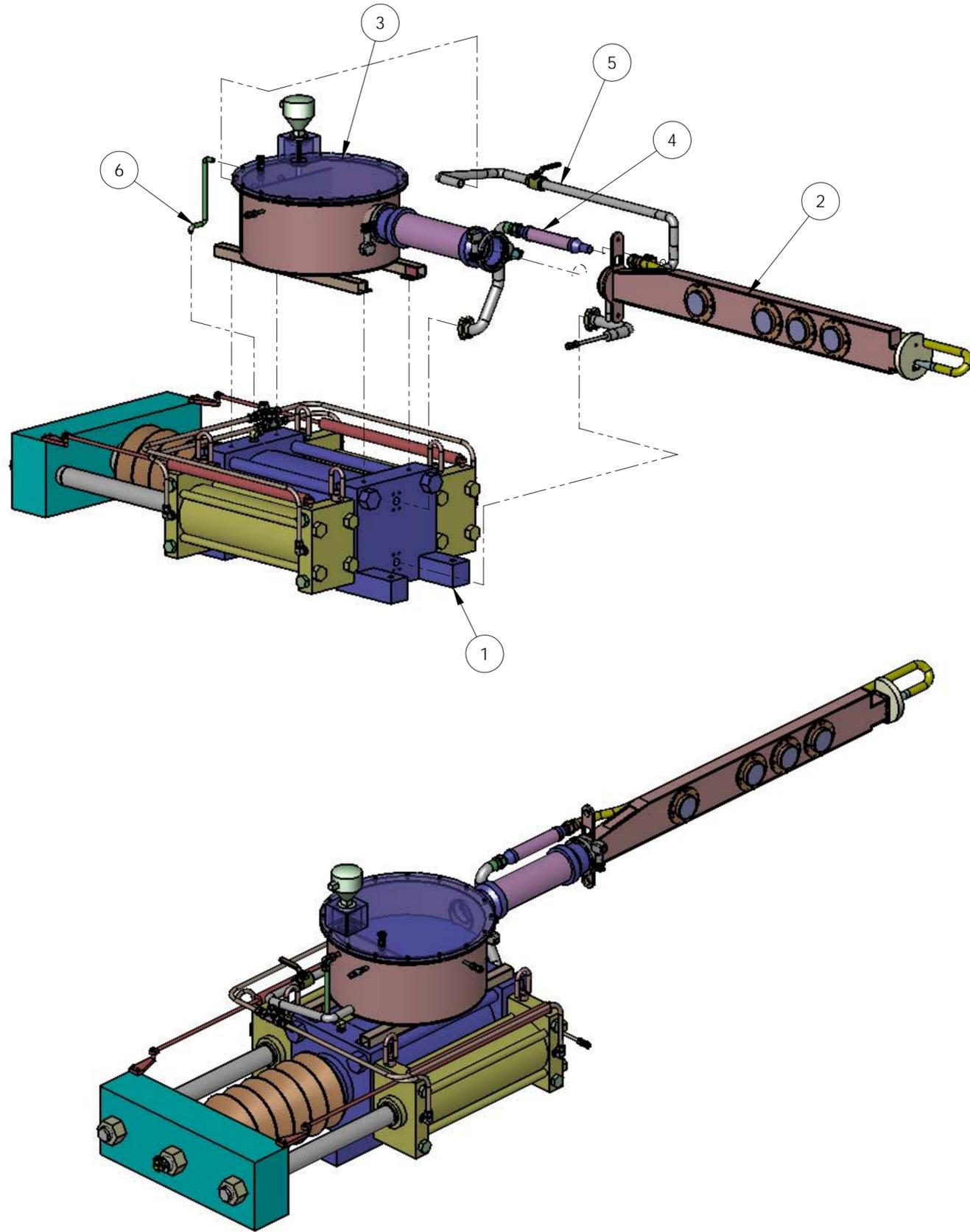
DWG NO. 203-HJT-0501

NOTES

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2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED



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-	-	-																					
		MERIT EXPERIMENT HG DELIVERY SYSTEM ASSY HG DELIVERY SYS SLING BRACE																					
		CAD FILE HG DELIVERY SYS SLING BRACE	PREV ASSY 203-HJT-0500	SCALE 1:5	SHEET 2 of 2																		
		SIZE C	DWG NO. 203-HJT-0501		REV 0																		
		DRAWING APPROVALS	DATE																				

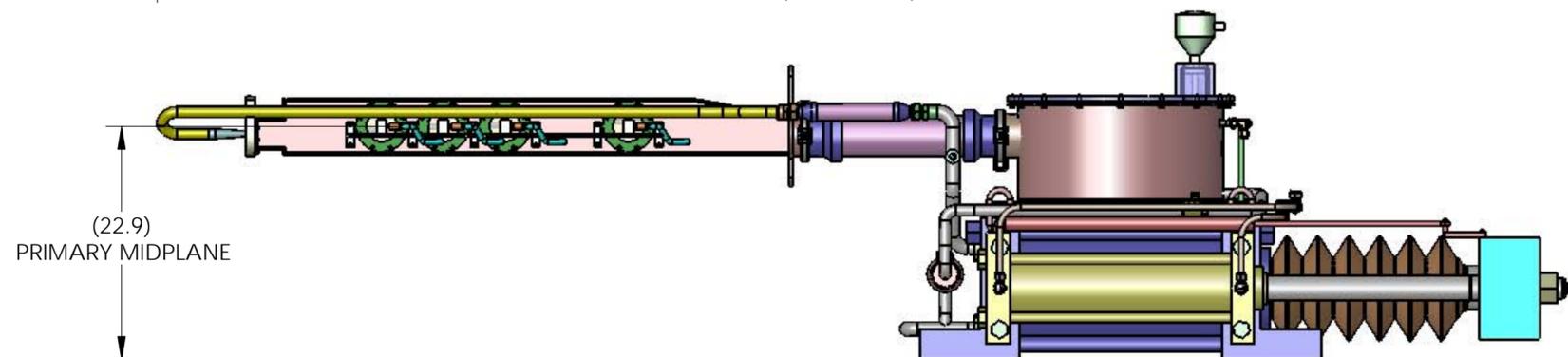
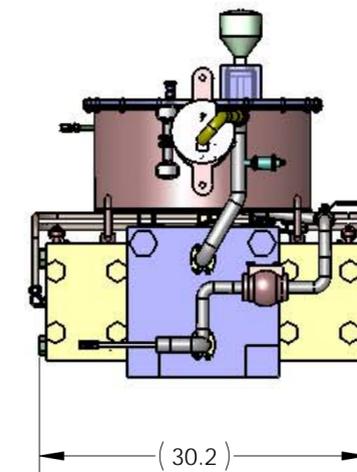
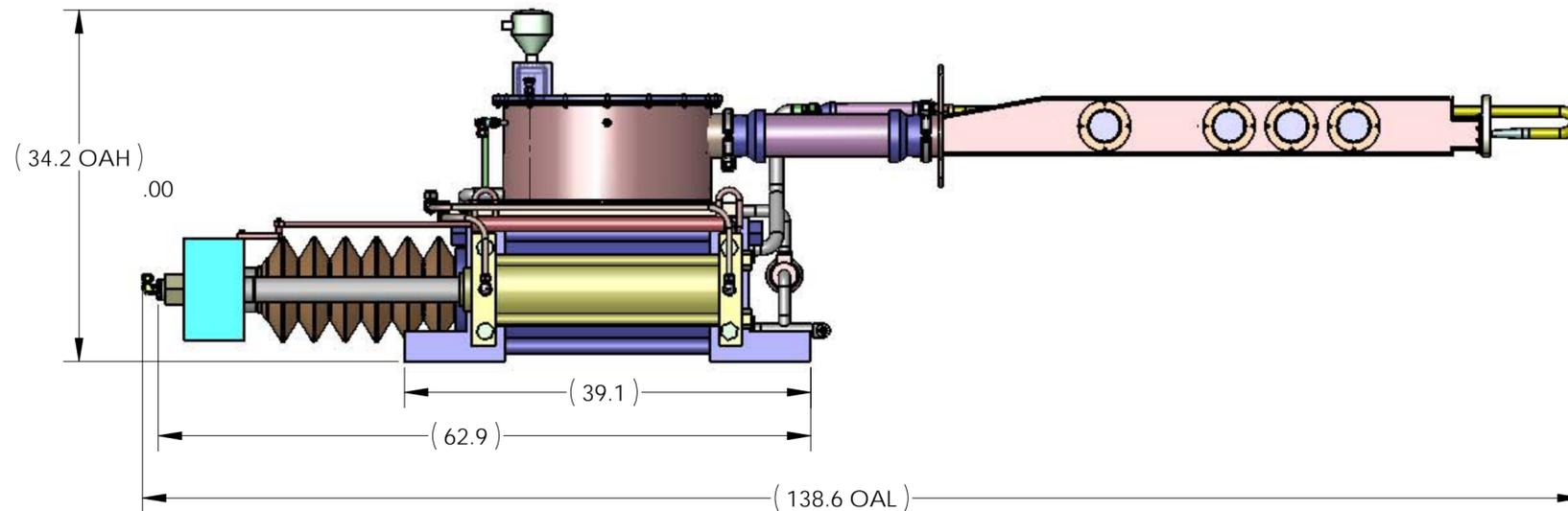
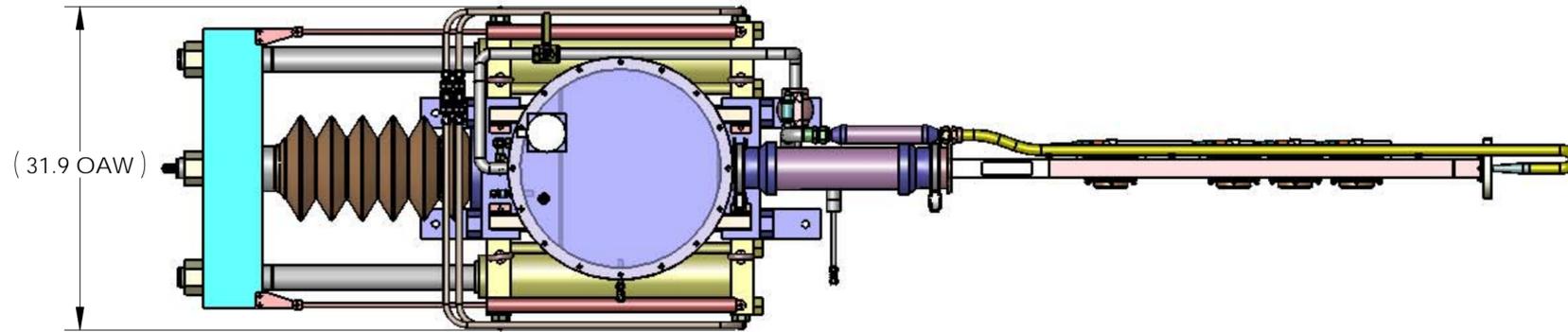


ESTIMATED WEIGHT (WITHOUT HG) 1930 LBS

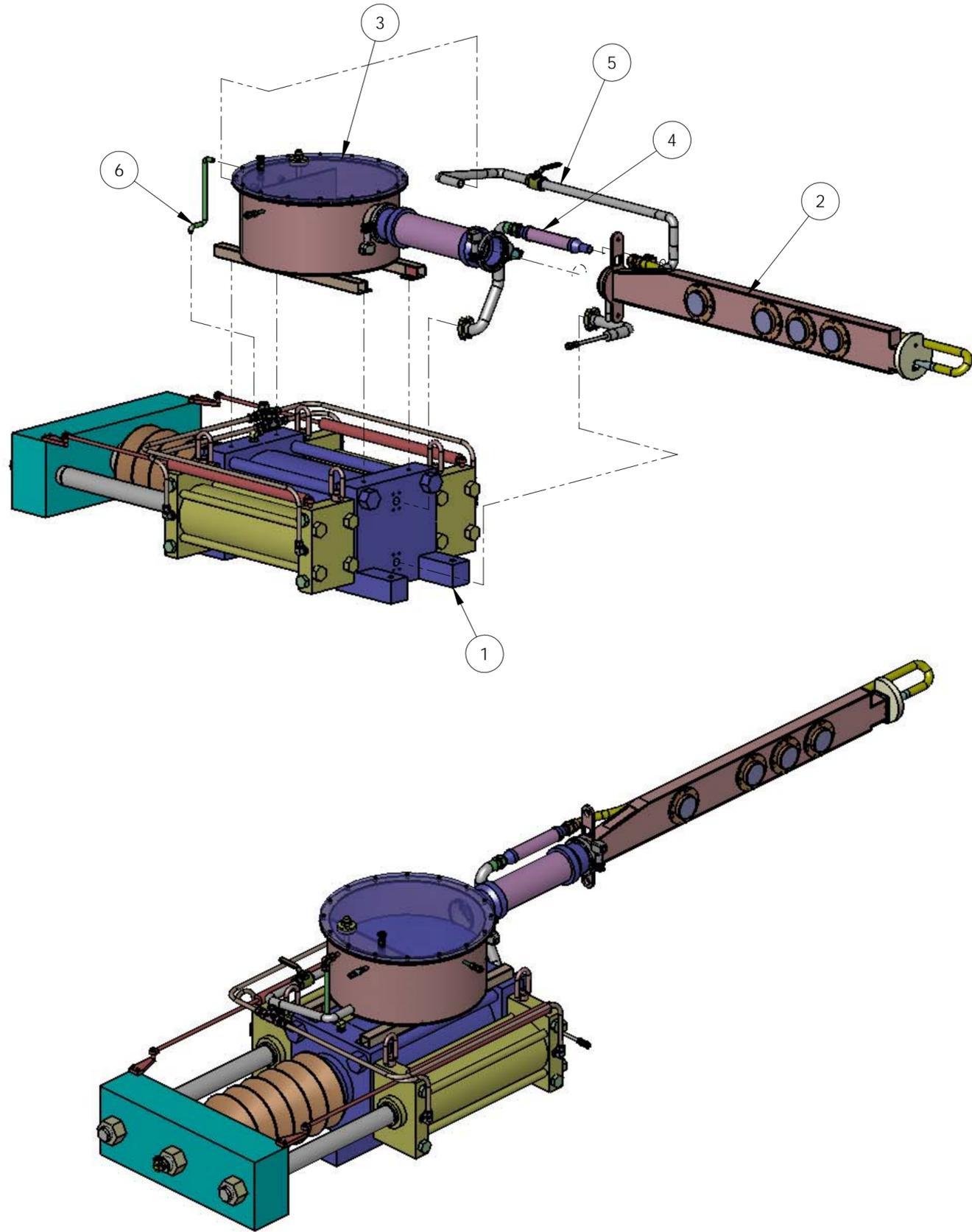
ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
6	1	hg cylinder vent tube	SS - 304L, ASTM A-269	RIGID TUBING, 0.38 OD X 0.065 WALL, FIELD FIT	N/A
5	1	hg inlet assy hjt	---	HG SYRINGE INLET PIPING	203-HJT-0680
4	1	hg discharge assy hjt	---	HG SYRINGE DISCHARGE PIPING	203-HJT-0670
3	1	sump tank assy hjt	---	HG SUMP TANK ASSY	203-HJT-0640
2	1	pri tube assy hjt	---	PRIMARY HG TUBE ASSY	203-HJT-0610
1	1	syringe cylinder assy hjt	---	PROVIDED BY AIRLINE HYDRAULICS	N/A

<p>THIRD-ANGLE PROJECTION</p>		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
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DES	V GRAVES	06/04/2005	CAD FILE	PREV ASSY	SCALE
DRW	T OQUIN	06/04/2005	HG SYRINGE HJT	203-HJT-0500	1:12
CHK	P SPAMPINATO	01/31/2006	SIZE		SHEET
ENG	V GRAVES	06/04/2005	DWG NO.		1 of 2
QA					REV
-	-	-			0
DRAWING APPROVALS		DATE	203-HJT-0600		

NOTE: SYRINGE STROKE 15 INCH



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DRW	T OQUIN	06/04/2005				
CHK	P SPAMPINATO	01/31/2006				
ENG	V GRAVES	06/04/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			HG SYRINGE HJT	203-HJT-0500	1:12	2 of 2
			SIZE	DWG NO.		REV
			C	203-HJT-0600		0
DRAWING APPROVALS		DATE				



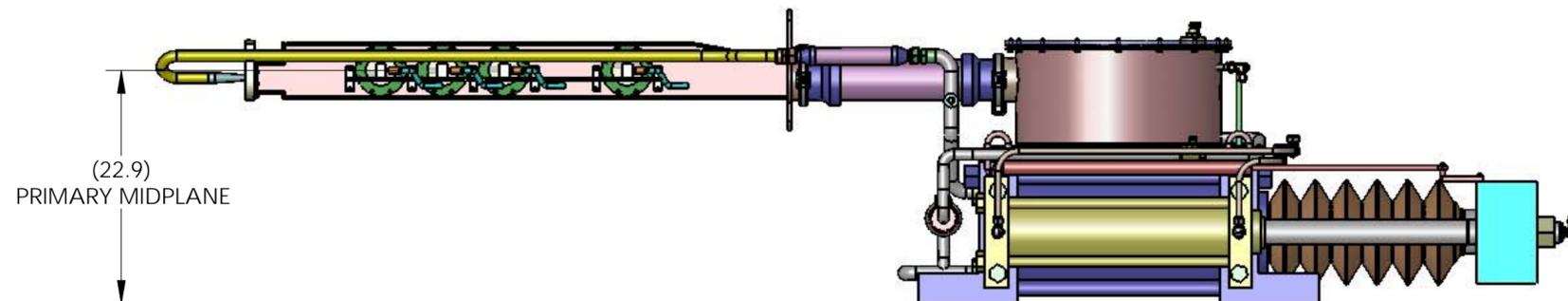
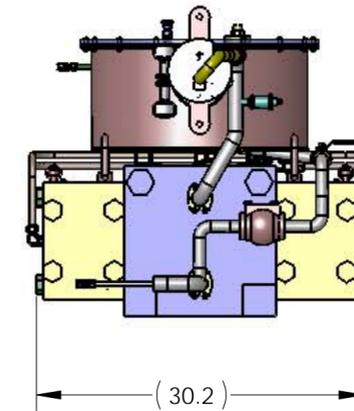
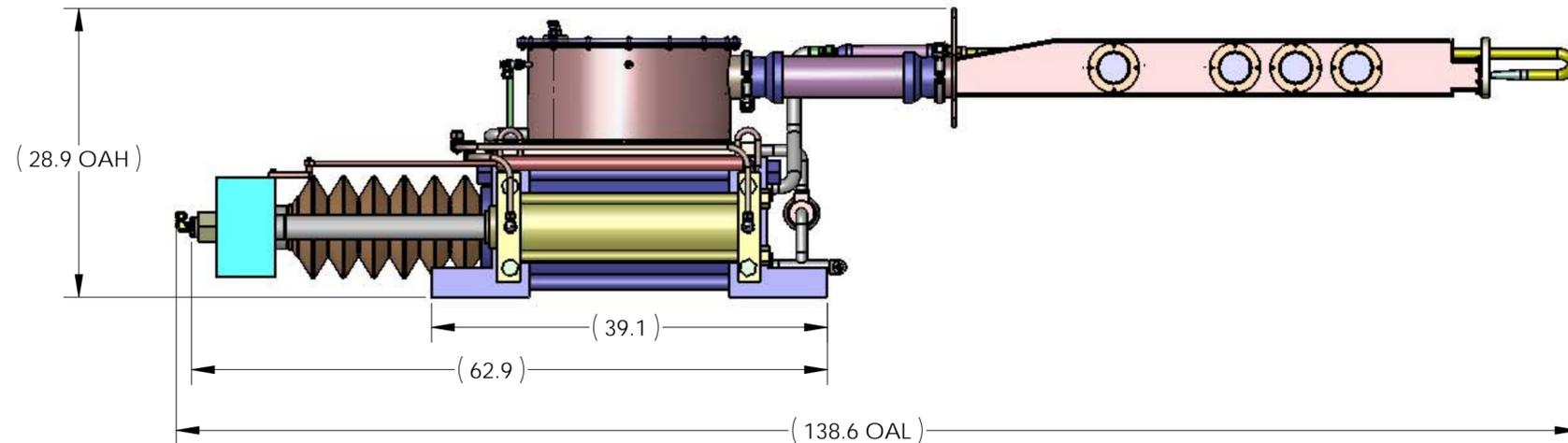
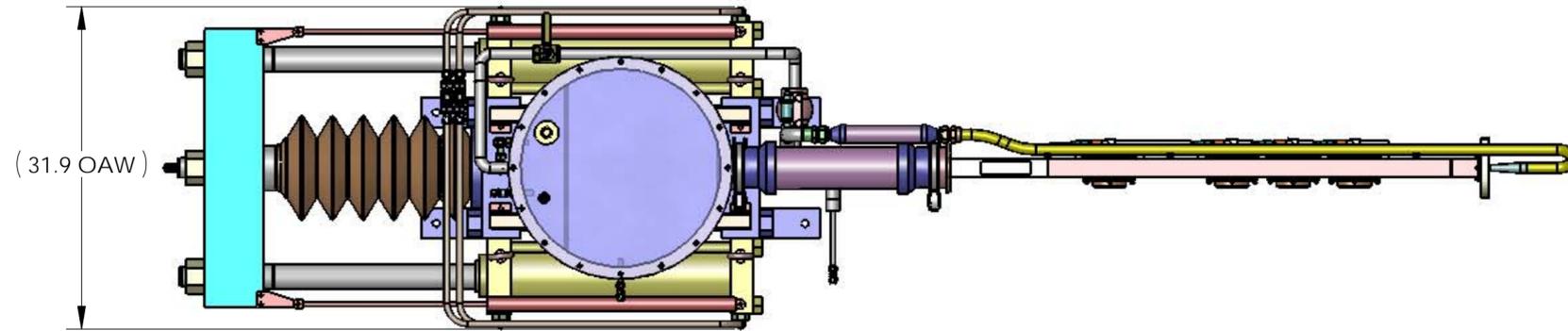
ESTIMATED WEIGHT (WITHOUT HG) 1930 LBS

ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
6	1	hg cylinder vent tube	SS - 304L, ASTM A-269	RIGID TUBING, 0.38 OD X 0.065 WALL, FIELD FIT	N/A
5	1	hg inlet assy hjt	---	HG SYRINGE INLET PIPING	203-HJT-0680
4	1	hg discharge assy hjt	---	HG SYRINGE DISCHARGE PIPING	203-HJT-0670
3	1	sump tank assy hjt	---	HG SUMP TANK ASSY	203-HJT-0640
2	1	pri tube assy hjt	---	PRIMARY HG TUBE ASSY	203-HJT-0610
1	1	syringe cylinder assy hjt	---	PROVIDED BY AIRLINE HYDRAULICS	N/A



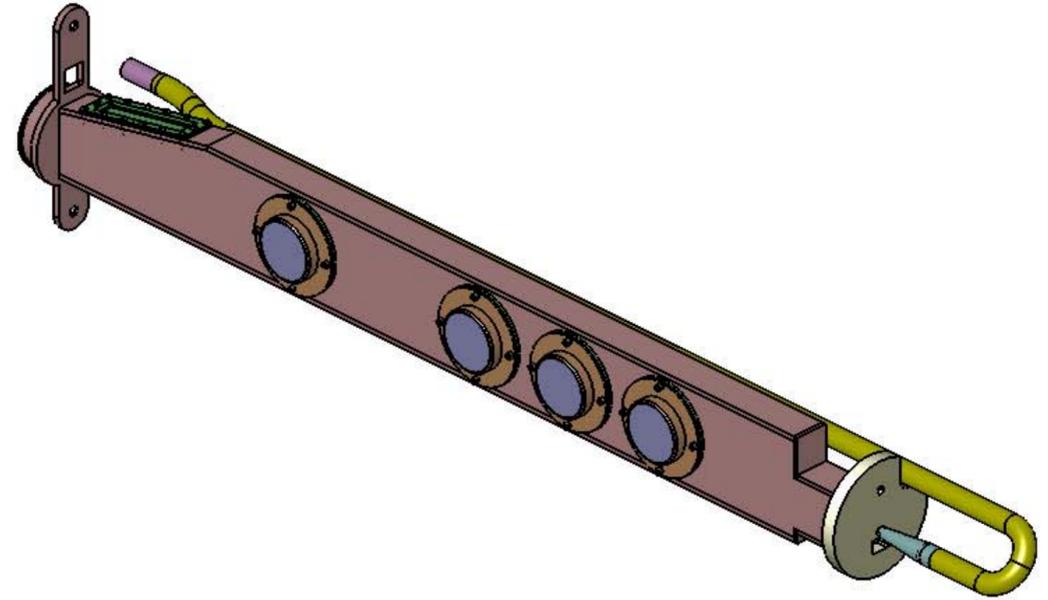
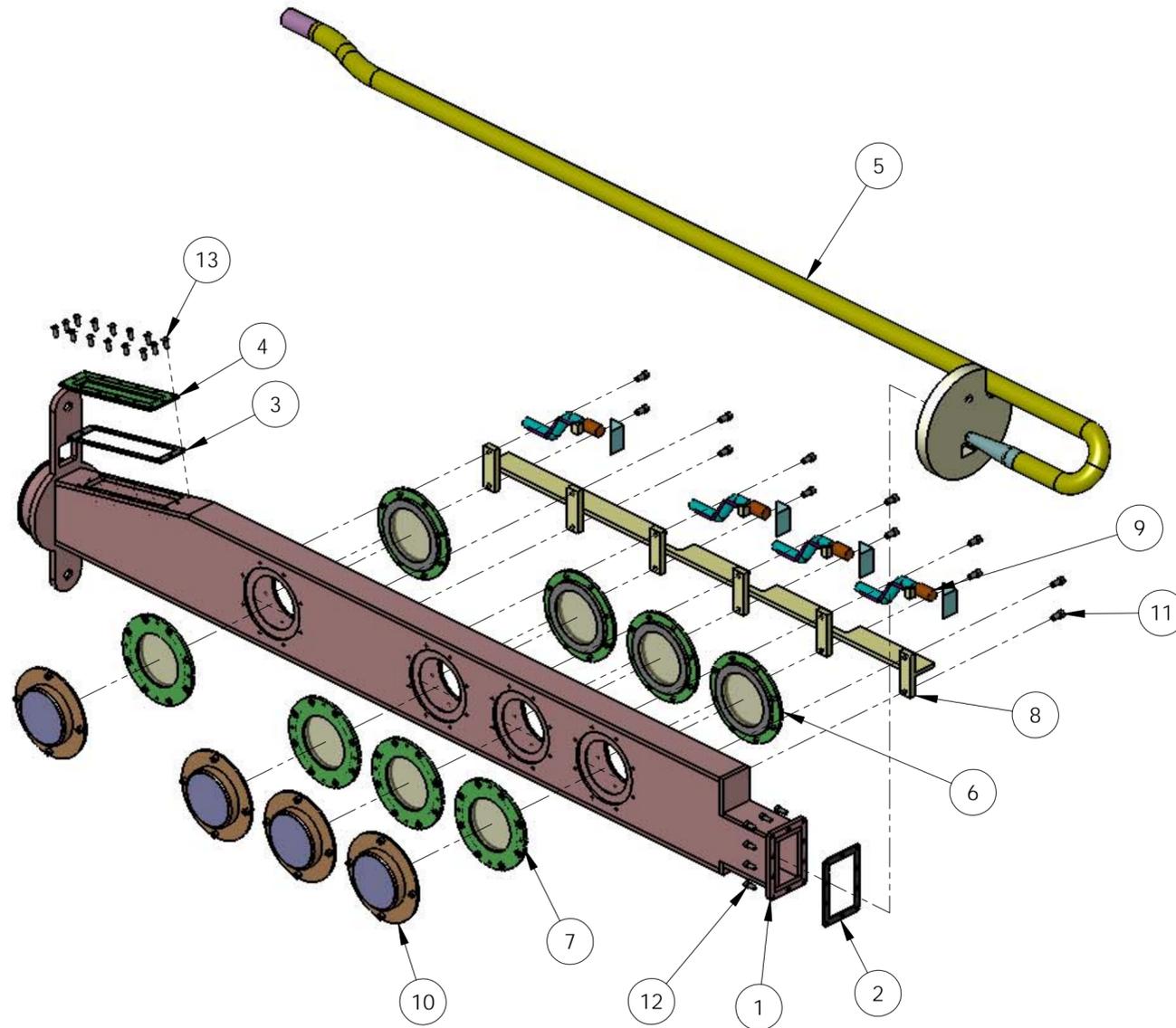
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NOTE: SYRINGE STROKE 15 INCH



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DES	V GRAVES	06/04/2005	<p align="center">MERIT EXPERIMENT HG DELIVERY SYSTEM PRIMARY CONTAINMENT ASSY</p>			
DRW	T OQUIN	06/04/2005				
CHK	P SPAMPINATO	01/31/2006				
ENG	V GRAVES	06/04/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			HG SYRINGE HJT	203-HJT-0500	1:12	2 of 2
			SIZE	DWG NO.		REV
			C	203-HJT-0600		1
DRAWING APPROVALS		DATE				

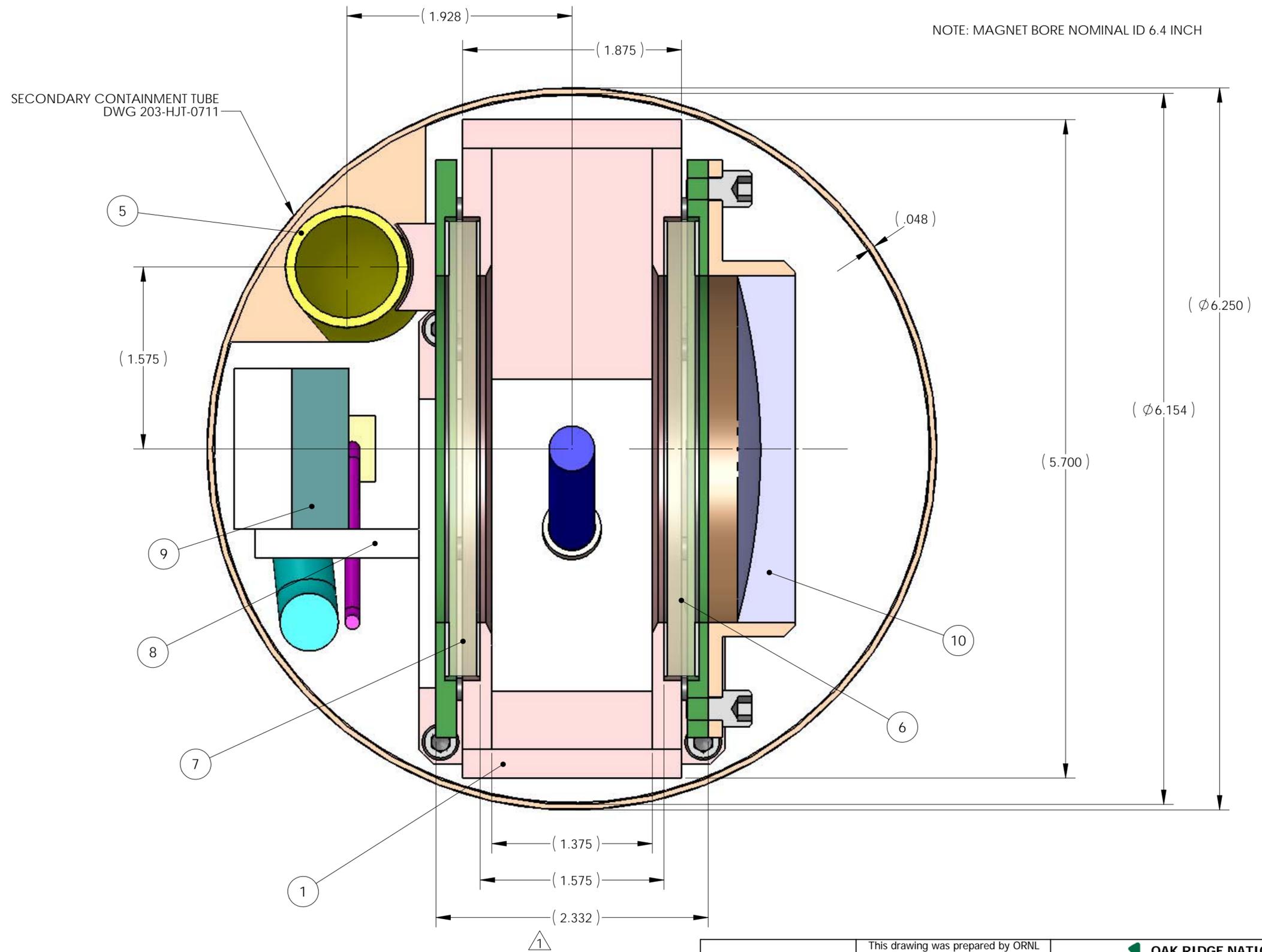
NOTE: ASSEMBLY SHALL BE SOAP-BUBBLE PRESSURE TESTED TO 2 PSIG.



ITEM	FOR DWG/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
13	14	socket button head cap screw_ai	SS - 18-8	BHCS - 1/4-20	N/A
12	10	Socket Head Cap Screw_AI	SS - 18-8	SHCS - 10-32 x 1/2	N/A
11	12	HX-SHCS 0.25-20x0.5x0.5-N	SS - 18-8	SHCS - 1/4-20 x 1/2	N/A
10	4	optic reflector assy	---	PROVIDED BY OTHERS	N/A
9	4	optic diag assy hjt	---	PROVIDED BY OTHERS	N/A
8	1	optic support bkt hjt	---	PROVIDED BY OTHERS	N/A
7	4	optic viewport assy	---	VIEWPORT ASSY - REFLECTOR	203-HJT-0660
6	4	optic viewport assy	---	VIEWPORT ASSY - DIAGNOSTICS	203-HJT-0630
5	1	hg supply assy hjt	TITANIUM	HG SUPPLY AND NOZZLE	203-HJT-0620
4	1	pri dn window hjt	TI-6AL-4V, ASTM B-265	PLATE, 7.000 X 1.875 X .375	203-HJT-0616
3	1	pri dn window gasket hjt	BUNA-N	MCMaster-CARR #9028K23	203-HJT-0615
2	1	upstream pri flange gasket hjt	BUNA-N	MCMaster-CARR #9028K23	203-HJT-0614
1	1	pri tube weldment hjt	SS - 304L, ASTM A240	HG JET CHAMBER	203-HJT-0611

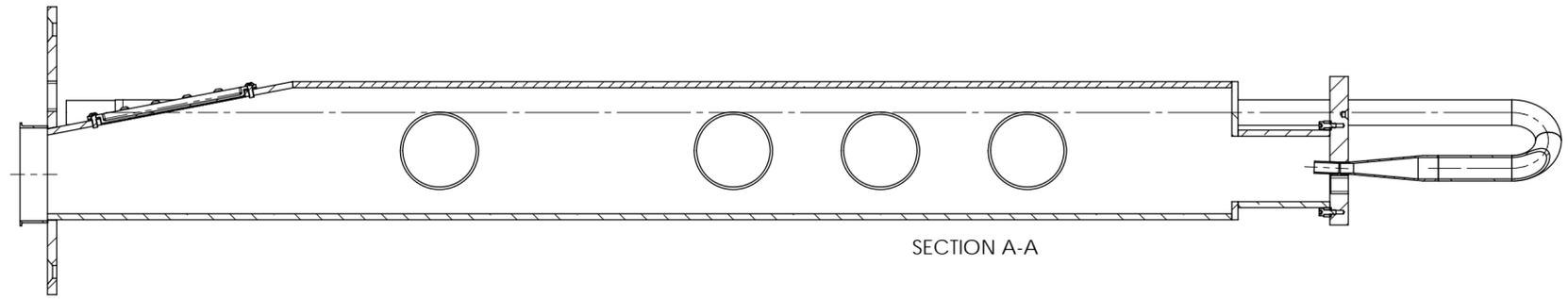
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	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT HG DELIVERY SYSTEM PRIMARY TUBE ASSY</p>	
CAD FILE PRI TUBE ASSY HJT SIZE DWG NO.		PREV ASSY 203-HJT-0600 SCALE 1:6 SHEET 1 of 3 REV 1		
DRAWING APPROVALS C		DATE 203-HJT-0610		

REV	DESCRIPTION	DATE	BY	APPROVED
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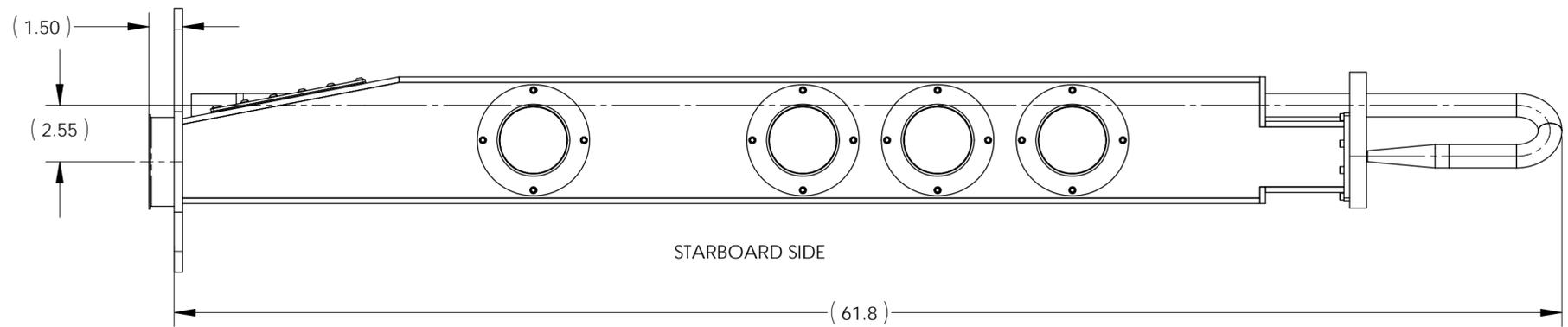
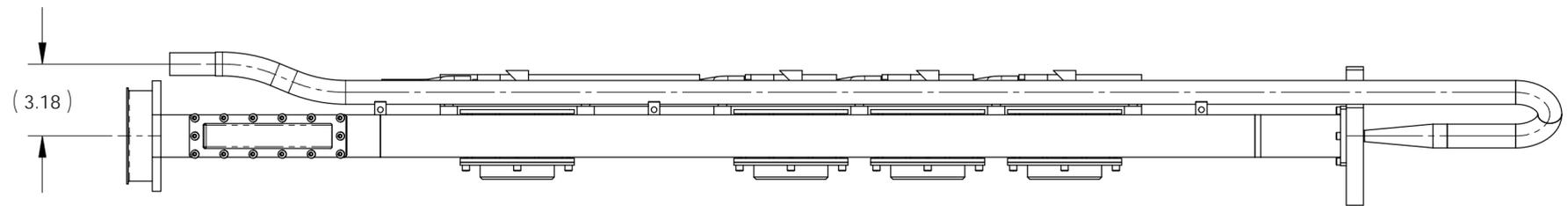


NOTE: MAGNET BORE NOMINAL ID 6.4 INCH

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<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>06/05/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>06/05/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>02/07/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>06/05/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>			DES	V GRAVES	06/05/2005	DRW	T OQUIN	06/05/2005	CHK	P SPAMPINATO	02/07/2006	ENG	V GRAVES	06/05/2005	QA			<p>MERIT EXPERIMENT HG DELIVERY SYSTEM PRIMARY TUBE ASSY</p>		
DES	V GRAVES	06/05/2005																		
DRW	T OQUIN	06/05/2005																		
CHK	P SPAMPINATO	02/07/2006																		
ENG	V GRAVES	06/05/2005																		
QA																				
<p>DRAWING APPROVALS DATE</p>																				
<p>CAD FILE PRI TUBE ASSY HJT</p>		<p>PREV ASSY 203-HJT-0600</p>	<p>SCALE 3:2</p>	<p>SHEET 2 of 3</p>																
<p>SIZE C</p>		<p>DWG NO. 203-HJT-0610</p>		<p>REV 1</p>																

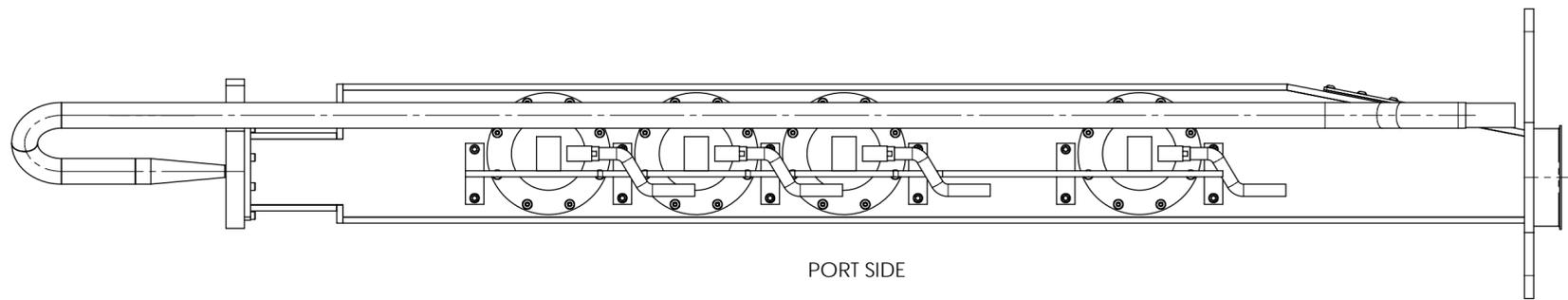


SECTION A-A

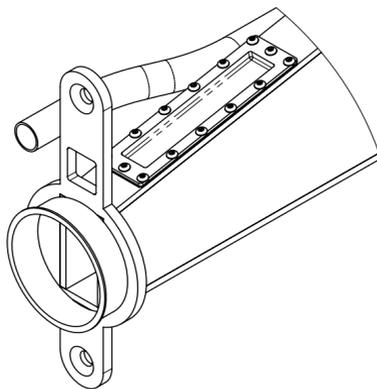
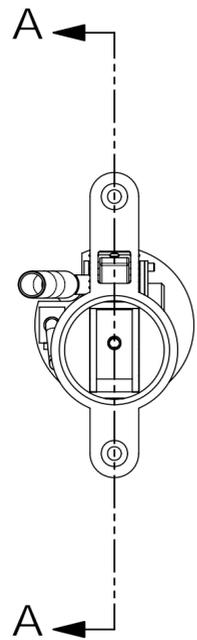


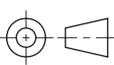
STARBOARD SIDE

(61.8)



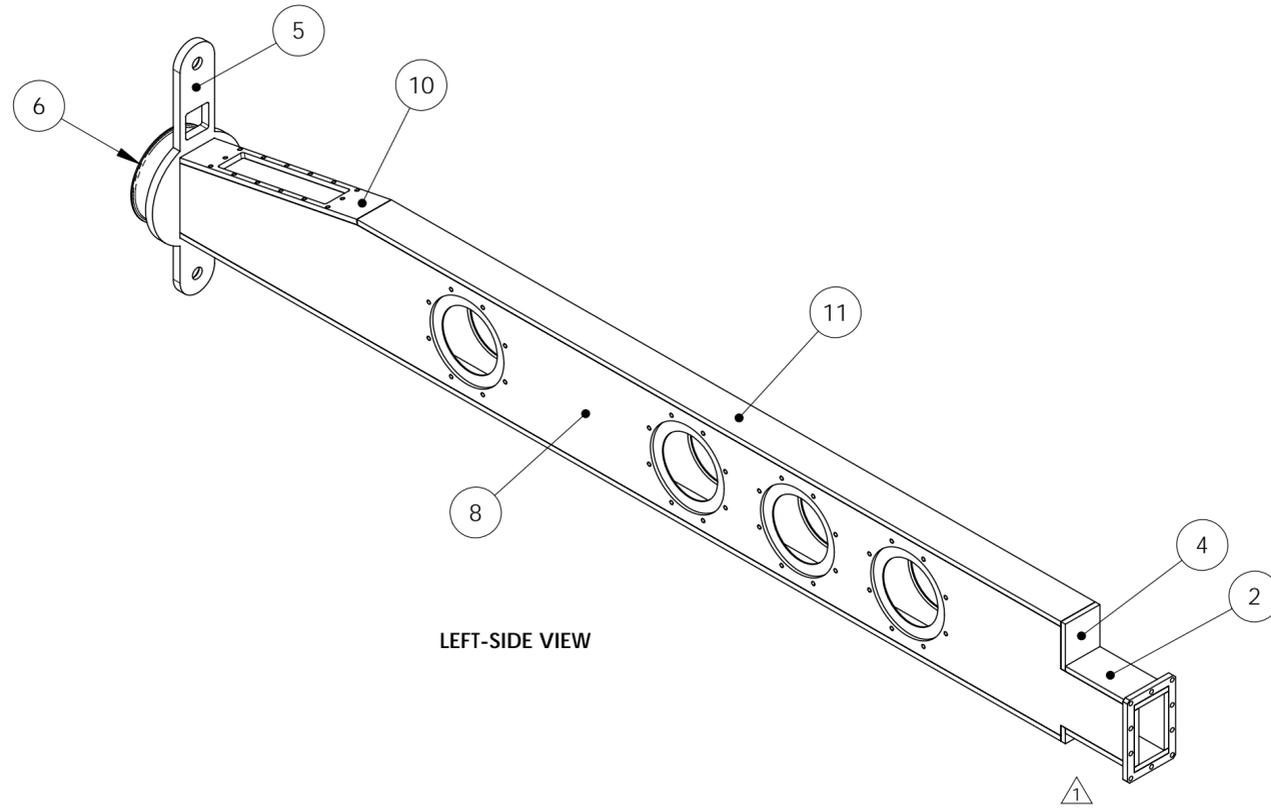
PORT SIDE



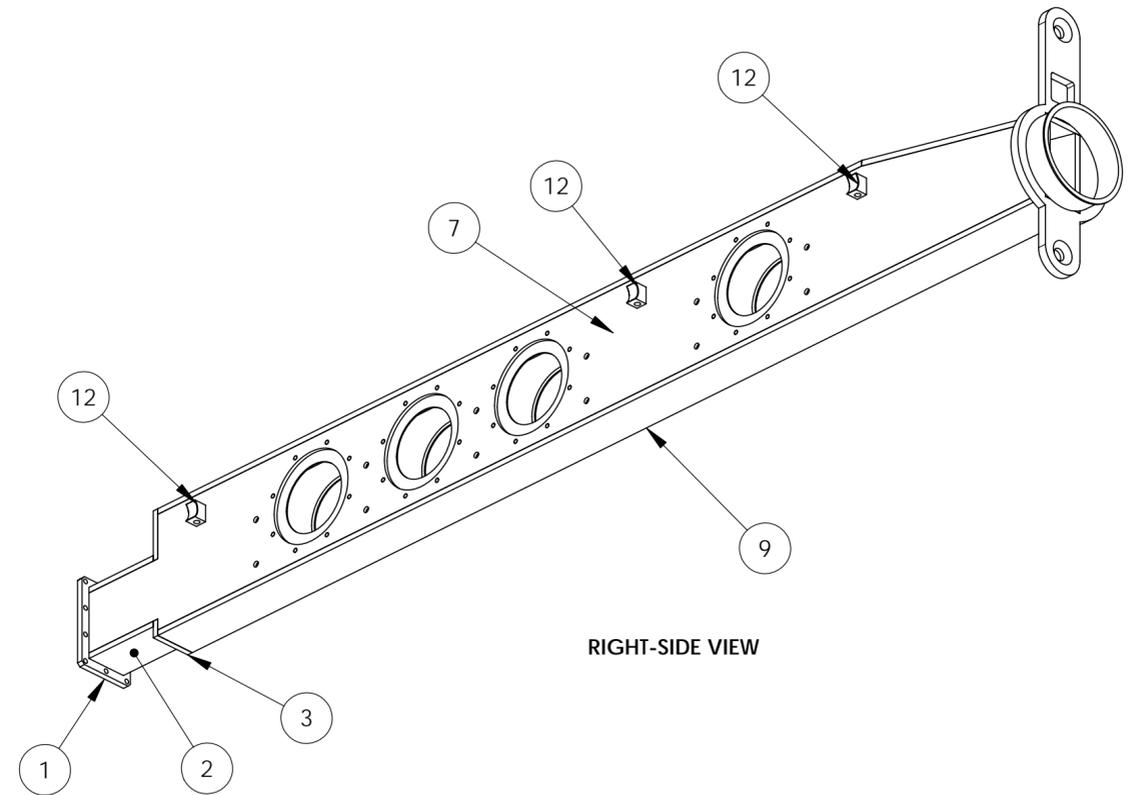
 THIRD-ANGLE PROJECTION UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			 OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN			
	DES V GRAVES 06/05/2005 DRW T OQUIN 06/05/2005 CHK P SPAMPINATO 02/07/2006 ENG V GRAVES 06/05/2005 QA			 REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION			
MERIT EXPERIMENT HG DELIVERY SYSTEM PRIMARY TUBE ASSY				CAD FILE PRI TUBE ASSY HJT	PREV ASSY 203-HJT-0600	SCALE 1:5	SHEET 3 of 3
DRAWING APPROVALS DATE				SIZE C	DWG NO. 203-HJT-0610	REV 1	

NOTES

1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. NO RADIOGRAPHY REQUIRED. ALL WELDS SHALL BE DYE PENETRANT INSPECTED.
3. MATERIAL CERTIFICATIONS REQUIRED.



