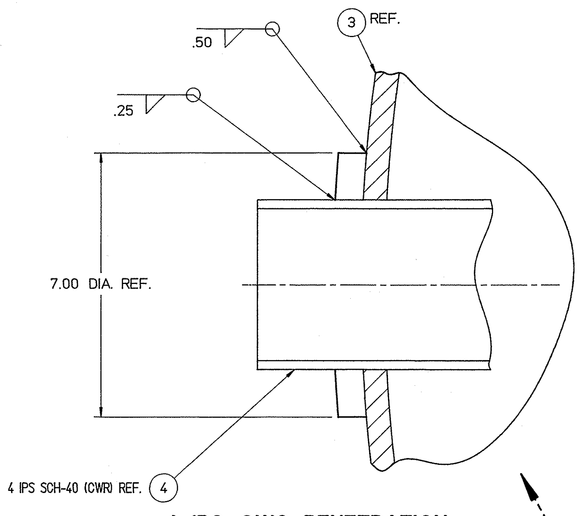
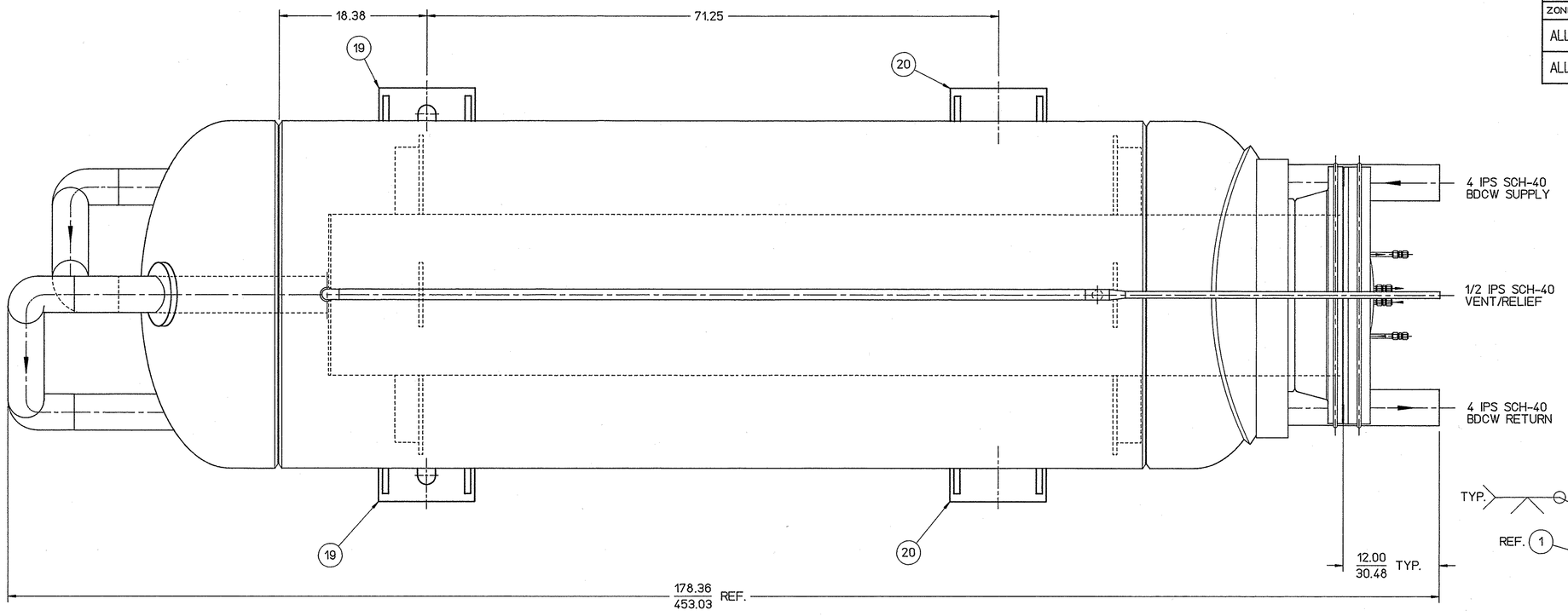
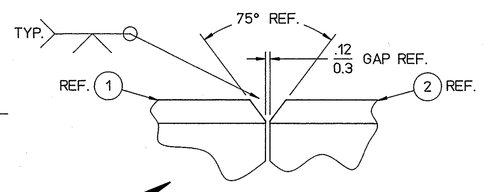
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
ALL	A	CHANGED LOCATION OF ITEM 17 WELD TO OUTER SHELL (WAS AT BEAM ENTRANT END), REMOVED SILVER PLATING REQMT. FOR ITEM 12, ADDED P/N FOR ITEM 16.	MRZ 8/3/93	M. WISEMAN 8/6/93
ALL	B	REMOVED HELIUM TUBE ADAPTER FLANGE RING FROM ITEM 2 (END HEAD WELDMENT, UPSTREAM)	MRZ 9/22/93	7/21/95



