

ITEM	QTY.	DESCRIPTION	MATERIAL	SHIP	SIG
1	1	3/8" FL. BACK RING 138 1/2" OD x 138 3/4" ID	SA516-70N		
2					
3	8	6" SCH 80 PIPE SKIRT VENT x 5"	SA333-6		
4	1	1 1/2" x 1 1/2" x 1/4" IN3 RING x 40"-0" ROLL LI 140 1/2" ID	SA36		
5	1	3/8" DIA. RD. BAR IN3. RING x 36"-0" ROLL 134 1/2" DIA.	SA36		
6	18	3/8" FL. IN3. SUFFT. CLIP 3" x 3"	SA36		
7					
8					

MATERIAL SHALL ORIGINATE FROM USA, CANADA, JAPAN, TAIWAN SOUTH KOREA, WESTERN EUROPE.

NOTES:

- REWORK TO SIX (6) VESSELS AS DETAILED BELOW
- REMOVE TOP FLANGE COVER, ALL INTERNALS AND DESICCANT
- PRE-BLAST THE SKIRT TO HEAD AREA
- REMOVE THE EXT./INT. INSULATION RINGS AND ALL VENT PIPES
- INSTALL BUJRING INSIDE SKIRT TO HEAD JOINT AND WELD INTERNAL SKIRT JOINT PER APPROVED CANADIAN DESIGN
- AIR ARC EXTERIOR WELD DOWN TO REMOVE B.U. RING
- MAGNETIC PARTICLE EXAM. BACKGOUNDED AREA OF REMOVED B.U. RING RE-WELD AREA AS REQUIRED
- REINSTALL TWO INSULATION RINGS AND SIX SKIRT VENT PIPES
- △--INSTALL THERMOCOUPLES AROUND EXT. OF HEAD TO MONITOR CIRC. BEAM
- LOCAL STRESS RELIEVE THE SKIRT TO HEAD JOINT
- MAGNETIC PARTICLE EXAM. THE EXT. COMPLETED SKIRT WELD AND DYE PENETRANT EXAM. THE INT. SKIRT WELD
- HYDRO TEST VESSEL WITH 24" 150# SERVICE BLIND FLANGE
- △--M.T. EXAM. ALL PRESSURE WELDS INSIDE & SKIRT TO HEAD WELD OUTSIDE
- △--AN AREA 3'-0" WIDE AT THE HEAT TREATED EXTERIOR SKIRT TO HEAD WELD & A 2'-0" WIDE BAND ON THE INTERIOR OF SKIRT SHALL BE BLASTED & PAINTED
- GRITBLAST PER SSPC-SP6
- BLASTED SURFACES PAINTED WITHIN 8 HOURS OF CLEANING
- APPLY ONE COAT OF 8.0Z ZINC CLAD II @ 3-5 MDPT (GRAY-GREEN)
- REINSTALL BED SUPPORT INTERNALS, ETC. AND DESICCANT (85 LBS)
- APPLY WARNING TAG TO EXTERIOR TO REMOVE DESICCANT PRIOR TO START UP
- REMOVE 24" 150# SERVICE BLIND FLG. & INSTALL 24" LIFT FLANGE

USE UP6 G14HI-1 FOR INT. WELD
USE UP6 A1BH1 or A14DHI-2 FOR EXT. WELD

STENCIL ON BTM. SHELL COURSE IN TWO PLS. 180° APART IN 6" HI-LTRS, "DO NOT WELD ON VESSEL---P.W.H.T."

STENCIL ON BTM. T.L. IN TWO PLS. 180° APART IN 3" HI-LTRS, CUST. PO NO. TAG NO. SHIP WT. COG.