LEFT-SIDE VIEW



RIGHT-SIDE VIEW

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
12	3	BAR, .50 x .75 x .75	SS - 316L, ASTM A276	.75
11	1	PLATE, 38.33 x 1.88 x .25	SS - 316L, ASTM A240	38.33
10	1	PLATE, 10.21 x 1.88 x .25	SS - 316L, ASTM A240	10.21
9	1	PLATE, 48.35 x 1.88 x .25	SS - 316L, ASTM A240	48.35
8	1	PLATE, 5.20 x 52.35 x .25	SS - 316L, ASTM A240	52.35
7	1	PLATE, 52.35 x 5.20 x .25	SS - 316L, ASTM A240	52.35
6	1	SWAGELOK 4.00" BUTT WELD FERRULE JC14AM7	SS	N/A
5	1	PLATE, 4.89 x 11.88 x .38	SS - 316L, ASTM A240	11.88
4	1	PLATE, 2.25 x 1.88 x .25	SS - 316L, ASTM A240	2.25
3	1	PLATE, .75 x 1.88 x .25	SS - 316L, ASTM A240	.75
2	2	PLATE, 1.88 x 3.75 x .25	SS - 316L, ASTM A240	3.75
1	1	PLATE, 2.63 x 3.95 x .25	SS - 316L, ASTM A240	3.95



THIRD-ANGLE PROJECTION

- UNLESS OTHERWISE NOTED
1. ALL DIMENSIONS ARE IN INCHES
 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
 3. MACHINED FINISH 125 MICRO-INCHES RMS
 4. CONCENTRICITY .010 TIR
 5. MACHINED ANGLES ±1/2°
 6. FORMED ANGLES ±1°
 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
 8. X DECIMALS ±.030
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 10. XXX DECIMALS ±.005

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OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

DES	V GRAVES	06/05/2005
DRW	T OQUIN	06/05/2005
CHK	P SPAMPINATO	03/07/2006
ENG	V GRAVES	06/05/2005
QA		

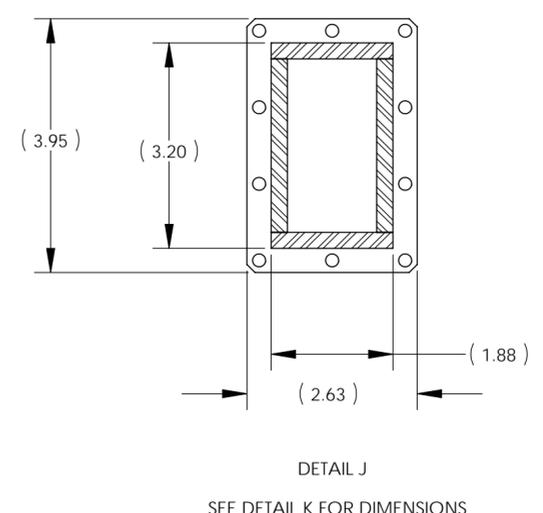
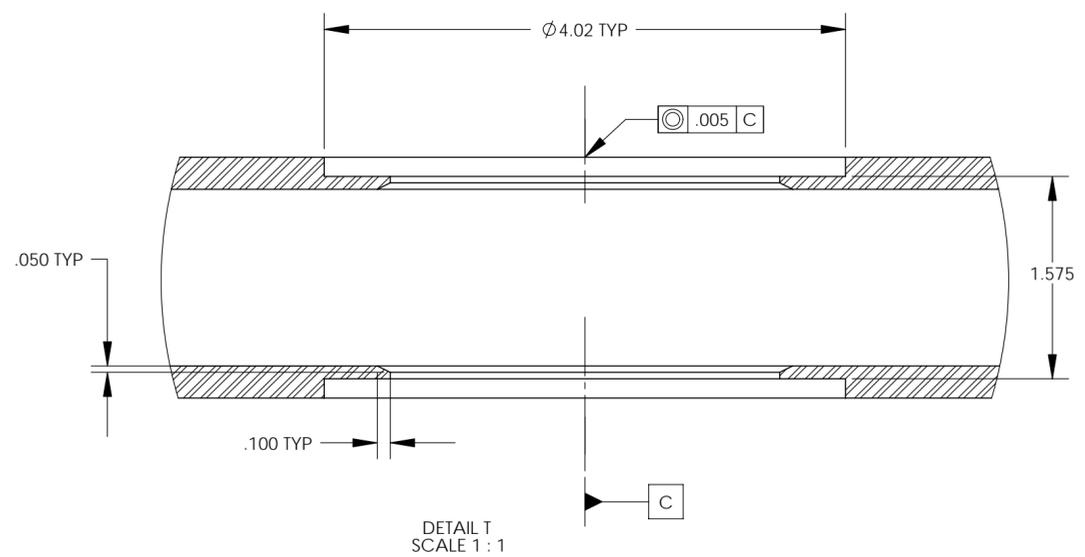
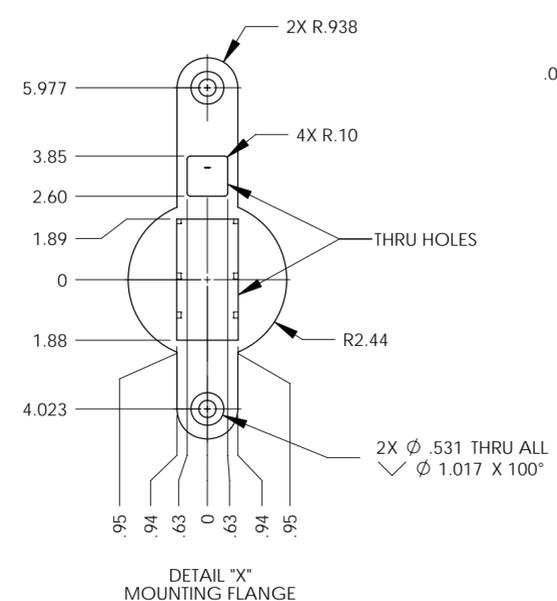
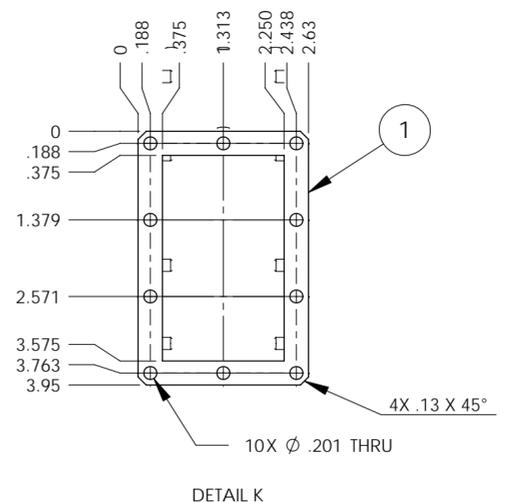
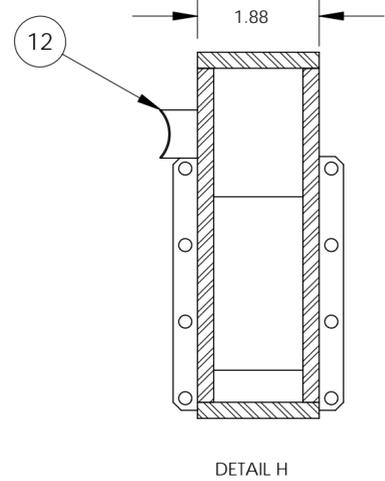
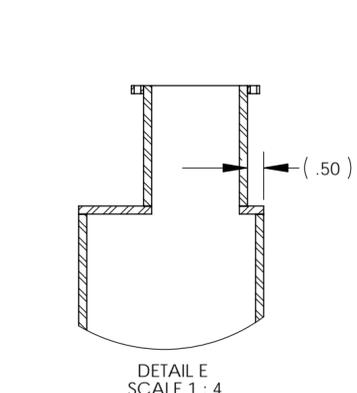
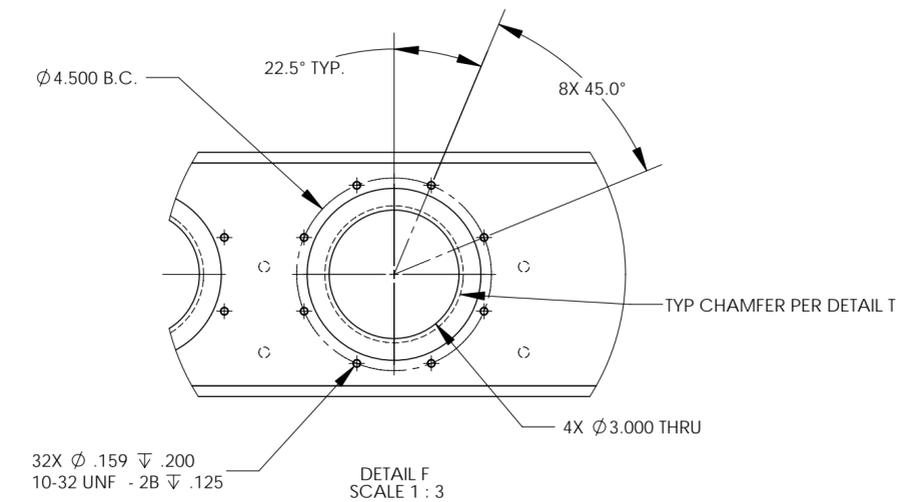
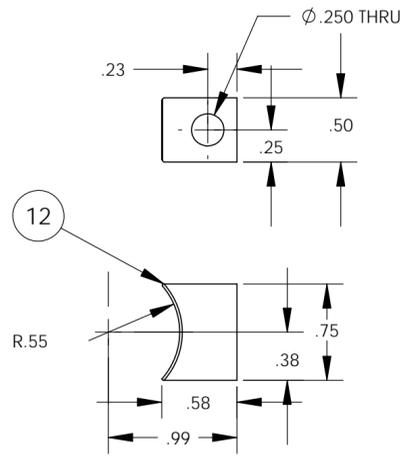
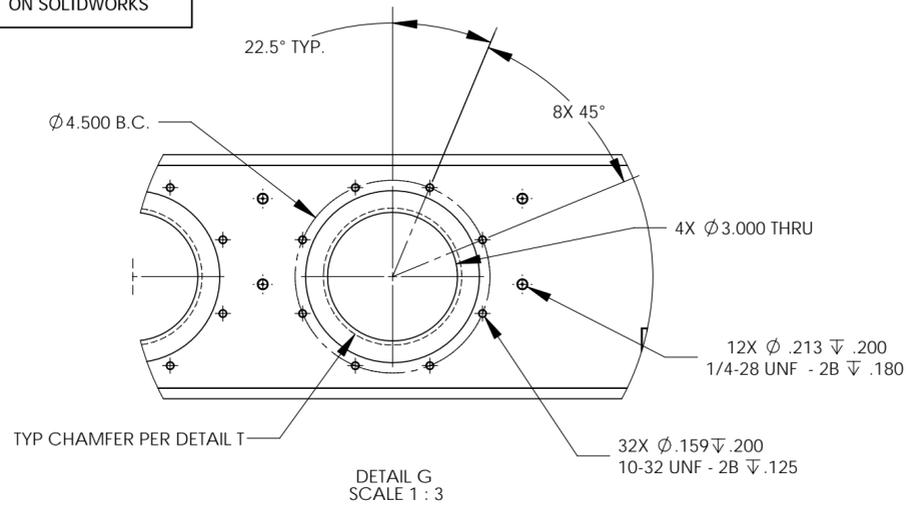
**MERIT EXPERIMENT
PRIMARY TUBE ASSY
PRIMARY TUBE WELDMENT**

1	CHANGED LENGTH OF RECESS	4/25/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

CAD FILE	PREV ASSY	SCALE	SHEET
PRI TUBE WELDMENT HJT	203-HJT-0610	1:5	1 of 5
SIZE	DWG NO.	REV	
C	203-HJT-0611	1	

DRAWING APPROVALS DATE

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

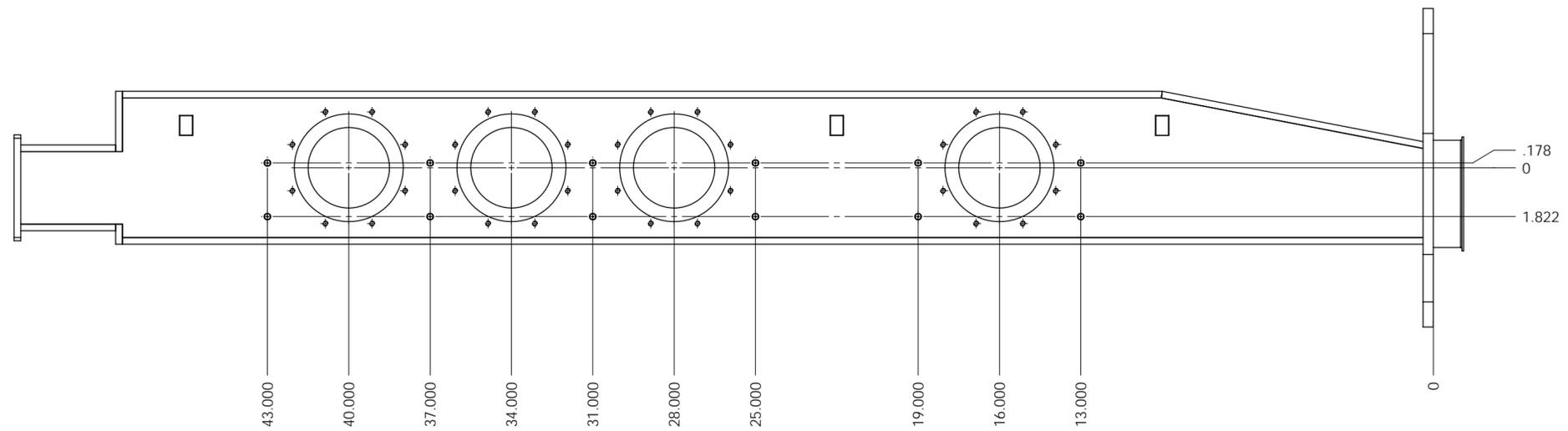
1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. NO RADIOGRAPHY REQUIRED. ALL WELDS SHALL BE DYE PENETRANT INSPECTED.
3. MATERIAL CERTIFICATIONS REQUIRED.

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																
	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005 		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>																
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DES	V GRAVES	06/05/2005																	
DRW	T OQUIN	06/05/2005																	
CHK	P SPAMPINATO	03/07/2006																	
ENG	V GRAVES	06/05/2005																	
QA																			
<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>CAD FILE PRI TUBE WELDMENT HJT</p>	<p>PREV ASSY 203-HJT-0610</p>	<p>SCALE 1:2</p>	<p>SHEET 3 of 5</p>													
<p>SIZE</p>		<p>DWG NO.</p>	<p>203-HJT-0611</p>		<p>REV 1</p>														

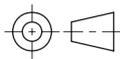
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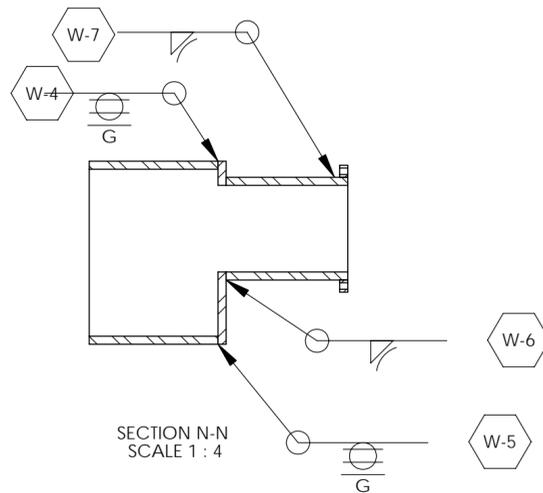
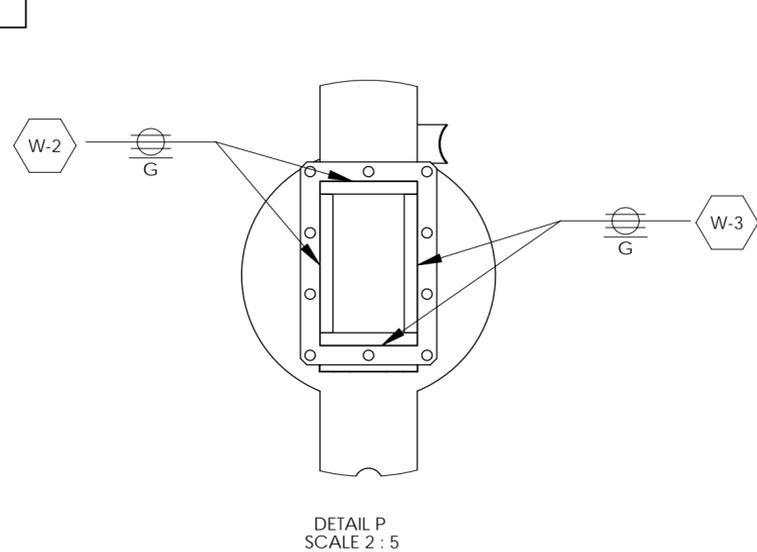
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RIGHT SIDE VIEW

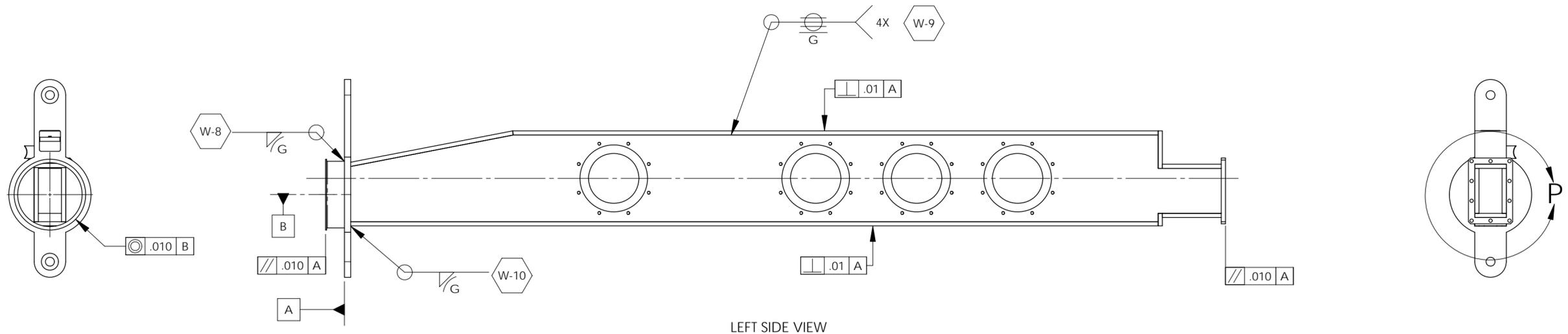
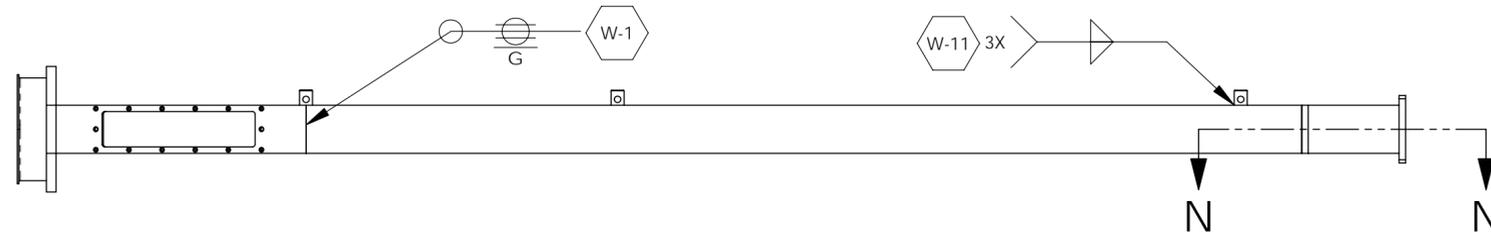
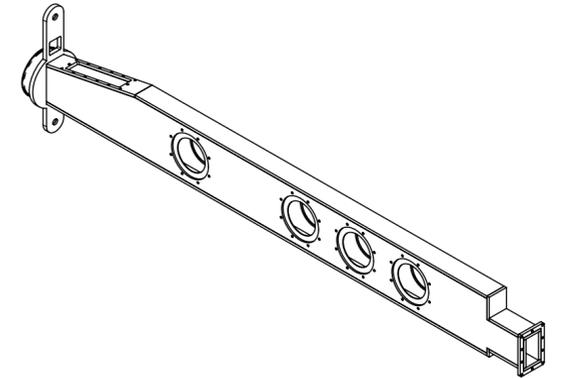
 <p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			 <p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
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DES	V GRAVES	06/05/2005	MERIT EXPERIMENT PRIMARY TUBE ASSY PRIMARY TUBE WELDMENT			
DRW	T OQUIN	06/05/2005				
CHK	P SPAMPINATO	03/07/2006				
ENG	V GRAVES	06/05/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			PRI TUBE WELDMENT HJT	203-HJT-0610	1:4	4 of 5
DRAWING APPROVALS		DATE	SIZE	DWG NO.		REV
			C	203-HJT-0611		1

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

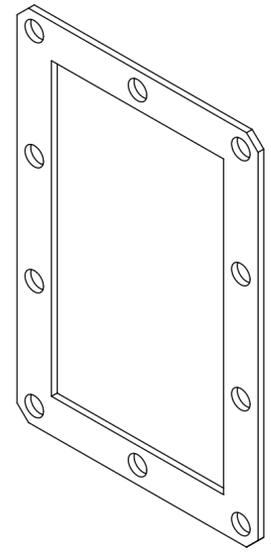
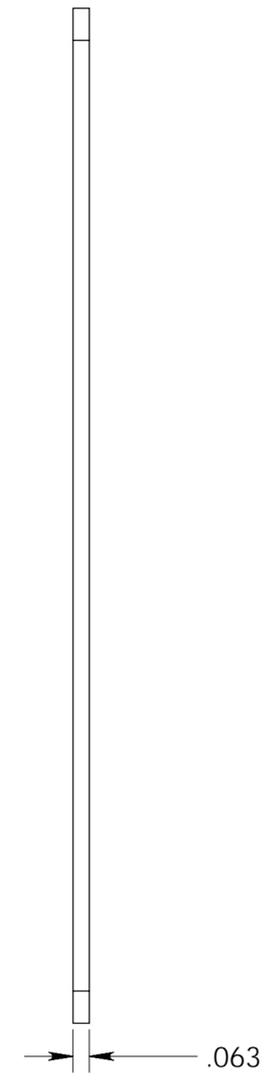
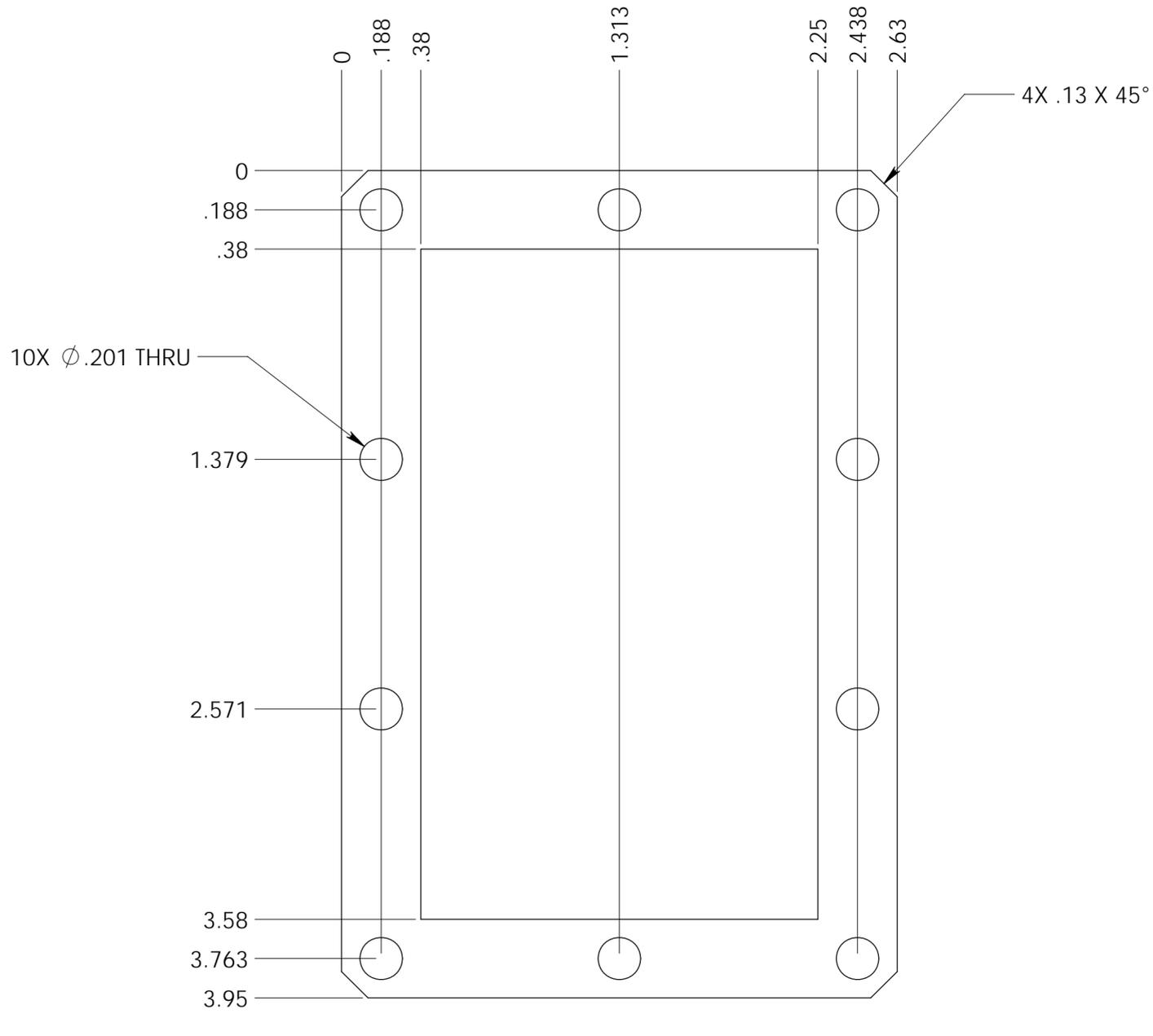
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LEFT SIDE VIEW

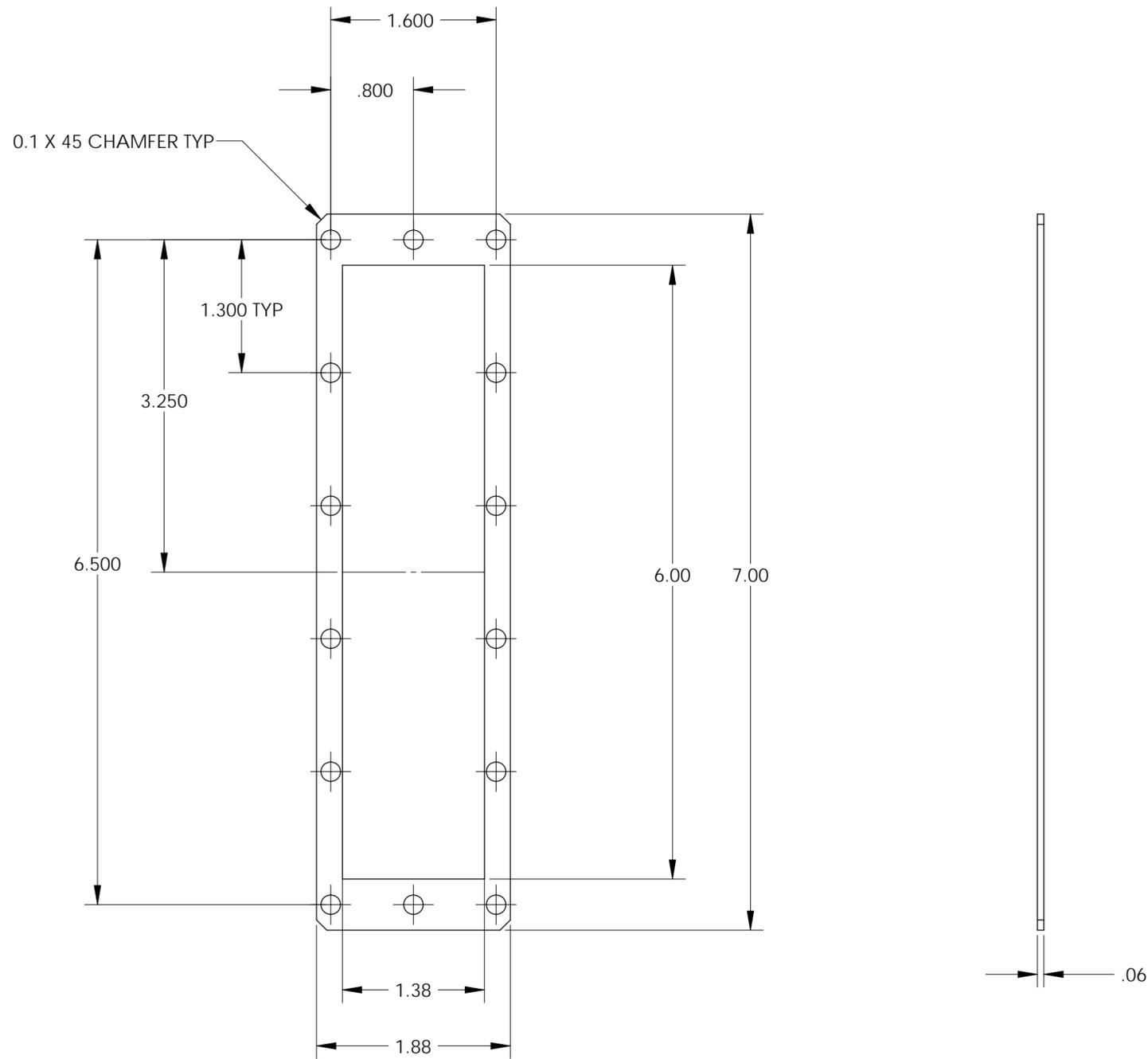
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<p>DES V GRAVES 06/05/2005</p> <p>DRW T OQUIN 06/05/2005</p> <p>CHK P SPAMPINATO 03/07/2006</p> <p>ENG V GRAVES 06/05/2005</p> <p>QA</p>			<p>MERIT EXPERIMENT PRIMARY TUBE ASSY PRIMARY TUBE WELDMENT</p>		
<p>CAD FILE PRI TUBE WELDMENT HJT</p> <p>SIZE DWG NO. C</p>			<p>PREV ASSY 203-HJT-0610</p>	<p>SCALE 1:5</p>	<p>SHEET 5 of 5</p>
<p>DRAWING APPROVALS DATE</p>			<p>203-HJT-0611</p>	<p>REV 1</p>	<p>1</p>

DWG NO. 203-HJT-0611



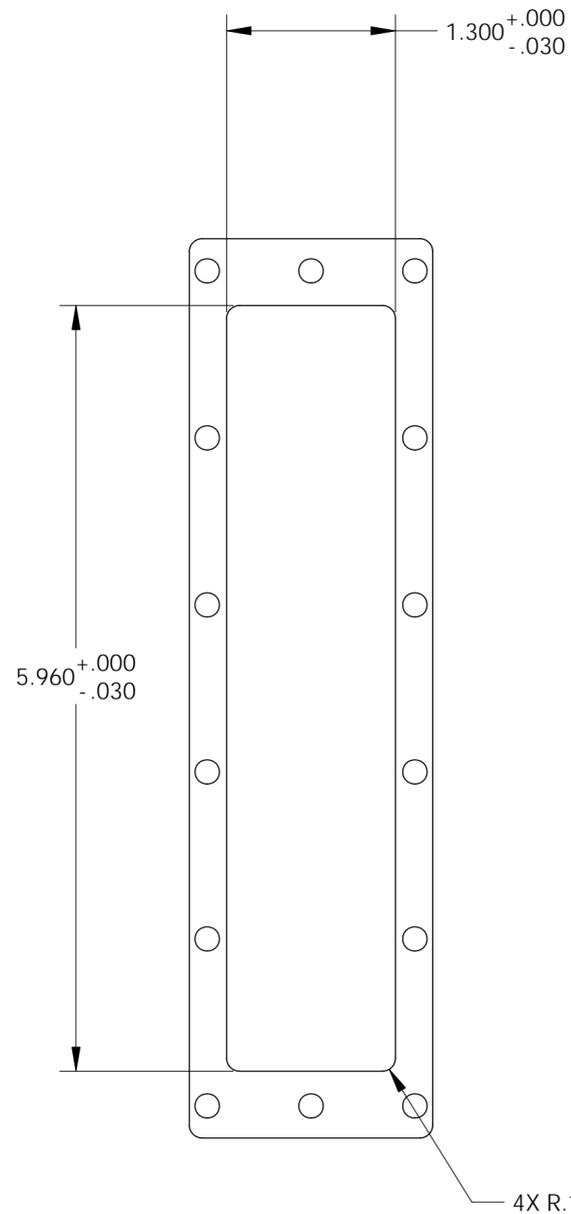
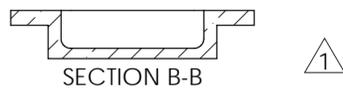
MATERIAL: BUNA-N

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DES V GRAVES 09/22/2005 DRW T OQUIN 09/22/2005 CHK P SPAMPINATO 12/14/2005 ENG V GRAVES 09/22/2005 QA			<p>NUFACT HG JET EXPERIMENT PRIMARY TUBE ASSY UPSTREAM PRI FLANGE GASKET</p>		
DRAWING APPROVALS DATE			CAD FILE UPSTREAM PRI FLANGE GASKET HJT	PREV ASSY 203-HJT-0610	SCALE 2:1 SHEET 1 of 1 REV 0
SIZE DWG NO.			C 203-HJT-0614		

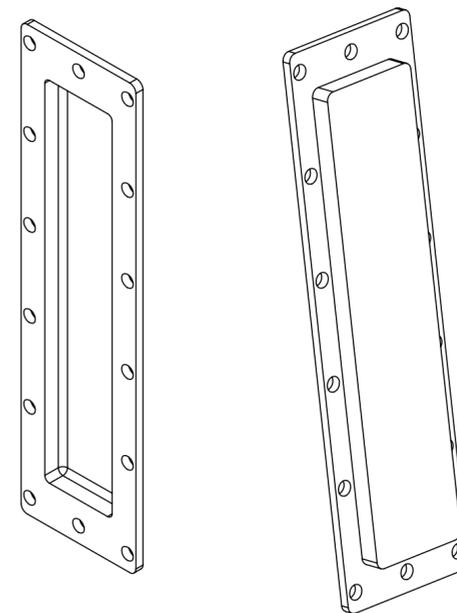
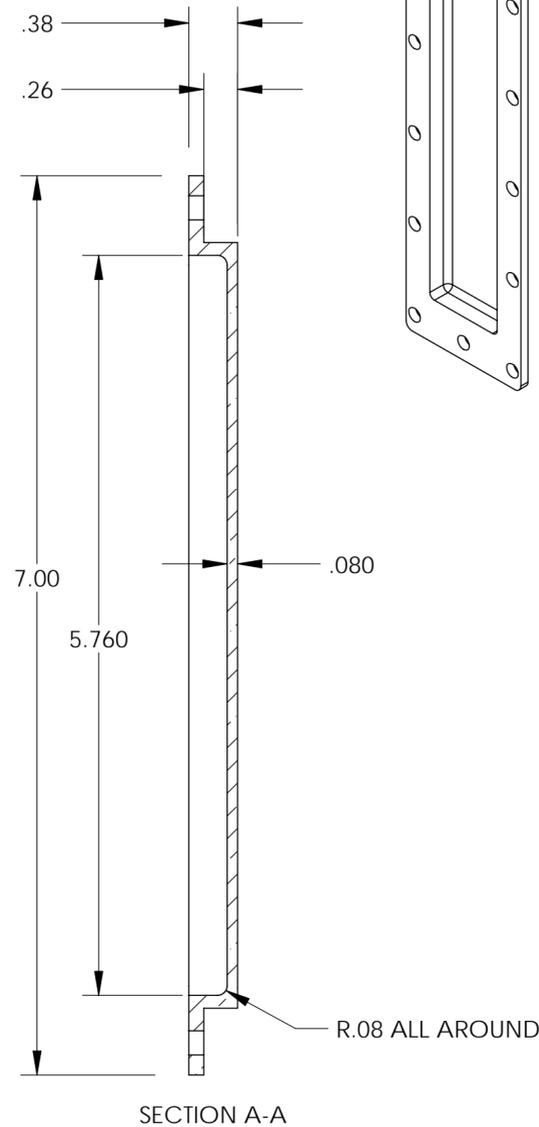
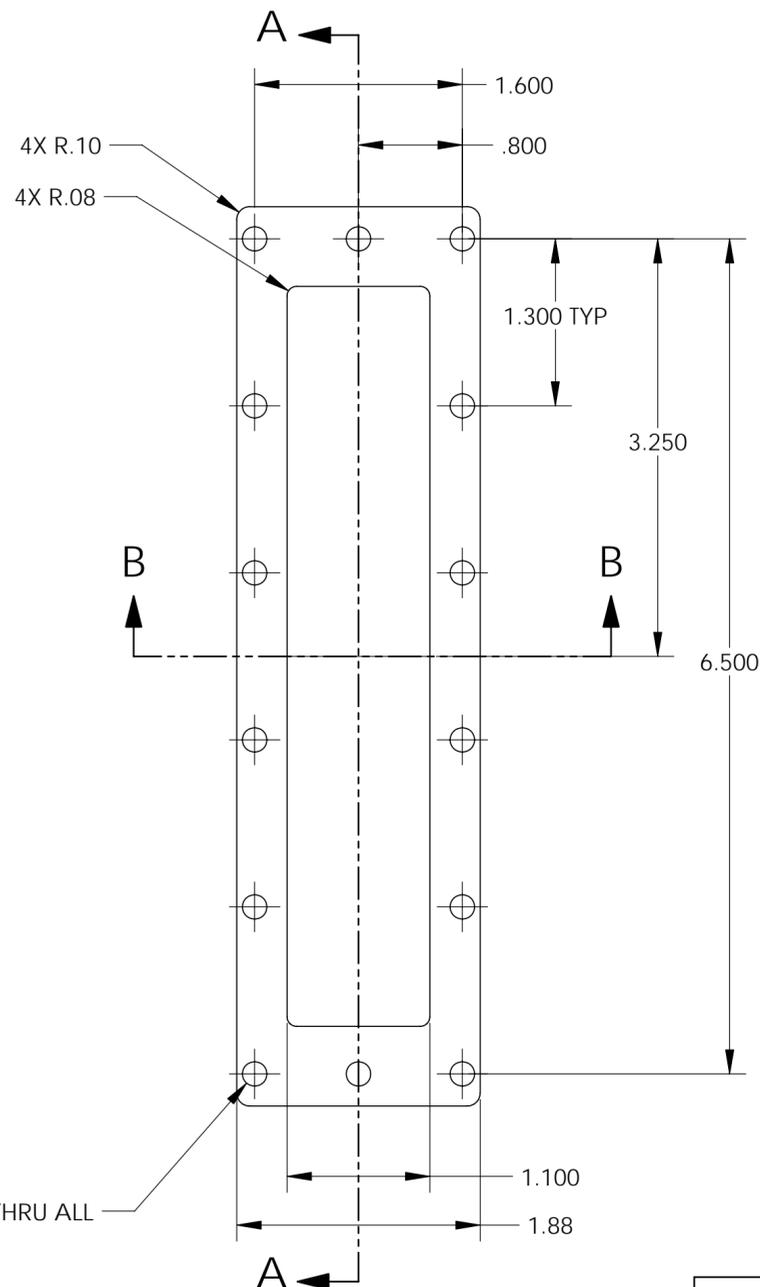


MATERIAL: BUNA-N

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
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DES	V GRAVES	03/15/2006	MERIT EXPERIMENT PRIMARY TUBE ASSY DOWNSTREAM WINDOW GASKET			
DRW	V GRAVES	04/03/2006				
CHK	P SPAMPINATO	04/04/2006				
ENG						
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			PRI DN WINDOW GASKET HJT	203-HJT-0610	1:1	1 of 1
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0615	0	



14X Ø .19 THRU ALL



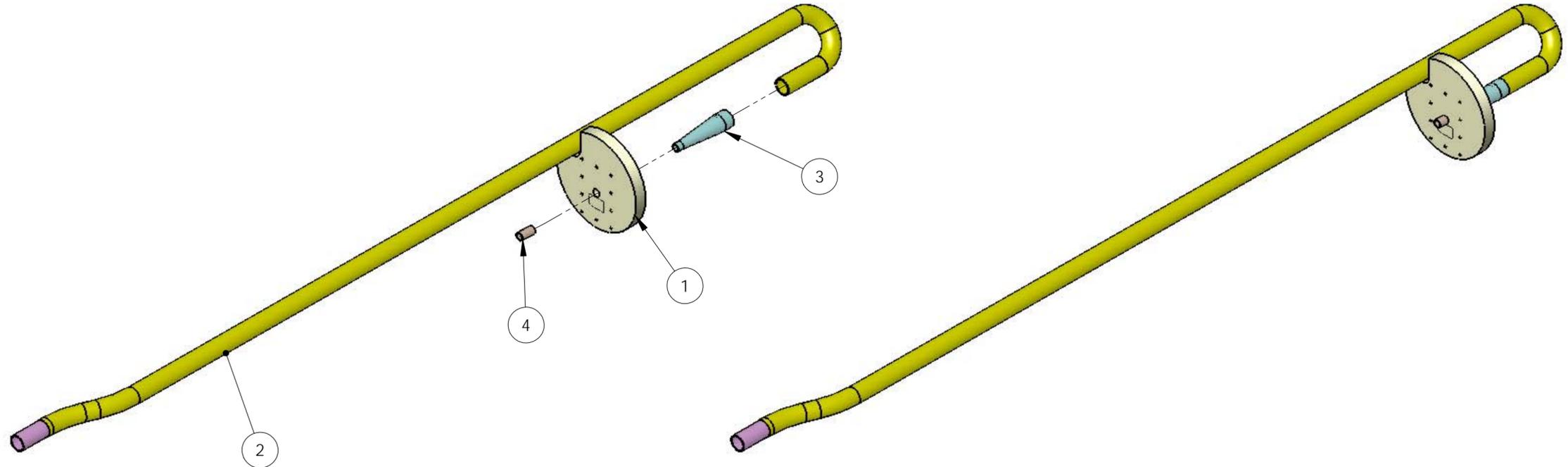
MATERIAL: TI-6AL-4V, ASTM B-265

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	03/15/2006	MERIT EXPERIMENT PRIMARY TUBE ASSY DOWNSTREAM BEAM WINDOW			
DRW	V GRAVES	04/03/2006				
CHK	P SPAMPINATO	04/04/2006				
ENG						
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			PRI DN WINDOW HJT	203-HJT-0610	1:1	1 of 1
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0616	1	

REV	DESCRIPTION	DATE	BY	APPROVED
1	ADDED SECTION B-B	5/15/2006	VBG	VBG
0	ORIGINAL ISSUE	4/6/2006	VBG	VBG

NOTES

1. WELDING AND INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. NUMBER OF PIPE BUTT WELDS SHOULD BE MINIMIZED. 100% RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.
4. ASSEMBLY SHALL BE ANODIZED PER AEROSPACE MATERIAL SPECIFICATION 2487 "ANODIC TREATMENT OF TITANIUM AND TITANIUM ALLOYS"
5. DESIGN PRESSURE 1500 PSI. ASSEMBLY SHALL BE PRESSURE TESTED WITH WATER TO 2250 PSI.

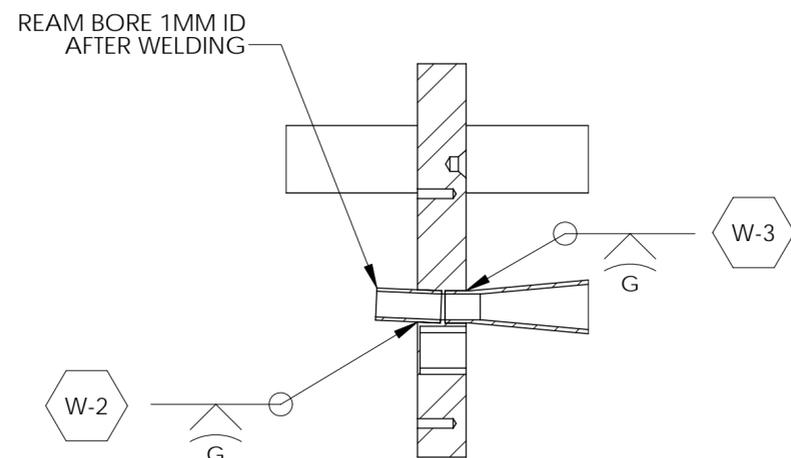
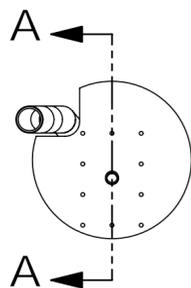
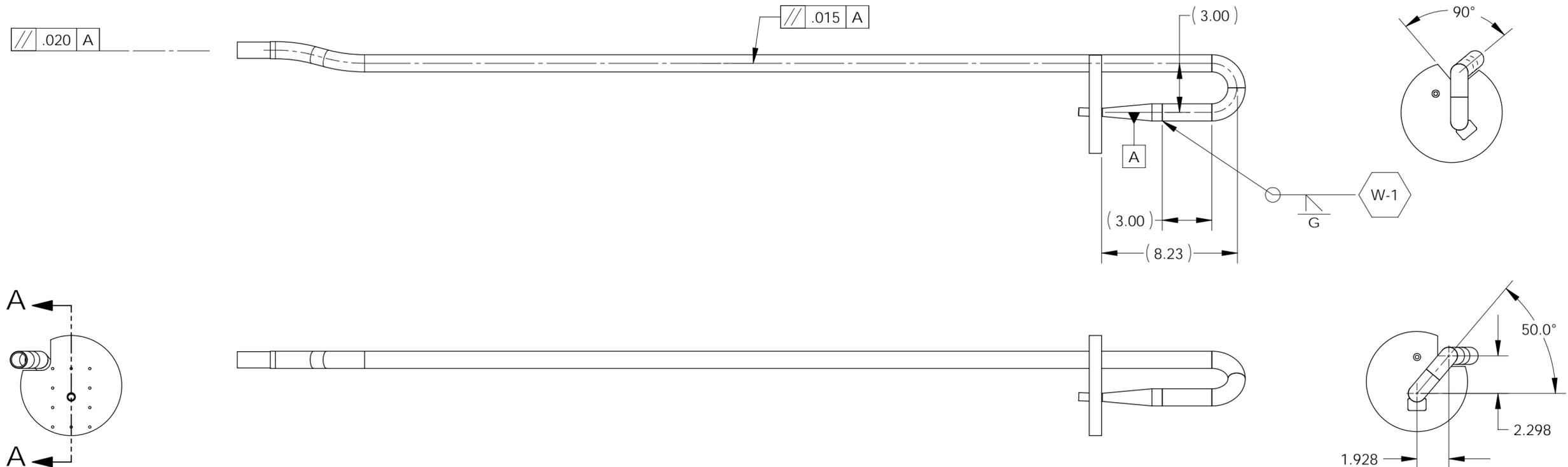


4	1	hg nozzle hjt	TI GRADE 2, ASTM B-861	RIGID SEAMLESS TUBE, .500 OD X .065 WALL X 1.000	N/A
3	1	SS-16-TSW-6-8	TI-6AL-4V, ASTM B-348	FLOW REDUCER	203-HJT-0624
2	1	hg primary supply assy	TI GRADE 2, ASTM B-865	RIGID SEAMLESS TUBE & PIPE	203-HJT-0623
1	1	hg nozzle flange hjt	TI-6AL-4V, ASTM B-265	NOZZLE FLANGE	203-HJT-0622

ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
		This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			
UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		DES	V GRAVES	02/06/2006	OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION MERIT EXPERIMENT PRIMARY TUBE ASSY HG SUPPLY ASSY
DRW	T OQUIN	02/17/2006			
CHK	P SPAMPINATO	03/07/2006			
ENG	V GRAVES	02/06/2006			
QA					
		CAD FILE	PREV ASSY	SCALE	SHEET
		HG SUPPLY ASSY HJT	203-HJT-0610	1:5	1 of 2
		SIZE	DWG NO.	REV	0
		C	203-HJT-0620		
		DRAWING APPROVALS	DATE		

NOTES

1. WELDING AND INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. NUMBER OF PIPE BUTT WELDS SHOULD BE MINIMIZED. 100% RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.
4. ASSEMBLY SHALL BE ANODIZED PER AEROSPACE MATERIAL SPECIFICATION 2487 "ANODIC TREATMENT OF TITANIUM AND TITANIUM ALLOYS"
5. DESIGN PRESSURE 1500 PSI. ASSEMBLY SHALL BE PRESSURE TESTED WITH WATER TO 2250 PSI.

