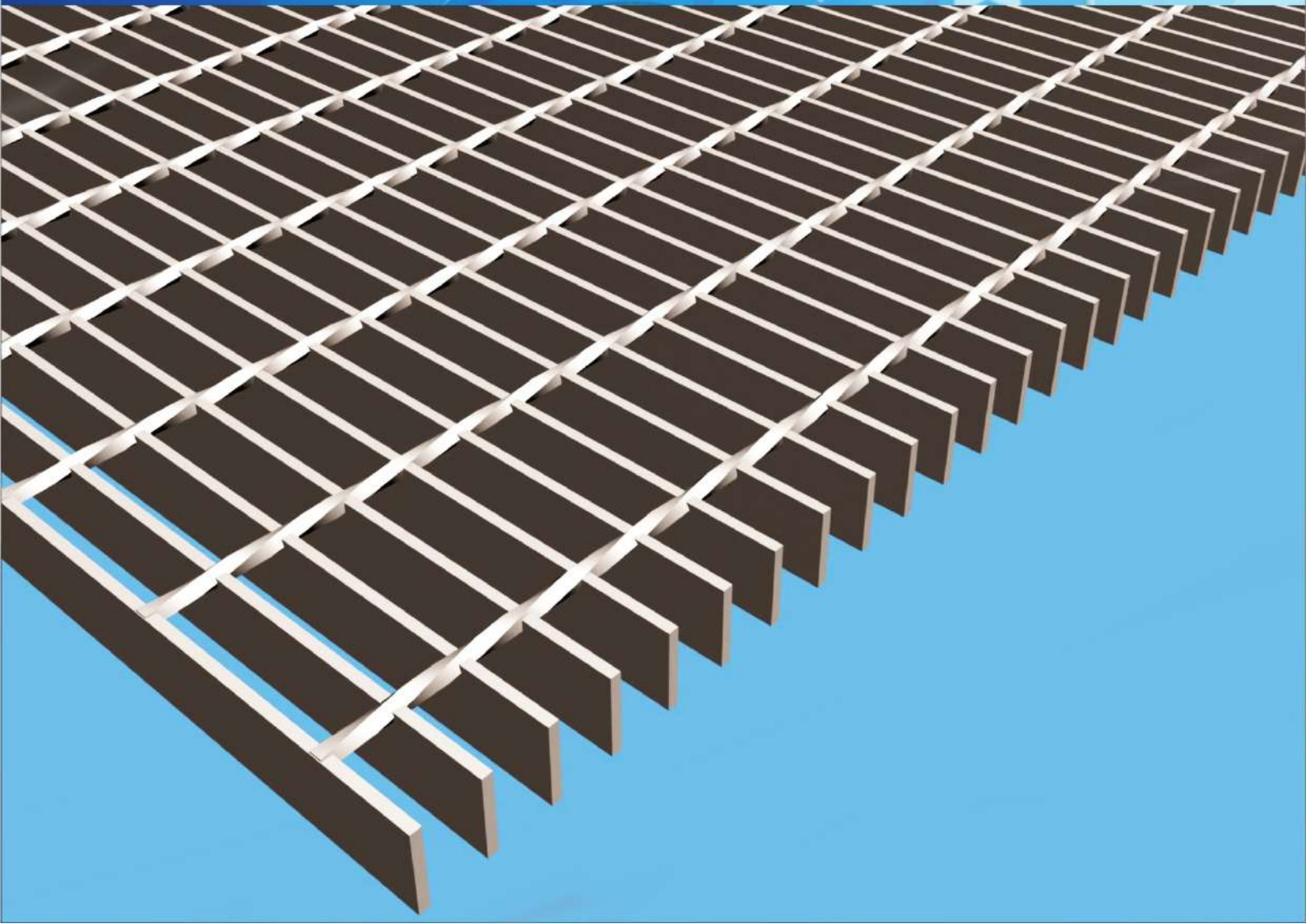
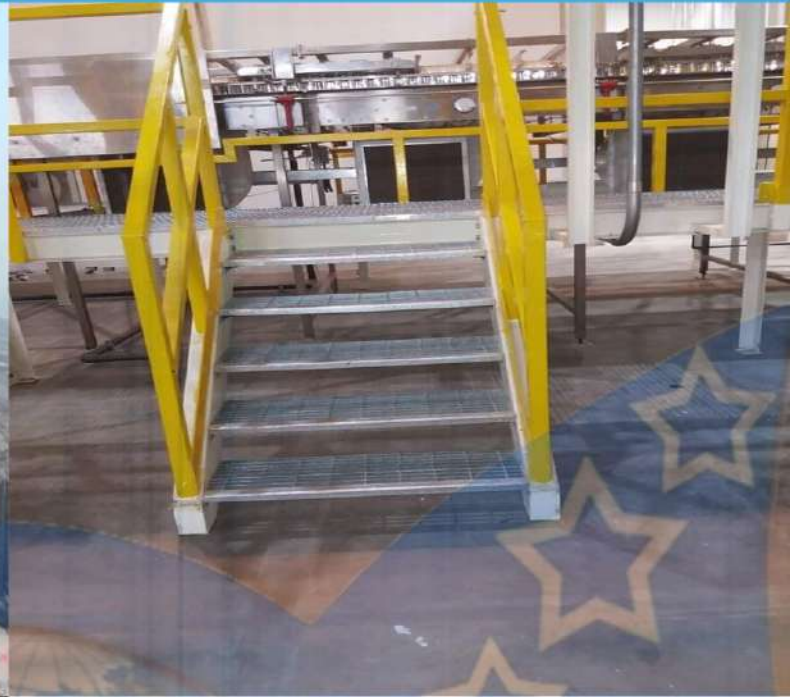




