



PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS: 41235

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Based on IS: 6094-1981

HEXAGON SOCKET SET SCREWS WITH CUP POINT

(Product grade A, Property class 45H)

1.0 SCOPE

Covers the requirements of hexagon socket set screws in the size range M3 to M16.

2.0 SPECIFICATION AND REFERENCE STANDARDS

Dimensions and preferred sizes	Table 1 of this standard	
Preferred length-size combination	Table 1 of this standard	
Tolerance	Product grade	A
	Indian Standard	IS: 1367 (Part 2)
Thread	Pitch	Coarse
	Tolerance	5g6g
	Indian Standard	IS: 4218 (Part 3 & 5)
Material	Steel	
Mechanical properties	Property class	45H
	Indian Standard	IS: 1367 (Part 5)
Sampling and Acceptability	Indian Standard	IS: 2614
General requirements	Set screws shall comply with IS: 6094 in respect of requirements not covered in this standard	

2.1 Referred Standards (Only the relevant parts of current versions are applicable)

IS: 1367 Technical supply conditions for threaded steel fasteners

IS: 2614 Methods for sampling of fasteners

IS: 4218 ISO metric screw threads

IS: 6094 Specification for hexagon socket set screws

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REVISIONS

DATE

APPROVED

STANDARDS SECTION
ENGINEERING AND DEVELOPMENT CENTRE
HPBP TIRUCHIRAPALLI

PREPARED

HPBP TIRUCHY

ISSUED
STANDARDS
ENGG

DATE

DEC 1986



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3.0 DESIGNATION

A Grade A hexagon socket set screw to this standard of thread size M10 and nominal length 30mm shall be designated as:

3.1 On drawings:

- i) Material specification column: IS: 6094
- ii) Description column : SCRU SET SOC CP A 45H M10x30
- iii) Drawing Number column : 4123510030
- iv) Material code column : 4123510030

3.2 Ordering Description

For placing indents, issuing enquiries and on purchase order, the Ordering Description given below shall be followed.

Hexagon socket set screw M10x30 IS: 6094-CP*

4.0 ADDITIONAL INFORMATION

- 4.1 Property class 12.9 is also acceptable.
- 4.2 Set screws with knurled cup point are also acceptable.
- 4.3 For Cadmium plated set screws, refer BPS: 41275.
- *4.4 The old type designation for 'CP' (cup point) was 'A'.

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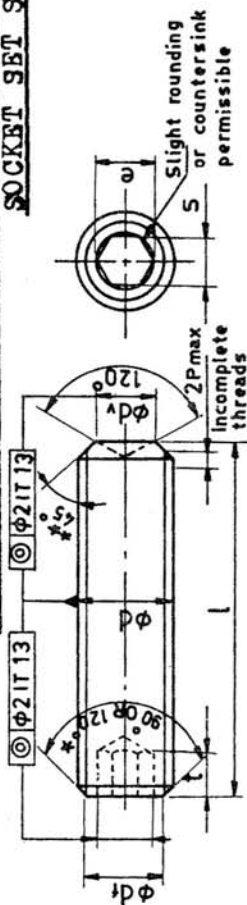
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TABLE-1 DIMENSIONS & PREFERRED LENGTH SIZE COMBINATION FOR HEXAGON SOCKET SET SCREWS



Notes:

- 1 Preferred lengths are in between the stepped bold lines.
- 2 Weights are given in Kg per 1000 numbers only.
- 3 For stocked sizes refer BPS components book-let.

* 120° is mandatory for screws above the dotted line.

** applies only to the portion to the point below the minor dia of the thread.

(All dimensions are in mm)

Thread size	e		s		t		Min		dv		Nominal length 'l'												
	Min	Max	Min	Max	+	++	Max	Min	6	8	10	12	16	20	25	30	35	40	45	50	55	60	
M6	3.44	3.02	3.08	3.0	2.0	3.5	3.0	2.75	0.9														
M8	4.58	4.02	4.095	5.0	3.0	5.0	5.0	4.70															
M10	5.72	5.02	5.095	6.0	4.0	6.0	6.0	5.70						8.6									
M12	6.86	6.02	6.095	8.0	4.8	8.0	8.0	7.64															
M16	9.15	8.025	8.115	10.0	6.4	10.0	10.0	8.64															

+ For screws with nominal lengths left side of the dotted stepped line.

++ For screws with nominal lengths right side of the dotted stepped line.