

Subject: Details for use and purchase of MS items for fabrication.

This is the revised circular giving details of use of MS items for several different uses. All project managers and site engineers must understand this circular and issue requisitions as per details specified herein.

- 1 MS items are made from Coils (better quality) or Patti / scrap (lesser quality)
- 2 Wherever possible coil material must be used.
- 3 All items except round pipes the sizes should be in OD. For round pipes the size should be in ID or NB. ID is Inner diameter & NB means Nominal bore
- 4 Sizes of GI, HDPE & PVC pipes used for plumbing generally mean NB or ID
- 5 For structural works (i.e. for load bearing structures) 12 gauge thickness (2.7 mm), coil material should be used. Structural works include AC sheets fixing, outer pipes of gates, hoardings, scaffolding, stools, etc.
- 6 Decorative works (or non-load bearing structures) include grills, gates, railings, etc. For decorative works 16 gauge (1.5 mm) coil material should be used.
- 7 For works that fall in between structural works and decorative works like canopy for covering ducts on the terrace floor, partition walls, etc., 14 gauge (2 mm) coil material may be used.
- 8 In general A class / light weight pipes mean 16 gauge thickness & B class / medium weight means 12 gauge thickness.
- 9 In general unless otherwise specified use the following:
 - a. For French window grills use ½" - 6mm flat with 6mm sq rods
 - b. For window grills use ¾" - 6mm flat with 10 mm sq rods
 - c. For tree guards use 3"x 1"- 10 gauge welded mesh with 1/2" - 6 mm flat & 3/4" - 3mm L angle
 - d. For 6 x 4 hoardings use 1¼" - 2 mm thick round pipe with ¾"/ - 1.5 mm square pipes and & 3"x 1"- 10 gauge welded mesh.
 - e. For 8 x 12 hoardings use 1½" - 2 mm thick round pipe with 1" - 1.5 mm square pipes.
 - f. For gates outer pipes must be atleast 12 gauge (2.7 mm thick).
 - g. For stools, tube light stands, walking boards (tadkas) use ¾" L angle – 3 mm thick
 - h. For ladders – use 40mm round pipe 2 mm thick for vertical pipes and 1" - 2 mm thick pipes for horizontal rungs.

The above information is not accurate - Engineers are welcome to give suggestions and corrections. Engineers must accurately specify ID or OD & thickness in their requisitions

Soham Modi.

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Conversion table from gauge to mm - applicable for MS sheet metal.													
	Gauge		6	8	10	12	14	16	18	20	22	24	26
	Thickness in mm		4.9	4	3.4	2.7	1.9	1.5	1.2	0.91	0.76	0.61	0.46
		Size	Size	Size	Size								
S No	Item	Size - OD/Width in mm	Size - OD/Width in inches	Size - NB in mm	Size - NB in inches	Thickness in mm	Thickness in Gauge	Length in ft.	Aprox. Weight in kgs	General Use			
1	Sq Rod	6						10	1.50	For grills of French windows			
2	Sq Rod	10						18	4.50	For decorative work			
3	Sq Rod	12	1/2					18	6.00	For decorative work			
4	Flat Pattis	12	1/2			6		18	3.30	For grills of French windows, tree guards			
5	Flat Pattis	20	3/4			3		18	2.00	For door hold fast.			
6	Flat Pattis	20	3/4			6		18	4.50	For grills			
7	Flat Pattis	24	1			6		18	6.00	For decorative work			
8	Flat Pattis		2			12		18	19.00	For gate hold fast			
9	Sq Pipe	20	3/4			1.5	16	20	5.00	For decorative work			
10	Sq Pipe	24	1			1.5	16	20	7.00	For decorative work			
11	Sq Pipe	30	1 1/4			1.5	16	20	9.00	For decorative work			
13	Round Pipe	28		20	3/4	1.5	16	20	5.50	For decorative work			
14	Round Pipe	28		20	3/4	2	14	20	8.50	For mixed used			
15	Round Pipe	28		20	3/4	2.7	12	20	11.00	For structural work			
16	Round Pipe	33		25	1	1.5	16	20	7.00	For decorative work			

17	Round Pipe	33		25	1	2	14	20	9.00	For mixed used
18	Round Pipe	33		25	1	2.7	12	20	13.00	For structural work
19	Round Pipe	42		32	1 1/4	1.5	16	20	9.00	For decorative work
20	Round Pipe	42		32	1 1/4	2	14	20	11.50	For mixed used
21	Round Pipe	42		32	1 1/4	2.7	12	20	16.00	For structural work
22	Round Pipe	48	2	40	1 1/2	1.5	16	20	11.00	For decorative work
23	Round Pipe	48	2	40	1 1/2	2	14	20	13.50	For mixed used
24	Round Pipe	48	2	40	1 1/2	2.7	12	20	17.00	For structural work
25	Round Pipe	60	2 1/2	50	2	1.5	16	20	15.50	For decorative work
26	Round Pipe	60	2 1/2	50	2	2	14	20	17.50	For mixed used
27	Round Pipe	60	2 1/2	50	2	2.7	12	20	24.00	For structural work
28	Round Pipe	76	3	65	2 1/2	2.7	12	20	31.00	For structural work
29	Round Pipe	89	3	80	3	2.7	12	20	37.00	For structural work
30	Z angle		3/4			3		18	8.50	For templates
31	L Angle		3/4			3		18	3.50	For Stands & Stools
32	L Angle		1			3		18	6.50	For measurement boxes& miscellaneous use
33	L Angle		1			6		18	10.00	For Miscellaneous use
34	L Angle		1 1/4			6		18	14.00	For Door Frames
35	L Angle		1 1/2			6		18	19.00	For AC Brackets

36	L Angle		3			6		18	40.00	For lentil brackets
37	Sheet Metal		6' x 3'			1.5	16		18.00	For concrete/ mortar mix
38	Sheet Metal		6' x 3'			1.2	18		16.00	For measurement boxes and chajja moulds
39	Sheet Metal		6' x 3'			0.9	20		13.00	For decorative work
40	Welded Mesh		1"x 3"			3.40	10	50' x 5'	60.00	For tree guards
41	Welded Mesh		1"x 3"			2.00	14	50' x 5'	20.00	For shelves
42	Chain link - GI		2.5" X 2.5			2.7	12	50' x 5'	40.00	For sports areas, temporary partitions
43	Chain link - GI		2" X 2"			3.4	10	50' x 5'	60.00	For security fencing / transformers