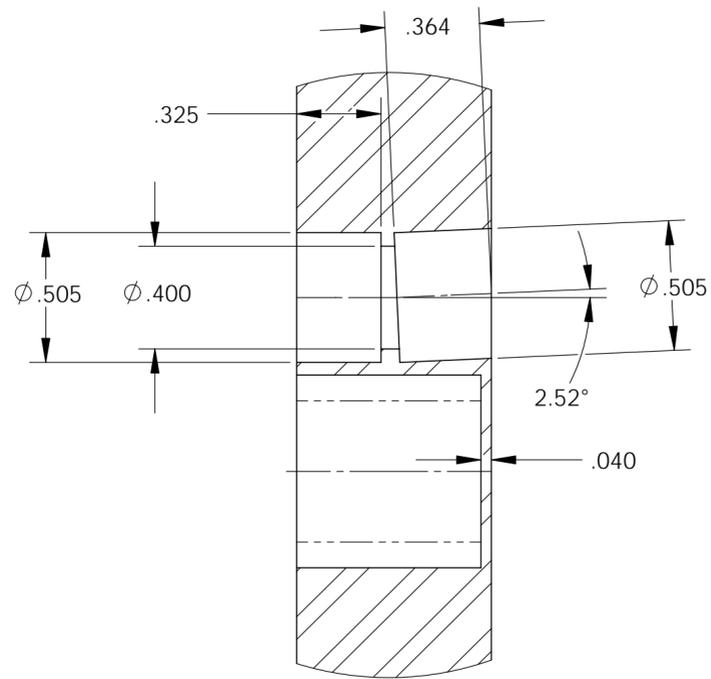


SECTION A-A
SCALE 1 : 2

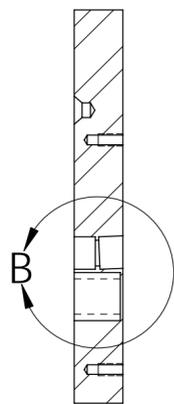
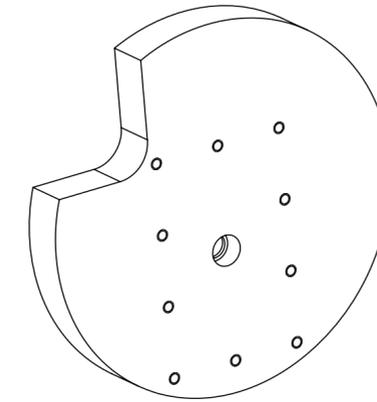
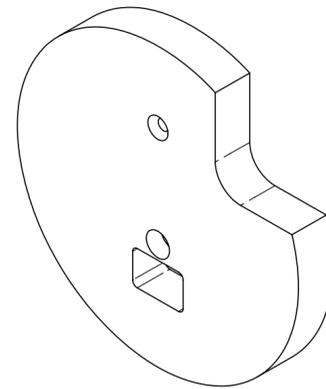
THIRD-ANGLE PROJECTION UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES $\pm 1/2^\circ$ 6. FORMED ANGLES $\pm 1^\circ$ 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS $\pm .030$ 9. XX DECIMALS $\pm .010$ 10. XXX DECIMALS $\pm .005$	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN			
	DES V GRAVES 02/06/2006 DRW T OQUIN 02/17/2006 CHK P SPAMPINATO 03/07/2006 ENG V GRAVES 02/06/2006 QA	REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION			MERIT EXPERIMENT PRIMARY TUBE ASSY HG SUPPLY ASSY		
DRAWING APPROVALS		DATE		CAD FILE	PREV ASSY	SCALE	SHEET
				HG SUPPLY ASSY HJT	203-HJT-0610	1:12	2 of 2
				SIZE DWG NO.	203-HJT-0620		REV
							0

NOTES

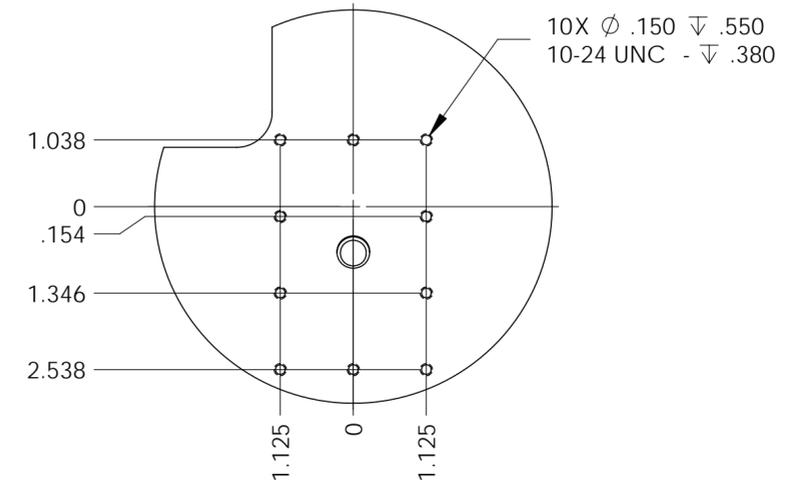
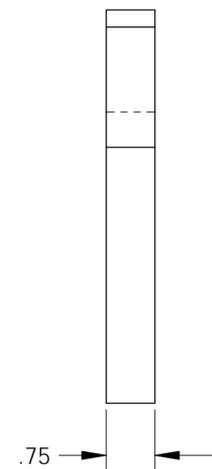
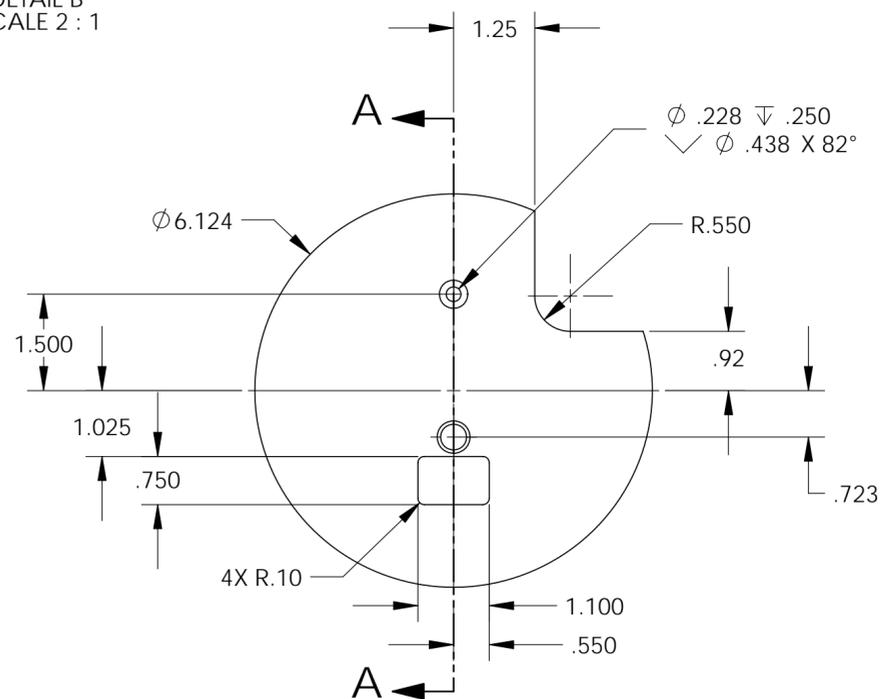
1. MATERIAL CERTIFICATIONS REQUIRED



DETAIL B
SCALE 2 : 1



SECTION A-A

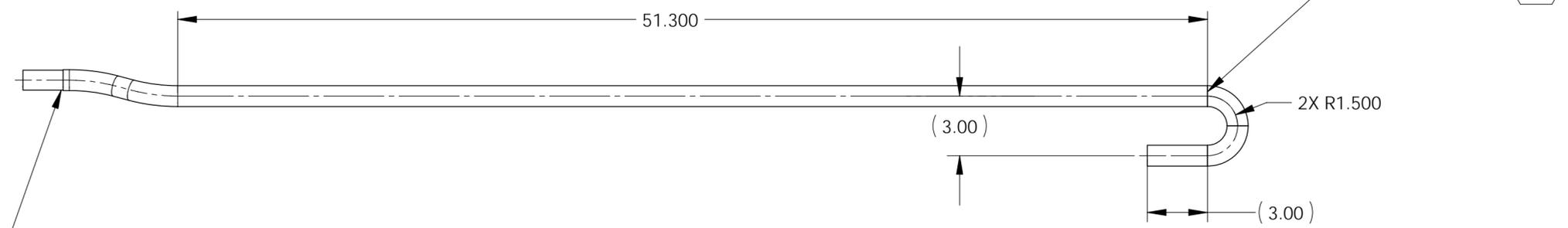
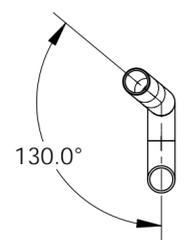
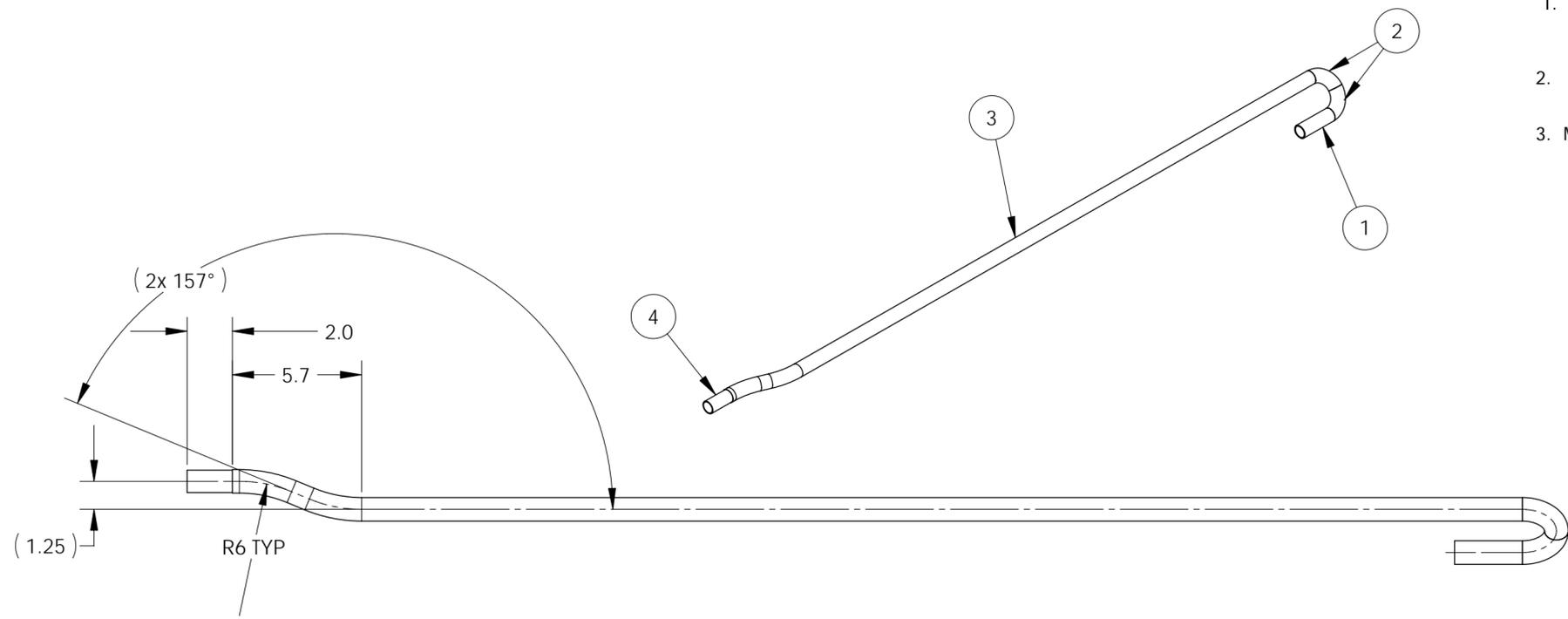


MATERIAL: TI-6AL-4V, ASTM B-265

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
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DES	V GRAVES	01/26/2006	MERIT EXPERIMENT HG SUPPLY ASSEMBLY NOZZLE FLANGE			
DRW	T OQUIN	01/26/2006				
CHK	P SPAMPINATO	03/07/2006				
ENG	V GRAVES	01/26/2006				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			HG NOZZLE FLANGE HJT	203-HJT-0620	1:2	1 of 1
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0622	0	

NOTES

1. WELDING AND INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. NUMBER OF TUBE BUTT WELDS SHOULD BE MINIMIZED. 100% RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.



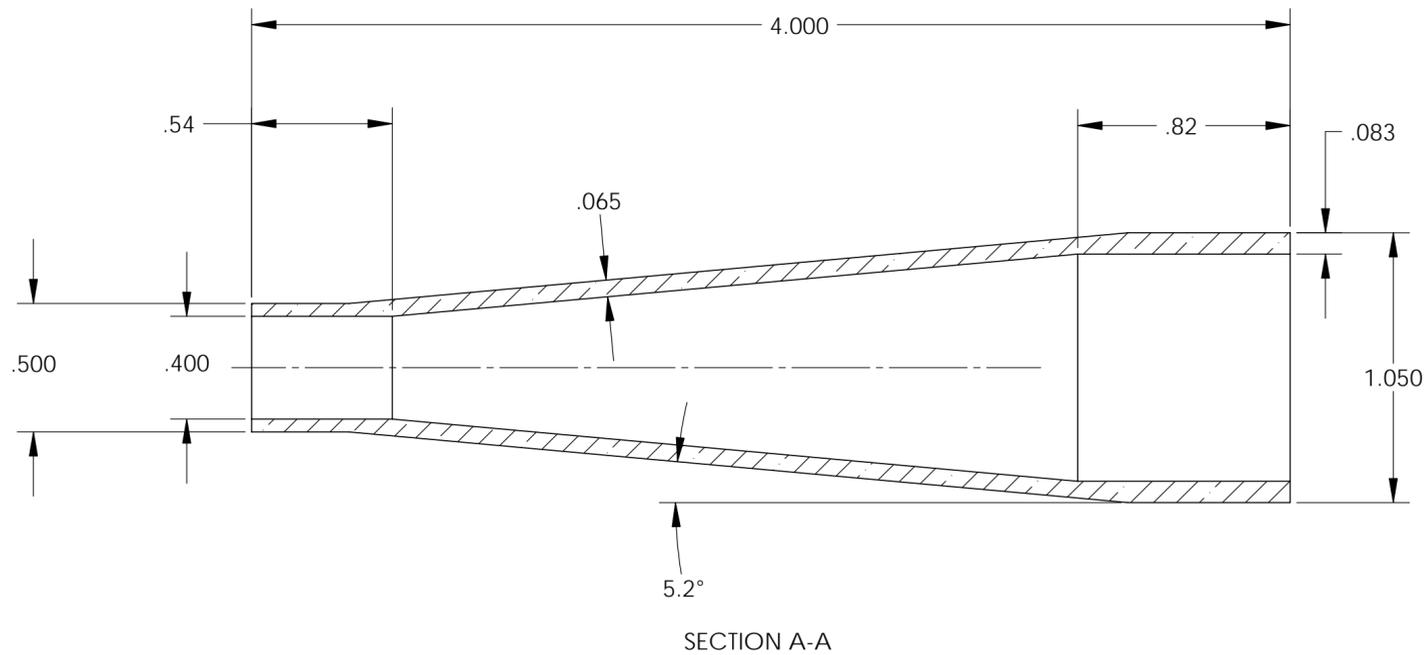
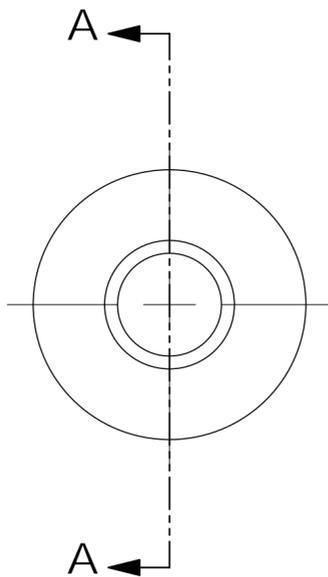
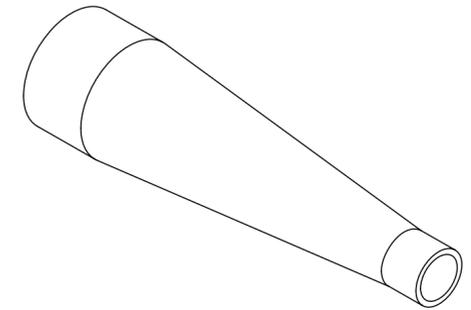
W-2 CAN BE SOCKET WELDED
1/16 G

ITEM	QTY.	NAME	MATERIAL	DESCRIPTION	DWG
4	1	hg supply inlet hjt	TI GRADE 2, ASTM B-861	RIGID SEAMLESS TUBE, 1.000 X .065 WALL X 2.000	N/A
3	1	hg supply line hjt	TI GRADE 2, ASTM B-861	RIGID SEAMLESS PIPE, 3/4" SCH10	N/A
2	2	hg supply elbow hjt	TI GRADE 2, ASTM B-861	RIGID SEAMLESS ELBOW, 3/4" SCH10	N/A
1	1	hg supply line hjt	TI GRADE 2, ASTM B-861	RIGID SEAMLESS PIPE, 3/4" SCH10	N/A

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
DES V GRAVES 02/06/2006 DRW T OQUIN 02/06/2006 CHK P SPAMPINATO 03/07/2006 ENG V GRAVES 02/06/2006 QA		<p align="center">MERIT EXPERIMENT HG PRIMARY TUBE ASSY HG PRIMARY SUPPLY TUBE WELDMENT</p>		CAD FILE HG PRIMARY SUPPLY ASSY
DRAWING APPROVALS		DATE	SIZE C	DWG NO. 203-HJT-0623
			PREV ASSY 203-HJT-0620	SCALE 1:5
			SHEET 1 of 1	REV 0

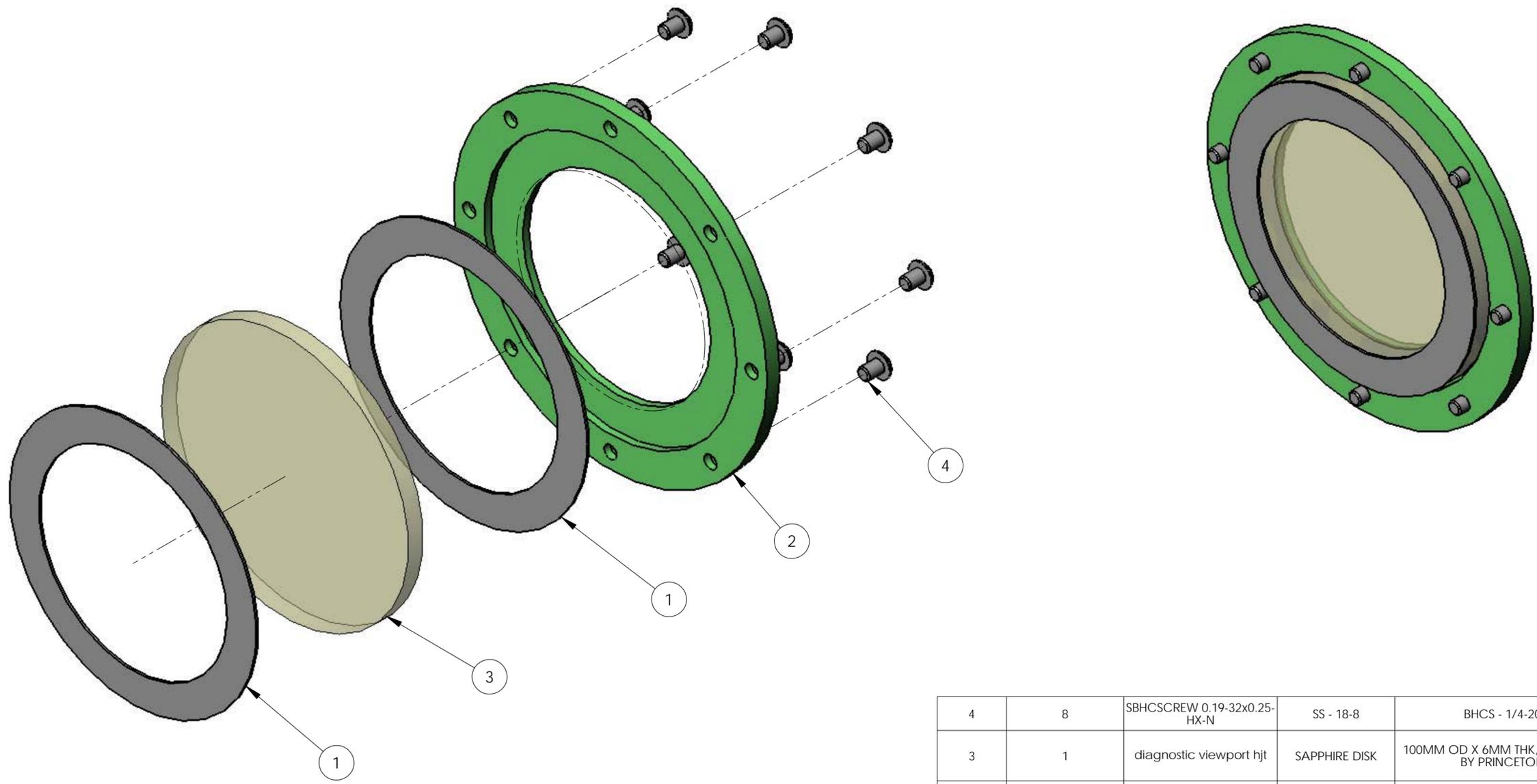
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



MATERIAL: TI-6AL-4V, ASTM B-348

<p>THIRD-ANGLE PROJECTION</p>		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																	
<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005 		<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>01/30/2006</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>02/06/2006</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>03/07/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>01/30/2006</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>		DES	V GRAVES	01/30/2006	DRW	T OQUIN	02/06/2006	CHK	P SPAMPINATO	03/07/2006	ENG	V GRAVES	01/30/2006	QA			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	01/30/2006																			
DRW	T OQUIN	02/06/2006																			
CHK	P SPAMPINATO	03/07/2006																			
ENG	V GRAVES	01/30/2006																			
QA																					
		<p>MERIT EXPERIMENT HG SUPPLY SYSTEM ASSY FLOW REDUCER</p>		<table border="1"> <tr> <td>CAD FILE</td> <td>PREV ASSY</td> <td>SCALE</td> <td>SHEET</td> </tr> <tr> <td>HG SUPPLY REDUCER HJT</td> <td>203-HJT-0620</td> <td>2:1</td> <td>1 of 1</td> </tr> <tr> <td>SIZE</td> <td>DWG NO.</td> <td>REV</td> <td></td> </tr> <tr> <td>C</td> <td>203-HJT-0624</td> <td>0</td> <td></td> </tr> </table>		CAD FILE	PREV ASSY	SCALE	SHEET	HG SUPPLY REDUCER HJT	203-HJT-0620	2:1	1 of 1	SIZE	DWG NO.	REV		C	203-HJT-0624	0	
CAD FILE	PREV ASSY	SCALE	SHEET																		
HG SUPPLY REDUCER HJT	203-HJT-0620	2:1	1 of 1																		
SIZE	DWG NO.	REV																			
C	203-HJT-0624	0																			
DRAWING APPROVALS		DATE																			

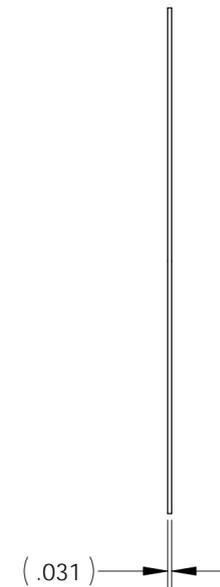
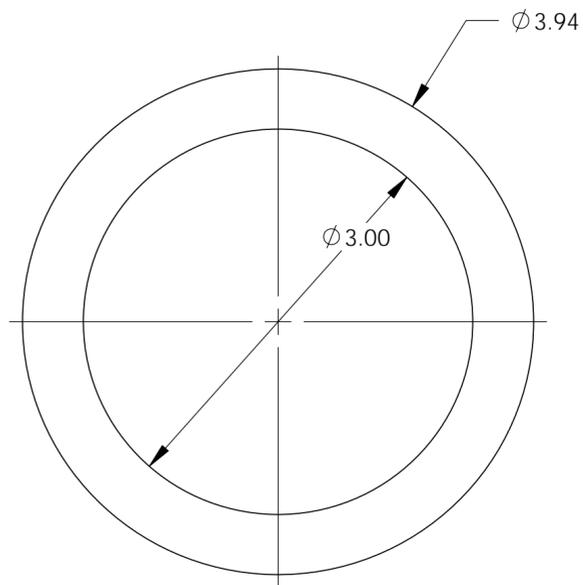
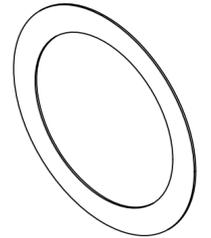


ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
4	8	SBHCSCREW 0.19-32x0.25-HX-N	SS - 18-8	BHCS - 1/4-20	N/A
3	1	diagnostic viewport hjt	SAPPHIRE DISK	100MM OD X 6MM THK, PROVIDED BY PRINCETON	N/A
2	1	diagnostic viewport cover hjt	AL - 6061 T6, ASTM B-209	PLATE, 5.00 X .20 THK	203-HJT-0633
1	2	lens gasket hjt	BUNA-N, 1/32 THK	3.90 OD X 3.10 ID	203-HJT-0632

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>NUFACT HG JET EXPERIMENT PRIMARY TUBE ASSY OPTIC VIEWPORT ASSY</p>		
<p>CAD FILE OPTIC VIEWPORT ASSY</p>		<p>PREV ASSY 203-HJT-0610</p>		<p>SCALE 1:1</p>	<p>SHEET 1 of 1</p>
<p>DRAWING APPROVALS</p>		<p>DATE</p>		<p>SIZE C</p>	<p>REV 0</p>
		<p>DWG NO. 203-HJT-0630</p>			

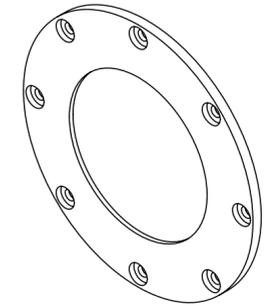
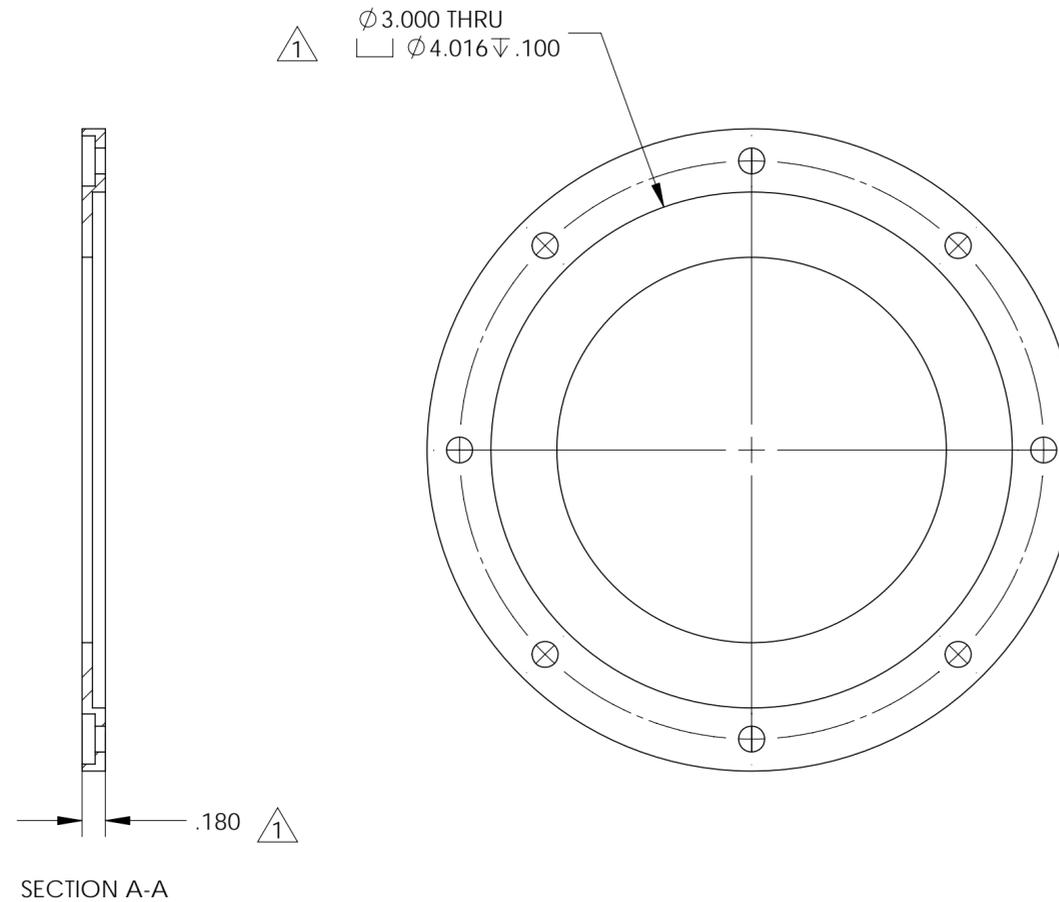
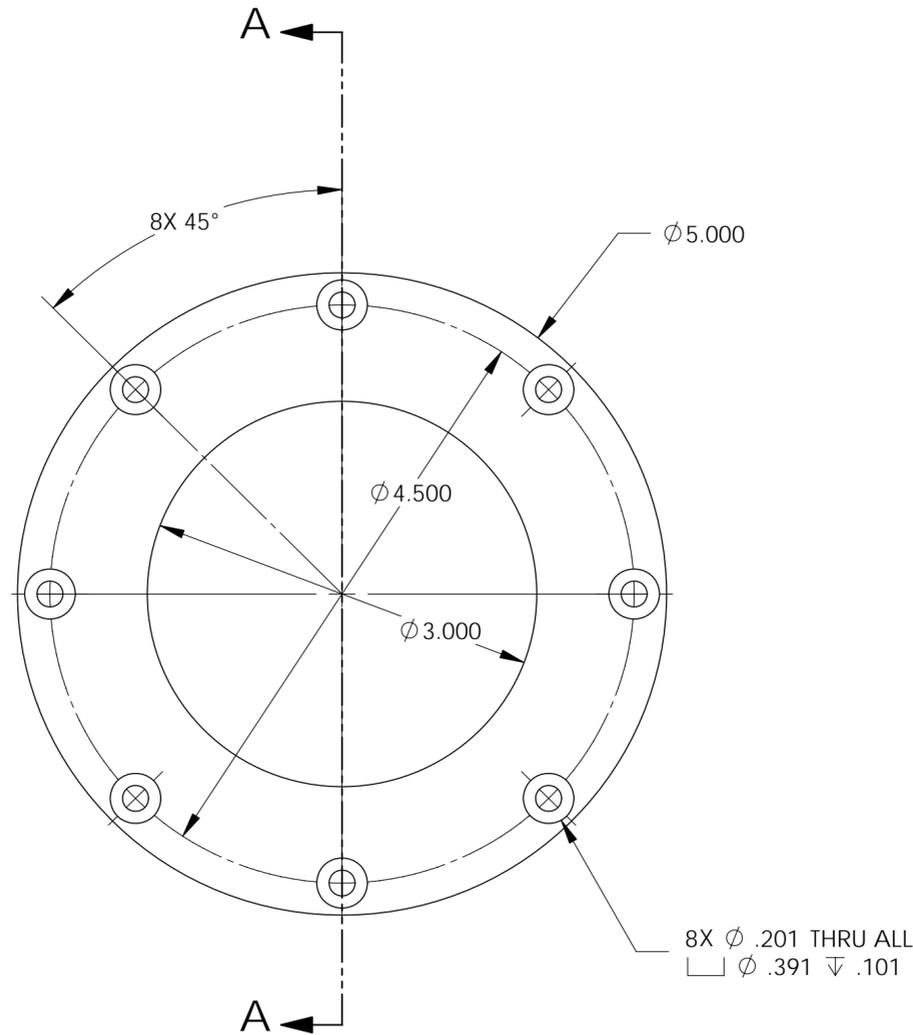
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED

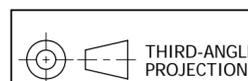


MATERIAL: BUNA-N, 1/32 THK

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DES	V GRAVES	06/10/2005	MERIT EXPERIMENT OPTIC VIEWPORT ASSY LENS GASKET			
DRW	T OQUIN	06/10/2005				
CHK	P SPAMPINATO	11/09/2005				
ENG	V GRAVES	06/10/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			LENS GASKET HJT	203-HJT-0630	1:1	1 of 1
DRAWING APPROVALS			DATE	SIZE	DWG NO.	REV
				C	203-HJT-0632	0



MATERIAL: AL - 6061 T6, ASTM B-209



THIRD-ANGLE PROJECTION

- UNLESS OTHERWISE NOTED
1. ALL DIMENSIONS ARE IN INCHES
 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
 3. MACHINED FINISH 125 MICRO-INCHES RMS
 4. CONCENTRICITY .010 TIR
 5. MACHINED ANGLES ±1/2°
 6. FORMED ANGLES ±1°
 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
 8. WHOLE NUMBERS AND FRACTIONS ±1/16
 9. X DECIMALS ±.030
 10. XX DECIMALS ±.010
 11. XXX DECIMALS ±.005

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OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

DES	V GRAVES	06/09/2005
DRW	T OQUIN	06/09/2005
CHK	P SPAMPINATO	11/09/2005
ENG	V GRAVES	06/09/2005
QA		
-	-	-

**NUFACT HG JET EXPERIMENT
PRIMARY TUBE ASSY
DIAGNOSTIC VIEWPORT COVER**

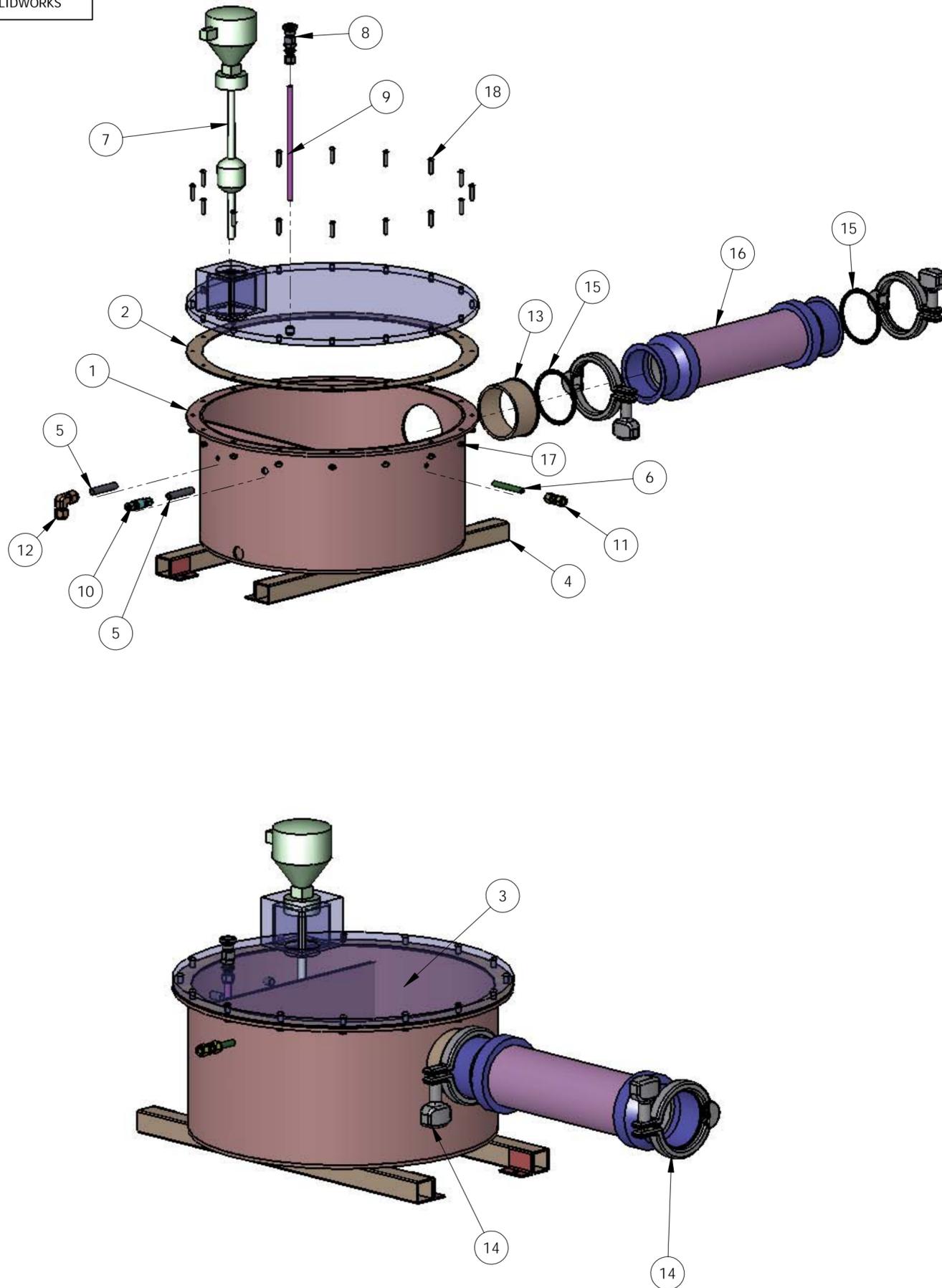
REV	DESCRIPTION	DATE	BY	APPROVED
1	CHANGED O/A THICKNESS & RECESS DIA	5/19/2006	VBG	VBG

CAD FILE	PREV ASSY	SCALE	SHEET
DIAGNOSTIC VIEWPORT COVER HJT	203-HJT-0630	1:1	1 of 1
SIZE	DWG NO.		REV
C	203-HJT-0633		1

DRAWING APPROVALS DATE

NOTES

1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED. NO RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.



ITEM	QTY	NAME	MATERIAL	DESCRIPTION	DWG
18	16	socket button head cap screw_ai	SS - 18-8	BHCS - 1/4-20	N/A
17	16	PEM WNS-0420-0 ---N	SS - 18-8	PEM WELDNUT - 1/4-20	N/A
16	1	flex hose sanitary hjt	PTFE, SS-304	FLEXLINE 4.0" HOSE W/SANITARY FLANGES, 64GW50605060-0189, 18.9 FLANGE TO FLANGE	N/A
15	2	kwik-clamp gasket hjt	EPDM	SWAGelok JC40E KWIK-CLAMP GASKET - 4"	N/A
14	2	Jensen Clamp #JC13HDR	SS - 304	JENSEN #JC13HDR - 4" CLAMP	N/A
13	1	tube4.0	SS - 304L	SWAGelok JC14H - 4"	N/A
12	1	swagelok union elbow - 0.5	SS - 316	SWAGelok UNION ELBOW SS-810-9	N/A
11	1	swagelok tubing union 0.375	SS 316	SWAGelok 3/8 UNION, SS-600-6	N/A
10	1	swagelok chkvalve 0.375	SS 316	SWAGelok CHECKVALVE SS-6C-1/3	N/A
9	1	hg straw hjt	SS - 304L, ASTM A269	.38" OD X .07 WALL, BEND TOWARDS DRAIN, FIELD FIT	N/A
8	1	swagelok qcbulkhead body 0.375	SS - 316	SWAGelok BULKHEAD BODY W/PROTECTOR, SS-QC6-B1-600 & SS-QC6-BP	N/A
7	1	sump tank level sensor	---	FLOWLINE LV50-S001-12.0-0.25	N/A
6	1	tubing	SS - 304L, ASTM A269	.38 OD x .07 WALL x 3.00 L	N/A
5	2	tubing	SS - 304L, ASTM A269	.50 OD x .07 WALL x 2.50 L	N/A
4	2	sump tank support hjt	SS - 304L, ASTM A-554	SUMP TANK SUPPORT	203-HJT-0647
3	1	sump tank cover hjt	LEXAN	SHEET, 22.00 OD X .50 THK, PROVIDED BY PRINCETON	203-HJT-0642
2	1	sump tank cover gasket hjt	1/8" BUNA-N SHEET, 50A	MCMaster-CARR #86715K869, PROVIDED BY PRINCETON	203-HJT-0643
1	1	sump tank hjt	SS - 304L	SUMP TANK	203-HJT-0641

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.

DES	V GRAVES	01/12/2006
DRW	T OQUIN	01/12/2006
CHK	P SPAMPINATO	01/31/2006
ENG	V GRAVES	01/12/2006
QA		

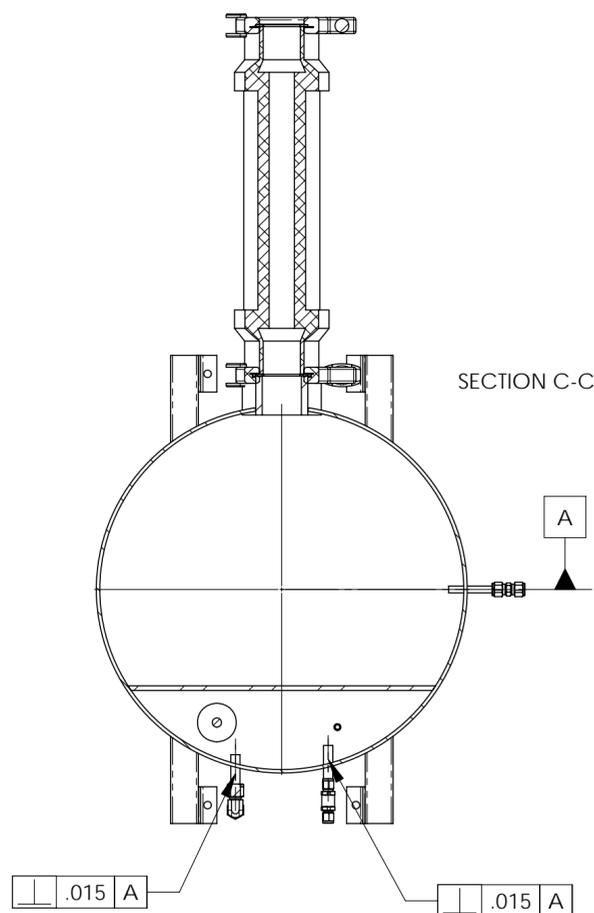
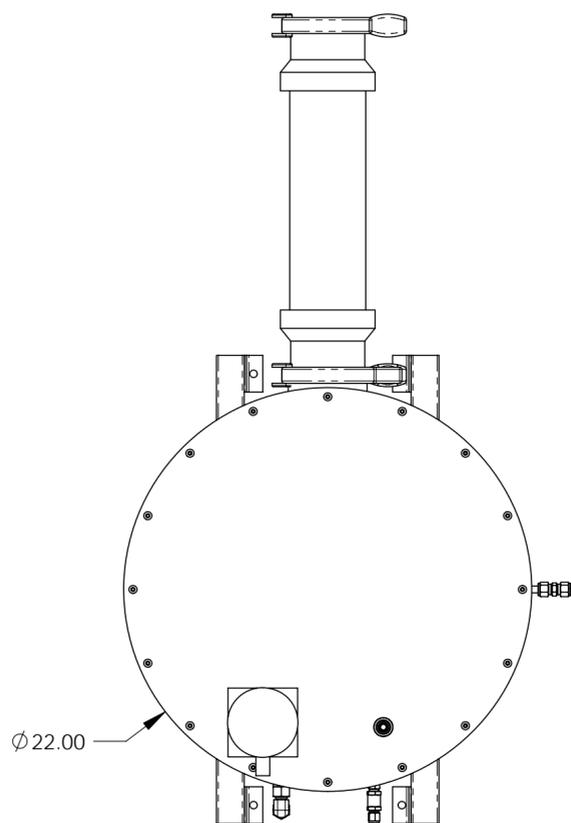
DRAWING APPROVALS DATE

oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

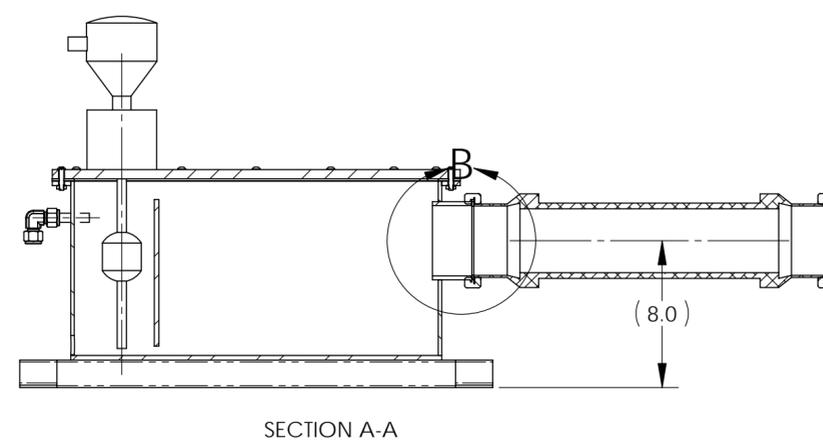
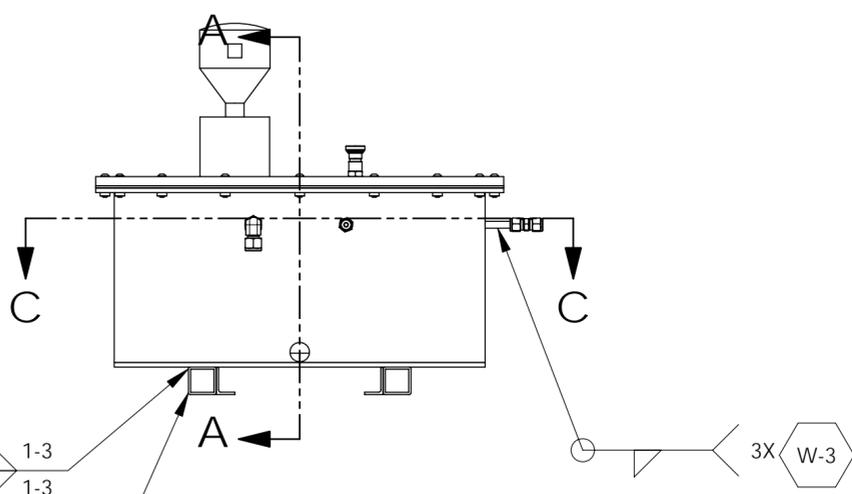
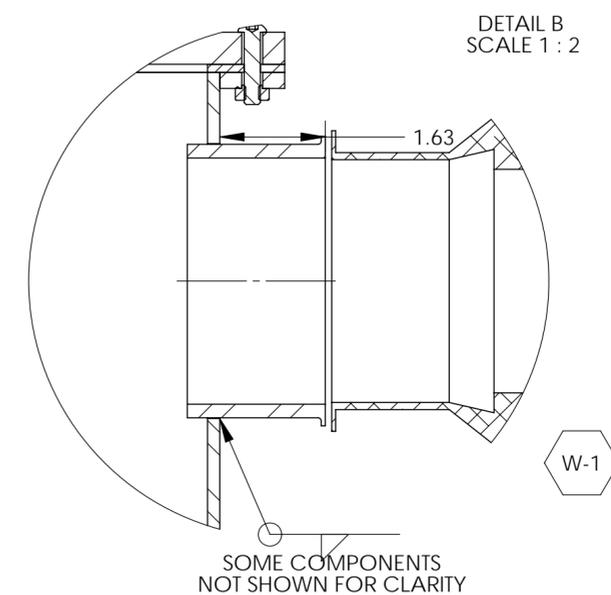
MERIT EXPERIMENT
HG SYRINGE ASSY
SUMP TANK ASSY

CAD FILE	PREV ASSY	SCALE	SHEET
SUMP TANK ASSY HJT	203-HJT-0600	1:6	1 of 2
SIZE	DWG NO.		REV
	203-HJT-0640		0



NOTES

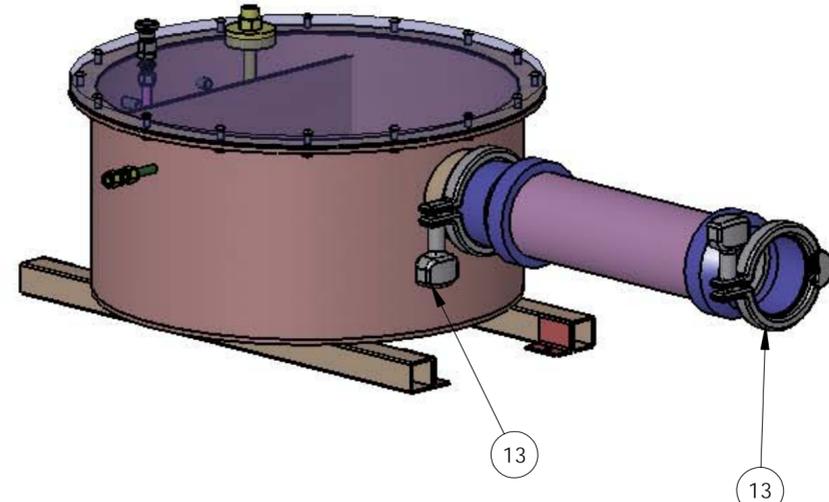
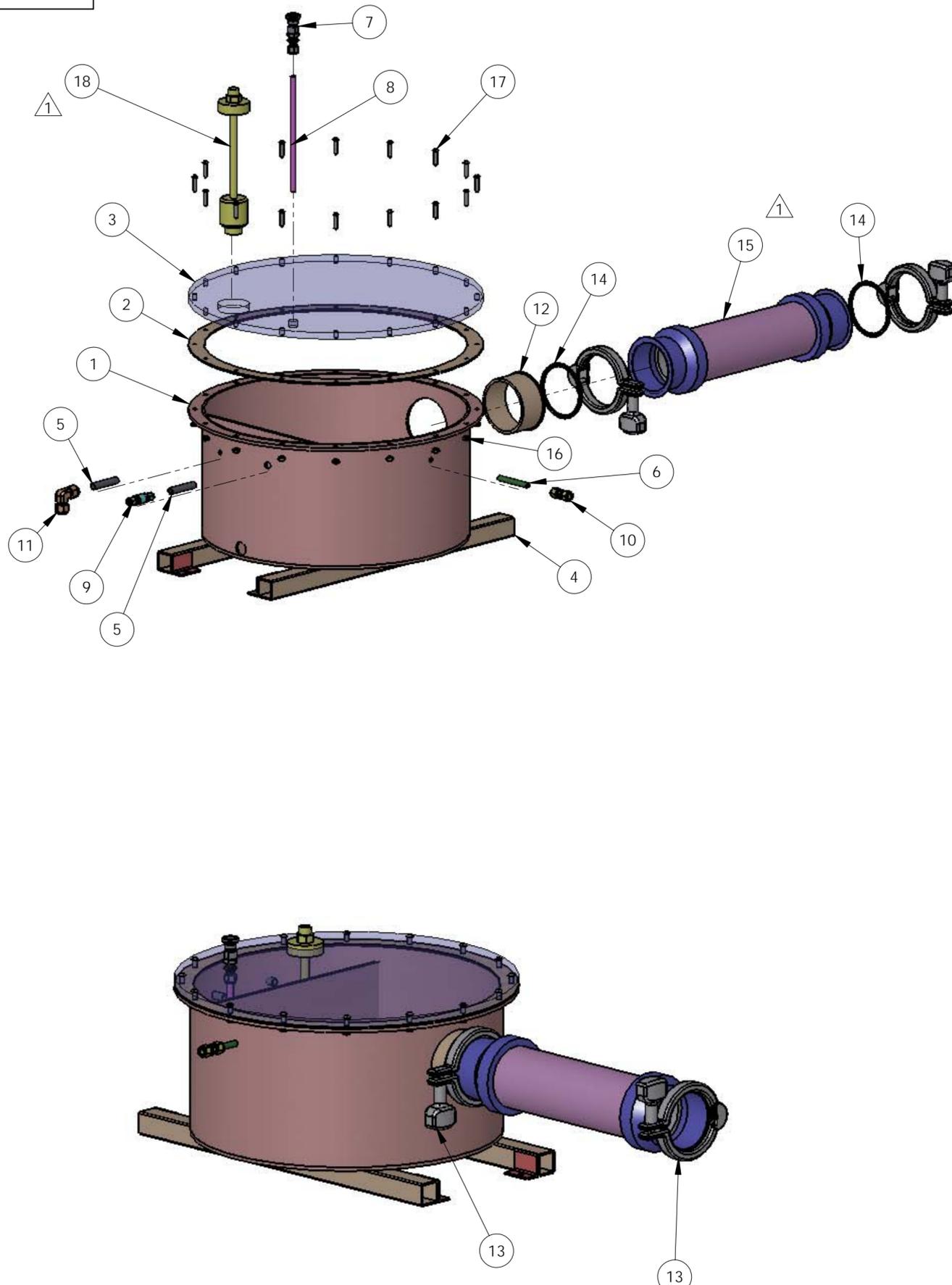
1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED. NO RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.



BOLT SUMP TANK SUPPORTS TO TOP OF HG CYLINDERS PRIOR TO WELDING TO SUMP TANK !!!