GRATING VIET TRADING PRODUCTION CO.,LTD







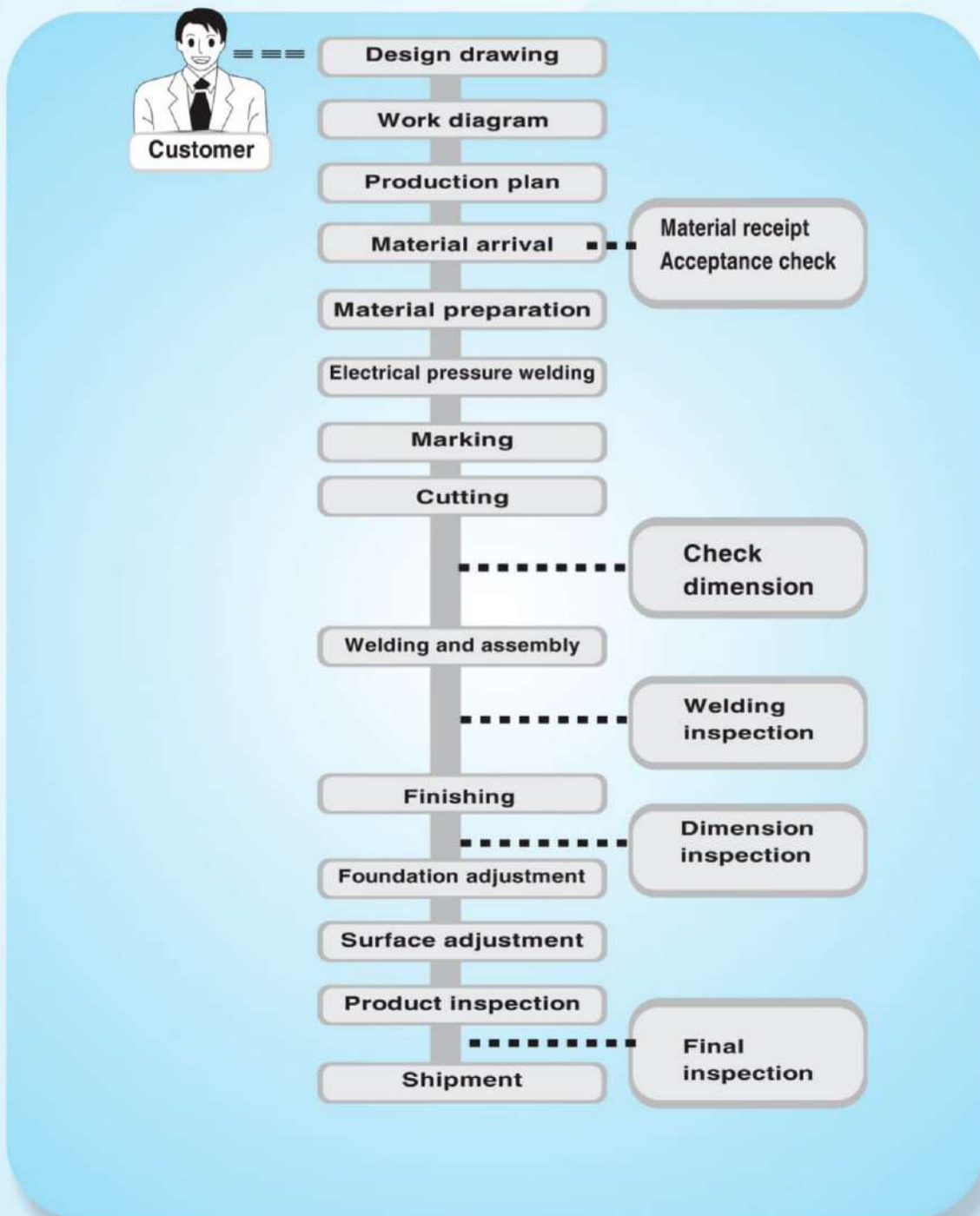


Technical strength

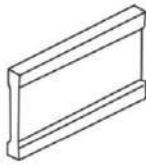
Our production line assures high quality products. Further, our thorough product inspection system supports Grating viet quality product.

Production process

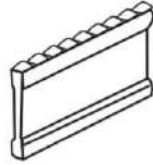
Our products are strictly inspected based on company standards.



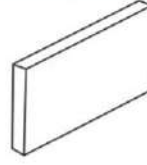
Material



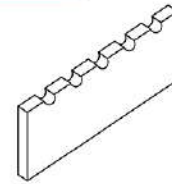
