



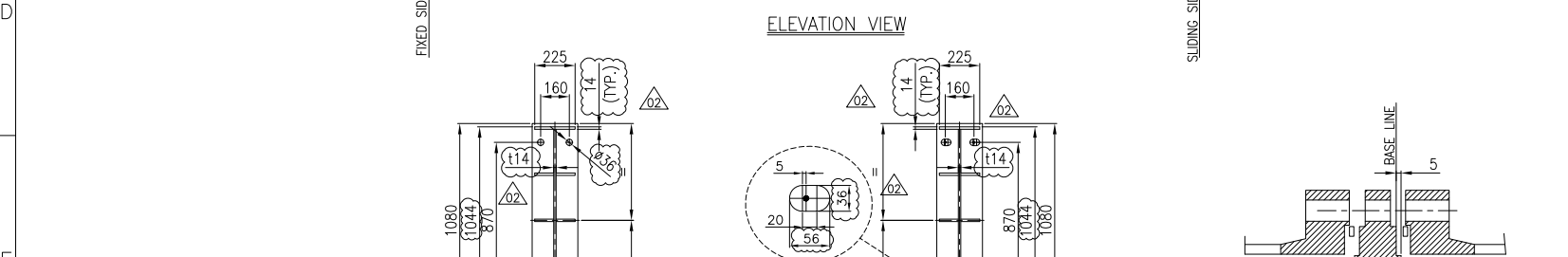
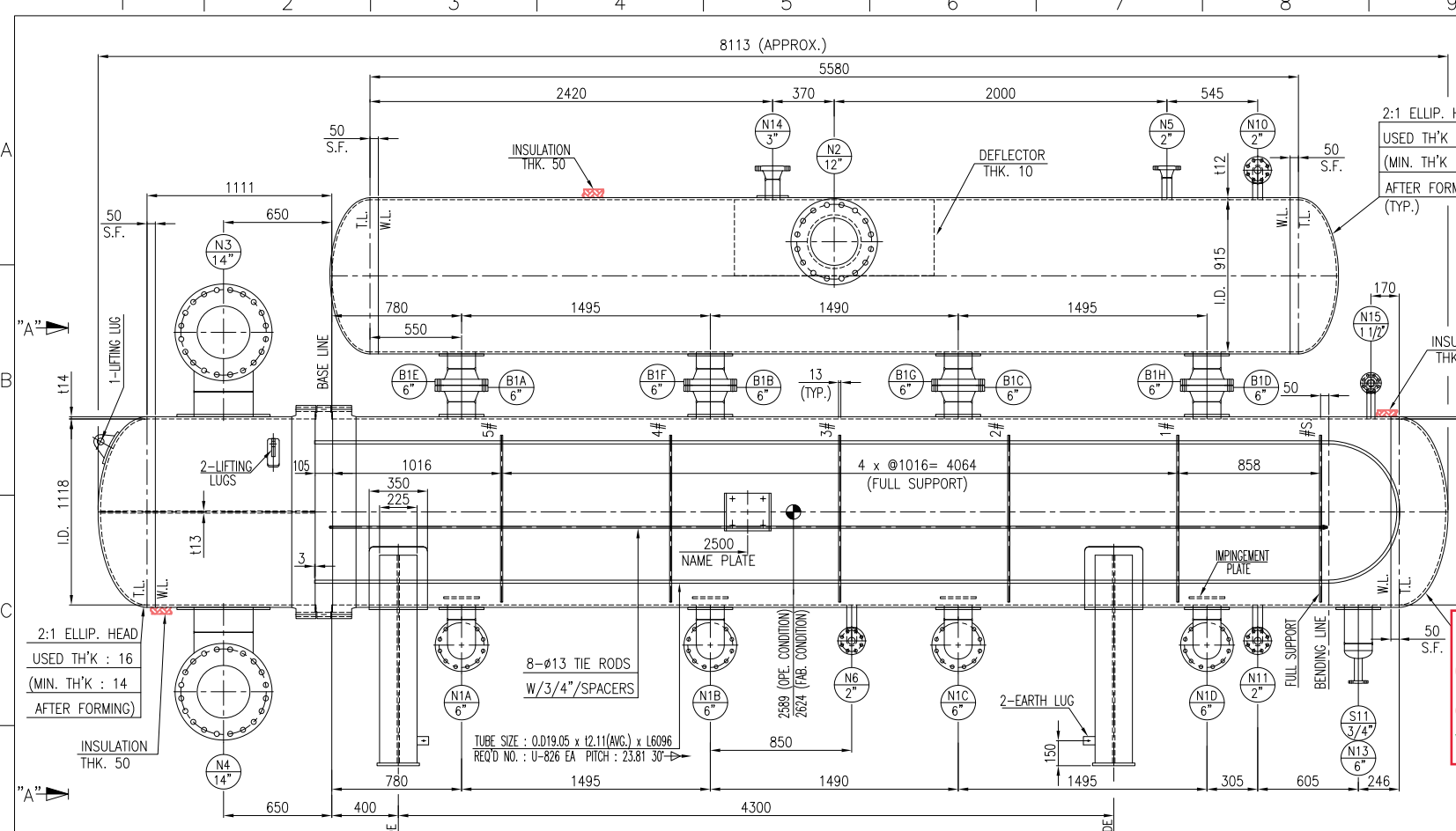
 Gachsaran Polymer Industries Company PIDMCO	Gachsaran Polymer Industries Company HDPE Plant				
	Evaporator (Chiller) Drawing		 		
PO No.: GPIC-PT-MA-PO-000-3029	Document Number: VD-GPIC-MA-3029-3029-0089	Rev. 02	Page 1 of 10		

Evaporator (Chiller) Drawing

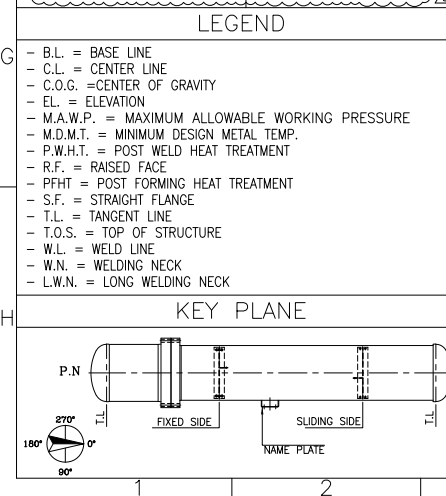
Code1	<input type="checkbox"/> No Comment/ Approved (Applicable Only for "FOR REVIEW" and "For Approval" Documents) No comment and the document are released for Manufacturing.
Code2	<input type="checkbox"/> No Comment/ Approved with Note(s) Vendor/Sub-Contractor shall correct, revise and resubmit the document. The document is released for Manufacturing if changes incorporated.
Code3	<input checked="" type="checkbox"/> Commented Vendor/Sub-Contractor shall correct, revise and resubmit the document by the date specified. The document shall be revised under the Status of "R: Revised Issue". All corrected documents shall be resubmitted before starting the Manufacturing Process.
Code 4	<input type="checkbox"/> Not Accepted (Rejected) Vendor/Sub-Contractor shall re-work / re-design / re-specify the contents of the document according to the comments / reasons for rejection. All corrected documents shall be resubmitted before starting the manufacturing. Vendor/Sub-Contractor shall not proceed with subsequent works of Material Supply or Manufacturing until receiving Code1/Code2 or No Code from PURCHASER. Vendor/Sub-Contractor shall resubmit the document with the same revision within 6 working days after receiving comments.
No code	<input type="checkbox"/> No Code (Applicable Only for "For Information" Documents and "As Built DWGs") Document has been submitted for PURCHASER's Information (FI). Consistency, completeness and correctness of document content is in Vendor/Sub-Contractor's responsibility.
Above checking results by EIED shall in no way relieve Vendor of any liability, obligation and responsibility out of the purchase order and the mutual agreement in writing.	
 Energy Industries Engineering & Design co.	Date: Nov. 08, 2025 Dept.: MA Signature: F.Hamooni

