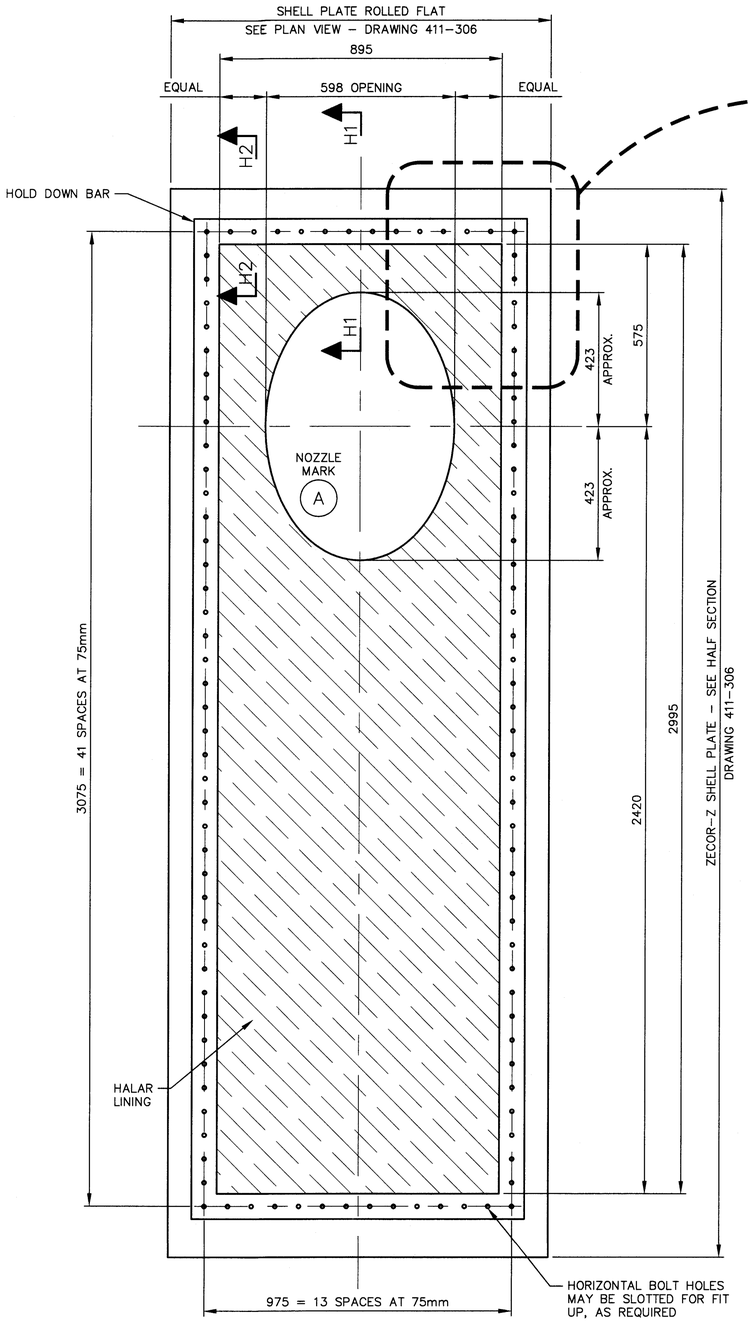
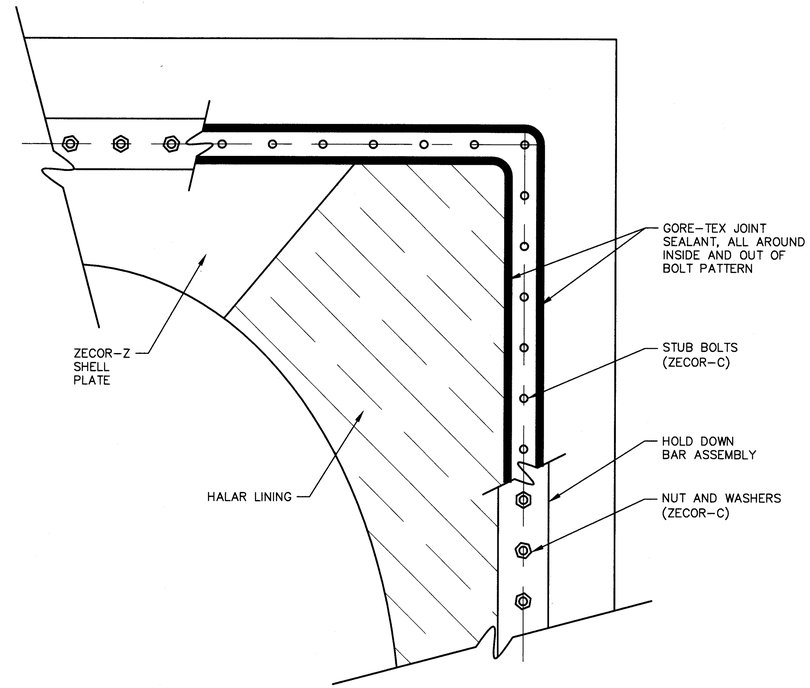
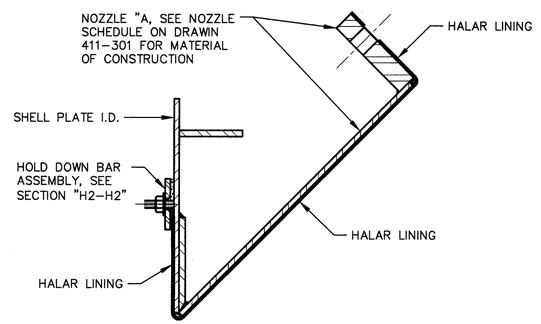


