



BOLTLESS SHELVING DESIGN MANUAL

Revision: 1

SPERRIN METAL STORAGE SOLUTIONS





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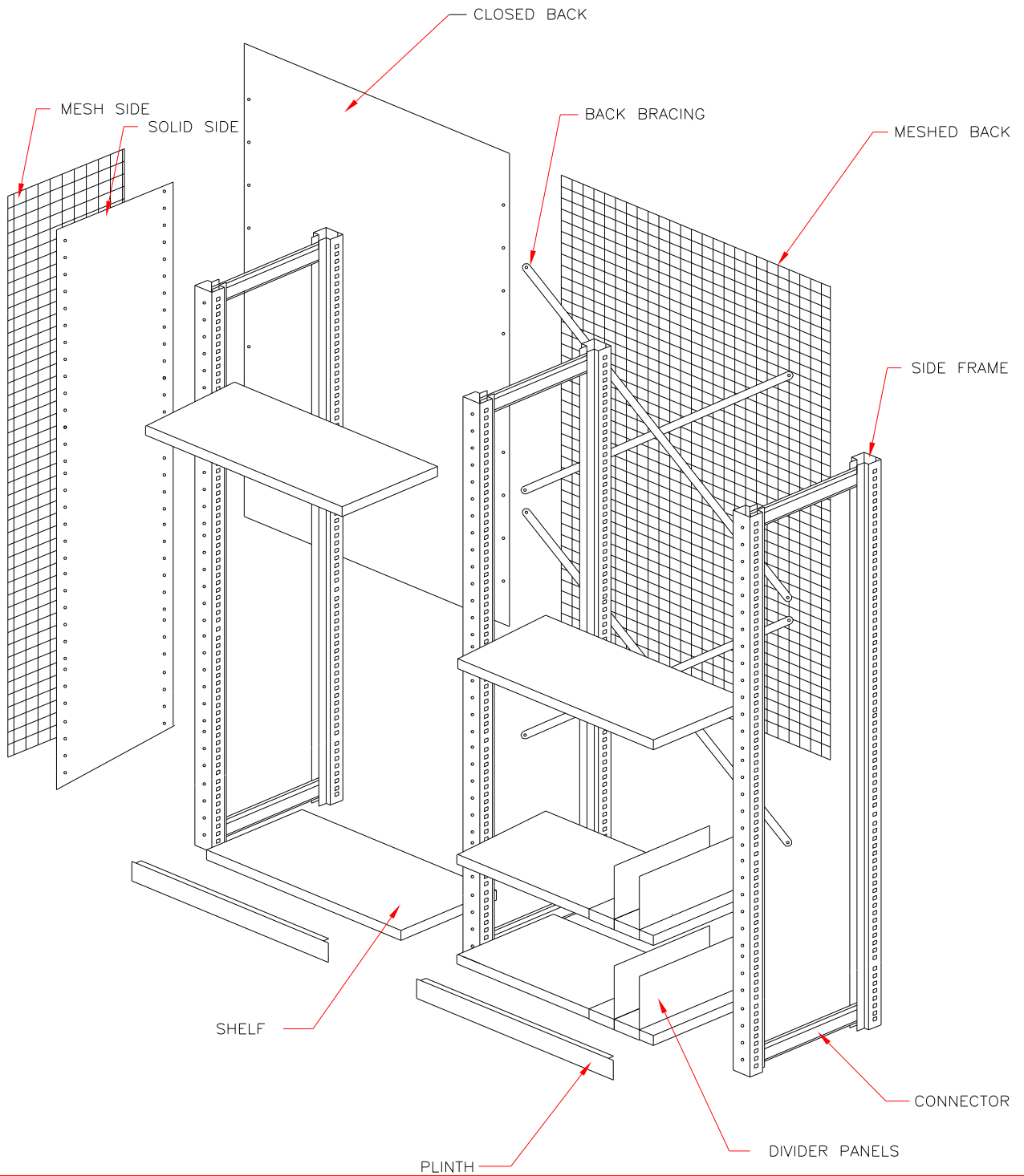
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BLT-1