05					
04					
03					
02	25-Oct-25	IFR	N.B	F.T	A.M
01	7-Oct-25	IFR	N.B	F.T	A.M
00	30-Aug-25	IFR	N.B	F.T	A.M
Rev.	DATE	PURPOSE OF ISSUE	PREPARED	CHECKED	APPROVED



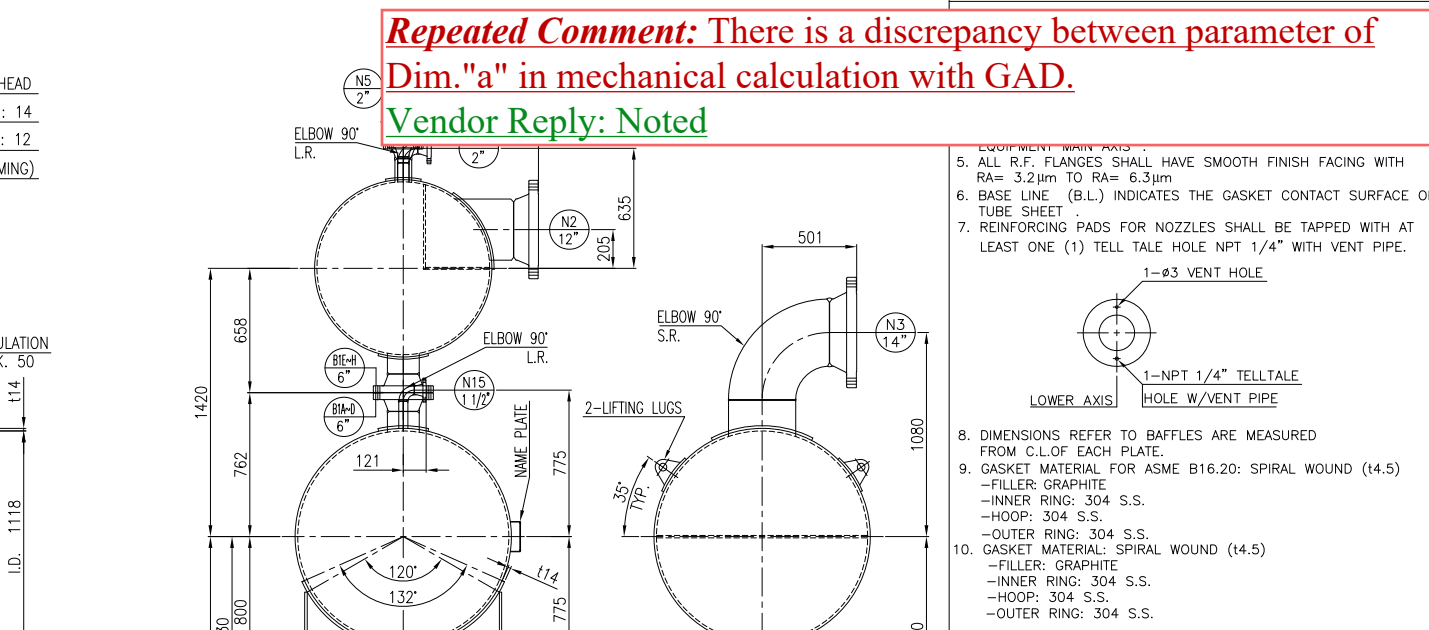
SEISMIC (NOTE 13)	
SHEAR (kgf)	MOMENT (kgf-m)
5085	7755
WIND	
SHEAR (kgf)	MOMENT (kgf-m)
964	1470
BUNDLE PULLING LOAD 17250 kgf	

- B.L. = BASE LINE
- C.L. = CENTER LINE
- C.O.G. = CENTER OF GRAVITY
- EL. = ELEVATION
- M.A.W.P. = MAXIMUM ALLOWABLE WORKING PRESSURE
- M.D.M.T. = MINIMUM DESIGN METAL TEMP.
- P.W.H.T. = POST WELD HEAT TREATMENT
- R.F. = RAISED FACE
- PFHT = POST FORMING HEAT TREATMENT
- S.F. = STRAIGHT FLANGE
- T.L. = TANGENT LINE
- T.O.S. = TOP OF STRUCTURE
- W.L. = WELD LINE
- W.N. = WELDING NECK
- L.W.N. = LONG WELDING NECK



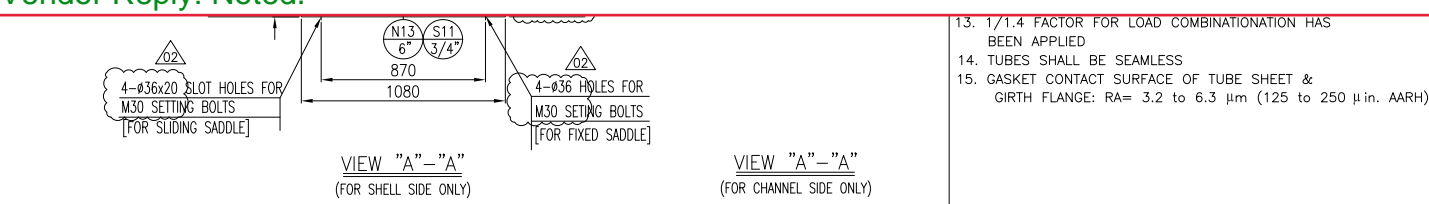
EIED previous comment:
 1- In order to avoid any further comments/change in accordance with future P&ID updates, the vendor is requested to specify the allowable nozzle loads for all nozzles in the "nozzle table".
Vendor Reply: The allowable nozzle load has been reported for all process nozzles. This point is not applicable for other nozzles.
EIED Reply/ repetitive comment:
 - Rejected. inappropriate reply.
 - Vendor shall specify the allowable Nozzle loads for all the tie-in points with EIED. (as an e.g., the N14 Nozzle is Tie-in point as per the package's P&ID)
 - Vendor is strongly recommended to specify the allowable nozzle loads for all the existing nozzles In order to avoid any further comments/issues in accordance with future P&ID updates or the vendor's mistakes.
Vendor Reply: Already allowable nozzle loads have been specified for client tie-in points and inlet/outlet nozzles. Anyhow we added allowable nozzle load for nozzle N14 (PSV) although it is not required.

