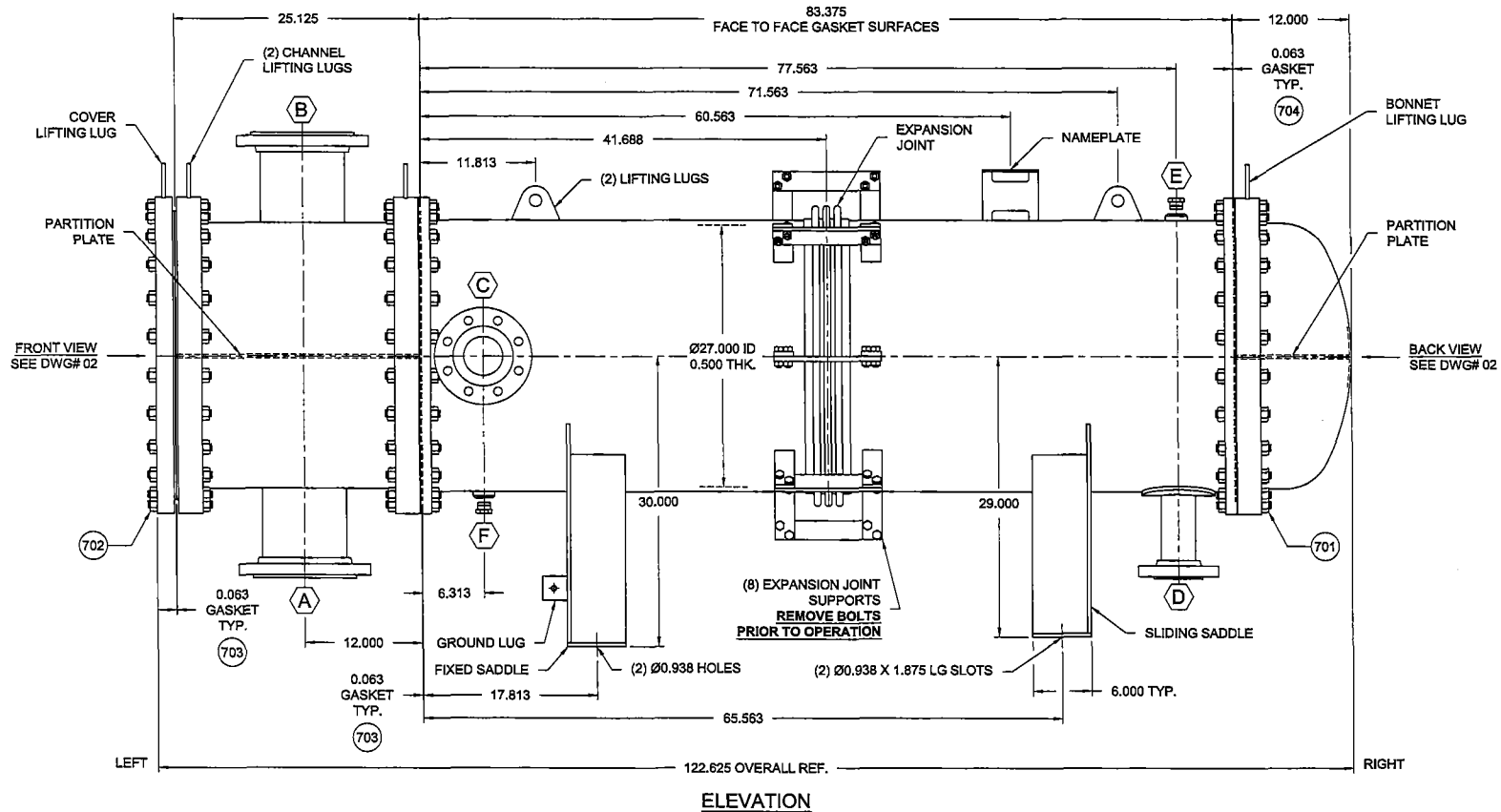


Recovery Column Calandria (Spare) (E-3717) 6376-N91926



- NOTES:**
- ALL BOLT HOLES TO STRADDLE CENTERLINES UNLESS OTHERWISE SPECIFIED.
 - ALL GASKET SURFACES TO BE 125-250 μ RA FINISH.
 - HYDRO TEST PER TITAN TMF-HYD-001.
 - DYE PENETRANT TEST ALL ALLOY C-276 WELDS PER TMF-PT-001.
 - HELIUM LEAK TEST ALL TUBE WELDS PER QUA-HLT-001.
 - BLAST ALL EXPOSED ALLOY C-276 AND SS 316/316L SURFACES (EXCEPT WELDS) TO A UNIFORM MATTE FINISH.
 - BLAST AND PAINT ALL EXPOSED CARBON STEEL SURFACES WITH THERMALINE 450 EPOXY PAINT, COLOR GREY.
 - PROVIDE PROTECTIVE COVERS TO ALL FLANGE FACES FOR SHIPMENT.
 - ALL MATERIALS ORIGIN TO BE FROM USA, WEST EUROPE, CANADA OR JAPAN.

NOZZLE SCHEDULE					
MK	SIZE	RATING	TYPE	SERVICE	REMARK
A	8"	150#	LAP JOINT	TUBESIDE INLET	—
B	8"	150#	LAP JOINT	TUBESIDE OUTLET	—
C	4"	300#	LAP JOINT	SHELLSIDE INLET	W/ REPAD
D	3"	300#	LAP JOINT	SHELLSIDE OUTLET	W/ REPAD
E	1" NPT	6000#	HALF COUPLING	VENT	WITH PLUG
F	1" NPT	6000#	HALF COUPLING	DRAIN	WITH PLUG

RECOMMENDED BODY FLANGE BOLT TORQUE

87 FT-LB	118 Nm
----------	--------

NOTE: TORQUE VALUES CAN VARY GREATLY DEPENDING ON THE LUBRICANT USED. THE ABOVE VALUES ARE MAX. RECOMMENDED VALUES FOR USING MOLYBDENUM DISULFIDE LUBRICANT.

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE

MACHINE DECIMAL: 0.031

FRACTION: 1/16

ANGLE: 1/2"

GENERAL TEMA FIG. F-1

TEMA FIG. F-2



REV	DESCRIPTION	BY	DATE	APRVD
B	REVISED PER CUSTOMER COMMENTS	GLB	06/17/14	MC
0	SHOP RELEASE	GLB	06/25/14	MC
1	REVISED PER CUSTOMER COMMENTS	GLB	09/04/14	

WELD PROCEDURES

WPS	MATERIALS	WELD WIRE
CS.1	CARBON STEEL	ER70S-2
SS.1	STAINLESS STEEL 316/316L	ER316L
HS.1	ALLOY C-276 TO SS 316/316L	ERNICMo-4
HC.1	ALLOY C-276	ERNICMo-4
IS.1	ALLOY 625 TO SS 316/316L	ERNICMo-3

DESIGN CONDITIONS

DESIGNED AND STAMPED PER ASME CODE SECTION VIII, DIVISION 1, 2013 EDITION AND TEMA NINTH EDITION

NATIONAL BOARD NUMBER:

		SHELLSIDE	TUBESIDE
DESIGN PRESSURE	PSIG	450 / FV	75 / FV
MAWP	PSIG	450	75
DESIGN TEMPERATURE	°F	608	608
MDMT	°F	-20	-20
CORROSION ALLOWANCE	INCH	0.0	0.0
RADIOGRAPHY		SPOT	SPOT
JOINT EFFICIENCY		0.85	0.85
HEAT TREATMENT		NONE	NONE
HYDRO TEST PRESSURE	PSIG	621	107
WEIGHT EMPTY	LB		-5294
WEIGHT FULL OF WATER	LB		-7492
IMPACT TESTING NOT REQUIRED PER UHA-51, UNF-65			

MATERIALS OF CONSTRUCTION

	SHELLSIDE	TUBESIDE
TUBES (524) 0.750 OD X 0.065 AW X 83.750 LONG	SB-628 N10276	
SHELL / CHANNEL & BONNET	SA-240-316/316L	SB-575 N10276
CHANNEL COVER / LINER	SA-516-70N / SB-575 N10276	
PARTITION PLATES		SB-575 N10276
EXPANSION JOINT	SB-443 N06625	—
TUBESHEETS / BODY FLANGES	SB-575 N10276	SA-516-70N
NOZZLE NECKS	SA-312-TP316/316L	SB-619 N10276
NOZZLE FLANGES	SA-105	SA-105
COUPLINGS	SA-182-F316/316L	—
BAFFLES	SA-240-316/316L	—
SUPPORTS	SA-240-316/316L	—
GASKETS	—	GRAFOIL® GHR
STUDS / NUTS	SA-193-B7 / SA-194-2H (XYLAN COATED)	

ALLOY C-276 HEAT EXCHANGER

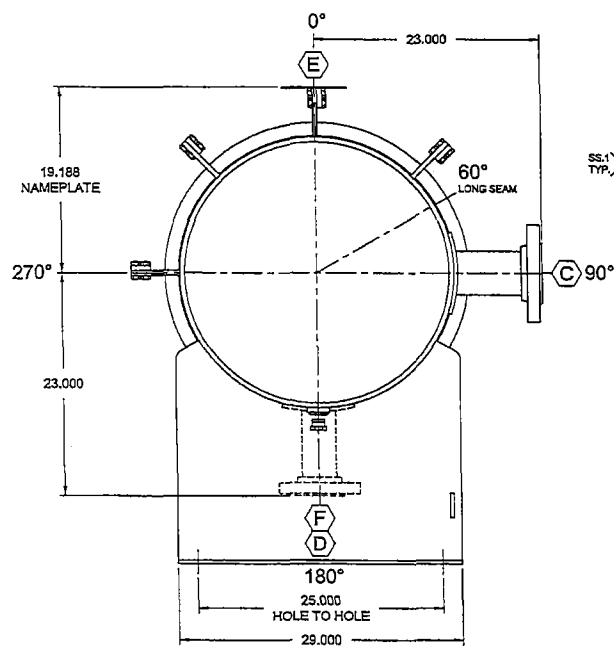
TEMA CLASS	R	4 PASSES	TEMA TYPE	AEM
CUSTOMER	BAYER CROPSCIENCE LP			
LOCATION	INSTITUTE, WV			
MODEL#	HASS-720-28-4-84-AEMH			
CUSTOMER P.O.#	611767654			
CUSTOMER TAG#	E-3717			
TITAN S.O.#	20948-1-1			

TITAN TITAN METAL FABRICATORS
352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.