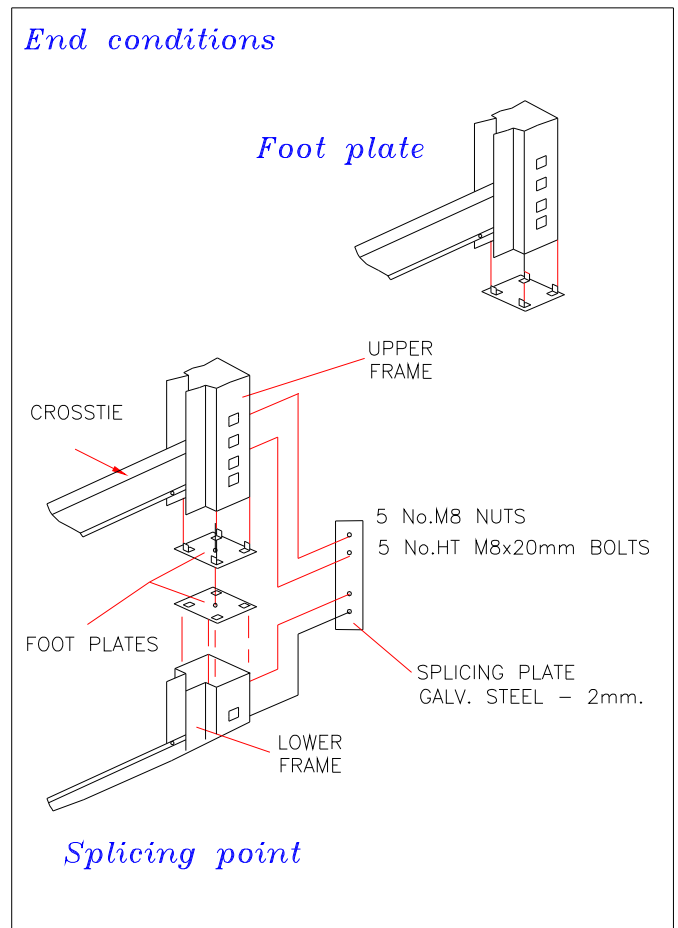
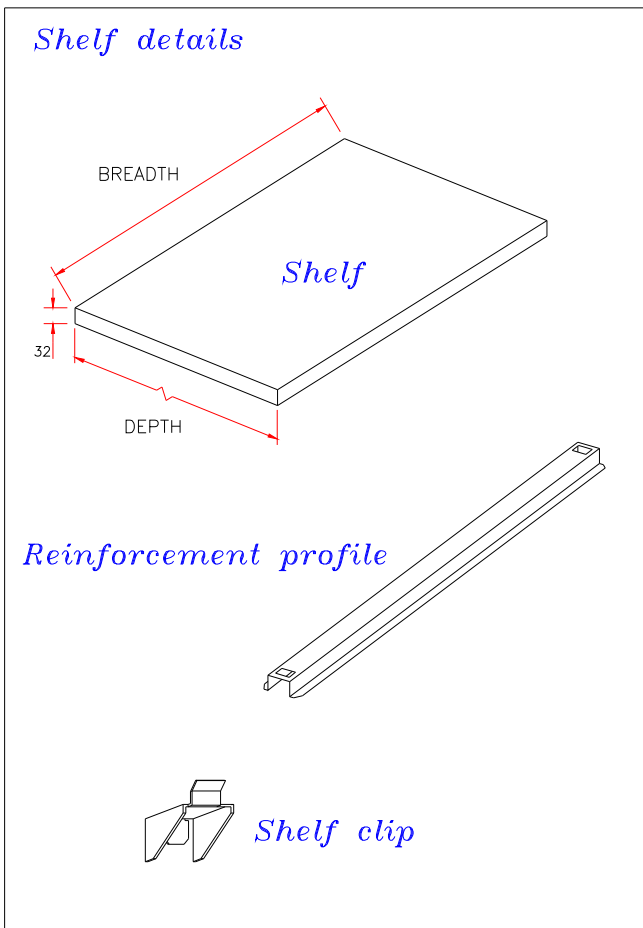
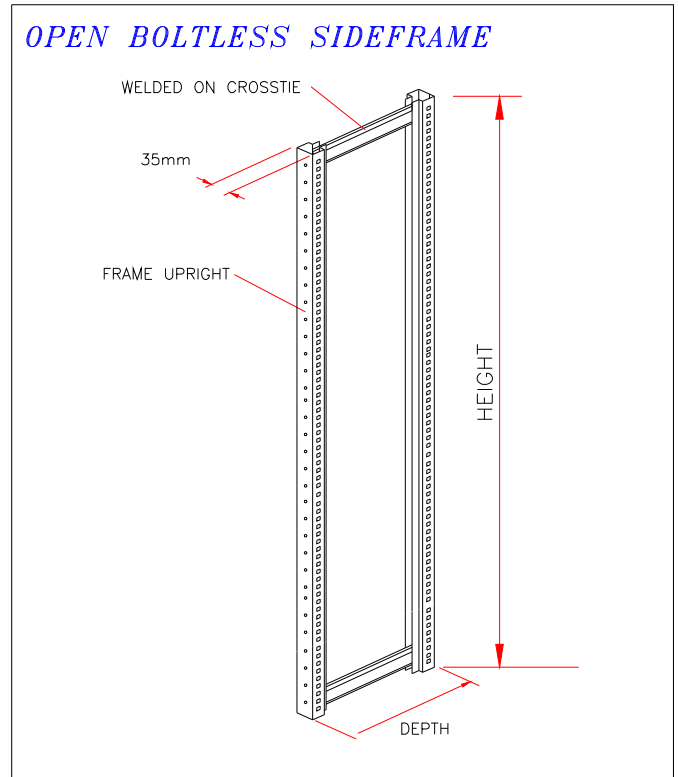
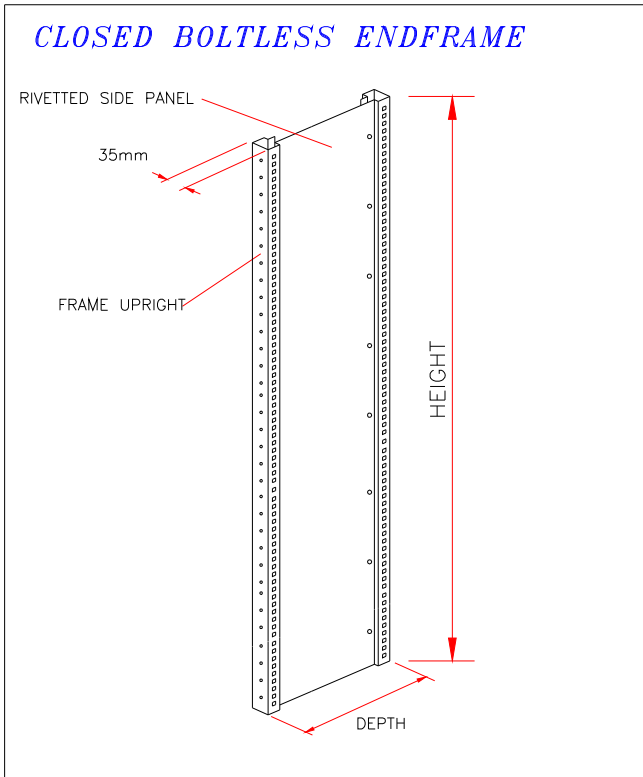
BOLTLESS SHELVING