CHANNEL		BOLTS & NUTS		M.D.M.T.(REQUIRED/CALCULATED) (°C)		WEIGHT	
BARREL	SA-516 70N	SHELL/COVER	-	M.A.W.P (HOT & CORRODED) barg	25	25	FABR. (KG)
FLANGES	SA350-LF2 CL.1N	SHELL/CHANNEL	SA320-L7/SA194-4	M.A.P (NEW & COLD) barg	25	25	OPER. (KG)
COVER	SA-516 70N	CHANNEL/COVER	-	P.W.H.T.	NO	NO	SHOP TEST (KG)
FLAT COVER	-	FLOATING HEAD	-	IMPACT TEST	NO	NO	FIELD TEST (KG)
NOZZLE FROM PIPE	SA333-6	SETTING BOLTS/NUTS	SA193 B7 / SA194 2H	PFHT	YES	YES	SURFACE AREA/SHELL (M ²)
NOZZLE FROM PLATE	SA-516 70N	TUBE BUNDLE					VOLUME (M ³)
NOZZLE FLANGES/FORGED NOZZLE	SA350-LF2 CL.1N	TUBES	SA334-6	SHELL SIDE			FLUID DENSITY (kg/m ³)
COUPLINGS & PLUGS	-	TUBESHEETS	SA350-LF2 CL1	TUBE SIDE			MEAN METAL TEMP. (°C)
NOZZLE REINF. PAD	SA-516 70N	BAFFLES/SUPPORTS/IMP. PLATE	SA 516-70N				
PARTITION PLATES	SA-516 70N	TIE RODS & SPACERS	SA 36/SA334-6				



Repeated Comment: There is a discrepancy between parameter of Dim."a" in mechanical calculation with GAD.
Vendor Reply: Noted

Please note that, body and bundle detail drawing will not be checked by EIED-ME (Issued for information), and the vendor shall be fully responsible for any discrepancy between Calculation, GAD and Body/Bundle detail drawing.
Vendor Reply: Noted.



NOZZLE	SIZE	RATING	FORCE (KN)			MOMENT (KN-m)		
			FX	FZ	FY	MX	MZ	MY
N3/N4	14"	300#	18.96	18.96	18.96	18	18	18
N2	12"	300#	15.72	15.72	15.72	13.44	13.44	13.44
N1A~D B1A~D	6"	300#	6.84	6.84	6.84	3.48	3.48	3.48

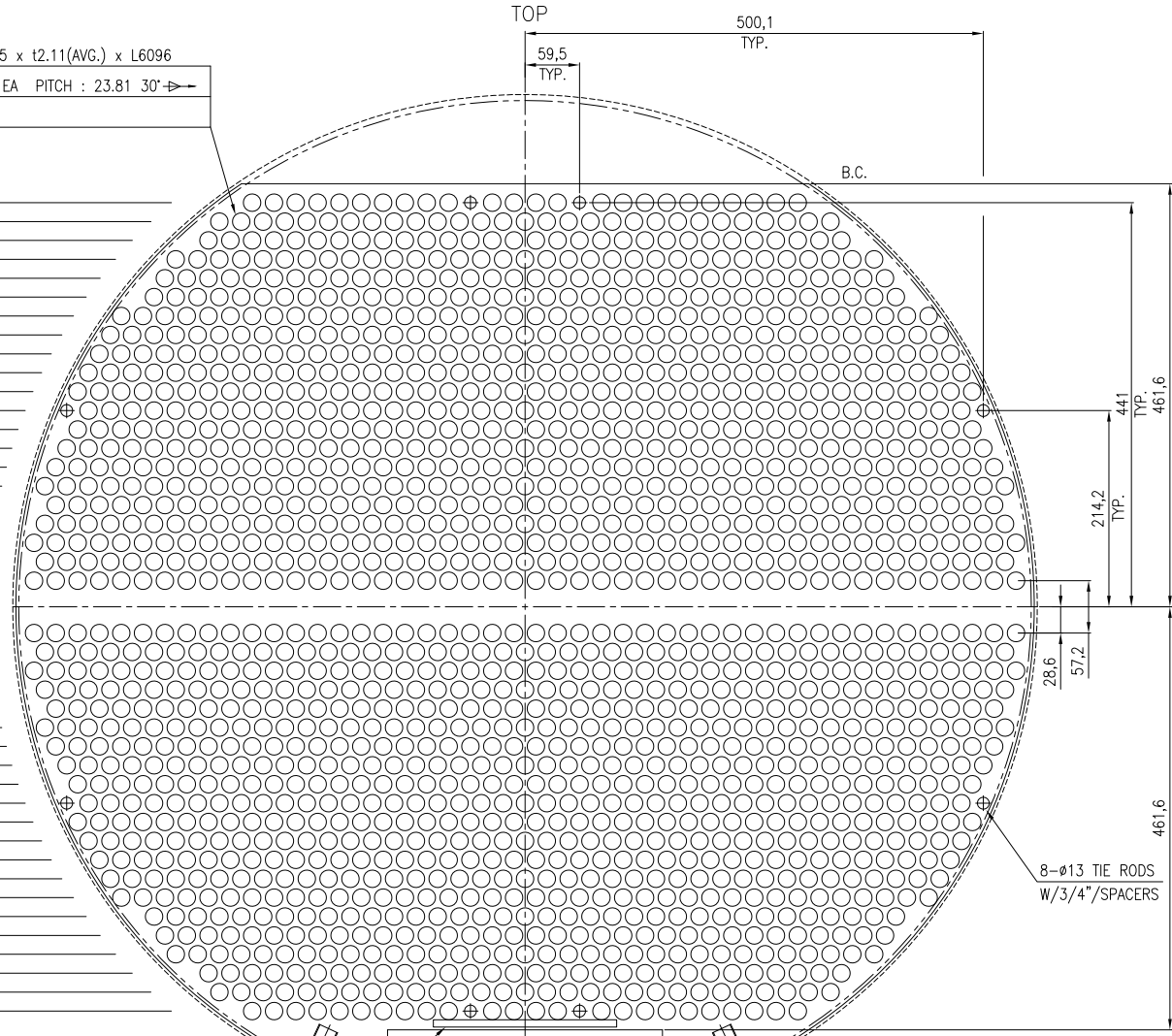
TYPE	NO	ITEM	SERVICE	QTY.	SIZE	CONNECTION		NECK	REINF. PAD	PROJ.	REMARKS		
						TYPE	RATING						
	ASCE 7-2018	B1A~D	PROPYLENE INLET	4	6"	W.N.	300#	R.F.	80	-	270	14	SEE DWG.
	D/C	B1A~D	PROPYLENE INTERMEDIATE	4	6"	W.N.	300#	R.F.	80	-	270	14	762
	C / 202	B1E~H	PROPYLENE INTERMEDIATE	4	6"	W.N.	300#	R.F.	80	-	270	12	658
	1.09/1.25/1.11/0.4/0.81/0.33	N2	PROPYLENE OUTLET	1	12"	W.N.	300#	R.F.	80	-	480	12	SEE DWG.
	1.25 / 3	N3	PROCESS INLET	1	14"	W.N.	300#	R.F.	-	14	560	14	SEE DWG.
	COLD/50	N4	PROCESS OUTLET	1	14"	W.N.	300#	R.F.	-	14	560	14	SEE DWG.
	230	N5	PROPYLENE VENT	1	2"	W.N.	300#	R.F.	160	-	-	-	660
	-	N6	PROPYLENE DRAIN	1	2"	W.N.	300#	R.F.	160	-	-	-	SEE DWG.
	NOTE 12	N10	LEVEL TRANSMITTER	1	2"	W.N.	300#	R.F.	160	-	-	-	SEE DWG.
	NEW ENLARGED WITH 2 DRONES WITH S.W. WELD	N11	LEVEL TRANSMITTER	1	2"	W.N.	300#	R.F.	160	-	-	-	SEE DWG.
	1(OE) 2(TWO)	N13	OIL RECOVERY BOOT	1	6"	-	-	-	80	-	270	14	SEE DWG.
	11500	N14	RELIEF VALVE	1	3"	W.N.	300#	R.F.	160	-	190	12	660
	17400 (EXCHANGER)	N15	SPARE PURGE	1	1 1/2"	W.N.	300#	R.F.	160	-	-	-	SEE DWG.
	2950 (PIPE HEADER)	S-11	OIL RECOVERY BOOT	1	3/4"	L.W.N.	300#	R.F.	-	14.25	-	-	SEE DWG.

