



CORPORATE PURCHASING SPECIFICATION

AA10403

Rev No. 00

PAGE 1 of 2

CARBON STEEL STRUCTURAL PLATES of ASTM A516 Grade-70

1 Scope

This Specification governs the requirements for the supply of plates as per ASTM A516 Grade 70.

2 Chemical & Mechanical properties

The chemical composition and mechanical properties shall be as per the specification .

3 Supply Condition

- 3.1 If the plates are supplied in gas cut condition, plate thickness above 50 mm shall be preheated to 110°C before gas cutting.
- 3.2 Repair by fusion welding is prohibited.
- 3.3 The out of flatness shall be within 1mm/meter.
- 3.4 The steel shall be fully killed.

4 Non-destructive Testing & Acceptance

All the plates shall be ultrasonically tested and accepted as per ASTM A578 level C.

5 MARKING

Each plate shall be hard stamped and bordered with white paint within the following information:

- a) P O No.& Date
- b) Size & Quantity
- c) Specification
- d) Melt number
- e) Maker's identification

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Revisions:
BAP Ranipet TDC:RTA:407 elevated to Corporate

APPROVED:
INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC(S&GPS)

Rev No.00	Amd No.	Reaffirmed	Prepared	Issued	Dt. of 1 st Issue
Dt:	Dt:	Year:	BAP, Ranipet	Corp.R&D	19-09-2016

DRC-R5031

**6 TEST CERTIFICATES**

TC shall be in English and it shall contain:

- a) Purchase Order Number and Date
- b) AA10403
- c) Material Specification and Grade
- d) Drawing No (if applicable)
- e) Number & weight
- f) Chemical Composition (Each Melt wise)
- g) Mechanical Properties (Each Melt wise)
- h) Ultrasonic Testing Report (HT batch wise)

7 BHEL reserves the right to carry out test and to reject the items wherever non-conformance to the contract is noticed.

8 REFERRED STANDARDS (Latest Publications Including Amendments)

- 1) ASTM A578



CORPORATE PURCHASING SPECIFICATION

AA 107 39

Rev. No. 08

PREFACE SHEET

**AUSTENITIC STAINLESS STEEL SHEETS, PLATES AND STRIPS -
SOLUTION ANNEALED (ASTM A 240M, TYPE 304)** ↑

FOR INTERNAL USE ONLY
REMOVE THIS PREFACE SHEET BEFORE ISSUE TO SUPPLIERS

Comparable Standards:

- | | | | |
|-------------|---|---|---|
| 1. AMERICAN | : | ASTM A 240M
Type 304, Solution annealed. | ↑ |
| 2. INDIAN | : | IS: 6911 - 1992
Gr: X 04Cr 19 Ni 9 Solution annealed | |
| 3. EUROPEAN | : | EN 10088-2, Gr: X5CrNi18-10 | |

Suggested/Probable Suppliers and Grades:

Refer Plant Vendors list

User Plant References:

- | | | | |
|-------------------|---|-----------------------------------|--|
| 1. HEEP - HARDWAR | : | HW 021 02 99 | |
| 2. BHOPAL | : | PS10587, PS10512-Sheets & Plates | |
| 3. HYDERABAD | : | AISI 304; ASTM A 240M, Gr: TP304; | |
| ↑ | | ASEA 2 2333-02 | |
| 4. TRICHY | : | AISI 304 | |

Revisions :

CI 28.4.16 of MOM of MRC-S&GPS

**APPROVED: Interplant Material
Rationalization Committee-MRC (S&GPS)**

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Dt :

Year :

HARDWAR

Corp. R&D

JUNE, 1978

**AUSTENITIC STAINLESS STEEL SHEETS, PLATES AND STRIPS -
SOLUTION ANNEALED (ASTM A 240M, TYPE 304)** †**ORDERING DESCRIPTION****1.0 GENERAL :**

The sheets, plates and strips shall conform to the latest version of ASTM A 240M, Type 304 and comply with the following additional requirements. †

2.0 APPLICATION :

For general engineering purposes, where corrosion resistance is essential.

3.0 CONDITION OF DELIVERY:

Hot/Cold rolled, solution annealed and descaled (Finish number 1 or 2 B/2D).

4.0 DIMENSIONS AND TOLERANCES

Material shall be supplied to the dimensions specified in BHEL order.

5.0 CHEMICAL COMPOSITION :

As per ASTM A 240M, Type 304. †

6.0 TEST CERTIFICATES :

Three copies of test certificates shall be supplied along with the following information:

BHEL References :

AA 107 39 -Rev. No.08 / ASTM A 240M, Type:304 †
BHEL order No,

Supplier's References :

Name
Identification No.
Melt No.
Process of manufacture
Details of heat treatment.

Result of Tests:

Dimensional inspection.
Results of chemical analysis, mechanical tests

Revisions :

CI 28.4.16 of MOM of MRC-S&GPS

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**7.0 PACKING AND MARKING :**

Sheets shall be supplied in bundles or in packages each weighing upto a maximum of 3000kg. Plates shall be suitably packed to prevent damage during transit.

For plates below 25 mm thick, each pile (preferably of 16 plates) shall be marked with suppliers identification mark, 'AA 107 39 / ASTM A 240M, Type:304, melt No., BHEL order No., on the top plate.

Each plate of 25mm thickness and above shall be stamped/painted with the suppliers identification mark, 'AA 107 39 / ASTM A 240M, Type:304 , melt No., BHEL order No., on the top plate.

FOR INFORMATION ONLY**CHEMICAL COMPOSITION**

C	Si	Mn	Ni	Cr	S	P	N
≤ 0.08	≤ 0.75	≤ 2.0	8.0-10.5	18.0 -20.0	≤ 0.030	≤ 0.045	0.10

MECHANICAL PROPERTIES

Hardness Max		0.2% PS min N/mm ²	UTS min N/mm ²	% El min	Bend Test Dia.
BHN	HRB				
201	92	205	515	40	-