



Hole Schedule			
Nozzle #	Service	Description	Location
A	Inlet	24" Sch40	270°
B	Outlet	12" Sch40	Top Head
C	Vent	2" Sch160	Top Head 90°
D	Drain	2" Sch160	Bottom Head
E	Instrument	2" Sch160	Shell 0°

Design Code & Conditions			
Code: ASME Section VIII Division 1 Edition: 2004 Addenda: 2006			
Radiography: None Impact Test: Not Required per UHA-51(d)			
MAWP Internal: 350 psi at: 650 °F Maximum Working Pressure			
MAWP External: 7. psi at: 650 °F Maximum Working Pressure			
MDMT: -20 °F at: 350 psi Minimum Design Metal Temperature			
Design Temp: 650 °F at: 350 psi Minimum Design Metal Temperature			
Test Pressure: 455 psi at: 55 °F with: Water For: 30 min. Minimum			
Corrosion Allowance: 0"			
Interior Finish: None		Exterior Finish: TBA	
Volume: cuft		Operating Fluid: Compressed Air	
Weights - Dry: lbs		Service: lbs Test: lbs	

Certified by _____
(Name of Manufacturer)

U 350 psi (kPa) at 650 °F (°C)
Max. allowable working pressure (MAWP)

7.5 psi (kPa) at 650 °F (°C)
Max. allowable external working pressure

W (if arc or gas welded) -20 °F (°C) at 350 psi (kPa)
RT (if radiographed) Minimum Design Metal Temperature (MDMT)
HT (if postweld heat treated)

Manufacturer's serial number _____
CRN _____ Year built _____

ITEM NO.	DESCRIPTION	MATERIAL	QTY.
1	Shell 3/4" x 42" OD x 72" lg	SA-240 304 Plate	1
2	4x4x0.625 Leg	SA/CSA-G40.21 44 W	4
3	42InchRFWN 300# B16.47	SA-182 F304	2
4	HHJUNUT 1.5000-12-D-N	SA-194 2H	64
5	Studs	SA-193 B8	32
6	ASME SE Head 3/4" Nominal thk, 0.698 A.F. x 42" OD c/w 1-1/2" Straight Skirt	SA-240 304	2
7	300 lb. - 24.000" NPS (SCH. 40) B16.5	SA-182 F304	1
8	300 lb. - 2.000" NPS (SCH. 160) B16.5	SA-182 F304	2
9	300 lb. - 2.000" NPS (SCH. 80) B16.5	SA-182 F304	1
10	300 lb. - 12.000" NPS (SCH. 40) B16.5	SA-182 F304	1
11	Nozzle A pipe	SA-312 TP304	1
12	Nozzle D Pipe	SA-312 TP304	1
13	Nozzle E Pipe	SA-312 TP304	1
14	Nozzle B Pipe	SA-312 TP304	1
15	Nozzle C Pipe	SA-312 TP304	1
16	Lifting Lugs 1" thk	SA-240 304	2
17	Nozzle A Repad 3/4" thk x 30" OD x 24.0625" ID	SA-240 304	1
18	Nozzle B Repad 1/2" thk x 16" OD x 12-13/16" ID	SA-240 304	1

Forces and Moments - Operating Load							
No.	Size	FX	FY	FZ	Mx	My	Mz
		(lbs)	(lbs)	(lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)
A	24	6475	6475	4856	38206	25520	33117

- NOTES:**
- Loads are defined at the Shell-Nozzle intersection.
- Construction:**
- All welds should be neat in appearance, free of slag and other defects.
 - Vessel shall be clean of scale, oil, weld splatter and all other foreign matter before hydrostatic testing.
 - Remove all sharp edges on nozzles - 1/8" radius minimum.
- Conditions:**
- This vessel will be bolted to the floor.
 - All nozzles are to support nominal loads only.



UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994
DIMENSIONS ARE IN INCHES
TOLERANCES APPLY AS SHOWN BELOW

0 PL DEC	+0.2
1 PL DEC	+0.1
2 PL DEC	+0.01
3 PL DEC	+0.005
ANGLES	± 1°
SURFACE ROUGHNESS	32 μ in

THIRD ANGLE PROJECTION

DRIVEN BY: RTS DATE: Dec 21, 2005
CHECKED BY: X DATE: X
APPROVED BY: X DATE: X

PROPRIETARY
NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF Pressure Vessel Engineering Ltd.

CUSTOMER: XYZ Vessel Inc.
PROJECT: Sample Vessel

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Sample Vessel # 8
PVE-Sample # 8

SCALE: 1:1 WEIGHT: PVE Sample 8 SHEET 1 OF 1