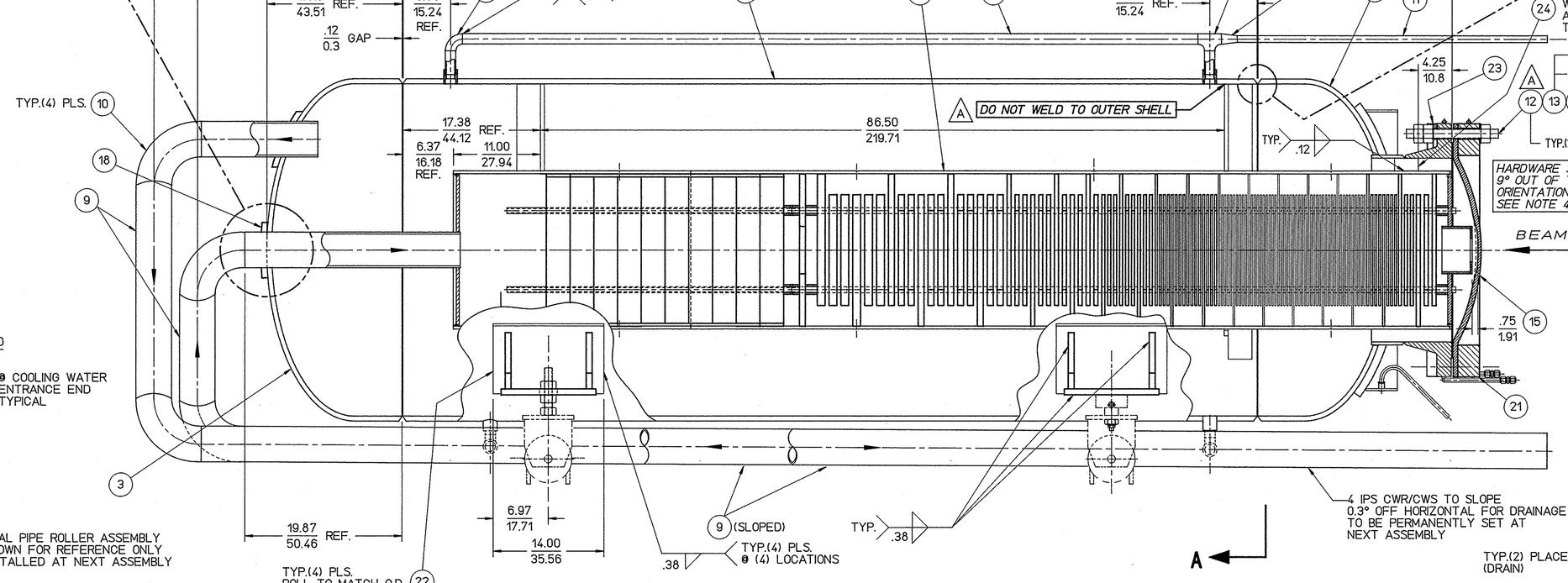
4 IPS CWS PENETRATION

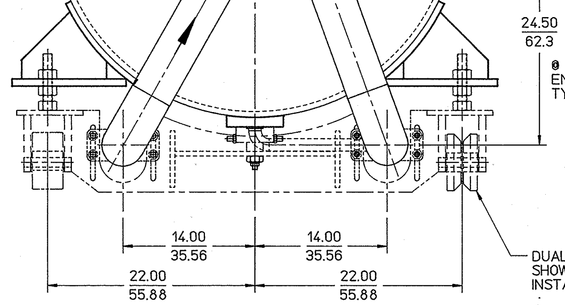


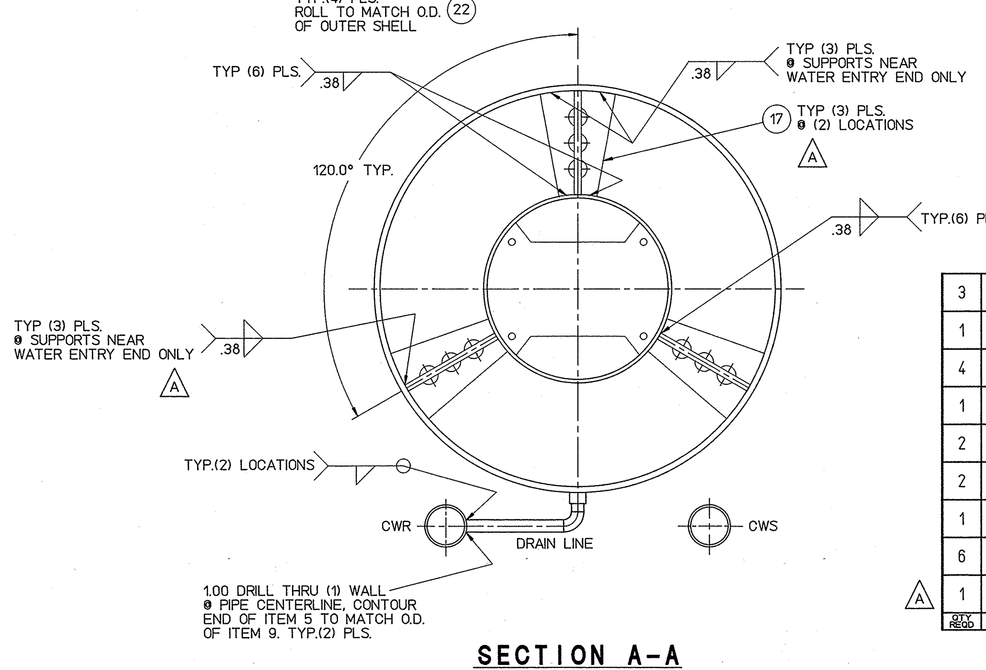


WELD SEAM DETAIL

TYPICAL (2) PLACES







SECTION A-A

NOTES	
1. OPERATING PRESSURE	125 PSIG
2. OPERATING TEMPERATURE	190° F
3. DESIGN PRESSURE, MAX.	150 PSIG
4. DESIGN TEMPERATURE, MAX.	200° F
5. DESIGN TEMPERATURE, MIN.	130° F
6. CONSTRUCTION - SEC. VIII	YES
1989 EDITION ASME CODE	
7. CODE STAMP	NO
8. CORROSION ALLOWANCE	0.063
9. X-RAY INSPECTION	FULL
10. STRESS RELIEVING	NO
11. WELD EFFICIENCY - LONGIT. JOINTS	1.0
CIRCUMFERENTIAL	1.0
12. MAXIMUM ALLOWABLE PRESSURE	
NEW AND COLD	150 PSIG
LIMITED BY	
13. MAXIMUM ALLOWABLE WORKING PRESSURE	150 PSIG
Ø 200 °F (NAMEPLATE)	
14. HYDROSTATIC TEST PRESSURE	225 PSIG
15. PNEUMATIC TEST PRESSURE	N/R
16. PAINT	N/R
17. PURCHASER'S SPECIFICATIONS	
18. INSPECTIONS	
PURCHASER	YES
INSURANCE COMPANY	N/R
19. TEST PROCEDURE	
20. TEST PROCEDURE	
21. ALL NOZZLE AND MANHOLE BOLTS TO STRADDLE NATURAL VESSEL CENTER-LINES UNLESS OTHERWISE NOTED	
22. ALL CONNECTIONS TO BE BLANKED FOR SHIPMENT	
23. HYDROCARBON DECONTAMINATION	N/R
24. CHARPY TESTS	N/R
25. CAPACITY IN GALLONS	900

NOTES:

1.) REINFORCEMENT AS REQUIRED TO MEET ASME CODE AT ALL ENTRANTS.

2.) BACK-UP RINGS ACCEPTABLE AT FABRICATORS OPTION.

3.) ALL WELDS TO BE FULL PENETRATION.

4.) TORQUE FLANGE/WINDOW NUTS TO 98 FT. LBS.