REV.	DATE	Purpose of Issue	Prepared	Checked	Approved
02	25 Oct.25	I.F.R.	D.S.R.	F.T.	A.M.
01	07 Oct.25	I.F.R.	D.S.R.	F.T.	A.M.
00	26 Aug.25	I.F.R.	D.S.R.	F.T.	A.M.

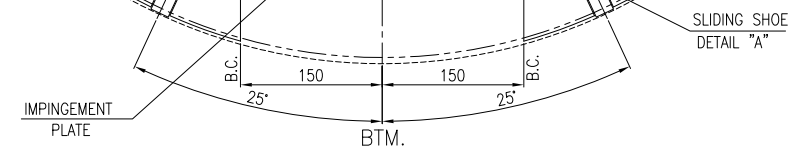
PO No.: GPIC-PT-MA-PO-000-3029
 DRAWING TITLE: EVAPORATOR (CHILLER) DRAWING (E-6101) (GENERAL ARRANGEMENT)
 DRAWING NO.: VD-GPIC-MA-3029-3029-0089
 REV. SHEET NO. SIZE: 02 3 OF 10 A3

TUBE SIZE : 0.D19.05 x t2.11(AVG.) x L6096
 REQ'D NO. : U-826 EA PITCH : 23.81 30' →
 (O.T.L : 1104.9)

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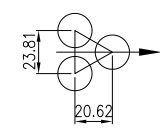
TOTAL : 1652 EA



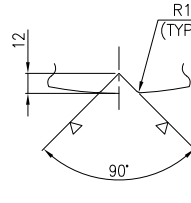
SLIDING SHOE
DETAIL "A"

TUBE ARRANGEMENT

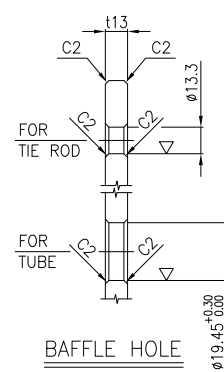
TUBE PITCH



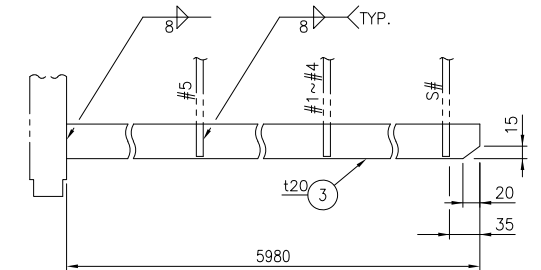
BAFFLE NOTCH
(TOP & BTM.)



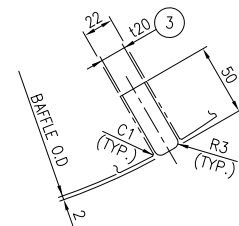
BAFFLE HOLE



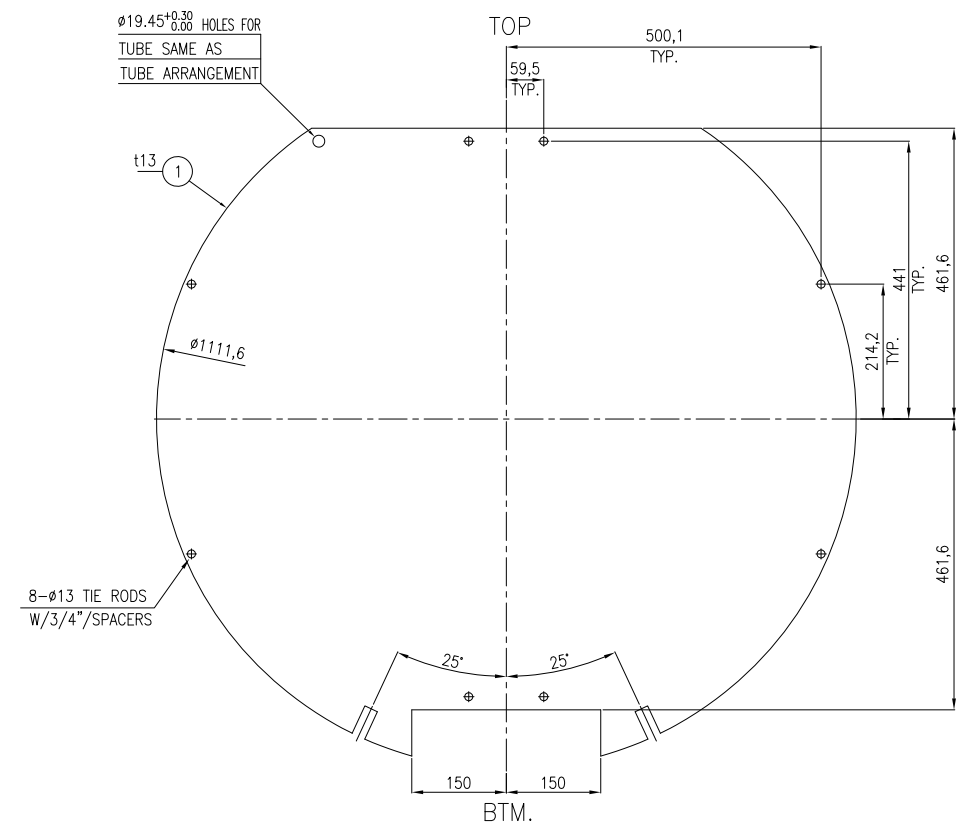
SLIDING SHOES



DETAIL "A"



Ø19.45^{+0.30}/_{0.00} HOLES FOR
TUBE SAME AS
TUBE ARRANGEMENT



FULL SUPPORT BAFFLE

NOTE

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

* FOR ONE SET

2	SLIDING SHOE	SA-516 70N	2	120 x 50 x 5980	
1	FULL SUPPORT BAFFLE	SA 516-70N	6	t13 x Ø1111.6	

BILL OF MATERIAL

Code	<input type="checkbox"/> No Comment/ Approval (Applicable Only for "For Review" and "For Approval" Requirements for comment and the document be released for Manufacturing)
Code	<input type="checkbox"/> No Comment/ Approval with Remarks Vendor/Sub-Contractor shall correct, revise and resubmit the document, the document is released for Manufacturing if changes incorporated.
Code	<input type="checkbox"/> Commented Vendor/Sub-Contractor shall correct, revise and resubmit the document by the date specified. The document shall be released under the Status of "To Be Released" if correct requirements shall be resubmitted before starting the Manufacturing Process.
Code	<input type="checkbox"/> Not Accepted (Rejected) Vendor/Sub-Contractor shall re-work/re-design/re-manufacture the document to meet the requirements. The document shall be released for Manufacturing after the Vendor/Sub-Contractor shall correct, revise and resubmit the document with the same requirements. The document shall be released under the Status of "To Be Released" if correct requirements shall be resubmitted before starting the Manufacturing Process.
No Code	<input type="checkbox"/> No Code (Only for "For Approval" Requirement and "For Review" Requirements for comment and the document be released for Manufacturing)