IB (I-Bar)



SIB (Serrated I bar)



FB (Flat bar)



SFB (Serrated bar)

Bearing Bar

Crossbar

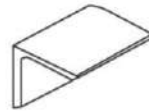


TB (Twist bar)

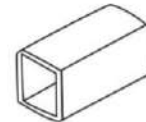


RB (Round steel bar)

Attaching Member

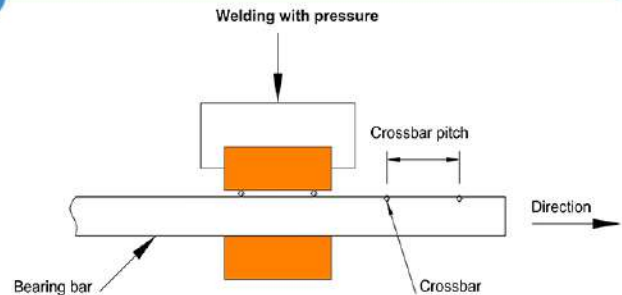
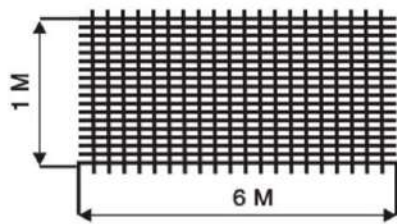


Angle (Equal Angle Steel)



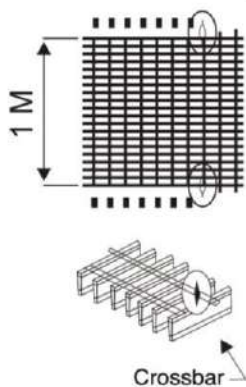
Square Pipe

Pressure (Projection) Welding

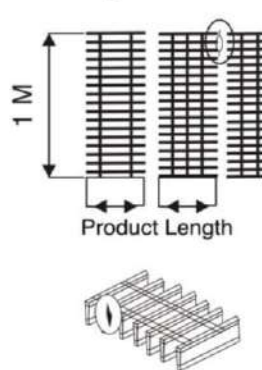


Cutting (Cut Panel Production)