EXPLODED DRAWING



BOLTLESS SHELVING COMPONENT PARTS

BLT-2



BOLTLESS SHELVING

BLT-3

Frame Sizes

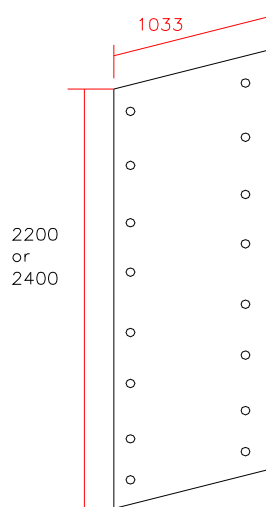
Height mm	Depth mm	Gauge mm
2200 OR 2400	300 400 500 600 700	0.9 OR 1.6

Shelf sizes & load capacities

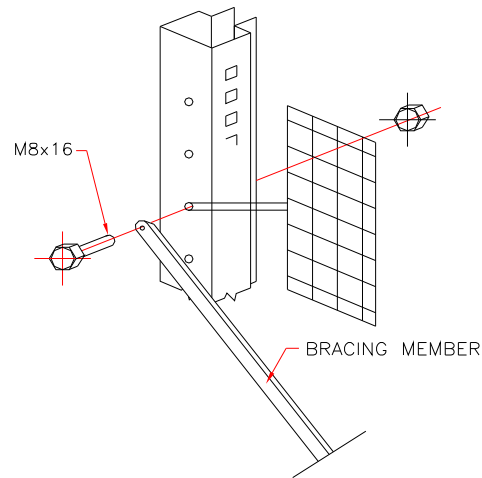
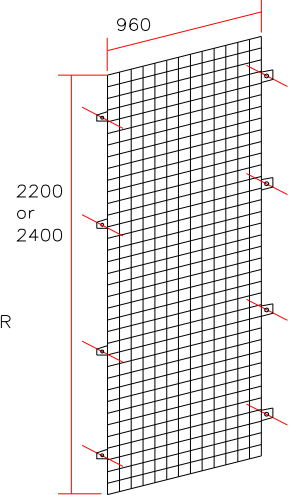
Width mm	Depth mm	Gauge mm	Load Capacity – UDL Loads	
			Standard Shelf kg	Reinforced Shelf kg
965	300	0.80	100	–
965	400	0.80	105	165
965	500	0.80	110	190
965	600	0.80	115	200
965	700	0.80	120	210
965	300	1.00	140	–
965	400	1.00	150	210
965	500	1.00	160	250
965	600	1.00	170	295
965	700	1.00	180	340

Each shelf is fitted with 4 No.Clips
Reinforced shelf fitted with 1 No. Reinforcement profile