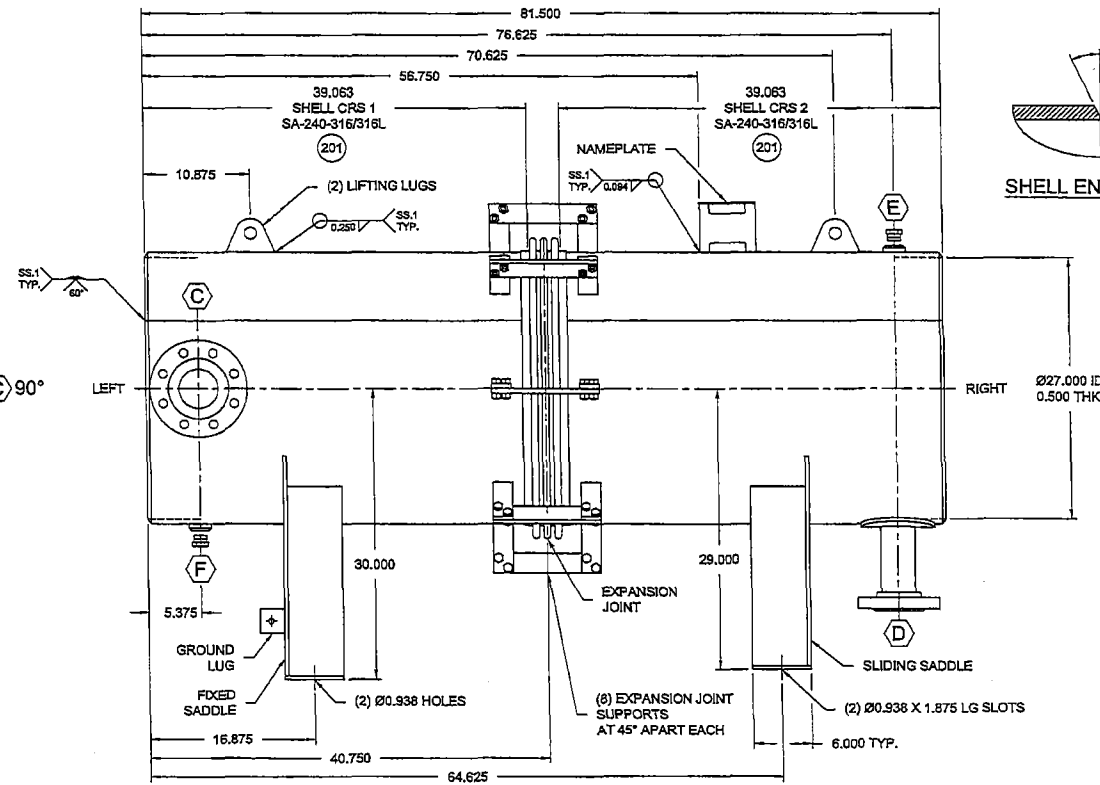
DRAWN	DATE	TITLE
GLB	06/02/14	
CHECKED	DATE	
MC	06/08/14	
APPROVED	DATE	
MC	08/05/14	
SCALE: 1:12	SHEET: 01 of 19	REV: 1

GENERAL ASSEMBLY

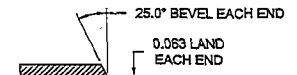
REV	DESCRIPTION	BY	DATE	APRVD
B	REVISED PER CUSTOMER COMMENTS	GLB	08/17/14	MC
0	SHOP RELEASE	GLB	08/25/14	MC
1	ADDED REPAID TO NOZZLE C & D	GLB	09/04/14	



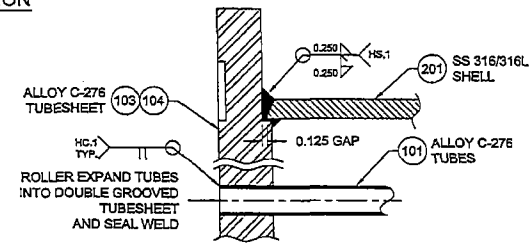
ORIENTATION



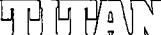
ELEVATION



SHELL END BEVEL DETAIL

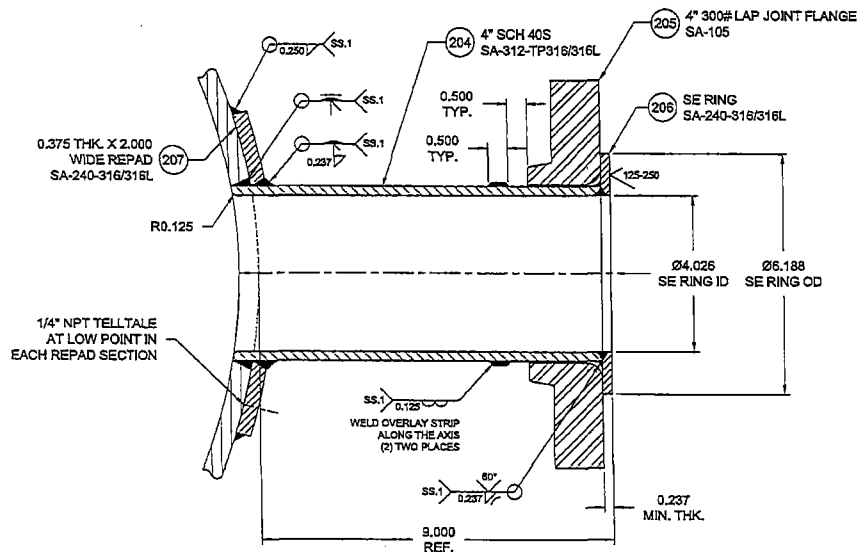


TUBESHEET ASSEMBLY DETAIL
TYPICAL BOTH ENDS

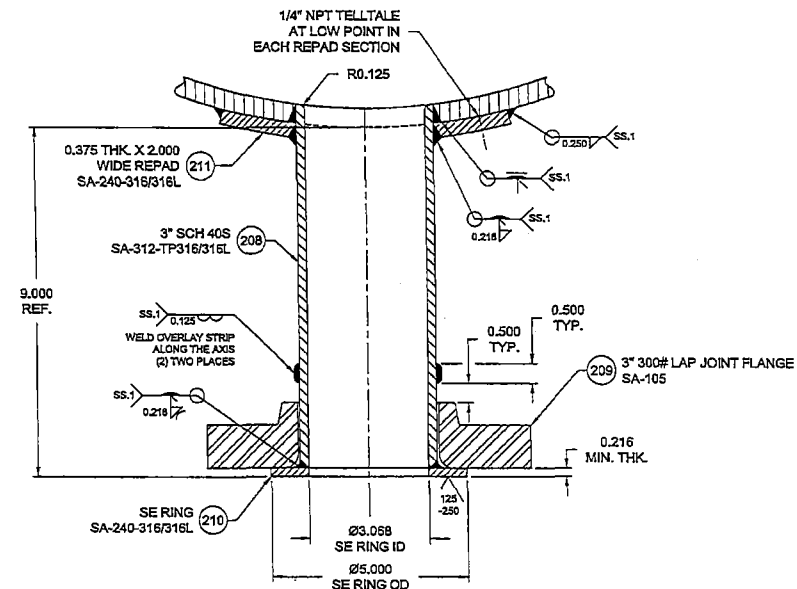
ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER		BAYER CROSCIENCE LP	
		LOCATION		INSTITUTE, WV	
		MODEL#		HASS-720-28-4-84-AEMH	
		CUSTOMER P.O.#		811767854	
		CUSTOMER TAG#		E-3717	
		TITAN S.O.#		20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE				TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"					
 THIRD ANGLE PROJECTION		DRAWN: GLB		DATE: 06/02/14	
		CHECKED: MC		DATE: 06/08/14	
		APPROVED: MC		DATE: 08/05/14	
		SCALE: 1:12		SHEET: 03 OF 19	
		REV: B		REV: 1	

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.

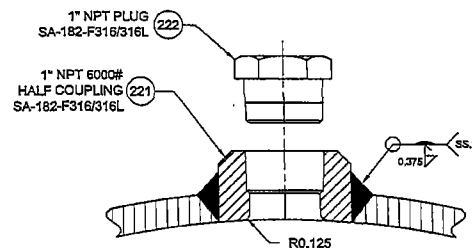
REV	DESCRIPTION	BY	DATE	APRVD
B	REVISED PER CUSTOMER COMMENTS.	GLB	06/17/14	MC
0	SHOP RELEASE	GLB	06/25/14	MC
1	ADDED REPAD TO NOZZLE C & D	GLB	09/04/14	