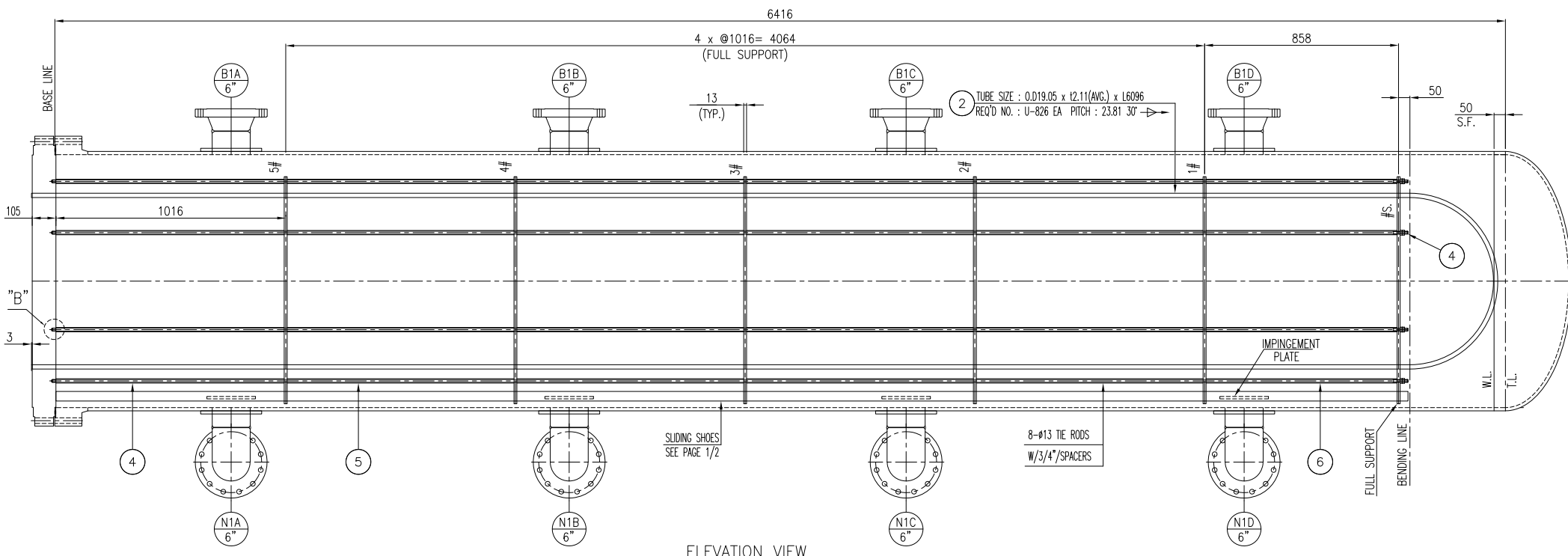
02	25.Oct.25	IFP	D. SH	F. T	A. M
01	07.Oct.25	IFP	D. SH	F. T	A. M
00	26.Aug.25	IFP	D. SH	F. T	A. M

REV.	DATE	Purpose of Issue	Prepared	Checked	Approved
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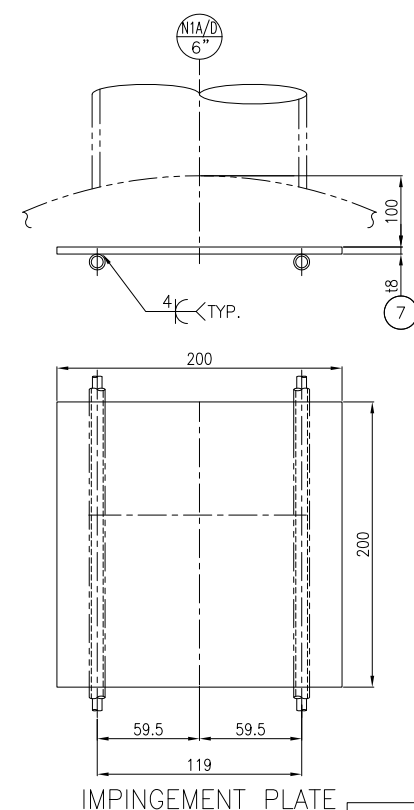
PO No.: GPIC-PT-MA-PO-000-3029 SCALE: 1:1

DRAWING TITLE:
EVAPORATOR (CHILLER) DRAWING (E-6101)
(BUNDLE DETAIL 1/2)

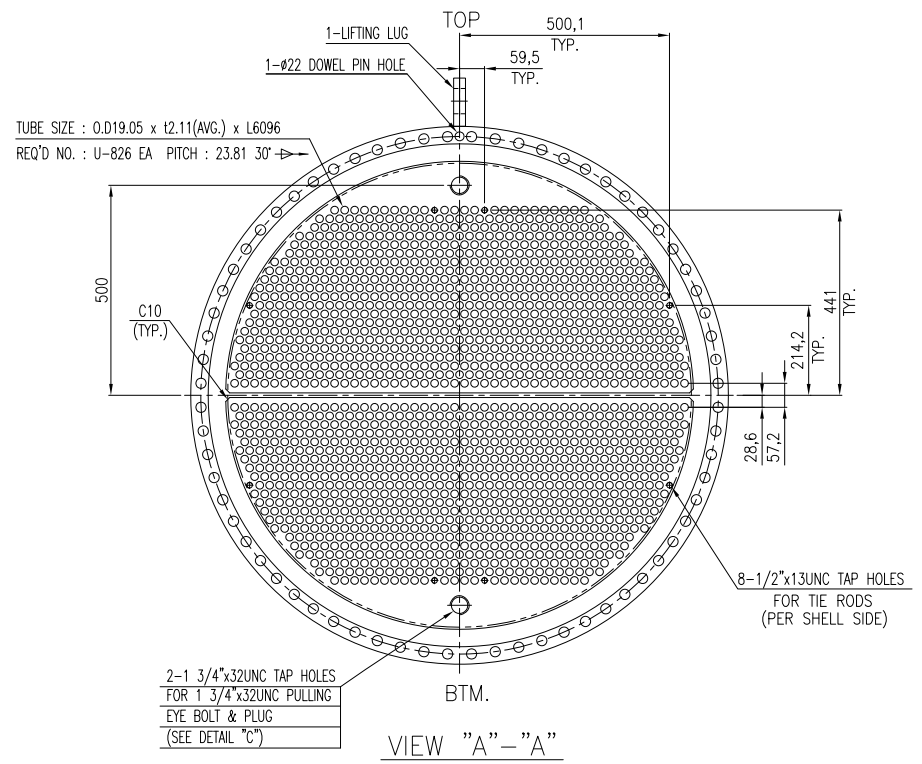
DRAWING NO.	REV.	SHEET NO.	SIZE
VD-GPIC-MA-3029-3029-0089	02	5 OF 10	A3



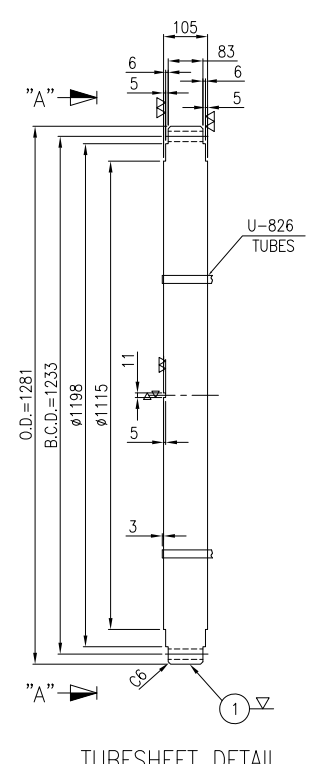
ELEVATION VIEW



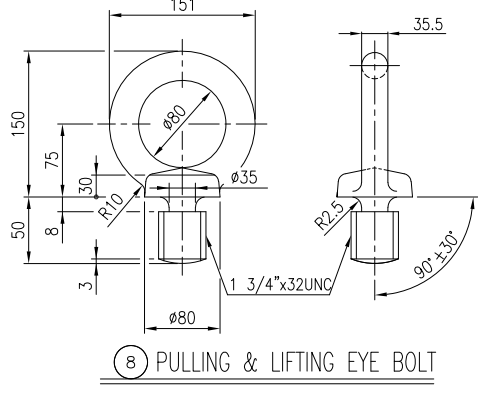
IMPINGEMENT PLATE



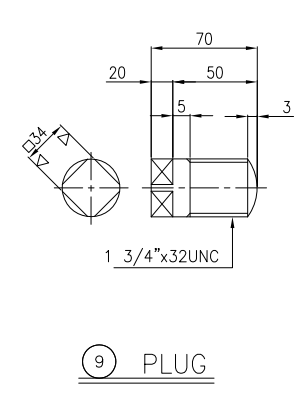
VIEW "A"- "A"