Solid back

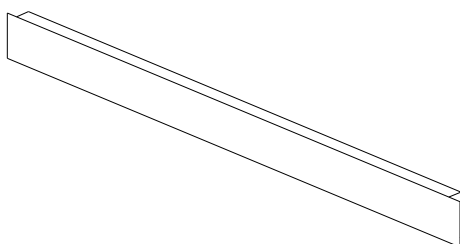


Mesh back

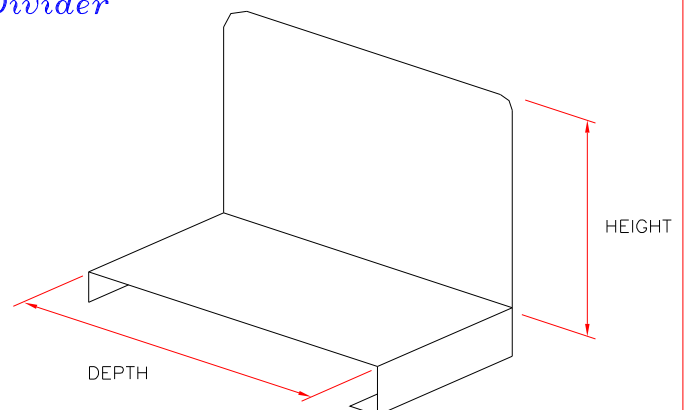


Dimensions for standard part sizes

Plinth



Divider

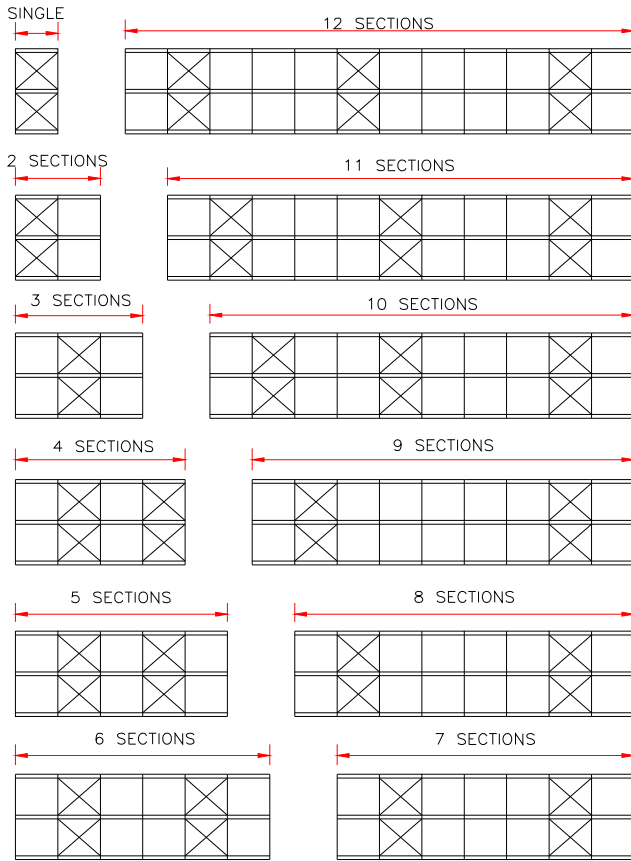


BOLTLESS SHELVING BRACING DETAILS

BLT-4

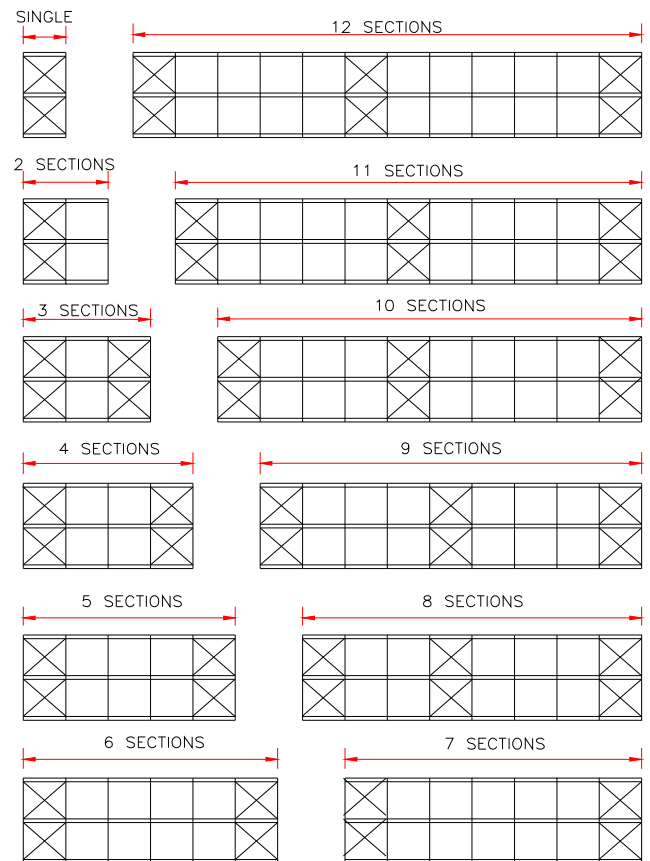
BRACING SCHEME 1

STATIC SHELVING

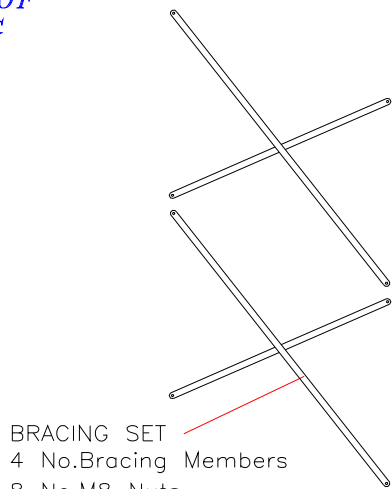


BRACING SCHEME 2

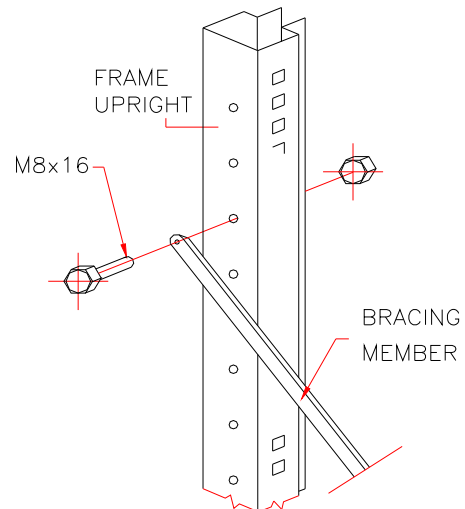