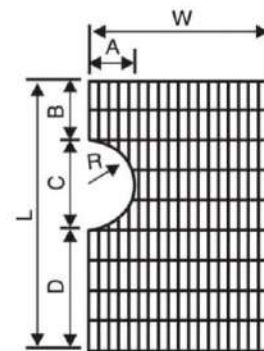
Crossbar Cutting



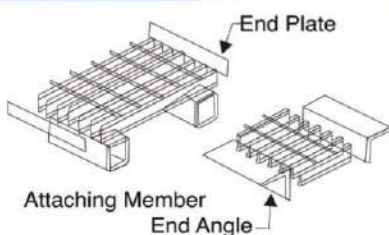
Bearing Bar Cutting



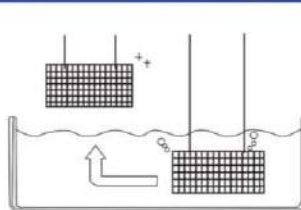
Notch Process



Assembly



Hot Dip Galvanizing

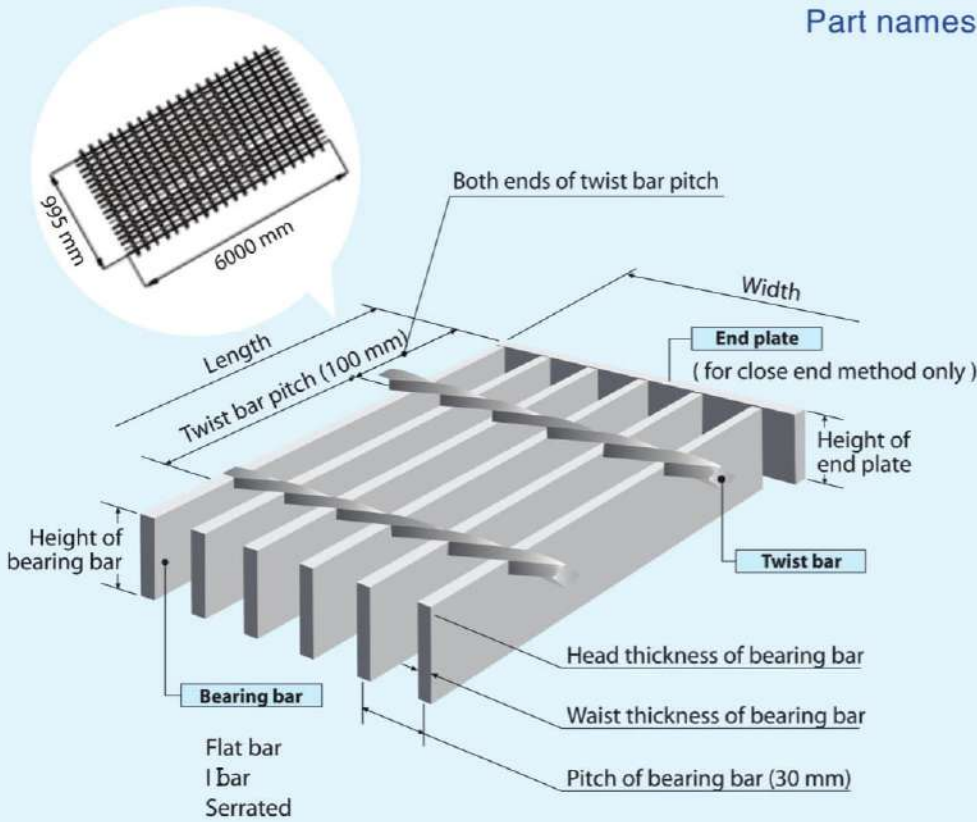


Product Shipping

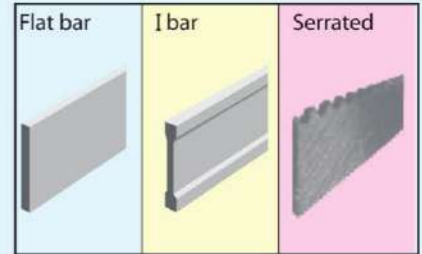


Ideas to enhance the function of grating are used effectively.

