

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by: BROMLEY MECHANICAL SERVICES INC. 925 - 23 STREET S.W. MEDICINE HAT, ALBERTA T1A 8R1 CANADA

(Name and address of manufacturer)

2. Manufactured for: Ultrafab Industries Ltd. 820 - 59 Avenue SE, Calgary AB, T2H 2G5

(Name and address of purchaser)

3. Location of installation: For Resale

(Name and address)

4. Type Vertical Separator 726805 T4926.231 32147-REG Rev.0 2007

(Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing no.) (Nat'l Bd. No.) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2004

to 2006 n/a n/a

6. Shell: Addenda (Date) SA106B 1.031" 0.0625" 16" nps 5'-0" s/s

Code Case Nos. Special Service per UG-120(d)

7. Seams: Matl. (Spec. No., Grade) SMLS n/a 100% n/a n/a Single (Type 1) *Spot 1

Long. (Welded, Dbl., Sngl., Lap, Butt) R. T. (Spot or Full) Eff. (%) H. T. Temp (°F) Time (hr) Girth (welded, Dbl., Sngl., Lap, Butt) R. T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. SA516-70N (b) Matl. SA516-70N

(Spec. No., Grade) (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side To Pressure (Convex or Concave)
(a)	Top	0.875"	0.0625"	n/a	n/a	2:1	n/a	n/a	n/a	Concave
(b)	Bottom	0.875"	0.0625"	n/a	n/a	2:1	n/a	n/a	n/a	Concave

If removable, bolts used (describe other fastenings)

9. MAWP 1480 psi. at max. temp. 100 °F

Min. design metal temp. -20 °F at 1480 psi. Hydro., or test pressure 1924 psi.

10. Nozzles, inspection and safety valve openings:

Purpose	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement	How	Location
(Inlet, Outlet, Drain)								
Inlet, Outlet	2	3"	CL600 RFWN	SA106B, SA105N	0.600"	-	UW16.1(e)	Shell / Top Head
Water Out	1	2"	TOL	SA105N	3M	-	UW16.1(a)	Shell
LC, HLSD, LLSD	3	2"	TOL	SA105N	3M	-	UW16.1(a)	Shell
TI, LG(2)	3	3/4"	TOL	SA105N	3M	-	UW16.1(a)	Shell
PI	1	1/2"	TOL	SA105N	3M	-	UW16.1(a)	Shell
PSV	1	1"	TOL	SA105N	3M	-	UW16.1(a)	Shell
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-

11. Supports: Skirt Yes Lugs 2 Legs n/a Other n/a Attached Datum Head-Shell / Welded

(Yes or no) (No.) (No.) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

(Name of part, item number, Mfr's name and identifying stamp)

Volume: 6.03 cu ft or 0.17 cu m PSV Supplied by Others As Per UG125

CA: 0.0625" *Spot Radiography in Accordance with UW11A5b

Impact Testing Exempt As Per UG20f (1-5) Construction Drawing Cad No. 32661 Rev.0

CERTIFICATE OF SHOP COMPLIANCE			
We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. <u>30634</u> expires <u>10/26/2007</u>			
Date <u>4-April-07</u>	Co. name <u>BROMLEY MECHANICAL SERVICES INC.</u>	Signed <u>Jack Bennett</u>	(Representative)
(Manufacturer)			
CERTIFICATE OF SHOP INSPECTION			
Vessel constructed by <u>BROMLEY MECHANICAL SERVICES INC.</u> at <u>925 - 23 STREET S.W. MEDICINE HAT, ALBERTA CANADA T1A 8R1</u>			
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of <u>Alberta</u> and employed by <u>ABSA</u> have inspected			
the component described in this Manufacturer's Data Report on <u>APR 4/07</u> , and state that, to the best of my knowledge and belief, the			
Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.			
Date <u>APR 4/07</u>	Signed <u>Richard</u>	Commissions <u>AB 260</u>	(Nat'l Board, (incl. endorsements) State, Prov. and No.)
(Authorized Inspector)			

726793

5

(20)