MOBILE SHELVING



FIXING OF BRACING



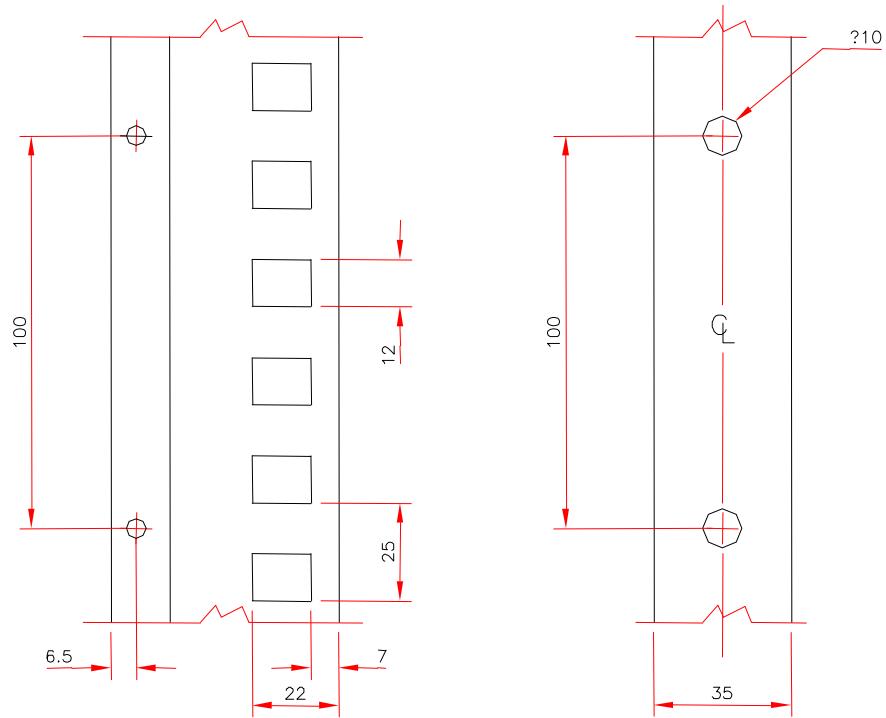
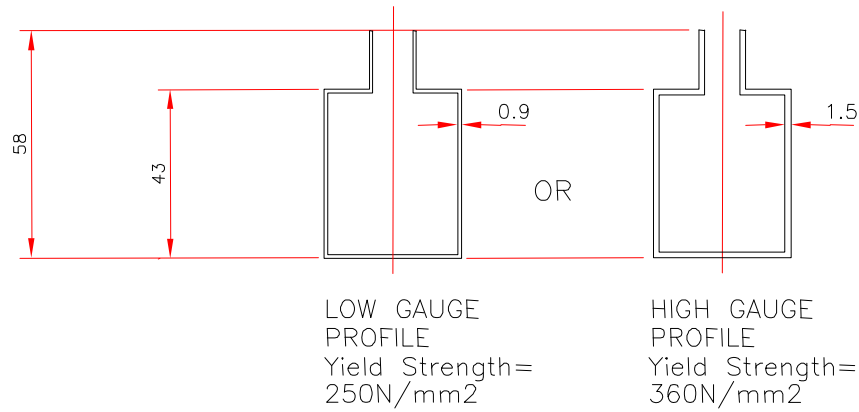
- BRACING SET
- 4 No. Bracing Members
- 8 No. M8 Nuts
- 8 No. M8x16mm Bolts



BOLTLESS SHELVING UPRIGHT DETAILS

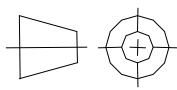

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ALL DIMENSIONS IN MM DO NOT SCALE DRAWINGS WORK TO FIGURE DIMENSIONS ONLY



