



CORPORATE PURCHASING SPECIFICATION

AA 101 15

Rev. No. 09

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COLD ROLLED CARBON STEEL SHEET, ANNEALED - DRAWING**1.0 GENERAL:**

This specification governs the quality requirements of Cold Rolled Carbon Steel Sheet/Coil of drawing quality, Annealed and skin passed condition. Sheets having thickness of 0.40 to 3.15 mm (both inclusive) and widths upto 1250 mm are covered in this specification.

2.0 APPLICATION:

Suitable for Drawing/ Welding..

3.0 CONDITION OF DELIVERY:

Sheets/Coils : 0.40 mm to 3.15 mm thick, cold rolled, descaled and oiled sheet/coil shall be supplied in fully annealed and skin passed condition. The size, weight and packing of the coils/sheets shall be as agreed to between the manufacturer and BHEL for indigenous material. For imported material, it shall comply with clause 14.0.

Sheets shall be supplied in straight lengths or in coils as specified in BHEL order.

Sheets shall be flat and the edges cleanly sheared and truly squared to the specified dimensions.

Oils used for rust prevention shall be free from pungent smell. The following oils are suggested :

- SERVO RP 125 of M/s. IOC.
- RUSTOP 387/388 of M/s. HPC
- Bharat TCPF of M/s. Bharat Petroleum
- Any other TRP conforming to IS : 1154

Sheets shall have a matt surface finish and best surface appearance.

4.0 COMPLIANCE WITH NATIONAL STANDARDS:

- 4.1** Material shall comply with the requirements of IS:513-1994,
Gr:D-Drawing, Temper: SP-Annealed & Skin passed;
Quality; killed/semi killed; Surface type - Best;
Surface finish : Matt.

Revisions :

Cl. 27.6.8 OF MOM OF MRC-S&GPS

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

Rev. No. 09

Amd.No.


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Prepared
BHOPALIssued
Corp. R&DDt. of 1st Issue
JULY, 1976

Dt: 15.06.2005

Dt :

Year :

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4.2

Material offered to DIN 1623-1983, Part 1, Gr : RRSt-13.03, (Material No. 1.0347) Surface appearance: Best surface - 05, Surface finish : Matt ‘m’, is also acceptable.

4.3

The tolerance on dimensions shall comply with DIN : 1541.

5.0

DIMENSIONS AND TOLERANCES:

5.1

Sizes:

Cold rolled carbon steel sheets/coils shall be supplied to the dimensions specified in BHEL order.

5.2

Tolerances:

The tolerances on sheets and coils shall comply with IS : 513 as detailed below:

5.2.1

Thickness:

Tolerances on thickness of sheets	
Nominal thickness, mm	Tolerance for nominal widths upto 1250 mm
-- 0.40	± 0.04
Above 0.40 up to 0.60	± 0.05
Above 0.60 up to 0.80	± 0.06
Above 0.80 up to 1.00	± 0.08
Above 1.00 up to 1.25	± 0.09
Above 1.25 up to 1.60	± 0.11
Above 1.60 up to 2.00	± 0.12
Above 2.00 up to 2.50	± 0.14
Above 2.50 up to 3.15	± 0.16

5.2.2

Width:

Width	Tolerance
Upto & Incl. 1250 mm	+ 7 mm - 0
Above 1250 mm	+ 10 mm - 0

5.2.3

Length:

Up to and incld. 2000 mm	+ 15 mm - 0
Over 2000 mm	+ 0.75 percent of length - 0



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5.2.4 Camber:

Camber is the greatest deviation of a side edge from a straight line, the measurement being taken on the concave side with a straight line. Camber tolerances are as specified below:

Coils - 20 mm in any 5000 mm length

Cut lengths - 0.4% x length.

5.2.5 Out-of Square Tolerance (for cut lengths) :

1 percent of the width.

(Out-of squareness is the greatest deviation of an edge from a straight line drawn at a right-angle to the other edge of the sheet, touching one corner and extending to the opposite edge).

6.0 MANUFACTURE :

Steel shall be manufactured by open-hearth, electric, basic oxygen or a combination of these processes.

Material shall be manufactured from semi killed/killed steel, preferably aluminum killed.

Rimmed steel is not acceptable.

7.0 FINISH:

Material shall have a medium or dull finish. Pores, roll marks or scratches which do not impair uniform appearance of the finished product are permissible. The sheets shall be free from waviness and the surface shall be ideal for spray painting.

8.0 HEAT TREATMENT :

Sheets and coils shall be fully annealed and skin passed.