726812

BROMLEY MECHANICAL SERVICES INC.Travel Sheet

DO NOT START CONSTRUCTION WITHOUT AI REVIEW					TRAVEL SHEET REVISION NO.:				
AI REVIEW: <i>RG</i>		<i>ULTRAFAB IND LTD</i>		REVIEW DATE: <i>Mar 13/07</i>					
SERIAL NO.: <i>726805</i>		JOB NO.: <i>32661</i>		VESSEL TYPE: <i>16'6d x 15'0" x 1400 P.S.I. Vant Sep</i>					
DRAWING NO.: <i>32661</i>		DWG. REVISION NO.: <i>0</i>		TRAVEL SHEET INITIATION BY: <i>RG</i>					
Seq.	Item	Comments	Q.C.I.	Date	A.I. Hold Points	A.I.	Date	Owner	Date
1.	Calculations in File		<i>RG</i>	<i>MAR 12 2007</i>	*	<i>RG</i>	<i>APR 04 2007</i>		
2.	Release of App'd Dwg.		<i>RG</i>	<i>MAR 12 2007</i>					
3.	Heat Numbers Recorded		<i>JSB</i>	<i>MAR 22 2007</i>	*	<i>RG</i>	<i>APR 04 2007</i>		
4.	Material Examination		<i>JSB</i>	<i>MAR 22 2007</i>					
5.	MTRs Checked		<i>JSB</i>	<i>MAR 22 2007</i>	*	<i>RG</i>	<i>APR 04 2007</i>		
6.	WPS(s) Checked		<i>RG</i>	<i>MAR 12 2007</i>					
7.	Welder(s) Qualified		<i>JSB</i>	<i>MAR 22 2007</i>					
8.	Thicknesses Verified & Recorded		<i>JSB</i>	<i>MAR 22 2007</i>					
9.	Shell(s) & Head(s) Fit-up Inspection		<i>JSB</i>	<i>MAR 23 2007</i>					
10.	Nozzles & Fittings Fit-up Inspection		<i>JSB</i>	<i>MAR 28 2007</i>					
11.	Nozzle Orientation		<i>JSB</i>	<i>MAR 22 2007</i>					
12.	Nozzle & Flange Rating Checked		<i>JSB</i>	<i>MAR 22 2007</i>					
13.	Impact Tests		<i>Edmont</i>						
14.	Internals Checked		<i>JSB</i>	<i>MAR 23 2007</i>					
15.	Final Internal Inspection	Shell Side	<i>JSB</i>	<i>MAR 28 2007</i>	**	<i>RG</i>	<i>APR 04 2007</i>		
		Tube Side	<i>JSB</i>	<i>MAR 28 2007</i>					
16.	Weld Size Checked		<i>JSB</i>	<i>MAR 28 2007</i>					
17.	Welder I.D. Checked		<i>JSB</i>	<i>MAR 28 2007</i>					
18.	Final External Inspection		<i>JSB</i>	<i>MAR 28 2007</i>	*	<i>RG</i>	<i>APR 04 2007</i>		
19.	Radiography	<i>RT-2.</i>	<i>JSB</i>		*	<i>RG</i>	<i>APR 04 2007</i>		
20.	Other N.D.E.								
21.	Final Ext. Prior to P.W.H.T.	<i>NIC</i>			*				
22.	PWHT Chart Checked				*				
23.	Hydrostatic Test	Shell Side Gauge # <i>1924</i>			**	<i>RG</i>	<i>APR 04 2007</i>		
		Tube Side Gauge #							
24.	CRN Drawing	CRN# <i>T4826.2</i>	<i>RG</i>	<i>MAR 12 2007</i>	*	<i>RG</i>	<i>APR 04 2007</i>		
25.	N.C.R. #								
26.	Nameplate Stamping								
27.	Manuf. Data Report Completed & Verified				*	<i>RG</i>	<i>APR 04 2007</i>		
28.	Nameplate Installation								

The Authorized Inspector shall be presented with the Travel Sheet prior to construction so that he can designate additional inspection points and/or Hold Points. Any revisions shall be marked with a delta symbol with revision number and described at the bottom of this page.