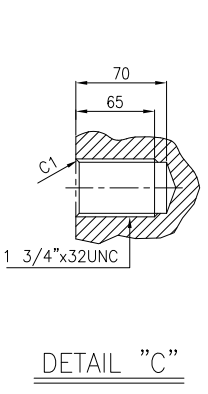
TUBESHEET DETAIL



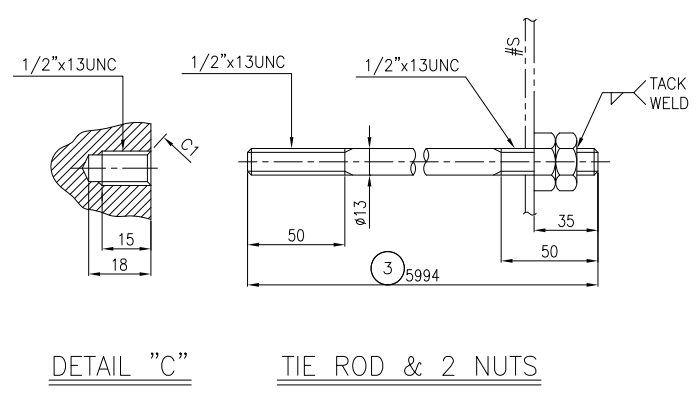
PULLING & LIFTING EYE BOLT



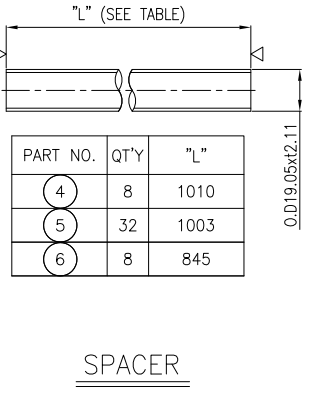
PLUG



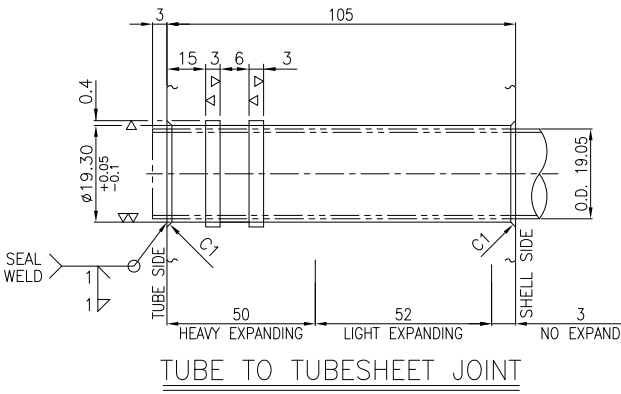
DETAIL "C"



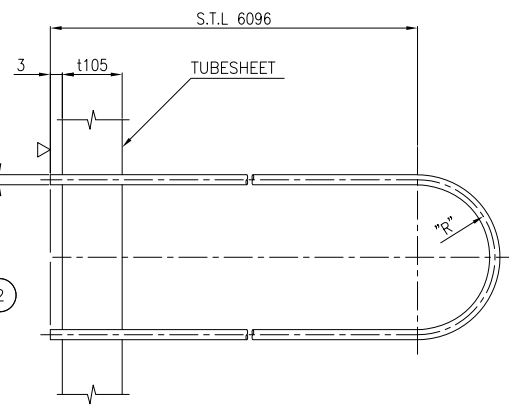
TIE ROD & 2 NUTS



SPACER



TUBE TO TUBESHEET JOINT



U-TUBE

NO.	"R"	"L"	Q'TY
1	28.575	12281.8	46
2	49.2	12346.6	45
3	69.8	12411.3	46
4	90.4	12476.1	45
5	111.1	12540.9	44
6	131.7	12605.7	45
7	152.3	12670.5	44
8	172.9	12735.3	43
9	193.6	12800.1	42
10	214.2	12864.9	41
11	234.8	12929.6	42
12	255.4	12994.4	41
13	276.0	13059.2	40
14	296.7	13124.0	39
15	317.3	13188.8	38
16	337.9	13253.6	35
17	358.5	13318.4	34
18	379.2	13383.1	33
19	399.8	13447.9	30
20	420.4	13512.7	29
21	441.0	13577.5	24

U-TUBE DIMENSION

NOTE
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

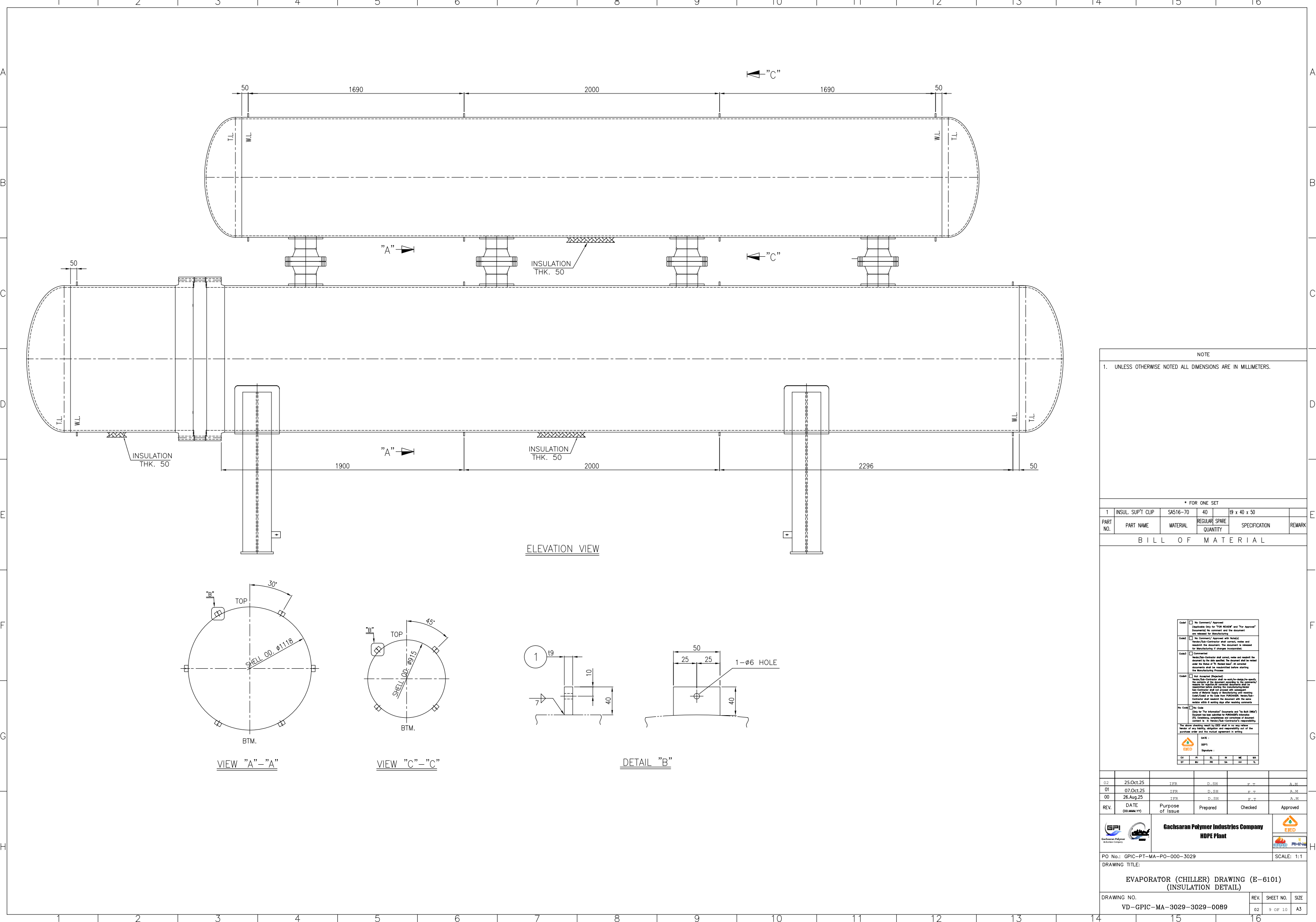
* FOR ONE SET					
PART NO.	PART NAME	MATERIAL	QUANTITY	SPECIFICATION	REMARK
10	LIFTING LUG	SA283-C	1	SEE DNG.	
9	PLUG	304 S.S	2	1 3/4"x32UNC	
8	EYE BOLT	SA-36	2	1 3/4"x32UNC	H.D.G.
7	IMPINGEMENT PLATE	SA516-70	1	18 x 200 x 200	
6	SPACER	SA334-6	8	0.019.05 x 12.11 x L845	
5	SPACER	SA334-6	32	0.019.05 x 12.11 x L1003	
4	SPACER	SA334-6	8	0.019.05 x 12.11 x L1010	
3	TIE ROD & 2NUTS	SA36/SA194-2H	8	1/2"x13UNC (R.B13) x L5994	
2	TUBE	SA334-6	U-826	0.019.05 x 12.11(AVG.) x S.T.L.6096	
1	TUBESHEET	SA350-LF2 CL1N	1	1105x #1281	