NOZZLE C



NOZZLE D

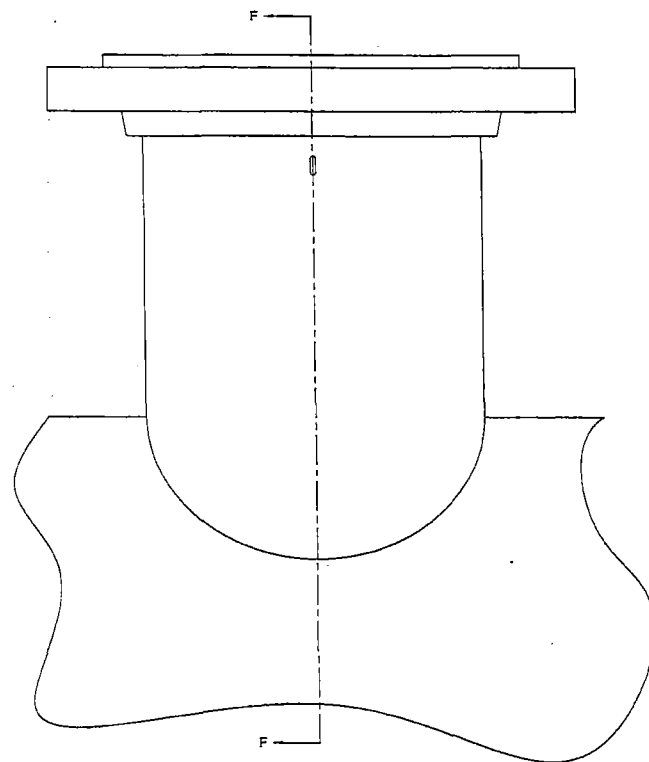


NOZZLE E & F

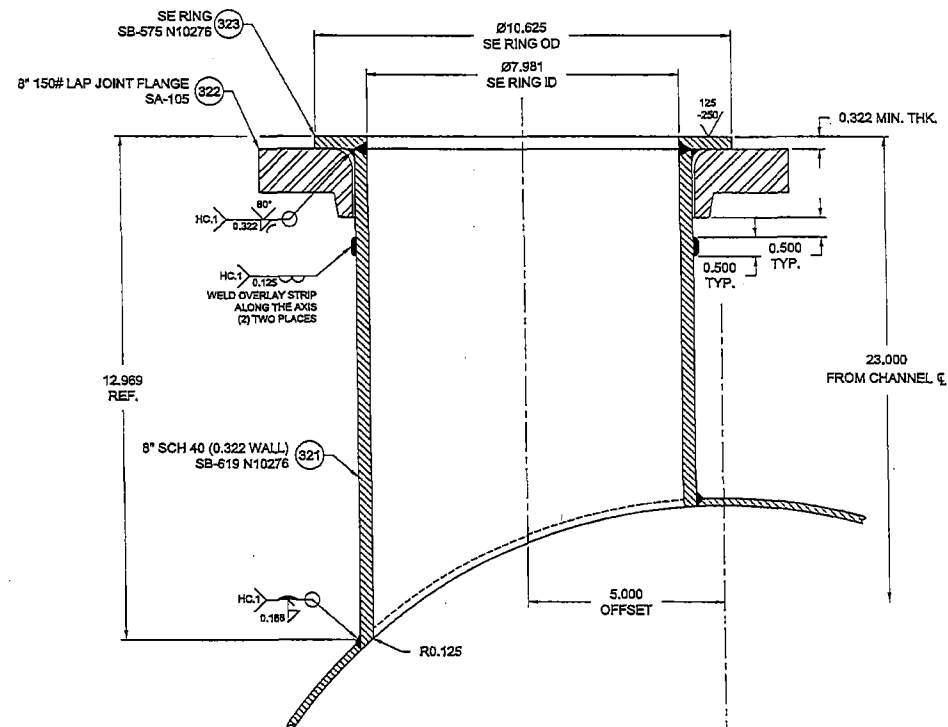
ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROPSOURCE LP LOCATION: INSTITUTE, WV MODEL#: HASS-720-28-4-84-AEMH CUSTOMER P.O.#: 611787654 CUSTOMER TAG#: E-3717 TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"		THIRD ANGLE PROJECTION	
DRAWN: GLB CHECKED: MC APPROVED: MC		DATE: 06/02/14 DATE: 06/05/14 DATE: 06/06/14	
SCALE: VARIES		SIZE: B	
		20948-1-1-04	
		SHEET: 04 of 19	
		REV: 1	

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.

REV	DESCRIPTION	BY	DATE	APRVD
B	REVISED PER CUSTOMER COMMENTS	GLB	08/17/14	MC
0	SHOP RELEASE	GLB	08/25/14	MC
1	REVISED NOZZLE A & B WALL AND SE RINGS THICKNESS	GLB	09/04/14	



NOZZLE A & B

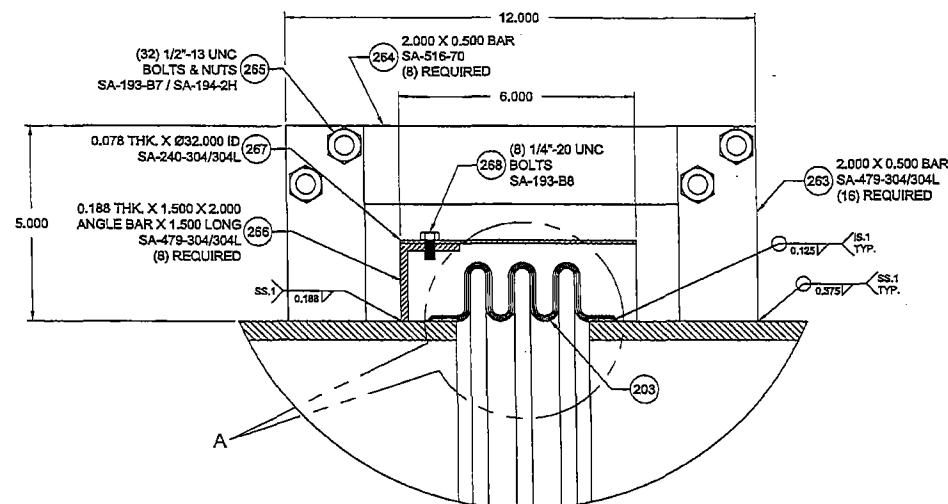


SECTION F-F

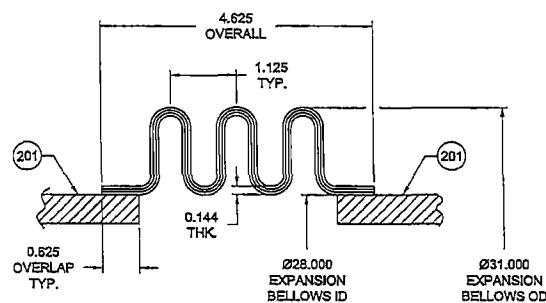
ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER		BAYER CROSCIENCE LP			
		LOCATION		INSTITUTE, WV			
		MODEL#		HASS-720-28-4-84-AEMH			
		CUSTOMER P.O.#		611776754			
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE		CUSTOMER TAG#		E-3717			
		TITAN S.O.#		20948-1-1			
MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"  THIRD ANGLE PROJECTION		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.		CHANNEL NOZZLE DETAILS			
						DRAWN: GLB DATE: 08/02/14 TITLE:	
						CHECKED: MC DATE: 06/08/14	
						APPROVED: MC DATE: 06/08/14	
		SCALE: 1:3		DWG #: 20948-1-1-13			
		SHEET: 13 of 18		DATE: 1			

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.

REV	DESCRIPTION	BY	DATE	APRVD



EXPANSION JOINT SUPPORT DETAIL



BELLOWS
DETAIL A
SB-443 N06625

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)
TOLERANCES ARE NOT ACCUMULATIVE

MACHINE

DECIMAL: 0.031

FRACTION: 1/16

ANGLE: 12°

GENERAL

DECIMAL: 0.125

FRACTION: 1/8

ANGLE: 1°

EXPANSION JOINT DESIGN

DELTA L (JOINT): +0.091 / -0.092 IN

AXIAL SPRING RATE: 23816 LBS/IN

DESIGN CYCLE LIFE: 12534 CYCLES



THIRD ANGLE
PROJECTION

CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-28-4-84-ABMH
CUSTOMER P.O.#	611767654
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

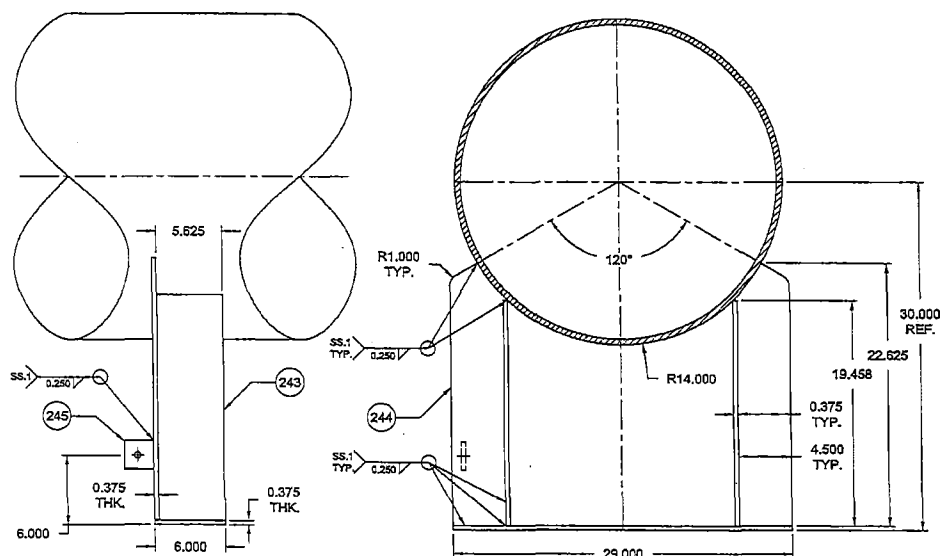
TITAN TITAN METAL FABRICATORS
352 BALBOA CIRCLE, CAMARILLO,
CALIFORNIA, 93012 U.S.A.

DATE:	08/02/14	FILE:	
CHG#:	GLB	DATE:	08/02/14
MC	08/08/14	DATE:	08/08/14
MC	08/08/14	DATE:	08/08/14

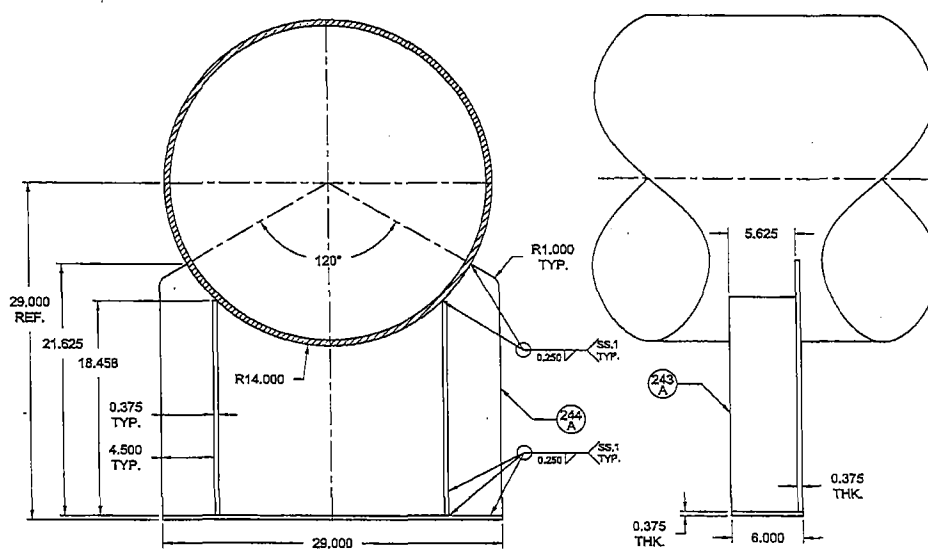
EXPANSION JOINT DETAILS

SCALE:	VARIABLE	SHEET:	20948-1-1-05	05 of 19	REV:	A
--------	----------	--------	--------------	----------	------	---

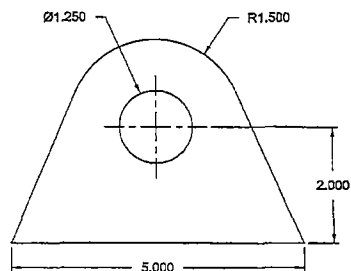
REV	DESCRIPTION	BY	DATE	APRVD



LEFT SADDLE
SA-240-316/316L

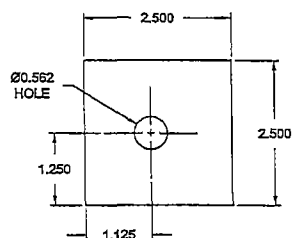
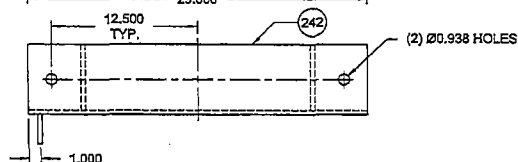