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY ± 0.10 TR</p> <p>5. MACHINED ANGLES $\pm 12^\circ$</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. W HOLE NUMBERS AND FRACTIONS $\pm 1/16$</p> <p>8. X DECIMALS ± 0.30</p> <p>9. XX DECIMALS ± 0.10</p> <p>10. XXX DECIMALS ± 0.05</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>			<p>MERIT EXPERIMENT HG SYRINGE ASSY SUMP TANK ASSY</p>		
DES	V GRAVES	01/12/2006	CAD FILE	PREV ASSY	SCALE	SHEET
DRW	T OQUIN	01/12/2006	SUMP TANK ASSY HJT	203-HJT-0600	1:7	2 of 2
CHK	P SPAMPINATO	01/31/2006	SIZE	DWG NO.		REV
ENG	V GRAVES	01/12/2006	C	203-HJT-0640		0
QA			DRAWING APPROVALS	DATE		

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

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3. MATERIAL CERTIFICATIONS REQUIRED.

ITEM	QTY	NAME	MATERIAL	DESCRIPTION	DWG
18	1	hg level sensor hjt	SS - 316	MADISON CO CONTINUOUS LEVEL SENSOR C3957-1033, 4-20 MA, WITH INTEGRATED RTD	N/A
17	16	socket button head cap screw_ai	SS - 18-8	BHCS - 1/4-20	N/A
16	16	PEM WNS-0420-0 ---N	SS - 18-8	PEM WELDNUT - 1/4-20	N/A
15	1	flex hose sanitary hjt	PTFE, SS-304	FLEXLINE 4.0" FLEX METAL HOSE W/SANITARY FLANGES, 61-400-6NT6NT-18.9, 18.9" FLANGE TO FLANGE	N/A
14	2	kwik-clamp gasket hjt	EPDM	SWAGELOK JC40E KWIK-CLAMP GASKET - 4"	N/A
13	2	Jensen Clamp #JC13HDR	SS - 304	JENSEN #JC13HDR - 4" CLAMP	N/A
12	1	tube4.0	SS - 304L	SWAGELOK JC14H - 4"	N/A
11	1	swagelok union elbow - 0.5	SS - 316	SWAGELOK UNION ELBOW SS-810-9	N/A
10	1	swagelok tubing union 0.375	SS 316	SWAGELOK 3/8 UNION, SS-600-6	N/A
9	1	swagelok chkvalve 0.375	SS 316	SWAGELOK CHECKVALVE SS-6C-1/3	N/A
8	1	hg straw hjt	SS - 304L, ASTM A269	.38" OD X .07 WALL, BEND TOWARDS DRAIN, FIELD FIT	N/A
7	1	swagelok qcbulkhead body 0.375	SS - 316	SWAGELOK BULKHEAD BODY W/PROTECTOR, SS-QC6-B1-600 & SS-QC6-BP	N/A
6	1	tubing	SS - 304L, ASTM A269	.38 OD x .07 WALL x 3.00 L	N/A
5	2	tubing	SS - 304L, ASTM A269	.50 OD x .07 WALL x 2.50 L	N/A
4	2	sump tank support hjt	SS - 304L, ASTM A-554	SUMP TANK SUPPORT	203-HJT-0647
3	1	sump tank cover hjt	LEXAN	SHEET, 22.00 OD X .50 THK, PROVIDED BY PRINCETON	203-HJT-0642
2	1	sump tank cover gasket hjt	1/8" BUNA-N SHEET, 50A	MCMaster-CARR #86715K869, PROVIDED BY PRINCETON	203-HJT-0643
1	1	sump tank hjt	SS - 304L	SUMP TANK	203-HJT-0641

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

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2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

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DES	V GRAVES	01/12/2006
DRW	T OQUIN	01/12/2006
CHK	P SPAMPINATO	01/31/2006
ENG	V GRAVES	01/12/2006
QA		

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operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

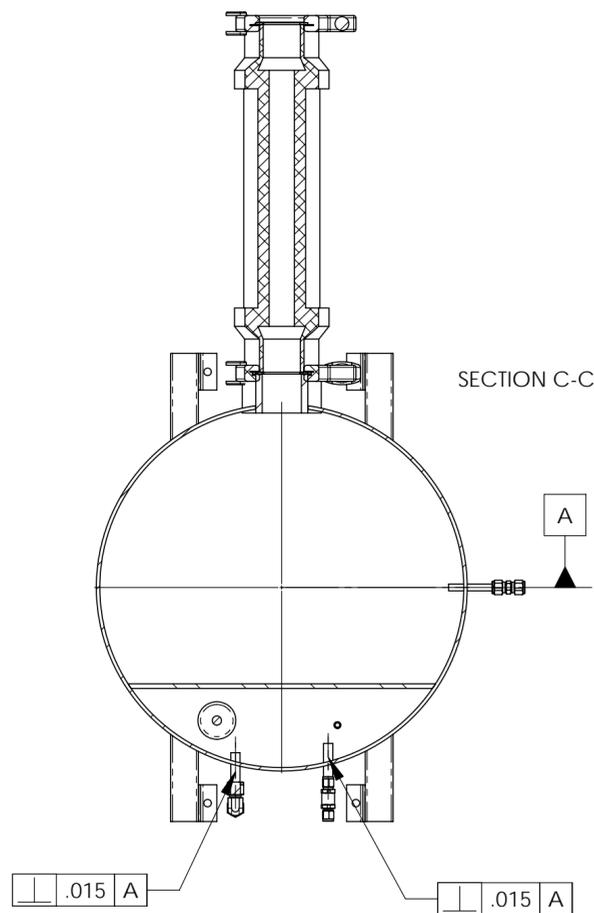
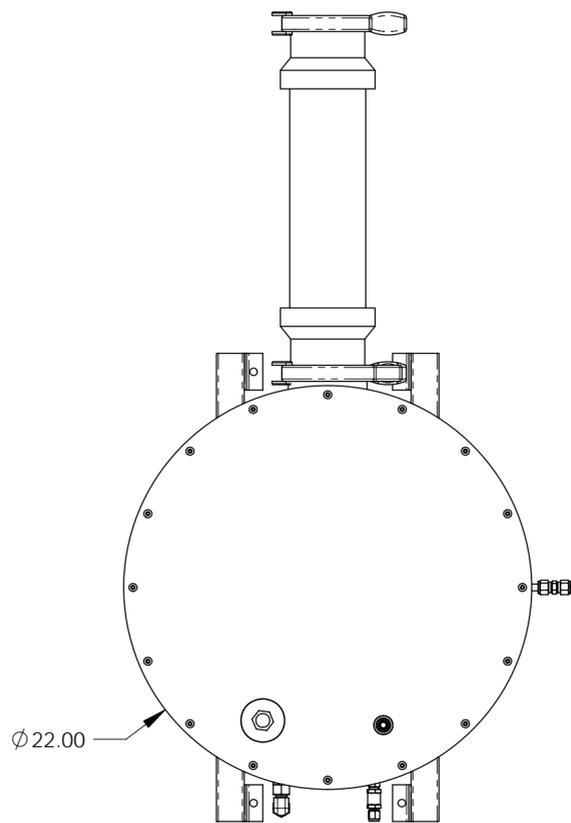
NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

MERIT EXPERIMENT
HG SYRINGE ASSY
SUMP TANK ASSY

CAD FILE	PREV ASSY	SCALE	SHEET
SUMP TANK ASSY HJT	203-HJT-0600	1:6	1 of 2
SIZE	DWG NO.		REV
C	203-HJT-0640		1

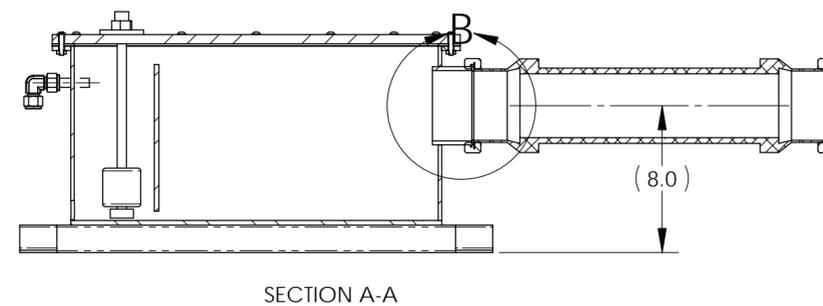
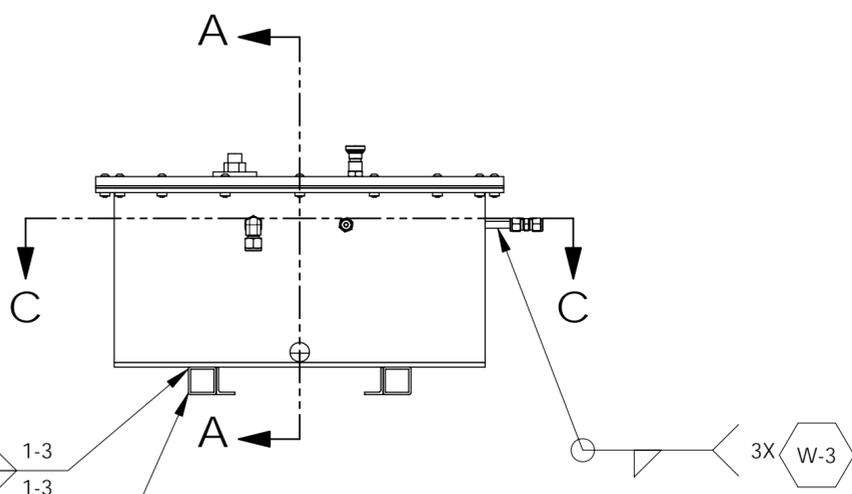
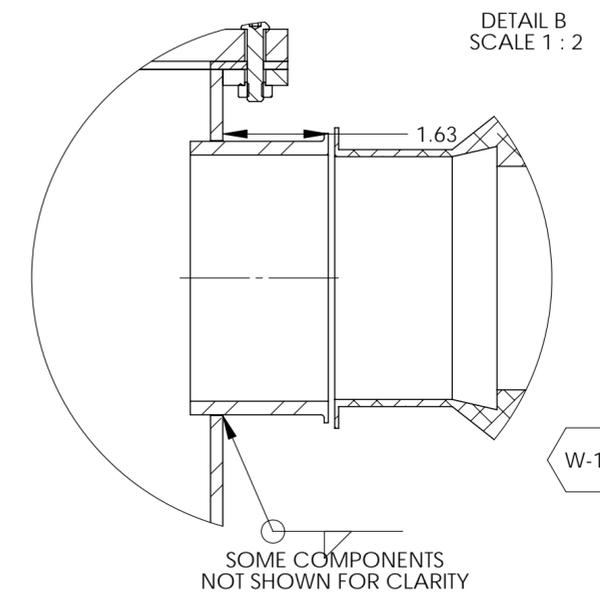
REV	DESCRIPTION	DATE	BY	APPROVED
1	CHANGED HG LEVEL SENSOR AND HG RETURN HOSE	3/7/2006	VBG	VBG

DWG NO. 203-HJT-0640



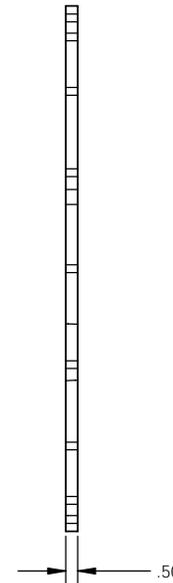
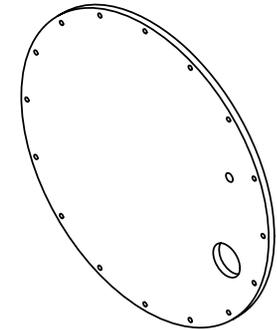
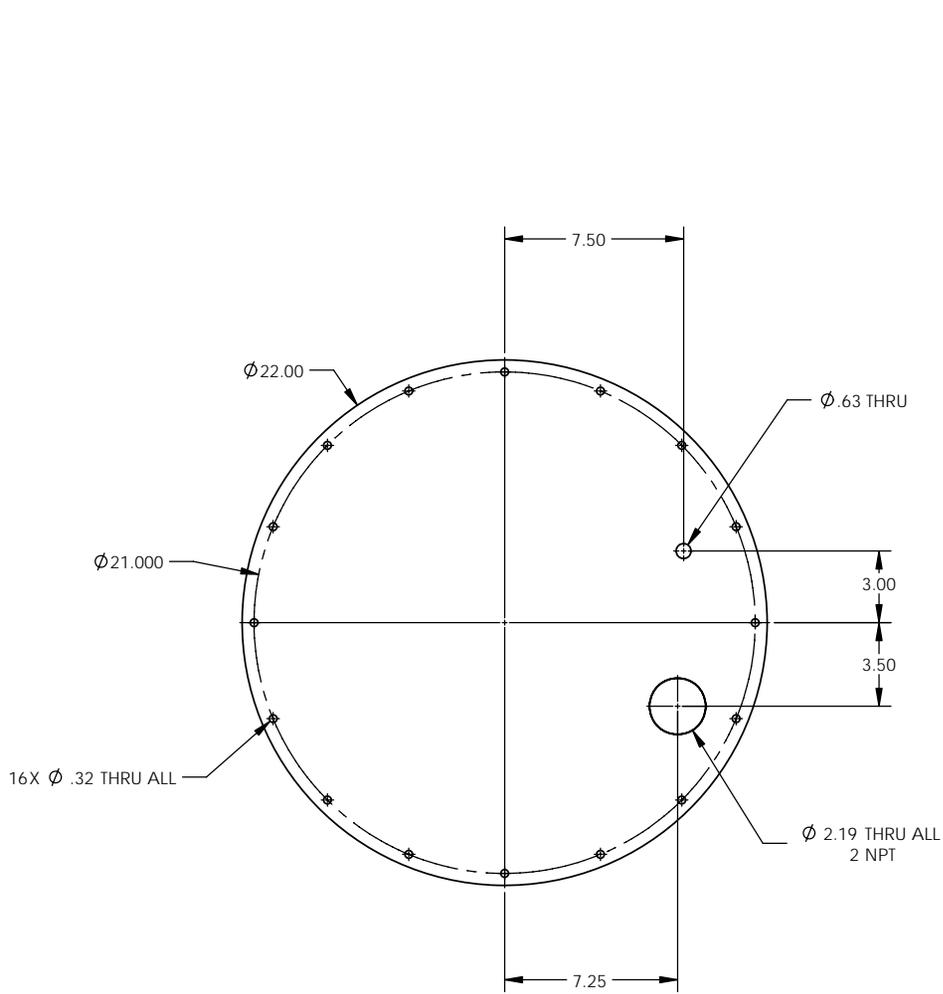
NOTES

1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED. NO RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.



BOLT SUMP TANK SUPPORTS TO TOP OF HG CYLINDERS PRIOR TO WELDING TO SUMP TANK !!!

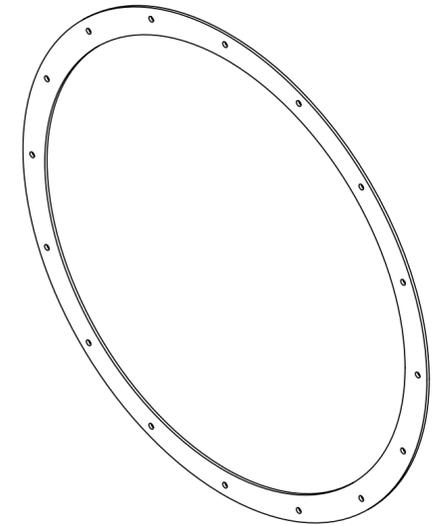
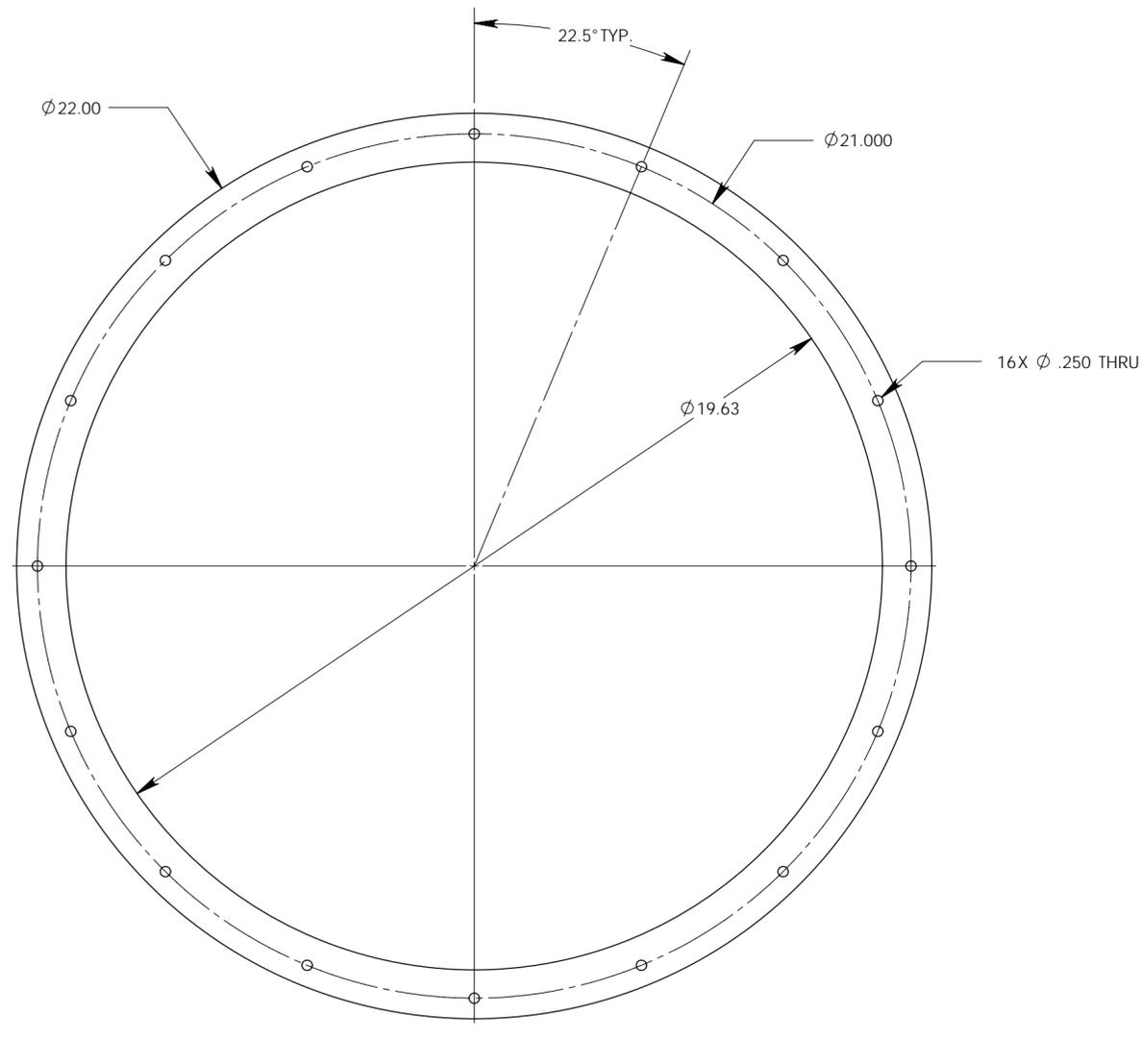
<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY ± 0.10 TR 5. MACHINED ANGLES $\pm 1/2^\circ$ 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. W HOLE NUMBERS AND FRACTIONS $\pm 1/16$ 8. XX DECIMALS ± 0.030 9. XXX DECIMALS ± 0.010 10. XXXX DECIMALS ± 0.005 	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>			
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT HG SYRINGE ASSY SUMP TANK ASSY</p>			
DES	V GRAVES	01/12/2006	CAD FILE	PREV ASSY	SCALE	SHEET
DRW	T OQUIN	01/12/2006	SUMP TANK ASSY HJT	203-HJT-0600	1:7	2 of 2
CHK	P SPAMPINATO	01/31/2006	SIZE	DWG NO.		REV
ENG	V GRAVES	01/12/2006	C	203-HJT-0640		0
QA			DRAWING APPROVALS	DATE		



MATERIAL: LEXAN

1	CHANGED HG LEVEL SENSOR MOUNT HOLE	3/7/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. WHOLE NUMBERS AND FRACTIONS ±1/16 9. X DECIMALS ±.030 10. XXX DECIMALS ±.010 11. XXXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	06/08/2005	<p align="center">NUFACT HG JET EXPERIMENT SUMP TANK ASSY SUMP TANK COVER</p>			
DRW	T OQUIN	06/08/2005				
CHK	P SPAMPINATO	01/31/2006				
ENG	V GRAVES	06/08/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			SUMP TANK COVER HJT	203-HJT-0640	1:4	1 of 1
DRAWING APPROVALS			DATE	SIZE	DWG NO.	REV
				C	203-HJT-0642	1

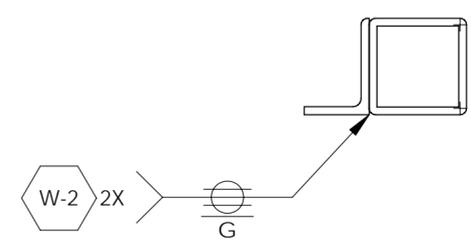
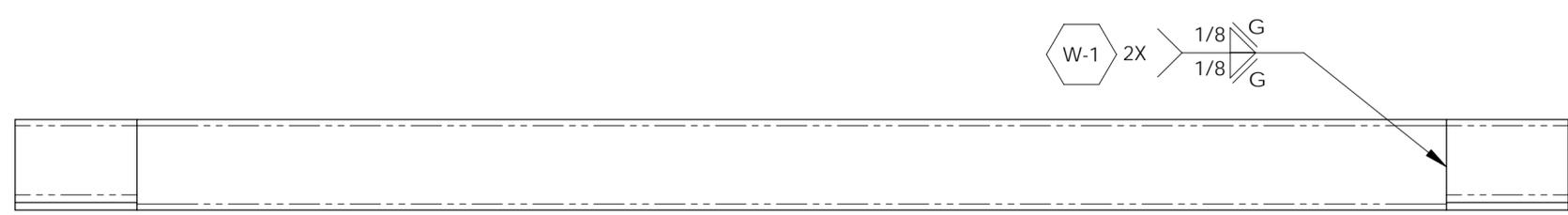
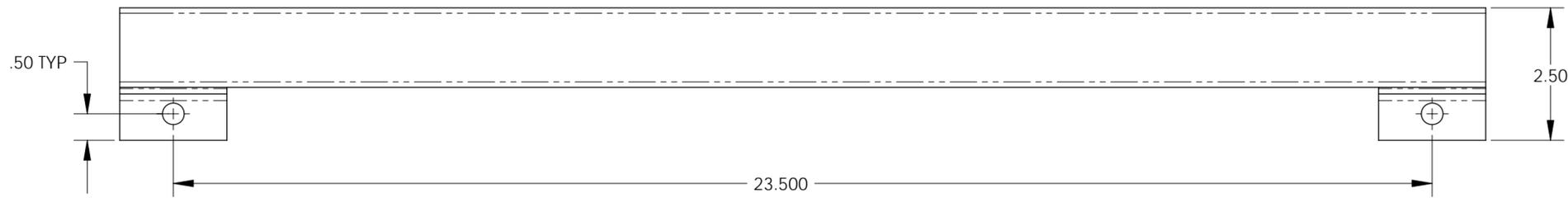
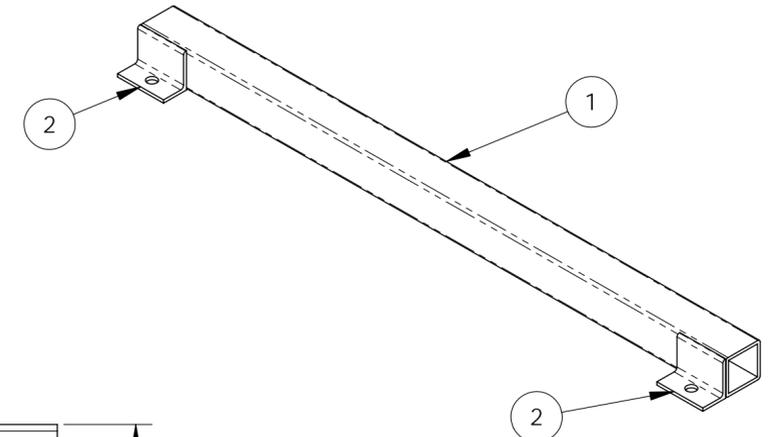


MATERIAL: 1/8" BUNA-N SHEET, 50A

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																			
	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-INCHES RMS CONCENTRICITY .010 TIR MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND FRACTIONS ±1/16 X DECIMALS ±.030 XX DECIMALS ±.010 XXX DECIMALS ±.005 			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>																			
<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>07/10/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>07/10/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/31/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>07/10/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </table>			DES	V GRAVES	07/10/2005	DRW	T OQUIN	07/10/2005	CHK	P SPAMPINATO	01/31/2006	ENG	V GRAVES	07/10/2005	QA			-	-	-	<p align="center">NUFACT HG JET EXPERIMENT SUMP TANK ASSY SUMP TANK COVER GASKET</p>		
DES	V GRAVES	07/10/2005																					
DRW	T OQUIN	07/10/2005																					
CHK	P SPAMPINATO	01/31/2006																					
ENG	V GRAVES	07/10/2005																					
QA																							
-	-	-																					
<p>DRAWING APPROVALS DATE</p>																							
<p>SIZE C DWG NO. 203-HJT-0643</p>			<p>CAD FILE SUMP TANK COVER GASKET HJT</p>	<p>PREV ASSY 203-HJT-0640</p>	<p>SCALE 1:3</p>	<p>SHEET 1 of 1</p>																	
<p>REV 0</p>																							

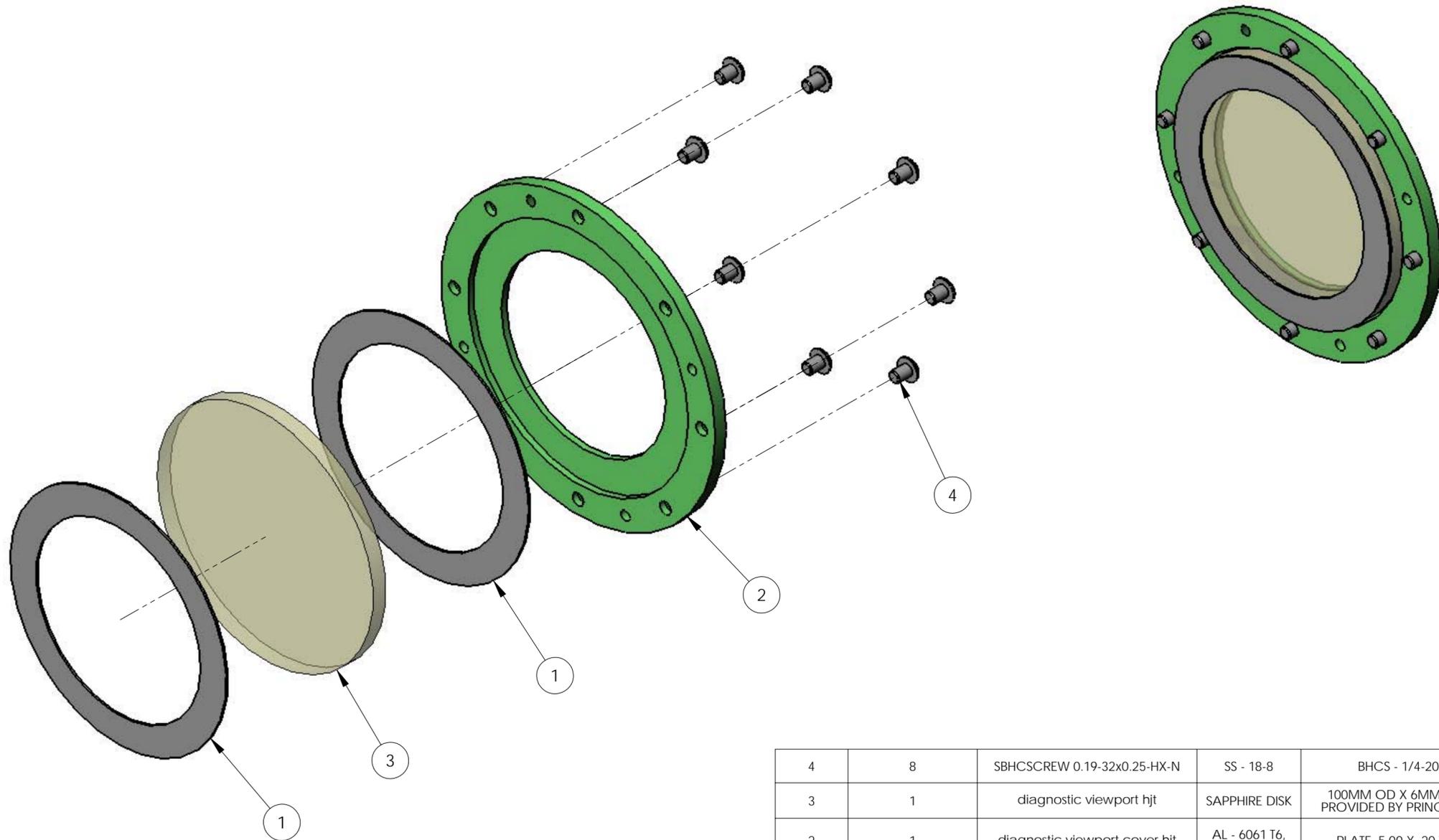
NOTES

1. ALL ANGLES 90° ± 1
2. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
4. MATERIAL CERTIFICATIONS REQUIRED



ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
2	2	ANGLE, 1.50 x 1.00 x .13 x 2.00	SS - 304L, ASTM A276	2.00
1	1	TUBE, 1.50 SQ. x .12 x 25.50	SS - 304, ASTM A554	25.50

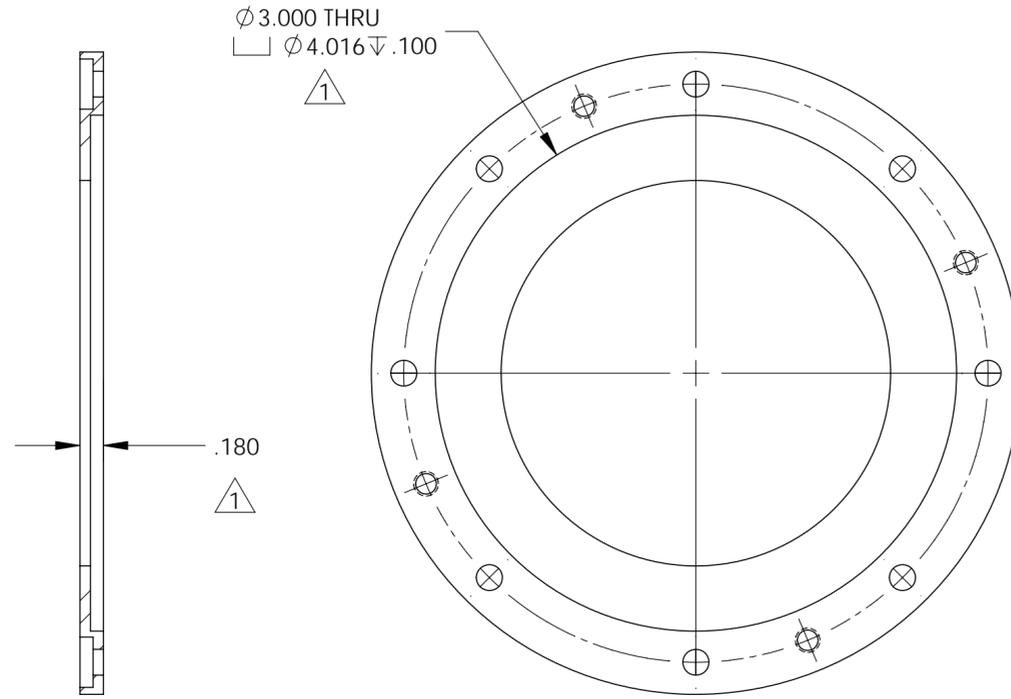
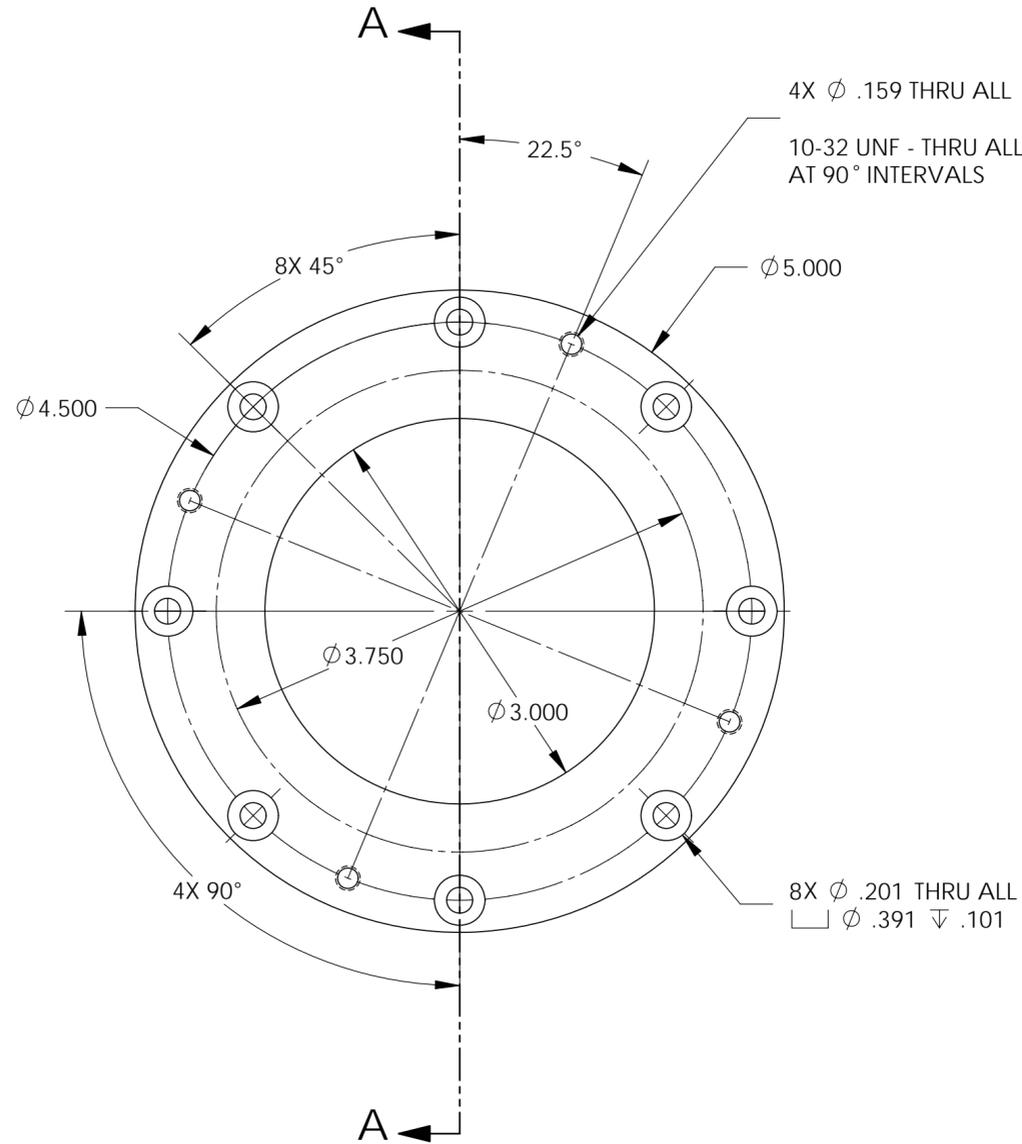
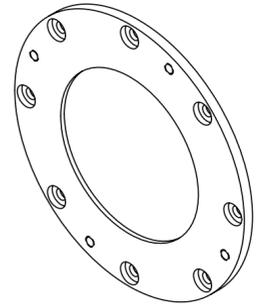
<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. FORMED ANGLES ±1°</p> <p>7. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	<p>DES V GRAVES 01/12/2006</p> <p>DRW T OQUIN 01/12/2006</p> <p>CHK P SPAMPINATO 01/31/2006</p> <p>ENG V GRAVES 01/12/2006</p> <p>QA</p>		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
<p>MERIT EXPERIMENT SUMP TANK ASSY SUMP TANK SUPPORT</p>		<p>CAD FILE SUMP TANK SUPPORT HJT</p>	<p>PREV ASSY 203-HJT-0640</p>	<p>SCALE 1:2</p>	<p>SHEET 1 of 1</p>
<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>SIZE C</p>	<p>DWG NO. 203-HJT-0647</p>	<p>REV 0</p>



4	8	SBHCSCREW 0.19-32x0.25-HX-N	SS - 18-8	BHCS - 1/4-20	N/A
3	1	diagnostic viewport hjt	SAPPHIRE DISK	100MM OD X 6MM THK, PROVIDED BY PRINCETON	N/A
2	1	diagnostic viewport cover hjt	AL - 6061 T6, ASTM B-209	PLATE, 5.00 X .20 THK	203-HJT-0663
1	2	lens gasket hjt	BUNA-N, 1/32 THK	3.90 OD X 3.10 ID	203-HJT-0632
ITEM	reflector/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
<p>THIRD-ANGLE PROJECTION</p>		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
<p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>NUFACT HG JET EXPERIMENT PRIMARY TUBE ASSY OPTIC VIEWPORT ASSY - REFLECTOR</p>	
<p>DRAWING APPROVALS</p>		<p>DATE</p>		<p>CAD FILE</p> <p>OPTIC VIEWPORT ASSY</p> <p>SIZE DWG NO.</p>	<p>PREV ASSY</p> <p>203-HJT-0630</p> <p>SCALE</p> <p>1:1.2</p> <p>SHEET</p> <p>1 of 1</p> <p>REV</p> <p>0</p>
				<p>203-HJT-0660</p>	<p>0</p>

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



SECTION A-A

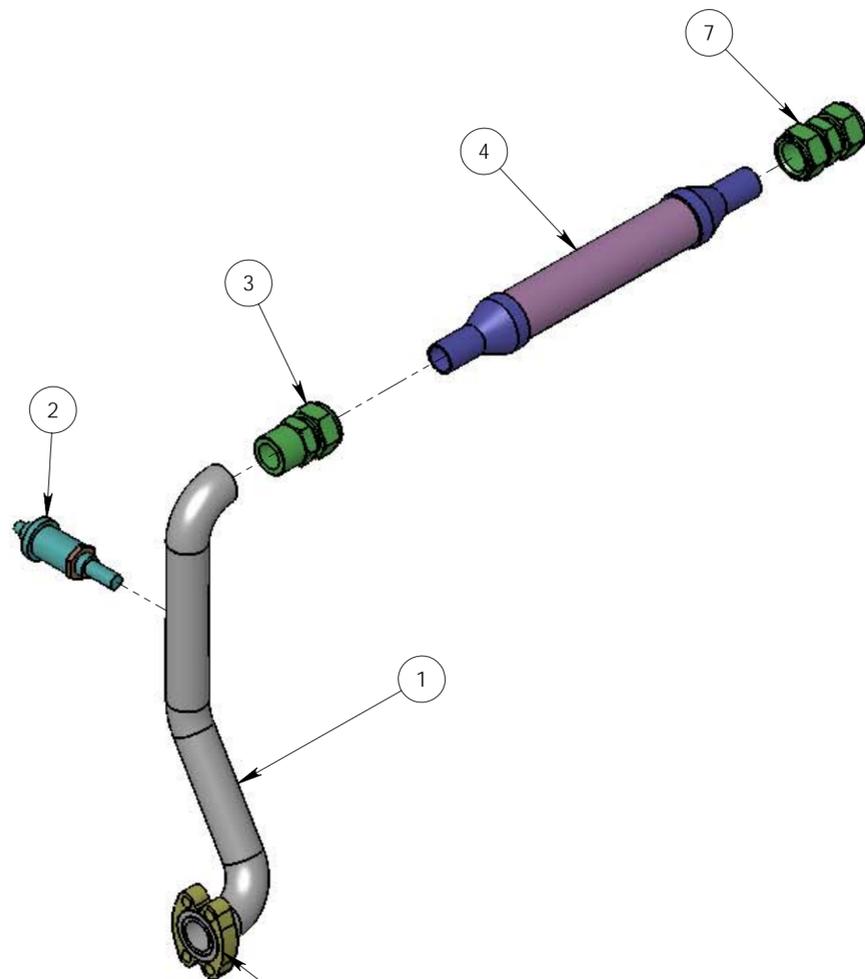
MATERIAL: AL - 6061 T6, ASTM B-209

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																			
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<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>06/09/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>06/09/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>11/09/2005</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>06/09/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </table>			DES	V GRAVES	06/09/2005	DRW	T OQUIN	06/09/2005	CHK	P SPAMPINATO	11/09/2005	ENG	V GRAVES	06/09/2005	QA			-	-	-	<p align="center">NUFACT HG JET EXPERIMENT PRIMARY TUBE ASSY DIAGNOSTIC VIEWPORT COVER - REFLECTOR</p>		
DES	V GRAVES	06/09/2005																					
DRW	T OQUIN	06/09/2005																					
CHK	P SPAMPINATO	11/09/2005																					
ENG	V GRAVES	06/09/2005																					
QA																							
-	-	-																					
CAD FILE DIAGNOSTIC VIEWPORT COVER HJT		PREV ASSY 203-HJT-0660		SCALE 1:1	SHEET 1 of 1																		
SIZE C		DWG NO. 203-HJT-0663		REV 1																			

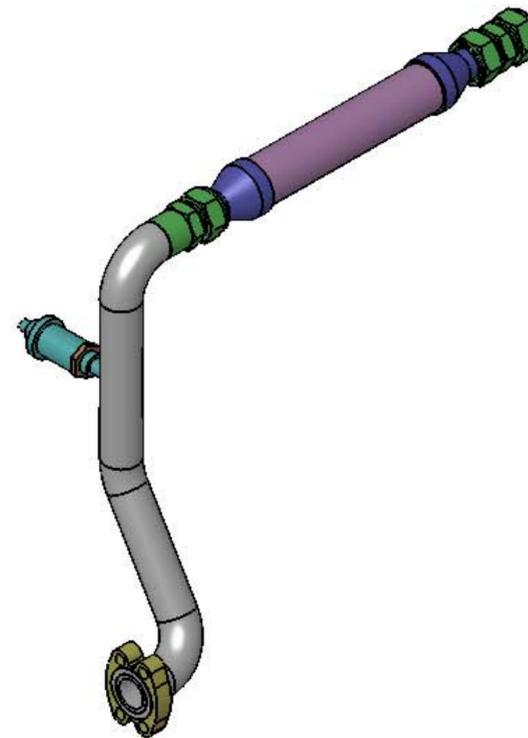
1	MODIFIED O/A THICKNESS & RECESS DIA	5/19/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

NOTES

1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. 100% RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.
4. PIPING ASSEMBLY TO BE PRESSURE TESTED TO 2250 PSIG.
5. THREADED CONNECTION NOT ALLOWED FOR TRANSDUCER.



1.00 DIA 4-BOLT SAE FLANGE PORT CODE 61 (3000 PSI)



ITEM	Default/OT Y.	NAME	MATERIAL	DESCRIPTION	DWG
7	1	swagelok 1.0 tubing union	SS - 316	SWAGELOK UNION SS-1610-6	N/A
4	1	flex hose hjt	PTFE/SS-304	SWAGELOK 1" 8R HOSE W/TUBING ENDS, 13.5 FACE-TO-FACE	N/A
3	1	swagelok 1.0 pipe weld connector	SS - 316L	SWAGELOK PIPE WELD CONNECTOR, SS-1610-1-16W	N/A
2	1	pressure transducer hjt	---	VAC/2000PSI TRANSDUCER, 4-20MA	N/A
1	1	hg cyl discharge tube hjt	SS - 304L, ASTM A279	PIPE, 1" SCH 40	N/A



THIRD-ANGLE PROJECTION

- UNLESS OTHERWISE NOTED
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 3. MACHINED FINISH 125 MICRO-INCHES RMS
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 6. FORMED ANGLES ±1°
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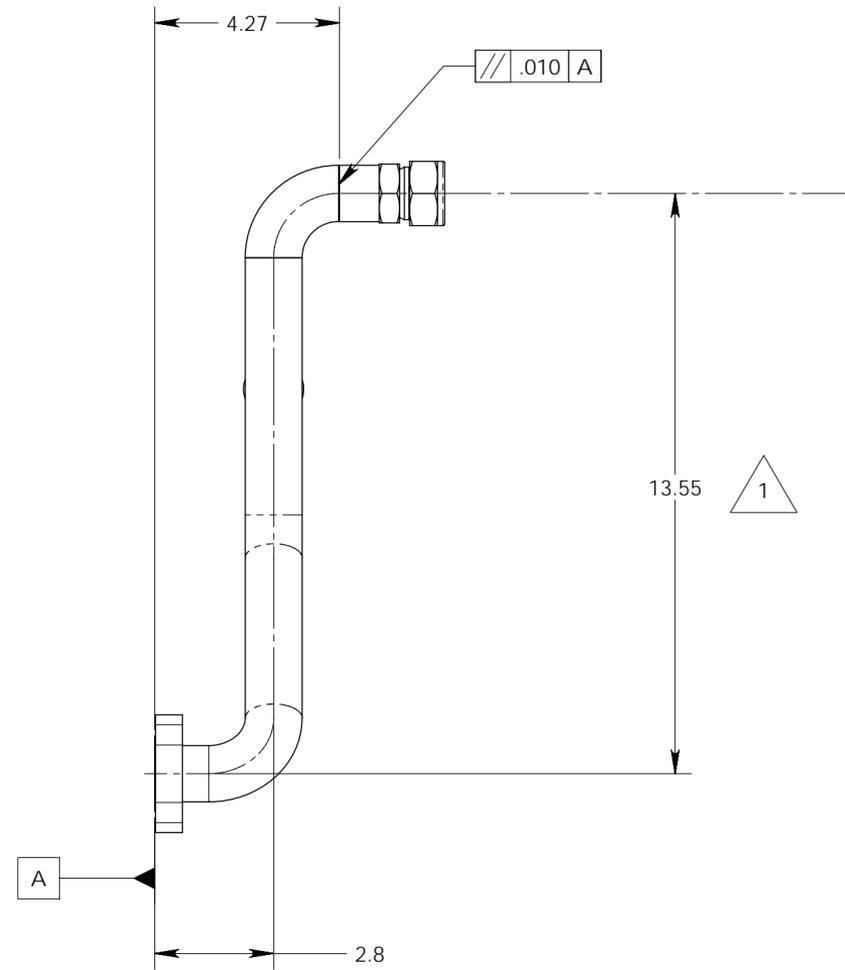
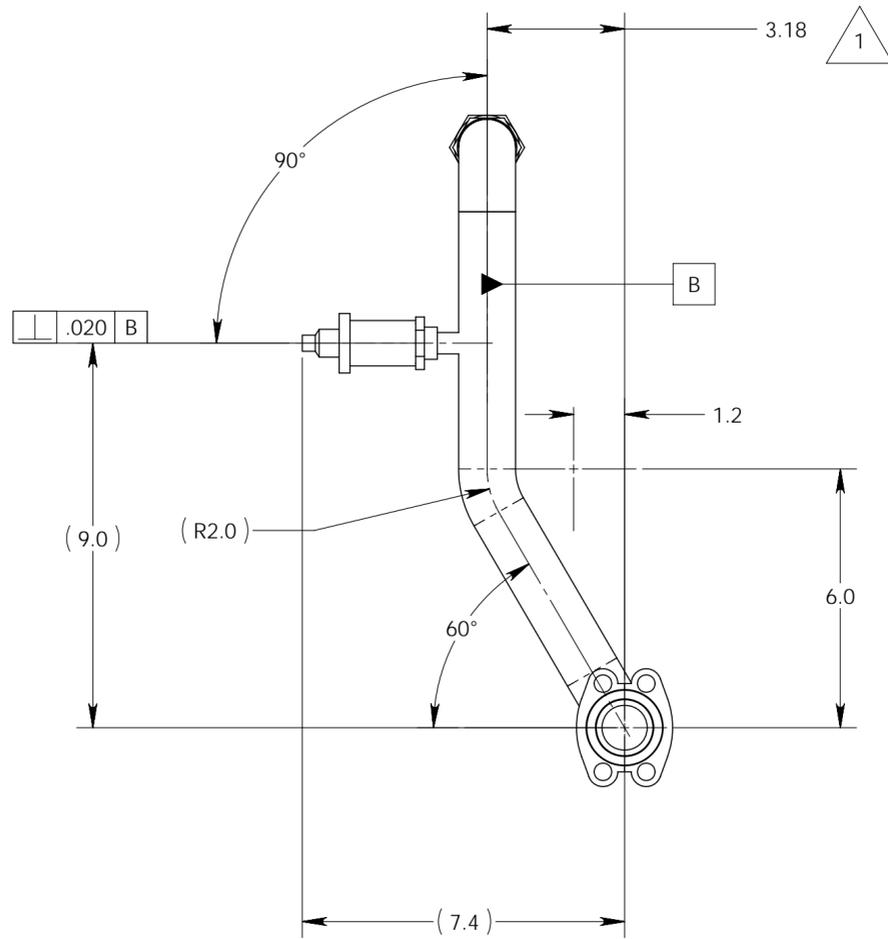
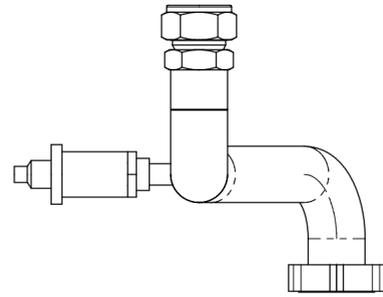
REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

**MERIT EXPERIMENT
SYRINGE DISCHARGE ASSY**

1	ADDED SWAGELOK UNION & MODIFIED EXIT LOCATION	4/6/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

DES	V GRAVES	09/26/2005
DRW	T OQUIN	09/26/2005
CHK	P SPAMPINATO	01/31/2006
ENG	V GRAVES	09/26/2005
QA		
-	-	-

CAD FILE	PREV ASSY	SCALE	SHEET
HG DISCHARGE ASSY HJT	203-HJT-0600	1:4	1 of 2
SIZE	DWG NO.		REV
C	203-HJT-0670		1



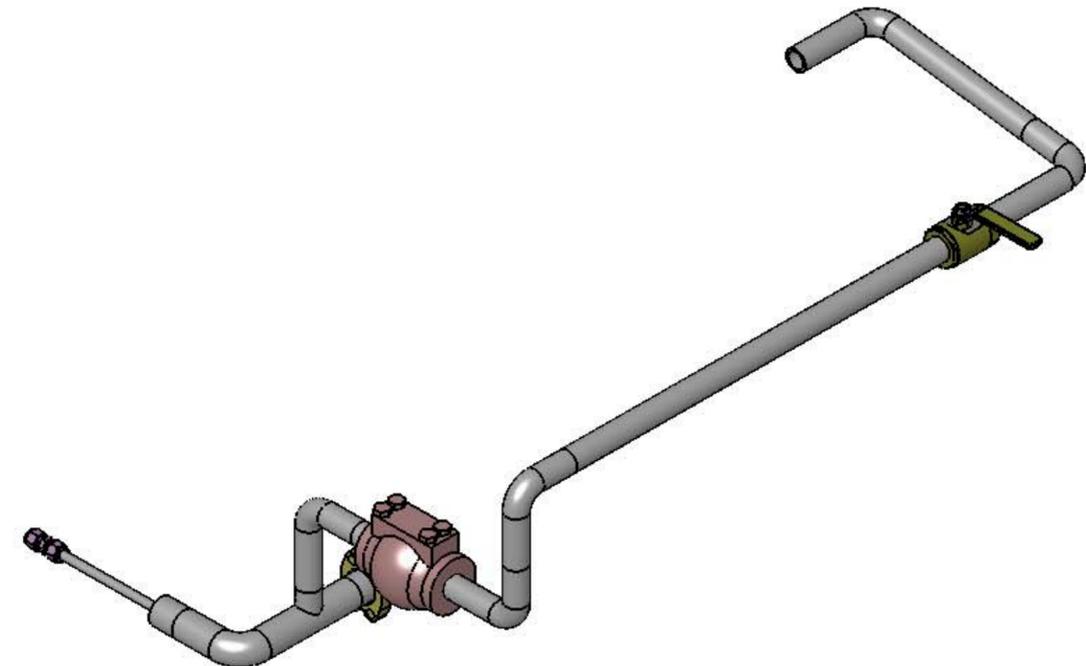
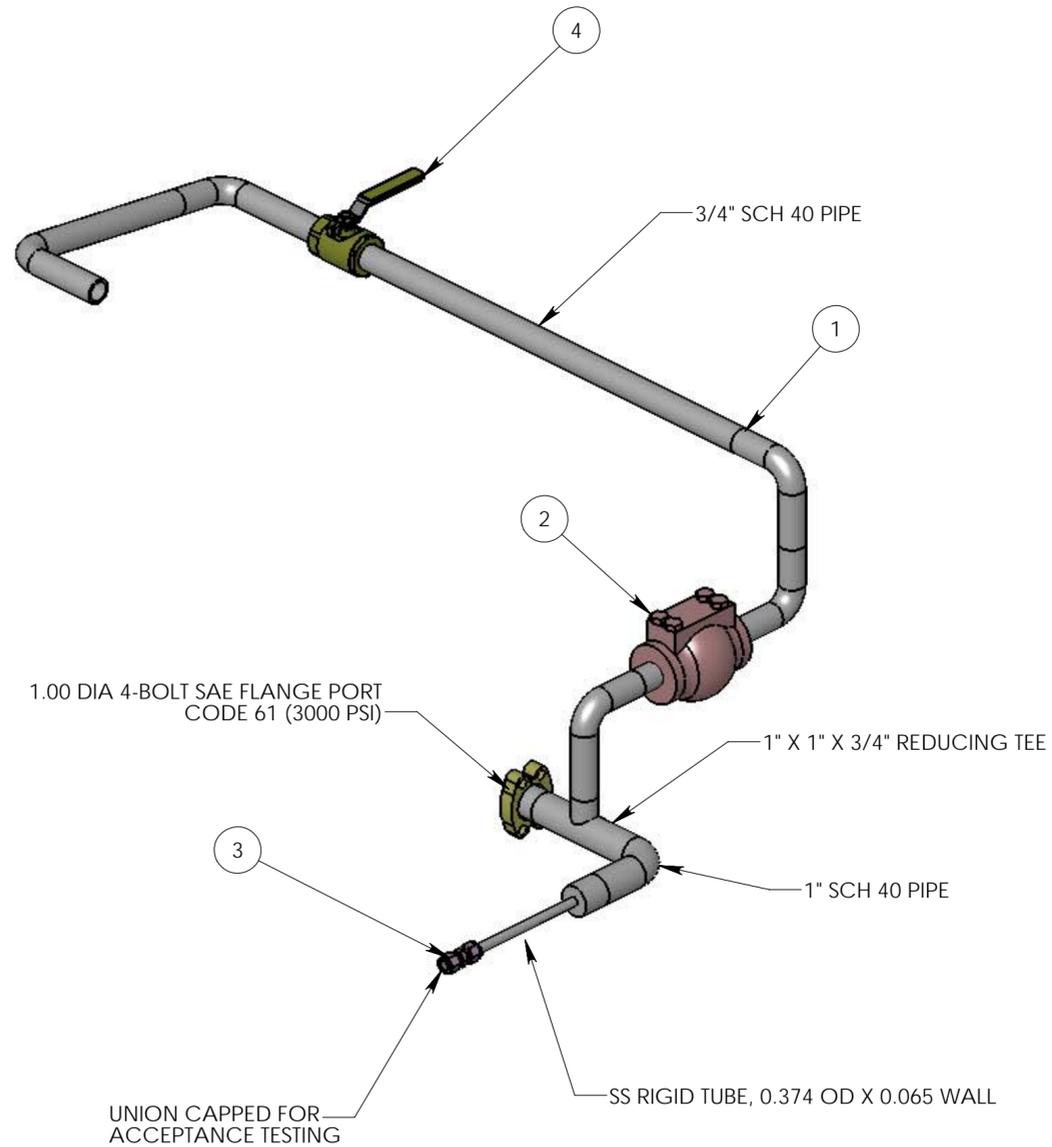
NOTES

1. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. 100% RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED.
4. PIPING ASSEMBLY TO BE PRESSURE TESTED TO 2250 PSIG.
5. THREADED CONNECTION NOT ALLOWED FOR TRANSDUCER.

