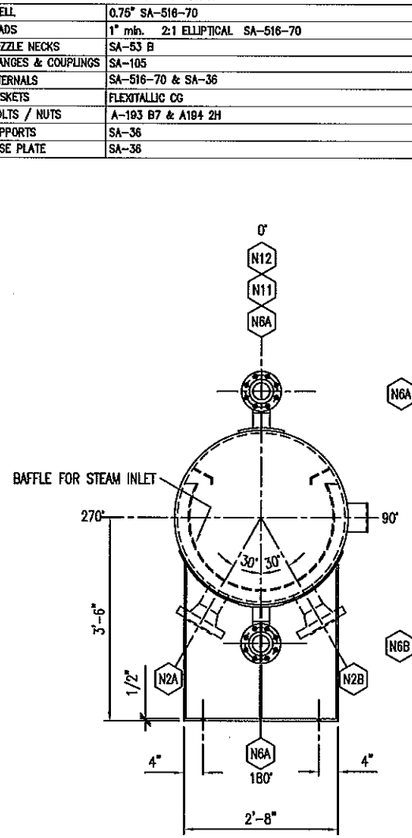
ITEM NO.	V-301	QTY	1
ITEM NAME	MP FLASH DRUM		
DESIGN CONDITIONS			
SHELL DESIGN INT. PRESS.	520 PSIG @ 500 °F & FULL VACUUM		
DESIGN EXT. PRESS	ATMOSPHERE		
DESIGN TEMP. MIN.	-20 °F		
OPER. PRESSURE	455 PSIG		
OPER. TEMPERATURE	460 °F		
HYDRO. TEST PRESSURE	780 PSIG		
CORROSION ALLOWANCE	0.125"		
PWHT	NO		
RADIOGRAPH	SPOT		
INSULATION	YES		
CODE	DESIGN & BUILT PER ASME CODE SECT. I LATEST EDITION		
STAMP	YES		
WIND DESIGN			
SEISMIC DESIGN			
NACE	NO		
MATERIAL OF CONSTRUCTION			
SHELL	0.75" SA-516-70		
HEADS	1" min. 2:1 ELLIPTICAL SA-516-70		
NOZZLE NECKS	SA-53 B		
FLANGES & COUPLINGS	SA-105		
INTERNALS	SA-516-70 & SA-36		
GASKETS	FLEXITALLIC CG		
BOLTS / NUTS	A-193 B7 & A194 2H		
SUPPORTS	SA-36		
BASE PLATE	SA-36		

GENERAL NOTES:

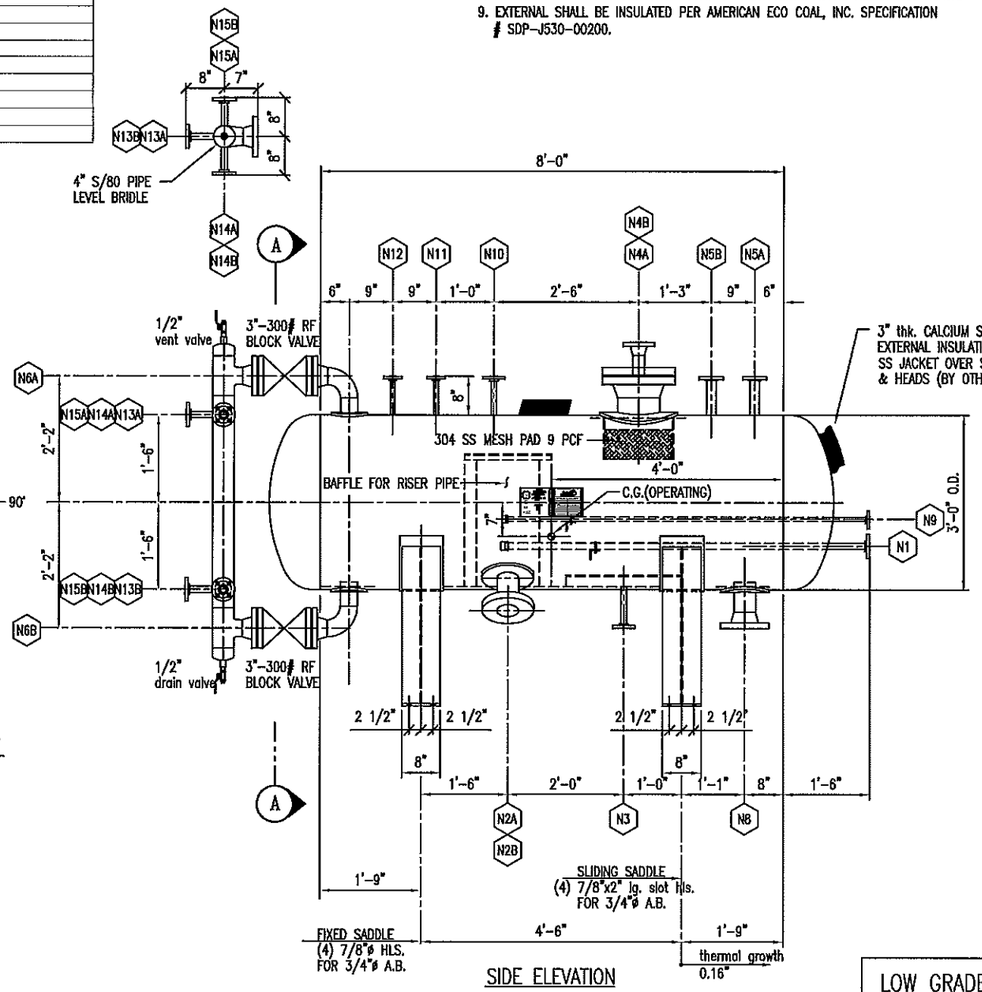
1. FLANGE BOLT HOLES SHALL STRADDLE NORMAL VESSEL CENTERLINES UNLESS NOTED.
2. WELDS SHALL BE NEAT IN APPEARANCE, FREE OF SLAG, UNDERCUTS AND OTHER DEFECTS.
3. NOZZLE AND TAIL DIMENSION TOLERANCES SHALL BE +/- 1/8 INCH UNLESS OTHERWISE NOTED.
4. REINFORCING PADS AND PAD SECTIONS SHALL HAVE 1/4 INCH NPT WEEP HOLE LOCATED AS LOW AS POSSIBLE IN THE PAD WHEN THE VESSEL IS IN OPERATING POSITION. PLUG WEEP HOLE WITH HEAVY GREASE.
5. VESSEL SHALL BE CLEANED OF SCALE, OIL, WELD SPATTER AND ALL OTHER FOREIGN MATTER BEFORE HYDROSTATIC TESTING.
6. COAT ALL NOZZLE GASKET SURFACES WITH PROTECTIVE LUBRICANT BEFORE BLANKING FOR SHIPMENT.
7. PROTECT ALL MACHINED SURFACES AND THREADED CONNECTIONS WITH WOOD OR PLASTIC PROTECTORS BEFORE SHIPMENT.
8. FINISH: SSPC-SP2 & ONE SHOP COAT OF HEAT TEMPERATURE RESISTANCE BLACK.
9. EXTERNAL SHALL BE INSULATED PER AMERICAN ECO COAL, INC. SPECIFICATION # SDP-J530-00200.