9.0 FREEDOM FROM DEFECTS :

The material shall be free from harmful defects such as scale, rust, blisters, laminations, pitting, cracked edges, etc.

10.0 CHEMICAL COMPOSITION :

The melt analysis of steel and the permissible variation in the composition of the material from the melt analysis shall be as follows:

Element	Melt analysis, percent, max.	Permissible variation percent, max.
Carbon	0.12	0.02
Manganese	0.50	0.03
Sulphur	0.040	0.005
Phosphorus	0.040	0.005

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11.0 TEST SAMPLES:

One bend test and hardness test shall be carried out from each lot of 5,000 kg of material or part thereof, per melt per consignment.

Where material of more than one thickness are rolled from the same melt, one additional bend test shall be made for each thickness.

Test pieces shall be cut so that the axis of the bend is parallel to the direction of rolling, viz., transverse direction.

12.0 MECHANICAL PROPERTIES :

12.1 Bend Test :

The test piece shall be capable of being bent cold through 180° close without showing sign of cracks or fracture on the outer convex surface.

Bend test shall be carried out in accordance with IS : 1599.

12.2 Hardness (VICKERS) :

When tested as per IS : 1501, the test pieces shall show a Vickers hardness as given below:

Upto & Incl. 1.25 mm, thick	:	115 HV, max.
Above 1.25 mm, thick	:	125 HV, max.

13.0 TEST CERTIFICATES:

Unless otherwise specified, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

AA 101 15, Rev 09/IS:513 Gr:D/DIN 1623 Gr: RRSt 13.03 m,
BHEL Order No,
Melt No,
Size and Quantity,
Results of Chemical analysis and Mechanical tests,
Supplier's name,
Identification No
TC No,
Signature of Competent authority, etc..

14.0 PACKING :

14.1 Packing:

Sheets and Coils shall be suitably packed in bundles to prevent corrosion and damage during transit.

Recommended packing for imported material shall be as shown below. However, other methods of packing is also acceptable if prior agreement of BHEL is obtained in writing by the manufacturer.

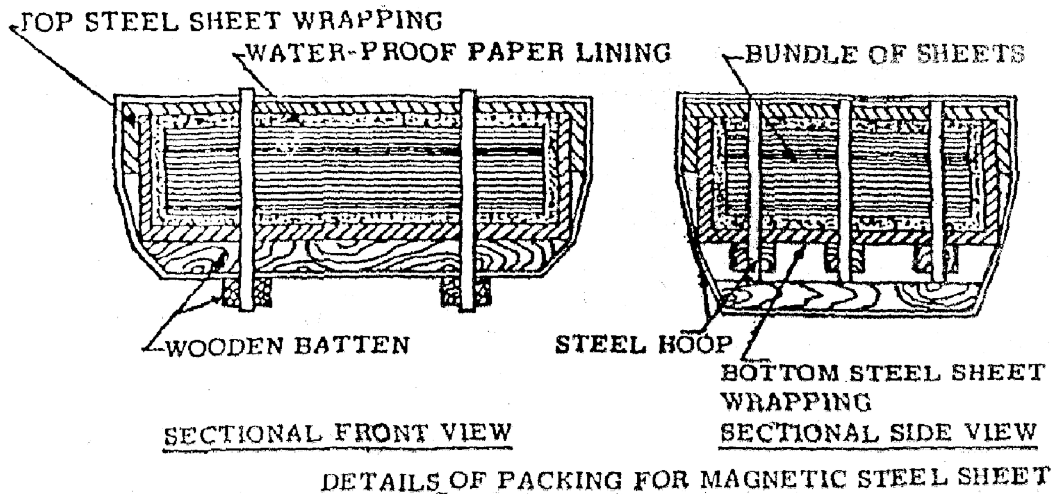


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14.2 Sheets :Note:

- a) Water proof paper lining shall be preferably Volatile Corrosion Inhibitor (V.C.I.) Coated Paper with an additional polythene (100 micron) enveloped.
- b) Approximate weight of each bundle shall be 2 to 3 tonnes. Bundle weighing 2 metric tonnes is however preferred.

14.3 Coils:

The material shall be supplied in coils of continuous strip. The nominal weight of each coil shall be 1800 - 2000 kg.

The nominal internal diameter of coil shall be 500 mm.

Sheet shall be protected to prevent damage and rusting during transit.

