



NOTES (UNLESS OTHERWISE SPECIFIED):

- DISCONNECT 4-BOLTS ON BALL VALVE ASSEMBLY (ITEMS 1&2) AND SET ASIDE FOR WELDING OF MODIFIED FEMALE ELBOW (ITEM 4) AND BAYONET TUBE (ITEM 5) TO VALVE FLANGE (ITEM 3). POSITION ELBOW INLINE WITH COUNTERBORED RELIEF HOLE IN THE 1-1/2" BALL VALVE FLANGE. ORIENT ANGULAR POSITION OF ELBOW BEFORE WELDING.
- BALL VALVE MODIFICATIONS:
 - ELIMINATE THE 2 (TWO) END FLANGES AND 4 (FOUR) VALVE BODY 5/16-18 NUTS FROM THE VALVE ASSY (ITEM 3).
 - REUSE THE 4 (FOUR) VALVE BODY 5/16-18 x 3-1/2" LG BOLTS FOR THIS ASSEMBLY.
 - MODIFY THE VALVE BALL PER DRAWING NO 1650-MB-168063. REINSTALL THE MODIFIED BALL SO THAT THE Ø3/8" FLAT IS VISIBLE FROM THE TOP WHEN THE VALVE IS IN THE "CLOSED" POSITION. (SEE TOP VIEW).
- ALL WELDS TO BE VACUUM LEAK TIGHT.
LEAK TEST: NO LEAK SHALL BE DETECTABLE ON THE MOST SENSITIVE SCALE OF A HELIUM LEAK DETECTOR WITH A MINIMUM SENSITIVITY OF 10⁻⁶ ATM. CC/SEC.
- WELDS TO COMPLY WITH MOST RECENT VERSION OF PROCESS PIPING CODE ASME B31.3 FOR NORMAL FLUID SERVICE. GROOVE WELDS TO BE COMPLETE PENETRATION. RELATED DOCUMENTATION OF MATERIALS, WELDING, AND IN-PROCESS INSPECTION MUST BE INCLUDED WITH THE FINAL PRODUCT DELIVERY.
- ASSEMBLY MUST BE FREE OF DIRT, GREASE, OIL AND CHIPS.
- ASSEMBLY TO BE FREE OF ALL SHARP EDGES, CORNERS, AND BURRS.

SECTION A-A

ITEM	FERMI NO	PART NAME	QTY
11	FC0077240	TUBE, 1/4" O.D. X .049" WALL 304SS	3
10	FC0062137	VALVE, 1/4" BELLOWS SEALED, TUBE SOCKET WELD, SWAGELOCK #SS-4BG-TW	1
9	FC0045107	VALVE, INLINE RELIEF, 1/4" BRASS	1
8	FC0022042	TUBE SOCKET WELD UNION TEE 1/4 INCH	1
7	FC0022019	TUBE SOCKET WELD FEMALE CONN. 1/4 INCH	1
6	FC0022004	TUBE SOCKET WELD MALE CONNECTOR 1/4 INCH	1
5	F10117232	TUBE, 1.500" OD X .035 W, 304 SST	1
4	F10040550	ELBOW, FEMALE TUBE-NPT, MODIFIED	1
3	F10040522	FLANGE, VALVE - PER DWG 1670-MB-213683	1
2	F10021449	ASSY, 1.50" VALVE - PER DWG 1650-168959	1
1	F10005289	ASSY, CHEVRON SEAL - PER DWG 1650-MC-168617	1

UNLESS OTHERWISE SPECIFIED	DRAWN	C. REID	DATE	17-Aug-2020
±.X	±.XX	±.XXX	±X/X	±"
.1	.02	.005	1/16	1"
BROKE ALL SHARP EDGES, MAX: .015				
DO NOT SCALE DRAWING				
DIMENSIONS BASED ON: ASME Y14.5-2009				
MAX MACHINE ALL SURFACES: 125/√				
DRAWING UNITS: INCHES				
THIRD ANGLE PROJECTION		MATERIAL		
		SEE PARTS LIST		
		GROUP: Technical Division - Design and Drafting CASE CODE: OURS		

FERMI NATIONAL ACCELERATOR LABORATORY
 UNITED STATES DEPARTMENT OF ENERGY
 NAME: BAYONET ASSEMBLY, 1-1/2" FEMALE W/BLEED & RELIEF VALVES
 SCALE: 3:4 SIZE: D DRAWING NUMBER: F10143044 SHEET: 1 of 1 REV: -

FOR REFERENCE ONLY

TEMPLATE VERSION: 2018.12.03