SIDE VIEW

FRONT VIEW

TITLE BOLTLESS SHELVING FRAME UPRIGHT		SCALE	NA
 3RD ANGLE PROJECTION		DATE	4-10-95
		USER	USER
		NAME	J.MCLEAN
		DRG.No.	BOLT/1
 SPERRIN METAL PRODUCTS LTD ENGINEERING DEPARTMENT CAHORE ROAD, DRAPERSTOWN N.IRELAND, UK.		IDENTITY ENG. DEPARTMENT	



BOLTLESS SHELVING FRAME LOAD DESIGN

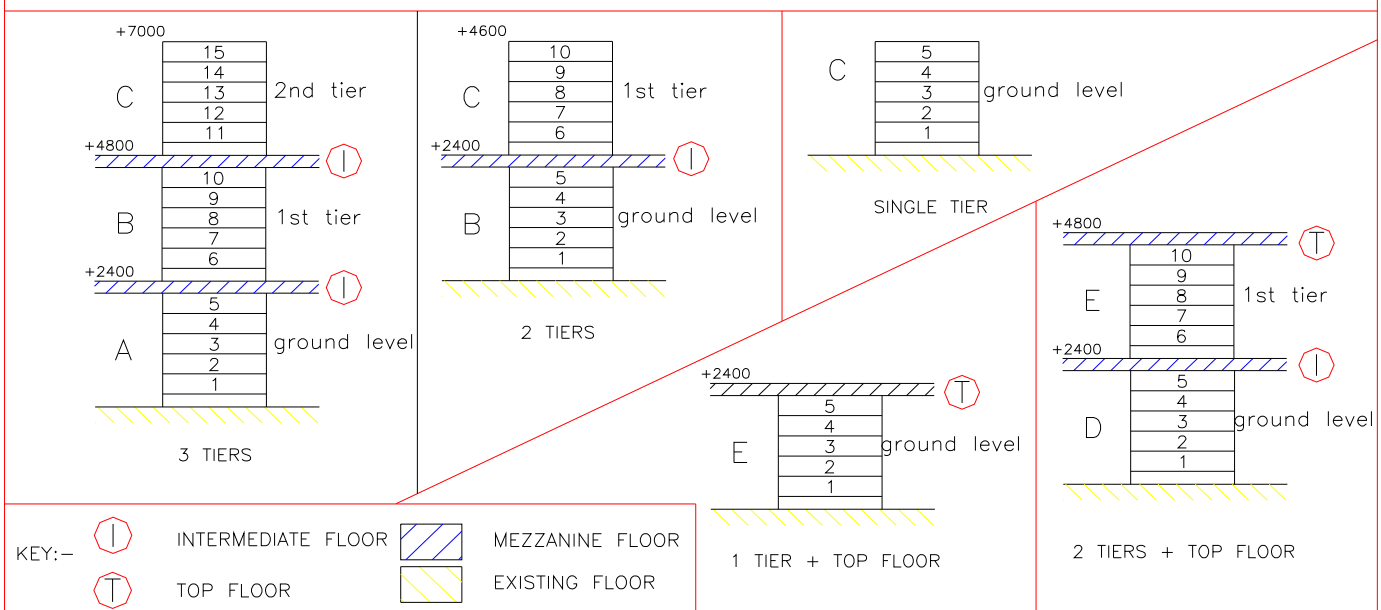
FRAME BRACING DESIGN

FRAME BRACING PATTERN			A	B	C	D	E	
				Ground 3No.Levels	1st Tier 3No.Levels	2nd Tier 3No.Levels	Ground 2No.Levels	1st Tier 1No.Level
Cross tie and Diagonal schedule				Ground 2No.Levels	1st Tier 2No.Levels		Mezzanine Floor	Mezzanine Floor
2C	3C	4C	3C+2D			Ground No Floor		Ground 2No.Levels + Mezzanine Floor
Frame Depth (mm)	Frame Type	Max.Load per frame (kg)	Frame 2400mm Floor load 500kg/m ²	Frame 2400mm Floor load 500kg/m ²	Frame 2200mm	Frame 2400mm Floor load 500kg/m ²	Frame 2400mm Floor load 500kg/m ²	
400	Open	500	1.5mm+4C	0.9mm+3C	0.9mm+2C	1.5mm+4C	0.9mm+3C	
	Closed		1.5mm+3C	0.9mm+3C	0.9mm+2C	1.5mm+3C	0.9mm+3C	
500	Open	500	1.5mm+4C	0.9mm+3C	0.9mm+2C	1.5mm+4C	0.9mm+3C	
	Closed		1.5mm+3C	0.9mm+3C	0.9mm+2C	1.5mm+3C	0.9mm+3C	
400	Open	750	1.5mm+3C+2D	0.9mm+4C	0.9mm+2C	1.5mm+4C	0.9mm+3C	
	Closed		1.5mm+3C	0.9mm+3C	0.9mm+2C	1.5mm+3C	0.9mm+3C	
500	Open	750	1.5mm+3C+2D	0.9mm+4C	0.9mm+2C	1.5mm+4C	0.9mm+3C	
	Closed		1.5mm+3C	0.9mm+3C	0.9mm+2C	1.5mm+3C	0.9mm+3C	
400	Open	1000	1.5mm+3C+2D	1.5mm+4C	0.9mm+2C	1.5mm+3C+2D	0.9mm+3C	
	Closed		1.5mm+3C	1.5mm+3C	0.9mm+2C	1.5mm+3C	0.9mm+3C	
500	Open	1000	1.5mm+3C+2D	1.5mm+4C	0.9mm+2C	1.5mm+3C+2D	0.9mm+3C	
	Closed		1.5mm+3C	1.5mm+3C	0.9mm+2C	1.5mm+3C	0.9mm+3C	

