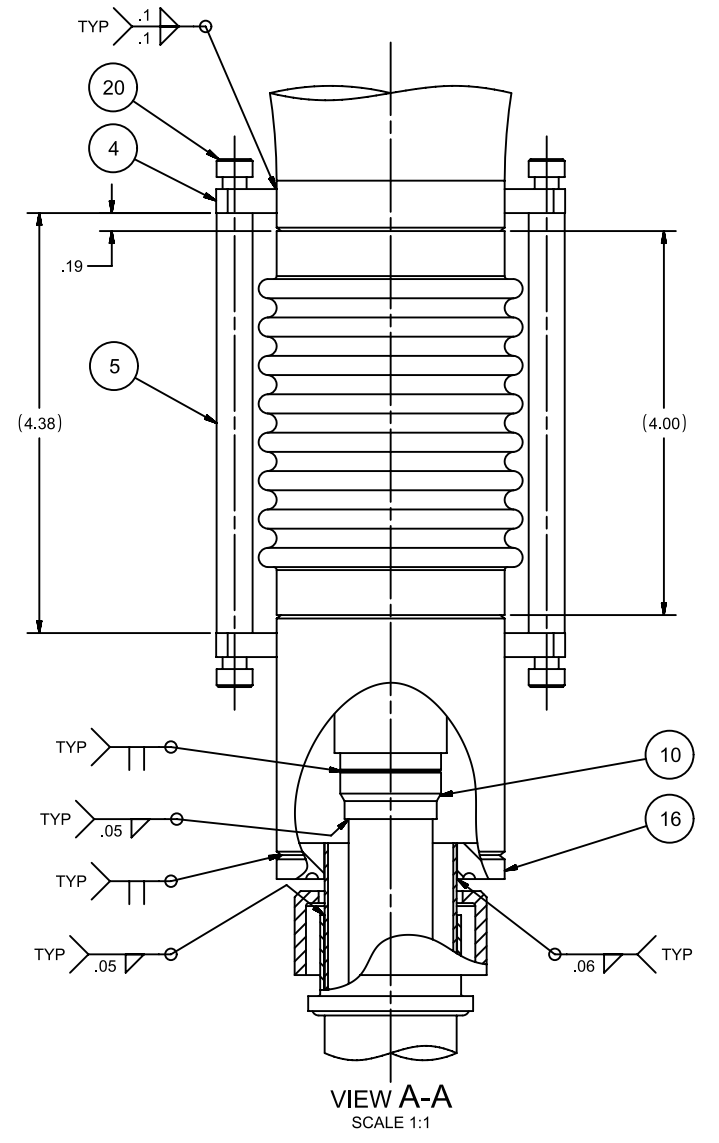
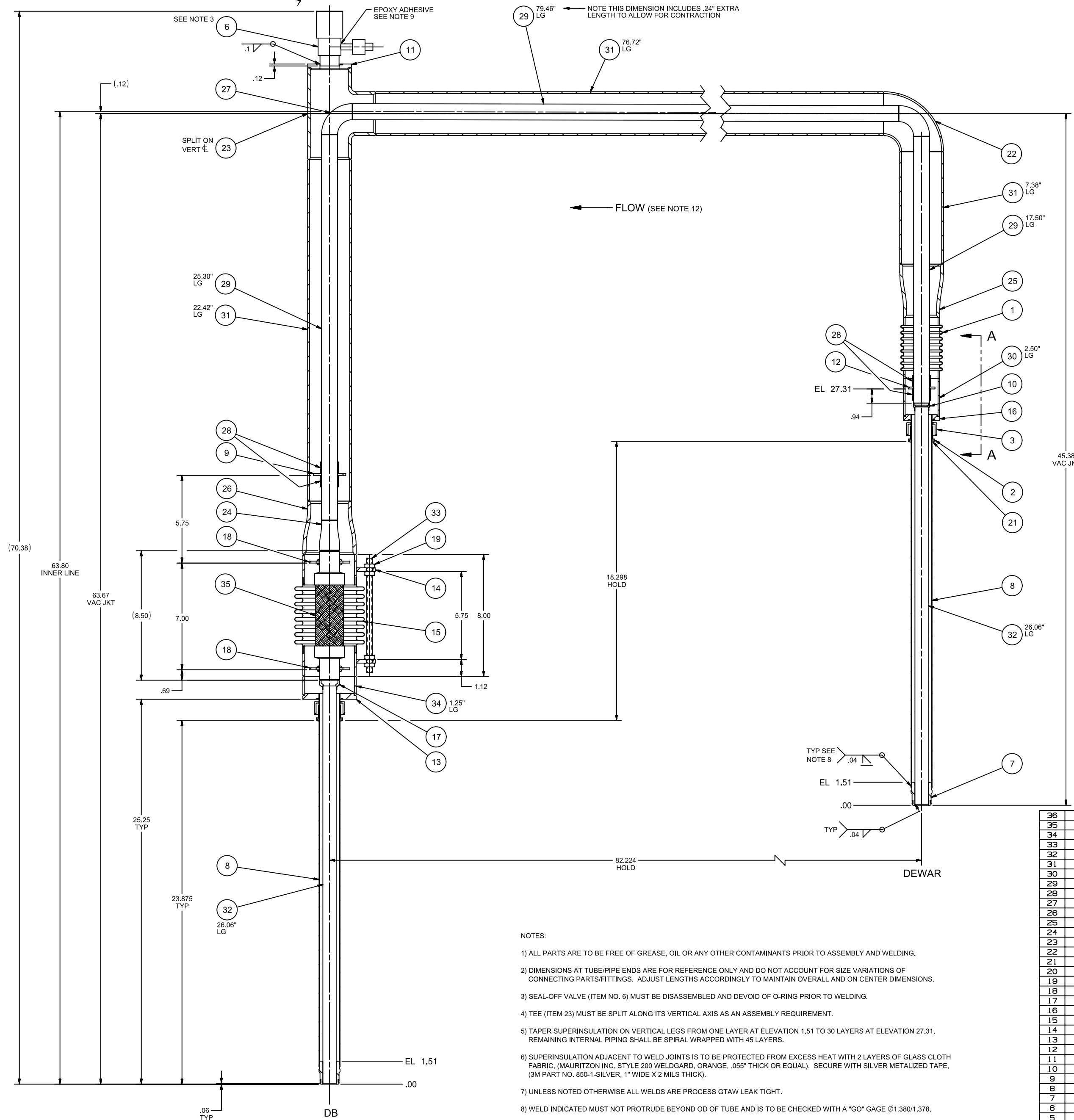
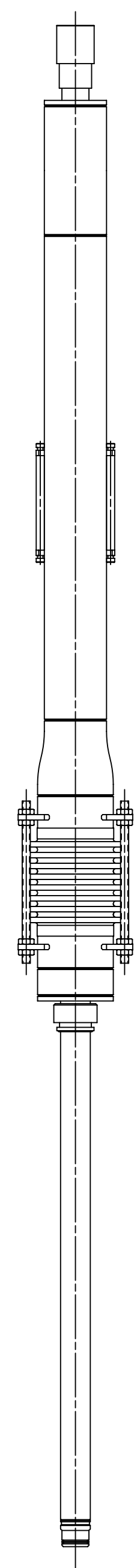


