

**MATERIAL REQUISITION  
FOR  
PLATE**

### TABULATION OF REVISED PAGE

Page	Revisions							Remarks	Page	Revisions							Remarks
	0	1	2	3	4	5	6			0	1	2	3	4	5	6	
1	X								35								
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### 1- PURPOSE

The purpose of this document is to define vendor's scope of supply for **PLATE**

### 2- DEFINITION

### 3- LIST OF EQUIPMENT INQUIRED

ITEM NO.		UNIT	DESCRIPTION	LOCATION
1		4	AIRCOOLER	

### 4- APPLICABLE CODES & STANDARD

ASME Section II Part A for material designations

### 5- REQUIRED DOCUMENTATION

N/A

## 6- SCOPE OF WORK, SUPPLY & SERVICES

POS.	Description	Material	Item	QTY	Weight (Kg)	Remark
1	PLATE 35x5000x2500	SA-240 S31803 (NACEMR0103)	ALL	2	7000	---
2	PLATE 20x5000x2500	SA-240 S31803 (NACEMR0103)	ALL	1	2000	---
2	PLATE 12x500x500	SA 240 304L	ALL	1	24	---
2	PLATE 4x1000x500	SA 240 304L	ALL	1	16	---
3	PLATE 10x500x500	BRASS	ALL	1	20	---
APPROX TOTAL WEIGHT					9060	

## 7- SPARE PARTS

N/A

## 8- DEVIATIONS/EXCEPTION/ALTERNATION FROM MATERIAL REQUISITION'S REQUIREMENTS

If any, shall be mentioned by vendor

## 9- TECHNICAL NOTES

### SA-240 S31803 (NACEMR0103):

1. The material certificate including chemical analysis & mechanical properties shall be submitted.
2. For material characteristics refer to ASME Sec.II part A. the latest edition of code shall be used.
3. The steel shall conform to applicable requirements of the specification A480/480M.
4. The steel shall be made by one of the following process: electric – arc, electric – induction.
5. Steel producer shall make an analysis of each heat. The steel shall not contain unspecified elements.
6. Finish for plates: hot – rolled or cold rolled & annealed & pickled.
7. Heat treatment: the steels shall be solution – annealed consists of heating the material to a temperature of 1900°F [1040°C] minimum for an appropriate time and Quenched in water or rapidly cooled by other.
8. The steel shall have no imperfections of a nature or degree, for the type & quality ordered.
9. Plate shall be marked in two places near the ends or may be continuously. Packing & loading shall be in accordance with the procedures recommended by practices A700 by consider all specific requirement of A480/A480M.
10. The acceptance hardness is 293 Brinell max.
11. The **NACE MR 0103** requirement shall be considered & certificate for these requirements shall be submitted.
12. Corrosion tests according to **ASTM G48 & ASTM G28** shall be performed and the results shall be submitted in certificate of materials.
13. Required material test certification: EN 10204-3.1. Language for material test report: ENGLISH.

## SA 240 304L

- 1) For material characteristics refer to ASME Sec. II part A, latest edition.
- 2) The steel shall conform to applicable requirements of the specification **A480/480M**.
- 3) The steel shall be made by one of the following process: **electric-arc, electric-induction**.
- 4) Steel producer shall make an analysis of each heat. The steel shall not contain unspecified elements.
- 5) Finish for plates: hot-rolled or cold rolled, annealed and pickled.
- 6) **Heat treatment:** the steels shall be **solution-annealed** consists of heating the material to a temperature of 1900°F (**1040 °C**) **minimum** for an appropriate time followed by **water quenching** or rapidly cools by other means & shall be capable of meeting the requirements for resistance to inter granular corrosion.
- 7) Plate shall be marked in two places near the ends or may be continuously.
- 8) Packing and loading shall be in accordance with the procedures recommended by practices A700 by considering all specific requirement of A480/A480M.
- 9) Required material test certification: **DIN 50049-3.1** or **EN 10204-3.1**.
- 10) Language for material test report: **ENGLISH**.

## 10- ATTACHMENTS

Attached For information



Attached is necessary



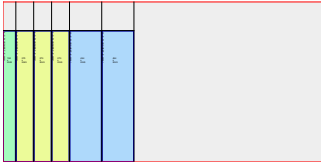
1-Details of each Layout SA-240 S31803 (NACEMR0103) 35\*5000\*2500:

Section	Color
1	Blue
2	Cyan
7	Cyan
8	Yellow
12	Orange
13	Green

Layout 1 of 2(Stock:MR1 Dim:5000 x 2500 Qty:1)

Bill Of Materials:

Name	Length	Width	Qty	Total Qty.
1 - S. TUBESHEET - E-0202	2043	270	4	4
2 - S. PLUGSHEET - E-0202	2043	270	1	1
7 - S. TUBESHEET - E-0202	2043	190	4	4
8 - S. PLUGSHEET - E-0202	2043	190	3	3
12 - F. TUBESHEET - E-0202	2043	494	4	4
13 - F. PLUGSHEET - E-0202	2043	494	2	2

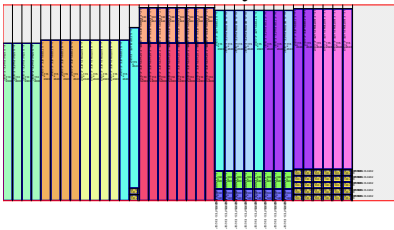


Layout 2 of 2(Stock:MR1 Dim:5000 x 2500 Qty:1)

Bill Of Materials:

Name	Length	Width	Qty	Total Qty.
2 - S. PLUGSHEET - E-0202	2043	270	3	3
8 - S. PLUGSHEET - E-0202	2043	190	1	1
13 - F. PLUGSHEET - E-0202	2043	494	2	2