<p>THIRD-ANGLE PROJECTION</p>		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																
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DES	V GRAVES	09/26/2005																		
DRW	T OQUIN	09/26/2005																		
CHK	P SPAMPINATO	01/31/2006																		
ENG	V GRAVES	09/26/2005																		
QA																				
<p>MERIT EXPERIMENT SYRINGE DISCHARGE ASSY</p>				CAD FILE	SHEET															
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV															
			C	203-HJT-0670	1															
			HG DISCHARGE ASSY HJT	PREV ASSY	SCALE															
				203-HJT-0600	1:3															
					2 of 2															

NOTES

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4. MATERIAL CERTIFICATIONS REQUIRED.
5. PIPING TO BE PRESSURE TESTED TO 2250 PSIG WITHOUT MANUAL VALVE.



ITEM	QTY.	NAME	MATERIAL	DESCRIPTION	DWG
4	1	ballvalve hjt	SS - 304/316	BALL VALVE, SS, 0.75IN. BUTT OR SOCKET WELD, 600 PSI	N/A
3	1	swagelok 0.375 union	SS - 316	SWAGELOK UNION SS-600-6	N/A
2	1	checkvalve hjt	---	WARREN CLASS 1500 SWING CHECK VALVE 1503HF, 3/4 INCH SOCKET WELD	N/A
1	1	hg inlet piping hjt	SS - 304L, ASTM A269	PIPE, 3/4" AND 1" SCH 40	N/A

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

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4. CONCENTRICITY .010 TIR
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DES V GRAVES 01/12/2006
 DRW T OQUIN 01/12/2006
 CHK P SPAMPINATO 01/31/2006
 ENG V GRAVES 01/12/2006
 QA

DRAWING APPROVALS **DATE**

oml OAK RIDGE NATIONAL LABORATORY
 operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
 NUCLEAR SCIENCE & TECHNOLOGY DIVISION

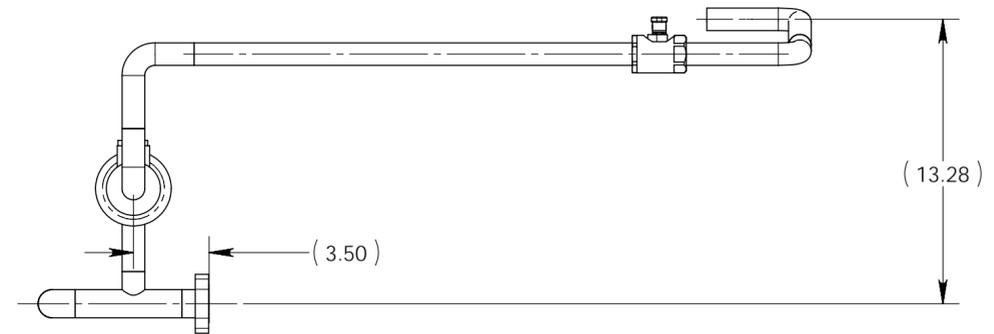
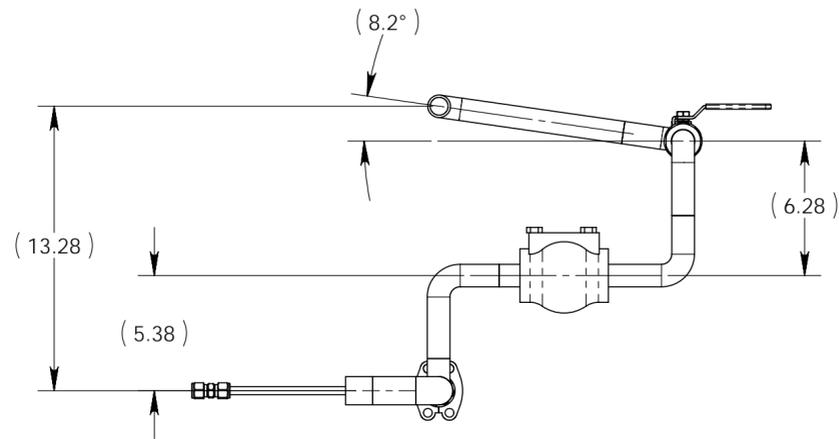
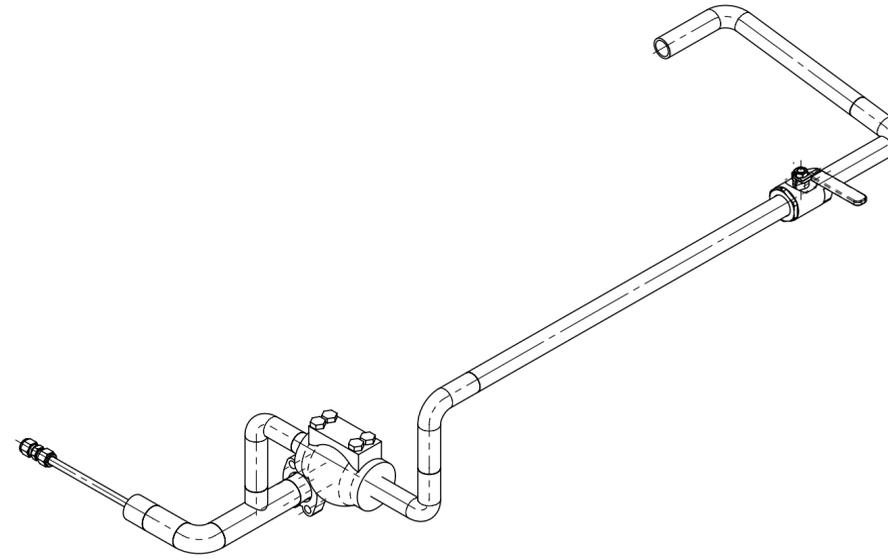
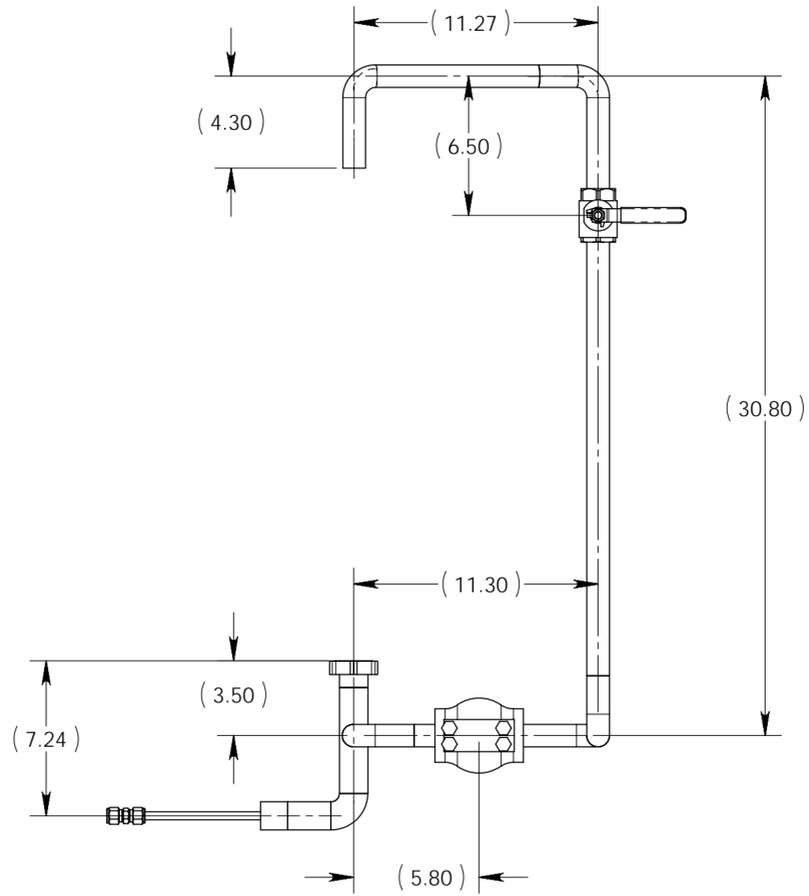
MERIT EXPERIMENT
HG SYRINGE ASSY
HG INLET ASSY

CAD FILE	PREV ASSY	SCALE	SHEET
HG INLET ASSY HJT	203-HJT-0600	1:5	1 of 2
SIZE	DWG NO.	REV	
C	203-HJT-0680	1	

1	MODIFIED INSPECTION REQUIREMENTS	4/12/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

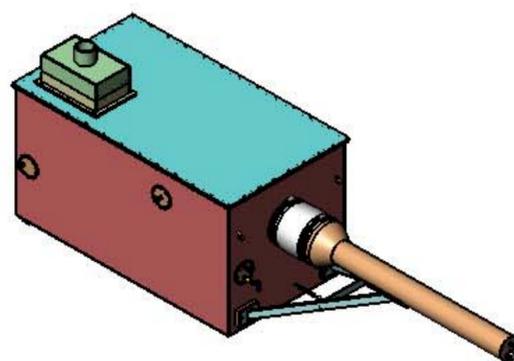
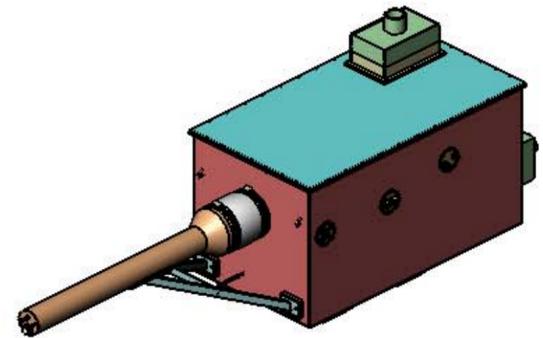
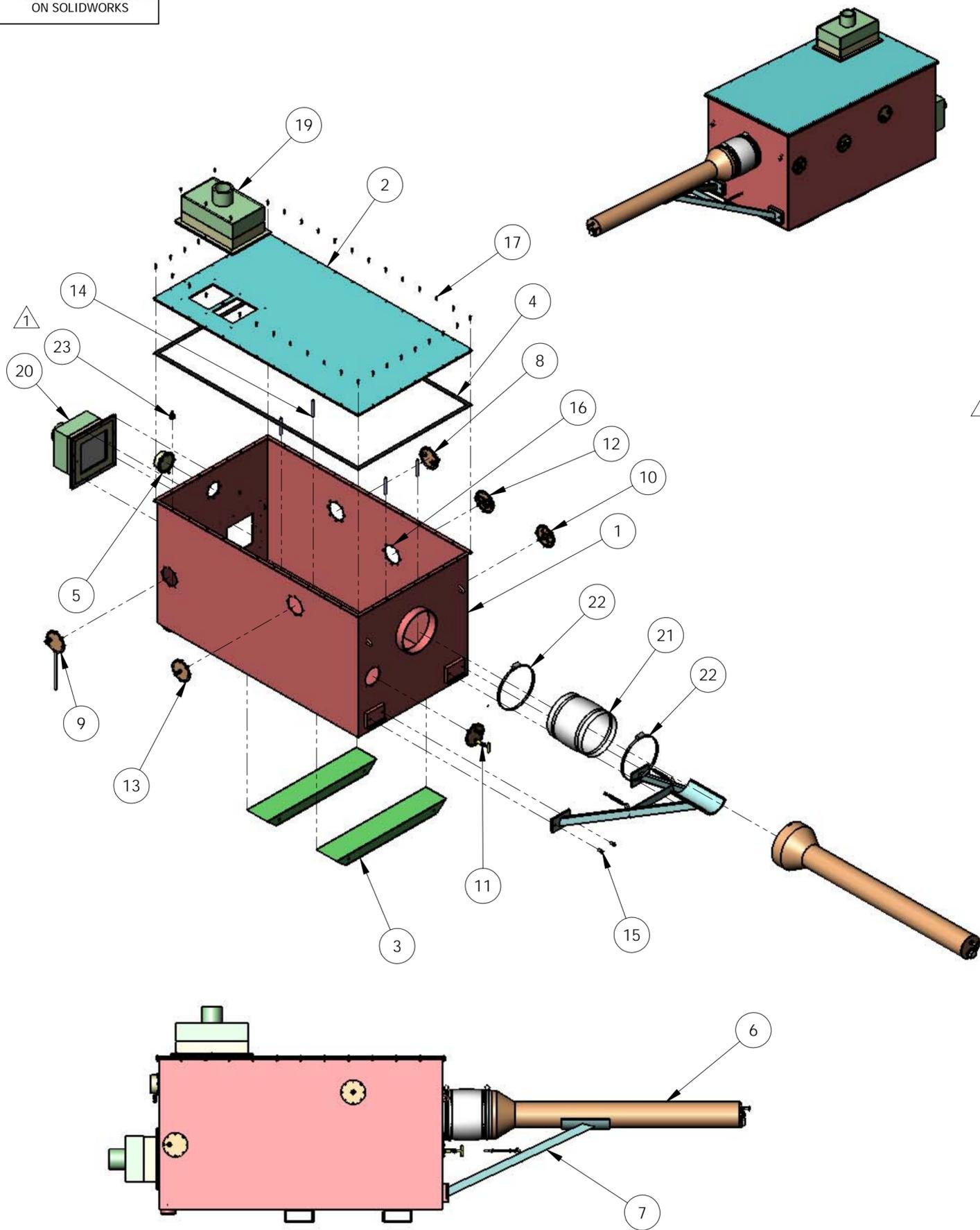
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DES V GRAVES 01/12/2006 DRW T OQUIN 01/12/2006 CHK P SPAMPINATO 01/31/2006 ENG V GRAVES 01/12/2006 QA			<p>MERIT EXPERIMENT HG SYRINGE ASSY HG INLET ASSY</p>		
DRAWING APPROVALS DATE			CAD FILE HG INLET ASSY HJT	PREV ASSY 203-HJT-0600	SCALE 1:6
SIZE DWG NO. C			203-HJT-0680		SHEET 2 of 2 REV 1

S THIS DRAWING PRODUCED ON SOLIDWORKS



ESTIMATED WEIGHT 1515 LBS

ITEM	with brace/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
23	1	hg leak detector hjt	SS	VERTICAL MOUNT LIQUID LEVEL SWITCH, MCMASTER-CARR #4646K83	N/A
22	2	Hose Clamp	SS 316	HOSE CLAMP, MCMASTER-CARR 5011T44	N/A
21	1	sec contain bladder hjt	SS - 304L	DUCT HOSE, MCMASTER-CARR #5515K71	N/A
20	1	airfiltronix assy hjt	N/A	AIR FILTER ASSY - SQUARE	N/A
19	1	airfiltronix assy hjt	N/A	AIR FILTER ASSY - RECTANGULAR	N/A
18	6	SBHCSCREW 0.25-20x0.875-HX-N	SS - 8-18	BHCS - 1/4-20	N/A
17	41	socket button head cap screw_ai	SS - 18-8	BHCS - 1/4-20	N/A
16	88	PEM WNS-0420-0 ---N	SS - 18-8	PEM WELDNUT - 1/4-20	N/A
15	4	HX-SHCS 0.5-13x1x1-N	SS - 18-8	.38 X .5 -16 SHCS	N/A
14	4	weld stud hjt	SS - 18-8	WELD STUD, 0.5 X 3.0	N/A
13	1	connector plate assy hjt	---	CONNECTOR PLATE ASSY - HG INLET	203-HJT-0780
12	1	connector plate assy hjt	---	CONNECTOR PLATE ASSY - SENSORS	203-HJT-0770
11	1	connector plate assy hjt	---	CONNECTOR PLATE ASSY - DRAIN	203-HJT-0760
10	1	connector plate assy hjt	---	CONNECTOR PLATE ASSY - OPTICS	203-HJT-0750
9	1	connector plate assy hjt	---	CONNECTOR PLATE ASSY - HG EXTRACTION	203-HJT-0740
8	1	connector plate assy hjt	---	CONNECTOR PLATE ASSY - HYDRAULICS	203-HJT-0730
7	1	cradle assy hjt	ALUMINUM	TUBE SUPPORT ASSEMBLY	203-HJT-0720
6	1	sec tube assy hjt	---	SECONDARY TUBE ASSY	203-HJT-0710
5	1	double window monitored	TITANIUM	DOWNSTREAM DOUBLE BEAM WINDOW	203-HJT-0706
4	1	sec base cover gasket hjt	BUNA-N SHEET - 50A	MCMASTER-CARR #86715K279	203-HJT-0704
3	2	rect tubing support hjt	AL - 6061 T651, ASTM B209	AMER STD CHANNEL, 7.00 x 2.29 x .25	203-HJT-0703
2	1	sec top cover hjt	LEXAN - 1/2"	69.50 X 39.50 X .500	203-HJT-0702
1	1	sec base hjt	SS - 304L	SECONDARY CONTAINMENT BOX	203-HJT-0701

2

REV	DESCRIPTION	DATE	BY	APPROVED
2	ADDED DUCT HOSE ORDERING INFO	4/25/2006	VBG	VBG
1	CHANGED HG LEAK DETECTOR SENSOR	3/7/2006	VBG	VBG



THIRD-ANGLE PROJECTION

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operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

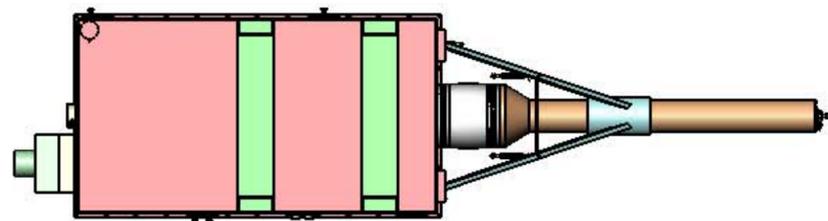
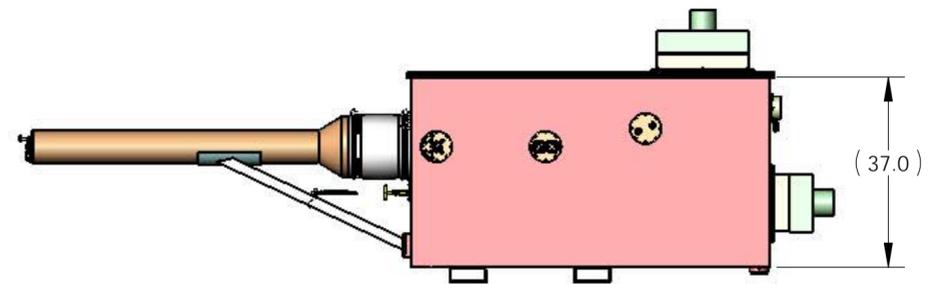
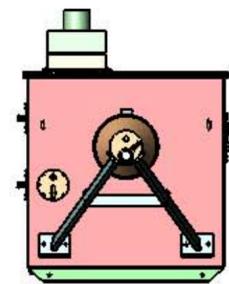
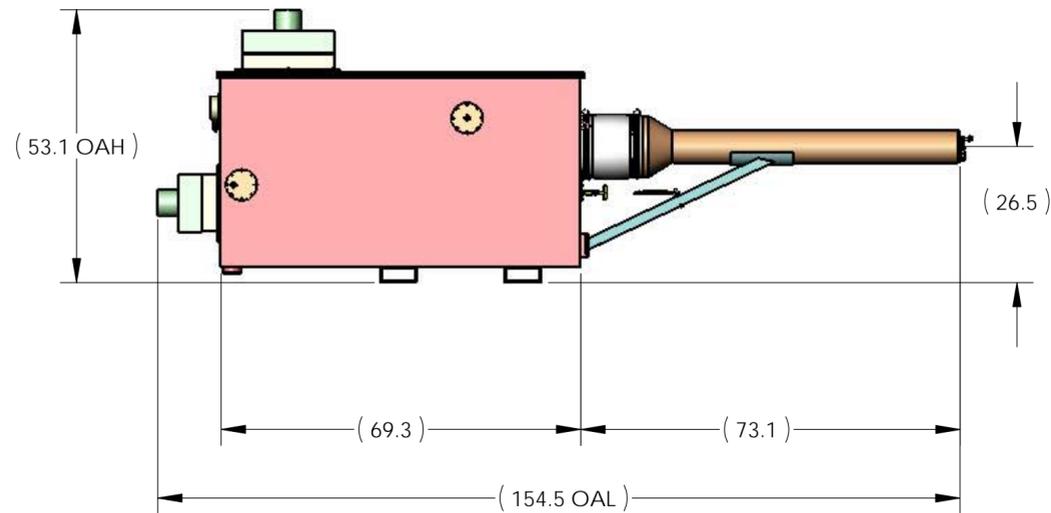
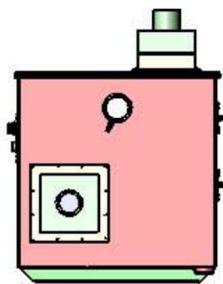
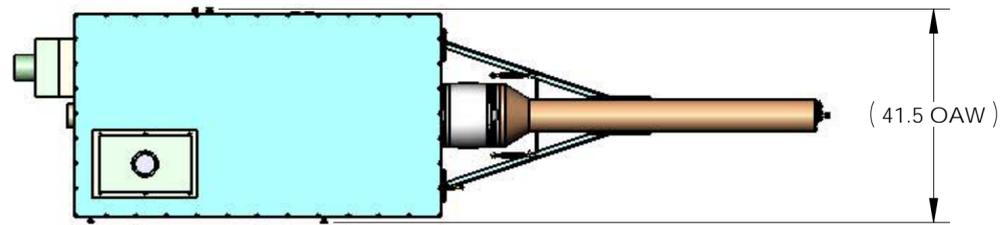


REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

MERIT EXPERIMENT HG DELIVERY SYSTEM SECONDARY CONTAINMENT ASSY			
CAD FILE	PREV ASSY	SCALE	SHEET
SEC CONTAIN ASSY HJT	203-HJT-0500	1:22	1 of 3
SIZE	DWG NO.		REV
C	203-HJT-0700		2

DWG NO. 203-HJT-0700

S THIS DRAWING PRODUCED ON SOLIDWORKS



THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
6. FORMED ANGLES ±1°
7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
8. WHOLE NUMBERS AND FRACTIONS ±.030
9. X DECIMALS ±.010
10. XX DECIMALS ±.005

This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.

DES	V GRAVES	06/04/2005
DRW	T OQUIN	06/04/2005
CHK	P SPAMPINATO	01/17/2006
ENG	V GRAVES	06/04/2005
QA		

CAD FILE	PREV ASSY	SCALE	SHEET
SEC CONTAIN ASSY HJT	203-HJT-0500	1:25	2 of 3
SIZE	DWG NO.		REV
C	203-HJT-0700		2

DRAWING APPROVALS DATE



OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

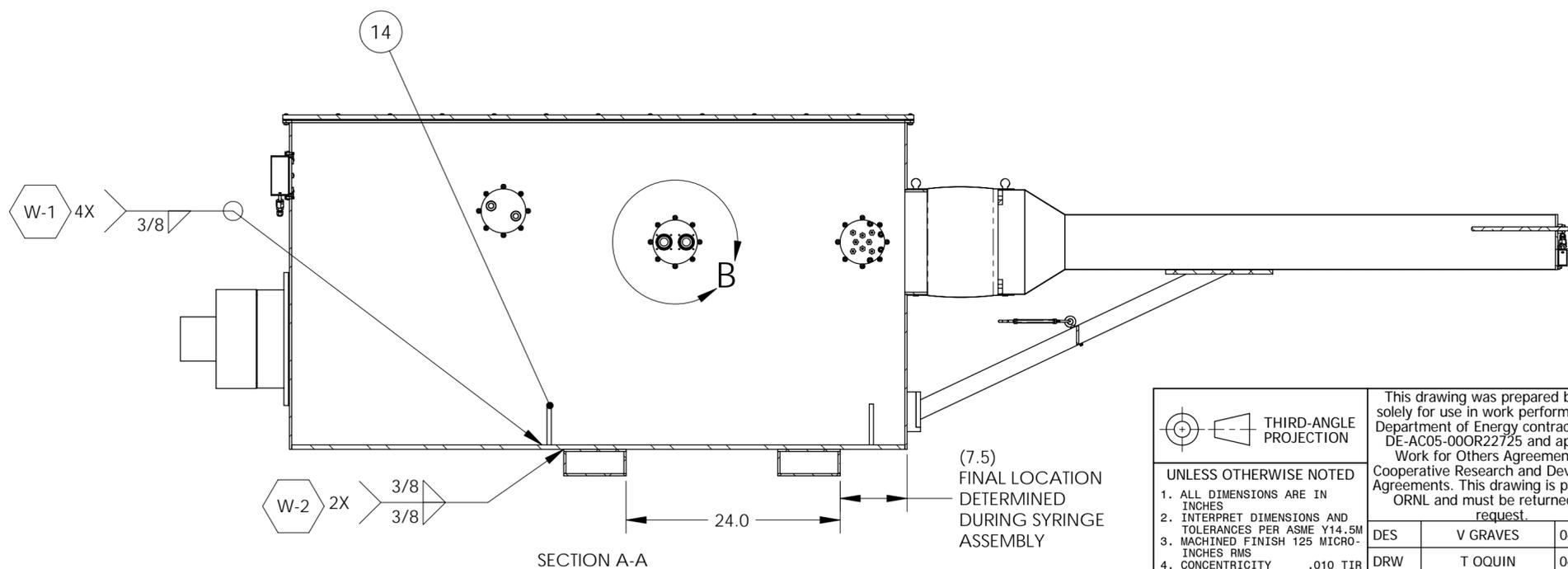
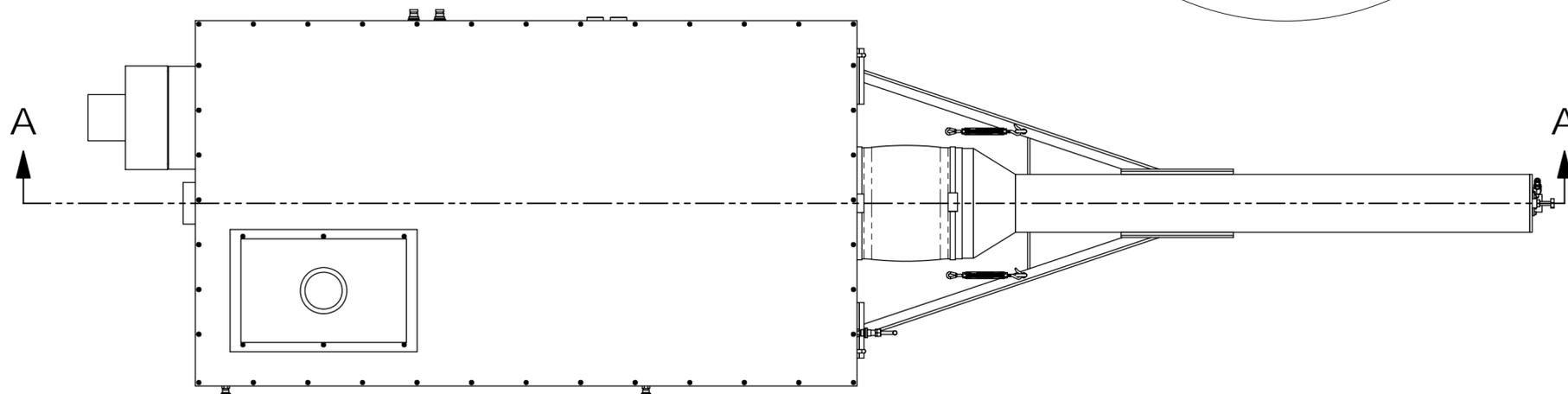
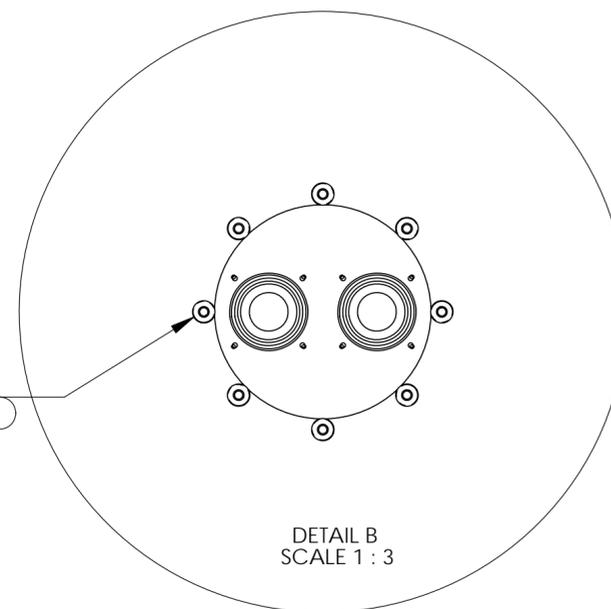
**MERIT EXPERIMENT
HG DELIVERY SYSTEM
SECONDARY CONTAINMENT ASSY**

DWG NO. 203-HJT-0700

NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED

WELDNUTS
8X FOR EACH
CONNECTOR PLATE ASSY
7 PLCS.



UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
6. FORMED ANGLES ±1°
7. BREAK SHARP CORNERS AND REMOVE ALL BURRS
8. WHOLE NUMBERS AND FRACTIONS ±1/16
9. X DECIMALS ±.030
10. XX DECIMALS ±.010
11. XXX DECIMALS ±.005

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DES	V GRAVES	06/04/2005
DRW	T OQUIN	06/04/2005
CHK	P SPAMPINATO	01/17/2006
ENG	V GRAVES	06/04/2005
QA		

CAD FILE	PREV ASSY	SCALE	SHEET
SEC CONTAIN ASSY HJT	203-HJT-0500	1:12	3 of 3
SIZE	DWG NO.		REV
C	203-HJT-0700		2

DRAWING APPROVALS DATE



OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

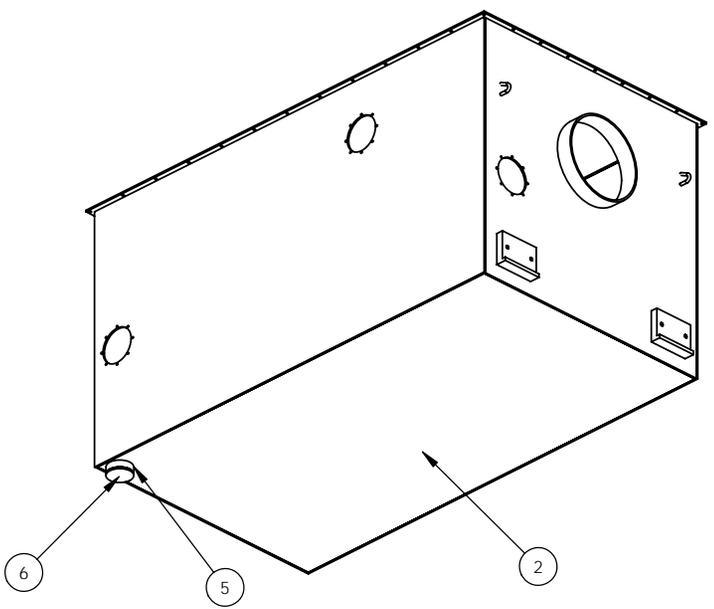
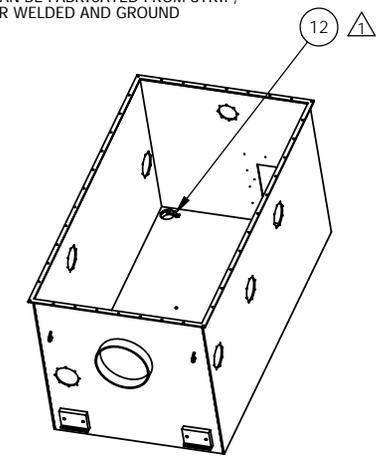
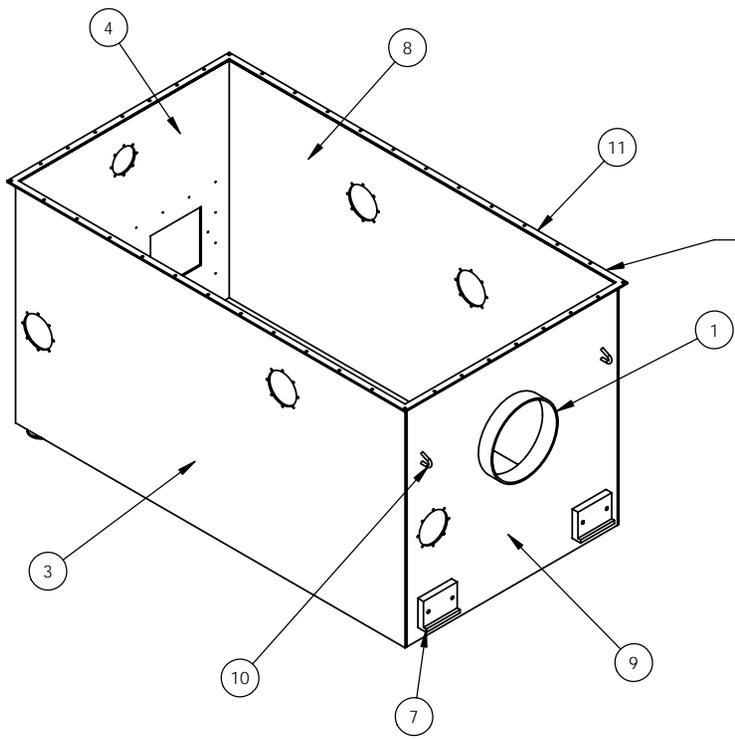
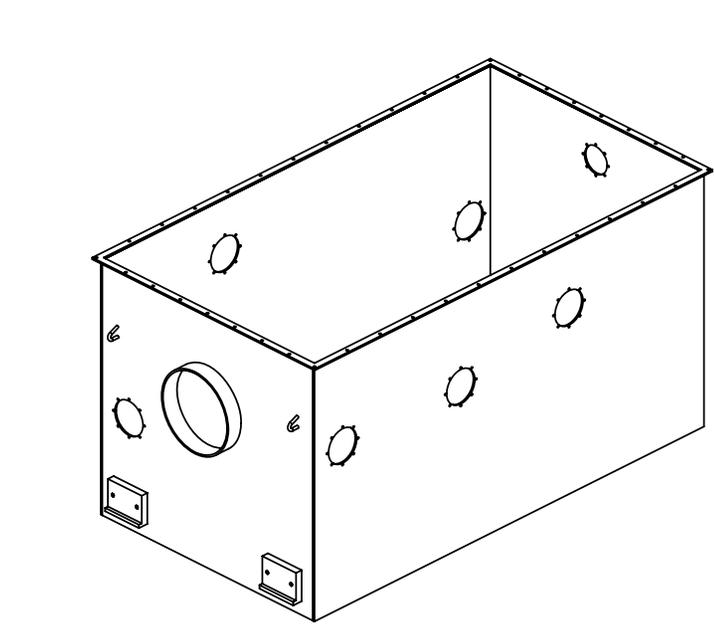
**MERIT EXPERIMENT
HG DELIVERY SYSTEM
SECONDARY CONTAINMENT ASSY**

NOTES

1. ALL WELDS MUST BE WATERTIGHT
2. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
4. MATERIAL CERTIFICATIONS REQUIRED

LIP CAN BE FABRICATED FROM STRIP, MITER WELDED AND GROUND

ESTIMATED WEIGHT 923 LBS



ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
12	1	BENT BRACKET, .75 WIDE X .10 THK	SS - 304L, ASTM A240	---
11	1	PLATE, 39.50 x 70.75 x .250	SS - 304L, ASTM A240	70.75
10	2	ROUND, .38 OD x 4.25	SS - 304L, ASTM A276	4.25
9	1	PLATE, 37.50 x 37.00 x .25	SS - 304L, ASTM A240	37.50
8	1	PLATE, 37.00 x 69.25 x .25	SS - 304L, ASTM A240	69.25
7	2	PLATE, 4.50 x 6.00 x 1.50	SS - 304L, ASTM A240	1.50
6	1	PLATE, 3.50 OD x .25 THK.	SS - 304L, ASTM A240	N/A
5	1	PIPE, 3" SCH 40 x 1.00	SS - 304L, ASTM A312	1.00
4	1	PLATE, 38.00 x 37.00 x .250	SS - 304L, ASTM A240	37.00
3	1	PLATE, 37.00 X 69.25 x .250	SS - 304L, ASTM A240	69.25
2	1	PLATE, 37.50 x 68.75 x .50	SS - 304L, ASTM A240	68.75
1	1	PLATE, 11.88 DIA x .250	SS - 304L, ASTM A240	2.50

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES FORMED ANGLES ±1/2°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

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DES	V GRAVES	05/31/2005
DRW	T OQUIN	05/31/2005
CHK	P SPAMPINATO	01/19/2006
ENG	V GRAVES	05/31/2005
QA		

OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

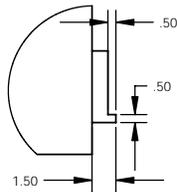
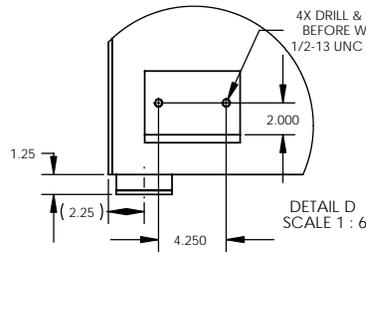
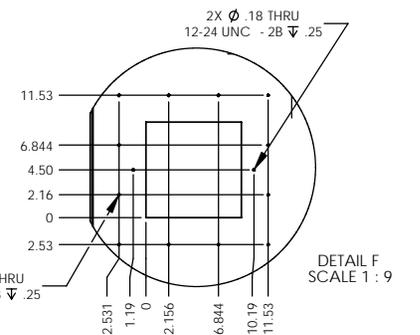
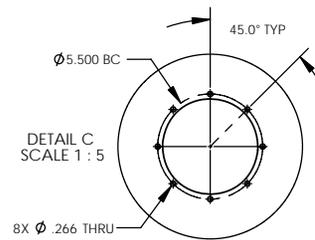
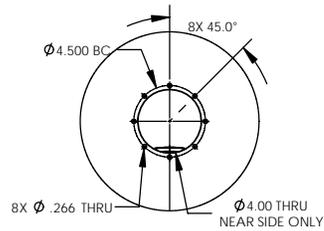
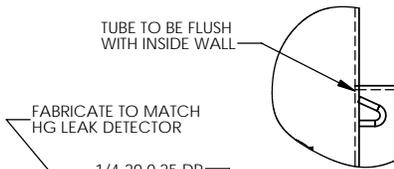
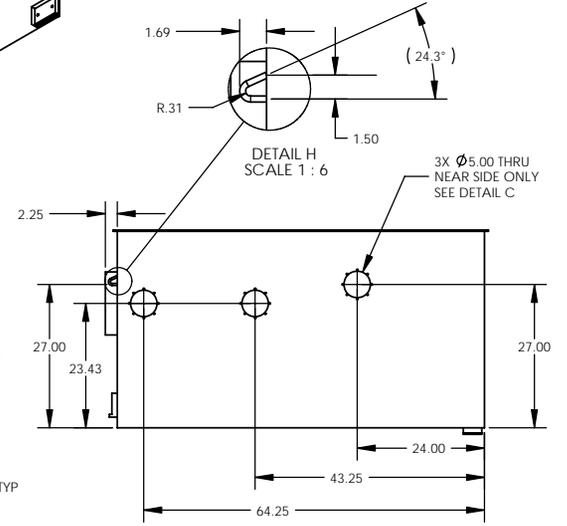
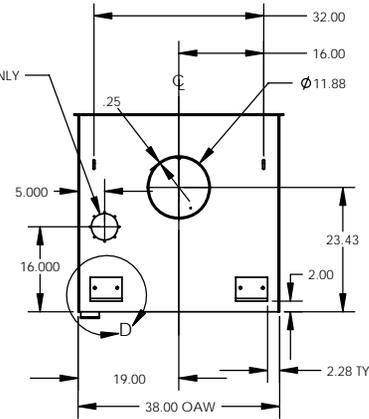
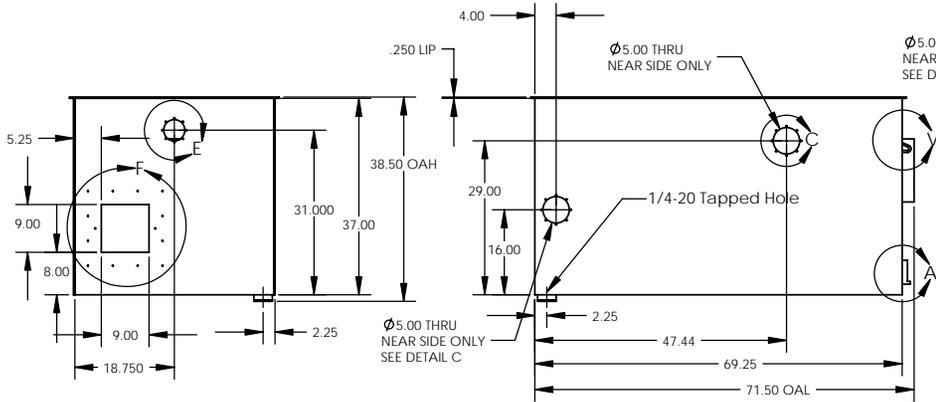
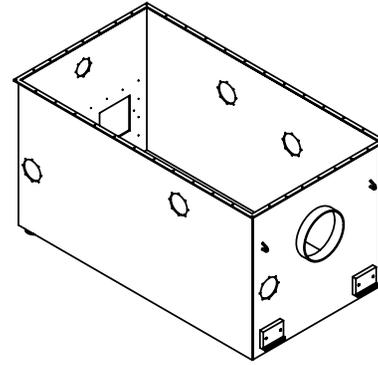
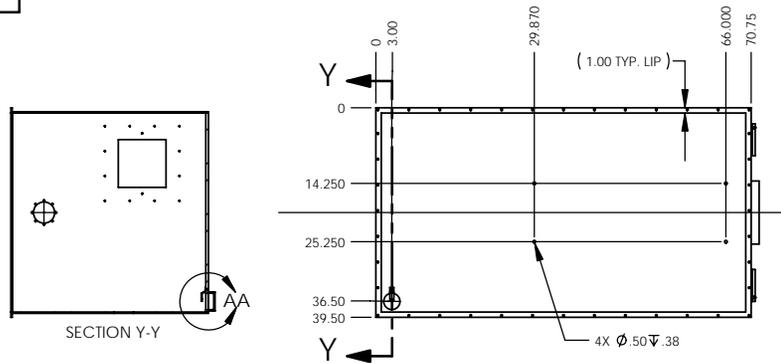
MERIT EXPERIMENT
SECONDARY CONTAINMENT ASSY
SECONDARY CONTAINMENT BOX WELDMENT