REV	REVISION CONTROL DOCUMENT	DATES	DESIGN	SIGNATURES
A	F10119015-A-RCD		APPROVED	



- NOTES:
- ALL PARTS ARE TO BE FREE OF GREASE, OIL OR ANY OTHER CONTAMINANTS PRIOR TO ASSEMBLY AND WELDING.
 - DIMENSIONS AT TUBE/PIPE ENDS ARE FOR REFERENCE ONLY AND DO NOT ACCOUNT FOR SIZE VARIATIONS OF CONNECTING PARTS/FITTINGS. ADJUST LENGTHS ACCORDINGLY TO MAINTAIN OVERALL AND ON CENTER DIMENSIONS.
 - SEAL-OFF VALVE (ITEM NO. 6) MUST BE DISASSEMBLED AND DEVOID OF O-RING PRIOR TO WELDING.
 - TEE (ITEM 23) MUST BE SPLIT ALONG ITS VERTICAL AXIS AS AN ASSEMBLY REQUIREMENT.
 - TAPER SUPERINSULATION ON VERTICAL LEGS FROM ONE LAYER AT ELEVATION 1.51 TO 30 LAYERS AT ELEVATION 27.31. REMAINING INTERNAL PIPING SHALL BE SPIRAL WRAPPED WITH 45 LAYERS.
 - SUPERINSULATION ADJACENT TO WELD JOINTS IS TO BE PROTECTED FROM EXCESS HEAT WITH 2 LAYERS OF GLASS CLOTH FABRIC, (MAURITZON INC, STYLE 200 WELDGARD, ORANGE, .05" THICK OR EQUAL). SECURE WITH SILVER METALIZED TAPE, (3M PART NO. 850-1-SILVER, 1" WIDE X 2 MILS THICK).
 - UNLESS NOTED OTHERWISE ALL WELDS ARE PROCESS GTAW LEAK TIGHT.
 - WELD INDICATED MUST NOT PROTRUDE BEYOND OD OF TUBE AND IS TO BE CHECKED WITH A "GO" GAGE ϕ 1.380/1.378.
 - CONNECTION INDICATED REQUIRES SCREW THREADS TO BE COATED WITH EPOXY ADHESIVE PRIOR TO BEING MADE UP. EPOXY TYPE IS 3M SCOTCH-WELD 2-PART STRUCTURAL ADHESIVE NO. 1838 B/A GREEN, FERMI STK# 1930-060000.
 - POLISH OUTER SURFACE OF TUBES (ITEM 8) WITH A POLYESTER CLEANSING PAD (3M SCOTCH-BRITE NO. 7747, FERMI STK# 1202-202000, OR EQUIVALENT). SURFACE MUST BE FREE OF IRREGULARITIES, PITTING, DENTS AND DEBRIS AND CHECKED WITH A "GO" GAGE SPECIFIED IN NOTE 8.
 - VACUUM TEST-NO LEAK SHALL BE DETECTABLE ON THE MOST SENSITIVE SCALE OF A He MASS SPEC. LEAK DETECTOR, MINIMUM SENSITIVITY OF 1X10⁻⁴ atm. cc/sec.
 - AFFIX He AND ARROW LABELS TO EACH SIDE OF HORIZONTAL OUTER PIPE, CENTERED HORIZONTALLY AND VERTICALLY, POINTING IN FLOW DIRECTION.