RIGHT SADDLE
SA-240-316/316L



LIFTING LUG
0.375 THK. SA-240-316/316L
(2) REQUIRED

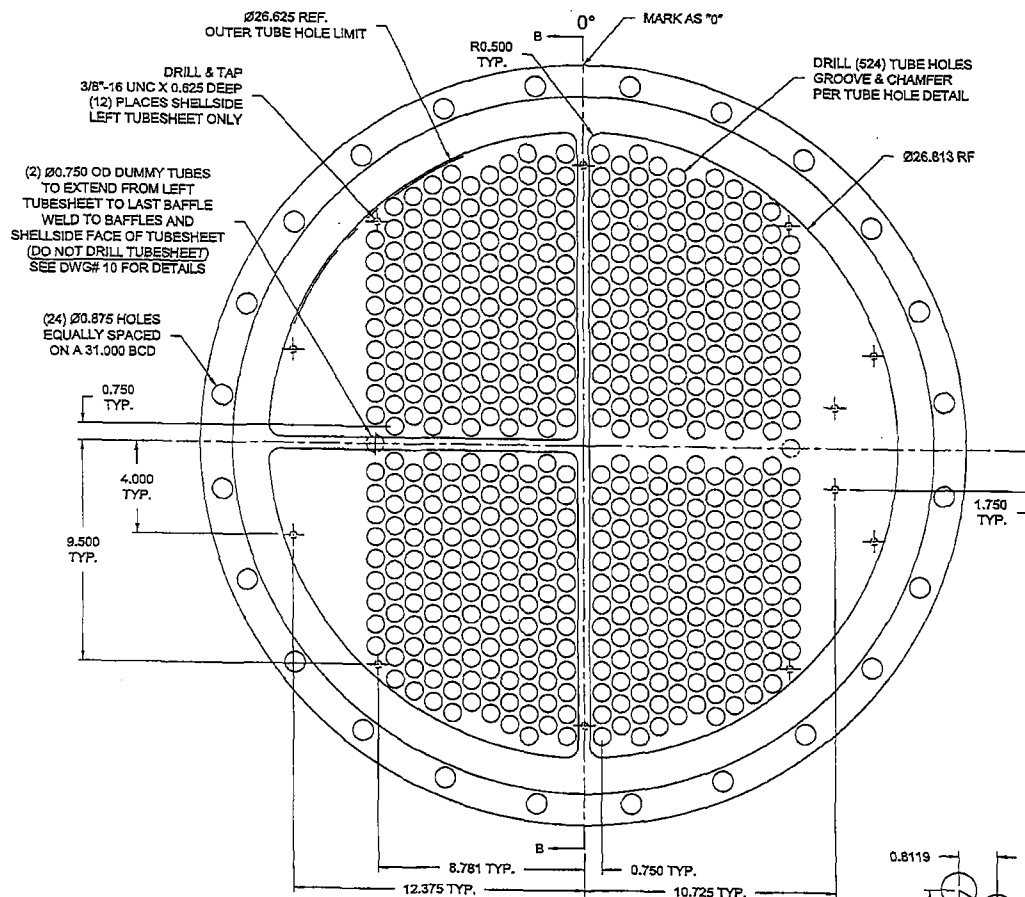
(281)



GROUND LUG
0.375 THK. SA-240-316/316L
(1) REQUIRED

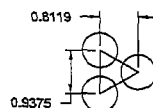
(245)

ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROSCIENCE LP LOCATION: INSTITUTE, WV MODEL#: HASS-720-28-4-84-AEMH CUSTOMER P.O.#: 611767654 CUSTOMER TAG#: E-3715 TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A. SUPPORT DETAIL	
DRAWN: GLB CHECKED: MC APPROVED: MC DATE: 06/02/14 DATE: 06/06/14 DATE: 06/06/14 SCALE: 1:10 SHEET: 8 SIZE: 11x17	DATE: 06/02/14 DATE: 06/06/14 DATE: 06/06/14 SCALE: 1:10 SHEET: 8 SIZE: 11x17	20948-1-1-06 06 of 19 A	20948-1-1-06 06 of 19 A

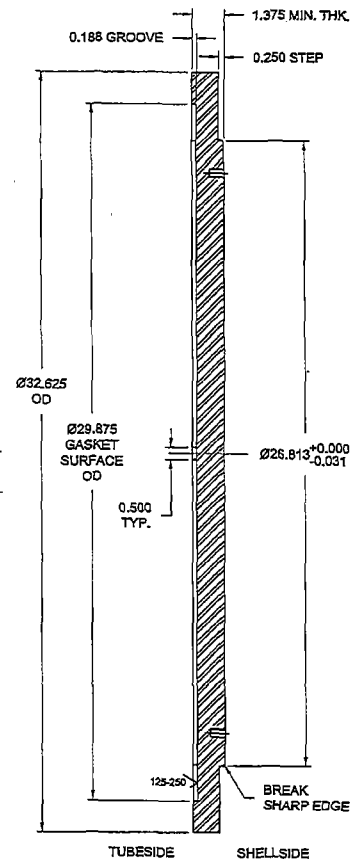


LEFT TUBESHEET
SB-575 N10276
(1) REQUIRED

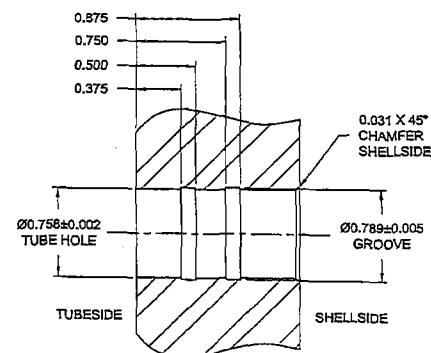
103



TUBE PITCH DETAIL
SCALE 2:1



SECTION B-B



TUBE HOLE & GROOVE DETAIL

REV	DESCRIPTION	BY	DATE	APRVD

CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-28-484-AEMH
CUSTOMER P.O.#	811787654
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)
TOLERANCES ARE NOT ACCUMULATIVE

MACHINE
DECIMAL: 0.001
FRACTION: 1/16
ANGLE: 12°
GENERAL
DECIMAL: 0.125
FRACTION: 1/8
ANGLE: 1°

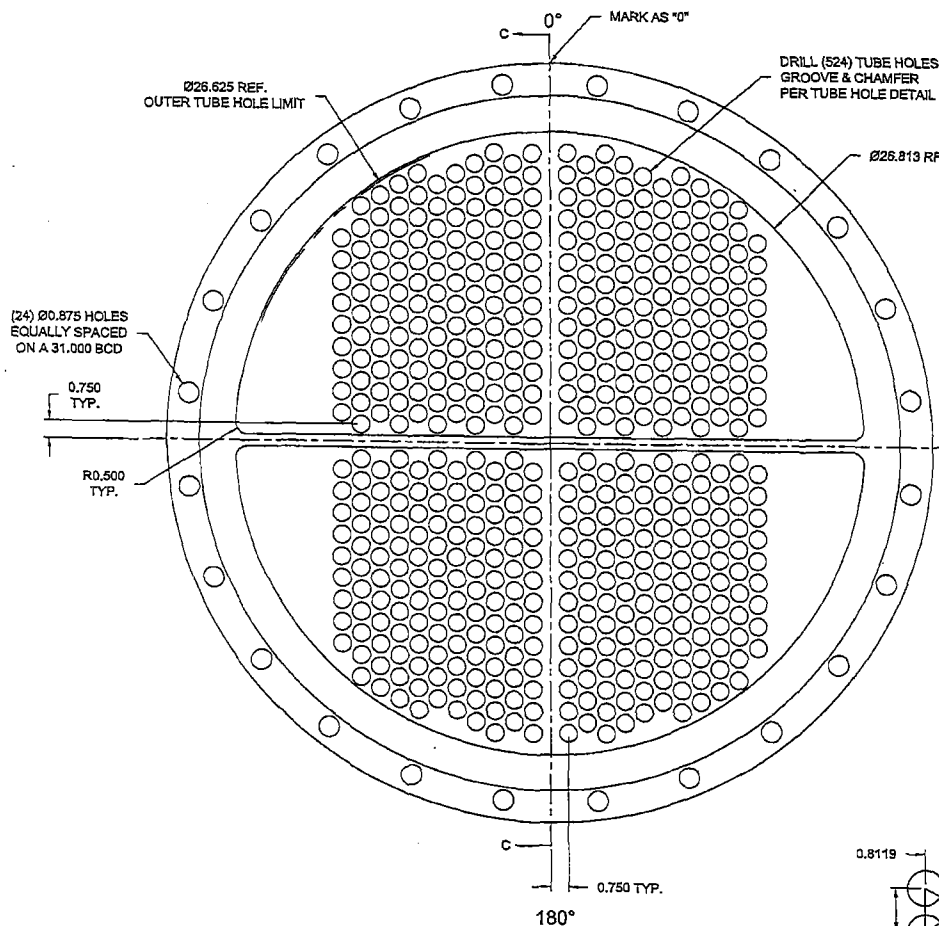


THIRD ANGLE
PROJECTION

TITAN TITAN METAL FABRICATORS
352 BALBOA CIRCLE, CAMARILLO,
CALIFORNIA, 93012 U.S.A.

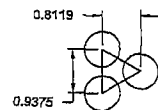
DRWGR	GLB	DATE	06/02/14	TITLE	LEFT TUBESHEET DETAIL
CHECKED	MC	DATE	06/08/14		
APPROVED	MC	DATE	06/08/14		
SCALE	1:1	SIZE	B	DWG NO.	20948-1-1-07
				SHEET	07 of 19
				REV	A

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.

