



 KOCH HEAT TRANSFER COMPANY LP	
P.O. BOX 40082 12602 FM 529 HOUSTON, TEXAS, USA 77041	PH. NO.: (713) 466-3535 FAX. NO.: (713) 466-3701 http://www.kochheattransfer.com
Customer: TRYER PROCESS EQUIPMENT LTD. P.O. No.: 08-008-003 Model No: 12276-MTB-AAJ KHT Contract No.: 911403-X1-08 No. of Exchangers This Dwg.: 3 Project Title: - Project Location: WICHITA FALLS, TX. Customer Job No.: - Service: COLD GLYCEROL/GLYCEROL EXCHANGER Item No.: E-101 A/B/C Drawn By: MS Date: 10-24-08 0 & 1 Bulletin No.: 1200/5 Checked By: MS	
Drawing Number: C- 11403-08-4	Rev. 0

NOTES

- Item Number, Shipping Weight and Purchase Order Number to be paint stenciled on outside of shellpipe before shipment.
- Coat gasket surfaces with grease and protect with wood, metal, or plastic covers before shipment.
- Strength weld Tube to Tubesheet joints. Liquid Penetrant Test (PT) Tube to Tubesheet welds before hydro.
- Wire wrapped cores in tubes.
- After assembly and final hydrotest, non silica blast all external carbon steel surfaces (including exposed fasteners) per SSPC SP10 and paint as follows:
One (1) coat, 3-5 mils DFT, CARBOLINE CARBO-ZINC 11.
NOTE: Paint/Primer subject to damage during shipping and handling.
Touchup (if required) to be provided by others at jobsite.

NB			
CERTIFIED BY: KOCH HEAT TRANSFER COMPANY, LP			
SHELLSIDE		TUBESIDE	
MAWP	150 PSI	MAWP	150 PSI
AT	500 °F	AT	500 °F
EWAMP	X PSI	EWAMP	X PSI
AT	X °F	AT	X °F
MDMT	-20 °F	MDMT	-100 °F
AT	150 PSI	AT	150 PSI
SERIAL NO. **		YEAR BUILT 2009	
P.O. 08-008-003		ITEM NO. *	
USER TRYER PROCESS EQUIPMENT LTD.			
SURFACE: 1298.3 SQ. FT.			
 KOCH HEAT TRANSFER COMPANY LP HOUSTON, TEXAS, USA			

* Item No.	** SERIAL NO.
E-101 A	11403-08-4-01
E-101 B	11403-08-4-02
E-101 C	11403-08-4-03

CERTIFIED
FINAL

Item No.	SERIAL NO.
E-101 A	11403-08-4-01
E-101 B	11403-08-4-02
E-101 C	11403-08-4-03

 **KOCH**
 HEAT TRANSFER COMPANY LP

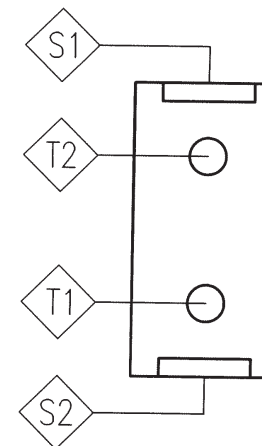
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 Date: 10-24-08 O & I Bulletin No.: 1200/4

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N- 11403-08-4	0

This drawing is not without consideration other than the borrower-
 are not to be used for any purpose other than that for which it is specifically furnished. The borrower
 is responsible for the accuracy of the information shown in the drawing is covered by one or more patents or
 patent applications.