APPROVED
For Production
Order No. 22148-18
Date 12/23/10
By [Signature]

DESIGN NOTES

- Design per 2024 ASME Code Sec VIII Div 1
- Heat Treating RT Required
- Radiographing RT Required
- Material: NCL PIPING BUTT WELDS
Head: SA516-70N
Shell: SA516-70N
Cone: NA
- Maximum Allowable stress:
Head: 20,200 PSI @ 250 °F
Shell: 20,200 PSI @ 250 °F
Cone: NA PSI @ NA °F
- Joint Efficiency:
Head: 100% Shell: 100%
Cone: NA
- Corrosion Allowance:
Head: 1/16 Shell: 1/16
Cone: 0 Nozzle: 1/16
- Design Pressure:
Internal: 500 PSI @ 250 °F
External: NA PSI @ NA °F
- Hydrostatic Test: 125 PSI
- Vessel shall be cleaned inside and outside, free of dirt, grease, mill scale, weld spatter, etc.
- Flange bolt holes to straddle normal center line unless otherwise noted.
- M.O.M.T. -35T @ 500 PSI
Charpy impact test Exempt per NA

TECHNIP CODE: ID31

110°F to 1150°F HOLD 2 HR 15 MIN.

Welded
3/16
Q.C.
DWG

TECHNIP MR [Signature]

BASED ON MAP (NEW/COLD) OF 569 P81

REFERENCE ATE ORIGINAL JOB 18363-18 FOR RELATED SPECS, ETC.

PROJECT SPEC. 945591-A-14F
ADSORBER VESSEL &
POLYBED P&A UNITS

UOP PO NO. 4502245214
TECHNIP PO NO. 30006 6H0018

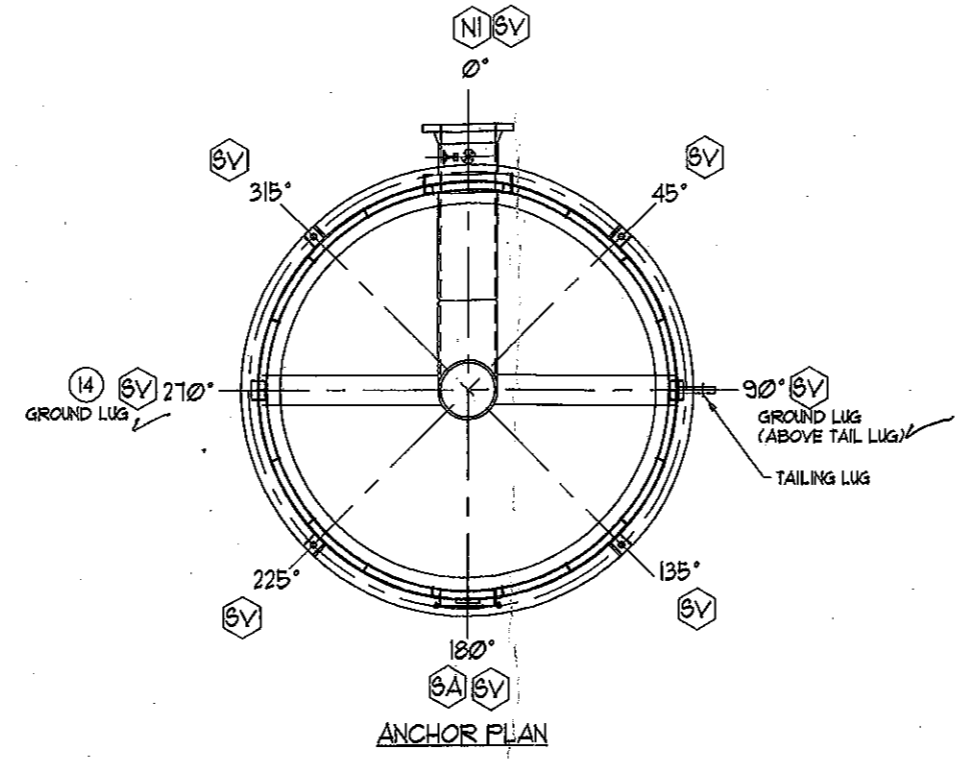
VESSEL TOLERANCES PER UOP SPEC. E8-210 (UNLESS OTHERWISE SPECIFIED)

BRITANNIA	MACHINING
0-50 In. ± 1/8"	2-PLACES ± .03
60-80 In. ± 1/4"	3-PLACES ± .015
80-120 In. ± 1/2"	
120-180 In. ± 1/2"	