* Denotes an A.I. Inspection Point ** Denotes an A.I. Hold Point

Z:\BMSDOCS\travel sheet.doc

MATERIAL THICKNESS VERIFICATION AND IDENTIFICATION				WPS / WELD I.D. / WELDER SYMBOLS / FIT-UP						
Description	Thickness	Material Spec. & Grade	Heat & Slab Number or I.D. Number	WPS	Weld I.D.	Symbol	Fit-Up	Weld I.D.	Symbol	Fit-Up
Shell #1	16" sch 100	SA 106 B	VS 24443		L -			C - 1	H H	JLB
Shell #2					L -			C - 2	H H	JLB
Shell #3					L -			C -		
Head #1	16" OD x 1.00"	SA 516-70N	75617-041	BM-3				C -		
Head #2	16" OD x 1.00"	SA 516-70N	16448-447605	B880				C -		
Head #3								C -		

ATTACHMENT AND / OR NOZZLE MATERIAL THICKNESS VERIFICATION AND IDENTIFICATION						WELDER SYMBOLS / FIT-UP		
Mark	Mat. I.D.	Neck	Fitting	Flange	Repad or Attachment	Cat. C	Cat. D	WPS
N1	Spec.-Grd.	SA 106 B		SA 105 N		S L	M 3	BM-1 or BM 2
N2	Thk./Rating	3" sch XXH		3" 600 RFWN		JLB	JLB	BMS 710M
	Heat# or ID							
	Spec.-Grd.							
	Thk./Rating							
	Heat# or ID							
Lift	Spec.-Grd.	SA 516-70N						
Lugs	Thk./Rating	1/2" PL						
	Heat# or ID	VS 25602						
	Spec.-Grd.							
	Thk./Rating							
	Heat# or ID							
	Spec.-Grd.							
	Thk./Rating							
	Heat# or ID							
	Spec.-Grd.							
	Thk./Rating							
	Heat# or ID							
	Spec.-Grd.							
	Thk./Rating							
	Heat# or ID							

SHELLS AND HEADS			INTERNALS		
	Welder Symbol	Date		Welder Symbol	Date
Laid out by	SK	MAR 22 2007	Inspected by Closing	M 3	MAR 28 2007
Checked by	JLB	MAR 22 2007	Heat #'s Weld Stamped	M 3	MAR 28 2007
Cut by	SK	MAR 22 2007	Vessel Free of Weld Defits	M 3	MAR 28 2007
TI and LLC Hole	M 3	MAR 28 2007	Final Check of QC	JLB	MAR 28 2007

CERTIFIED BY:

BROMLEY
MECHANICAL SERVICES INC.
DIVISION OF ARGON

Medicine Hat, Alberta
(800) 215-9806
(403) 526-3142



1480 PSI AT 100 °F

(MAX. ALLOWABLE WORKING PRESSURE)

-20 °F AT 1480 PSI

(MIN. DESIGN METAL TEMPERATURE)

MFR'S SER. NO

726805

YR. BUILT

2007

VESSEL TYPE

VERTICAL VESSEL

TAG

ULFAFA INDUSTRIES LTD.

M.A.W.P.

10204

KPA

AT

38

°C

SHELL NOM.

1031"

MATERIAL

SA

106B

HEAD NOM.

1000"

MATERIAL

SA

516-70N

C.A.

1000625

CRN

149262



575685

CERTIFIED BY: **BROMLEY**
MECHANICAL SERVICES (1985) LTD.

Medicine Hat, Alberta
(800) 215-9806

W
RT-2

1480 PSI AT 100 °F
(MAX. ALLOWABLE WORKING PRESSURE)

-20 °F AT 1480 PSI
(MIN. DESIGN METAL TEMPERATURE)

MFR'S SER. NO.

7

YR. BUILT

2007

VESSEL TYPE

VERTICAL VESSEL

TAG

ULTRAFAB INDUSTRIES LTD.

M.A.W.P.

10204

KPA

AT

38

°C

SHELL NOM.

1.031"

MATERIAL

SA106B

HEAD NOM.

1.000"

MATERIAL

SA516-70N

C.A.