Sheet shall be vertically packed according to the instructions and drawings given below:

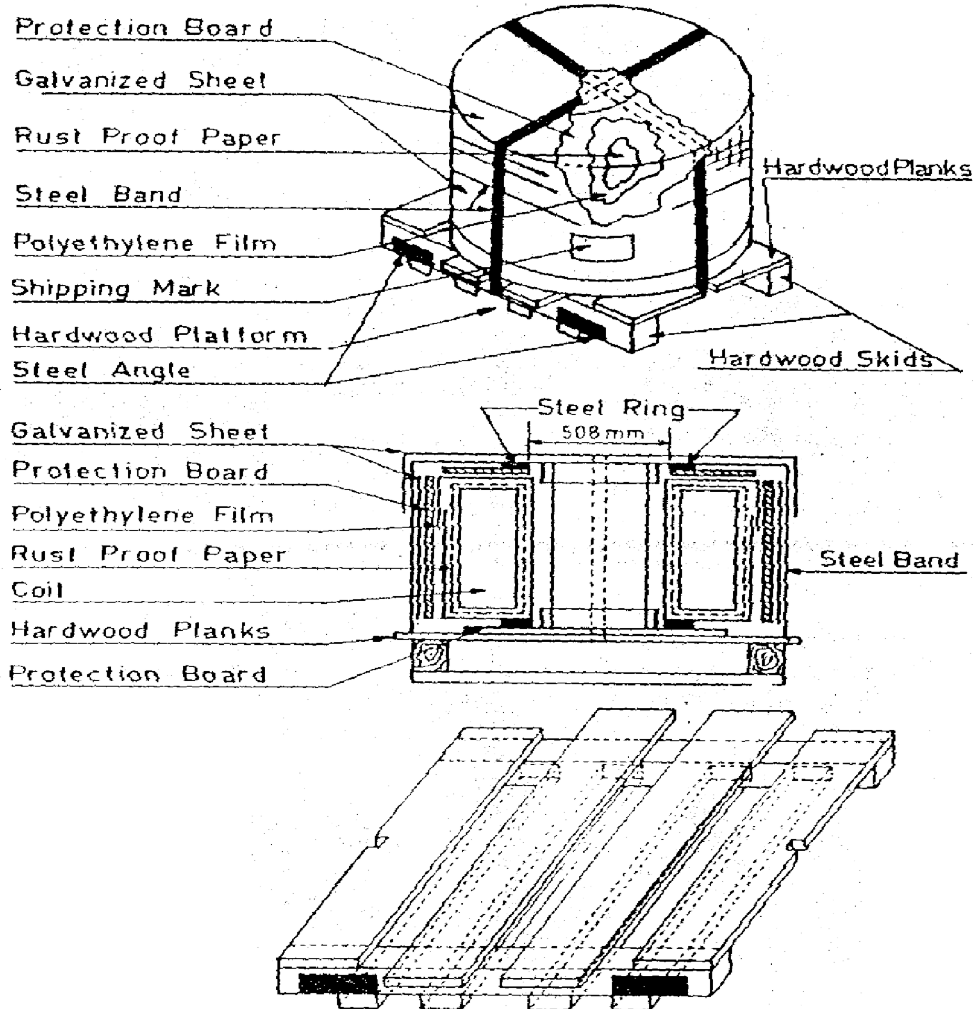
- a) An annular protection board shall be placed at either end of the coil.
- b) The coil should then be wrapped with waterproof anti-rust proof paper by lapping axially all around the circumference.
- c) The coil shall then be covered by polythylene sheet or anti-rust waterproof paper and the ends sealed properly.
- d) A galvanized sheet shall be wrapped on the outside of the coil and the top and bottom of the coils. Care shall be taken to ensure that the ends of the top and bottom of the coils extend sufficiently over the inside diameter of the coil.

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- e) A galvanized sheet shall be wrapped on the inside of the coil. Care shall be taken that it overlaps sufficiently over the ends of the sheet mentioned in (d) above.
- f) Steel ring made from thick angle sheets shall be placed on the rim of the inner diameter at both ends of the coil. The rings shall be held at either ends at four points by steel bands.
- g) The coil should then be mounted on wooden skids held together by steel bands. Wooden skids must have cutouts to house the steel bands for tight fit and to avoid slippage.
- h) The packing shall ensure that there is no seepage of moisture and the coils reach BHEL in completely rust free condition. It shall be strong enough to withstand handling.
- i) Coils shall be sufficiently tight-wound to prevent collapse to an extent that would preclude their being mounted on a mandrel appropriate to the ordered internal diameter.
- j) Each package should indicate the , Sling Position, for lifting without damage. It is preferable to fix a suitable size of, 'Sheet Steel Angle', at the position where the Sling Rope is to be fitted to avoid slippage/damage/breakage of the wooden skid at four places.