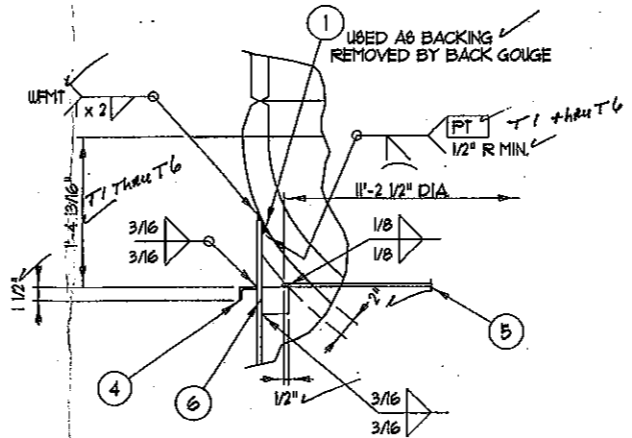
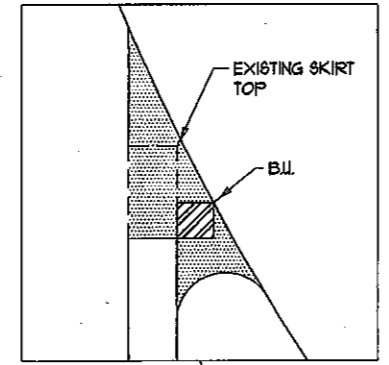
ARROW TANK & ENGINEERING CO.
MINNEAPOLIS-CAMBRIDGE MINNESOTA

REWORK SKIRT JOINT
138" I.D. PSA ADSORBER

7							
6							
5							
4							
3	12-23-10	REVISED NOTE ON AREA TO BE PAINTED	R/JH	DRAWN BY	R/JH	CUSTOMER	
2	12-22-10	ITEM 4 WAS L2" x 1 1/2"	R/JH	CHECKED	ENG.		U.O.P. LLC
1	12-1-10	PER CUSTOMER COMMENTS	R/JH	SCALE	1:32	SHEET	DRAWING NO.
NO.	DATE	REVISION	BY	DATE	8/12/10	1 OF 1	D 22148-18



ANCHOR PLAN



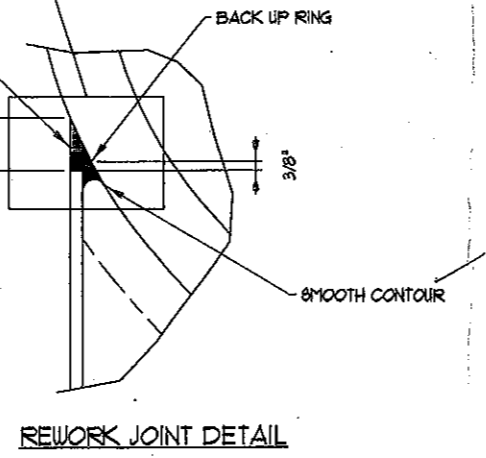
DETAIL "B"