ITEM	VENDOR \ NO	FERMI NO	PART NAME	QTY
36	F10144054		COLLAR, SPIDER	4
35	F10144008		FLEXHOSE, 1.25" ID X 10.0" OAL, 1" NPS ENDS	1
34	FC0076276		PIPE, 3.00" NPS SCH 10S, 304 SST	AR
33	FC0076259		ROD, THREADED, .375-16 UNC, 7.5" LG, 18-8 SST	3
32	FC0072067		TUBE, .875" OD X .035" W, 304 SST	AR
31	FC0072035		PIPE, 2.50" NPS SCH 10S, 304 SST	AR
30	FC0072034		PIPE, 2.00" NPS SCH 10S, 304 SST	AR
29	FC0072033		PIPE, 0.75" NPS SCH 10S, 304 SST	AR
28	FC0067487		BANDING, 0.75 W X 0.03 T, 316SST, UNCOATED	4
27	FC0045589		ELBOW, PIPE-90, LONG, 3/4"x10S, 304 SS	2
26	FC0030244		REDUCER PIPE, 3x2 1/2x2xSch 10, 304SS	1
25	FC0030228		REDUCER PIPE, 2 1/2x2xSch 10, 304SS	1
24	FC0030188		REDUCER PIPE, 1x3/4xSch 10, 304SS	1
23	FC0029247		TEE, PIPE, 2 1/2" x Sch 10, 304 SS	1
22	FC0028518		ELBOW, PIPE-90, SHORT, 2 1/2"x10S, 304 SS	1
21	FC0027083		O-RING, -220, VITON	2
20	FC0022439		HDSS, 0.250x0.375x10-24, SS18-8	4
19	FC0014431		NUT-HEX, 3/8-16x0.25, BR	12
18	F10140660		SPIDER, 1.32 ID X 3.26 OD	2
17	F10140640		ADAPTER, 1.00" NPS SCH 10S X .875" OD TUBE	1
16	F10139086		FLANGE, 1-3/8" BAYONET TO 2" NPS	1
15	F10138892		EXPANSION JOINT, 3" NPS X 8" OAL	1
14	F10138771		LUG, BELLOWS RESTRAINT	6
13	F10138747		FLANGE, 1-3/8" BAYONET TO 3" NPS	1
12	F10130923		SPIDER, 1.05" ID X 2.03" OD	1
11	F10119120		FLANGE, ADPTR, 1.25" OD X 2.50 NPS	1
10	F10118961		ADAPTER, .75" NPS SCH 10S X .875" OD TUBE	1
9	F10108389		SPIDER, 1.05 ID X 2.62 OD	1
8	F10035350		TUBE, 1.375 OD X 0.035 W, 24.375 LG FOR U-TUBE	2
7	F09084124		MALE BAYONET END 145487-9	2
6	F09000378		VALVE - 1 IN VAC SEAL-OFF - CVI V-1046-31 INCL TC	1
5	F00441036		BELLOWS RESTRAINING ROD LONG	2
4	F00258428		BRACKET RESTRAINING ROD	2
3	F00189908		VACUUM COUPLING NUT 1.500 BAYONET	2
2	F00145524		COUPLING ADAPTER 1.50 BAYONET	2
1	F00129148		VERTICAL BELLOWS	1

ITEM	VENDOR \ NO	FERMI NO	PART NAME	QTY
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				

UNLESS OTHERWISE SPECIFIED	DRWN	D. RICHARDSON	DATE	04-Mar-2019
1:1	CHECKED	G. S. JOHNSON	DATE	15-Jun-2020
APPROVED	T. TOPE	DATE	15-Jun-2020	

SCALE	SIZE	DRAWING NUMBER	SHEET	REV
3/8"=1" & AS NOTED	E	F10119015	1 of 1	A