0.9mm = 0.9mm thick steel upright with yield strength=250N/mm²

1.5mm = 1.5mm thick steel upright with yield strength=360N/mm²

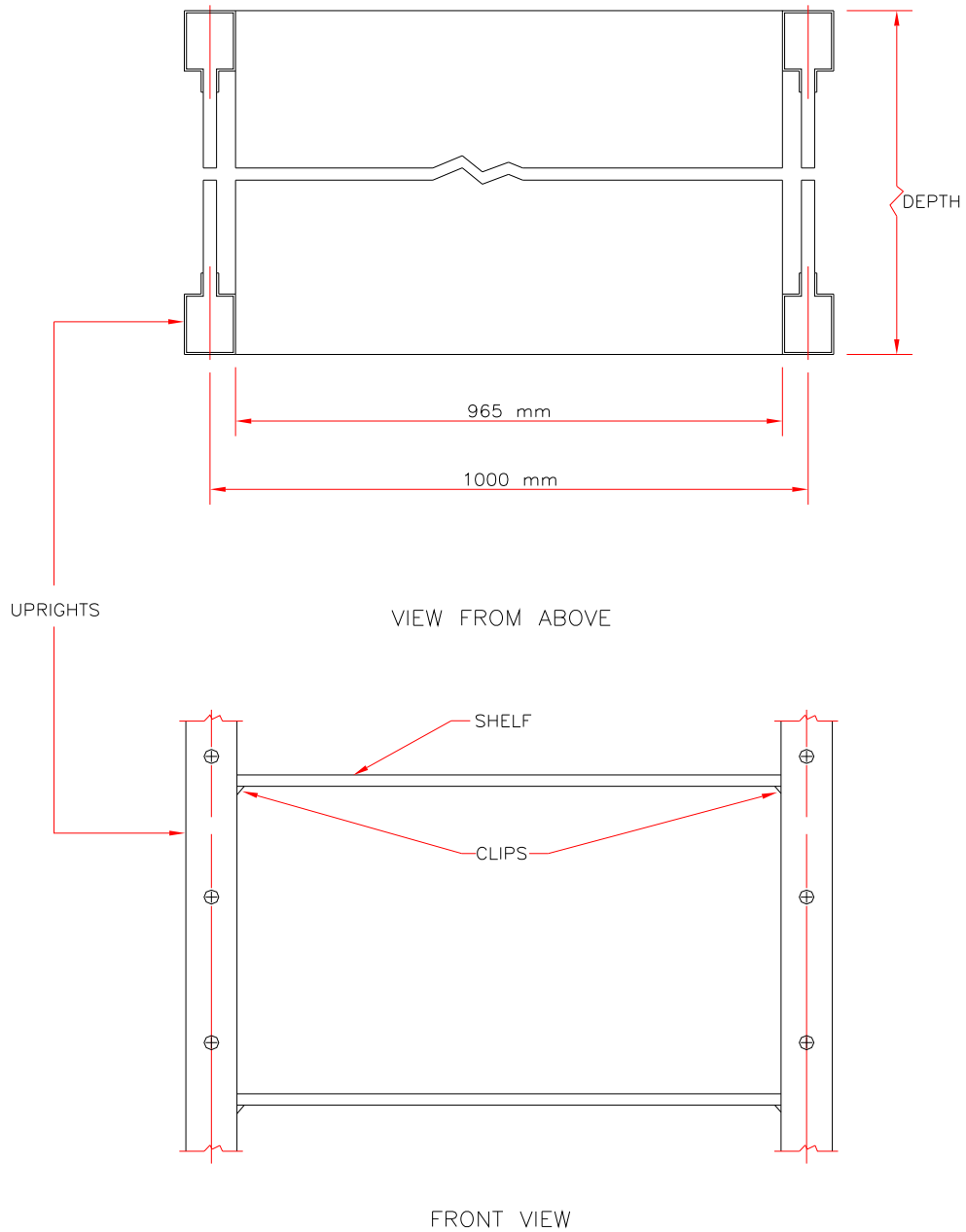
DESIGN CONFIGURATIONS – See A,B,C,D&E above.