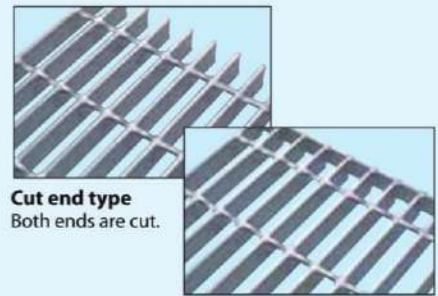
Part names



Types of bearing bar



Standard surface finish is hot dip galvanized. Other surface finishes are also available.



FB25x5, P30x100, TB6

Bearing bar

- FB (Flat bar)
- IB (I bar)
- SFB (serrated bar)
- SIB (Serrated I bar)

Height of bearing bar

Thickness of bearing bar

Thickness of twist bar

- TB5 (Twist bar 5x5)
- TB6 (Twist bar 6x6)
- TB8 (Twist bar 8x8)

Pitch of twist bar (50, 76, 100)

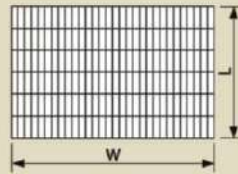
Pitch of bearing bar (30, 40,...)

Pitch (P)

Special processing corresponding to the shape of the installation site and customer request is also available. Please do not hesitate to inquire us.

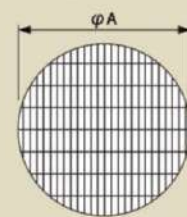
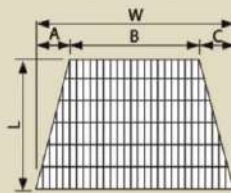
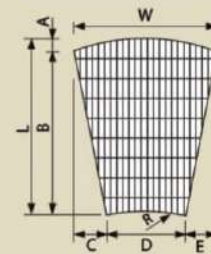
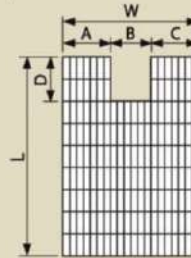
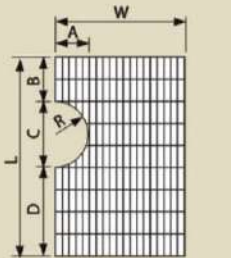
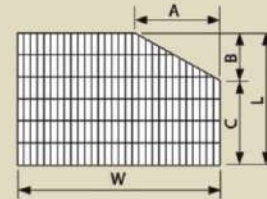
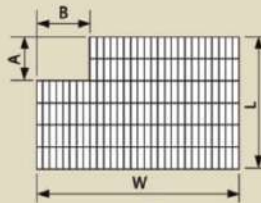
Special processing

- Without cutout



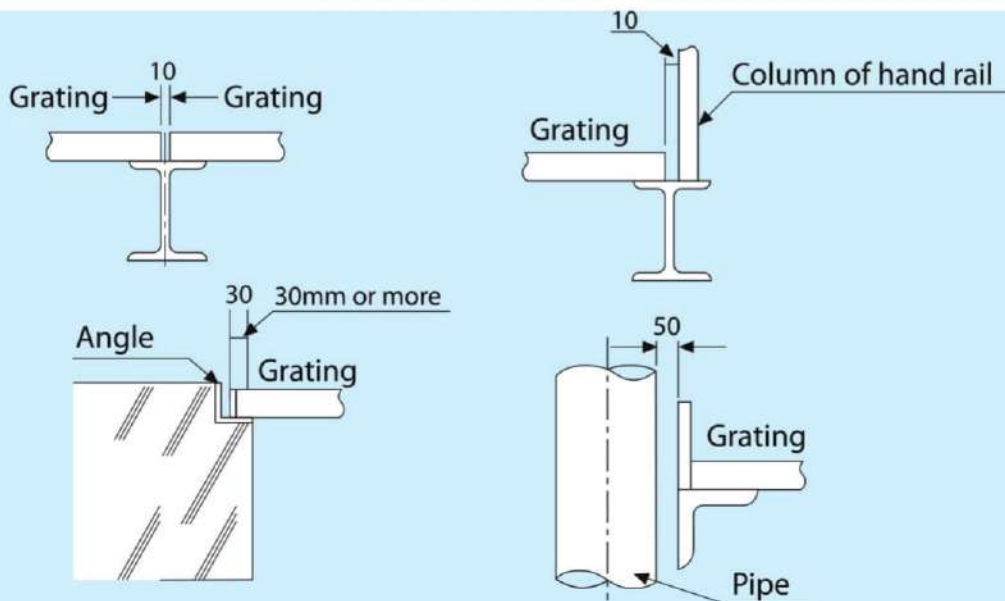
Order us as
W(width) x L(length) x number.