SECTION "H–H"

SCALE = 1:10
SHOWN IN FLAT STATE



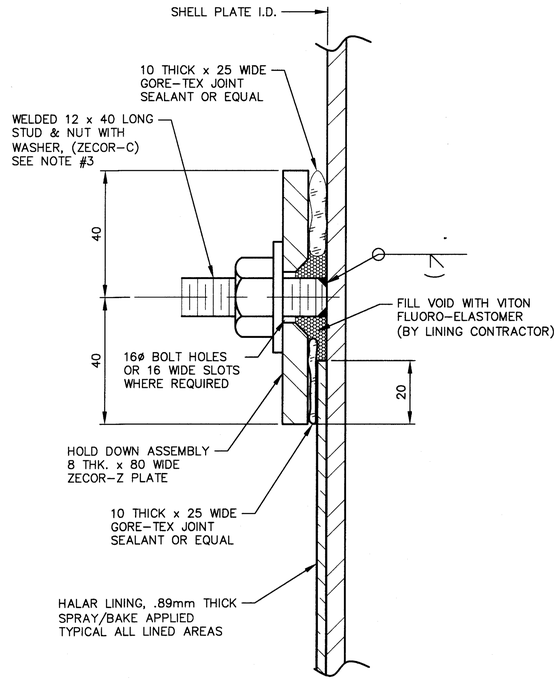


SECTION "H1–H1"