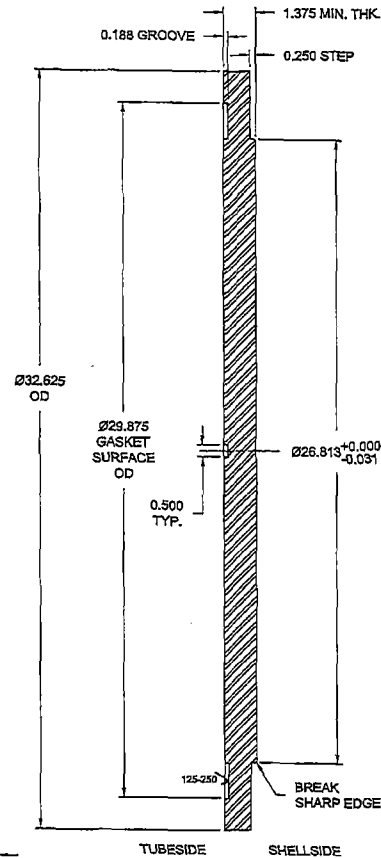


RIGHT TUBESHEET
SB-575 N10276
(1) REQUIRED

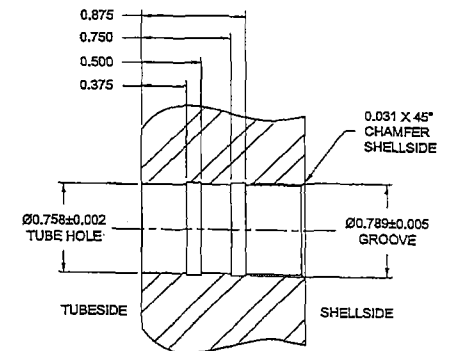
104



TUBE PITCH DETAIL
SCALE 2:1



REV	DESCRIPTION	BY	DATE	APRVD



TUBE HOLE & GROOVE DETAIL

CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-28-484-AMH
CUSTOMER P.O.#	611767654
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

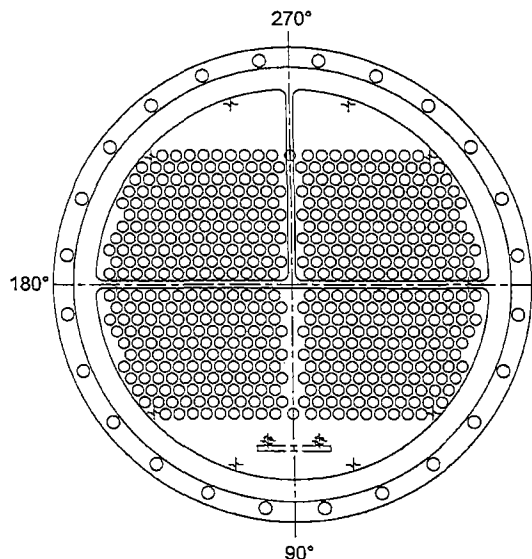
TOLERANCES
(UNLESS OTHERWISE SPECIFIED)
TOLERANCES ARE NOT ACCUMULATIVE

MACHINE
DECIMAL: 0.031
FRACTION: 1/8
ANGLE: 12°
GENERAL
DECIMAL: 0.125
FRACTION: 1/8
ANGLE: 1°

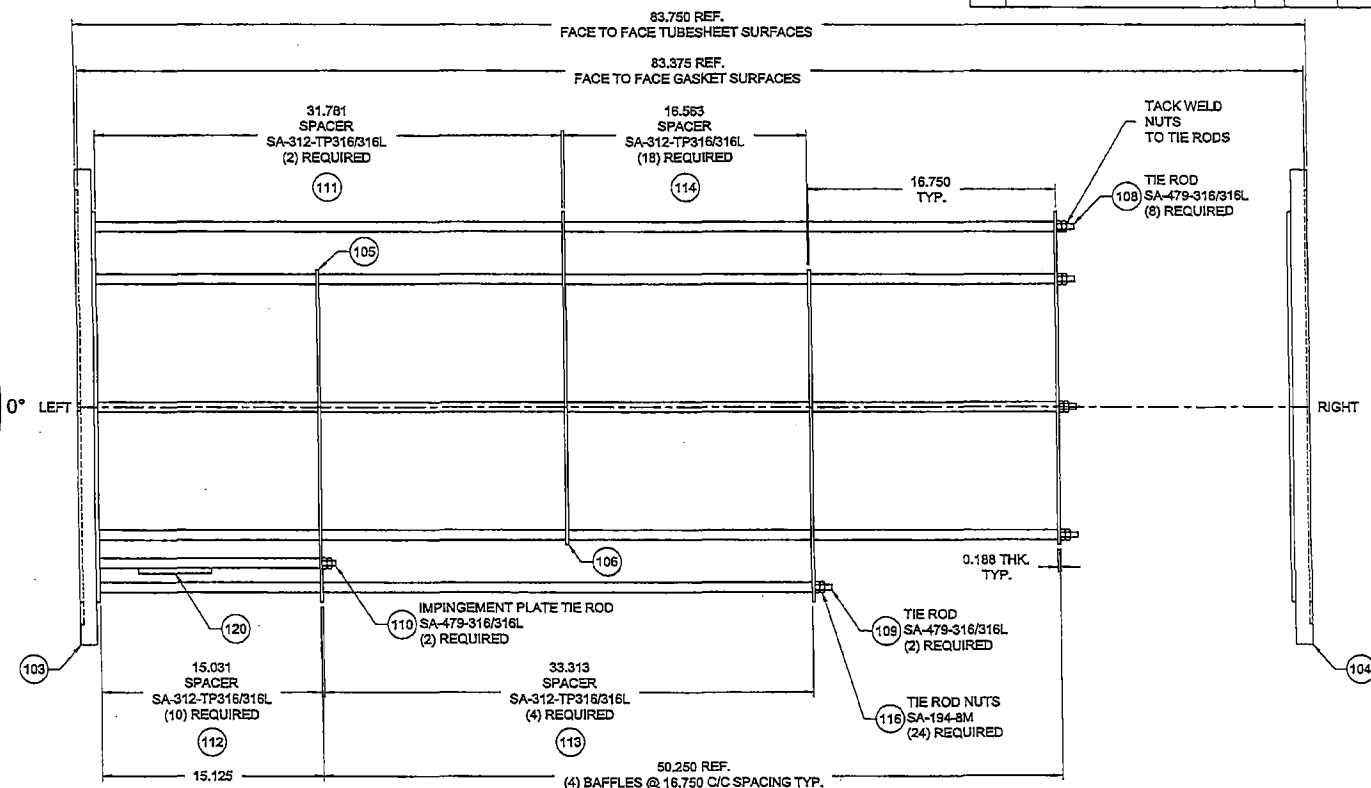
THIRD ANGLE
PROJECTION

DATE	06/02/14	TITLE	RIGHT TUBESHEET DETAIL
DESIGNED BY	MC	CHECKED BY	MC
APPROVED BY	MC	DATE	06/08/14
SCALE	1:1	SHEET	20948-1-1-08
OF	19	REV	A

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.



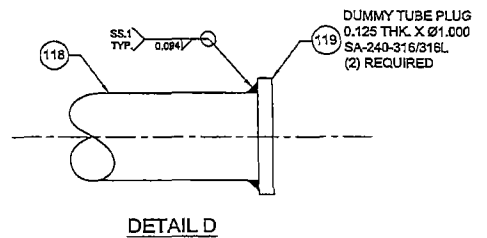
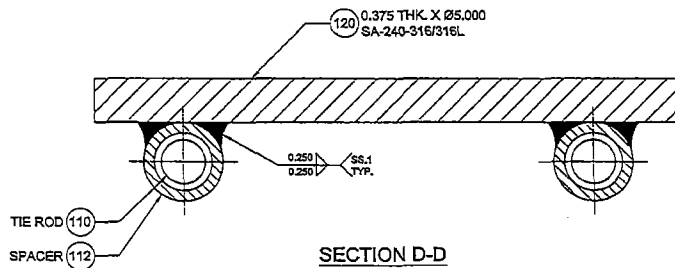
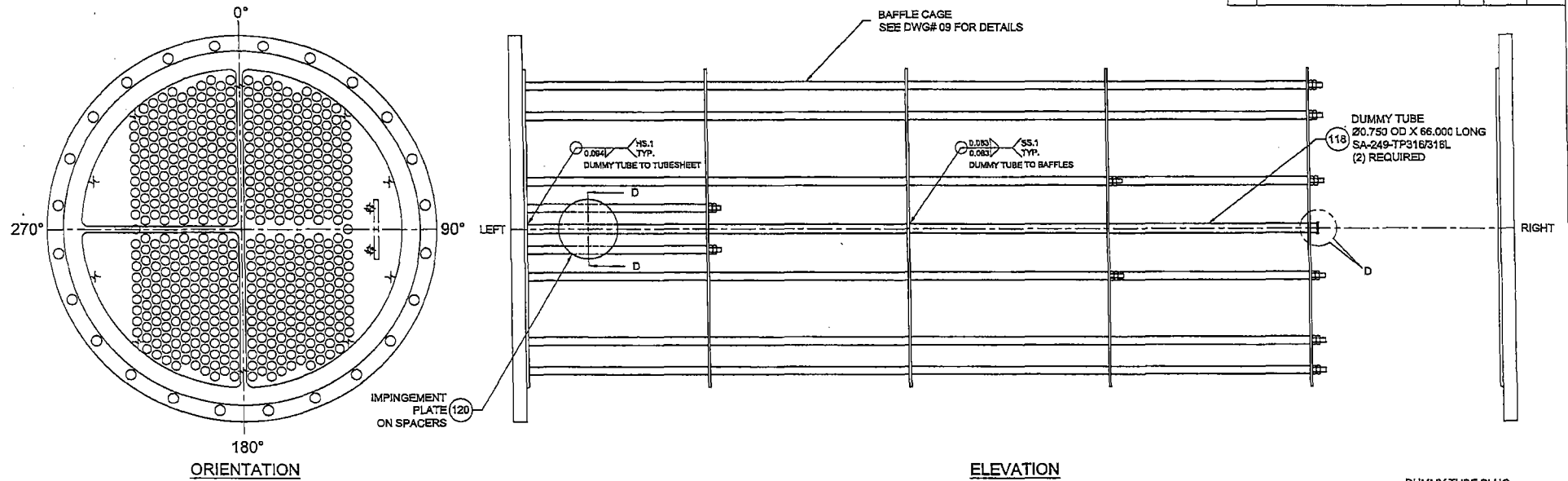
ORIENTATION
(ROTATED 90° FOR CLARITY)



PLAN
(TOP VIEW)

ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROPSOURCE LP	
		LOCATION: INSTITUTE, WV	
		MODEL#: HASS-720-28-4-84-AEMH	
		CUSTOMER P.O.#: 611767654	
		CUSTOMER TAG: E-3715	
		TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"	THIRD ANGLE PROJECTION	DATE: 06/02/14 CHECKED: MC APPROVED: MC DATE: 06/05/14	TITLE: BAFFLE CAGE ASSEMBLY
		SCALE: 1:8	DWG # 20948-1-1-09
		SHEET: 09 of 10	REV: A