0.0625"

CRN

T4926.2

(20)
726793
to
726812

WD-32661

CLIENT: Bromley Mechanical

P.O. NO. 67389

JOB NO. 6063 PAGE 1 OF 1

AFE NO. _____

SUBSISTENCE BREAKFAST ☐ LUNCH ☐ DINNER ☐

LOCATION: Ultrafab

FILM BOX _____

ROOM ☐ LATE MEAL ☐ 1 - DAY ☐

PROJECT: wo # 32661

DATE: March 22 2007

TIME AND TRAVEL	IN	OUT	IN	OUT	HOURS	KILOMETERS
	11:00	13:00			2.0	✓

CONSTRUCTION CONTRACTOR: BMS

TECHNIQUE No. SWC TYPE OF MATERIAL C.S.
☒ ISOTOPE Ir T92 ☐ X-RAY No. OF FILM
 MAX. SIZE 2.7 x 2.5 mm MAX. KV _____ PER CASSETTE _____
 LEAD SCREENS FRONT 0.005 BACK 0.010 FILM DENSITY 2.7
 WT - WALL THICK WS - WELDER SYMBOL EX - No. OF EXPOSURES
 SO - MIN. SOURCE TO OBJECT DISTANCE (C=Contact)
 SSF - MAX. DISTANCE FROM SOURCE SIDE OF OBJECT TO FILM

WELD DEFECT:
 IUC - INTERNAL UNDERCUT BT - BURN THROUGH LC - LOW COVER 1. Slight
 EUC - EXTERNAL UNDERCUT POR - POROSITY EP - EXCESSIVE PENETRATION 2. Medium
 IC - INTERNAL CONCAVITY HB - HOLLOW BEAD C - CRACK 3. Reject
 IP - INCOMPLETE PENETRATION HL - HIGH LOW S - SLAG
 LF - LACK OF FUSION AB - ARC BURN CR - CONCAVE ROOT

WELD NO.	SIZE	WT	WS	EX	SO	SSF	FILM	WELD OK	IUC	EUC	IC	IP	LF	BT	POR	HB	HL	AB	LC	EP	C	S	CR	DEFECT LOCATION & COMMENTS	WELD REJ.
1																									
2																									
3																									
4	16"	.875	HH		1 8"	1.06	DS																		
5	0-6"	↓	↓	↓				✓																	
6																									
7																									
8																									
9	16"	.875	AS		1 8"	1.06	DS																		
10	0-6"	↓	↓	↓				✓																	
11																									
12																									
13																									
14	16"	.875	AS		1 8"	1.06	DS																		
15	0-6"	↓	↓	↓				✓																	
16																									
17																									
18																									
19	16"	.875	HH		1 8"	1.06	DS																		
20	0-6"	↓	↓	↓				✓																	
21																									
22																									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30																									
31																									
32																									

film used 2-4 1/2" x 17"
SNT # 200109001

AUTHORIZED BY: CLIENT: <u>Jack Bennett</u>	WELDING CODE <u>UWS2</u>	INTERPRETED BY: <u>[Signature]</u>	ALLTEST KEVIN HAYWARD CGSB #5335 LEVEL II RT MT PT
INSPECTION FIRM:		ASSISTANT <u>Roger Y...</u>	



MECHANICAL SERVICES (1985) LTD.
925 - 23 STREET S.W., MEDICINE HAT, AB

MATERIAL REPORT

DATE:

Mar 29, 2007

CUST:

Ultrafab Industries Ltd.