SCALE = 1:5

GENERAL NOTES

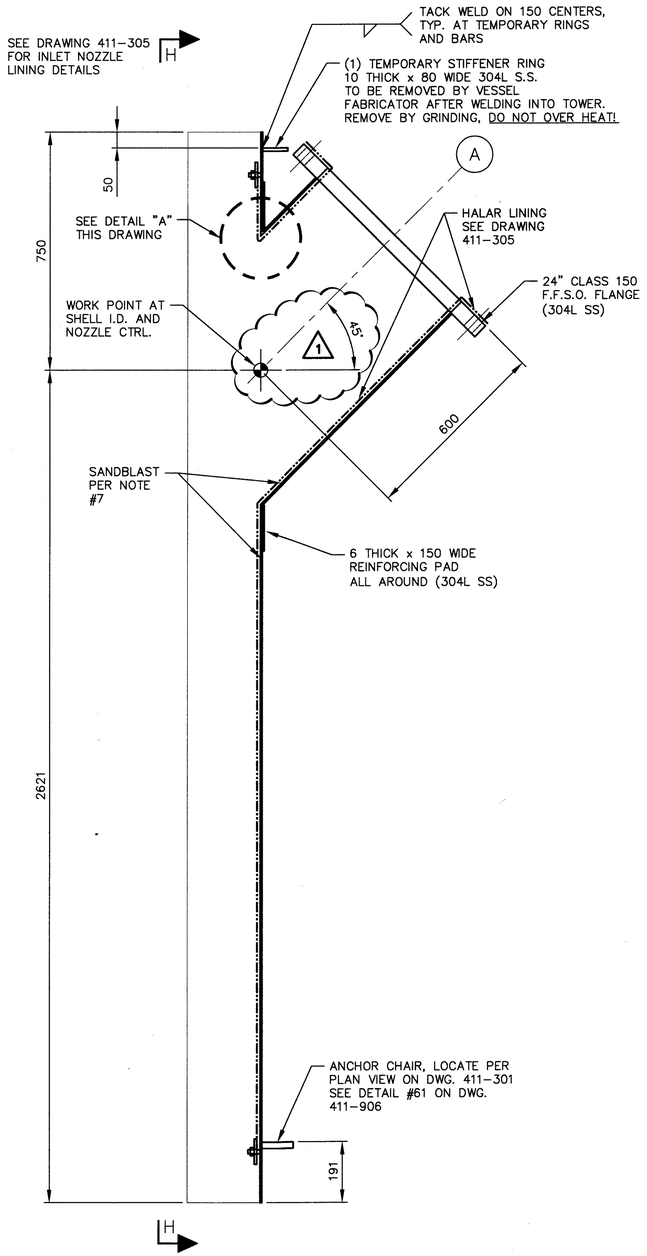
1. EITHER GORE–TEX OR EQUIVALENT TEADIT 24B, 25 THICK JOINT SEALANT WITH 65 EFFECTIVE SEALING WIDTH CAN BE USED.
2. GASKETS AND HOLD DOWN ASSEMBLY INSTALLED BEFORE VITON FLUORO–ELASTOMER HAS CURED.
3. AFTER COMPLETION OF LINING, TORQUE ALL HOLD DOWN ASSEMBLY NUTS TO 100 Nm, ALLOW TO RELAX FOR 24 HOURS, AND RETORQUE AGAIN TO 100 Nm.



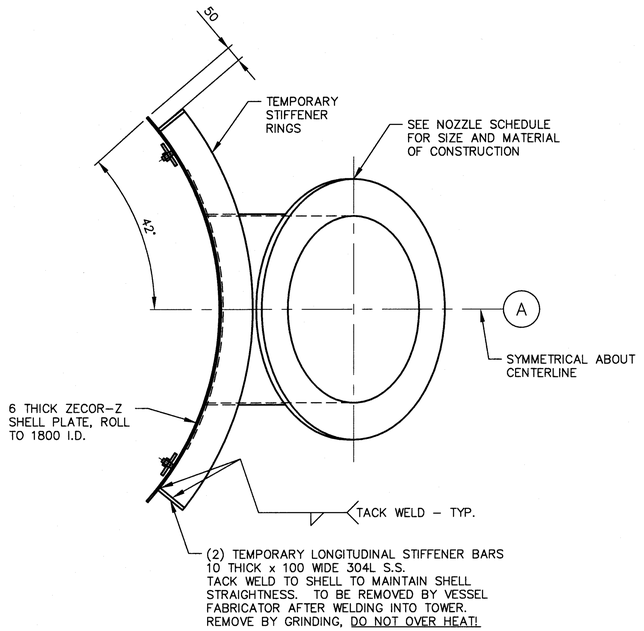
SECTION "H2–H2"

SCALE = 1:1

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.