BOLTLESS SHELVING BAY DETAILS

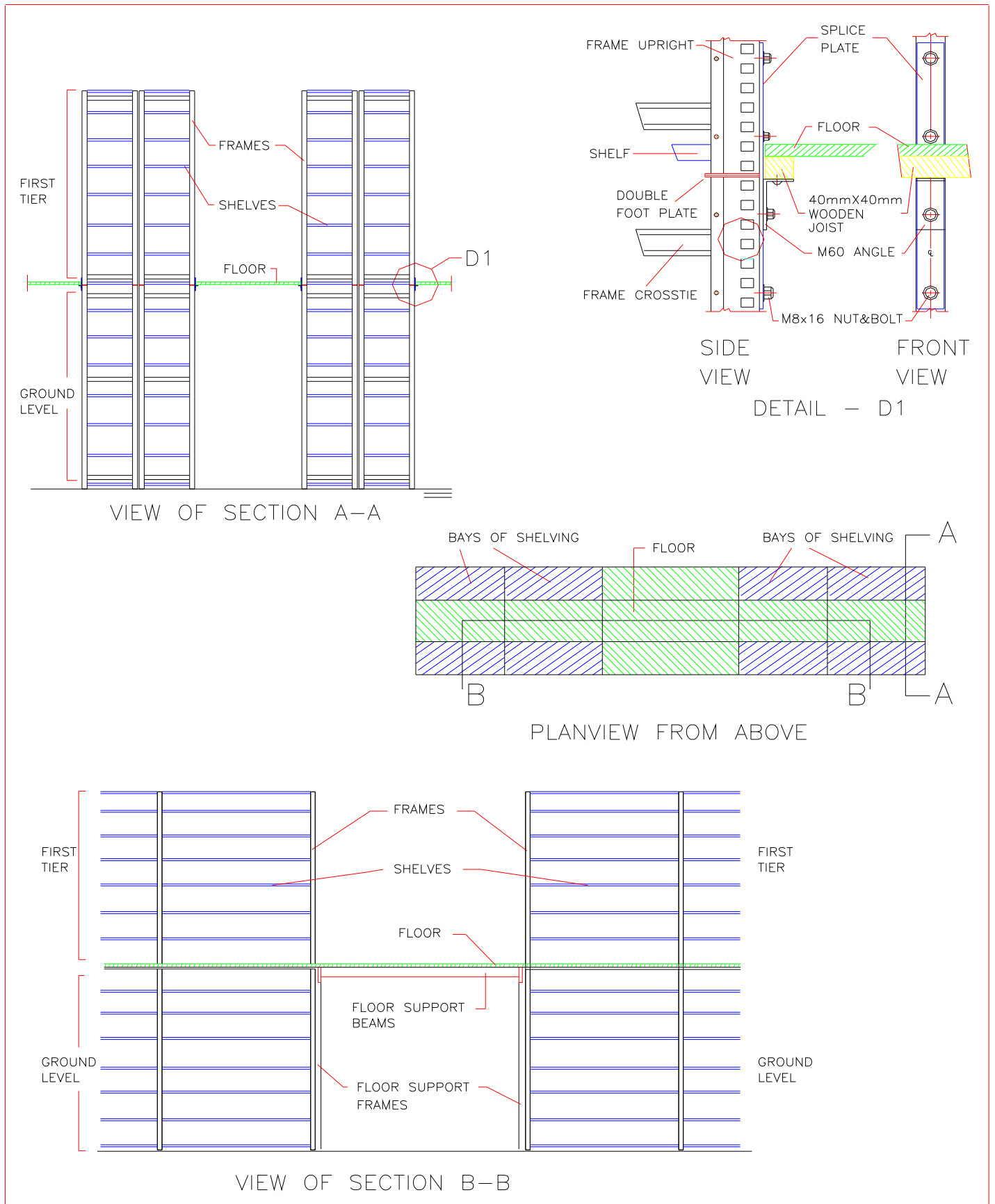
BLT-7

ALL DIMENSIONS IN MM DO NOT SCALE DRAWINGS WORK TO FIGURE DIMENSIONS ONLY



BOLTLESS SHELVING FLOORING DETAILS

BLT-8





INSTALLATION OF BOLTLESS SHELVING

The following is a guide to installing Sperrin Metal Boltless Shelving.

1. Erect two uprights vertically inserting clips for the top and bottom shelves.
2. Locate the shelves (top and bottom).
3. This "bay" will now stand freely.
4. If single bays are to be built, insert clips at desired shelf heights and locate shelves. If the single bay is to be "closed" (i.e. sides and back) bolt on the back before locating all remaining shelves.
5. If continuous single runs are to be built; insert clips for bottom and top shelves, erect upright and insert clips, locate shelves and repeat until the single run is complete. When all uprights are erected insert clips at desired shelf heights and locate all shelves. If "closed" as above bolt on all backs before locating all remaining shelves.
6. If continuous double runs are to be built; build two single runs as above back-to-back. Bolt together before inserting all shelves. Insert clips at desired shelf heights and locate all shelves. If "closed" as above; locate backs between uprights when building double run, bolt uprights together with backs sandwiched between them, insert clips at desired shelf height and locate all shelves.