CHECKED:

SERIAL NO.:

726805

SIZE:

16" nps x 5'0" s/s

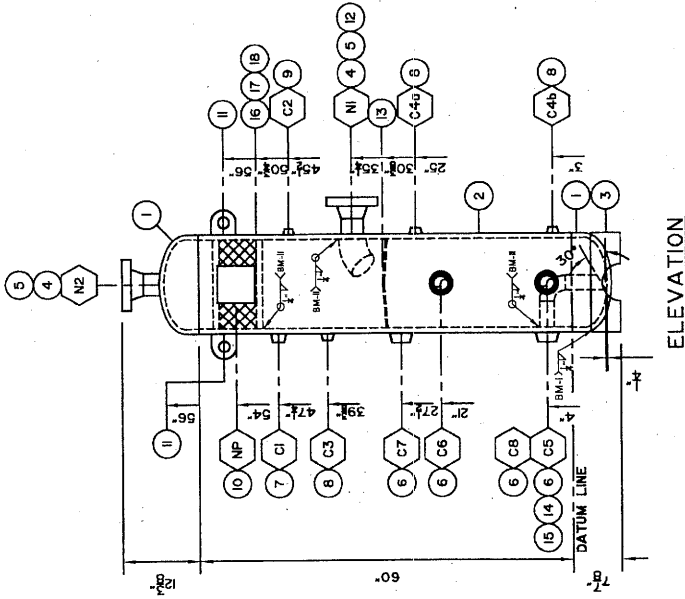
PRESSURE: 1480psi

W.O.: 32661

CRN: T4926.2

DRAWING NO.: 32147-REG Rev.0

CAD NO.: 32661 Rev.0



ITEM	DESCRIPTION	HEAT NUMBER	PLATE IDENTIFIER	MATERIAL	MIN. THK.
1a	SE Head, 16" od, 1.000" nom (0.875" min)	75617	041	SA516-70N	0.9630"
1b	SE Head, 16" od, 1.000" nom (0.875" min)	16448	447605	SA516-70N	0.9590"
2	Pipe, 16" Sch 100 (1.031") x 60" Long	V524443		SA106B	1.031"
3	Skirt, Pipe, 16" Sch 10 (0.250")			SA106B	0.250"
4	RFWN, 3" 600 ANSI Sch. XXH			SA105N	0.600"
5	Pipe, 3" Sch XXH (0.600")			SA106B	0.600"
6	TOL, 2" 3M x 36 - 20"			SA105N	3M
7	TOL, 1" 3M x 36 - 12"			SA105N	3M
8	TOL, 3/4" 3M x 36 - 14"			SA105N	3M
9	TOL, 1/2" 3M x 36 - 10"			SA105N	3M
10	Tag Plate Holder c/w Vessel ID Plate			SA36/Alum	
11	Lift Lug - Plate, 1/2"	V525602		SA516-70N	0.500"
12	Inlet Diverter, Weld 45, 4" Sch 40 LR			SA234WPB	Sch 40

[illegible]

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	2	S.E. HEAD, 16"OD X 1.000" NOM. (0.875" MIN.), SA516-70N
2	1	PIPE, 16" SCH. 100 (1.031") X 60" LONG, SA106B
3	1	SKIRT - PIPE, 16" SCH. 10 (0.250"), SA53B
4	2	RFWN, 3" 600 ANSI SCH. XXH, SA105N
5	A/R	PIPE, 3" SCH. XXH (0.600"), SA106B
6	4	TOL, 2" 3M X 36 - 20", SA105N
7	1	TOL, 1" 3M X 36 - 12", SA105N
8	3	TOL, 3/4" 3M X 36 - 14", SA105N
9	1	TOL, 1/2" 3M X 36 - 10", SA105N
10	1	TAG PLATE HOLDER, SA36 & VESSEL ID PLATE, ALUM
11	2	LIFT LUG - PLATE, 1/2", SA516-70N (SEE DETAIL)
12	1	INLET DIVERTER, WELD 45, 4" SCH. 40 LR, SA234WPB
13	A/R	FLOAT HOOD, PLATE, 1/4", SA36 (SEE DETAIL)
14	A/R	PIPE, 2" SCH. 40 (0.54"), SA106B
15	1	WELD 90, 2" SCH. 40 LR, SA234WPB
16	1	DEM 15"OD X 6"TK, 9LB 3/6LSS, 1 PC NO GRD
17	A/R	FLAT, 1/4" X 1", A36/44W
18	A/R	FLAT EXP. METAL, 3/4" X 9LB, CS

NOTE:
MAX. HOLE SIZE FOR 2" TOL ON HEADS & SHELL IS 2 1/4"