RECOMMENDED ARRANGEMENT



NOZZLE

NOZ.	FLUIDS
S1	LEAN GLYCEROL INLET
S2	LEAN GLYCEROL OUTLET
T1	RICH GLYCEROL INLET
T2	RICH GLYCEROL OUTLET

Mark	Date	Revision Description	By	Chk.
△				
△				
△				
△				
△				

MAT'L. HEAT NUMBERS	REVISION NO.	BILL OF MATERIAL						
ITEM NO	DESCRIPTION	Pcs. per Exch.	Total Pcs.	KHT Drawing No. (Proprietary - Not incl. in Customer Pkg.)	KHT Mat'l. Code	Special Mat'l. Require.	KHT Coat. Code	MATERIAL DESCRIPTION
1	Shell : 12" S/WT SMLS PIPE (24"-7 7/8")	2	6	A50048-011	0053		00	SA-106-B SMLS. AW. (K)
2								
3								
4								
5	Bonnet Flange : 12" BN1 BNT FLG	1	3	A12226-000	0018		00	SA-516 GR. 70 NORMALIZED
6								
7	Inlet Flange : 3" 150# RFWN FLG S/80	1	3	A64012-041	0084		00	SA-105
8	Outlet Flange : 3" 150# RFWN FLG S/80	1	3	A64012-041	0084		00	SA-105
9								
10								
11	Inlet Nozzle : 3" S/80 SMLS PIPE (8" LG.)	1	3	A50012-006	0053		00	SA-106-B SMLS. AW. (K)
12	Outlet Nozzle : 3" S/80 SMLS PIPE (8" LG.)	1	3	A50012-006	0053		00	SA-106-B SMLS. AW. (K)
13								
14								
15								
16	Coupling: 3/4"-3000# THREADED	2	6	A77031-006	0084		00	SA-105
17	Hex Head Plug: 3/4"	2	6	A77011-006	0084		00	SA-105
18								
19								
20								
21								
22								
23								
24								
25	Shell Flange : 12" SHELL FLG(SS-1)	2	6	A16028-000	0018		00	SA-516 GR. 70 NORMALIZED
26								
27								
28								
29								
30								
31	Supports : 12" SHELL BRKT	2	6	A15934-001	0000		00	ANSI 1010-1030
32								
33								
34								
35	Name Plate Bracket	1	3	A41050-000	0000		00	ANSI 1010-1030
36								
37	Lifting Lugs-Parts	3	9	A40069-000	0406		00	SA-240-316L
38								
39	Tubes : 3/4" OD X 16 BWG AW (136 U-Tubes)	1	3	BS-11403-08-4	0457		00	SA-249 TP-316L ERW AW.
40								
41								
42								
43								
44	Tubesheets : 12"ZR TBSHT.	2	6	A36871-002	0481		00	SA-182-316L
45								
46								
47								
48								
49								
50								
51								
52	Segmental Baffles : 12" MT BAFFLE	94	282	A29805-000	0000		00	ANSI 1010-1030
53								
54								
55	Peripheral Ring : 12" (LF-1) S/WT FLAT RING	2	6	A39363-001	0000		00	ANSI 1010-1030
56								
57								
58								
59								
60								
61								
62	Weld Cap: 12" S/10	2	6	A55048-001	0814		00	SA-403 WP-W 316L
63								
64	Pipe Stub : 3" S/40 X 4" LG.	2	6	A50012-004	0470		00	SA-312 TP-316L ERW AW.
65								
66								
67								
68								
69	Tubeside Ansi Flg : 3" 150# RFWN S/40	2	6	A64012-021	0481	①	00	SA-182 F-316L
70								
71								
72								
73	Tie Rods : 3/8" ROUND ROD (25'-0")	4	12	A46006-000	0004		00	A-36 STRUCTURAL
74	Seal Strip: 1/4" THK. x 1/2" WIDE x 25'-0" LG.	4	12	A47008-004	0004		00	A-36 STRUCTURAL
75								

☐ Domestic Material Only

☒ Foreign Material Acceptable

☐ Foreign Material w/ Customer approval only

☐ Acceptable Manufacturers list (AML)

SPECIAL MATERIAL REQUIREMENTS

NOTES

① DUAL CERTIFIED 316/316L SS.

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76								
77								
78								
79								
80	Return Bonnet : 12" BN-1 BNT.	1	3	A11186-000	0096		00	SA-352-LCB.
81								
82	Bonnet Gasket : 12" BONNET GASKET	1	3	A28115-000	0744		00	GRAFOIL STYLE GHR OR EQUAL
83	Compression Flanges : 12"COMP FLG(SS-1)	2	6	A32032-000	0018		00	SA-516 GR. 70 NORMALIZED
84	Split Flanges : 12"SPLIT FLG(SS-1)	2	6	A33030-001	0018		00	SA-516 GR. 70 NORMALIZED
85	Backing Flanges : 12"LOK-RING FLG(LF1)	2	6	A24143-000	0406		00	SA-240-316L
86	Tube End Flanges : 12" SHELL FLG(SS-1)	2	6	A16028-000	0406		00	SA-240-316L
87								
88								
89								
90	Tube Gasket : 12"SEAL RING-316L SS	2	6	A26040-000	0766		00	316L SS
91	Seal Rings : 12"SEAL RING-IPC 5304	2	6	A26081-000	8602		00	IPC 5304
92	Split Rings (tube) : 12"SPLIT RING(LF-1)	2	6	A25091-000	0470		00	SA-312 TP-316L ERW AW.
93								
94								
95								
96	Name Plate w/ (4) Rivets	1	3		0760		00	316 SS
97								
98	KHT Service Nameplate w/ (4) Rivets	1	3		0760		00	316 SS.
99								
100	Bonnet Studs & Nuts : 3/4" X 7"LG B7 STUD W/2 HN	40	120	A45012-028	0268		06	SA-193 B-7 & SA-194-2H/Zinc Pld.
101	Shell Studs & Nuts : 5/8" X 7"LG B7 STUD W/2 HN	40	120	A45010-028	0268		06	SA-193 B-7 & SA-194-2H/Zinc Pld.
102	Tube Studs & Nuts : 5/8" X 5-1/4"LG B8 STUD W/1 HN	40	120	A45010-021	0489		00	SA-193-B8 CL2 & SA-194-8
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118	Core Assy: 3/8"OD x .035"W x 25'-6" Lg. (A34077-022)	272	816	A17899-000	0766		00	316L SS
119								

F				
E				
D				
C				
B				
A	-	-	-	-
Rev.	Description	Date	By	CK

ITEM NO	DESCRIPTION	Commis. & Startup	Operating	Spares	PRICE EACH
82	Bonnet Gasket : 12" BONNET GASKET-GRAFOIL	1	1	-	-
90	Tube Gasket : 12"SEAL RING-316L SS	2	2	-	-
91	Seal Rings : 12"SEAL RING-IPC 5304	2	2	-	-
100	Bonnet Studs & Nuts : 3/4" X 7"LG B7 STUD W/2 HN	-	-	-	-
101	Shell Studs & Nuts : 5/8" X 7"LG B7 STUD W/2 HN	-	-	-	-
102	Tube Studs & Nuts : 5/8" X 5-1/4"LG B8 STUD W/1 HN	-	-	-	-

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