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15.0 MARKING:

A metal label shall be securely attached to each bundle and shall bear the following information :

AA 101 15
 BHEL Order No,
 Supplier's Name and Identification No,
 Melt No,
 Size and Weight.

16.0 REFERRED STANDARDS (Latest Publications Including Amendments) :

1. IS : 513	2. IS : 1154	3. IS : 1501
4. IS : 1599	5. DIN : 1541	6. DIN : 1623, Part 1

**GENERAL INFORMATION FOR CALCULATION
(NOT TO FORM ACCEPTANCE CRITERION)**

Tensile strength	:	270 - 410 N/mm ²
Yield strength	:	280 N/mm ² , max.
Elongation on 5.65 $\sqrt{S_0}$ gauge length	:	23 percent, min.



CORPORATE STANDARD

AA7121123

Rev. No. 09

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SCREWS, HEXAGON HEAD, PRODUCT GRADE 'A' COARSE PITCH, STEEL, PROPERTY CLASS 8.8 (M6 - M24)

1 DESIGNATION

A product Gr. A hexagon head, steel screws of thread M8, length 50mm, coarse pitch and conforming to property class 8.8 shall be designated as:

1.1 On drawings

- i) Material specification column: AA7121123
- ii) Description column: SCRU HEX A M8X50 - 8.8

1.2 On indents:

Screws Hex A M8 X 50 - 8.8; AA7121123

1.3 For issuing enquiries and on purchase orders:

While issuing enquiries and purchase orders delete BHEL standard number from the above description and add the information given under clause 2.

2 COMPLIANCE WITH STANDARDS

2.1 Dimensions, tolerances and general Requirements

As per IS 1364 : Part 2 : 2018

2.2 Mechanical Properties:

To conform to property class 8.8 as specified in Table - 3 of IS: 1367, Part 3.

Permissible hardness 238-350 HB for sizes M6-M10.

2.3 Threads

Pitch-coarse to IS: 4218, Part 2.

Tolerance quality - Medium.

Tolerance class - 6g.

2.4 Identification Marking:

As stated in clause 10 of IS 1367 : Part 3.

2.5 Surface Discontinuity

As per IS 1367 : Part 9 : Sec 1.

2.6 Finish

Plated as specified in BHEL order

Revisions:

APPROVED:

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC (Fasteners)

Rev. No. 09

Amd. No.

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Prepared

Issued

Dt. of 1st Issue

Dt: 20-03-2021

Dt:

Year:

HEEP, Haridwar

Corp. R&D

01-01-1977

AA7121123

Rev. No. 09

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CORPORATE STANDARD**3 NOTE**

3.1 Length and diameter combination (refer Table 1 on page 3 of 3) between the bold lines should only be used.

3.2 For screw threads, general (Metric) refer to BHEL standard AA0231800.

3.3 For tolerance grade, position and class refer to BHEL standard AA0230201.

3.4 Screws to this standard would be un-plated; divisions wishing to have plated bolts would have to get them plated.

3.5 Weights given in this standard are for general reference only and are not for commercial transactions.

3.6 When fasteners are to be tested with in BHEL, the sampling and acceptance plan shall be as per IS: 1367, Part 17.

4 REFERRED STANDARDS (Latest publications including amendment)

- 1) IS: 1364, Part.2
- 2) IS: 1367 Part.3, 9 : Sec 1 & 17
- 3) IS: 4218, Part.2
- 4) AA0230201
- 5) AA0231800
- 6) AA0231850

EXPLANATORY NOTE

The following changes have been made in the revision:

- In Clause 2.1, year of IS updated to 2018.
- In Clause 2.4, clause 10 in place of clause 9.2.1
- Clause 2.5, updated.

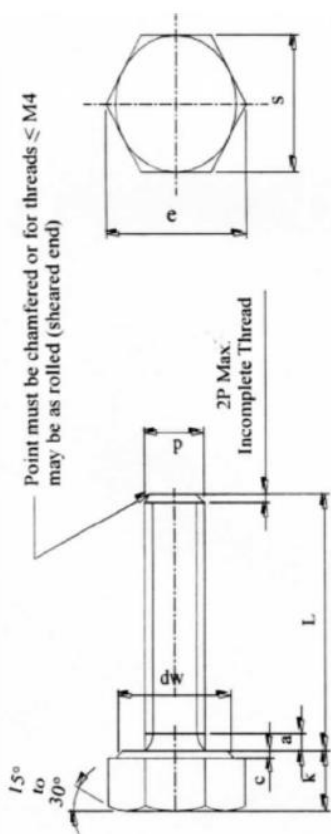


CORPORATE STANDARD

AA7121123

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Note:

1. Corporate sub codes are only given in the Table-1
2. For thread runout refer AA0231850
3. Weights have been shown in kg per 1000 No.
4. Sizes beyond chain dotted lines are for Prod Gr. B

All dimensions are in mm.