★ PERFORM LOCAL UFIT ON SKIRT TO HEAD WELD

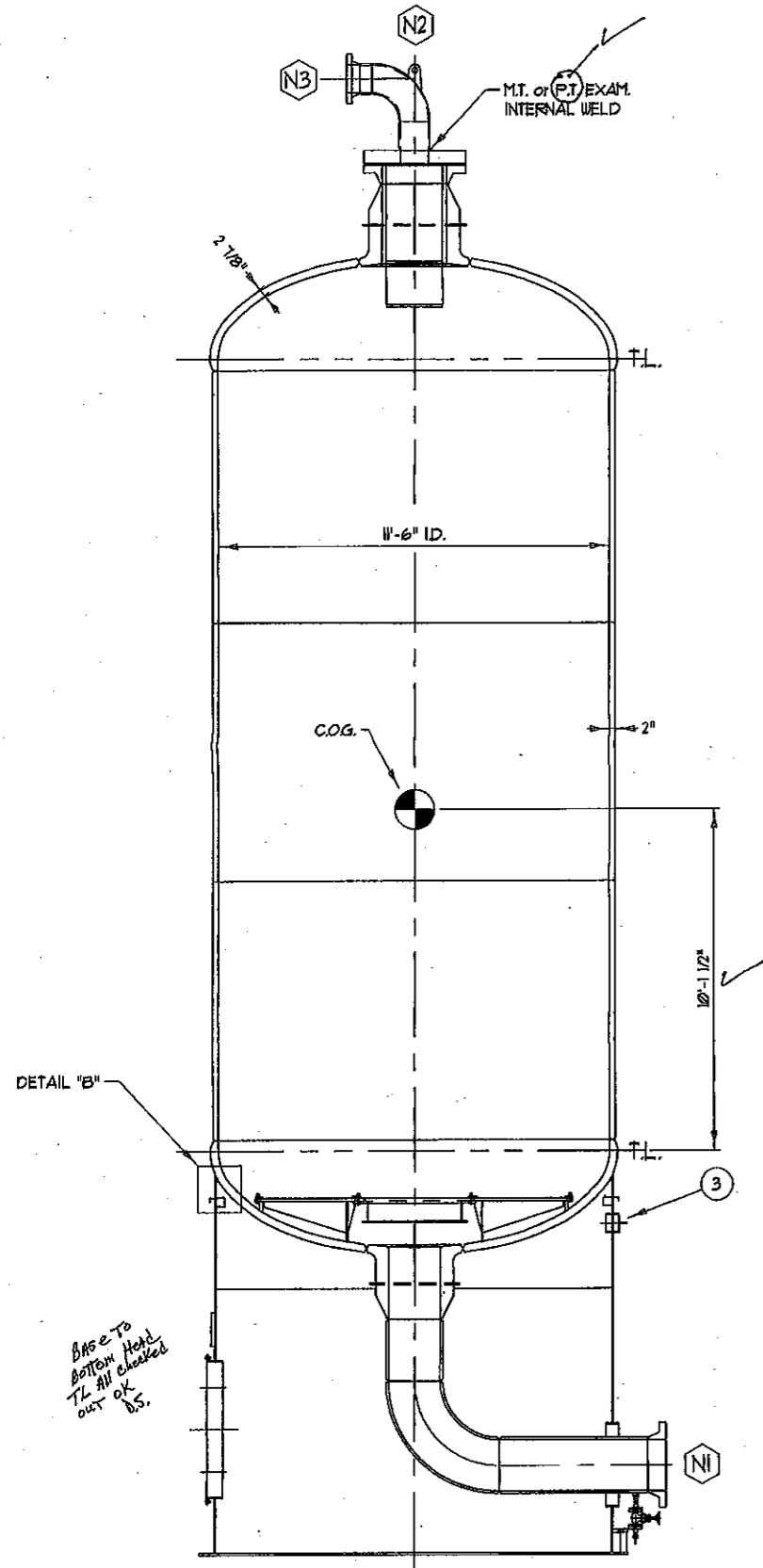
⑥ 24" CTR.

EQUIPT. NO. 206VC-501H	EQUIPT. NO. 206VC-50II
EQUIPT. NO. 206VC-50N	EQUIPT. NO. 206VC-50IK
EQUIPT. NO. 206VC-50L	EQUIPT. NO. 206VC-50IM

NOZZLE SCHEDULE						
ITEM	QTY.	SIZE	TYPE	NOZ. WALL	SERVICE	
NI	1	20"	300° UNF/RF	SCH 60	INLET	
N2	1	24"	300° UNF/RF	SCH 40	MANWAY	
N3	1	10"	300° UNF/RF	SCH X5	OUTLET	
SA	1	18x48	---	1/2"	SKIRT ACCESS OVAL	
SV	8	6"	P.E. PIPE	SCH 80	SKIRT VENT	



REWORK JOINT DETAIL



ELEVATION

BASE TO BOTTOM HEAD T.L. ALL CHECKED OUT OF 55.