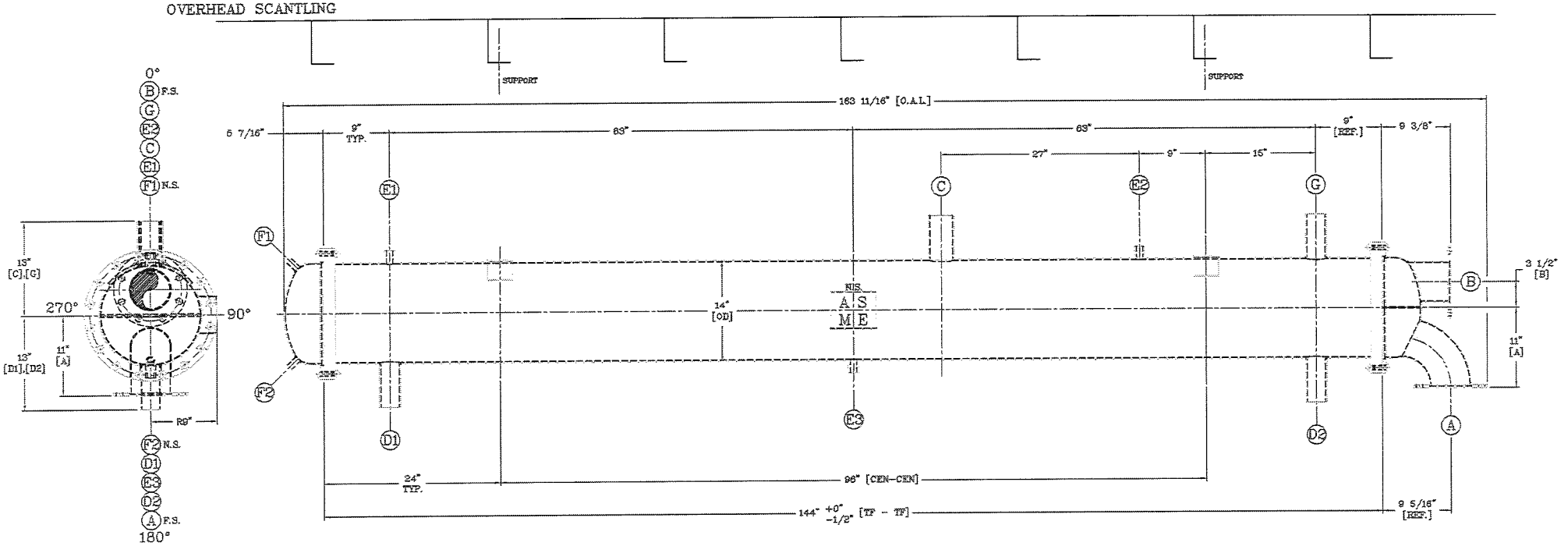
SCANTLINGS SHOWN FOR ILLUSTRATION ONLY

OVERHEAD SCANTLING



CORRECTIONS:
POS. C; MOVED 12" TOWARDS WATER CONNECTIONS.
WELD PADS MOVED 4" AWAY FROM WATER CONNECTIONS.
TO LINE UP WITH OVERHEAD SCANTLINGS.

APPROVED
By Kjeld Hansen at 3:02 pm, Jun 22, 2020

ABS

CONSTRUCTION NOTES

1. ALL FLANGE BOLT HOLES TO STRADDLE NATURAL CENTERLINES OF VESSELS OR NOZZLES (AS APPLICABLE) UNLESS OTHERWISE NOTED.
2. ALL SHARP EDGES TO BE GROUND SMOOTH.
3. ROUND AND LONG SEAM ALIGNMENT TOLERANCE IS 1/4t UP TO 1/2" THK SHELLS.
4. INSIDE OF VESSEL TO BE FREE OF SLAG, SCALE, AND RUST.
5. TOLERANCE FOR ALL PIPE STUB PROJECTIONS IS ±1 1/2" UNLESS OTHERWISE NOTED.
6. TUBE TO TUBESHEET JOINT IS SEAL WELDED.
7. SANDBLAST UNIT PRIOR TO PAINT.
8. PAINT: TWO (2) COAT STD. SHOP PRIMER, EXCEPT TITANIUM PARTS.
9. TUBESIDE CODE EXEMPT, TUBESIDE TEST @ 25 PSIG.
10. ASME PNEUMATIC TEST PRESSURE: 358 PSIG.
    ABS TEST PRESSURE: 488 PSIG.