2-Details of each Layout SA-240 S31803 (NACEMR0103) 20\*5000\*2500:

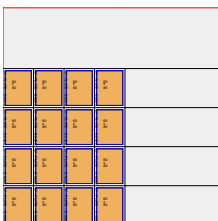


Layout 1 of 1(Stock:MR2 Dim:5000 x 2500 Qty:1)

Bill Of Materials:

Name	Length	Width	Qty	Total Qty.
3 - S. TOP PLATE - E-0202	2043	115	4	4
4 - S. BOTIOM PLATE - E-0202	2043	115	4	4
5 - S. END PLATES - E-0202	220	100	8	8
6 - S. STAY PLATE - E-0202	2003	110	4	4
9 - S. TOP PLATE - E-0202	2043	115	4	4
10 - S. BOTIOM PLATE - E-0202	2043	115	4	4
11 - S. END PLATES - E-0202	140	100	8	8
14 - F. TOP PLATE - E-0202	2043	115	4	4
15 - F. BOTIOM PLATE - E-0202	2043	115	4	4
16 - F. STAY PLATE - E-0202	2003	110	8	8
17 - F. END PLATES - E-0202	444	100	8	8
18 - STOPPER - E-0202	100	70	32	32

3-Details of each Layout SA 240 304L THK12:



Layout 1 of 1(Stock:MR3 Dim:500 x 500 Qty:1)

Bill Of Materials:

Name	Length	Width	Qty	Total Qty.
27 - PLATE - E-0202	80	60	16	16

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#### 4-Details of each Layout SA 240 304L THK4:



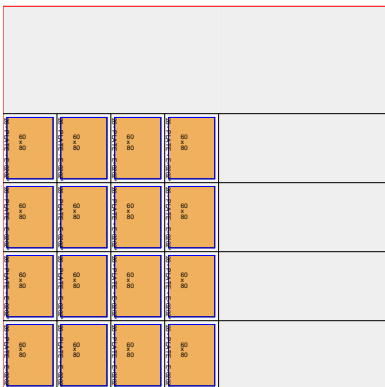
Layout 1 of 1(Stock:MR4 Dim:1000 x 500 Qty:1)

Bill Of Materials:

Name	Length	Width	Qty	Total Qty.
22 - NAME PLATE SUPPORT - E-0202	240	300	4	4

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#### 5-Details of each Layout BRASS THK10:



Layout 1 of 1(Stock:MR5 Dim:500 x 500 Qty:1)

Bill Of Materials:

Name	Length	Width	Qty	Total Qty.
26 - PLATE - E-0202	80	60	16	16

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No.	Process	Description of Test	Reference Procedure/ Code	Report/Record	Involved Parties			Remarks
					Vendor	TPI	AAC	
1	Raw material	Check of raw material	ASME Sec. II Part A, SA-240 304L	Report	H	R	H	
		Check Heat No. & chemical composition	Material certificate EN10204 3.1	Report, Material Certificate	H	R	H	
		Mechanical properties	Material Certificate EN10204 3.1	Material Certificates	H	R	H	
2	Hot Rolling or cold rolling	SA 480	ASME Sec. II, PO Req.	-	H	R	R	
3	Heat Treatment	Solution annealed at 1040 C and cooled in water or rapid cool method	ASME Sec. II, PO Req.	Report/record	H	R	R	
4	Pickling and passivation	-	-	-				
5	Hardness test	NA	ASME Sec. II, PO Req.	Report	H	R	R	
6	Impact test	NA	ASME Sec. II, PO Req.	Report	H	R	R	
7	Corrosion test	NA	ASME Sec. II, PO Req.	Report	H	R	R	
8	NDT	NA	ASME Sec. II, PO Req.	Report	H	R	R	
9	Marking	Size+ Material grade + Heat No.	Approved drawing	Report	H	R	R	
10	Visual & Dimensional check		Approved drawing	Report/Record	H	H	H	
11	Material certificate	EN 10204 Type 3.1	PO Req.	Certificate	H	H	H	
12	Packing		PO Req.	Packing list	H	H	H	



No.	Process	Description of Test	Reference Procedure/ Code	Report/Record	Involved Parties			Remarks
					Vendor	TPI	AAC	
1	Raw material	Check of raw material	ASME Sec. II Part A, SA-240 S31803	Report	H	R	H	NACE MR0103 Requirements
		Check Heat No. & chemical composition	Material certificate EN10204 3.1	Report, Material Certificate	H	R	H	
		Mechanical properties	Material Certificate EN10204 3.1	Material Certificates	H	R	H	
2	Hot Rolling or cold rolling	SA 480	ASME Sec. II, PO Req.	-	H	R	R	
3	Heat Treatment	Solution annealed at 1040 C and cooled in water or rapid cool method	ASME Sec. II, PO Req.	Report/record	H	R	R	
4	Pickling and passivation	-	-	-				
5	Hardness test	Max. 293 Brinell	ASME Sec. II, PO Req.	Report	H	R	R	
6	Impact test	NA	ASME Sec. II, PO Req.	Report	H	R	R	
7	Corrosion test	NA	ASME Sec. II, PO Req.	Report	H	R	R	
8	NDT	NA	ASME Sec. II, PO Req.	Report	H	R	R	
9	Marking	Size+ Material grade + Heat No.	Approved drawing	Report	H	R	R	
10	Visual & Dimensional check		Approved drawing	Report/Record	H	H	H	
11	Material certificate	EN 10204 Type 3.1	PO Req.	Certificate	H	H	H	
12	Packing		PO Req.	Packing list	H	H	H	