ASME 2004 ED. 2006 ADD. CODE SECT. VIII DIV. I
BMS AQP (S) 1009 REGISTERED WELD PROCEDURE 505.2
FOR VESSEL TOLERANCES, SEE WELDER HANDBOOK
VESSEL TYPE: VERTICAL

M.A.W.P.: 1480 PSIG (10204 kPa) AT +100°F (+38°C)
M.D.M.T.: -20°F (-29°C) AT 1480 PSIG (10204 kPa)
IMPACT TESTING EXEMPT PER UG201 (I-5)
P.W.H.T.: NIL
RADIOGRAPHY: RT-2
CIRC.: SPOT
LONG: SMLS
JOINT EFFICIENCY: HEADS: 1.00 SHELL: 1.00
CORROSION ALLOWANCE: 1/16"
HYDROSTATIC TEST: 1924 PSIG (13265 kPa)
VOLUME: 6.03ft³ (0.17m³)
WEIGHT (DRY): 1,731 lb (785 kg)

BROMLEY MECHANICAL SERVICES INC.

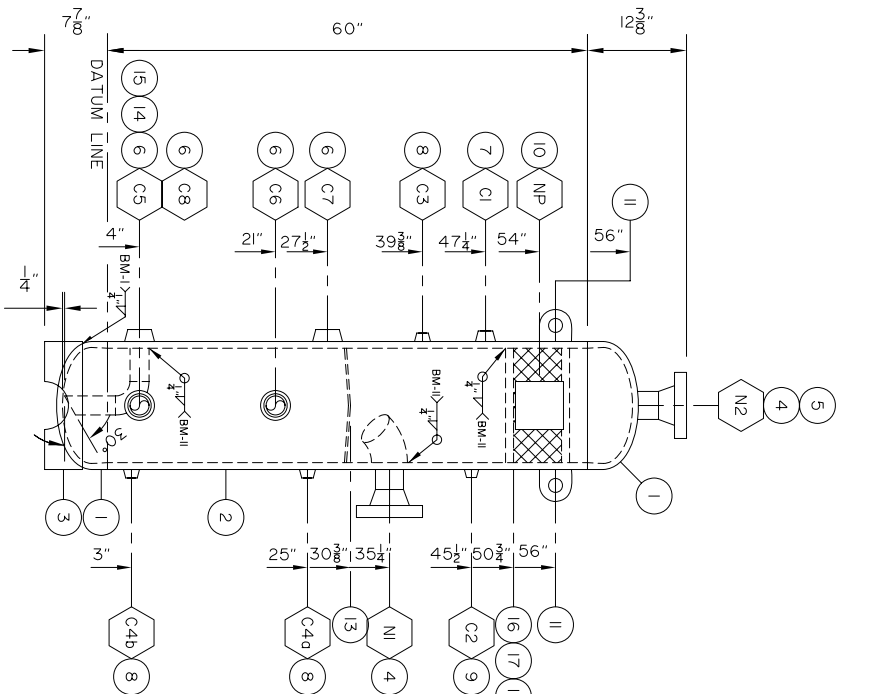
925 - 23rd Street S.W., Medicine Hat, Alberta, Canada, T1A 8R1 (403) 526-3442

CLIENT
ULTRAFAB INDUSTRIES LTD.

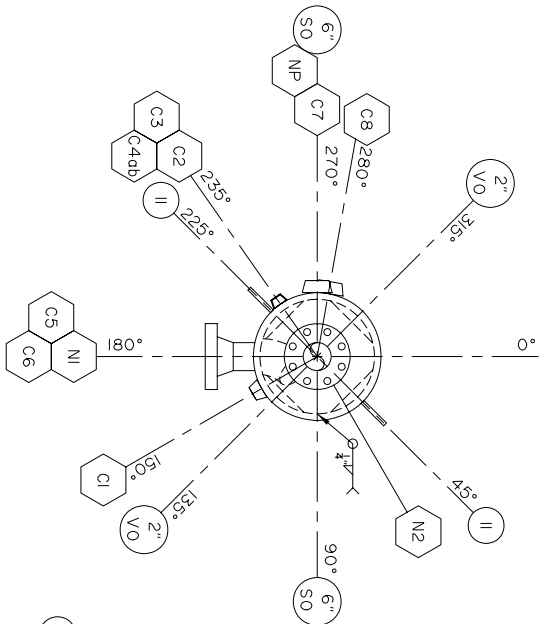
PROJECT
(20) - 16"OD X 5'-0" X 1480 PSI
2 PHASE VERTICAL SEPARATOR