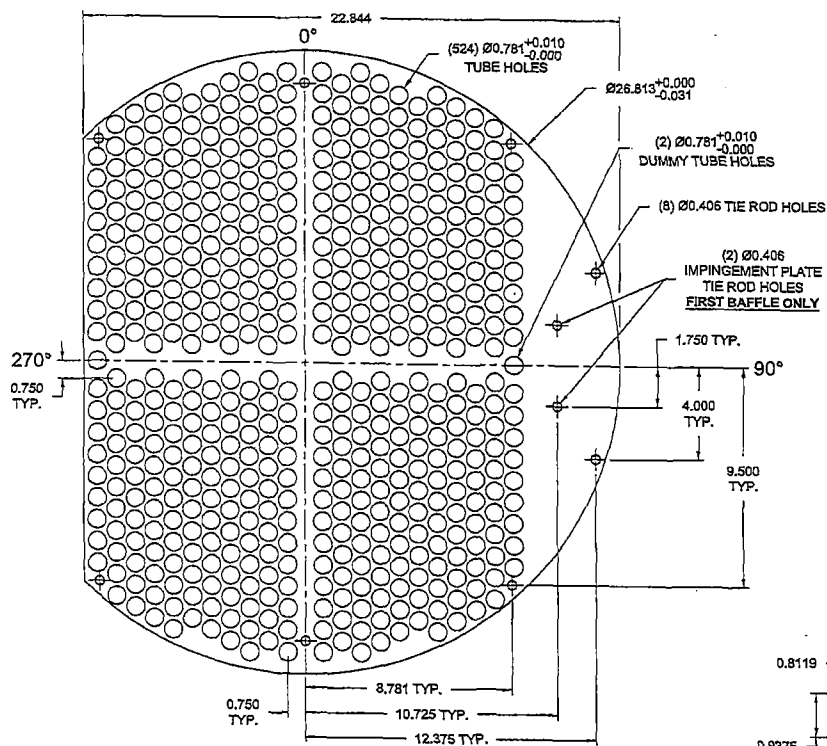
This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.



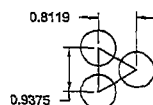
ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROSCIENCE LP LOCATION: INSTITUTE, WV MODEL#: HASS-720-28-4-84-AEMH CUSTOMER P.O.#: 611787854 CUSTOMER TAG#: E-3715 TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
MACHINE DECIMAL: 0.001 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"		DUMMIES IMPINGEMENT PLATE	
THIRD ANGLE PROJECTION		20948-1-1-10	

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.

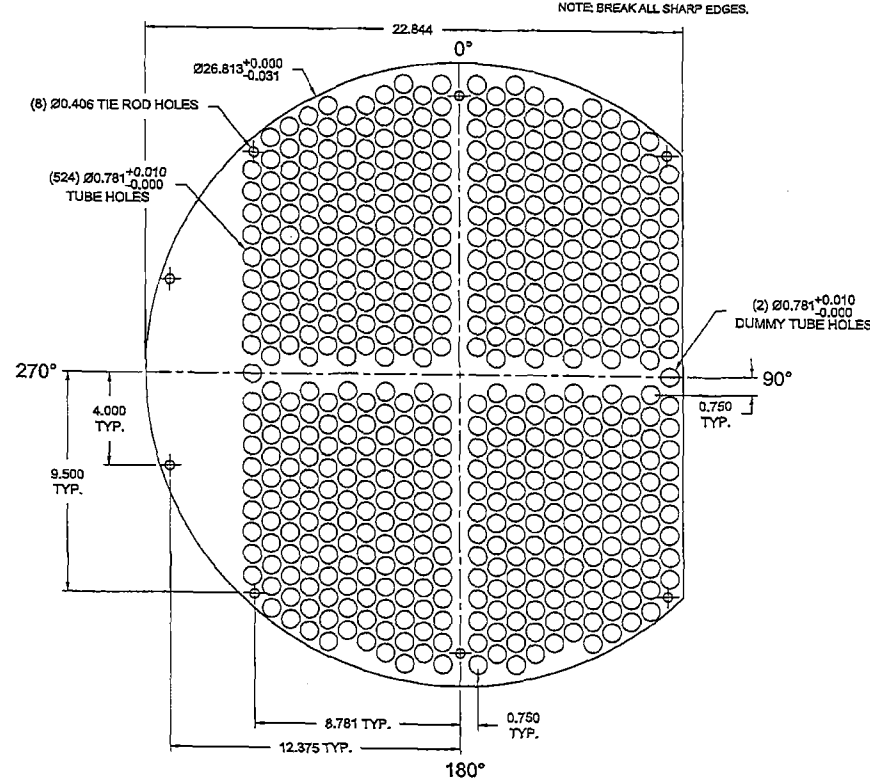
REV	DESCRIPTION	BY	DATE	APRVD



180°
BAFFLE A
0.188 THK. SA-240-316/316L
(2) REQUIRED
(105)



TUBE PITCH DETAIL
SCALE 2:1

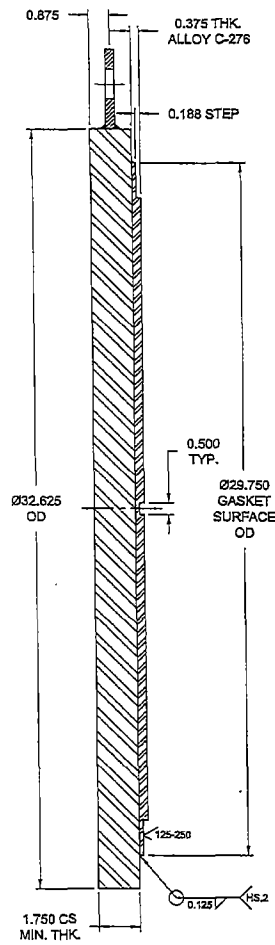


180°
BAFFLE B
0.188 THK. SA-240-316/316L
(2) REQUIRED
(106)

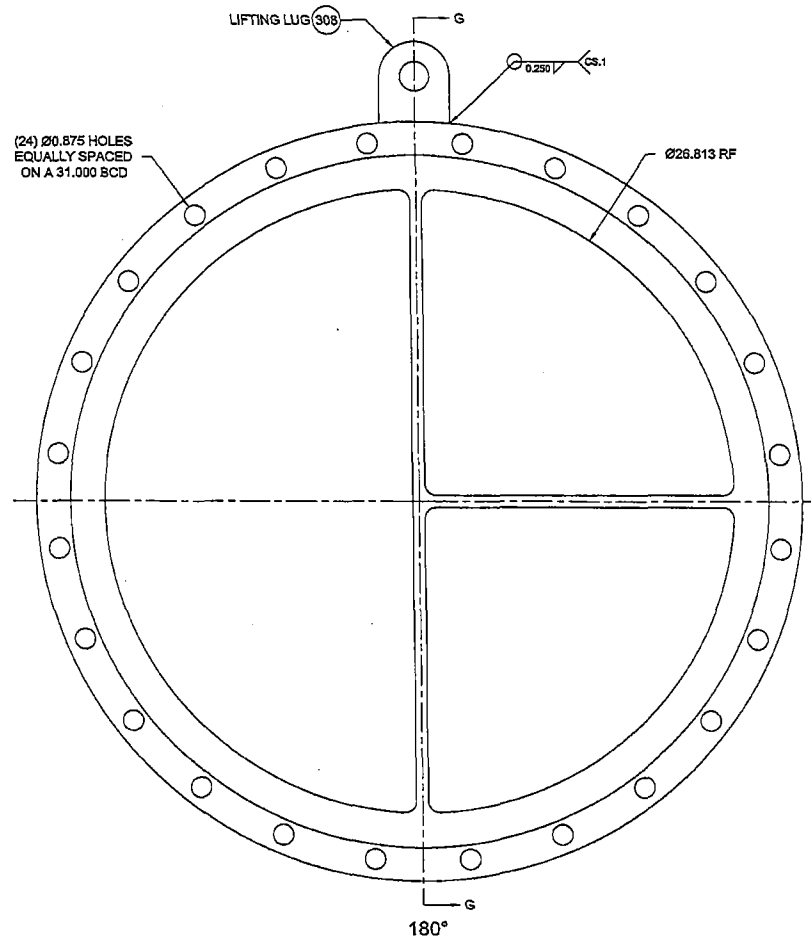
NOTE: BREAK ALL SHARP EDGES.

ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROPSCIENCE LP LOCATION: INSTITUTE, WV MODEL#: HASS-720-28-484-AEMH CUSTOMER P.O.#: 611767654 CUSTOMER TAG#: E-3715 TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE		 TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 12° GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1°	THIRD ANGLE PROJECTION	DRAWN: GLB DATE: 08/02/14 CHECKED: MC DATE: 08/05/14 APPROVED: MC DATE: 08/06/14 SCALE: 1:5	TITLE: BAFFLE DETAILS 20948-1-1-11 SHEET: 11 of 19 REV: A

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.



