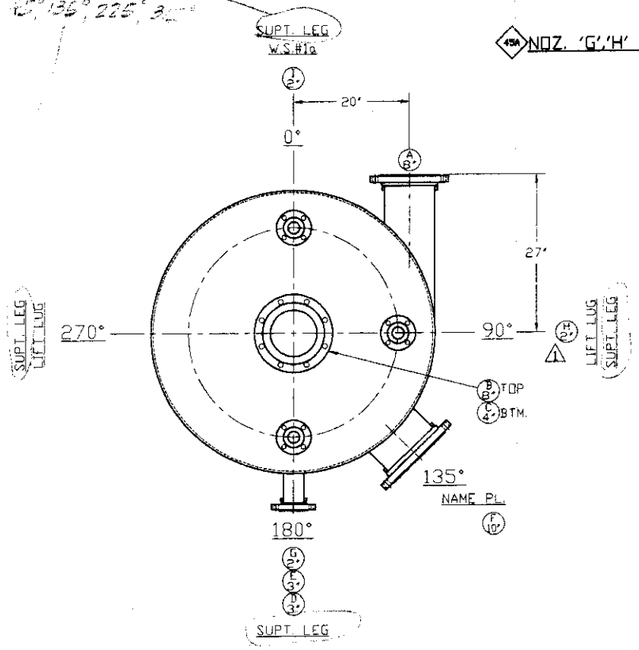
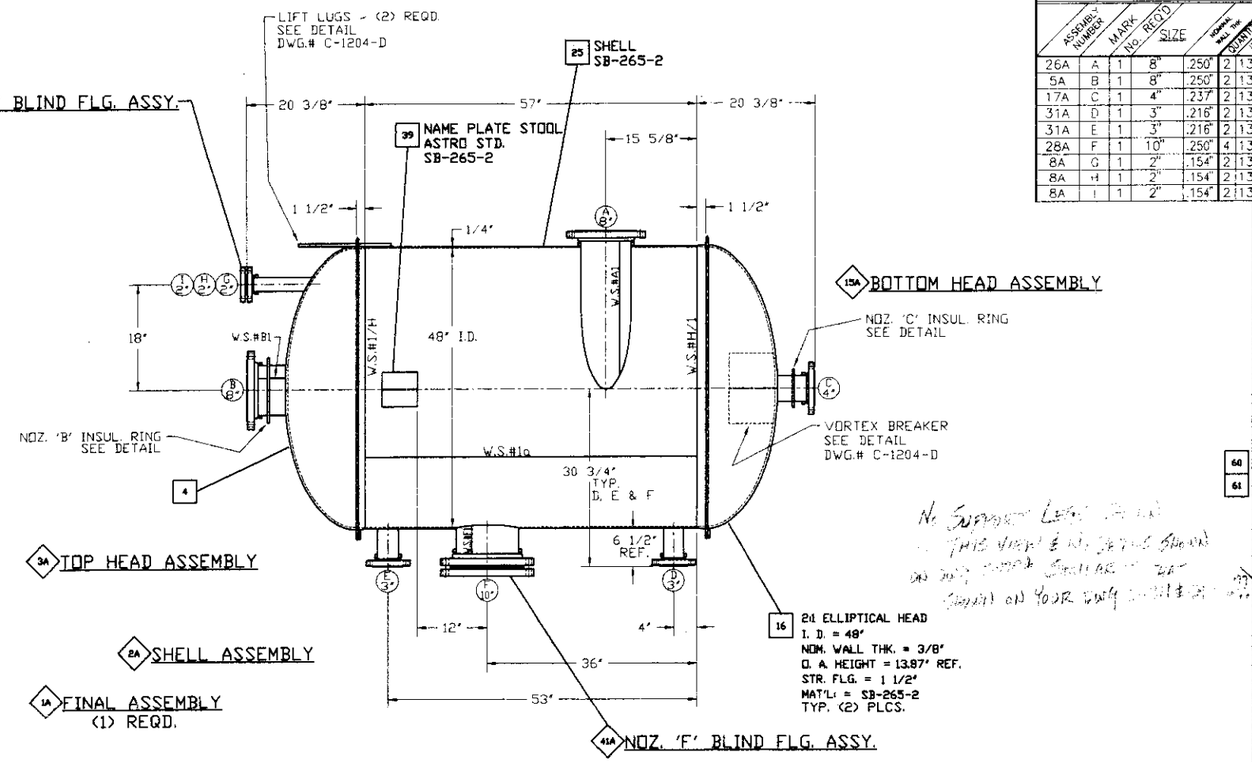