BILL OF MATERIAL

NO.	"R"	"L"	Q'TY
1	28.575	12281.8	46
2	49.2	12346.6	45
3	69.8	12411.3	46
4	90.4	12476.1	45
5	111.1	12540.9	44
6	131.7	12605.7	45
7	152.3	12670.5	44
8	172.9	12735.3	43
9	193.6	12800.1	42
10	214.2	12864.9	41
11	234.8	12929.6	42
12	255.4	12994.4	41
13	276.0	13059.2	40
14	296.7	13124.0	39
15	317.3	13188.8	38
16	337.9	13253.6	35
17	358.5	13318.4	34
18	379.2	13383.1	33
19	399.8	13447.9	30
20	420.4	13512.7	29
21	441.0	13577.5	24

REV.	DATE	Purpose of Issue	Prepared	Checked	Approved
01	25.Oct.25				
02	07.Oct.25				
00	26.Aug.25				

EVAPORATOR (CHILLER) DRAWING (E-6101)
(BUNDLE DETAIL 2/2)



NOTE

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

* FOR ONE SET

PART NO.	PART NAME	MATERIAL	QUANTITY	SPECIFICATION	REMARK
1	INSUL SUPT CLIP	SA516-70	40	19 x 40 x 50	

BILL OF MATERIAL

REV.	DATE	Purpose of Issue	Prepared	Checked	Approved
02	25.Oct.25		IFR	D. SH	A. M
01	07.Oct.25		IFR	D. SH	A. M
00	26.Aug.25		IFR	D. SH	A. M

No Comment/ Approval
 (Applicable Only for "FOR REVIEW" and "For Approval" documents) No comment and the document is released for Manufacturing.

No Comment/ Approval with Remark
 Vendor/Sub-Contractor shall correct, revise and resubmit the document. The document is released for Manufacturing if changes incorporated.

Commented
 Vendor/Sub-Contractor shall correct, revise and resubmit the document by the date specified. The document shall be released under the Status of "To Be Released" at correct location when the required before starting the Manufacturing Process.

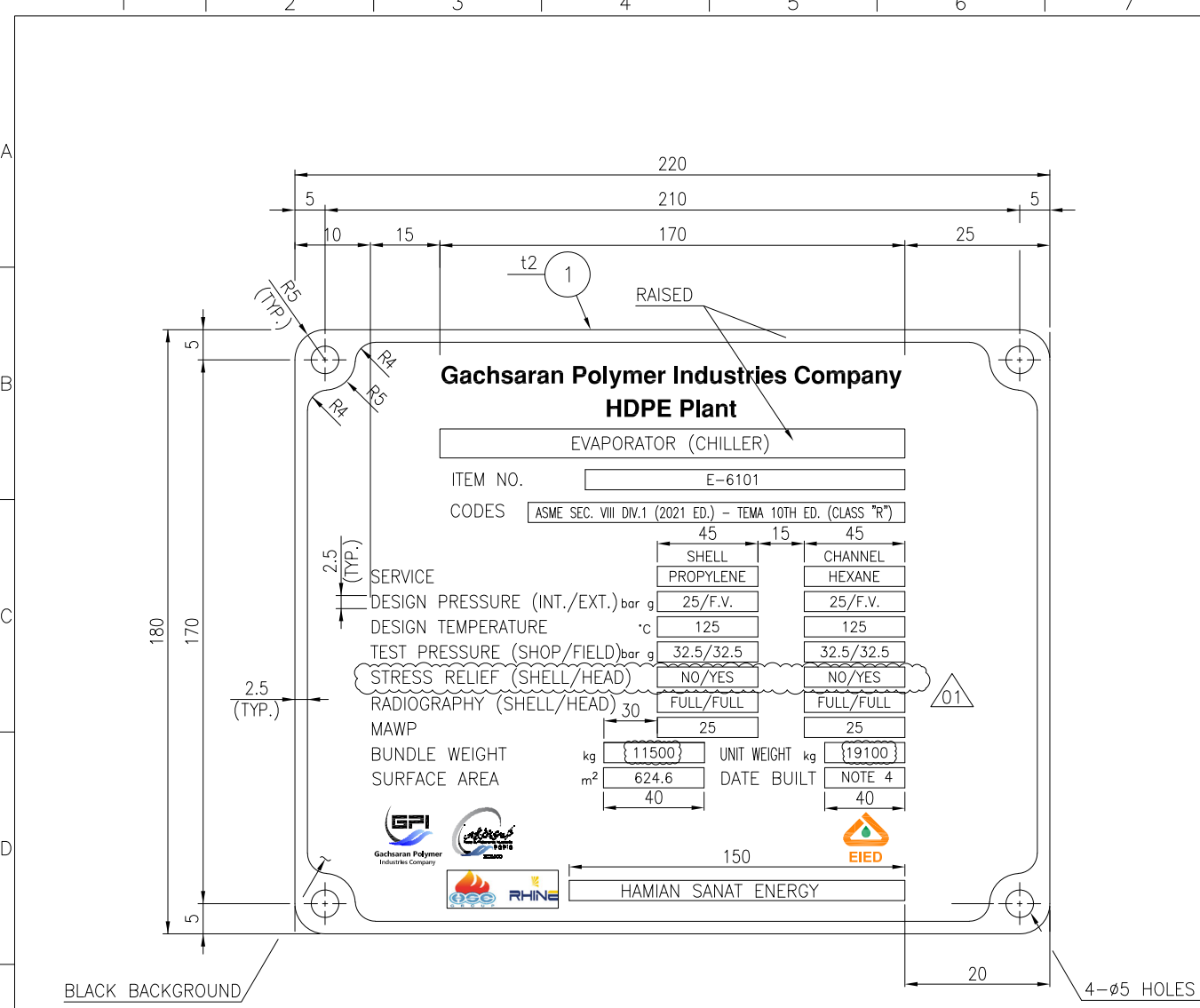
Not Accepted (Rejected)
 Vendor/Sub-Contractor shall re-work/re-design/re-verify the document. The document shall be released for Manufacturing only after the required changes are implemented and approved by the Manufacturing Process. Vendor/Sub-Contractor shall not proceed with the manufacturing until the document is approved by the Manufacturing Process. Vendor/Sub-Contractor shall resubmit the document with the same number within 4 working days after receiving comments.