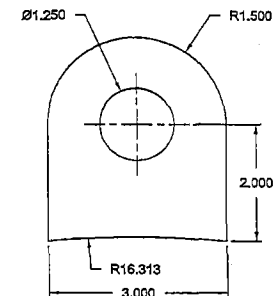
SECTION G-G



LEFT CHANNEL COVER FLANGE
SA-105 WITH SB-575 N10276 LINER
(1) REQUIRED

(302)

REV	DESCRIPTION	BY	DATE	APRVD

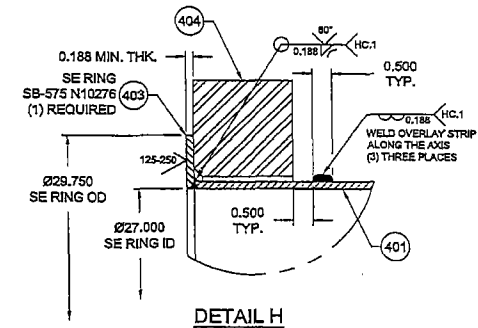
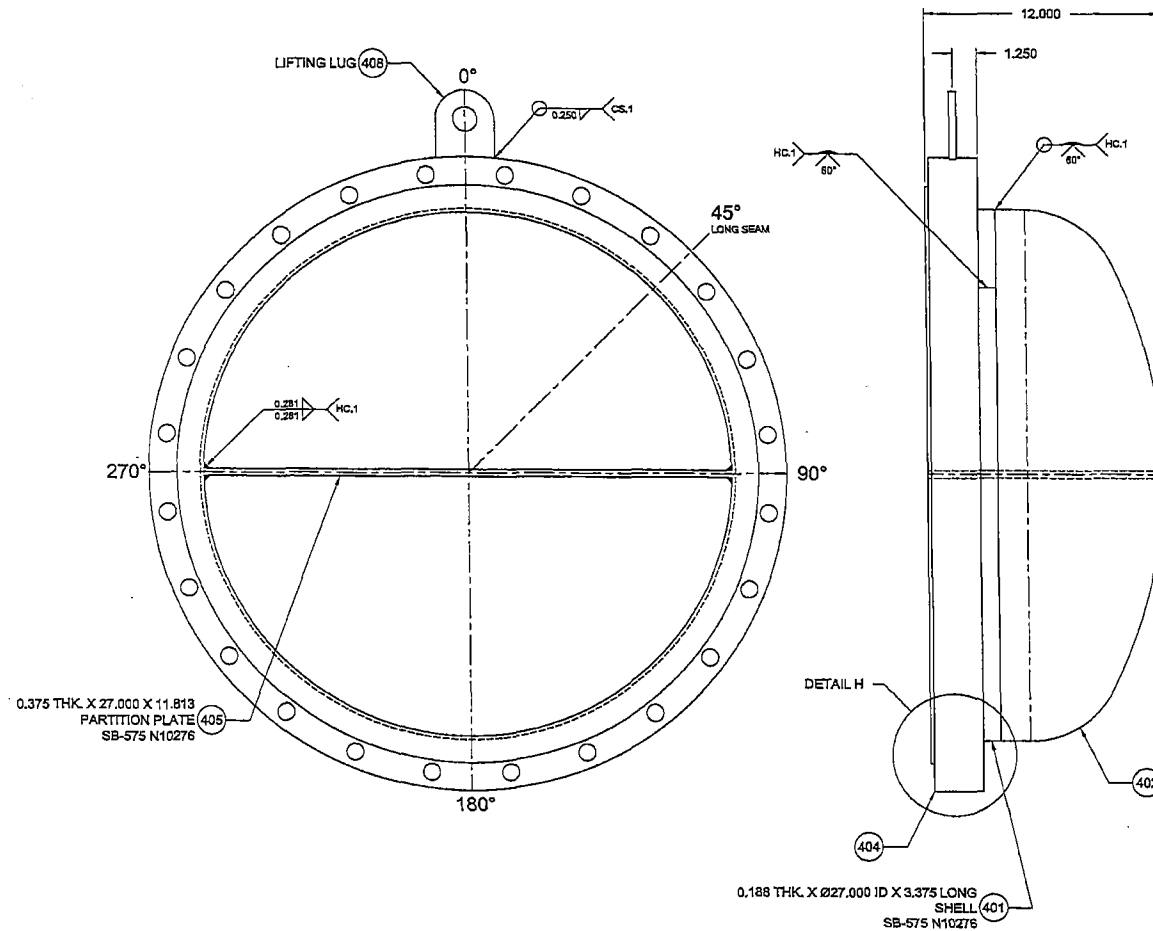


COVER / CHANNEL / BONNET
LIFTING LUG
0.375 THK. SA-516-70
(4) REQUIRED

(308/408)

ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROPSOURCE LP LOCATION: INSTITUTE, WV MODEL #: HASS-720-28-4-84-AEMH CUSTOMER P.O.#: 811787654 CUSTOMER TAG#: E-3715 TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2" GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1"		DRAWN: GLB DATE: 06/02/14 CHECKED: MC DATE: 06/08/14 APPROVED: MC DATE: 06/09/14 SCALE: 1:5 SIZE: B SHEET: 20948-1-1-14	
THIRD ANGLE PROJECTION		CHANNEL COVER DETAIL	
		14 of 18	

REV	DESCRIPTION	BY	DATE	APRVD



CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-25-4-34-AEMH
CUSTOMER P.O.#	511767854
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

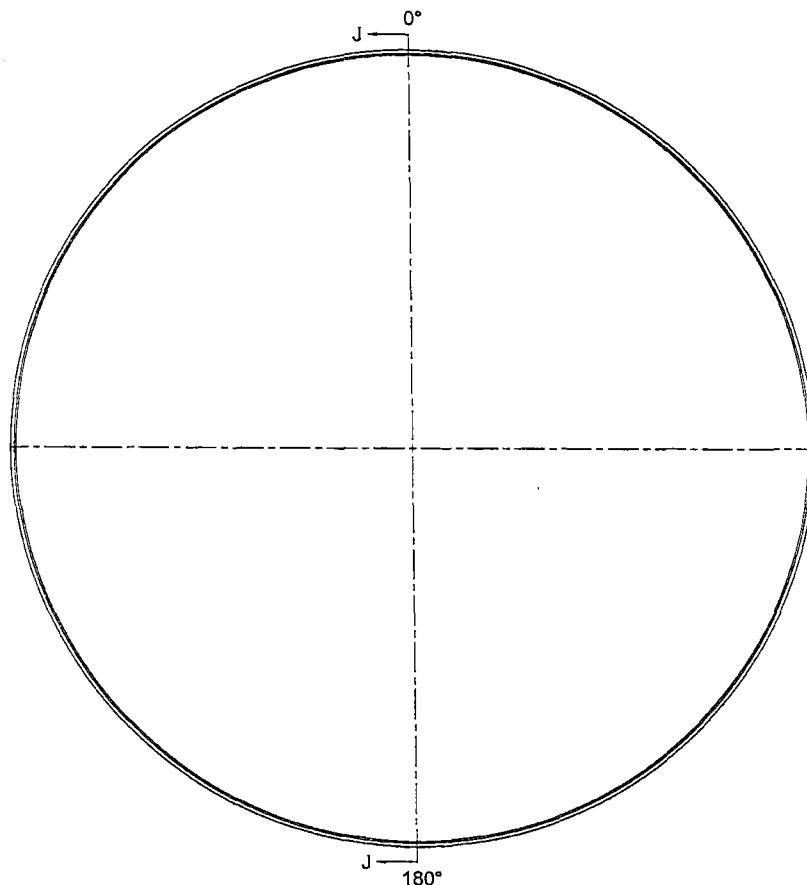
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE	
MACHINE	DECIMAL: 0.031
FRACTION: 1/16	
ANGLE: 1/2°	
GENERAL	DECIMAL: 0.125
FRACTION: 1/8	
ANGLE: 1°	



THIRD ANGLE
PROJECTION

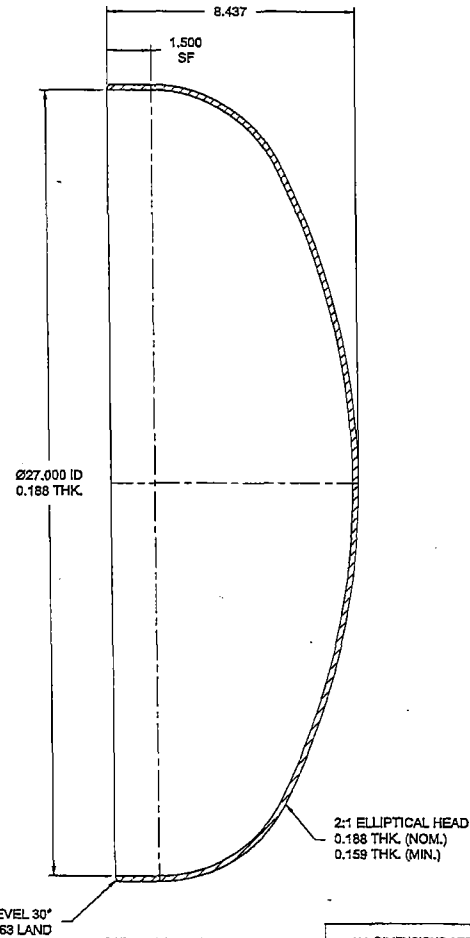
TITAN		TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
DRAWN GLB 08/02/14	CHECKED MC 08/06/14	DATE 08/06/14	TITLE RIGHT BONNET DETAIL
SCALE 1:8	SIZE B	DRAWN 20948-1-1-15	DATE 15 of 19

This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.



BONNET HEAD DETAIL
SB-575 N10276
(1) REQUIRED

402



SECTION J-J

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)
TOLERANCES ARE NOT ACCUMULATIVE

MACHINE
DECIMAL: 0.031
FRACTION: 1/16
ANGLE: 1/2°
GENERAL
DECIMAL: 0.125
FRACTION: 1/8
ANGLE: 1°



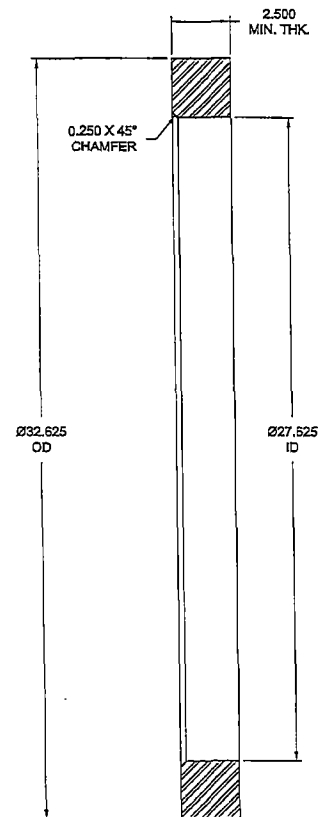
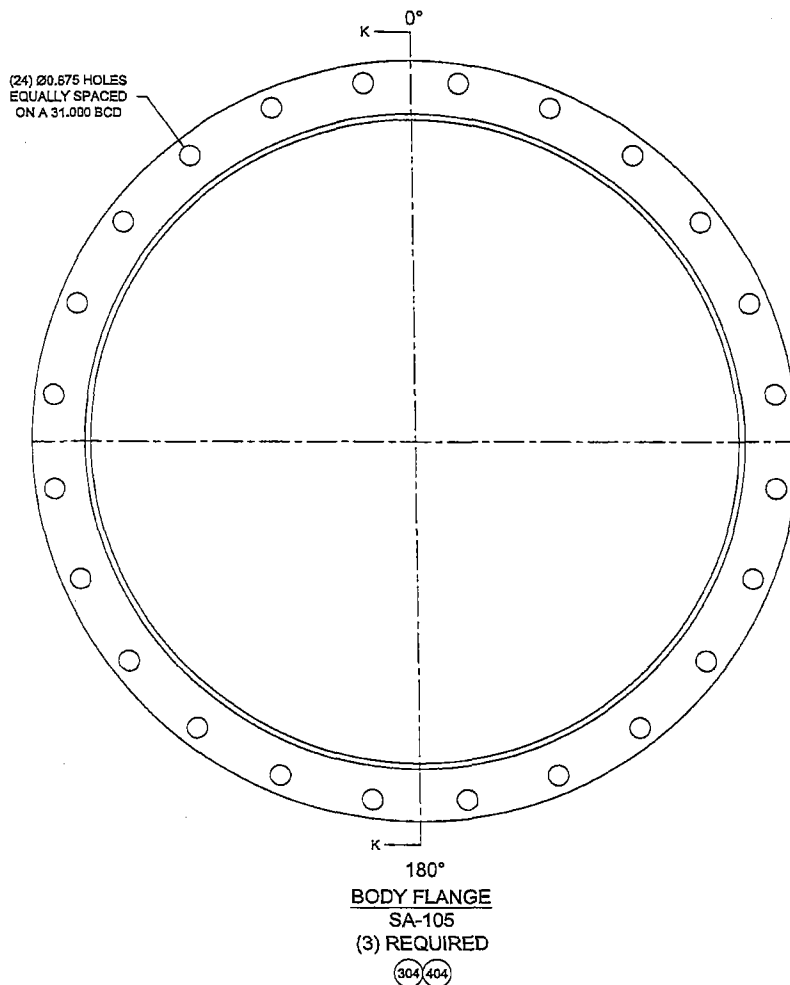
THIRD ANGLE
PROJECTION