TRUE
ORIENTATION



NOZZLE SCHEDULE								FLANGE STOPS	FLANGE DATA		
ASSEMBLY NUMBER	MARK	No. REQ'D	SIZE	NOMINAL WALL THK.	QUANTITY/FLG.	ITEM NO.	DRAWING No.	ROUGH LENGTH	FLANGE TYPE	RATING (PSI)	ITEM #	REMARKS
26A	A	1	8"	.250"	2	13	C-1205-B	345	RF-LJ	150	11	VAPOR/LIQUID INLET
5A	B	1	8"	.250"	2	13	C-1205-B	075	RF-LJ	150	11	VAPOR OUTLET
17A	C	1	4"	.237"	2	13	C-1206-B	075	RF-LJ	150	20	LIQUID OUTLET
31A	D	1	3"	.216"	2	13	C-1206-B	075	RF-LJ	150	35	LEVEL TRANS. - LOWER
31A	E	1	3"	.216"	2	13	C-1206-B	075	RF-LJ	150	35	LEVEL TRANS - UPPER
28A	F	1	10"	.250"	4	13	C-1205-B	085	RF-LJ	150	34	HANDHOLE W/ BLIND
8A	G	1	2"	.154"	2	13	C-1206-B	130	RF-LJ	150	12	SPARE W/ BLIND
8A	H	1	2"	.154"	2	13	C-1206-B	130	RF-LJ	150	12	SPARE W/ BLIND
8A	I	1	2"	.154"	2	13	C-1206-B	130	RF-LJ	150	12	SPARE W/ BLIND

-- NOTES --

1. CODE: ASME SECTION VIII, DIV. 1 EDIT. '95 ADD. '95 CASE ---
2. CUSTOMER SPECS & DRWGS.: DWG #B3-214-2701-TSSL SPEC# 12-101/0, 12-116/0, 12-115/0, 12-113/0, 000-259-59600, C09-901P/INTERIM, G15-051P/0, V13-050P/0, 12-120/0
3. CUSTOMER INSPECTION: NONE
4. R.T.: FULL ON CAT. A & B WELDS.
5. P.T.: ALL TITANIUM WELDS.

	DESIGN		VESSEL		JACKET
6. N.B. STAMP.		—	REQ'D.	—	N/A
7. CORR. ALLOW.		—	1/16"	—	--
8. DESIGN TEMP.	MIN.:	—	-20 F°	—	--- F°
	MAX.:	—	150 F°	—	--- F°
9. DESIGN PRESS.		—	25 & F.V. PSIG	—	--- PSIG
10. TEST PRESS.		—	38 PSIG	—	--- PSIG
HOLD TIME-	1/2 HR.	TEST POSITION	HORIZONTAL		

60 / 61 11. **PAINTING INSTRUCTIONS:** SAND BLAST EXTERIOR STEEL PER SSPC-SP6 & PAINT ONE COAT CARBOLINE CARBOZINC 12 (2-3 MDFT) CARBOLINE THINNER #21.

12. ALL BOLT HOLES TO STRADDLE NATURAL CENTER LINES UNLESS OTHERWISE NOTED.
13. ▽ UNLESS OTHERWISE NOTED = 125-250 AARH.
▽ CONTINUOUS SPIRAL GROOVE GENERATED BY A 1/16" R. ROUND-NOSED TOOL AT A FEED OF 1/32" PER REVOLUTION.
14. TOLERANCES PER ASTRO STD. A-700 UNLESS NOTED OTHERWISE.

15. **WEIGHTS**

	EMPTY	FULL OF WATER	FULL OF PROCESS
VESSEL	1130 LBS.		
SKIRT	--- LBS.		
ASSEMBLED	1130 LBS.	6105 LBS.	--- LBS.