Table 1

[illegible]



CORPORATE STANDARD

AA7121140

Rev. No. 07

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SCREWS, HEXAGON HEAD, PRODUCT GRADE 'C' COARSE PITCH, STEEL, PROPERTY CLASS 4.6 (M5 - M36)

1 DESIGNATION

A Product Gr. C Hexagonal head screw with thread M12, nominal length 30mm, coarse pitch conforming to property class 4.6 shall be designated as:

1.1 On drawings

- i) Material specification column : AA7121140
- ii) Description column : SCRU HEX C M12X30 - 4.6

1.2 On indents

Screws Hex C M12X30 - 4.6; AA7121140

1.3 For issuing enquiries and on purchase orders

While issuing enquiries and purchase orders, delete BHEL standard number from the above description and add the information given under clause 2.

2 COMPLIANCE WITH STANDARDS

2.1 Dimensions, Tolerances & General Requirements

As per IS 1363, Part 2 - 2002

2.2 Mechanical properties

To conform to property Class 4.6 as specified in Table-3 of IS 1367, Part 3

2.3 Threads

- Pitch - Coarse to IS: 4218, Part 2.
- Tolerance quality - Medium.
- Tolerance class - 8g.

2.4 Identification and Marking

As per clause 9 of IS 1367, part 3.

2.5 Finish

As specified in BHEL order.

Revisions:

As per clause 28.2.5 of MOM of MRC-F

APPROVED:

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC (F)

Rev. No. 07

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Prepared
HEP, Bhopal

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Corp. R&D

Dt. of 1st Issue
01-01-1977

Dt: 05-04-2010

Dt:

Year: 2016

AA7121140

Rev. No. 07

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CORPORATE STANDARD**3 NOTE**

- 3.1** Length and diameter combination (refer Table-1 on page 3 of 3) between the bold lines should only be used.
- 3.2** For screw threads, general (Metric) refer to BHEL standard AA0231800.
- 3.3** For tolerance grade, position and class refer to BHEL standard AA0230201.
- 3.4** Screws to this standard would be un-plated, divisions wishing to have plated screws would have to get them plated.
- 3.5** Weights given in this standard are for general reference only and are not for commercial transactions.
- 3.6** When fasteners are to be tested with in BHEL, sampling and acceptance plan as per IS 1367, Part 17.

4 REFERRED STANDARDS (Latest publications including amendment):

- 1) IS 1367, Part 3 & 17
- 2) IS 4218, Part 2
- 3) AA0230201
- 4) AA0231800
- 5) AA0231850

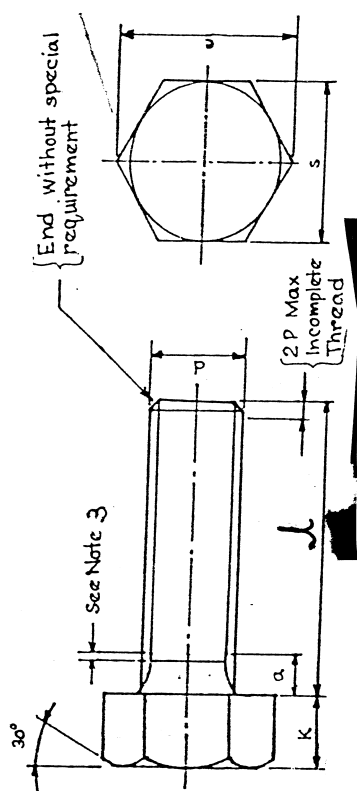


CORPORATE STANDARD

AA7121140

Rev. No. 07

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Note:

- 1) Corporate sub code numbers only are shown in Table-1.
- 2) Weights have been shown in kg per 1000 Nos.
- 3) For threaded run out refer AA0231850.