REV	DESCRIPTION	BY	DATE	APRVD

CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-26-4-84-AEMH
CUSTOMER P.O.#	611767654
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

TITAN	TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.
--------------	--

DATE	06/02/14	TITLE	BONNET HEAD DETAIL
GLB	06/02/14	DATE	06/02/14
MC	06/02/14	DATE	06/02/14
MC	06/02/14	DATE	06/02/14
SCALE	1:4	SHEET	20948-1-1-16
16	of 16	REV	A



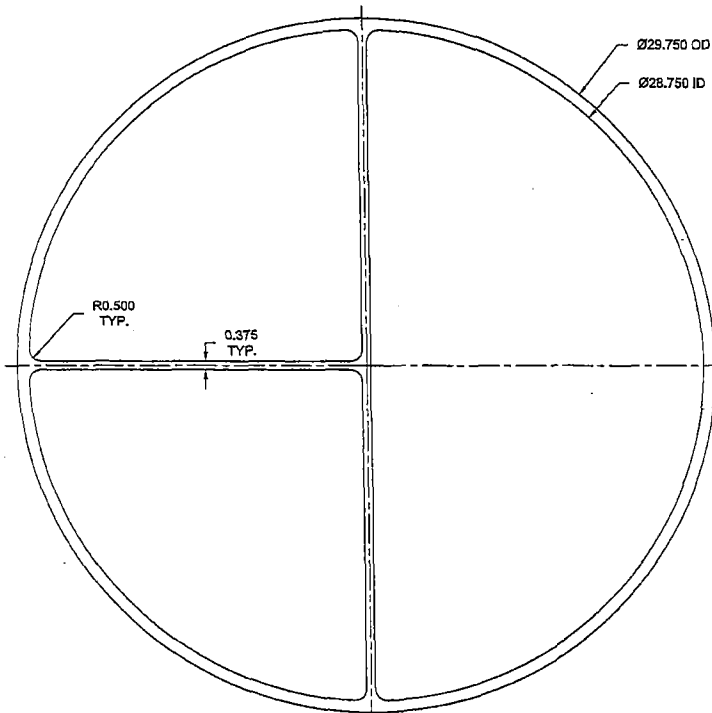
SECTION K-K

REV	DESCRIPTION	BY	DATE	APRVD

ALL DIMENSIONS ARE INCH ALL WELD SIZES ARE INCH		CUSTOMER: BAYER CROPSCIENCE LP LOCATION: INSTITUTE, WV MODEL#: HASS-720-28-4-84-AEMH CUSTOMER P.O.#: 611787854 CUSTOMER TAG#: E-3715 TITAN S.O.#: 20948-1-1	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) TOLERANCES ARE NOT ACCUMULATIVE MACHINE DECIMAL: 0.031 FRACTION: 1/16 ANGLE: 1/2° GENERAL DECIMAL: 0.125 FRACTION: 1/8 ANGLE: 1°		TITAN TITAN METAL FABRICATORS 352 BALBOA CIRCLE, CAMARILLO, CALIFORNIA, 93012 U.S.A.	
 THIRD ANGLE PROJECTION		BODY FLANGE DETAIL DRAWN: GLB DATE: 06/02/14 CHECKED: MC DATE: 06/08/14 APPROVED: MC DATE: 06/08/14 SCALE: 1:5 SIZE: 8 1/2" x 11" SHEET: 17 of 18 REV: A	

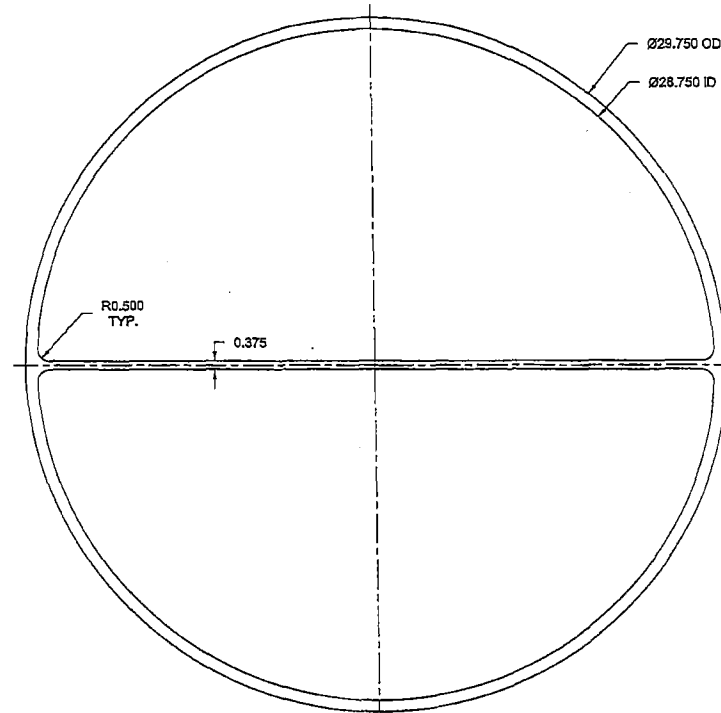
This document is proprietary. The information contained in this document is confidential and is not to be used, reproduced, or disclosed, in whole or in any part to any third party without the written permission of TITAN Metal Fabricators. It is subject to return upon request.

REV	DESCRIPTION	BY	DATE	APRVD



LEFT CHANNEL GASKET
GRAFOIL® GHR
W/ SS 316/316L INSERT
(2) REQUIRED FOR SERVICE

703



RIGHT BONNET GASKET
GRAFOIL® GHR
W/ SS 316/316L INSERT
(1) REQUIRED FOR SERVICE

704

ALL DIMENSIONS ARE INCH
 ALL WELD SIZES ARE INCH

TOLERANCES
 (UNLESS OTHERWISE SPECIFIED)
 TOLERANCES ARE NOT ACCUMULATIVE

MACHINE

DECIMAL: 0.001
 FRACTION: 1/16
 ANGLE: 1/2"
 GENERAL
 DECIMAL: 0.125
 FRACTION: 1/8
 ANGLE: 1"



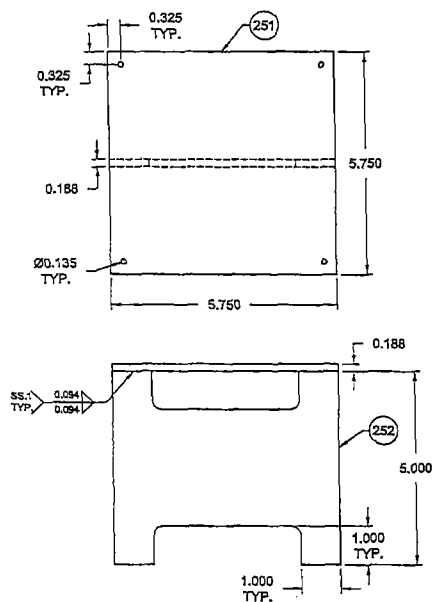
THIRD ANGLE
 PROJECTION

CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-28-4-BA-AEMH
CUSTOMER P.O.#	611767654
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

TITAN TITAN METAL FABRICATORS
 352 BALBOA CIRCLE, CAMARILLO,
 CALIFORNIA, 93012 U.S.A.

DATE	08/02/14	TITLE	GASKET DETAILS
DESIGNED	DATE	08/08/14	
APPROVED	DATE	08/08/14	
SCALE	1:4	SIZE	B
DRAWN #	20948-1-1-18	SHEETS	18 of 19
REV	A		

REV	DESCRIPTION	BY	DATE	APRVD



NAMEPLATE BRACKET
SA-240-316/316L
(1) REQUIRED

  W RT-3		CERTIFIED BY TITAN METAL FABRICATORS CAMARILLO, CA USA 805-487-5050 WWW.TITANMF.COM		MFG. SER. NO. 20948-1-1	
		YEAR BUILT 2014			
		PRESSURE UNITS PSIG			
SHELL MAWP 450 / FV AT °F 608 MDMT -20 °F AT MAWP 450		TUBE MAWP 75 / FV AT °F 608 MDMT -20 °F AT MAWP 75			
P.O. NO. 611767654					
EQUIP. NO. E-3715					

CUSTOMER	BAYER CROPSCIENCE LP
LOCATION	INSTITUTE, WV
MODEL#	HASS-720-28-4-AEMH
CUSTOMER P.O.#	611767654
CUSTOMER TAG#	E-3715
TITAN S.O.#	20948-1-1

ALL DIMENSIONS ARE INCH
ALL WELD SIZES ARE INCH

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)
TOLERANCES ARE NOT ACCUMULATIVE

MACHINE

DECIMAL: 0.031
FRACTION: 1/16
ANGLE: 1/2"
GENERAL
DECIMAL: 0.125
FRACTION: 1/8
ANGLE: 1"



THIRD ANGLE
PROJECTION

DIAGNOSE	DATE	TITLE			
GLB	08/02/14	NAMEPLATE DETAIL			
CHG	DATE				
MC	08/08/14				
APPROVER	DATE				
MC	08/08/14				
VARIES	18	20948-1-1-19	SHEET	19 of 19	REV