MATERIALS

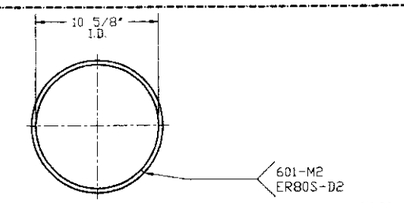
16. SHELL: SB-265-2
17. JACKET: N/A
18. HEADS:

	TOP	BOTTOM	JACKET
MATERIAL:	SB-265-2	SB-265-2	N/A

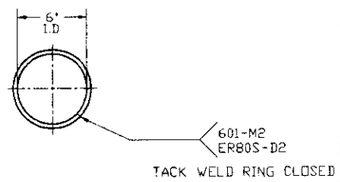
19. NOZZLE NECK: — SB-265/337-2
20. STUD PAD: — N/A
21. NOZ. REINF: — N/A
22. NOZ. FLG: — SA-105
23. LAP RINGS: — N/A
24. THREADED FTGS. — ---
25. GASKETS: — GARLOCK GYLON 3510
26. BODY FLANGES: — N/A
27. BOLTING: studs SA-193-B7* nuts SA-194-2H*
28. VESSEL SUPPORTS: ------
29. SK.RT: ----

* BOLTING TO BE CADMIUM PLATED.

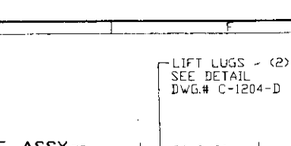
30. AFTER INSPECTION & TESTING, EQUIPMENT SHALL BE COMPLETELY FREE OF WATER, DRIED, AND PREPARED FOR SHIPMENT.
31. NOZZLE F, G, H & I SERVICE BOLTING AND GASKETS ARE NOT TO BE USED FOR HYDRO TESTING. PARTS TO BE SUITABLY BOXED AND MARKED FOR FIELD INSTALLATION (MARK WITH TAG#, PROJECT#, PO.# AND DESCRIPTION OF PARTS.)
32. SHIPPING COVERS: NOZZLES C,D,E,G,H & I TO USE HYDRO FLANGES & SERVICE COVERS AS SHIPPING COVERS. NOZZLES A & B TO HAVE 1/4" THK. STL. SHIPPING COVERS. USE HYDRO BOLTS ON COVERS.
33. HYDRO & SHIPPING GASKETS ARE GARLOCK 3200.



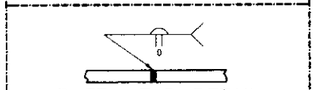
14 NOZ. 'B' INSULATION RING
3/8"Ø BAR - C\STL.
(1) REQD.



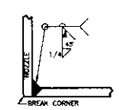
21 NOZ. 'C' INSULATION RING
3/8"Ø BAR - C\STL.
(1) REQD.



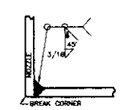
BUTT WELD DETAIL
WELD SEAM#: H/1



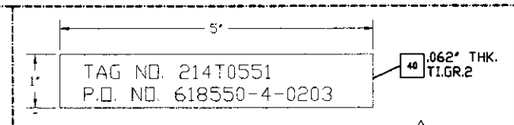
BUTT WELD DETAIL
WELD SEAM#: 1a & 1/H



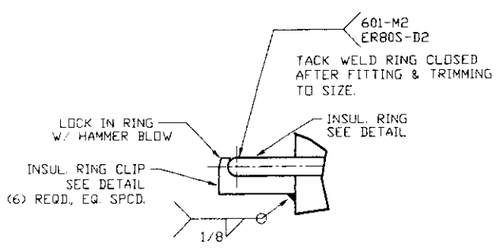
NOZ. WELD DET'L
FOR NOZ.: A,B,C,D,E & F



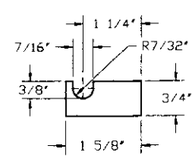
NOZ. WELD DET'L
FOR NOZ.: H & I



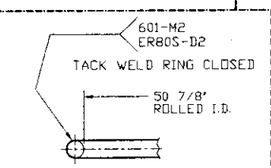
AUXILIARY NAME PLATE DETAIL
(1) REQD.



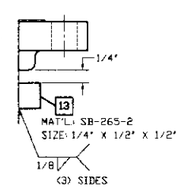
INSULATION RING DETAILS
TYP. (2) PLCS.



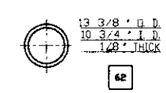
37 INSULATION RING CLIP
3/16" PLATE - SB-265-2
(12) REQD.