HALF SECTION
SCALE = 1:10



PLAN VIEW
SCALE = 1:10

MATERIAL OF CONSTRUCTION

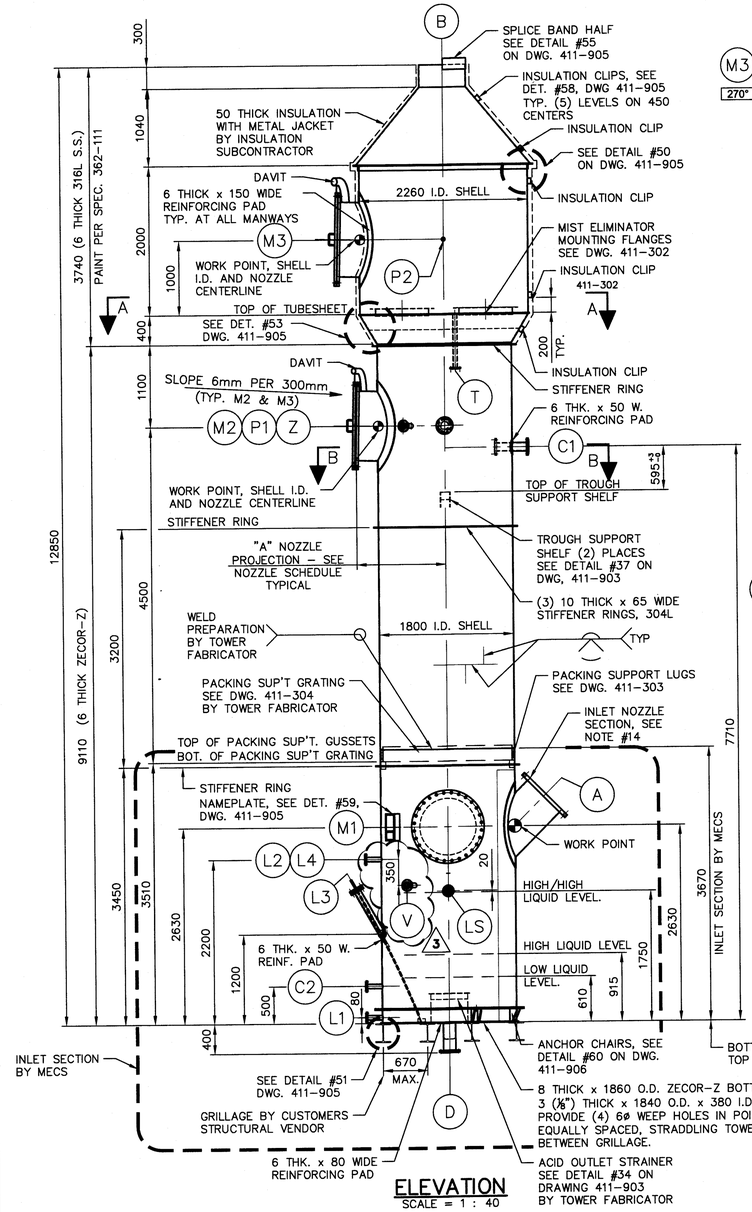
PLATE:	ASTM A-240 ZeCOR-Z®
PLATE (STAINLESS STEEL):	ASTM A-240 304L
FORGINGS:	ASTM A-182 F 304L
BARS, FLATS & RODS:	ASTM A-479 TP 304L & ZeCOR-Z®

GENERAL NOTES

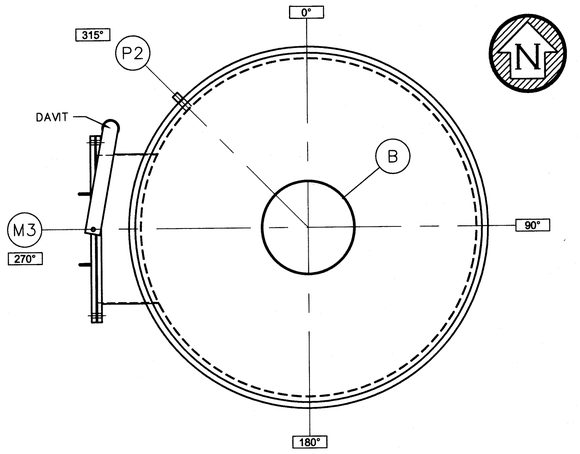
1. VESSEL VENDOR/SUB-CONTRACTOR TO FURNISH ALL MATERIAL SHOWN ON THIS DRAWING AND DRAWINGS REFERENCED HEREIN UNLESS NOTED OTHERWISE.
2. NOZZLE FLANGE BOLT HOLES TO STRADDLE VESSEL NATURAL VERTICAL CENTERLINE.
3. ALL WELDS TO BE CONTINUOUS, NO INTERMITTENT OR STITCH WELDS PERMITTED EXCEPT FOR TEMPORARY STIFFENER RINGS.
4. FABRICATOR DRAWINGS ARE TO INDICATE ALL WELDING SYMBOLS. REFERENCE THE WELDING PROCEDURE AND WELD METAL.
5. NO PAINTING IS REQUIRED ON THIS EQUIPMENT.
6. WELDING ELECTRODES SHALL CONFORM TO E308 SERIES FOR WELDING 304L STAINLESS TO 304L STAINLESS. FOR STAINLESS STEEL TO ZeCOR WELDING OR ZeCOR TO ZeCOR WELDING, ZeCOR ELECTRODES SHALL BE USED.
7. THE SURFACE TO RECIEVE HALAR LINING & GAS INLET I.D. TO BE SANDBLASTED TO A 3 MIL PROFILE.
8. INLET NOZZLE "PARTIAL SECTION" TO BE FABRICATED, SENT TO HALAR LINING SUBCONTRACTOR FOR LINING, THEN SHIPPED TO FIELD FOR FINAL ASSEMBLY TO TOWER.

