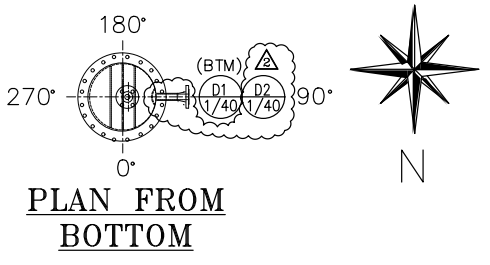
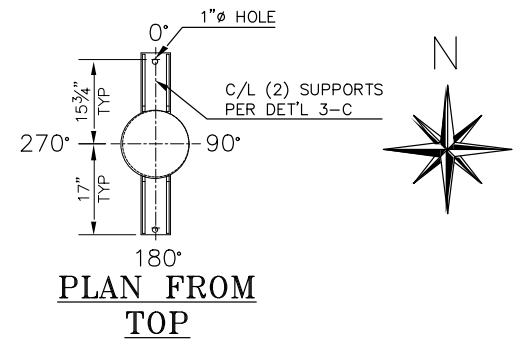
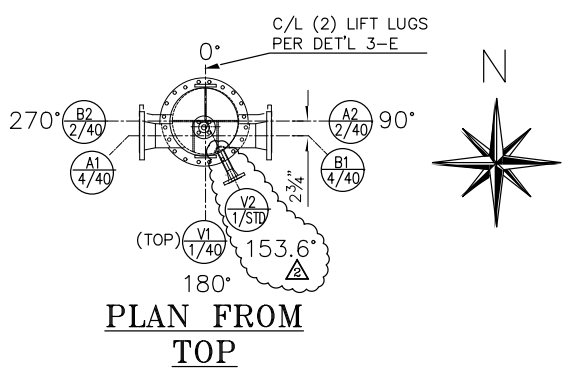


**NOZZLE SCHEDULE**

MARK	NOZZLE SIZE	SCH	THK	WELD HT.	A	B	C	FLANGE PRES	FLANGE TYPE	FLANGE FACE	REPAD WIDE	REPAD THK	DETAIL	SERVICE
A1	4"	40	.237	3/16"				150	WN	RF			3-A	RAW ACH INLET
A2	2"	40	.154	3/16"				150	WN	RF			3-A	STAB ACH INLET
B1	4"	40	.237	3/16"				150	WN	RF			3-A	RAW ACH OUTLET
B2	2"	40	.154	3/16"				150	WN	RF			3-A	STAB ACH INLET
D1	1"	40	.133	3/16"				150	WN	RF			3-A	TUBESIDE DRAIN
D2	1"	40	.133	3/16"				150	WN	RF			3-A	SHELLSIDE DRAIN
V1	1"	40	.133	3/16"				150	WN	RF			3-A	TUBESIDE VENT
V2	1"	40	.133	3/16"				150	WN	RF			3-A	SHELLSIDE VENT

- NOTES**
- ALL BOLT HOLES SHALL STRADDLE VESSEL MAJOR C/L. UNLESS SPECIFIED OTHERWISE.
  - ALL S/S. WELDS PER AHE-800 & 807.
  - ALL DIMENSIONS ARE FROM GASKET FACES. UNLESS SPECIFIED OTHERWISE.
  - TUBE TO TUBESHEET JOINT TO BE DOUBLE GROOVED, SEAL WELDED & EXPANDED. WITH 1/16" TUBE PROJECTION. UNLESS SPECIFIED OTHERWISE.
  - ORIENTATION PER PLAN/END VIEW (RESP.) UNLESS SPECIFIED OTHERWISE.
  - PROTECTIVE COVERS TO BE PROVIDED FOR ALL NOZZLE FLANGES PRIOR TO SHIPPING.



**MATERIAL SPECIFICATIONS ASME**

	SHELL SIDE	TUBE SIDE
SHELL	SA312-316L SMLS	SA312-316L SMLS
HEADS		SA403-316L
SUPPORTS	SA240-304L	
FLANGES	SA182F-316L	SA182F-316L
PIPE	SA312-316L SMLS	SA312-316L SMLS
TUBES		SA213-316L SMLS
TUBE SHEETS		SA182F-316L
BOLTS/NUTS	SA193-B7/SA194-2H (HDC)	
GASKETS	GARLOCK 3500 1/8" T	
BODY FLG.	SA240-316L	SA182F-316L
BAFFLE / TUBE SUPP	SA240-316L	SA240-316L
FITTINGS	SA182F-316L	

**DESIGN DATA**

DESCRIPTION	SHELL	TUBE
DESIGN CODE	ASME SEC. VIII, DIV. 1 2004 ED. 2005 AD.	
DESIGN PRESSURE	INTERNAL - PSIG	150
	EXTERNAL - PSIG	--
DESIGN TEMPERATURE	INTERNAL - °F	212
	EXTERNAL - °F	212
MAMP	212/212F	150
CORR. ALLOW.		0
HYDRO. PRESS. PSIG.		195
WELD PROCEDURE		SEE NOTE 2
RADIOGRAPHY PER CODE		SEE DET'L 3-B
VESEL WEIGHT - DRY: 1,637 lbs.; FULL OF WATER: 2,523 lbs.		
HEAT TREATMENT		NOT REQUIRED
INSULATION		2" FOAMGLASS

**FABRICATION DRAWING**

CERTIFIED BY  
ALABAMA HEAT EXCHANGERS, INC.

RT-1

SHELL	150 PSIG @ 212 °F
MAWP TUBES	150 PSIG @ 212 °F
SHELL	-20 °F @ 150 PSIG
MDMT TUBES	-20 °F @ 150 PSIG

MFG. SERIAL NO. AHE-  
YEAR BUILT 2006  
ITEM NO. 3033  
PROJECT NO. C0150.10002.01

CAUTION: The Code required pressures and temperatures marked on the heat exchanger relate to the basic design conditions. The heat exchanger design has been evaluated for specific operating conditions and shall be re-evaluated before it is operated at different operating conditions.

- REVISIONS**
- INITIAL ISSUE
  - REV & REL FOR FAB PER CUST DNG DT 4/20/06
  - NOZ D2 & V2 WAS 3" PER CUST DNG DT 4/26/06

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ALABAMA HEAT EXCHANGERS, INC.  
MOBILE, ALABAMA

DEGUSSA CORPORATION  
ACH COOLER  
ITEM NO. 3033

CUST. ORDER NO.	JOB NO.	DRAWING NO.
4500163851	6501-A	ES01A061
DRAWN BY J.C.LIGHTCAP	DATE	SHT 1 OF 3
APPVD BY	DATE	SCALE 1/2"=1'-0"

C/L M/S/SHOR IPT C WELD SERV PURCH