CAD FILE	PREV ASSY	SCALE	SHEET
SEC BASE HJT	203-HJT-0700	1:12	1 of 4
SIZE	DWG NO.		REV
C	203-HJT-0701		1

1	MODIFIED LEAK DETECTOR BRACKET	3/7/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

NOTES

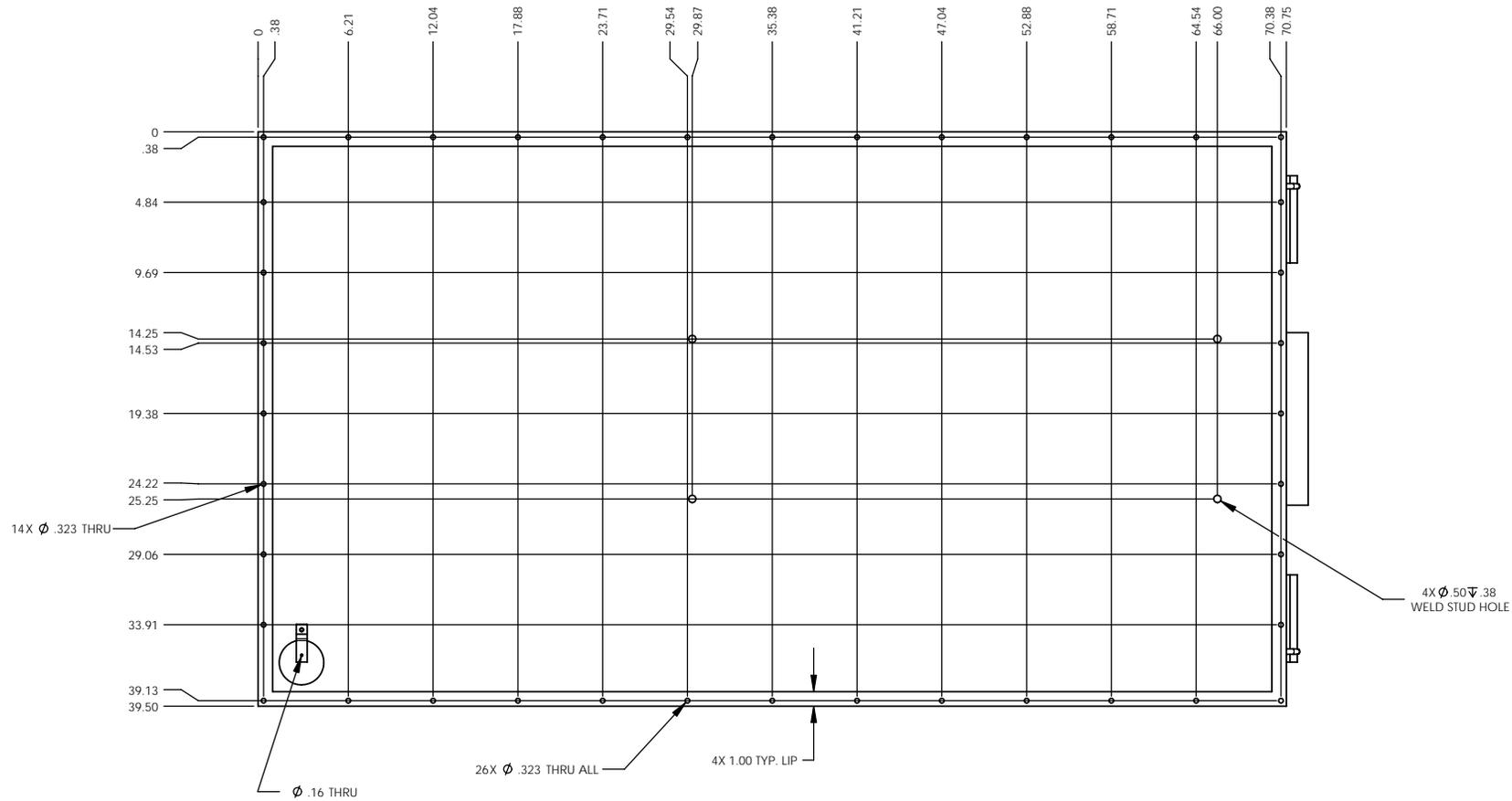
1. ALL WELDS MUST BE WATERTIGHT
2. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
4. MATERIAL CERTIFICATIONS REQUIRED



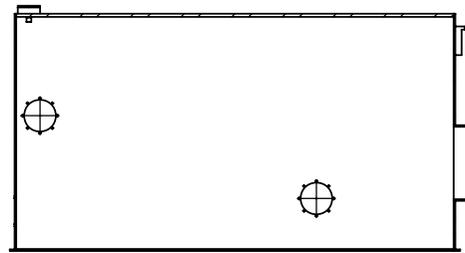
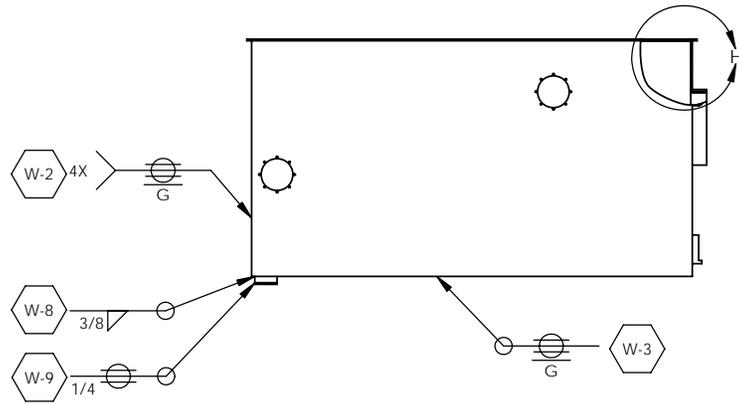
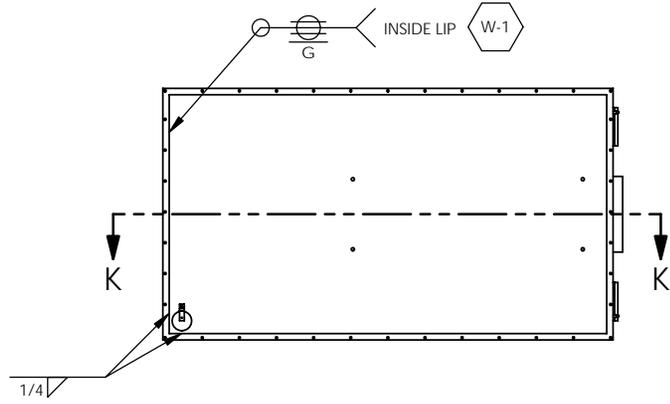
<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES FORMED ANGLES \pm 1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS \pm 1/16 8. X DECIMALS \pm .030 9. XX DECIMALS \pm .010 10. XXX DECIMALS \pm .005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	05/31/2005	<p>MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY SECONDARY CONTAINMENT BOX WELDMENT</p>			
DRW	T OQUIN	05/31/2005				
CHK	P SPAMPINATO	01/19/2006				
ENG	V GRAVES	05/31/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			SEC BASE HJT	203-HJT-0700	1:18	2 of 4
DRAWING APPROVALS			DATE	SIZE	DWG NO.	REV
				C	203-HJT-0701	1

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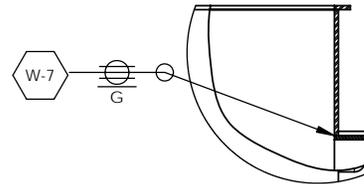
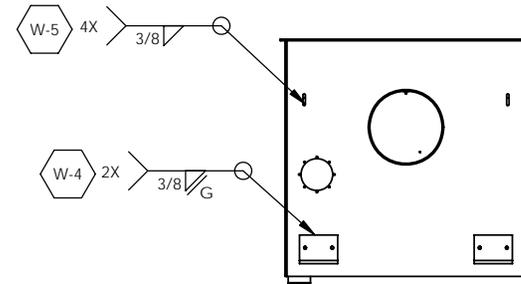
1. ALL WELDS MUST BE WATERTIGHT
2. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
4. MATERIAL CERTIFICATIONS REQUIRED



<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>			
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>			
DES V GRAVES 05/31/2005 DRW T OQUIN 05/31/2005 CHK P SPAMPINATO 01/19/2006 ENG V GRAVES 05/31/2005	<p>MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY SECONDARY CONTAINMENT BOX WELDMENT</p>		CAD FILE SEC BASE HJT	PREV ASSY 203-HJT-0700	SCALE 1:6	SHEET 3 of 4
DRAWING APPROVALS DATE		SIZE C	DWG NO. 203-HJT-0701	REV 1		



SECTION K-K

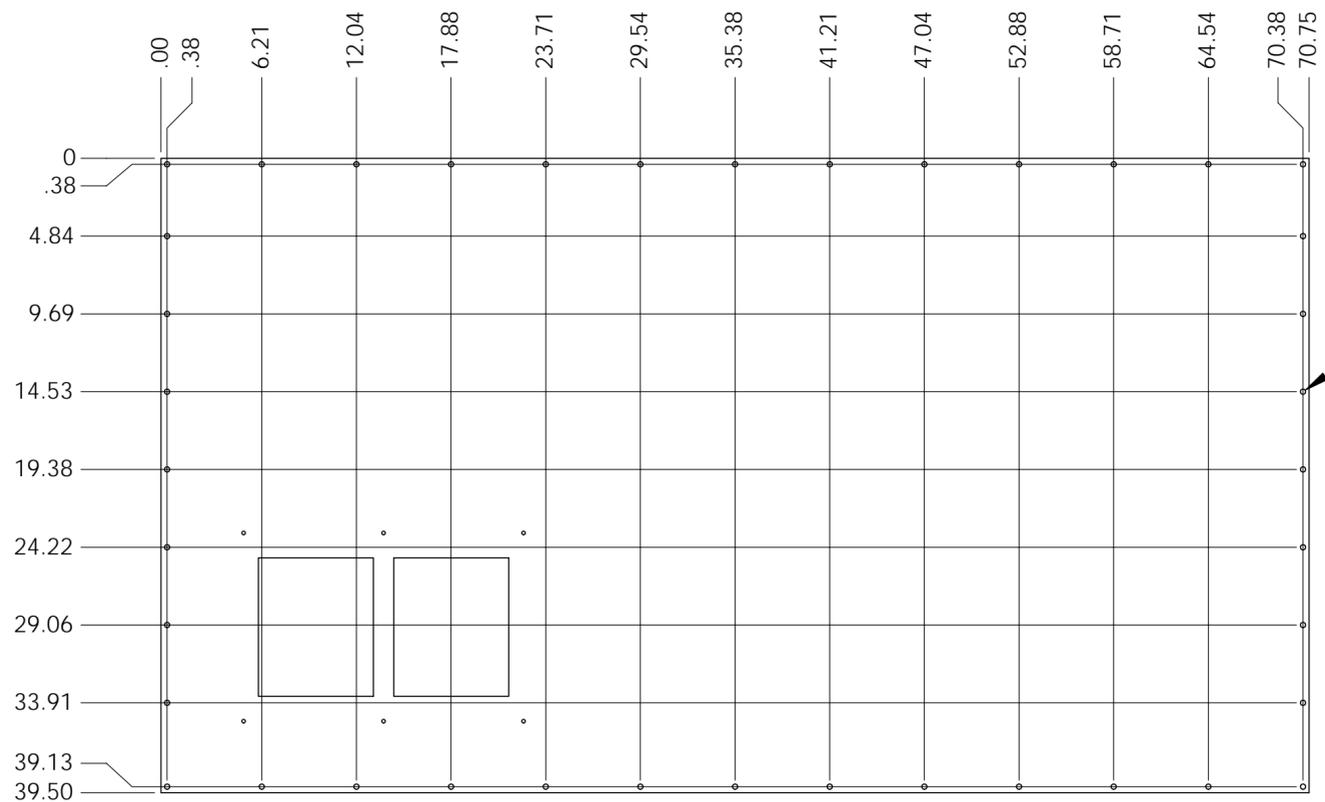


DETAIL H
SCALE 1 : 6

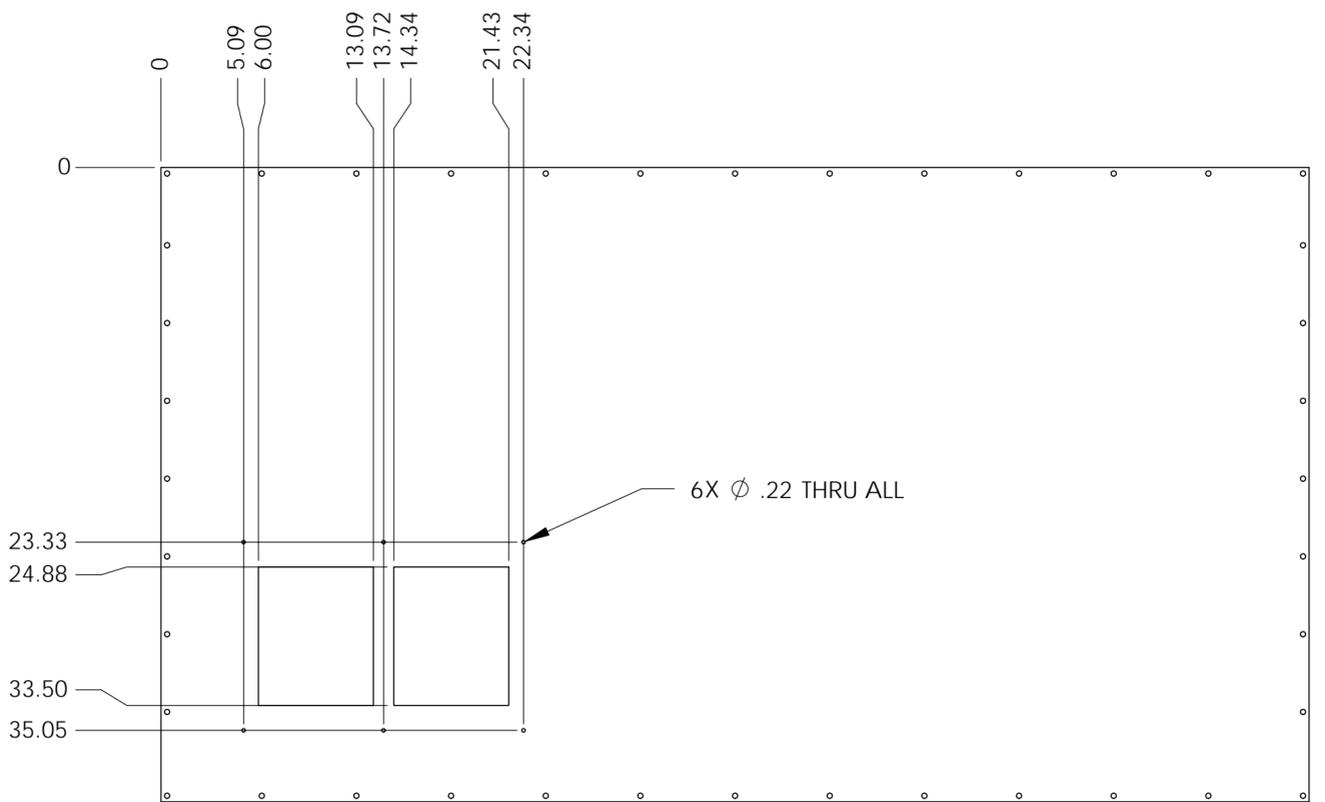
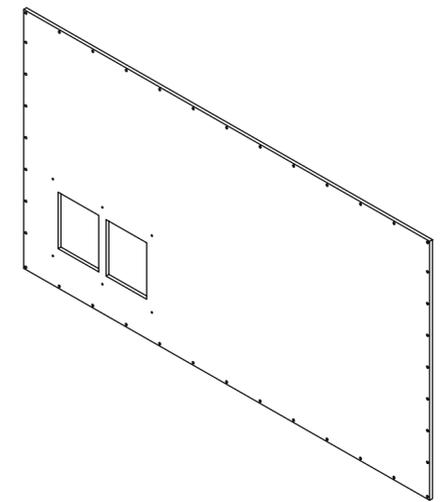
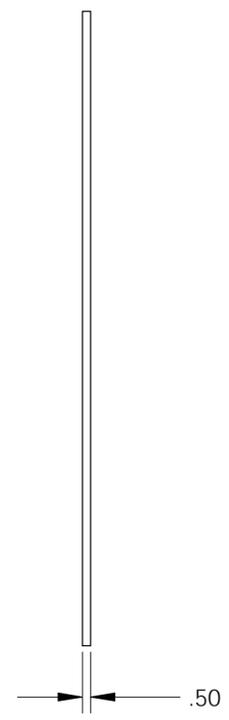
NOTES

1. ALL WELDS MUST BE WATERTIGHT
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3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
4. MATERIAL CERTIFICATIONS REQUIRED

THIRD-ANGLE PROJECTION UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. WHOLE NUMBERS AND FRACTIONS ±1/16 9. X DECIMALS ±.030 10. .XX DECIMALS ±.010 11. .XXX DECIMALS ±.005	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN															
	<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>05/31/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>05/31/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/19/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>05/31/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>	DES	V GRAVES	05/31/2005	DRW	T OQUIN	05/31/2005	CHK	P SPAMPINATO	01/19/2006	ENG	V GRAVES	05/31/2005	QA			REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION		MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY SECONDARY CONTAINMENT BOX WELDMENT
DES	V GRAVES	05/31/2005																	
DRW	T OQUIN	05/31/2005																	
CHK	P SPAMPINATO	01/19/2006																	
ENG	V GRAVES	05/31/2005																	
QA																			
DRAWING APPROVALS		DATE	CAD FILE	PREV ASSY	SCALE	SHEET													
			SEC BASE HJT	203-HJT-0700	1:15	4 of 4													
			SIZE	DWG NO.	REV														
			C	203-HJT-0701	1														



40X ϕ .323 THRU



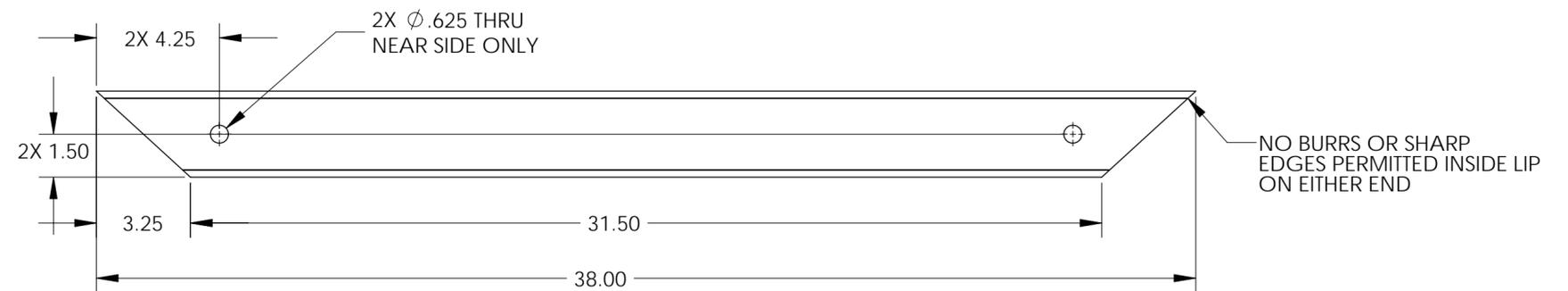
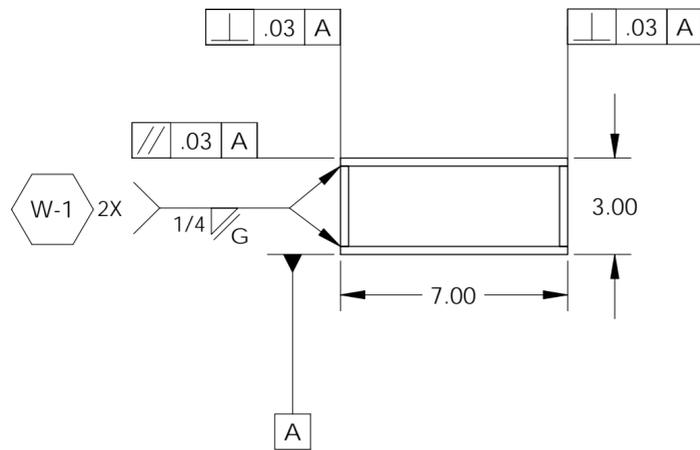
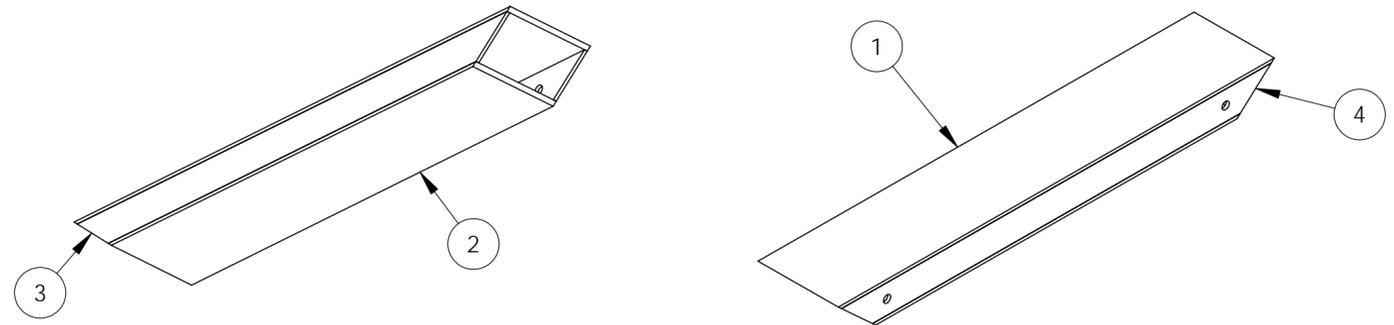
6X ϕ .22 THRU ALL

MATERIAL: LEXAN - 1/2"

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES $\pm 1/2^\circ$ 6. FORMED ANGLES $\pm 1^\circ$ 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS $\pm .030$ 9. XX DECIMALS $\pm .010$ 10. XXX DECIMALS $\pm .005$			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	06/09/2005	<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY SECONDARY CONTAINMENT TOP COVER</p>			
DRW	T OQUIN	06/09/2005				
CHK	P SPAMPINATO	01/17/2006				
ENG	V GRAVES	06/09/2005				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			SEC TOP COVER HJT	203-HJT-0700	1:8	1 of 1
DRAWING APPROVALS			DATE	SIZE	DWG NO.	REV
				C	203-HJT-0702	0

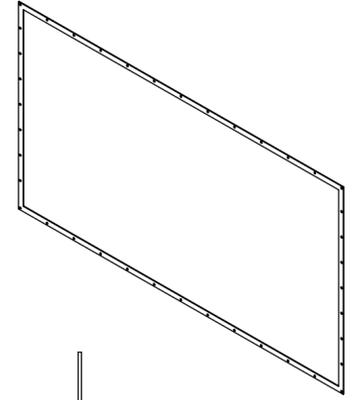
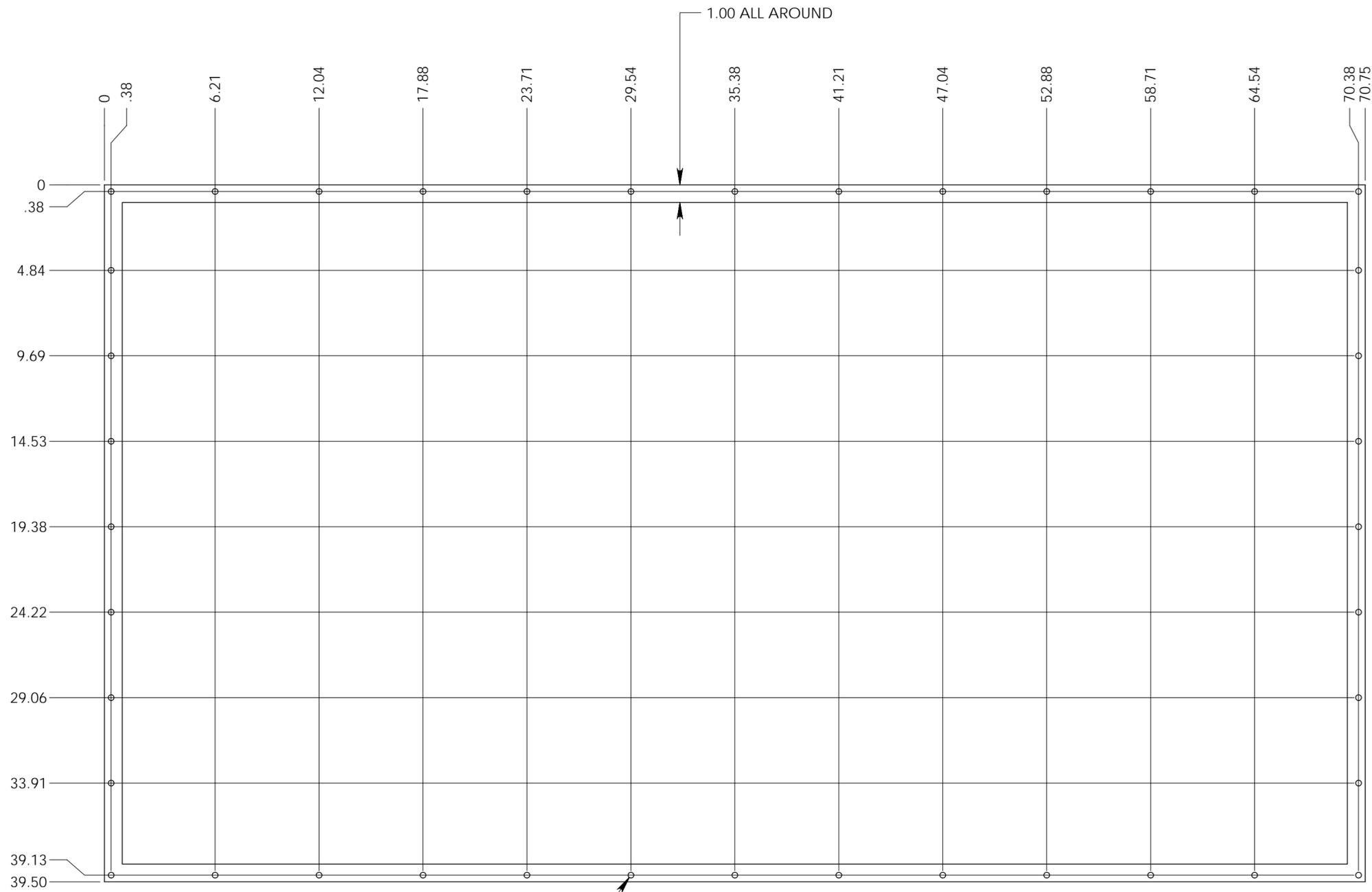
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED
2. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.6
3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED



ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
4	1	PLATE, 2.50 x 38.00 x .25	SS - 304L, ASTM A-240	38.00
3	1	PLATE, 2.50 x 38.00 x .25	SS - 304L, ASTM A-240	38.00
2	1	PLATE, 7.00 x 31.50 x .25	SS - 304L, ASTM A-240	31.50
1	1	PLATE, 7.00 x 38.00 x .25	SS - 304L, ASTM A-240	38.00

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>			
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>			
DES	V GRAVES	06/09/2005	MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY RECTANGULAR SUPPORT WELDMENT			
DRW	T OQUIN	06/09/2005				
CHK	P SPAMPINATO	01/17/2006				
ENG	V GRAVES	06/09/2005				
QA			CAD FILE RECT TUBING SUPPORT HJT	PREV ASSY 203-HJT-0700	SCALE 1:4	SHEET 1 of 1
DRAWING APPROVALS		DATE	SIZE C	DWG NO. 203-HJT-0703	REV 0	

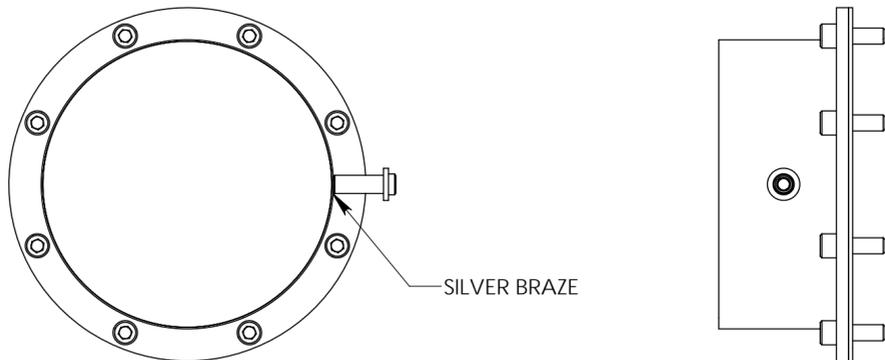
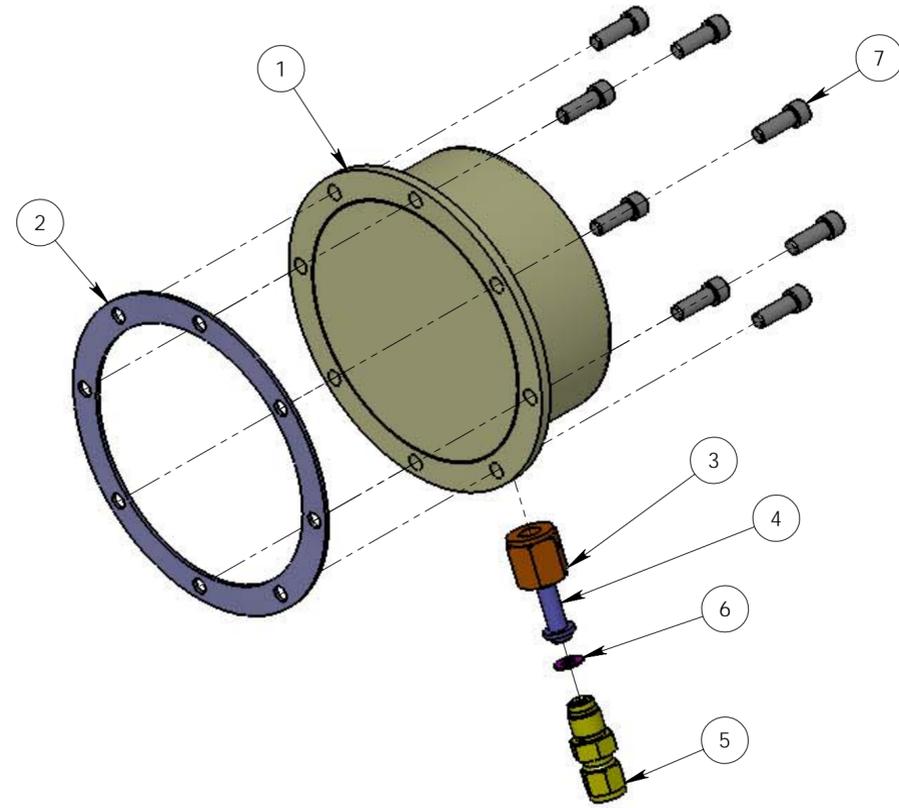


MATERIAL: BUNA-N SHEET - 50A

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005				<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>															
<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>07/25/2005</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>07/25/2005</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/17/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>07/25/2005</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> </table>				DES	V GRAVES	07/25/2005	DRW	T OQUIN	07/25/2005	CHK	P SPAMPINATO	01/17/2006	ENG	V GRAVES	07/25/2005	QA			<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY SECONDARY BOX COVER GASKET</p>	
DES	V GRAVES	07/25/2005																		
DRW	T OQUIN	07/25/2005																		
CHK	P SPAMPINATO	01/17/2006																		
ENG	V GRAVES	07/25/2005																		
QA																				
DRAWING APPROVALS DATE			CAD FILE SEC BASE COVER GASKET HJT	PREV ASSY 203-HJT-0700	SCALE 1:5	SHEET 1 of 1														
SIZE DWG NO.				203-HJT-0704		REV 0														

NOTES

1. WELDING TO BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED. NO RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED
4. ASSEMBLY TO BE PRESSURE TESTED TO 10 PSIG



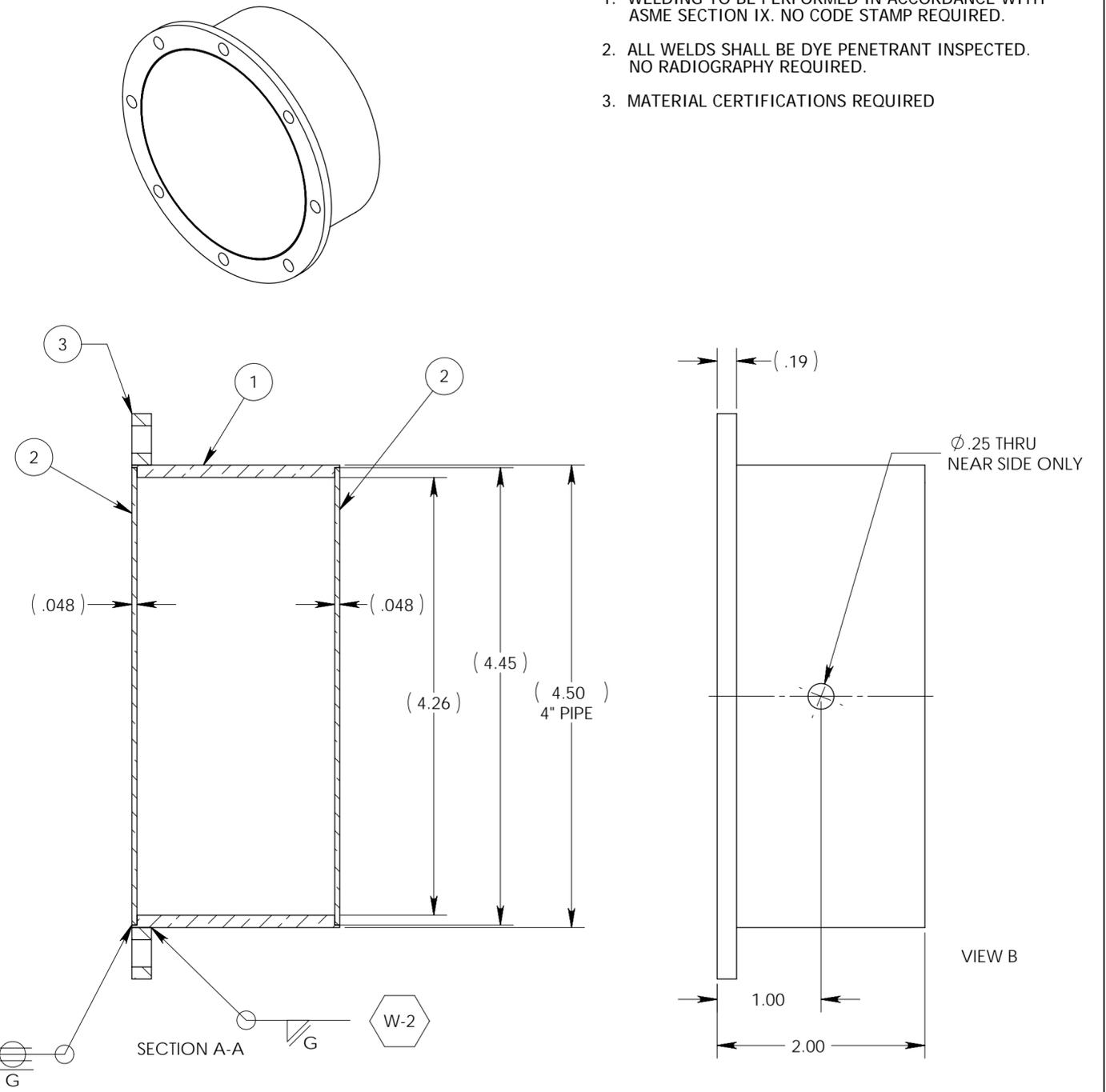
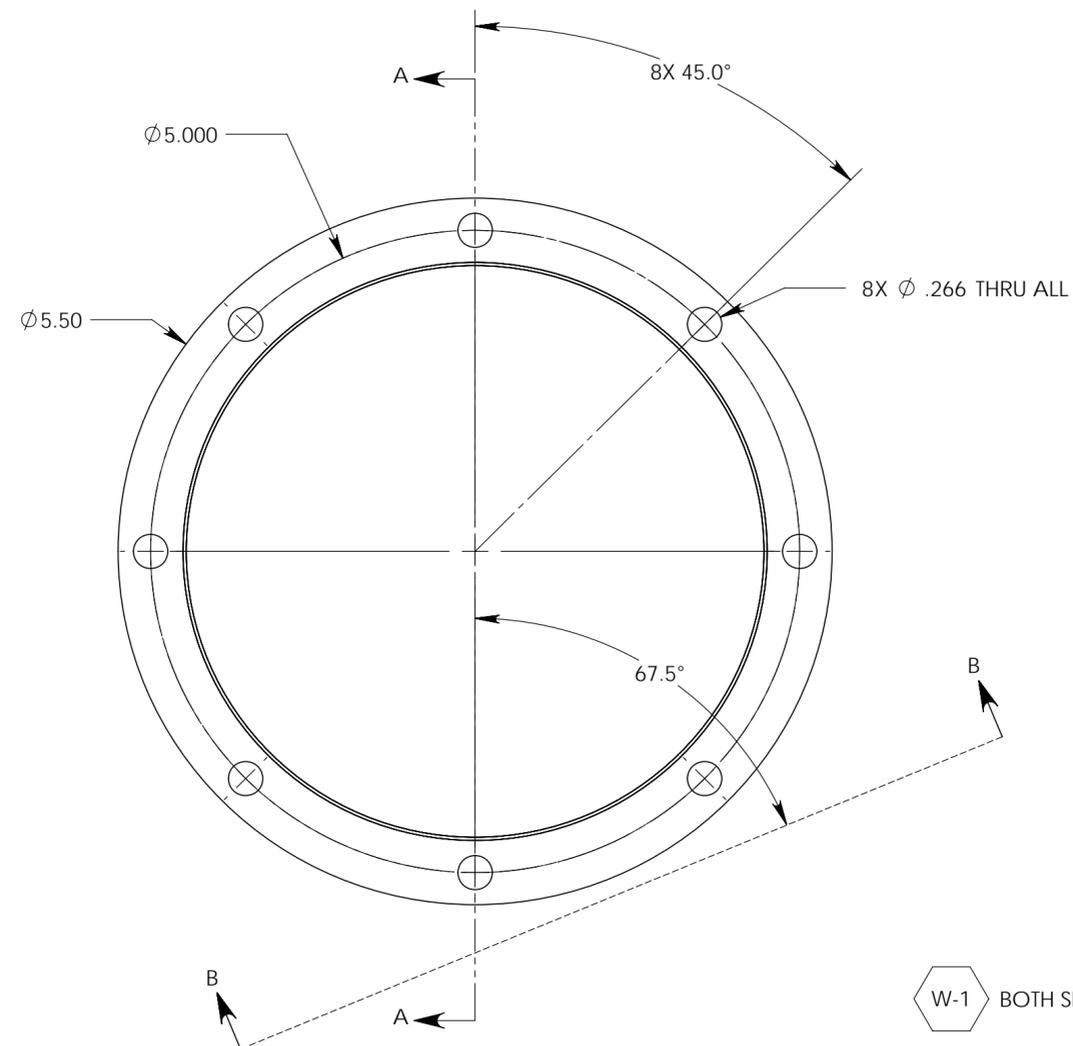
7	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A
6	1	swagelok vcr gasket 0.25	CU	SWAGELOK VCR GASKET, NON-RETAINED, CU-4-VCR-2-VS	N/A
5	1	swagelok vcr tube connector	SS - 316	SECONDARY TUBE ASSY	N/A
4	1	swagelok vcr butt weld long hjt	SS - 316	SWAGELOK LONG TUBE BUTTWELD, 6LV-4-VCR-3-4TB2	N/A
3	1	swagelok vcr nut	SS - 316	SWAGELOK FEMALE VCR NUT, SS-4-VCR-1	N/A
2	1	window gasket hjt	1/16" BUNA-N SHEET, 50A	MCMaster-CARR #86715K279	203-HJT-0709
1	1	double window hjt	TITANIUM	4.50 OD x 2.00	203-HJT-0707

ITEM	downstream/QTY.	NAME	MATERIAL	DESCRIPTION	DWG	
UNLESS OTHERWISE NOTED		<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>				
DES	V GRAVES	09/26/2005	<p>merit OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p> <p>NSTB REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p> <p>MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY DBL WINDOW MONITORED - DOWNSTREAM</p>			
DRW	T OQUIN	09/26/2005				
CHK	P SPAMPINATO	01/17/2006				
ENG	V GRAVES	09/26/2005				
QA						
DRAWING APPROVALS		DATE	CAD FILE	PREV ASSY	SCALE	SHEET
			DOUBLE WINDOW MONITORED	203-HJT-0700	1:2	1 of 1
			SIZE	DWG NO.		REV
			C	203-HJT-0706		0

DWG NO. 203-HJT-0706

NOTES

1. WELDING TO BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED. NO RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED



W-1 BOTH SIDES

SECTION A-A

W-2

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
3	1	PLATE, 5.50 OD x .19 THK	TI GRADE 2, ASTM B-265	N/A
2	2	18GA SHEET, 4.45 OD	TI-6AL-4V, ASTM B-265	N/A
1	1	PIPE, SCH 10	TI GRADE 2, ASTM B-265	2.00

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

DES	V GRAVES	09/26/2005
DRW	T OQUIN	09/26/2005
CHK	P SPAMPINATO	01/17/2006
ENG	V GRAVES	09/26/2005
QA		

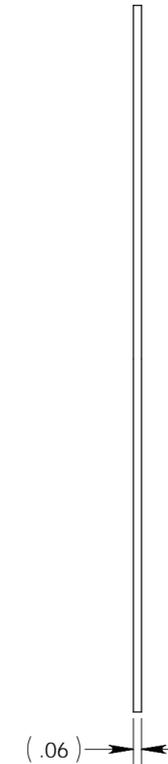
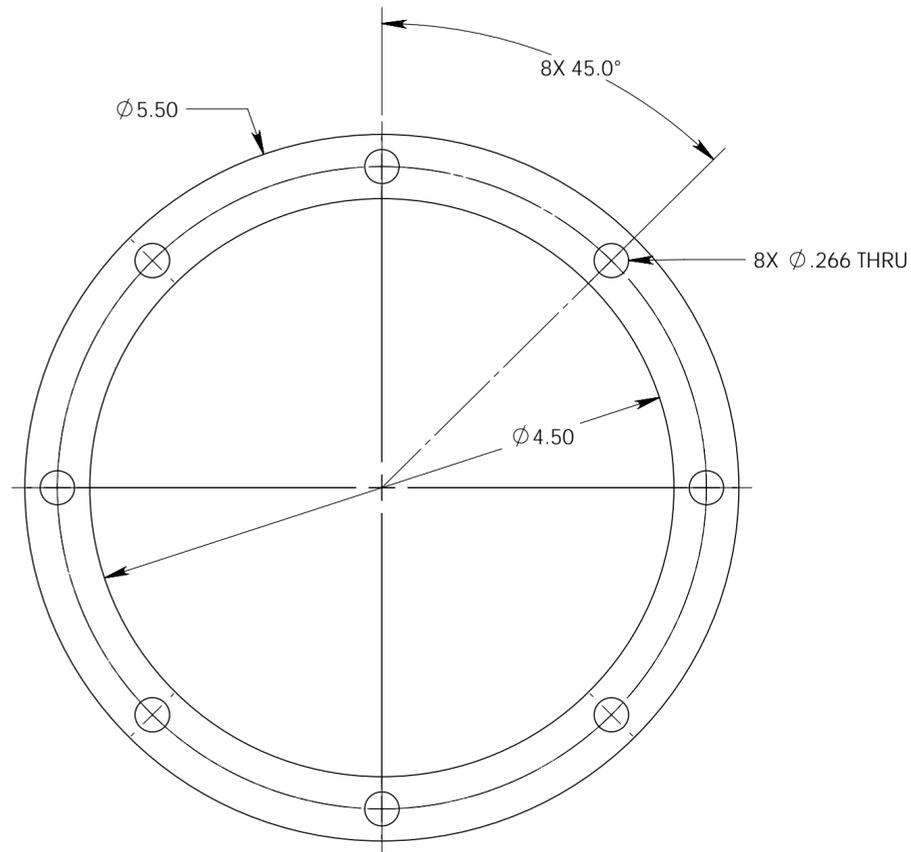
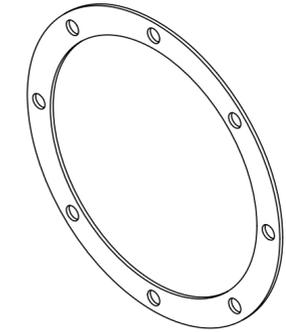
DRAWING APPROVALS DATE

oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

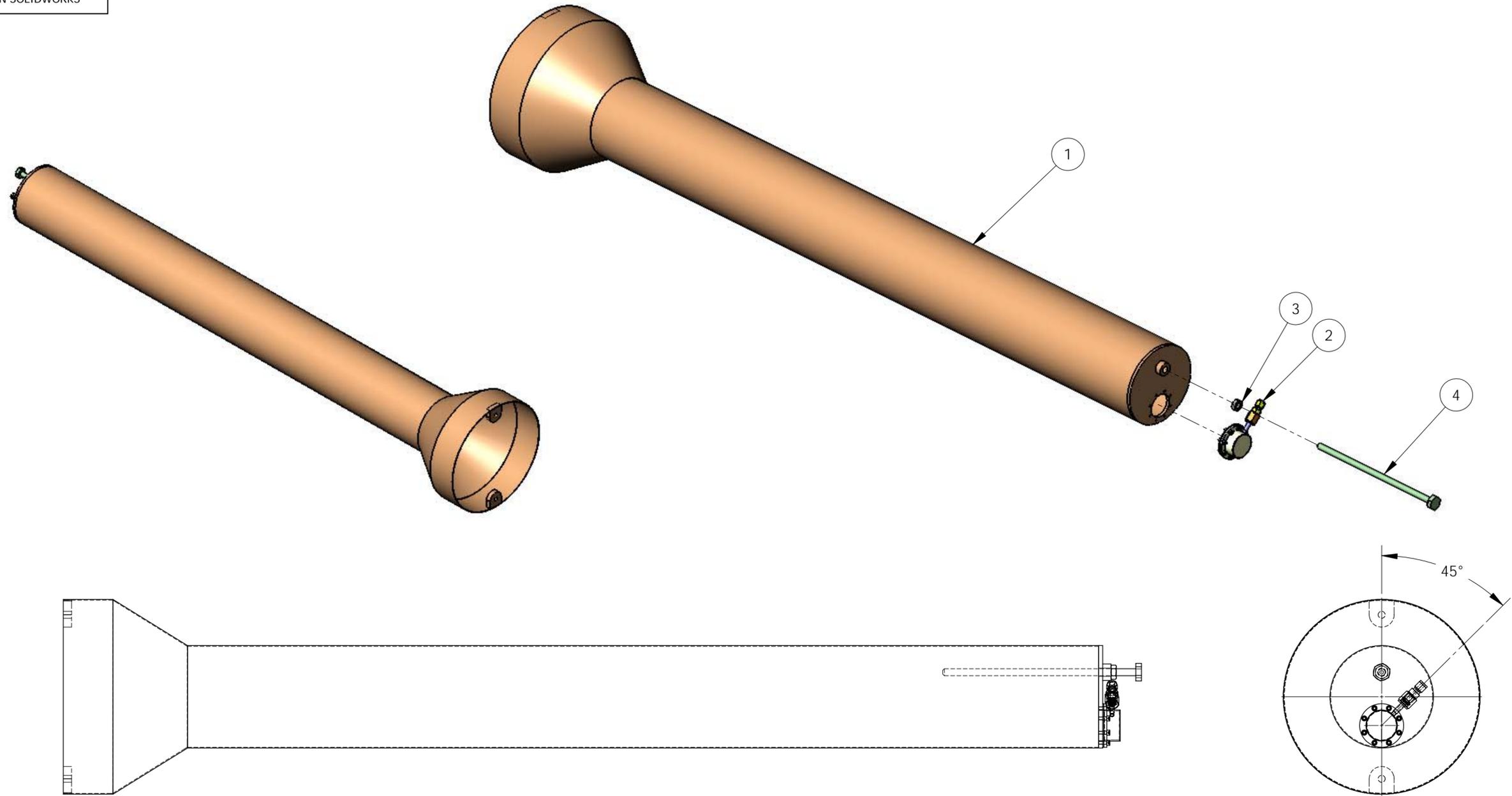
**MERIT EXPERIMENT
SECONDARY CONTAINMENT ASSY
DBL WINDOW WELDMENT - DOWNSTREAM**

CAD FILE DOUBLE WINDOW HJT	PREV ASSY 203-HJT-0706	SCALE 1:1	SHEET 1 of 1
SIZE C	DWG NO. 203-HJT-0707	REV 0	



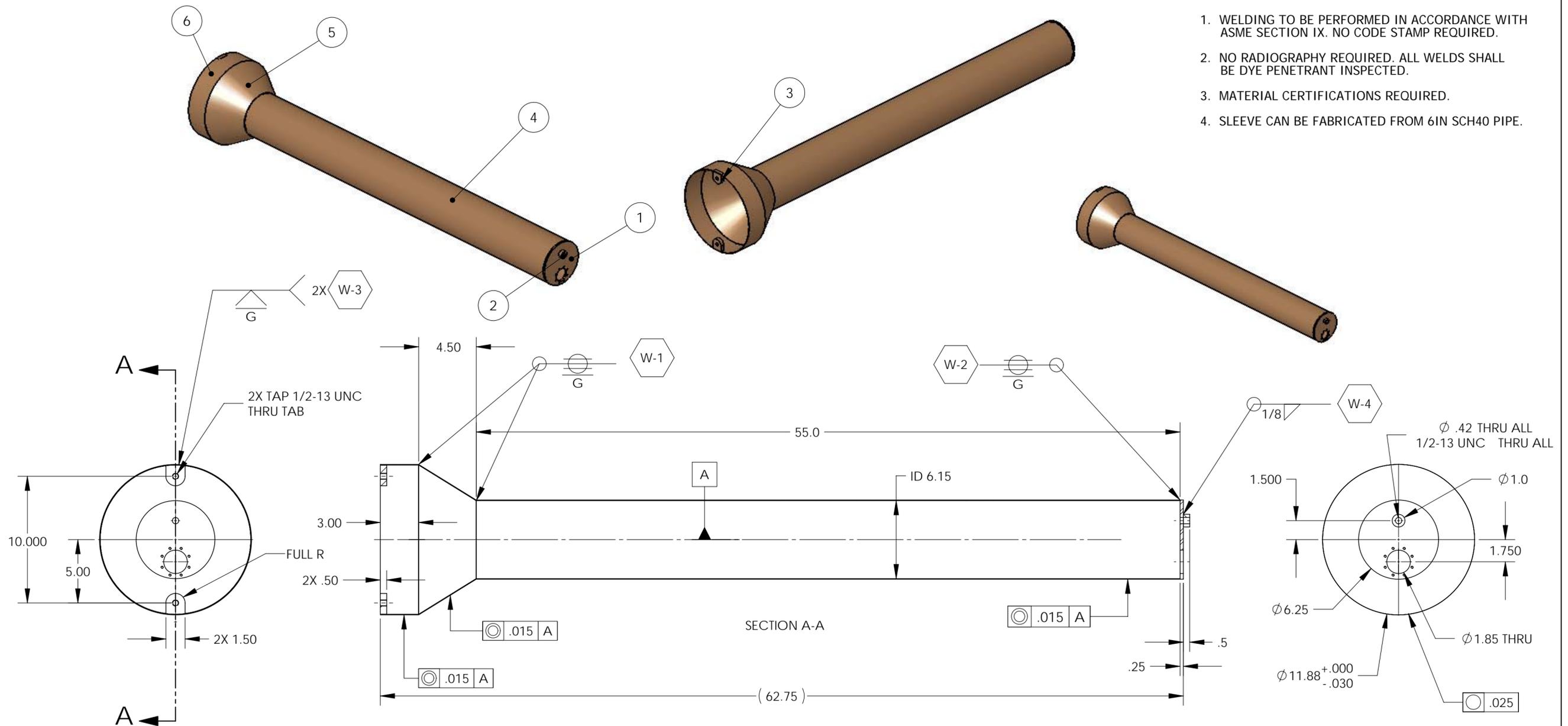
MATERIAL: 1/16" BUNA-N SHEET, 50A

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																			
	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-INCHES RMS CONCENTRICITY .010 TIR MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND FRACTIONS ±1/16 X DECIMALS ±.030 XX DECIMALS ±.010 XXX DECIMALS ±.005 			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>																			
<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>01/09/2006</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>01/09/2006</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/17/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>01/09/2006</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </table>			DES	V GRAVES	01/09/2006	DRW	T OQUIN	01/09/2006	CHK	P SPAMPINATO	01/17/2006	ENG	V GRAVES	01/09/2006	QA			-	-	-	<p>MERIT EXPERIMENT DBL WINDOW MONITORED - DOWNSTREAM WINDOW GASKET</p>		
DES	V GRAVES	01/09/2006																					
DRW	T OQUIN	01/09/2006																					
CHK	P SPAMPINATO	01/17/2006																					
ENG	V GRAVES	01/09/2006																					
QA																							
-	-	-																					
<p>DRAWING APPROVALS DATE</p>																							
<p>CAD FILE WINDOW GASKET HJT</p>		<p>PREV ASSY 203-HJT-0706</p>	<p>SCALE 1:1</p>	<p>SHEET 1 of 1</p>																			
<p>SIZE C</p>		<p>DWG NO. 203-HJT-0709</p>		<p>REV 0</p>																			



ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
4	1	stabilizer rod hjt	BLACK OXIDE SS 18-8	ALL THREAD ROD, 1/2-13 X 12 WITH WELDED NUT, MCMaster-CARR #95853A122	N/A
3	1	HJNUT 0.5000-13-D-N	SS	HEX JAM NUT, 0.500 - 13	N/A
2	1	double window monitored	TITANIUM	UPSTREAM DOUBLE BEAM WINDOW	203-HJT-0712
1	1	sec contain weldment hjt	SS - 316L, ASTM A-240	SECONDARY CONTAINMENT TUBE	203-HJT-0711

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT SECONDARY TUBE ASSY</p>	
<p>DES V GRAVES 06/09/2005</p> <p>DRW T OQUIN 06/09/2005</p> <p>CHK P SPAMPINATO 03/07/2006</p> <p>ENG V GRAVES 06/09/2005</p> <p>QA</p>	<p>CAD FILE</p> <p>SEC TUBE ASSY HJT</p> <p>SIZE DWG NO.</p>	<p>PREV ASSY</p> <p>203-HJT-0700</p>	<p>SCALE</p> <p>1:6</p>	<p>SHEET</p> <p>1 of 1</p> <p>REV</p> <p>0</p>
<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>203-HJT-0710</p>	<p>0</p>

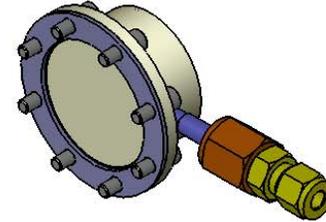
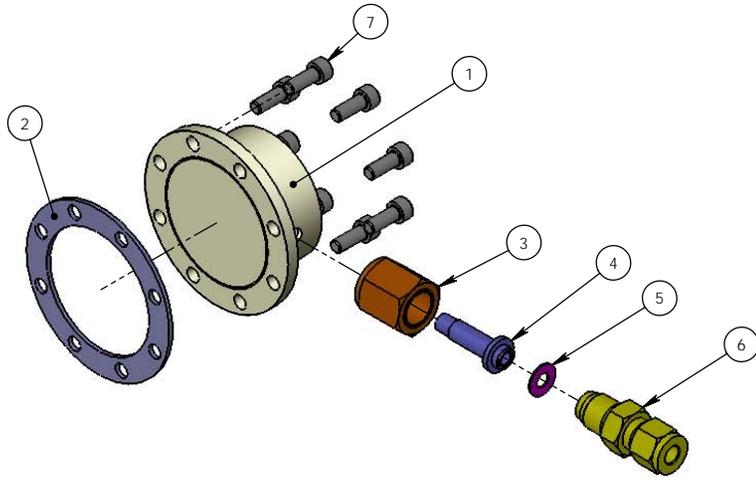


NOTES

1. WELDING TO BE PERFORMED IN ACCORDANCE WITH ASME SECTION IX. NO CODE STAMP REQUIRED.
2. NO RADIOGRAPHY REQUIRED. ALL WELDS SHALL BE DYE PENETRANT INSPECTED.
3. MATERIAL CERTIFICATIONS REQUIRED.
4. SLEEVE CAN BE FABRICATED FROM 6IN SCH40 PIPE.