All dimensions are in mm

Table 1

[illegible]

	<h1 style="text-align: center;">CORPORATE STANDARD</h1>	AA7151115
		Rev. No. 09
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NUTS, HEXAGON, PRODUCT GRADE 'A' COARSE PITCH, STEEL PROPERTY CLASS 8 (M1.6 - M16)

1.0 DESIGNATION

A product Gr.A, hexagon, Steel, nut thread M10, coarse pitch and conforming to property class 8 shall be designated as:

1.1 On drawings

- i) Material specification column : AA7151115
- ii) Description column : NUT HEX A M10 – 8

1.2 On indents

Nut Hex A M10 – 8; AA7151115

1.3 For issuing enquiries and on purchase orders

While issuing enquiries and purchase orders, delete BHEL standard number from the above description and add the information given under clause 2.0

2.0 COMPLIANCE WITH STANDARDS

2.1 Dimensions, Tolerances & General Requirements

As per IS 1364 : Part 3 : 2018

2.2 Mechanical Properties

To conform to property class 8 as specified in Table-4 & 6 of IS 1367 : Part 6, Permissible Hardness 188 to 330 HB for sizes M3 to M10

2.3 Threads

- Pitch - Coarse to IS: 4218, Part 2
- Tolerance quality - Medium
- Tolerance class - 6H

2.4 Identification Marking

As stated in clause 10 of IS: 1367, Part 6

2.5 Surface Discontinuity

As per ISO 6157-2

2.6 Finish

As specified in BHEL order.

Revisions:			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC (F)		
Rev. No. 09	Amd. No.	Reaffirmed			
Dt: 22-03-2021	Dt:	Year:	Prepared HEEP, Haridwar	Issued Corp. R&D	Dt. of 1 st Issue 01-01-1977

AA7151115

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CORPORATE STANDARD**3.0 NOTE**

- 3.1** For nuts, hexagon, product Gr.A, coarse pitch, brass (M1.6 - M16) refer to BHEL standard AA7151113
- 3.2** For screw threads, general (Metric) refer to BHEL standard AA0231800
- 3.3** For tolerance grade, position and class refer to BHEL standard AA0230201
- 3.4** Nuts to this standard would be unplated, divisions wishing to have plated nuts would have to get them plated.
- 3.5** Weights given in this standard are for general reference only and are not for commercial transactions.
- 3.6** When fasteners are to be tested with in BHEL, the sampling and acceptance plan shall be as per IS: 1367, Part 17

4.0 REFERRED STANDARDS (Latest Publications including Amendments)

- 1) IS 1367 : Part 6 & 17
- 2) IS 4218 : Part 2
- 3) ISO 6157-2
- 4) AA0230201
- 5) AA0231800
- 6) AA7151113

EXPLANATORY NOTE

The following major changes have been made in the present revision

- In Clause 2.1, year of IS updated to 2018.
- In Clause 2.2, table reference updated.
- In Clause 2.4, clause 10 in place clause 9.
- In Clause 2.5, ISO 6157-2 referred inline of IS 1364 Part 3. No equivalent IS found.
- In clause 4.0, updated.



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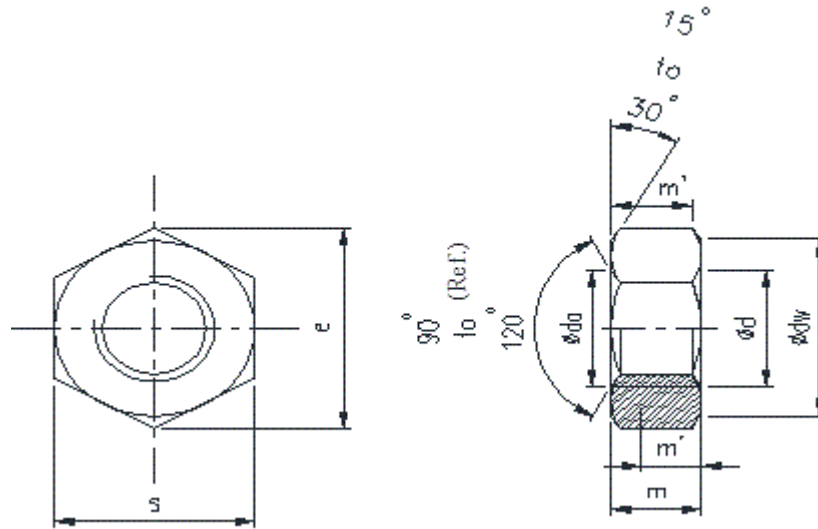


