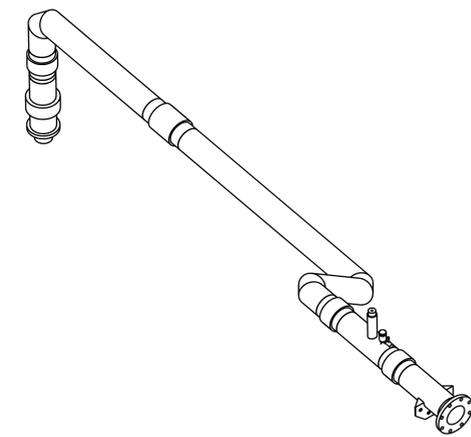


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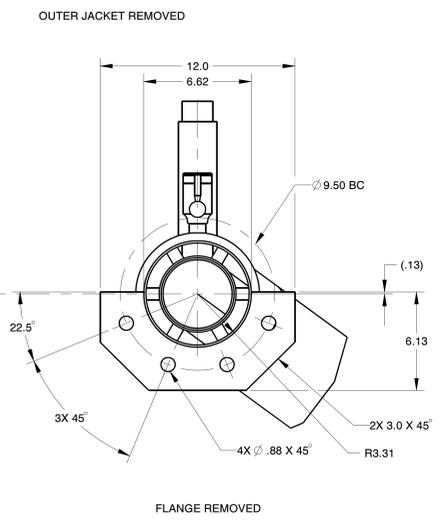
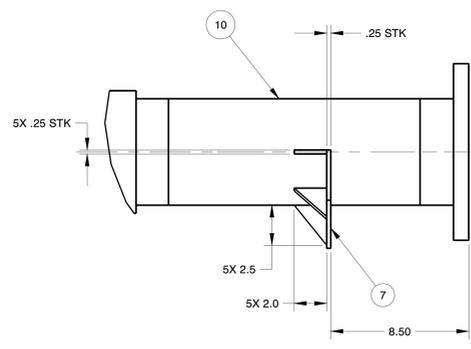
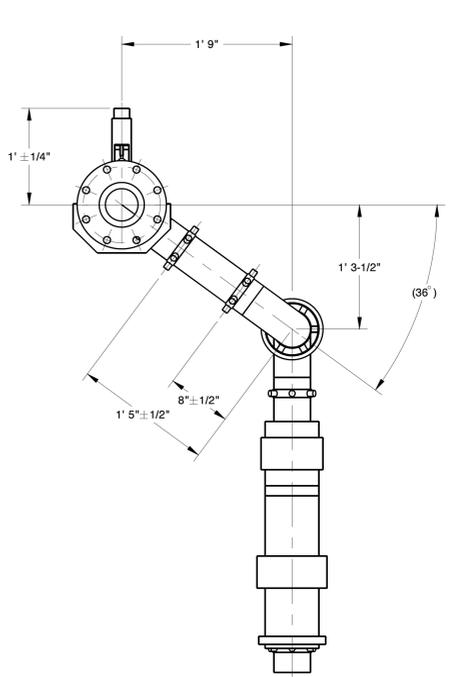
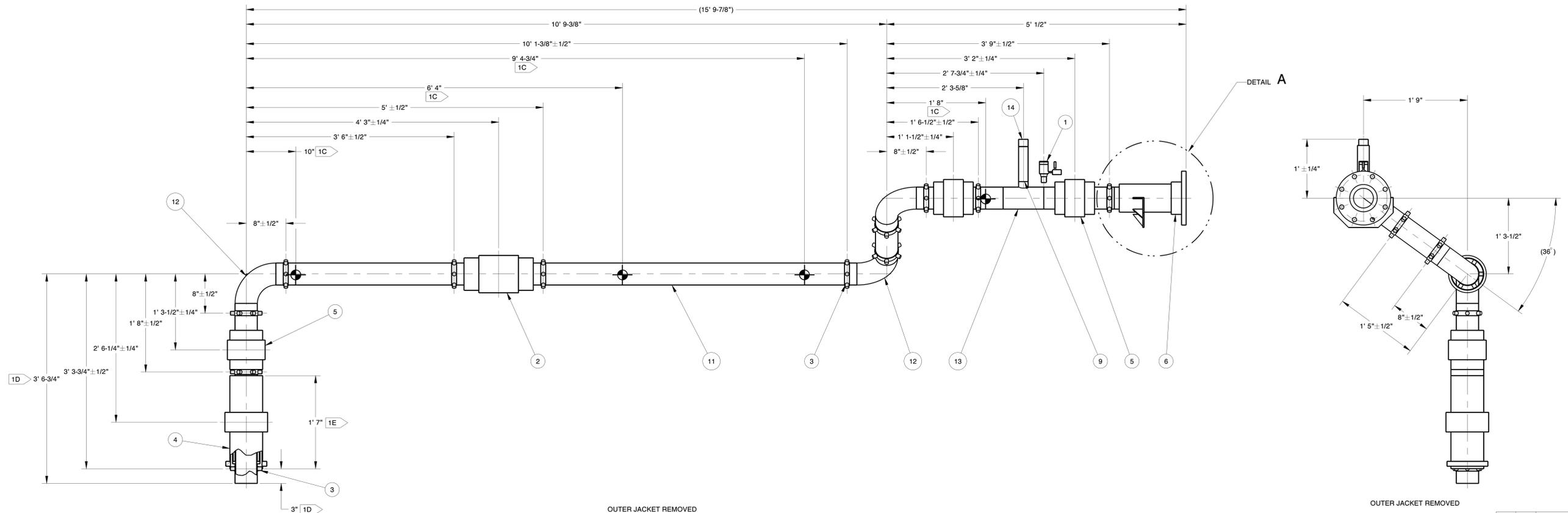
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NOTES:
GENERAL