DETAIL "A"
SCALE = 1:4

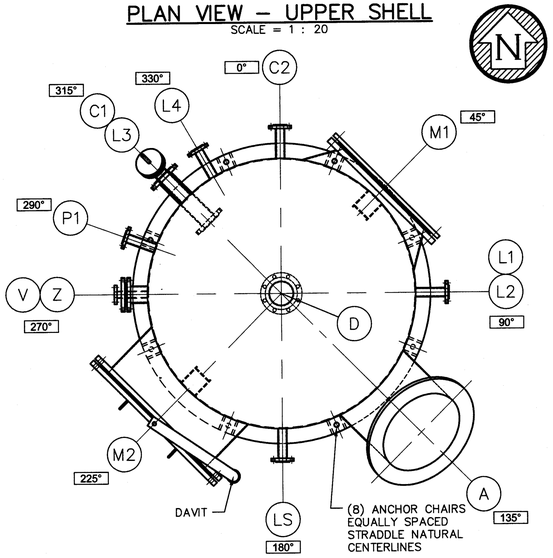
ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.



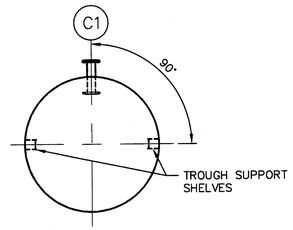
ELEVATION
SCALE = 1 : 40



PLAN VIEW - UPPER SHELL
SCALE = 1 : 20



PLAN VIEW - LOWER SHELL
SCALE = 1 : 20



SECTION "B-B"
SCALE = 1 : 40
SHELF ORIENTATION IN RELATIONSHIP WITH NOZ. "C1"

NOZZLE SCHEDULE

MARK	QTY REQD	NOZZLE NECK - COUPLING SIZE	THICKNESS	* "A" PROJ	MAT'L	FLANGE RATE	THICKNESS	FACE	MAT'L	SERVICE	DETAIL (DWG NO.)	** REMARKS
A	1	24" NPS	6	SEE ELEV	ZECOR-Z	CLASS 150	ANSI	F.F.S.O.	304L	GAS INLET	(411-305) (411-306)	WITH HALAR LINING
B	1	630 O.D.	6	SEE ELEV.	316L	---	---	SPLICE BAND	316L	GAS OUTLET	#55 (411-905)	WITH SPLICE BAND
C1	1	4" NPS	6	1130	ZECOR-Z	CLASS 150	ANSI	LAP JOINT	304L	ACID INLET	#3 (411-901)	
C2	1	2" NPS	6	1130	ZECOR-Z	CLASS 150	ANSI	LAP JOINT	304L	DILUTION ACID INLET		
D	1	6" NPS	6	SEE ELEV.	ZECOR-Z	CLASS 150	ANSI	LAP JOINT	304L	ACID OUTLET	#2 (411-901)	W/STRAINER, DET. #34 411-903
L1	1	2" NPS	6	1130	ZECOR-Z	CLASS 150	ANSI	LAP JOINT	304L	LEVEL GUAGE		
L2	1	2" NPS	SCH 160	1130	ZECOR-C	CLASS 150	ANSI	LAP JOINT	304L	LEVEL GUAGE		
L3	1	3" NPS	SCH 160	SEE DETAIL	ZECOR-C	CLASS 150	ANSI	LAP JOINT	304L	LEVEL TRANSMITTER	#48 (411-904)	W/ZECOR-C DIP TUBE AND BLIND FLANGE, BY TOWER FABRICATOR
L4	1	2" NPS	SCH 160	1130	ZECOR-C	CLASS 150	ANSI	LAP JOINT	304L	LEVEL VENT		
LS	1	2" NPS	SCH 160	1130	ZECOR-C	CLASS 150	ANSI	LAP JOINT	304L	LEVEL SWITCH		
M1	1	760 I.D.	3	SEE DETAIL		SEE DETAIL			304L	LOWER SHELL MANWAY	#20, #23 (411-902)	FLUSH MANWAY WITH LIFTING LUG
M2	1	920 I.D.	6	1200	ZECOR-Z	BF36 BBF36	32	LAP JOINT	304L	DISTRIBUTOR MANWAY	#13 (411-901) #21,#27 (411-902)	WITH DAVIT
M3	1	990 I.D.	6	1430	316L	BF39/BBF39	32	R.F. BOLTED	304L	HOUSING MANWAY	#13 (411-901) #27 (411-902)	WITH DAVIT
P1	1	2" NPS	6	1130	ZECOR-Z	CLASS 150	ANSI	LAP JOINT	304L	PRESSURE CONNECTION	#5 (411-901)	
P2	1	1½" NPS	80	SEE DETAIL	316L	SEE DETAIL			316L	PRESSURE CONNECTION	#12 (411-901)	WITH PLUG
T	1	2' NPS	SCH 40S	SEE DETAIL	316L	CLASS 150	ANSI	LAP JOINT	316L	TUBESHEET DRAIN	#40 (411-904)	SEE DWG. 411-302
V	1	1½" NPS	SCH 160	3 1130	ZECOR-C	CLASS 150	ANSI	LAP JOINT	304L	PUMP REVENT		
Z	1	4" NPS	6	SEE DETAIL	ZECOR-Z	CLASS 150	ANSI	LAP JOINT	304L	MIST TEST	#7 (411-901)	WITH BLIND FLANGE