- With cutout



Order with reference to single product drawings and specify outer dimensions, cutout dimensions, etc. Consult us when manufacture requires a layout.

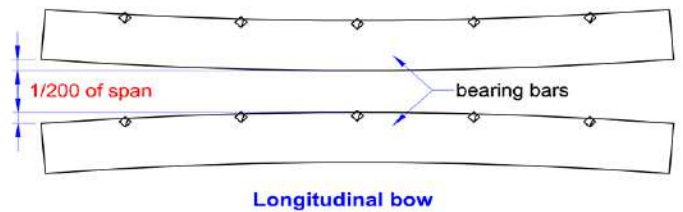
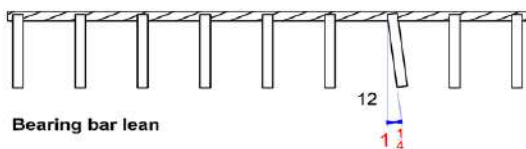
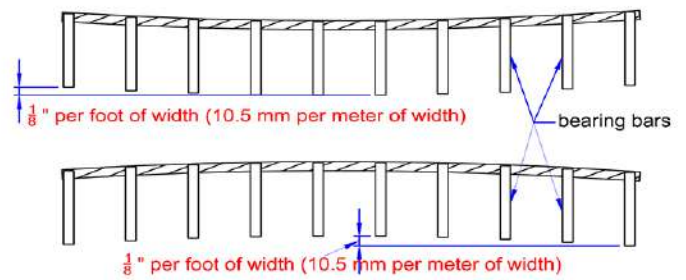
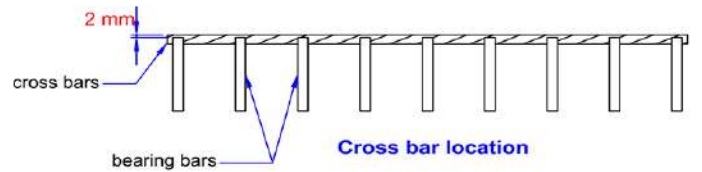
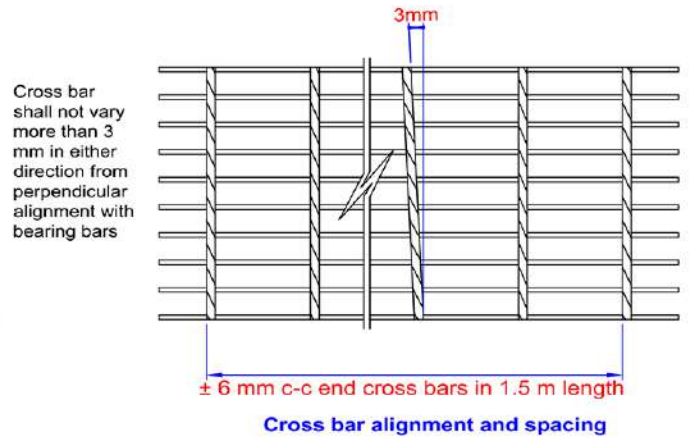
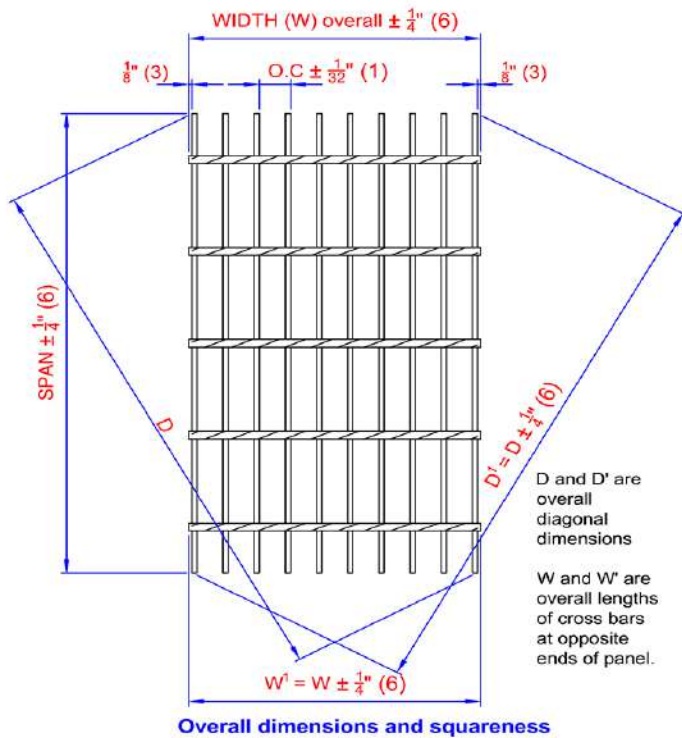
Attachment dimension



