

## 10 STEEL WORK

SL NO	DESCRIPTION	UNIT	RATE (Rs p)
10.01	Supplying and fixing steel rolling shutter of approved make, made of required size of M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary wire spring and M.S. top cover.	cum	3858.10
10.02	Providing and fixing ball bearing for rolling shutters.	No	691.40
10.03	Extra for providing mechanical device, chain and crank operation for operating rolling shutters.-		
	(a) Exceeding 10.00 sqm and upto 16.80 sqm in area.	sqm	601.80
	(b) Exceeding 16.80 sqm in area.	sqm	767.90
10.04	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size with top and bottom rails of T-iron 40x40x6mm with 40mm dia. steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	sqm	5791.70
10.05	Providing and fixing steel glazed doors, windows, ventilators of standard rolled steel sections, joints, mitered and welded with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm size of 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer excluding the cost of metal beading and other fittings except necessary hinges or pivots as required.		
	(a) Using 3mm thick glass panes.	sqm	3604.40
	(b) Using 4mm thick glass panes.	sqm	3738.20
	(c) Using 5mm thick glass panes.	sqm	3915.00
	(d) Using 4mm thick frosted glass panes.	sqm	3915.00

SL NO	DESCRIPTION	UNIT	RATE (Rs p)
<b>10.06</b>	Providing and fixing steel glazed fixed windows, ventilators of standard rolled steel sections, joints, mitered and welded with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm size of 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer excluding the cost of metal beading and other fittings.		
	(a) Using 3mm thick glass panes.	sqm	3486.90
	(b) Using 4mm thick glass panes.	sqm	3620.70
	(c) Using 5mm thick glass panes.	sqm	3797.50
	(d) Using 4mm thick frosted glass panes.	sqm	3797.50
<b>10.07</b>	Structural steel work rivetted, bolted welded in built up sections, trusses and framed works, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. (In Tees, R.S. Joists, Angles, Flats and Channels.)	kg	90.80
<b>10.08</b>	Providing and fixing M.S tubular section in built up section of truss welded in position including cutting, hoisting, fixing in position and applying priming coat with approved steel primer etc. complete.	kg	138.70
<b>10.09</b>	Supplying and fixing M.S. decorative railing 80cm high in staircase consisting of 25mm alluminium square sections inserted into 20mm dia. M.S. bars @ 30 cm centres 60 x 60 x 4mm thick plate at the base fixed with wooden wedge by I.W. screws to receive the wooden handrails 12.5cm x 10cm including cost of polishing the wooden rail.	Rm	1708.00

**CHAPTER 10**

**STEEL WORKS**

SL NO	DESCRIPTION	UNIT	RATE (Rs p)
<b>10.10</b>	Providing and fixing hand railing of 40mm nominal bore GI pipe with ballustards of 16mm dia HYSD bars placed at 10cm spacing welded together and a minimum height of 0.8m for staircase railing, balcony railing, parapet railing etc. including applying steel priming coat and steel painting complete.	kg	146.10
<b>10.11</b>	Providing and fixing prefabricated M.S. equal angle in chaukhat for doors, windows and clerestory windows including fixing with 40 x 5mm M.S holdfast 40cm long at required spacing and applying priming coat with approved steel primer etc. complete.		
	(a) Using 50 x 50 x 5mm M.S. angle.	Rm	638.40
	(b) Using 50 x 50 x 6mm M.S. angle.	Rm	708.60
<b>10.12</b>	Providing and fixing swing doors, windows and ventilators fabricated from Roll formed sections made of pre-painted steel including handle made of high grade aluminium powder coated and with nylon receiver, gaskets made of ethyl propylene diamine monomer, corner brackets made of CRCA with zinc phosphating, mullion caps made of glass filled nylon, frames fixed by using self expanding screws but excluding cost of glasses. (base steel as per IS : 513 of 0.6mm thick 'D' quality, galvanised as per IS : 277 with zinc of 150 GM/sqm. Sections for shutters should be 46x46mm and external frame should be 46x52mm, section for glass beading should be 18x25mm and centre mullion should be 46x70mm).		
	(a) Doors.	sqm	4127.20
	(b) Windows / combined windows & ventilators.	sqm	4040.90
	(c) Ventilators only.	sqm	5917.10
<b>10.13</b>	Providing and fixing curtain glazing fabricated from Roll formed sections made of pre-painted steel including fixing with gaskets made of ethyl propylene diamine monomer, corner brackets made of CRCA with zinc phosphating, mullion caps made of glass filled nylon, frames fixed by using self expanding screws but excluding cost of glasses.(base steel as per IS : 513 of 0.8mm thick 'D' quality, galvanised as per IS : 277 with zinc of 150 GM/sqm. Sections for external should be 46x52mm, centre mullion should be 46x70mm and for fixing glass should be 18x25mm).	sqm	4175.30
<b>10.14</b>	Providing and fixing structural glazing fabricated from Roll formed sections made of pre-painted steel including fixing with self expanding screws but excluding cost of glasses (base steel as per IS : 513 of 0.6mm thick 'D' quality, galvanised as per IS : 277 with zinc of 150 GM/sqm. Sections should be 50x100mm for verticals 33x58mm for horizontals and glass holding sections should be 32.5x37mm for top and bottom		

SL NO	DESCRIPTION	UNIT	RATE (Rs p)
	----- grids, in between should be 32.5x18mm), the glass holding section made of 304 grade stainless steel of 0.8mm thick. CRCA sections with polyurithene coating are to be used as stiffeners inside the PPS sections as per design requirement.	sqm	5806.40
10.15	Providing and fixing a pair of flat iron brackets in concrete work while laying for jointing with timber post etc. including cost of bolts and nuts complete.	sqm	118.10
10.16	Providing and fixing M.S. round or square bars without M.S flats at required spacings in wooden frame of windows and clerestory windows.	kg	71.20
10.17	Providing and fixing M.S. round or square bars with M.S flats at required spacings in wooden frame of windows and clerestory windows.	kg	70.10
	<b><u>New Items</u></b>		
10.18	Providing & fixing 1mm thick M.S. door with frame of 40x40x6mm. Angle Iron & 3mm M.S.Gusset plates at the junction and corners, all necessary fittings complete, including applying a priming coat of steel primer. (Basis : 10.20 MPWD Analysis of Rates, 2007)		
	(a) Using M.S angles (40x40x6)mm for diagonal braces	sqm	3348.50
	(b) Using flats(30x6) mm for diagonal braces and central cross piece.	sqm	2844.30
10.19	Steel work welded in built up sections/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.		
	(a) In stringers, treads, landings etc. of stair-cases including use of chequered plates wherever required;	kg	126.30
	(b) In a grating, frames, guard bar, ladders, railings, brackets, gates & similar works.	kg	124.40
10.20	Structural steel work in single section fixed with or without connecting plate including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	96.70