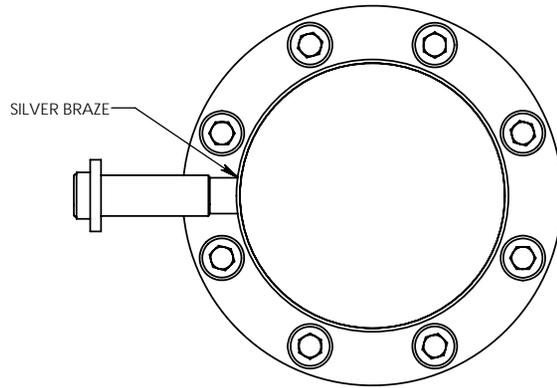
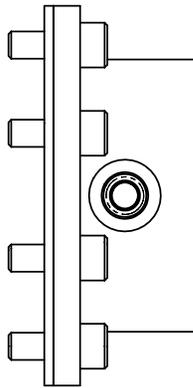
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
6	1	RING, 3.00 x 11.88 DIA x .048	SS - 316L, ASTM A-240
5	1	CONE, 5.31 X 11.88 DIA X .048	SS - 316L, ASTM A-240
4	1	SLEEVE, 55.00 X 6.25 DIA X .048	SS - 316L, ASTM A-240
3	2	TAB, 1.64 X 1.50 X .50	SS - 316L, ASTM A-240
2	1	BOSS, 1.00 OD X .50	SS - 316L, ASTM A-240
1	1	END PLATE, 6.25 OD X .25	SS - 316L, ASTM A-240

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	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
DES V GRAVES 06/09/2005 DRW T OQUIN 06/09/2005 CHK P SPAMPINATO 02/07/2006 ENG V GRAVES 06/09/2005 QA		<p>MERIT EXPERIMENT SECONDARY TUBE ASSY SECONDARY CONTAINMENT WELDMENT</p>		
CAD FILE SEC CONTAIN WELDMENT HJT		PREV ASSY 203-HJT-0710	SCALE 1:6	SHEET 1 of 1
DRAWING APPROVALS		DATE	SIZE DWG NO. C 203-HJT-0711	REV 0



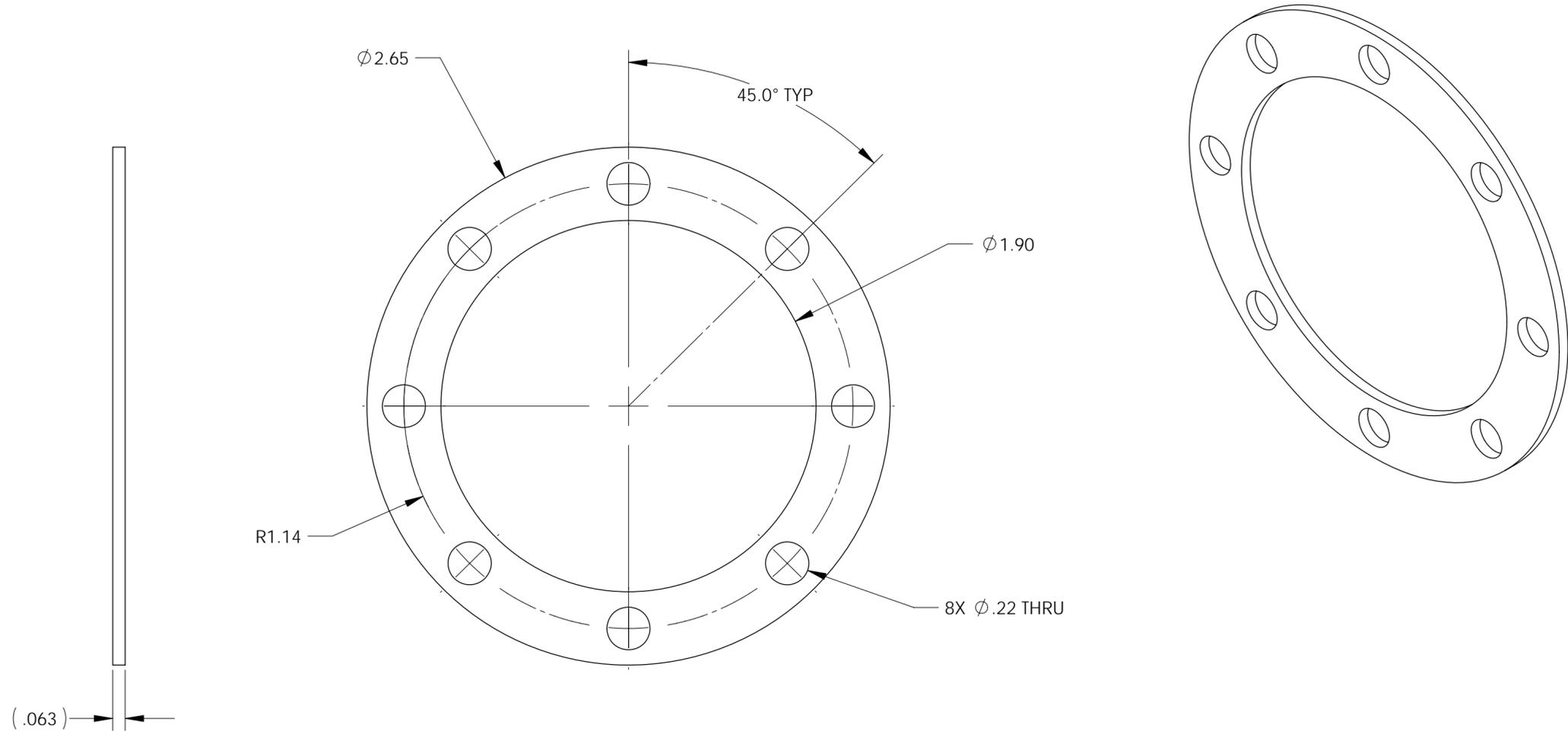
NOTES

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2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED. NO RADIOGRAPHY REQUIRED.
3. MATERIAL CERTIFICATIONS REQUIRED
4. ASSEMBLY TO BE PRESSURE TESTED TO 10 PSIG



7	8	Socket Head Cap Screw_Al	SS - 18-8	SHCS - 10-32 x 1/2	N/A
6	1	swagelok vcr tube connector	SS - 316	SECONDARY TUBE ASSY	N/A
5	1	swagelok vcr gasket 0.25	CU	SWAGELOK VCR GASKET, NON-RETAINED, CU-4-VCR-2-VS	N/A
4	1	swagelok vcr butt weld long hjt	SS - 316	SWAGELOK LONG TUBE BUTTWELD, 6LV-4-VCR-3-4TB2	N/A
3	1	swagelok vcr nut	SS - 316	SWAGELOK FEMALE VCR NUT, SS-4-VCR-1	N/A
2	1	window gasket hjt	1/16" BUNA-N SHEET, 50A	MCMMASTER-CARR #86715K279	203-HJT-0714
1	1	double window hjt	TITANIUM	1.90 OD x 1.00	203-HJT-0713
ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>			
	<p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. FORMED ANGLES ±1°</p> <p>7. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>8. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>9. X DECIMALS ±.030</p> <p>10. XX DECIMALS ±.010</p> <p>11. XXX DECIMALS ±.005</p>		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>			
DES	V GRAVES	09/26/2005	<p>MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY DBL WINDOW MONITORED - UPSTREAM</p>			
DRW	T OQUIN	09/26/2005				
CHK	P SPAMPINATO	01/17/2006				
ENG	V GRAVES	09/26/2005				
QA			<p>CAD FILE</p> <p>DOUBLE WINDOW MONITORED</p>	<p>PREV ASSY</p> <p>203-HJT-0710</p>	<p>SCALE</p> <p>3:2</p>	<p>SHEET</p> <p>1 of 1</p>
DRAWING APPROVALS		DATE	<p>SIZE</p> <p>C</p>	<p>DWG NO.</p> <p>203-HJT-0712</p>	<p>REV</p> <p>0</p>	



MATERIAL: 1/16" BUNA-N SHEET, 50A



THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
6. FORMED ANGLES ±1°
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11. XXX DECIMALS ±.005

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OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN



REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

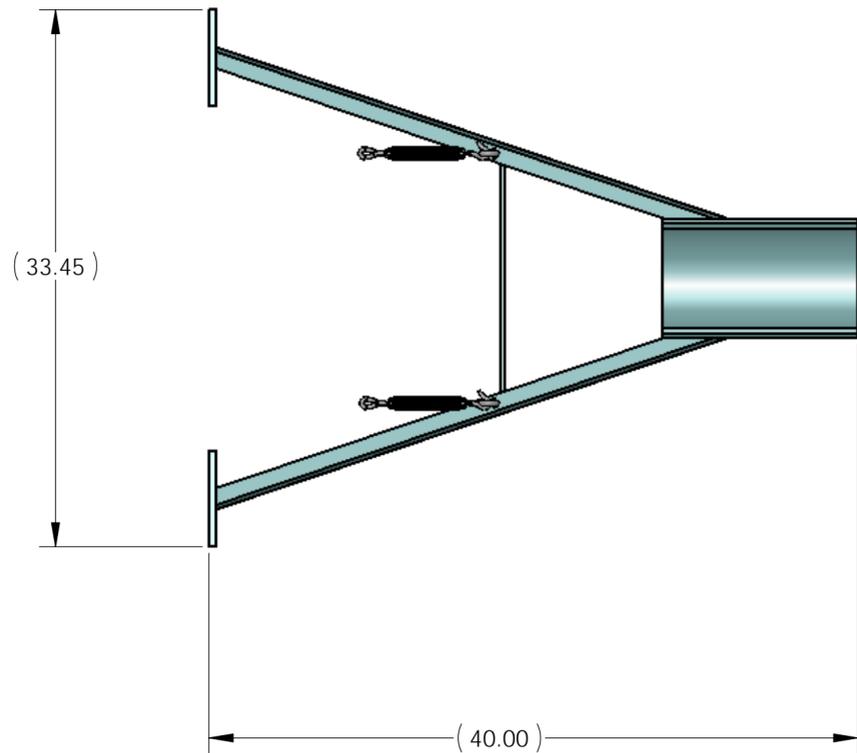
DES	V GRAVES	01/09/2006
DRW	T OQUIN	01/09/2006
CHK	P SPAMPINATO	01/17/2006
ENG	V GRAVES	01/09/2006
QA		

MERIT EXPERIMENT
DBL WINDOW MONITORED - DOWNSTREAM WINDOW GASKET

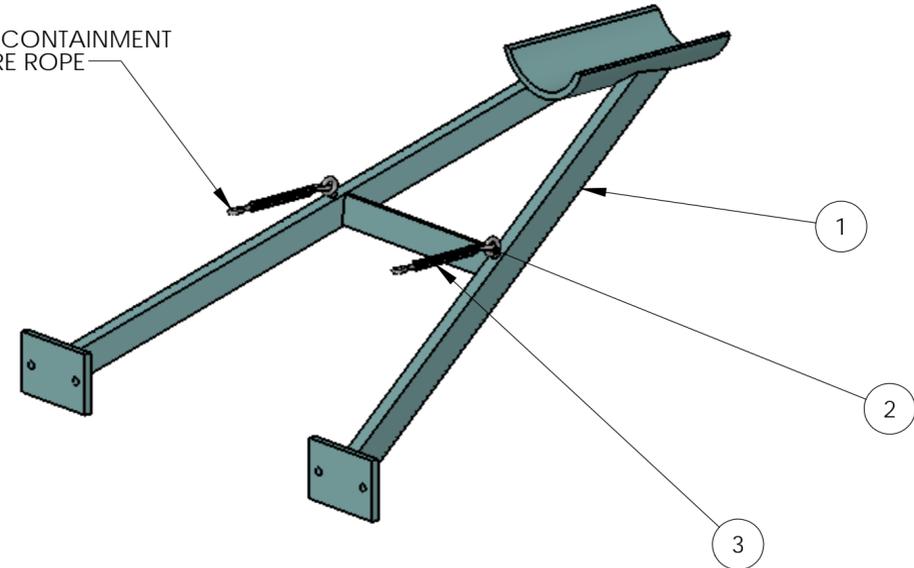
REV	DESCRIPTION	DATE	BY	APPROVED
0	ORIGINAL ISSUE	4/4/2006	VBG	VBG

DRAWING APPROVALS	DATE

CAD FILE WINDOW GASKET HJT	PREV ASSY 203-HJT-0710	SCALE 2:1	SHEET 1 of 1
SIZE C	DWG NO. 203-HJT-0714	REV 0	



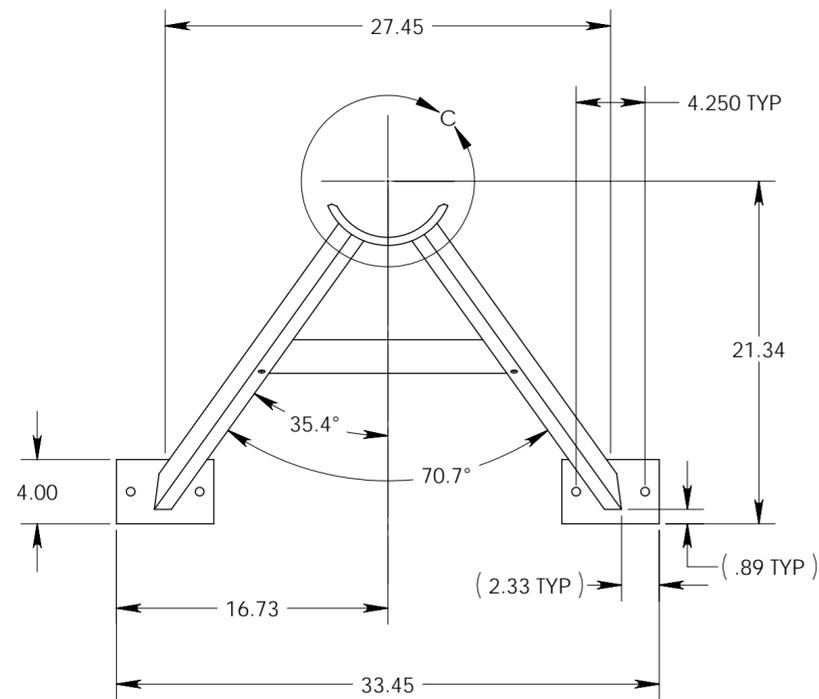
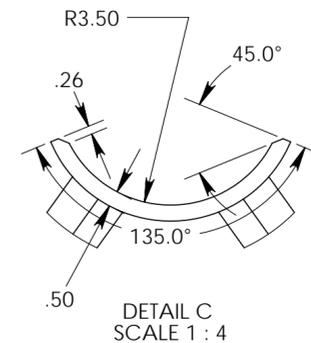
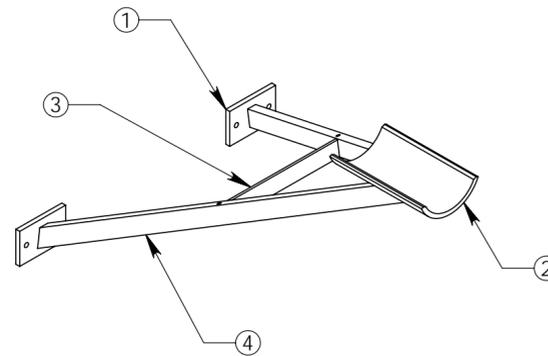
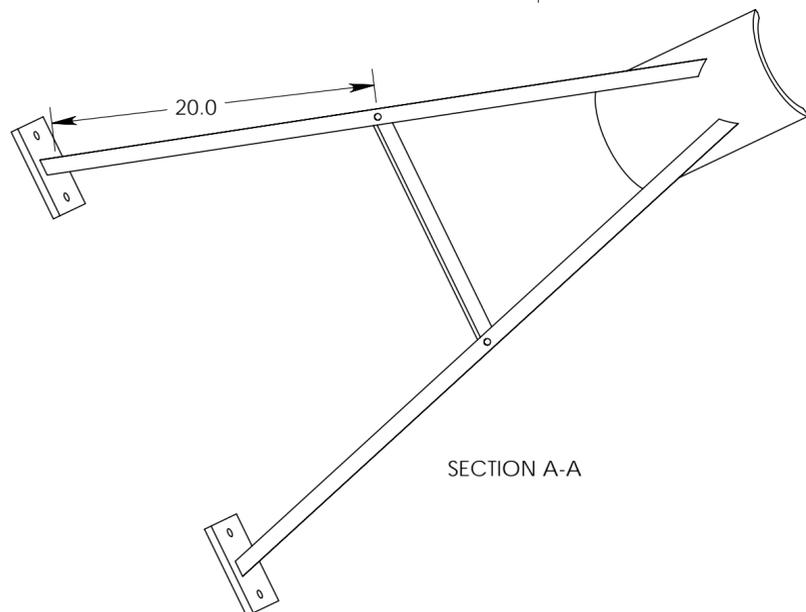
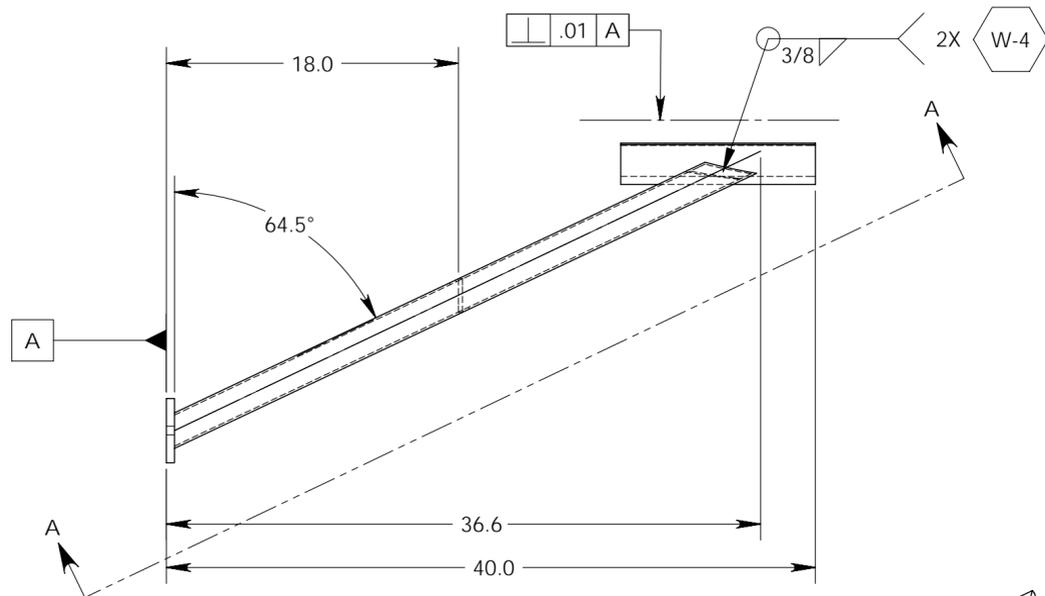
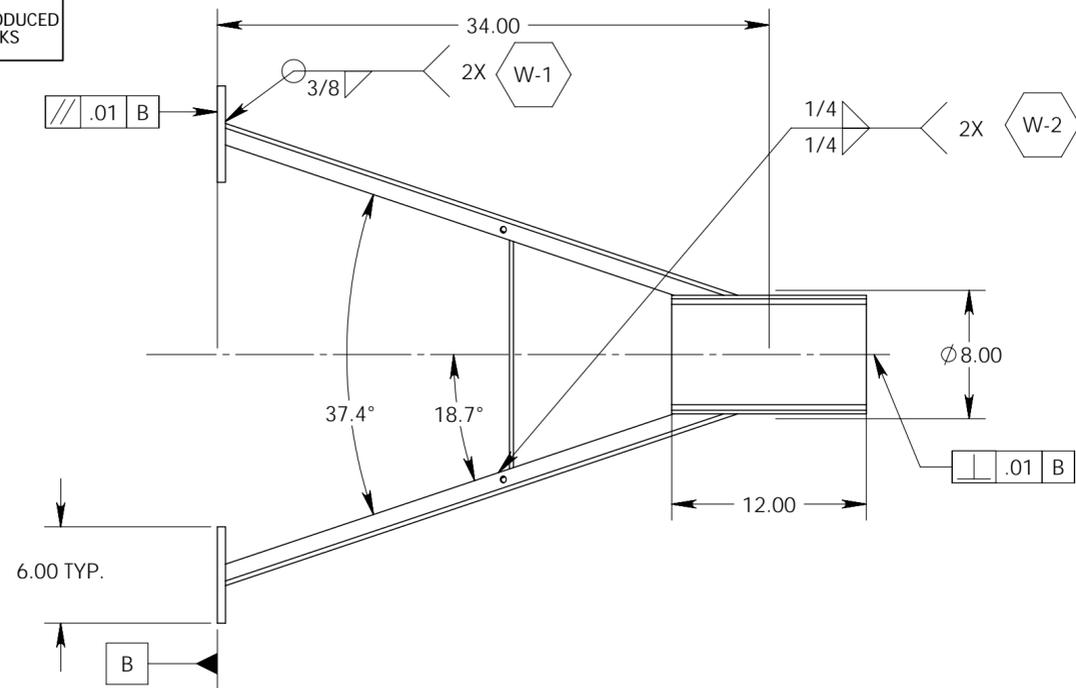
TURNBUCKLES TO BE ATTACHED TO CONTAINMENT BOX (203-HJT-0701) USING 5/16 WIRE ROPE



ITEM	QTY	NAME	MATERIAL	DESCRIPTION	DWG
3	2	3022T611	STEEL	TURNBUCKLE, MCMaster-CARR 3022T61	N/A
2	2	3018T150	STEEL	EYEBOLT, MCMaster-CARR 3018T15	N/A
1	1	SUPPORT CRADLE HJT	AL 6061-T6511, ASTM B-221	SECONDARY TUBE SUPPORT CRADLE	203-HJT-0721

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. FORMED ANGLES ±1° 7. BREAK SHARP CORNERS AND REMOVE ALL BURRS 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
DES V GRAVES 01/16/2006 DRW CHK P SPAMPINATO 01/17/2006 ENG V GRAVES 01/16/2006 QA - - -		<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSEMBLY TUBE SUPPORT ASSEMBLY</p>		
CAD FILE CRADLE ASSY HJT SIZE C		PREV ASSY 203-HJT-0700	SCALE 1:8	SHEET 1 of 1 REV 0
DRAWING APPROVALS		DATE		DWG NO. 203-HJT-0720

S THIS DRAWING PRODUCED ON SOLIDWORKS



NOTES

1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.2
2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
3. MATERIAL CERTIFICATIONS REQUIRED

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	LENGTH
4	2	TUBE, 1.00 x 2.00 x .13	AL 6063 - T52, ASTM B-221	44
3	1	BAR, 2.10 x .25 x 14.11	AL 6061-T6511, ASTM B-221	14.11
2	1	DRAWN SEAMLESS TUBE, 8.00 OD x 1" WALL	AL - 6061-T6, ASTM B-210	12.00
1	2	PLATE, 4.00 x 6.00 x .50	AL - 6061-T6511, ASTM B-221	6.00

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2°
FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

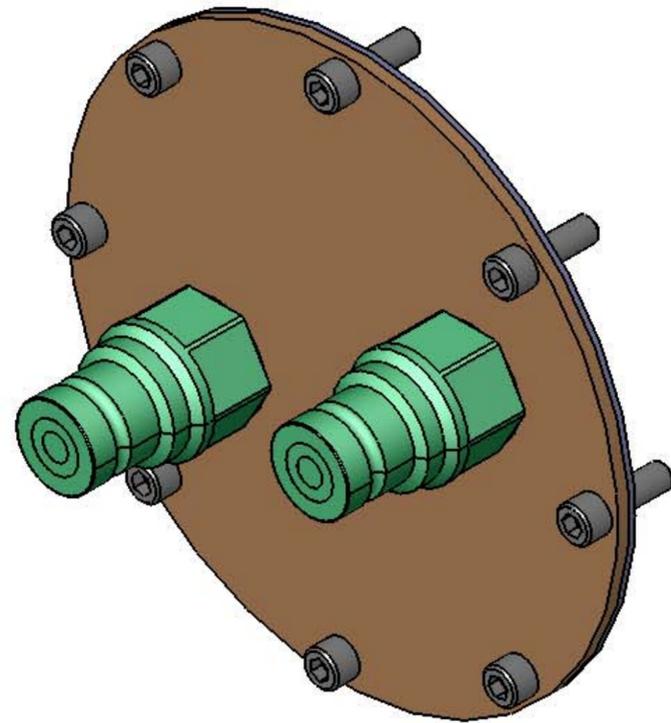
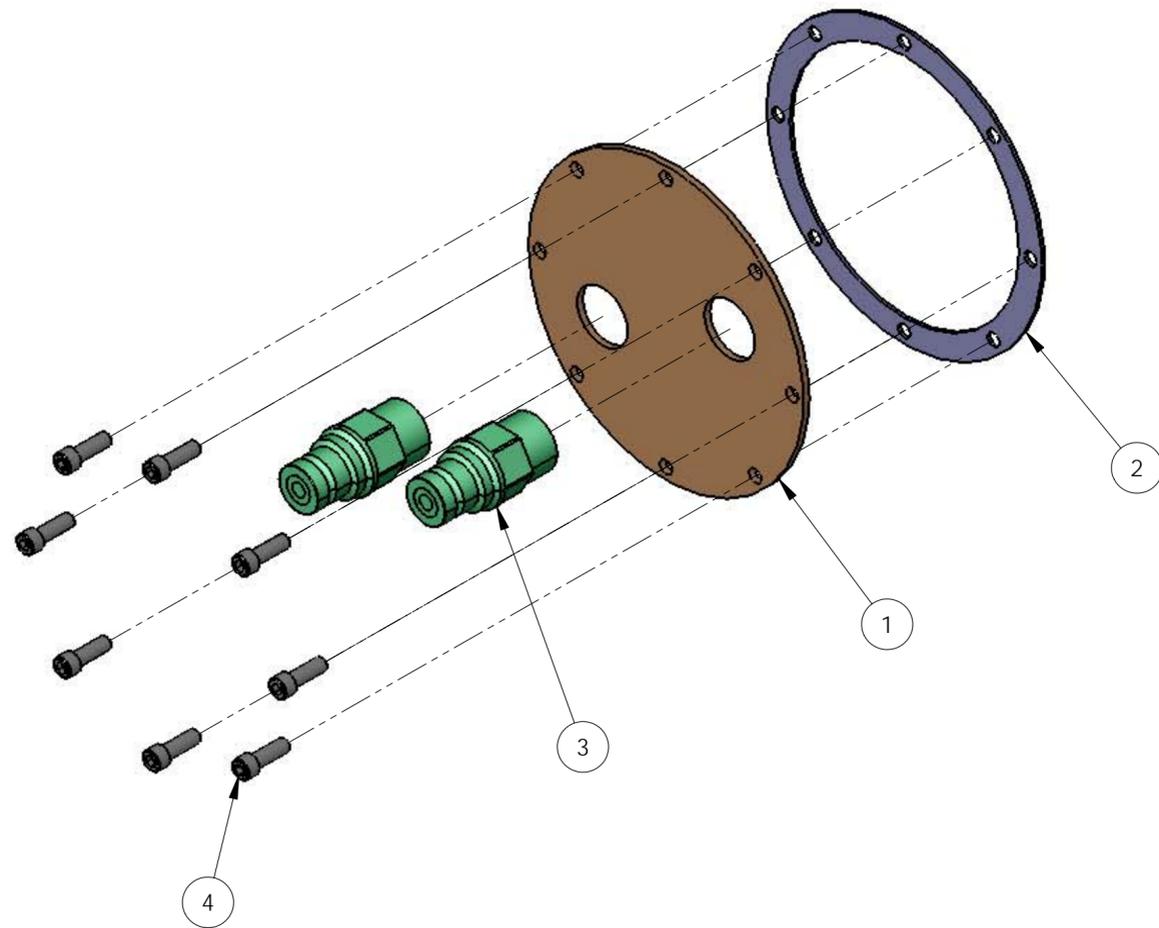
oml OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

**MERIT EXPERIMENT
SECONDARY CONTAINMENT ASSY
SUPPORT CRADLE**

CAD FILE	PREV ASSY	SCALE	SHEET
SUPPORT CRADLE HJT	203-HJT-0720	1:8	1 of 1
SIZE	DWG NO.	REV	
C	203-HJT-0721	0	

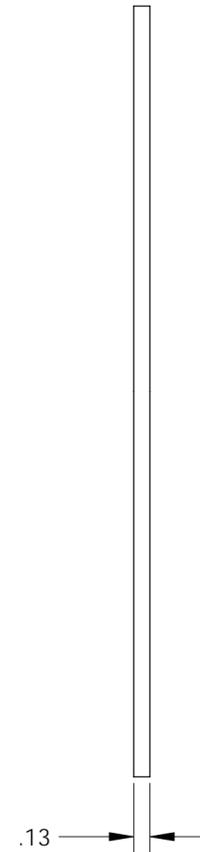
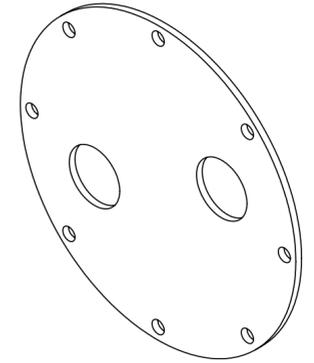
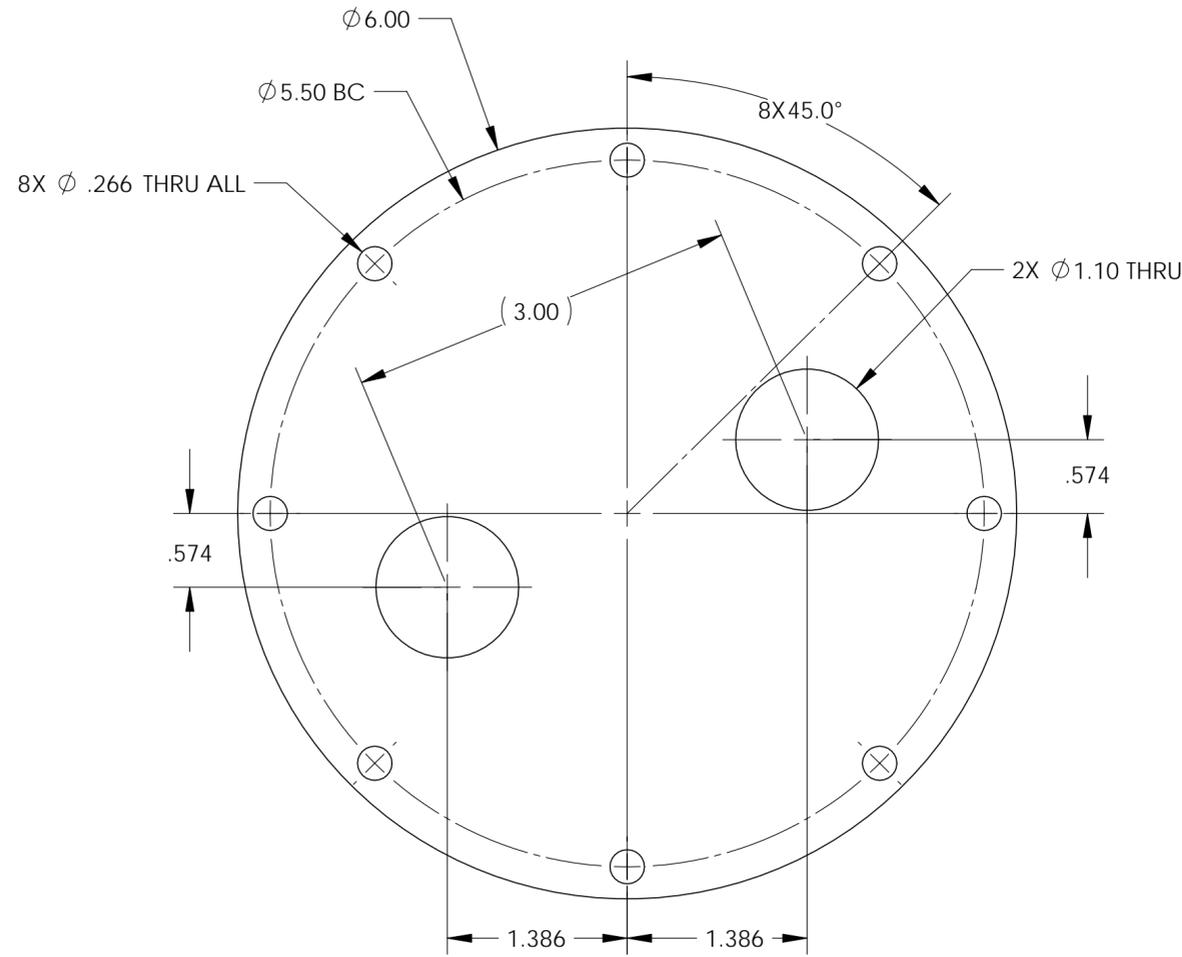
DWG NO. 203-HJT-0721



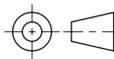
4	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A	
3	2	staubli_plug_spx06_7202	---	HYDRAULIC BULKHEAD CONNECTOR, SUPPLIED BY OTHERS	N/A	
2	1	connector plate gasket hjt	1/16" BUNA-N SHEET. 50A	MCMaster-CARR #86715K279	203-HJT-0732	
1	1	hydraulics plate	SS - 304L, ASTM A-240	PLATE, 6.000 DIA X .125 THK	203-HJT-0731	
ITEM	hydraulics/QTY.	NAME	MATERIAL	DESCRIPTION	DWG	
THIRD-ANGLE PROJECTION		This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.		OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN		
UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005		DES	V GRAVES	01/06/2006	REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY CONNECTOR PLATE ASSY - HYDRAULICS	
DRW	T OQUIN	01/06/2006				
CHK	P SPAMPINATO	01/17/2006				
ENG	V GRAVES	01/06/2006				
QA						
		CAD FILE	CONNECTOR PLATE ASSY HJT	PREV ASSY	SCALE	SHEET
		SIZE	DWG NO.	203-HJT-0700	1:2	1 of 1
DRAWING APPROVALS		DATE	C	203-HJT-0730		REV
						0

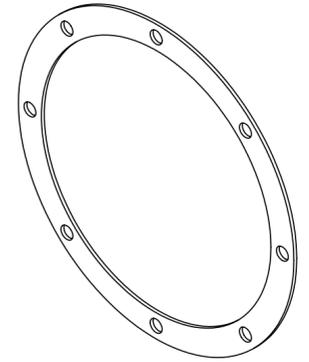
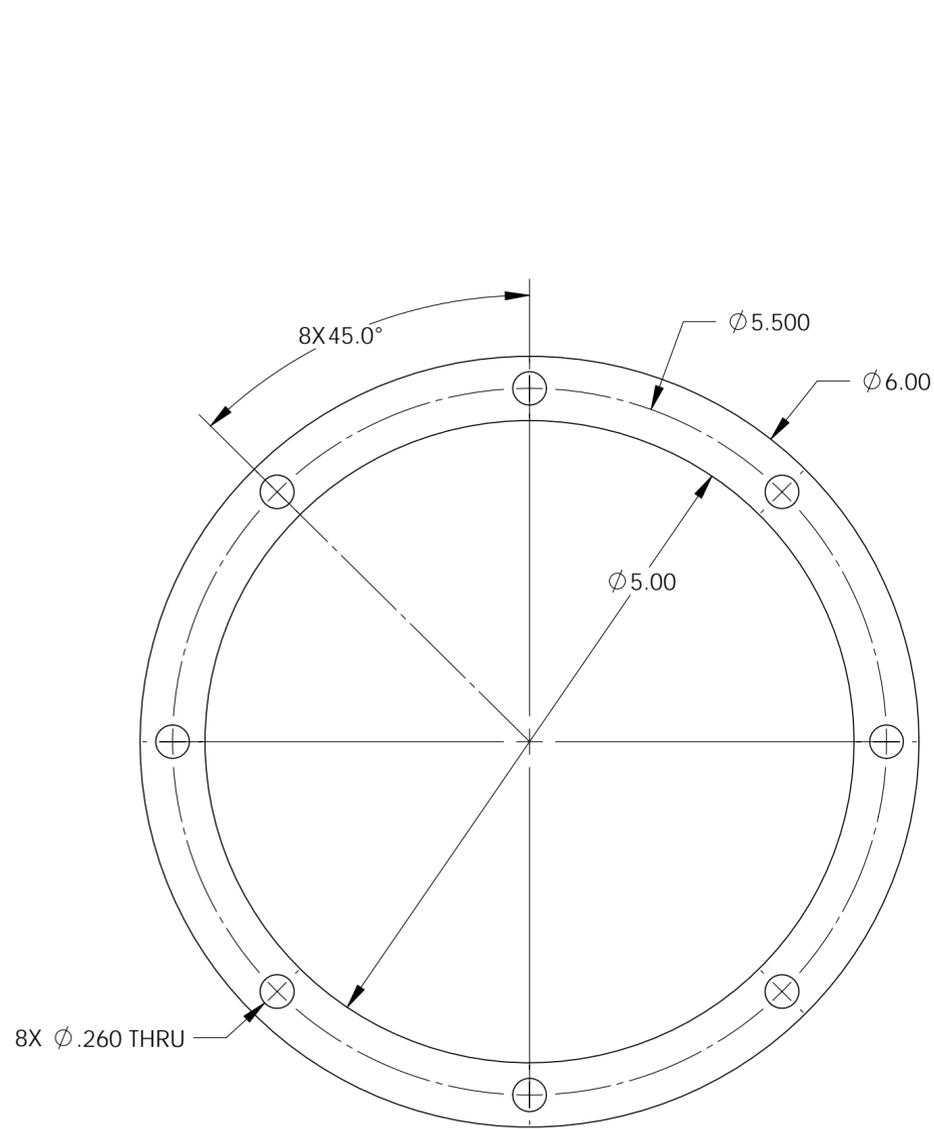
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



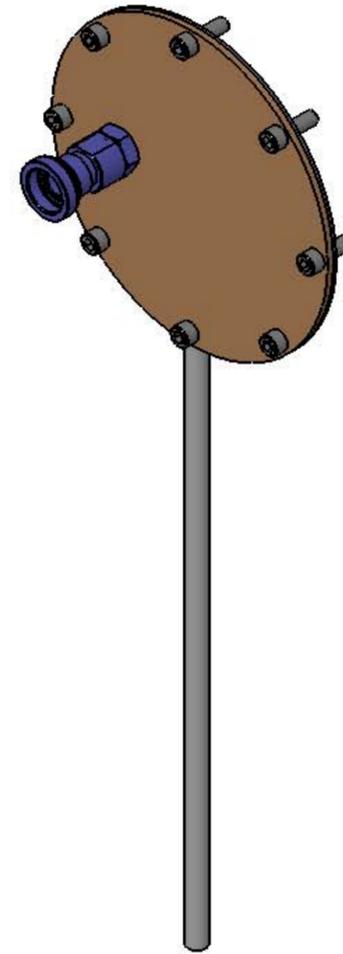
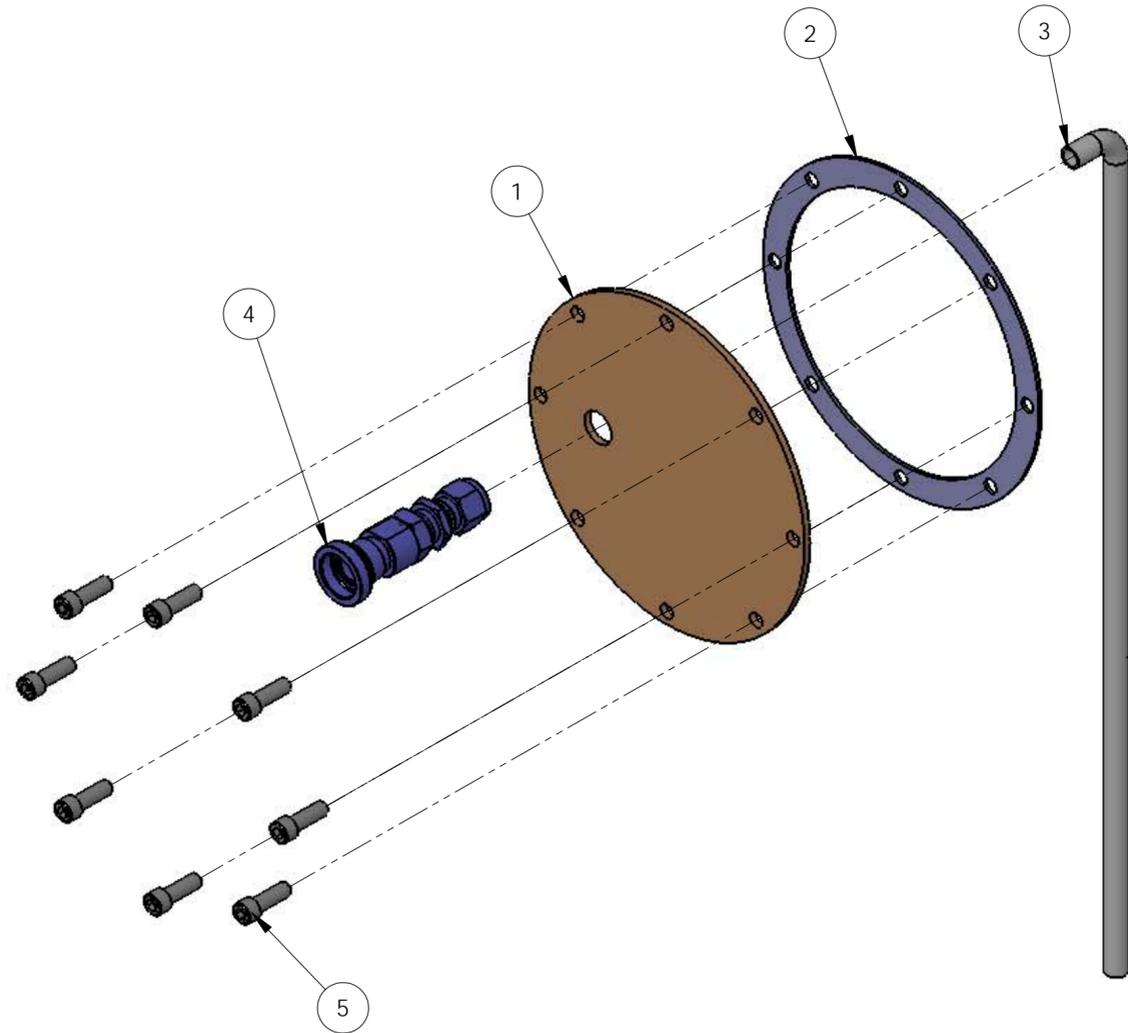
MATERIAL: SS - 304L, ASTM A-240

 THIRD-ANGLE PROJECTION	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			 OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN	
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			 REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION	
DES V GRAVES 01/06/2006 DRW T OQUIN 01/06/2006 CHK P SPAMPINATO 01/17/2006 ENG V GRAVES 01/06/2006 QA			MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY HYDRAULIC CONNECTOR PLATE		
DRAWING APPROVALS DATE			CAD FILE CONNECTOR PLATE HJT SIZE DWG NO.	PREV ASSY 203-HJT-0730 SCALE 1:1	SHEET 1 of 1 REV 0
			203-HJT-0731		



MATERIAL: 1/16" BUNA-N SHEET. 50A

<p>THIRD-ANGLE PROJECTION</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>																			
	<p>UNLESS OTHERWISE NOTED</p> <ol style="list-style-type: none"> ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-INCHES RMS CONCENTRICITY .010 TIR MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND FRACTIONS ±1/16 X DECIMALS ±.030 XX DECIMALS ±.010 XXX DECIMALS ±.005 			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>																			
<table border="1"> <tr> <td>DES</td> <td>V GRAVES</td> <td>01/06/2006</td> </tr> <tr> <td>DRW</td> <td>T OQUIN</td> <td>01/06/2006</td> </tr> <tr> <td>CHK</td> <td>P SPAMPINATO</td> <td>01/17/2006</td> </tr> <tr> <td>ENG</td> <td>V GRAVES</td> <td>01/06/2006</td> </tr> <tr> <td>QA</td> <td></td> <td></td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </table>			DES	V GRAVES	01/06/2006	DRW	T OQUIN	01/06/2006	CHK	P SPAMPINATO	01/17/2006	ENG	V GRAVES	01/06/2006	QA			-	-	-	<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY CONNECTOR PLATE GASKET</p>		
DES	V GRAVES	01/06/2006																					
DRW	T OQUIN	01/06/2006																					
CHK	P SPAMPINATO	01/17/2006																					
ENG	V GRAVES	01/06/2006																					
QA																							
-	-	-																					
<p>DRAWING APPROVALS DATE</p>																							
<p>CAD FILE CONNECTOR PLATE GASKET HJT</p>		<p>PREV ASSY 203-HJT-0700</p>	<p>SCALE 1:1</p>	<p>SHEET 1 of 1</p>																			
<p>SIZE C</p>		<p>DWG NO. 203-HJT-0732</p>		<p>REV 0</p>																			