NOZZLE SCHEDULE

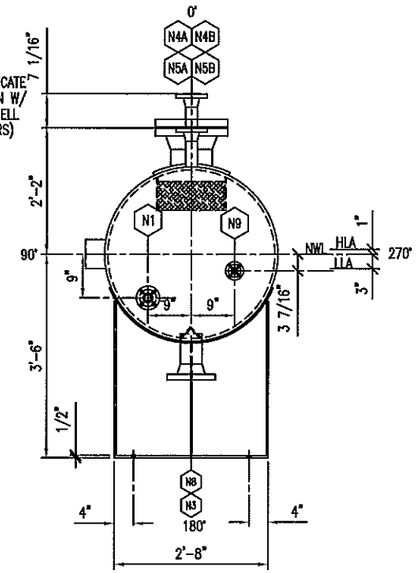
MARK	QTY	SIZE	SERVICE	RATING	TYPE	PROJECTION FROM SHELL	NOZZ. THK.	REPAD PLATE
N1	1	1"	BFW INLET	300#	RFWN	8"	SCH.160	---
N2A	1	4"	STEAM INLET	300#	RFWN	8"	SCH.80	2.75"widex0.5"thk.
N2B	1	4"	STEAM INLET	300#	RFWN	8"	SCH.80	2.75"widex0.5"thk.
N3	1	3/4"	INTERMITTENT BLOWDOWN	300#	RFWN	8"	SCH.160	---
N4A	1	8"	STEAM OUTLET NOZZLE	300#	RFWN	8"	SCH.80	3.69"widex0.63"thk.
N4B	1	2"	STEAM OUTLET	300#	RFWN	DWG.	SCH.160	---
N5A & N5B	2	1 1/2"	RELIEF VALVE (8)	600#	RFWN	8"	SCH.160	---
N6A & N6B	2	3"	LEVEL BRIDLE	300#	RFWN	DWG.	SCH.80	2.0"widex0.5"thk.
N8	1	4"	DOWNCOMER	300#	RFWN	8"	SCH.80	2.75"widex0.5"thk.
N9	1	1/2"	CONTINUOUS BLOWDOWN	300#	RFSW	8"	SCH.160	---
N10	1	3/4"	VENT	300#	RFWN	8"	SCH.160	---
N11	1	1/2"	PRESSURE GAUGE	300#	RFSW	8"	SCH.160	---
N12	1	1/2"	PRESSURE TRANSMITTER	300#	RFSW	8"	SCH.160	---
N13A/B	2	1"	LG CONN.	300#	RFSW	--	SCH.160	---
N14A/B	2	1"	LT CONN.	300#	RFSW	--	SCH.160	---
N15A/B	2	1"	LS CONN.	300#	RFSW	--	SCH.160	---



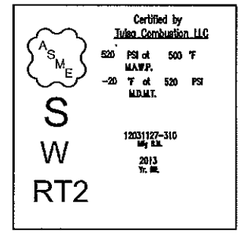
SECTION VIEW "A-A"
(TRUE ORIENTATION)



SIDE ELEVATION



RIGHT END VIEW
(TRUE ORIENTATION)



CODE NAME PLATE

LOADS:
TOTAL DRY LOAD : 4.5 KIPS
TOTAL OPERATING LOAD : 7.8 KIPS

DWG. NO.	REFERENCE DRAWING	NO.	REVISION	DR.	CKD.	APPR.
		6	added pipe schedule to nozzle schedule table	mc 6/28/13		RN
		5	rev. head thk. per code-cal., change paint	mc 4/8/13		RN
		4	UPDATE PER COMMENTS	mc 3/1/13		RN
		3	PER CUSTOMER COMMENTS	mc 2/24/13		RN
		8	Revised N5A&N5B flage rating to match PSV	mc 7/29/13		RN
		7	update to match fabrication dwg.	mc 7/18/13		RN

LOW GRADE COAL UP-GRADING PROJECT

CUSTOMER	MHIA		
P.O.	PM33040-V0007		
USER	AMERICAN ECO COAL		
JOB SITE	MOBILE, ALABAMA		
DR. mc	CK. MC	APPR. RN	
DATE: 10/17/12	DATE: 10/17/12	DATE: 10/17/12	

Tulsa Combustion LLC

36" O.D. x 8'-0" S/S
HORIZONTAL MP STEAM DRUM
V-301

SCALE: NONE
REV. 8
DWG. NO: 12-03-1127-310