5.) ITEMS 17 & 23 TO BE CUSTOM FIT TO CENTER ITEM 4 TO ±.063

PARTS LIST

A	QTY REQD	ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	NOTES
	3	24	-	PLATE, .63 x 3.00 x .250 THK.	ALUMINUM, 6061-T6 ASTM B209-64	-
	1	23	27020-D-0029	SPLIT NUT/STUD RETAINER RING		-
	4	22	-	PLATE, .63 x 14 x 11.16 LG. (SUPPORT PAD REINFORCEMENT)	ALUMINUM, 6061-T6 ASTM B209-64	-
	1	21	27020-E-0006	WINDOW RETAINING RING		-
	2	20	27020-D-0025	ADJUSTABLE VESSEL SUPPORT WELDMENT		-
	2	19	27020-D-0010	FIXED VESSEL SUPPORT WELDMENT		-
	1	18	-	RING, 4.56 I.D. x 7.00 O.D. x .88 THK. (TO MATCH CONTOUR OF ITEM 3)	ALUMINUM, 6061-T4 ASTM B209-64	-
	6	17	27020-D-0017	EXCHANGER SUPPORT PLATE		-
A	1	16	HELICOFLEX TYPE HN 208A PART NO. SHH-303244	SEAL (FOR 24"-150# FLG.)	ALUMINUM	-
	1	15	27020-E-0023	FLARED & DISHED HEAD (WINDOW)		-
	20	14	-	WASHER, FLAT 1 1/4 STD.	BRONZE	-
	60	13	-	NUT, HEAVY HEX 1 1/4 - 7 UNC	SILICONE BRONZE	-
A	20	12	-	BOLT, STUD 1 1/4 - 7 UNC x 11 1/2" LG.	ALUMINUM, 6061-T6 ASTM B241-64	-
	1	11	-	PIPE, 1/2 IPS SCH-40 x 4'-0" APPROX.TOT.L.GTH.	ALUMINUM, 6061-T6 ASTM B241-64	-
	4	10	-	ELBOW, 90° 4 IPS SCH-40, B.W.,L.R.	ALUMINUM, 6061-T6 ASTM B241-64	-
	1	9	-	PIPE, 4 IPS SCH-40 x 35'-0" APPROX.TOT.L.GTH.	ALUMINUM, 6061-T6 ASTM B241-64	-
	1	8	-	REDUCER, CONC. 1 x 1/2 IPS SCH-40, B.W.	ALUMINUM, 6061-T6 ASTM B241-64	-
	1	7	-	TEE, 1 IPS SCH-40, B.W.	ALUMINUM, 6061-T6 ASTM B241-64	-
	3	6	-	ELBOW, 90° 1 IPS SCH-40, B.W.,L.R.	ALUMINUM, 6061-T6 ASTM B241-64	-
	1	5	-	PIPE, 1 IPS SCH-40 x 10'-0" APPROX.TOT.L.GTH.	ALUMINUM, 6061-T6 ASTM B241-64	-
	1	4	27020-E-0016	PLATE EXCHANGER ASSEMBLY		-
	1	3	27020-D-0013	END HEAD DETAIL (DOWNSTREAM) (WATER ENTRY END)		-
	1	2	27020-D-0012	END HEAD WELDMENT (UPSTREAM) (BEAM ENTRY END)		-
	1	1	27020-D-0011	OUTER SHELL		-

DIM & TOL PER ANSI Y14.5 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE: FRACTIONS ± N/A, DECIMAL .XX ± .02 .XXX ± .005, ANGLES ± 1/2°

DIMENSIONS: INCHES / CENTIMETERS

MATERIAL: SEE PARTS LIST

FINISH: N/A UNLESS OTHERWISE NOTED — DEBURR & BREAK ALL SHARP EDGES

DO NOT SCALE DRAWING

CADD I.D. NO. /usr/user6/zarecky/beam_dump/E0001

APPROVALS	DATE
DRAWN M. ZARECKY	3/93
CHECKED R. BROWN	6/30/93
APPROVED M. WISEMAN	6/30/93
APPROVED M. WISEMAN	6/30/93

CEBAF
The Continuous Electron Beam Accelerator Facility
NEWPORT NEWS, VIRGINIA
UNITED STATES DEPARTMENT OF ENERGY

BEAM DUMP VESSEL ASSEMBLY
END STATION BEAM DUMP

SIZE E | DWG. NO. 27020-E-0001 | REV. B

SCALE 1/8 | USED ON ASSY NO. 27020-E-0002 | SHEET 1 OF 1

DWG. NO. 27020-E-0001 SHT. 1 REV. B