- 1A. INTERPRET THIS DRAWING PER ASME Y14.5-2009.
- 1B. THIS DRAWING PROVIDES THE PHYSICAL DIMENSIONS AND PARTS LIST FOR PIPE SPOOL ASSEMBLY. REFER TO PROCUREMENT SPECIFICATION K0000146598 FOR TECHNICAL, FABRICATION, TEST AND INSPECTION REQUIREMENTS.
- 1C. NOTED DIMENSION INDICATES CENTER LINE LOCATION FOR EXTERNAL SUPPORTS OF PIPE SPOOL ASSEMBLY. SUPPORT CONTACTS PIPE SPOOL FOR 2.0 INCHES ON EACH SIDE OF NOTED DIMENSION. WELDS ON EXTERNAL PIPE (EXCEPT PIPE SEAM WELD IF APPLICABLE) SHALL BE AVOIDED IN THIS AREA.
- 1D. NOTED DIMENSION INDICATES NOMINAL LENGTH OF INNER PIPE REQUIRED AT NEXT LEVEL OF ASSEMBLY. ADDITIONAL LENGTH OF INNER PIPE AND PACKAGING CLOSE-OUT MUST BE ADDED DURING FABRICATION PER SPECIFICATION REQUIREMENT.
- 1E. NOTED DIMENSION INDICATES MAXIMUM ALLOWABLE LENGTH OF FIELD WELDED TRANSITION JOINT. SEE SPECIFICATION FOR TRANSITION JOINT REQUIREMENT.
- 1F. PIPE SPOOL REFERENCE DESIGNATOR NUMBER IS 1110.
- 1G. FITTING AAB1002-04-K-1.50-10 SHALL HAVE A THROUGH CLEARANCE DIAMETER OF .346-.353 INCHES TO ACCOMMODATE TEMPERATURE PROBE. FITTING MAY BE DRILLED TO MEET REQUIREMENT.



ISOMETRIC
SCALE .062



QTY	FIG. NO. OR ITEM NO.	DESCRIPTION
1	14	WELD FITTING, FEMALE BOSS TO BUTT WELD, FOR PIPE
1	13	TEE, REDUCER, B16.9 SCHED 10
3	12	ELBOW, 90 DEG, LONG, B16.9, SCHED 10
AR	11	PIPE 4 NPS, SCHED 10, ASTM A312
AR	10	PIPE 6 NPS, SCHED 10, ASTM A312
AR	9	PIPE 2 NPS, SCHED 10, ASTM A312
AR	8	CRYO INSTRUMENT JACKET
1	7	PLATE
1	6	BAYONET, FEMALE, 4X6
3	5	BELLOWS 6 NPS 8 LG CONVOLUTE 4 LG
1	4	TRANSITION JOINT, 4X6 FIELD WELDED, WITH 4LG EXPANSION JOINT
12	3	SPACER, INTERNAL PIPE
1	2	BELLOWS 6 NPS 14 LG CONVOLUTE 8 LG
1	1	ASSEMBLY, VACUUM VALVE

PROCUREMENT CONTROL DRAWING CAD MAINTAINED. CHANGES SHALL BE INCORPORATED ONLY BY THE DESIGN ACTIVITY. SOFTWARE: PRO/ENGINEER PART NO: K0000065248D NOTES: NOTED TREATMENT: NEXT ASSY USED ON PROTECTIVE FINISH: APPLICATION		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994. TOLERANCES ON: FRACTIONS: DECIMALS: ANGLES: ±1/16 1 PL ±.060 1 PL ±1° 2 PL ±.030 3 PL ±.010	ORIGINAL DATE OF DRAWING (YY/MM/DD): 2013/03/15 DESIGNED BY: D. C. STANIFER CHECKED BY: J. A. STAGI ENGINEER BY: W. C. PATRICK DRAWN BY: L. C. KAYOLR FINISHED BY: J. K. TUCKERMAN V. J. WARD SUBMITTED BY: E. L. THOMPSON APPROVED BY: T. O. ADAMS A. C. LITTLEFIELD	JOHN F. KENNEDY SPACE CENTER, NASA KENNEDY SPACE CENTER, FLORIDA SPOOL 4 X 6, VACUUM JACKET PIPE, LIQUID HYDROGEN VENT SIZE: E 22264 SCALE: .125 SHEET: 1 OF 1
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