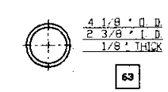
38 INSULATION RING
3/8"Ø BAR - C\STL.
(2) REQD.



FLANGE STOP DETAIL
N.T.S.



GASKET DETAIL
(1) REQ'D. N.T.S.
NOZZLE 'F' (SHIP LOOSE)



GASKET DETAIL
(3) REQ'D. N.T.S.
NOZ. 'G','H' & 'I' (SHIP LOOSE)

FLUOR DANIEL
B- PROCEED AS NOTED - RESUBMITTAL NOT REQUIRED
Review is to general design only. Contractor retains responsibility for dimensions, quantities, fabrication processes and means and methods of construction. Contractor is responsible for all errors or omissions in shop drawings and specifications and for meeting all requirements of the contract documents. Review of a separate item does not constitute acceptance of any assembly of which the item is a component. Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades, and performing his work in a safe manner.

VITAMIN C EXPANSION PROJECT
3-Apr-97
FLUOR DANIEL Cont'l No.:
23618500-4-0203-T2-1
TAG/ITEM NO.: 214T0551
XTD23603

TAG NO. 214T0551
PROJECT NO. 23618500
VITAMIN-C EXPANSION PROJECT

NOZ. 'G','H' & 'I'	5/8" - 11 UNC	3 3/4"	12	66	5/8" HEAVY HEX	24	67
NOZ. 'F'	7/8" - 9 UNC	5 1/4"	12	64	7/8" HEAVY HEX	24	65
CONNECTION	SIZE	LENGTH	QTY	ITEM #	SIZE	QTY	ITEM #
	STUDS				NUTS		

BOLTING (SHIP LOOSE)

WELDING NOTE
UNLESS NOTED OTHERWISE:
ALL WELDING DESIGNATED ON THIS DRAWING IS PER WELDING SPECIFICATION NUMBER
151-T2 OR 151-P3
UTILIZING WELD FILLER NUMBER:
ERTi-1

RELEASE FOR FABRICATION
ASTRO ENG. DEPT.
BY TLY DATE 3/21/97

CERTIFY DIMENSIONS PRINT
BY TLY DATE 3/21/97

Astro Metallurgical, Inc.
3225 West Old Lincoln Way
Wooster, Ohio 44691

THIS DRAWING USED IN CONJUNCTION WITH:

DWG.	TITLE	DWG.	TITLE
C-1204-B	MISC. DETAILS	C-1209-B	NOZ. A & B SHIPPING COVER DET.
C-1205-B	NOZ. A, B & F DETAILS		
C-1206-B	NOZ. C,D,E,G,H & I DET.		
C-1207-B	NOZ. F BLIND FLANGE DET.		
C-1208-B	NOZ. H & I BLIND FLANGE DET.		

NO.	DATE	BY	DESCRIPTION	DATE	BY
1	3/10/97	TLY	NOZ. 'H' WAS AT 270°; REVISED NOTES #31 & #32; ADDED NOZ. 'G' BOLTING; ADDED AUX. NAME PLATE;	3/10/97	JED
1	3/10/97	TLY	QTY. FOR NOZ. 'F' & 'C' INSUL. RINGS WAS (2) BILLETED SUPPORTS; REVISED NOZ. 'C'(DIA.), INTERNAL ELBOW; REVISED W.S.#H/1	3/10/97	JED

REVISIONS / APPROVED

ASTRO STANDARD DIMENSIONAL TOLERANCES
(ANGULAR TOLERANCE AS NOTED.)
FRACTIONAL DIMENSIONS - ± 1/8"
(1) PLACE DECIMAL (.0) - ± .062"
(2) PLACE DECIMAL (.00) - ± .032"
(3) PLACE DECIMAL (.000) - ± .016"
UNLESS NOTED OTHERWISE.

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FLUOR DANIEL, INC. P.O.#618550-4-0203
ASTRO M.O.# 60603

TI-2 FILTRATE RECEIVER

Astro Metallurgical, Inc.
3225 West Old Lincoln Way
Wooster, Ohio 44691

DRAWN BY	DATE	SCALE	DRAWING NO.	REV.
TLY	1/22/97	1"=1'-0"	C-1203-D	1
CHECKED	DATE			
APPROVED JED	DATE 3/21/97			