* NOZZLE PROJECTION IS TO FACE OF NOZZLE FLANGE - NOT TO FACE OF SLEEVE FLANGE.
** ALL ZECOR PARTS TO BE FURNISHED BY MEC.

MATERIAL OF CONSTRUCTION

UPPER SHELL SECTION

PLATE (STAINLESS STEEL):	ASTM A-240 316L S.S.
TOP HEAD AND TUBESHEET:	ASTM A-240 316L S.S.
PIPE:	ASTM A-312 TP 316L S.S.
FORGINGS:	ASTM A-182-F 316L S.S.
BARS, FLATS & RODS:	ASTM A-479 316L S.S.
BOLTS:	ASTM A-193-B8M
NUTS:	ASTMA-194-8M

LOWER SHELL SECTION

PLATE:	ASTM A-240 ZeCOR-Z
PIPE (SMLS, WELDED):	ASTM A-312/A-358 WELDED ZeCOR-Z OR ZeCOR-C
FORGINGS:	ASTM A-182-F 304L S.S.
BARS, FLATS & RODS	ASTM A-479 304L/ZeCOR-Z
BOLTS:	ASTM A-193-B8M
NUTS:	ASTM A-194-8M

MISCELLANEOUS

EXTERNAL ATTACHMENTS:	304L S.S.
GASKETS:	3mm THICK GARLOCK GYLON FAWN OR BLUE STYLE 3500 OR 3504

REFERENCE DRAWINGS

411-300	ZECOR-Z TOWERS - NAMEPLATE DETAILS
411-301.01	PLATEWORK - DRYING TOWER - DESIGN CRITERIA
411-302	PLATEWORK - DRYING TOWER - TUBESHEET SECTIONS AND DETAILS
411-303	PLATEWORK - DRYING TOWER - PACKING SUPPORT LUGS
411-304	PLATEWORK - DRYING TOWER - PACKING SUPPORT GRATING
411-305	PLATEWORK - DRYING TOWER - HALAR LINING DETAILS
411-306	PLATEWORK - DRYING TOWER - INLET NOZZLE PARTIAL DETAIL
411-401	ASSEMBLY - DRYING TOWER
411-901	VESSEL STANDARD DETAILS - NOZZLE CONNECTION DETAILS
411-902	VESSEL STANDARD DETAILS - MANWAY DETAILS
411-903	VESSEL STANDARD DETAILS - INTERNAL CONNECTION DETAILS
411-904	VESSEL STANDARD DETAILS - INTERNAL CONNECTION DETAILS
411-905	VESSEL STANDARD DETAILS - EXTERNAL ATTACHMENT DETAILS
411-906	VESSEL STANDARD DETAILS - ANCHOR CHAIR DETAILS
411-907	VESSEL STANDARD DETAILS - MIST ELIMINATOR MOUNTING FLANGES

REFERENCE SPECIFICATIONS

412-001	ALLOY PLATEWORK
412-002	DYE PENETRANT EXAMINATION
412-007	ALLOWABLE NOZZLE LOADS FOR ALLOY TOWERS AND PUMPTANKS
416-001	ITP FOR ALLOY TOWER