No Code
 (Only for "For Information" documents and "For Bulk Order")
 (By default, the document is not released for Manufacturing)

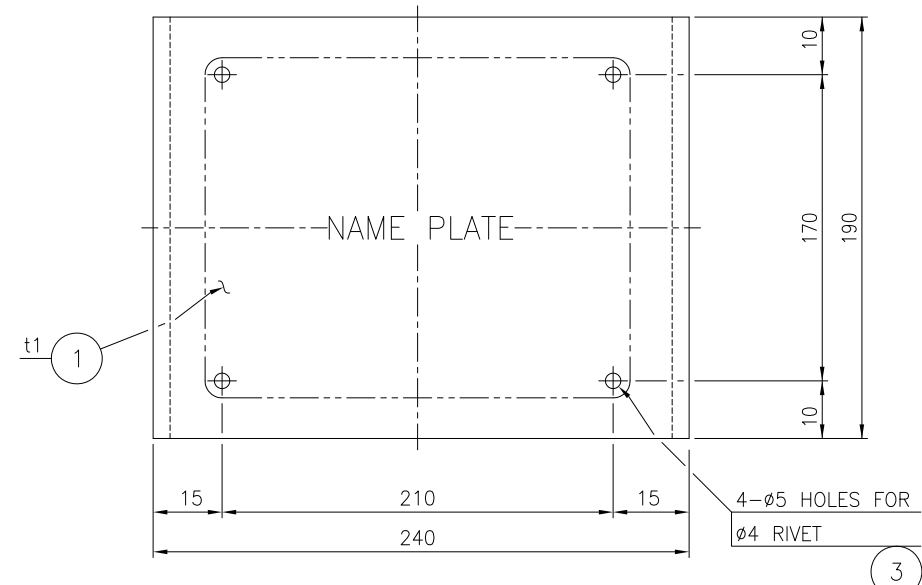
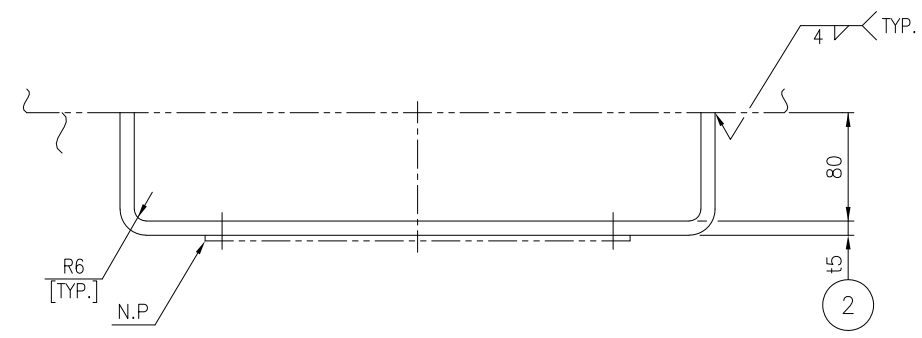
The above mentioned shall be followed by the Vendor/Sub-Contractor's responsibility. Vendor of any liability, obligation and responsibility not of the purchase order and the related agreement in writing.

DATE: _____
 EIED: _____
 Signature: _____

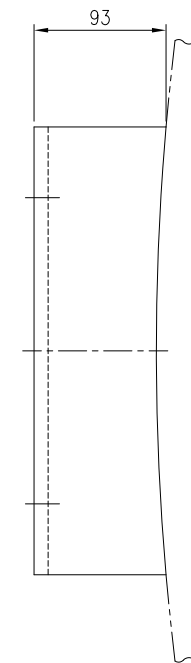
GPIC Logo: Gachsaran Polymer Industries Company
 HDPE Plant
 EIED Logo: EIED
 REV. SHEET NO. SIZE: 02 9 OF 10 A3



NAME PLATE



NAME PLATE BRACKET



- NOTE
- UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
 - ALL LETTERS, BLOCKS, AS WELL AS EDGES, SHALL HAVE RAISED POLISHED FACE-RELIEF 0.5MM APPROX.
 - LETTERS TO BE GOTHIC TYPE
 - YEAR BUILT AND DATE OF TEST STAMPED AT SHOP AFTER HYDROSTATIC TEST COMPLETION.

* FOR ONE SET

3	RIVET	304 S.S	4	ø4	
2	NAME PLATE BRACKET	SA516-70N	2		15 x 450 x 190
1	NAME PLATE	304 S.S	1		11 x 180 x 220

BILL OF MATERIAL

PART NO.	PART NAME	MATERIAL	REGULAR QUANTITY	SPARE QUANTITY	SPECIFICATION	REMARK
<p>Code 1 <input type="checkbox"/> No Comment/ Approval (Applicable Only for "For Review" and "For Approval" - Exempted for comment and the document is released for Manufacturing)</p> <p>Code 2 <input type="checkbox"/> No Comment/ Approval with Note(s) Vendor/Sub-Contractor shall correct, revise and resubmit the document. The document is released for Manufacturing if changes incorporated.</p> <p>Code 3 <input type="checkbox"/> Comment(s) Vendor/Sub-Contractor shall correct, revise and resubmit the document by the date specified. The document shall be released under the Status of "To Be Released" if correct documents shall be resubmitted before starting the Manufacturing Process.</p> <p>Code 4 <input type="checkbox"/> Not Accepted (Rejected) Vendor/Sub-Contractor shall re-work/re-design/re-manufacture the product according to the comments/changes for re-submit to correct drawings and to be released before starting the manufacturing process. Vendor/Sub-Contractor shall correct with necessary change order in the data entry system. Vendor/Sub-Contractor shall resubmit the document with the same number after it is ready for the manufacturing process.</p> <p>No Code <input type="checkbox"/> No Code (Only for "For Information" documents and "For Bulk Order" - For Bulk Order, Vendor/Sub-Contractor shall submit the document to the Vendor/Sub-Contractor's responsibility. The document shall be released for manufacturing after the agreement in writing.)</p> <p>DATE: _____ GPI: _____ Signature: _____</p>						
CV	PI	EL	SI	ME	SA	
ST	BY	PA	SA	DR	TC	

02	25.Oct.25	I.P.P.	D. SH	F. T	A. M
01	07.Oct.25	I.P.P.	D. SH	F. T	A. M
00	26.Aug.25	I.P.P.	D. SH	F. T	A. M

REV.	DATE	Purpose of Issue	Prepared	Checked	Approved
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PO No.: GPIC-PT-MA-PO-000-3029 SCALE: 1:1

DRAWING TITLE:
**EVAPORATOR (CHILLER) DRAWING (E-6101)
(NAME PLATE DETAIL)**

DRAWING NO.	REV.	SHEET NO.	SIZE
VD-GPIC-MA-3029-3029-0089	02	10 OF 10	A3