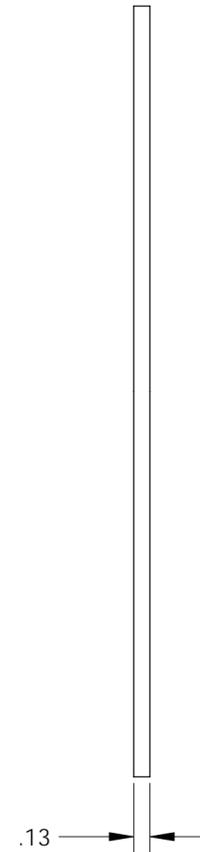
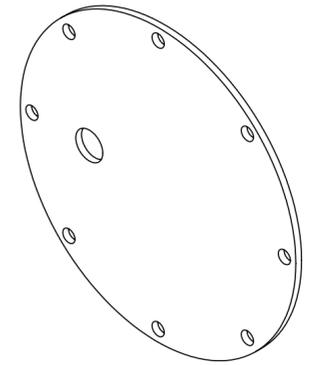
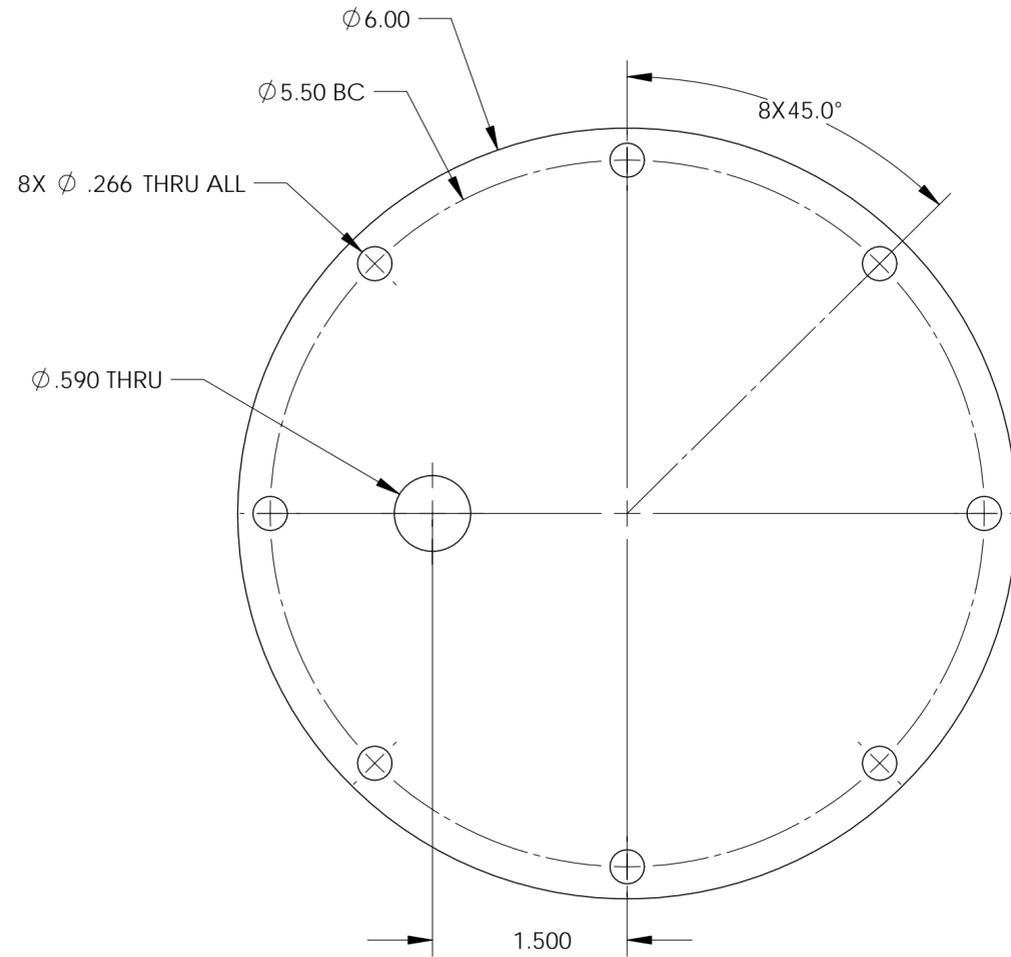
LENGTH DETERMINED BY SUMP DEPTH

5	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A
4	1	swagelok qcbulkhead body 0.375	SS - 316	SWAGelok BULKHEAD BODY W/PROTECTOR, SS-QC6-B1-600 & SS-QC6-BP	N/A
3	1	extraction tube hjt	SS - 304L, ASTM A269	RIGID TUBE, .375 OD X .035 WALL, FIELD FIT	N/A
2	1	connector plate gasket hjt	1/16" BUNA-N SHEET. 50A	MCMMASTER-CARR #86715K279	203-HJT-0732
1	1	extraction plate	SS - 304L, ASTM A-240	PLATE, 6.000 DIA X .125 THK	203-HJT-0741
ITEM	extraction/QTY.	NAME	MATERIAL	DESCRIPTION	DWG

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>			
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY CONNECTOR PLATE ASSY - HG EXTRACTION</p>			
DES	V GRAVES	01/06/2006	CAD FILE	PREV ASSY	SCALE	SHEET
DRW	T OQUIN	01/06/2006	CONNECTOR PLATE ASSY HJT	203-HJT-0700	1:2	1 of 1
CHK	P SPAMPINATO	01/17/2006	SIZE	DWG NO.	REV	
ENG	V GRAVES	01/06/2006	C	203-HJT-0740	0	
QA			DRAWING APPROVALS	DATE		

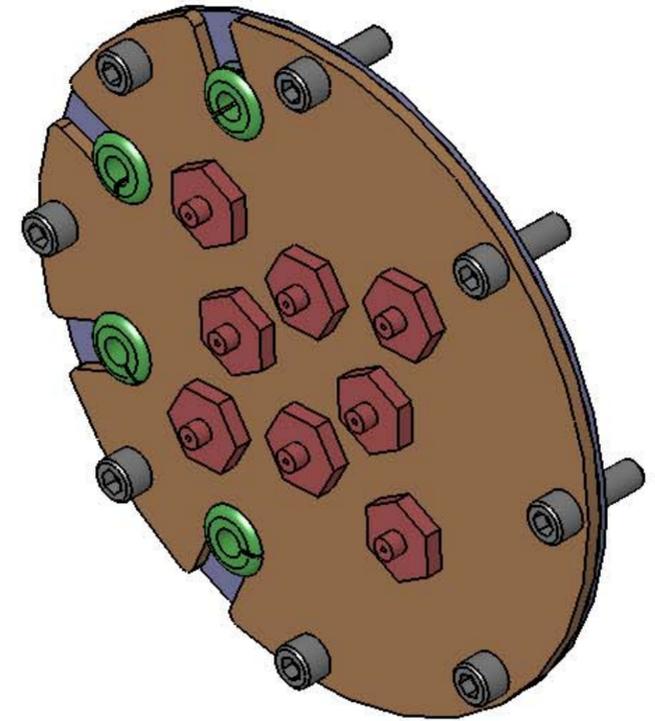
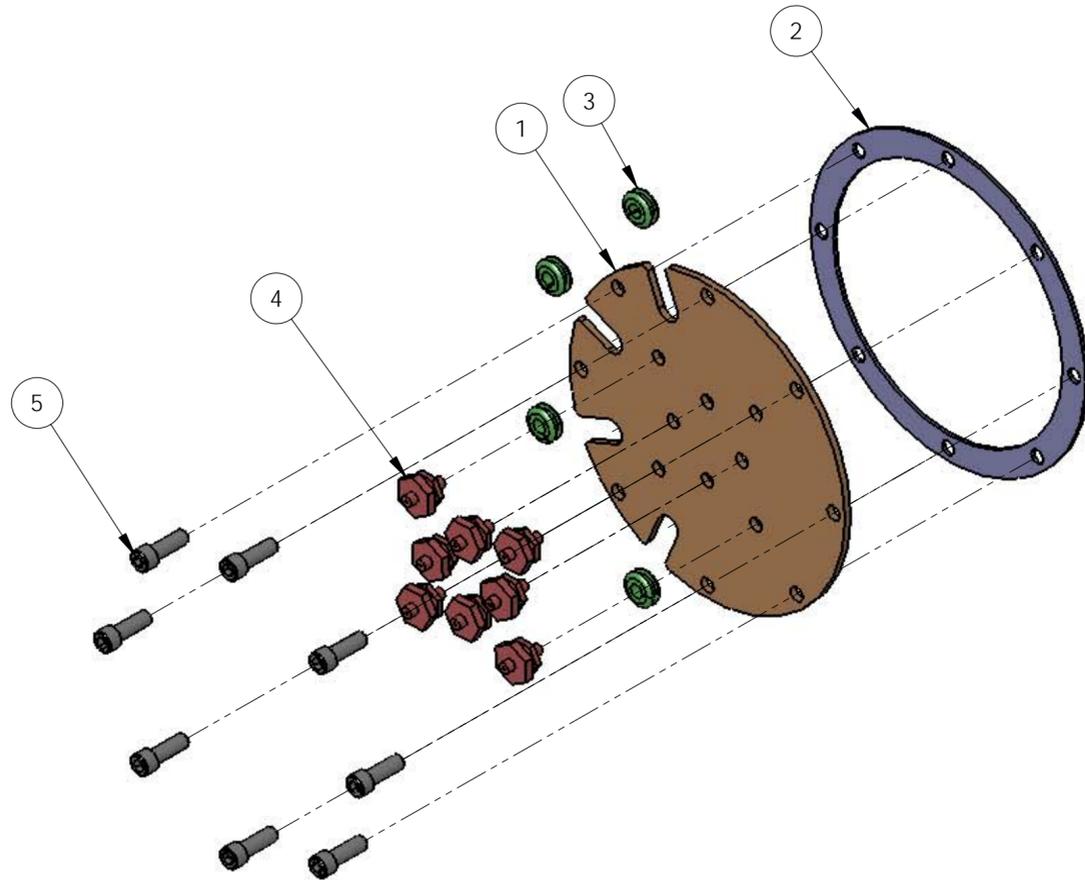
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



MATERIAL: SS - 304L, ASTM A-240

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>		
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY $.010$ TIR 5. MACHINED ANGLES $\pm 1/2^\circ$ 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS $\pm 1/16$ 8. X DECIMALS $\pm .030$ 9. XX DECIMALS $\pm .010$ 10. XXX DECIMALS $\pm .005$			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		
DES	V GRAVES	01/06/2006	<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY HG EXTRACTION CONNECTOR PLATE</p>			
DRW	T OQUIN	01/06/2006				
CHK	P SPAMPINATO	01/17/2006				
ENG	V GRAVES	01/06/2006				
QA			CAD FILE	PREV ASSY	SCALE	SHEET
			CONNECTOR PLATE HJT	203-HJT-0730	1:1	1 of 1
DRAWING APPROVALS		DATE	SIZE	DWG NO.	REV	
			C	203-HJT-0741	0	



ITEM	optics/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
5	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A
4	8	illumination fiber sleeve hjt	---	SUPPLIED BY OTHERS	N/A
3	4	optic fiber grommet hjt	BUNA-N RUBBER	GROMMET, MCMaster-CARR #9307K14	N/A
2	1	connector plate gasket hjt	1/16" BUNA-N SHEET. 50A	MCMaster-CARR #86715K279	203-HJT-0732
1	1	optics plate	SS - 304L, ASTM A-240	PLATE, 6.000 DIA X .125 THK	203-HJT-0751

THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

1. ALL DIMENSIONS ARE IN INCHES
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
3. MACHINED FINISH 125 MICRO-INCHES RMS
4. CONCENTRICITY .010 TIR
5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1°
6. BREAK SHARP CORNERS AND REMOVE ALL BURRS
7. WHOLE NUMBERS AND FRACTIONS ±1/16
8. X DECIMALS ±.030
9. XX DECIMALS ±.010
10. XXX DECIMALS ±.005

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DES	V GRAVES	01/06/2006
DRW	T OQUIN	01/06/2006
CHK	P SPAMPINATO	01/17/2006
ENG	V GRAVES	01/06/2006
QA		

oml
OAK RIDGE NATIONAL LABORATORY
operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

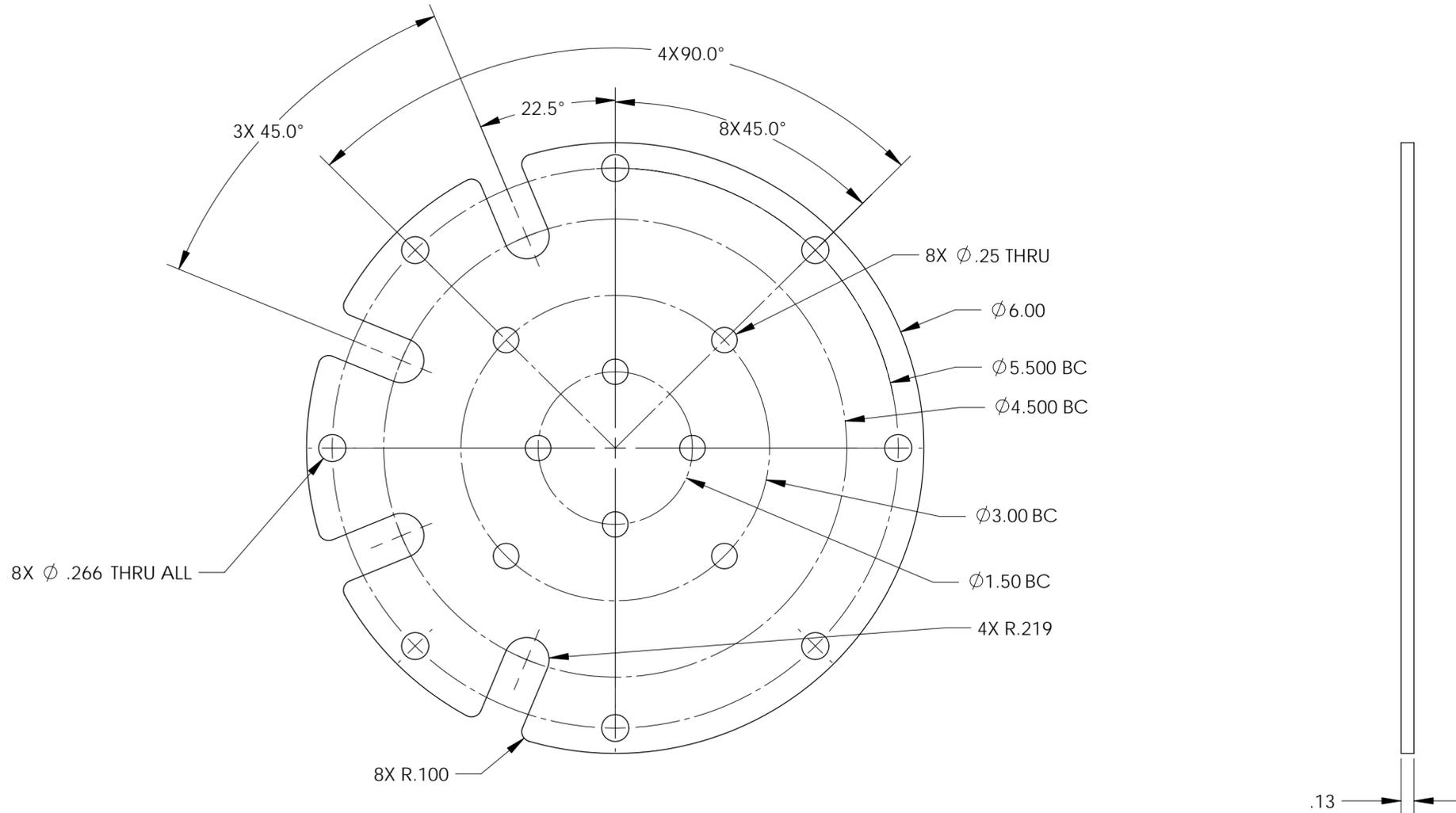
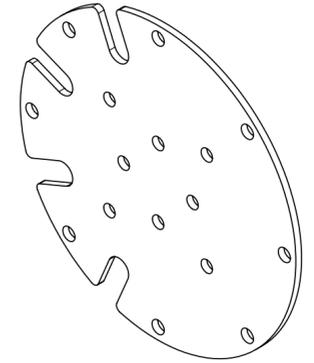
NSTB
REMOTE SYSTEMS GROUP
NUCLEAR SCIENCE & TECHNOLOGY DIVISION

**MERIT EXPERIMENT
SECONDARY CONTAINMENT ASSY
CONNECTOR PLATE ASSY - OPTICS**

CAD FILE	PREV ASSY	SCALE	SHEET
CONNECTOR PLATE ASSY HJT	203-HJT-0700	1:2	1 of 1
SIZE	DWG NO.	REV	
C	203-HJT-0750	0	

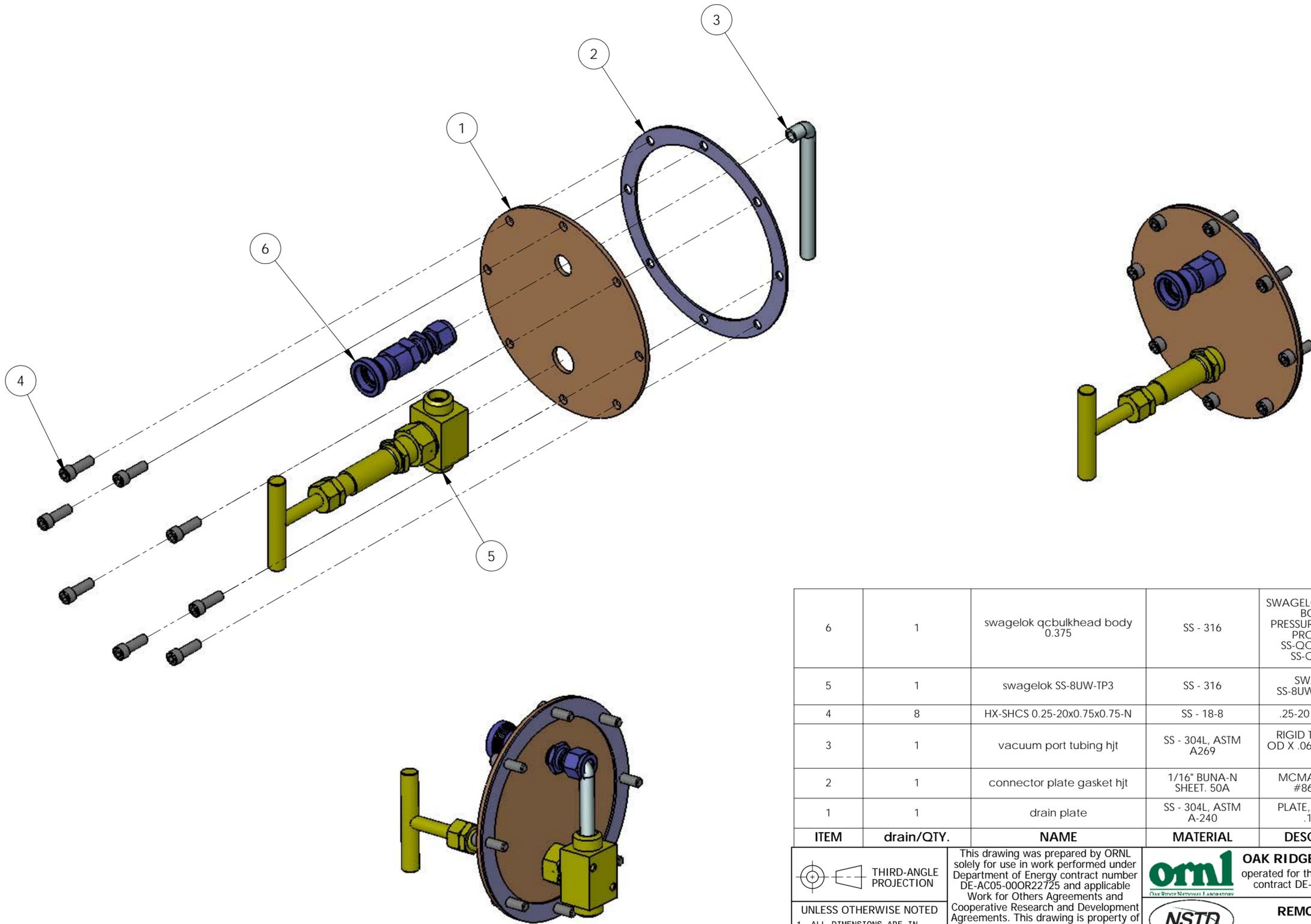
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



MATERIAL: SS - 304L, ASTM A-240

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
DES V GRAVES 01/06/2006 DRW T OQUIN 01/06/2006 CHK P SPAMPINATO 01/17/2006 ENG V GRAVES 01/06/2006 QA			<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY OPTICS CONNECTOR PLATE</p>		
DRAWING APPROVALS DATE					
			<p align="center">203-HJT-0751</p>		

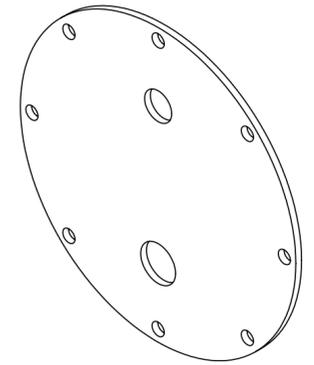
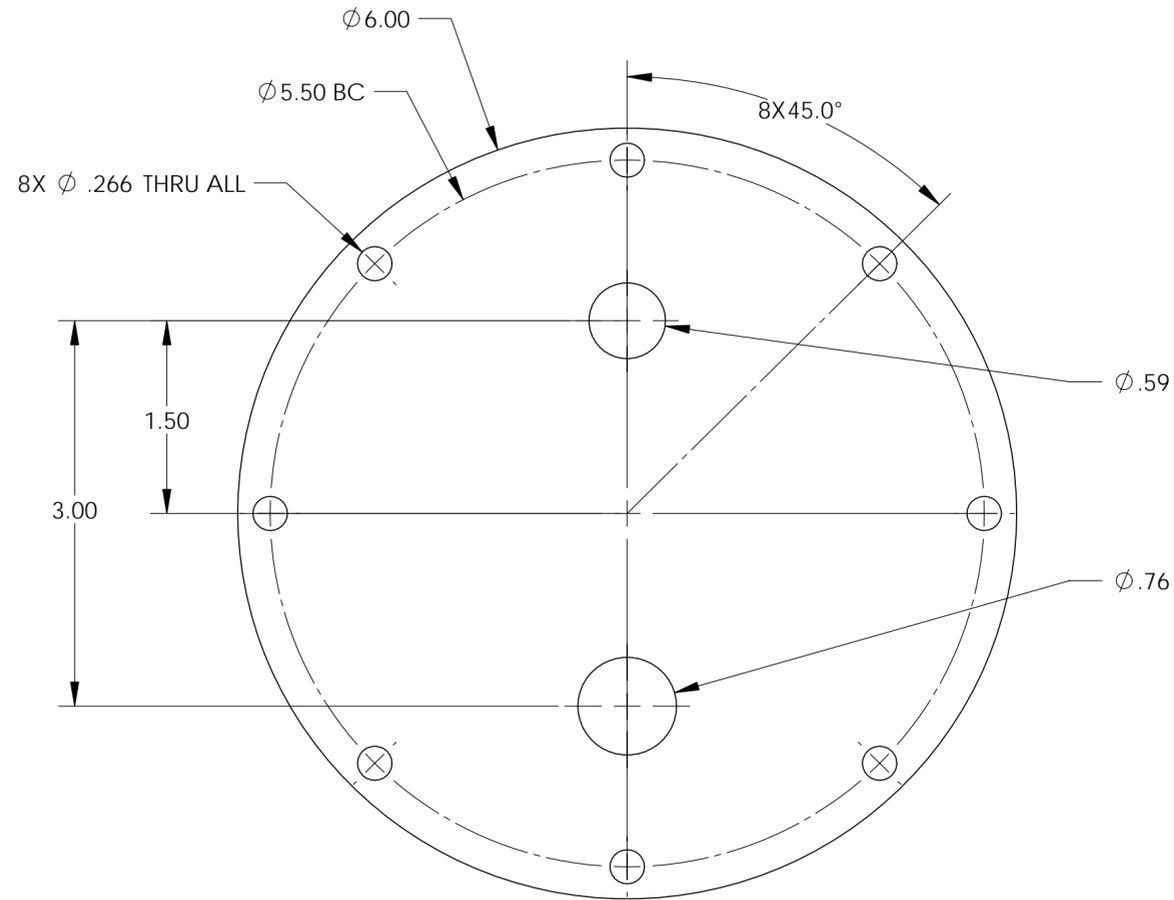


ITEM	drain/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
6	1	swagelok qcbulkhead body 0.375	SS - 316	SWAGelok BULKHEAD BODY W/ PRESSURE-RETAINING PROTECTOR, SS-QC6-B1-600 & SS-QC6-BPPR	N/A
5	1	swagelok SS-8UW-TP3	SS - 316	SWAGelok SS-8UW-TP3 VALVE	N/A
4	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A
3	1	vacuum port tubing hjt	SS - 304L, ASTM A269	RIGID TUBING, .375 OD X .065 WALL, FIELD FIT	N/A
2	1	connector plate gasket hjt	1/16" BUNA-N SHEET, 50A	MCMMASTER-CARR #86715K279	203-HJT-0732
1	1	drain plate	SS - 304L, ASTM A-240	PLATE, 6.000 DIA X .125 THK	203-HJT-0761

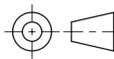
<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>6. FORMED ANGLES ±1°</p> <p>7. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	<p>DES V GRAVES 01/06/2006</p> <p>DRW T OQUIN 01/06/2006</p> <p>CHK P SPAMPINATO 01/17/2006</p> <p>ENG V GRAVES 01/06/2006</p> <p>QA</p>			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
<p>MERIT EXPERIMENT</p> <p>SECONDARY CONTAINMENT ASSY</p> <p>CONNECTOR PLATE ASSY - DRAIN</p>					
<p>CAD FILE CONNECTOR PLATE ASSY HJT</p>		<p>PREV ASSY 203-HJT-0700</p>	<p>SCALE 1:2</p>	<p>SHEET 1 of 1</p>	
<p>SIZE C</p>		<p>DWG NO. 203-HJT-0760</p>		<p>REV 0</p>	
<p>DRAWING APPROVALS</p>		<p>DATE</p>			

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



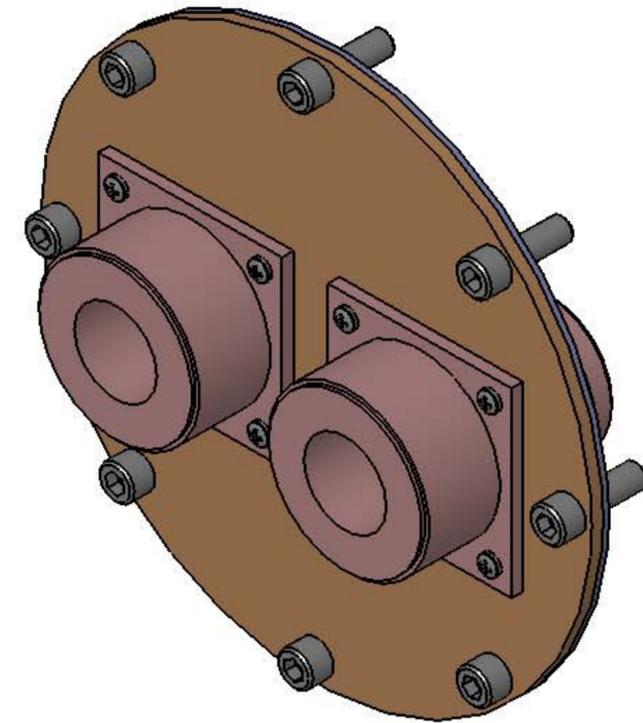
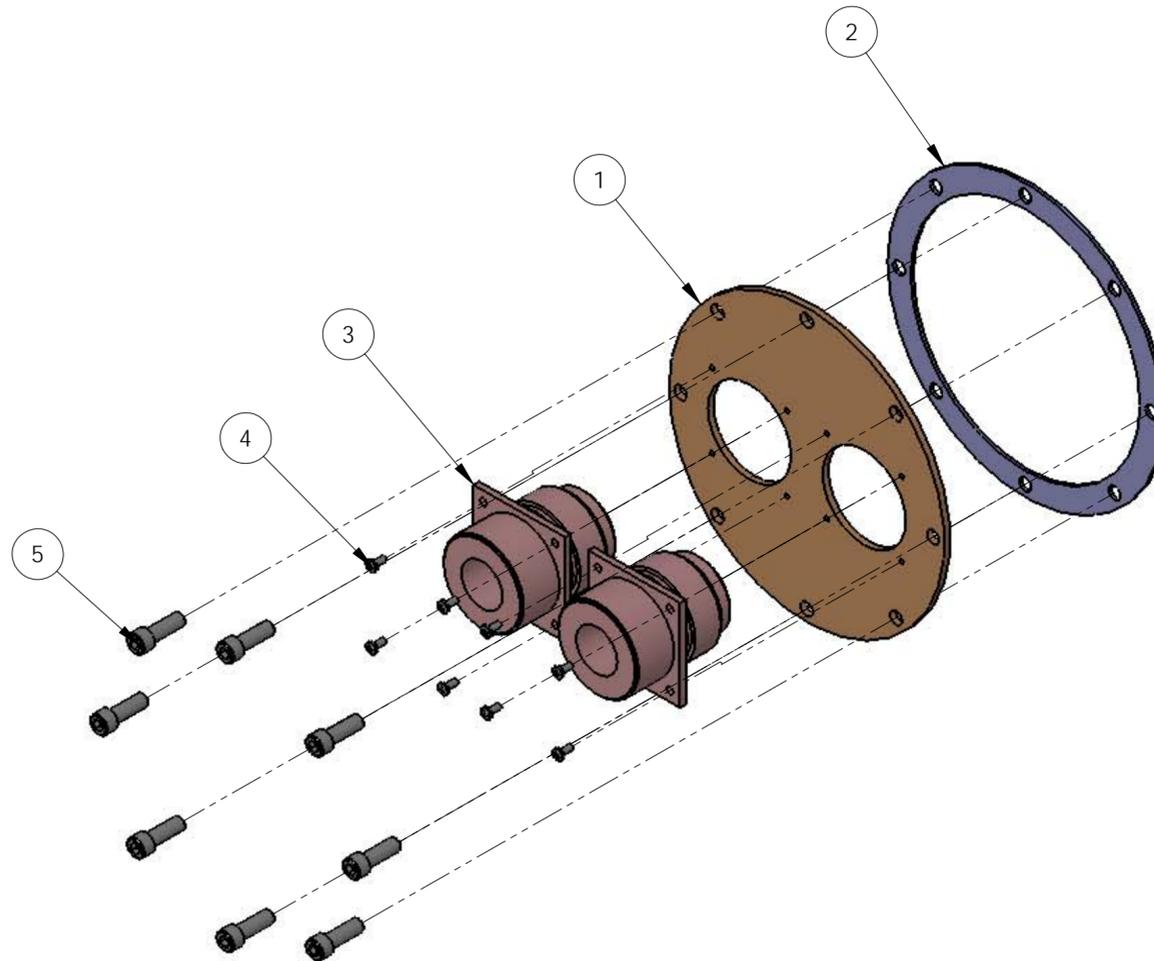
MATERIAL: SS - 304L, ASTM A-240

 THIRD-ANGLE PROJECTION	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			 OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN	
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° FORMED ANGLES ±1° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			 REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION	
DES V GRAVES 01/06/2006 DRW T OQUIN 01/06/2006 CHK P SPAMPINATO 01/17/2006 ENG V GRAVES 01/06/2006 QA			MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY DRAIN CONNECTOR PLATE		
DRAWING APPROVALS DATE			CAD FILE CONNECTOR PLATE HJT	PREV ASSY 203-HJT-0730	SCALE 1:1
SIZE DWG NO.			C	203-HJT-0761	SHEET 1 of 1 REV 0

NOTE:



OTHER AMPHENOL CONNECTORS REQUIRED -
 MS-3108A-28-12-P (2EA)
 MS-3108A-28-12-S (2EA)
 MS-3106E-28-12-S (3EA)



ITEM	Default/QTY.	NAME	MATERIAL	DESCRIPTION	DWG
5	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A
4	8	CR-PHMS 0.112-40x0.25x0.25-N	SS - 316	PAN CROSS HEAD MACHINE SCREW - 4-40 x 1/4	N/A
3	2	Amphenol 97-4100	---	AMPHENOL MS3102E-28-12P	N/A
2	1	connector plate gasket hjt	1/16" BUNA-N SHEET. 50A	MCMMASTER-CARR #86715K279	203-HJT-0732
1	1	electrical plate	SS - 304L, ASTM A-240	PLATE, 6.000 DIA X .125 THK	203-HJT-0771



THIRD-ANGLE PROJECTION

UNLESS OTHERWISE NOTED

- ALL DIMENSIONS ARE IN INCHES
- INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M
- MACHINED FINISH 125 MICRO-INCHES RMS
- CONCENTRICITY .010 TIR
- MACHINED ANGLES ±1/2°
FORMED ANGLES ±1°
- BREAK SHARP CORNERS AND REMOVE ALL BURRS
- WHOLE NUMBERS AND FRACTIONS ±1/16
X DECIMALS ±.030
XX DECIMALS ±.010
XXX DECIMALS ±.005

This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.

DES	V GRAVES	01/06/2006
DRW	T OQUIN	01/06/2006
CHK	P SPAMPINATO	01/17/2006
ENG	V GRAVES	01/06/2006
QA		

oml OAK RIDGE NATIONAL LABORATORY
 operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN

NSTB REMOTE SYSTEMS GROUP
 NUCLEAR SCIENCE & TECHNOLOGY DIVISION

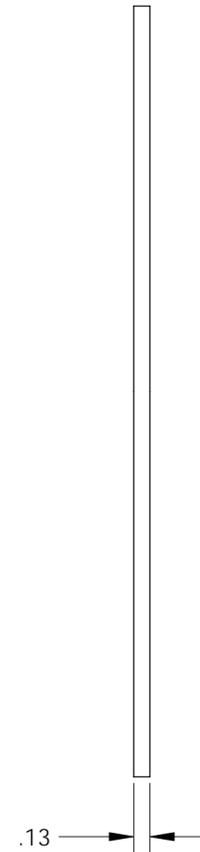
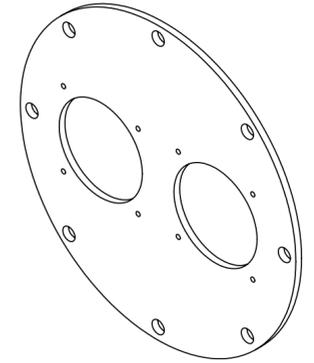
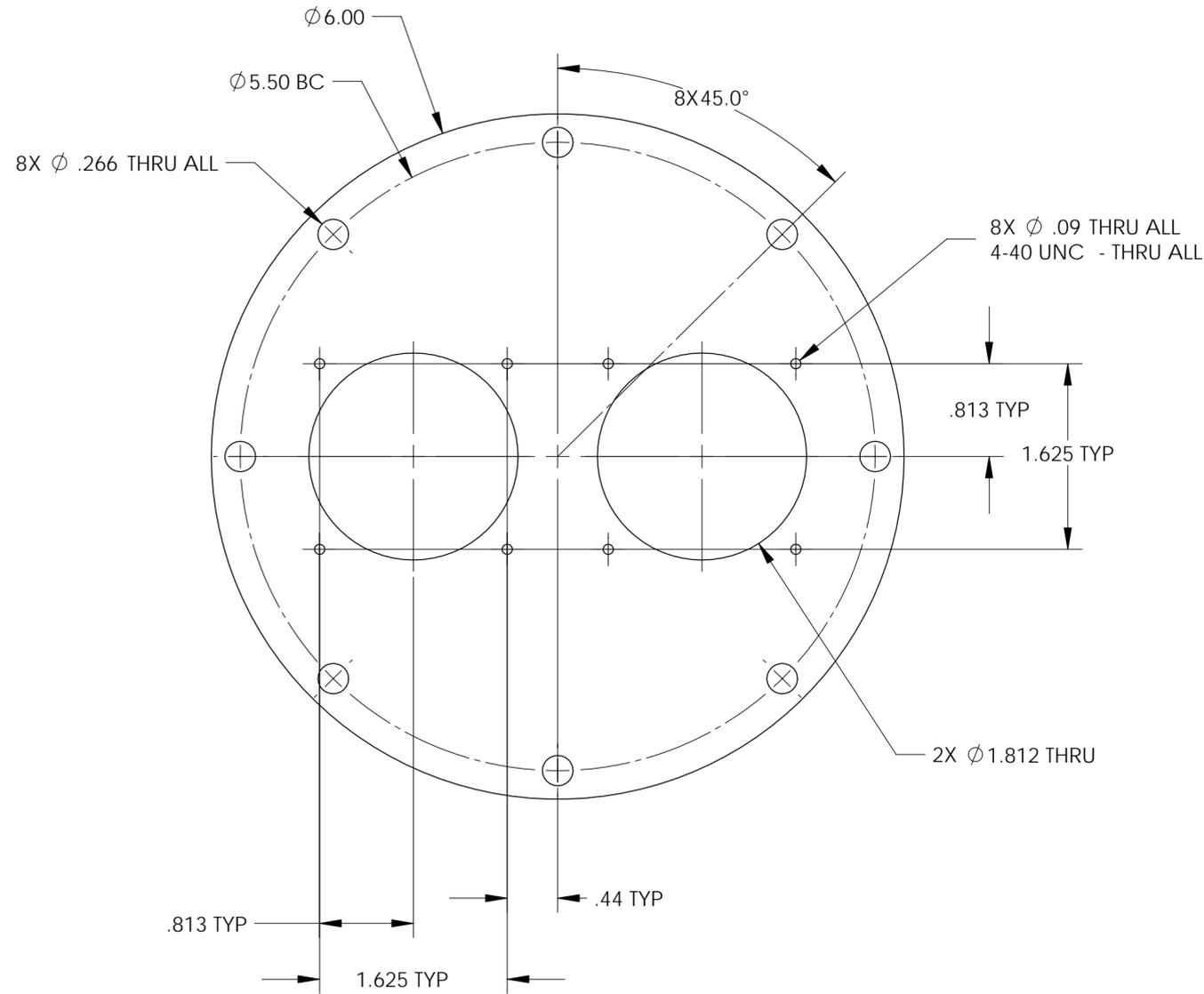
1	CHANGED AMPHENOL PART NOS	3/29/2006	VBG	VBG
REV	DESCRIPTION	DATE	BY	APPROVED

MERIT EXPERIMENT
SECONDARY CONTAINMENT ASSY
CONNECTOR PLATE ASSY - SENSORS

CAD FILE CONNECTOR PLATE ASSY HJT	PREV ASSY 203-HJT-0700	SCALE 1:2	SHEET 1 of 1
SIZE C	DWG NO. 203-HJT-0770	REV 1	

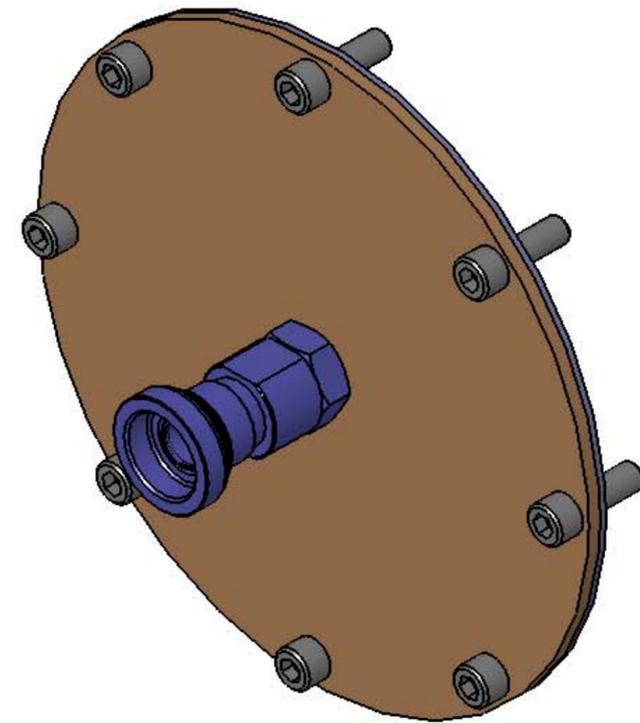
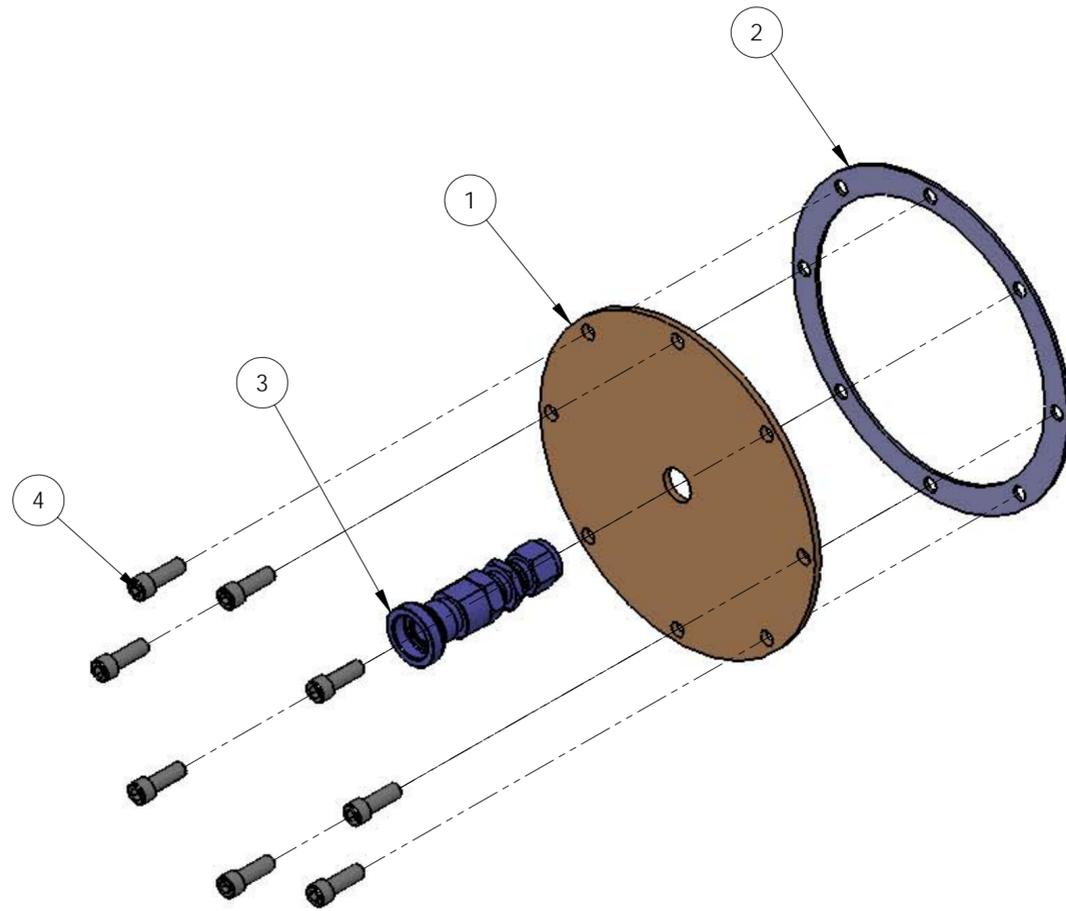
NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



MATERIAL: SS - 304L, ASTM A-240

<p>THIRD-ANGLE PROJECTION</p>	This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.			<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	UNLESS OTHERWISE NOTED 1. ALL DIMENSIONS ARE IN INCHES 2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M 3. MACHINED FINISH 125 MICRO-INCHES RMS 4. CONCENTRICITY .010 TIR 5. MACHINED ANGLES ±1/2° 6. BREAK SHARP CORNERS AND REMOVE ALL BURRS 7. WHOLE NUMBERS AND FRACTIONS ±1/16 8. X DECIMALS ±.030 9. XX DECIMALS ±.010 10. XXX DECIMALS ±.005			<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>	
DES V GRAVES 01/06/2006 DRW T OQUIN 01/06/2006 CHK P SPAMPINATO 01/17/2006 ENG V GRAVES 01/06/2006 QA			<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY SENSOR CONNECTOR PLATE</p>		
CAD FILE CONNECTOR PLATE HJT SIZE DWG NO.		PREV ASSY 203-HJT-0730 SCALE 1:1		SHEET 1 of 1 REV 0	
DRAWING APPROVALS		DATE		C 203-HJT-0771	

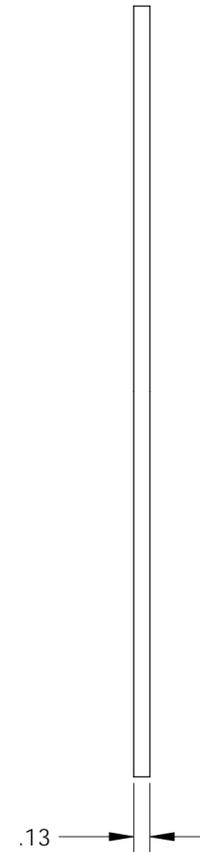
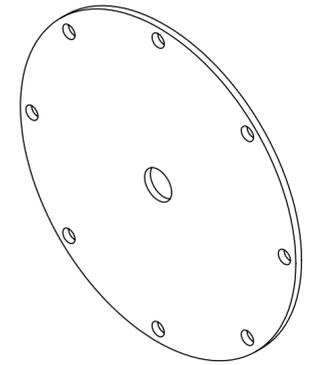
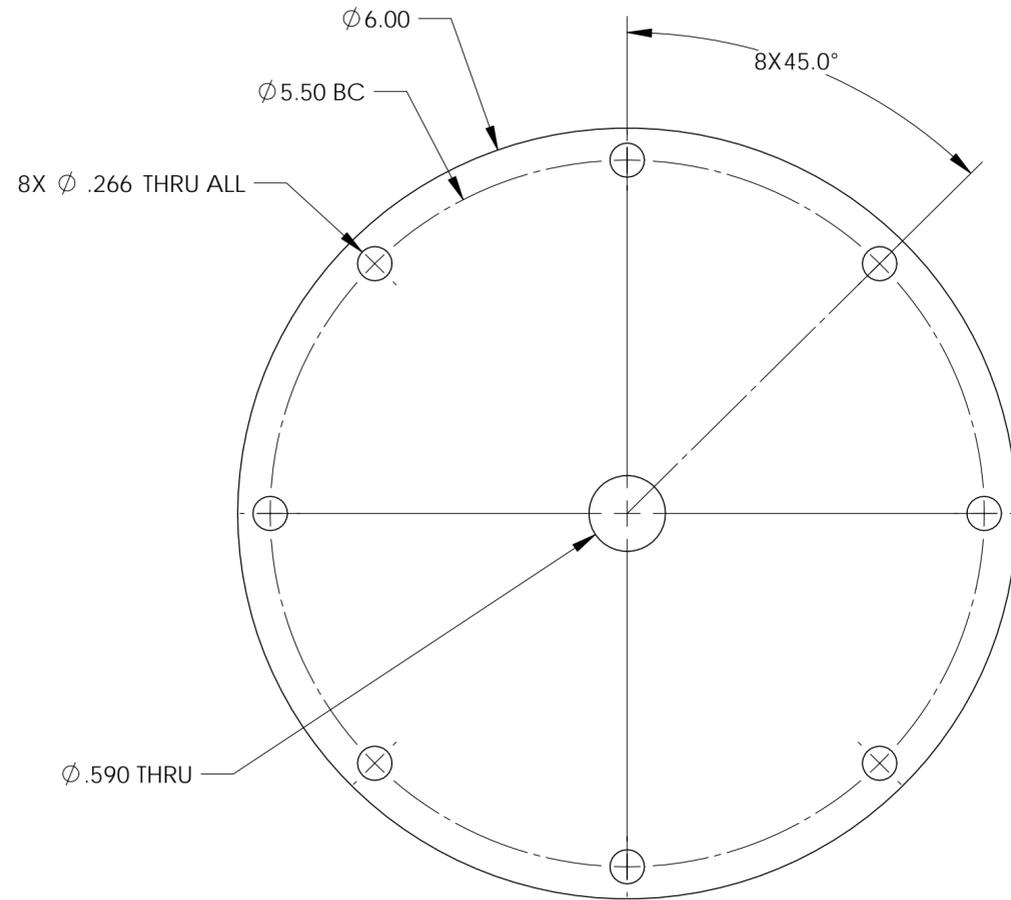


4	8	HX-SHCS 0.25-20x0.75x0.75-N	SS - 18-8	.25-20 X .75 SHCS	N/A
3	1	swagelok qcbulkhead body 0.375	SS - 316	SWAGelok BULKHEAD BODY W/PROTECTOR, SS-QC6-B1-600 & SS-QC6-BP	N/A
2	1	connector plate gasket hjt	1/16" BUNA-N SHEET. 50A	MCMMASTER-CARR #86715K279	203-HJT-0732
1	1	connector plate hjt	SS - 304L, ASTM A-240	PLATE, 6.000 DIA X .125 THK	203-HJT-0781
ITEM	hg inlet/QTY.	NAME	MATERIAL	DESCRIPTION	DWG

<p>THIRD-ANGLE PROJECTION</p> <p>UNLESS OTHERWISE NOTED</p> <p>1. ALL DIMENSIONS ARE IN INCHES</p> <p>2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M</p> <p>3. MACHINED FINISH 125 MICRO-INCHES RMS</p> <p>4. CONCENTRICITY .010 TIR</p> <p>5. MACHINED ANGLES ±1/2°</p> <p>FORMED ANGLES ±1°</p> <p>6. BREAK SHARP CORNERS AND REMOVE ALL BURRS</p> <p>7. WHOLE NUMBERS AND FRACTIONS ±1/16</p> <p>8. X DECIMALS ±.030</p> <p>9. XX DECIMALS ±.010</p> <p>10. XXX DECIMALS ±.005</p>	<p>This drawing was prepared by ORNL solely for use in work performed under Department of Energy contract number DE-AC05-00OR22725 and applicable Work for Others Agreements and Cooperative Research and Development Agreements. This drawing is property of ORNL and must be returned upon request.</p>		<p>OAK RIDGE NATIONAL LABORATORY operated for the U.S. Department of Energy under contract DE-AC05-00OR22725 Oak Ridge, TN</p>	
	<p>REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION</p>		<p>MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY CONNECTOR PLATE ASSY - HG INLET</p>	
<p>DES V GRAVES 01/06/2006</p> <p>DRW T OQUIN 01/06/2006</p> <p>CHK P SPAMPINATO 01/17/2006</p> <p>ENG V GRAVES 01/06/2006</p> <p>QA</p>		<p>CAD FILE CONNECTOR PLATE ASSY HJT</p> <p>PREV ASSY 203-HJT-0700</p> <p>SCALE 1:2</p> <p>SHEET 1 of 1</p>	<p>SIZE DWG NO. 203-HJT-0780</p> <p>REV 0</p>	
<p>DRAWING APPROVALS</p>		<p>DATE</p>	<p>SIZE DWG NO. 203-HJT-0780</p>	

NOTES

1. MATERIAL CERTIFICATIONS REQUIRED



MATERIAL: SS - 304L, ASTM A-240

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DES V GRAVES 01/06/2006 DRW T OQUIN 01/06/2006 CHK P SPAMPINATO 01/17/2006 ENG V GRAVES 01/06/2006 QA			<p align="center">MERIT EXPERIMENT SECONDARY CONTAINMENT ASSY HG INLET CONNECTOR PLATE</p>		
DRAWING APPROVALS DATE					
			203-HJT-0781		0