SCHEDULE OF OPENINGS

ITEM	QTY	SIZE	RATING	FACE	TYPE	NECK O.D.	NECK THK	NECK MATERIAL	FLNG MATERIAL	PROJ.	SERVICE
P											
N											
M											
L											
K											
J											
H											TAP BOLTS W/NUTS
G	1	2 1/2"	3/40	BW	PIPE	2.875"	0.203"	SA106B		6"	TS RETURN
F	2	1/2"	3000#	NPT	F-CPLG				SB381-F2		VENT/DRAIN
E	3	3/4"	3000#	NPT	F-CPLG				SA105		VENT/RELIEF/DRAIN
D	2	2 1/2"	3/40	BW	PIPE	2.875"	0.203"	SA106B		6"	SHELLSIDE OUTLET
C	1	3"	3/40	BW	PIPE	3.500"	0.216"	SA106B		6"	SHELLSIDE INLET
B	1	6"	150#	FF	SO	6.563"	0.134"	SB563-2	SB265-1	SEE DWG.	TUBESHEET OUTLET
A	1	5"	150#	FF	SO	5.563"	0.134"	SB563-2	SB265-1	SEE DWG.	TUBESHEET INLET

MATERIALS OF CONSTRUCTION

PART	MATERIAL
TAP BOLTS W/NUTS	SB304
GASKETS	NEOPRENE
FIX/EB ED BONNET	SB265-1
GIECH FLANGES	SB265-1
RX SHELL	SA537B-KDW
TUBE SUPPORTS	A1011
CLAD TUBESHEETS	SB265-1/SA516-70
TUBES	SB338-2

THERMAL DESIGN SPECIFICATIONS

CAPACITY (Btu/Hr): 2,720,000

SIDE	MEDIUM	FLOW	IN °F	OUT °F
SHELL	AMMONIA	4322 lb/h	75	75
TUBE	SEA WATER	795 GPM	60	67

REV	DESCRIPTION	BY	CHKD	DATE
A	REL. FOR APPROVAL	U.K.	F.I.	10/06/20

DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED

MECHANICAL DESIGN SPECIFICATIONS

DESIGN AND CONSTRUCTION IN ACCORDANCE WITH SEC. VIII, DIV. 1 ASME CODE FOR PRESSURE VESSELS, 2019 EDITION

DESIGN	SHELL SIDE	TUBE SIDE
PRESSURE [PSIG]	325	NOTE 9
TEMP. [°F]	0/300	
CORR. ALLOW.	0	
STRESS RELIEF	NONE	
RADIOGRAPH	NONE	
TEST PRESSURE	NOTE 10	
TEST FLUID	DRY N2	
NDT	PT, CERTIFICATE & SEALED	
MDMT CLAUSE	[illegible]	

TEMA Requirements: ☐C ☐R ☐B ☒NONE
TEMA TYPE: BEM

YES
CERTIFIED BY: ISOTHERM, INC.
Arlington, Texas

SHELL MAWP	325	PSI at	300	°F
TUBE MAWP		PSI at		°F
SHELL MDMT	0	°F at	325	PSI
TUBE MDMT		°F at		PSI

Serial Number	Model	Year Built
20050X	ZC-1412D	2020

ISOTHERM, INC.
ARLINGTON, TEXAS 76001
MANUFACTURER OF HEAT TRANSFER AND REFRIGERATION EQUIPMENT
TEL.: (817)472-9822 FAX: (817)472-5878

ISOTHERM, INC.
MANUFACTURER OF HEAT TRANSFER AND REFRIGERATION EQUIPMENT
7401 COMMERCIAL BLVD E • ARLINGTON, TEXAS 76001

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TITLE: SHELL & TUBE REFRIGERANT CONDENSER			
CUSTOMER: HIGHLAND REFRIGERATION			TOLERANCES
P.O. No.: 73482	MODEL No.: ZC-1412D		FRACTIONAL ± 1/8
TAG No.:	SERIAL No.: 20050X		DECIMAL ± 0.010
DRAWN BY:	CHK'D BY:	APP'VD BY:	ANGULAR ± 1°
QUOTE: H20-158	SCALE: 1 : 13		FINISH: ✓
U.K.	F.I.	A.A.	DRAWING No.: 20032A
EMPTY WEIGHT [lbs.]: 900			REV: A