Table – 1

All dimensions in mm

Thread Size	Flats		Corners	Thickness		Wrenching Height				Sub-Code	Weight
d	s		e	m		m'	dw	da			
Nom.	Max.	Min.	Min.	Max.	Min.		Min.	Min.	Min.		
M1.6	3.2	3.02	3.41	1.3	1.05	0.8	2.4	1.6	1.84	091	
M2	4.0	3.82	4.32	1.6	1.35	1.1	3.1	2.0	2.3	105	
M2.5	5.0	4.82	5.45	2.0	1.75	1.4	4.1	2.5	2.9	113	
M3	5.5	5.32	6.01	2.40	2.15	1.7	4.6	3.0	3.45	067	0.39
M4	7.0	6.78	7.66	3.2	2.90	2.3	5.90	4.0	4.6	075	0.82
M5	8.0	7.78	8.79	4.7	4.40	3.5	6.90	5.0	5.75	083	1.24
M6	10.0	9.78	11.05	5.20	4.90	3.9	8.90	6.0	6.75	016	2.52
M8	13.0	12.73	14.38	6.8	6.44	5.2	11.6	8.0	8.75	024	5.40
M10	16.0	15.73	17.77	8.4	8.04	6.4	14.6	10.0	10.8	032	11.69
M12	18.0	17.73	20.03	10.8	10.37	8.30	16.6	12.0	13.0	040	17.69
M16	24.0	23.67	26.75	14.8	14.1	11.3	22.5	16.0	17.3	059	33.58



CORPORATE STANDARD

AA7161001

Rev. No. 04

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WASHERS, MACHINED, STEEL

1 DESIGNATION

A machined washer of size 8.4 mm made of steel shall be designated as:

1.1 On drawings

- i) Material specification column: AA7161001
- ii) Description column: WASHER MCD 8.4-ST

1.2 On indents

Washer Machined 8.4 – Steel: AA7161001

1.3 For issuing enquiries and on purchase orders

While issuing enquiries and purchase orders, delete BHEL standard number from the above description and add the information given under clause 2.

2 COMPLIANCE WITH STANDARDS

2.1 Dimensions, Tolerances and General requirements

As per IS: 2016-1967, Table-1

2.2 Material

Steel as stated in IS: 2016

2.3 Finish

Plated as specified in BHEL order.

3 NOTE

- 3.1 For machined washers of brass, refer to BHEL standard AA7161002
- 3.2 For machined washers of copper, refer to BHEL standard AA7161004
- 3.3 Washers to this standard would be unplated, divisions wishing to have plated washers would have
- 3.4 For general requirements of washers, refer BHEL standard AA0230408
- 3.5 Weights given in this standard are for general reference only and are not meant for commercial transactions.
- 3.6 When fasteners are to be tested with in BHEL, the following sampling and acceptance plan based on IS: 6821 (Table-2) shall be followed for physical properties.

LOT SIZE	SAMPELE SIZE	ACCEPTANCE NOS.
Up to 1000	5	0
1001-3000	8	0
3003-10000	13	0
10001-35000	20	0
Over 35000	32	1

Revisions: As per clause 29.4 of MOM of WG-F

APPROVED:

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC (F)

Rev. No. 04	Amd. No.	Reaffirmed	Prepared	Issued	Dt. of 1 st Issue
Dt: 15-04-2011	Dt:	Year: 2019	HPEP, Hyderabad	Corp. R&D	01-01-1977

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4 REFERRED STANDARDS (Latest publications including amendment)

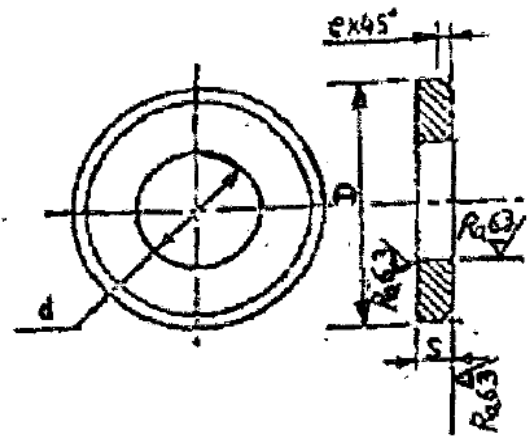
- 1) IS: 6821
- 2) AA0230408
- 3) AA7161002
- 4) AA7161004

EXPLANATORY NOTE

This standard was first issued in January 1977. The standard was based on IS:2016-1967 for dimensions, tolerances and general requirements. Subsequently many changes have been agreed upon at International & IPSC level and were reflected in IS: 2016-1967.

There is no change in IS: 2016-1967. This standard has been reviewed and brought up to date.

- Clause 3.6 “Sampling plan” for washers has been modified in line with IS: 6821
- Clause 4.0 has been modified accordingly.