GENERAL NOTES

1. VESSEL VENDOR/SUB-CONTRACTOR TO FURNISH ALL MATERIAL SHOWN ON THIS DRAWING AND DRAWINGS REFERENCED HEREIN UNLESS NOTED OTHERWISE.
2. NOZZLE FLANGE BOLT HOLES TO STRADDLE VESSEL NATURAL VERTICAL CENTERLINE.
3. ALL FLANGES WITH BLINDS OR COVER PLATES TO BE FURNISHED WITH HEX HEAD BOLTS, HVY HEX NUTS AND GASKETS.
4. FLANGE FACES SHALL BE PER ASME B16.5 SECTION 6.4.5 "FLANGE FACING FINISH".
5. ALL EXTERNAL NOZZLE REINFORCING PADS SHALL BE PROVIDED WITH A 6mm NPT TAPPED HOLE TO FACILITATE AN AIR & SOAP BUBBLE TEST
6. ALL WELDS TO BE CONTINUOUS, NO INTERMITTENT OR STITCH WELDS ARE PERMITTED.
7. VESSEL WELDING ELECTRODES TO CONFORM TO E308 OR 316L SERIES FOR WELDING S.S. TO S.S. USE ZECOR-Z WELDING ROD FOR ZECOR-Z TO S.S. AND ZECOR-Z TO ZECOR-Z. VESSEL FABRICATOR TO INDICATE WELD RODS TO BE USED.
8. LADDER AND PLATFORM LOADS, IF ANY, SHOULD NOT BE SUPPORTED BY THE TOWER SHELL.
9. NO BACK-UP STRIPS ARE PERMITTED FOR WELDING THE BOTTOM PLATE.
10. THE BOTTOM PLATE MUST BE FLAT - MAXIMUM TOLERANCE ±12mm ACROSS THE DIAMETER.
11. NO INTERNAL NOZZLE PROJECTIONS ARE PERMITTED UNLESS NOTED OTHERWISE.
12. PERSONNEL PROTECTION REQUIRED AT PLATFORM LEVELS AND AREAS WHERE ACCESSIBLE.
13. LIFTING LUGS FOR SHIPMENT OR ERECTION ARE TO BE DESIGNED AND PROVIDED BY THE FABRICATOR.
14. INLET NOZZLE "PARTIAL SECTION" TO BE FABRICATED AND HALAR LINED BY VESSEL FABRICATOR TO BE FIT INTO FINAL ASSEMBLY. SEE DESIGN DRAWINGS 411-305 & 411-306.
15. NO HYDROTEST IS PERMITTED.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	CHK'D	APP'D	APP'D
3	13 MAR 15	LOWERED NOZ. "V"; REMOVED "S" FROM SCH 160 PIPE	KAD	GCE	AKN	BW
2	20FEB15	ADDED I.D. TO POISON PAD; CONFIRMED ORIENTATION PER CER; REVISED NOZ. "B" & "V"	KAD	GCE	AKN	BW
1	19D14	REVISED NOZZLE "D" PROJECTION, NOZZLE "L3" MATERIAL OF CONSTRUCTION AND NOZZLE "M1" I.D.; ADDED DWG. 411-301.01 AND REFERENCE SPEC'S.; REVISED M.O.C. & FABRICATION SCOPE BREAK	KAD	GCE	AKN	BW

REFERENCES

NO.	DATE	DESCRIPTION	DRAWN	CHK'D	APP'D	APP'D

DuPont Sustainable Solutions
CLEAN TECHNOLOGIES

MECS Sulfuric Acid Technology <Engineered Alloy Products>

13 MARCH 2015 | FABRICATION

PLATEWORK
DRYING TOWER T-2301
ELEVATION, PLAN AND GENERAL NOTES

YULIN CITY, SHAANXI CHINA

DUPONT DWG NO. 411-301

	DRAWN	CHK'D	APP'D	APP'D	JOB NO.	REVISION
BY	KAD	GCE KNP	AKN	BW	7NC77 / F234	3
DATE	11NOV14	24NOV14 13/3/15	25NOV14	25NOV14	DOC CAT	
SCALE	AS NOTED				D	

Plot Date/Time/User: 13-Mar-15/12:56 PM/KADEFO

L:\ALLOY\PROJECTS\PROJECTS 7NC01 - 7NC99\7NC77 SHAANXI BEIYUAN TOWERS & DIST\411301.DWG