TITLE
16"OD X 5'-0" X 1480 PSI SEPARATOR

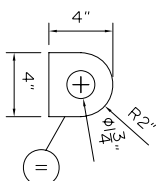
C.R.N.:	T4926.2	Wo No.:	32661	SERIAL No.:	726793-812
DRAWN BY:	W.J. HAN	REV. No.:	1	DATE: MM/DD/YY	04/05/07
DATE: MM/DD/YY	03/09/07	SCALE:	1/2"=1'	CAD No.:	32661



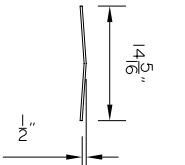
ELEVATION



PLAN



LIFT LUG
N.T.S.



FLOAT HOOD
N.T.S.

REV.	NO.	DATE	DESCRIPTION	CALC	BY	CHK'D	SIGN'D
1	04	05	07	AS BUILT			
2	03	09	07	ISSUED FOR CONSTRUCTION			

WELD DETAIL 1	WELD DETAIL 2	WELD DETAIL 3	WELD DETAIL 4	WELD DETAIL 5	WELD DETAIL 6	WELD DETAIL 7	WELD DETAIL 8	WELD DETAIL 9	WELD DETAIL 10	WELD DETAIL 11	WELD DETAIL 12	WELD DETAIL 13	WELD DETAIL 14
ROOT: BM-3 F&C: B880	ROOT: BM-3 F&C: B880	ROOT: BM-3 F&C: B880	ROOT: BM-I OR F&C: BM-II OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M	ROOT: BM-II F&C: BM-II OR BMS-710M	ROOT: BM-II F&C: BM-II OR BMS-710M	ROOT: BM-I F&C: BM-I OR BMS-710M
WITHOUT BACKING R=1/8" (1/8") a=60° (15°) h=1/16" (1/16")	WITHOUT BACKING R=1/8" (1/8") a=60° (15°) h=1/16" (1/16")	3/16" TRANSITION R=1/8" (1/8") a=60° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=75° (15°)	R=1/8" (1/8") a=40° (15°) h=1/8" (1/8")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/8" (1/8")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")	R=1/8" (1/8") a=40° (15°) h=1/16" (1/16")

NOZ	NO.	SIZE	RATING	TYPE OF SERVICE	OD OF NOZ NECK	PROJECTION OUTSIDE	PROJECTION INSIDE	REIF PAD OD X THK	WELD DETAIL	FILET WELD SIZE A	FILET WELD SIZE B	FILET WELD SIZE C	BILL OF MATL ITEM No.	REMARKS
NI	1	3"	600	INLET	3.500"	6"	.	.	4.5	3/4"	.	.	4.5	.
N2	1	3"	600	OUTLET	3.500"	6"	.	.	4.5	3/8"	.	.	4.5	INSPECTION
CI	1	1"	3000	PSV	TOL	.	.	.	IO	3/8"	.	.	7	.
C2	1	1/2"	3000	PI	TOL	.	.	.	IO	3/8"	.	.	9	.
C3	1	3/4"	3000	TI	TOL	.	.	.	IO	3/8"	.	.	8	.
C4db	2	3/4"	3000	LG	TOL	.	.	.	IO	3/8"	.	.	8	.
C5	1	2"	3000	WATER OUT	TOL	.	.	.	IO	3/8"	.	.	6	.
C6	1	2"	3000	LC	TOL	.	.	.	IO	3/8"	.	.	6	INSPECTION
C7	1	2"	3000	HLS	TOL	.	.	.	IO	3/8"	.	.	6	.
C8	1	2"	3000	LSD	TOL	.	.	.	IO	3/8"	.	.	6	.