CORPORATE STANDARD

AA7161001

Rev. No. 04

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Note:

- 1) Corporate sub codes are shown in Table
- 2) Weights have been shown in kg per 1000 Nos.

Table 1

All dimensions in mm.

Size Nom. d h12	Outside diameter D		Thickness S		e nom	for bolt or screw size	Sub-code	Weight
	Basic	Tol.	Basic	Tol.				
1.7	4	+0 -0.3	0.3	±0.1	0.1	M1.6		
2.2	5	+0 -0.3	0.3	±0.1	0.1	M2	170	
2.7	6.5	+0 -0.3	0.5	±0.1	0.2	M2.5	161	
3.2	7	+0 -0.3	0.5	±0.1	0.2	M3	013	0.11
4.3	9	+0 -0.3	0.8	±0.1	0.3	M4	021	0.29
5.3	10	+0 -0.3	1	±0.1	0.4	M5	030	0.42
6.4	12.5	+0 -0.4	1.6	±0.2	0.6	M6	048	1.08
8.4	17	+0 -0.4	1.6	±0.2	0.6	M8	056	2.07
10.5	21	+0 -0.5	2	±0.2	0.6	M10	064	3.98
13	24	+0 -0.5	2.5	±0.3	0.6	M12	072	6.16
17	30	+0 -0.5	3	±0.3	0.6	M16	080	11.17
21	37	+0 -0.8	3	±0.3	1	M20	099	16.7
25	44	+0 -0.8	4	±0.3	1	M24	102	31.78
31	56	+0 -1.0	4	±0.3	1	M30	110	52.95
37	66	+0 -1.0	5	±0.6	1.6	M36	129	89.99
43	78	+0 -1.0	7	±1	1.6	M42	137	180.3
50	92	+0 -1.5	8	±1	1.6	M48	145	291.26
58	105	+0 -1.5	9	±1	1.6	M56	188	421.8
66	115	+0 -1.5	9	±1	2	M64	153	486.45



CORPORATE STANDARD

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PINS, SPLIT, STEEL

1 DESIGNATION

A split pin of nominal size 5mm, nominal length 50mm and made of steel shall designated as:

1.1 On drawings

- i) Material specification column : AA7171089
 ii) Description column : PIN SPLIT 5 X 50 – ST

1.2 On indents

Pin split 5 x 50: AA7171089

1.3 For issuing enquiries and on purchase orders

While issuing enquiries and purchase orders, delete BHEL standard number from the above description and add the information given under clause 2.

2 COMPLIANCE WITH STANDARDS

2.1 Dimensions, Tolerances and General requirements

As per IS 549: 2005, Table-1.

2.2 Material

Half round mild steel wire, as per IS 10794.

2.3 Finish

The end of each leg shall be bevelled and shall free from burrs. The eyes shall be as round in shape as possible and shall bend into the legs without sharp notches.

Revisions: Clause 2.1

APPROVED:

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC (Fasteners)

Rev. No. 07

Amd. No.

Reaffirmed

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EDN, Bangalore

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CORPORATE STANDARD**3 NOTE**

3.1 Length and diameter combination (refer Table-1 on page 3 of 3) between the bold lines should only be used.

3.2 Nominal length (L) is the distance from underside of the eye to the extreme end of the short leg.

3.3 Nominal size is the diameter of the hole for receiving the split pin.

3.4 Weights given in this standard are for general reference only and are not meant for commercial transactions.

3.5 When fasteners are to be tested with in BHEL, sampling and acceptance plan as per IS 6821, Table-2 shall be followed for physical properties:

LOT SIZE	SAMPLE SIZE	ACCEPTANCE No
Upto 1000	5	0
1001 – 3000	8	0
3001 – 10000	13	0
10001 – 35000	20	0
Over 35000	32	1

4 REFERRED STANDARDS (Latest publications including amendments):

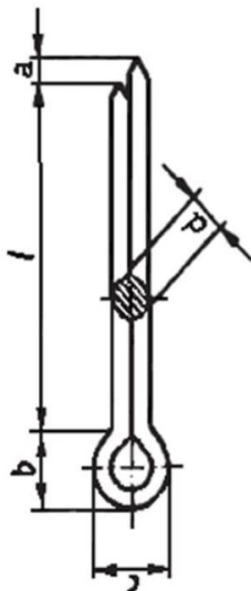
- 1) IS 549
- 2) IS 6821
- 3) IS 10794



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Note:

1) Corporate sub code numbers are shown.

2) Weights have been shown in kg/1000 Nos.

Table - 1	All dimensions are in mm
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[illegible]