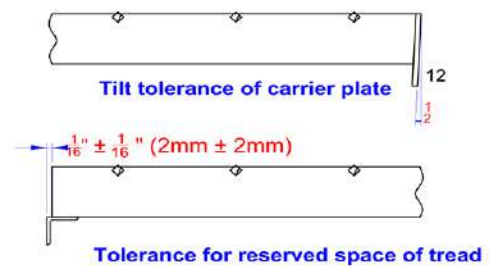
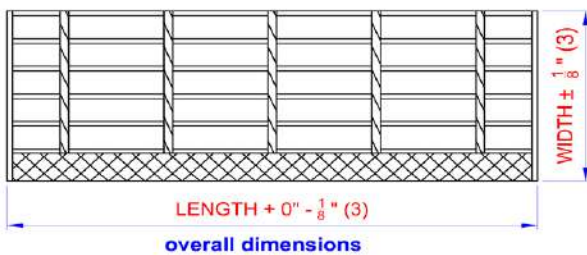
※ Attachment width of grating should be 30mm or more for safety.

※ In case of using saddle clip width 25mm, the width of grating should be at least 35mm or more.

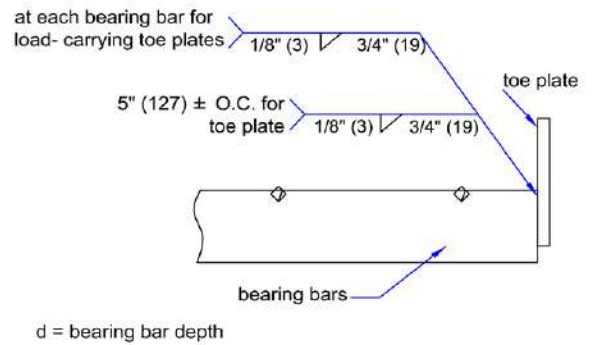
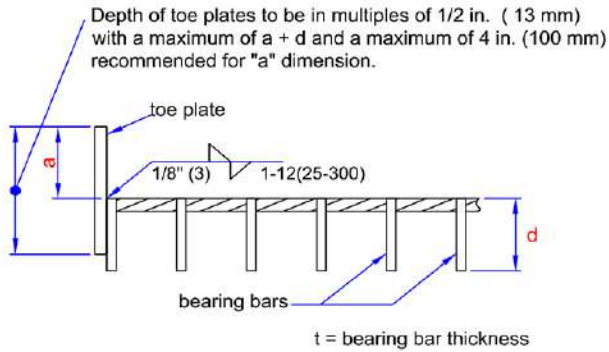
All dimensions given are maximum permissible tolerances.



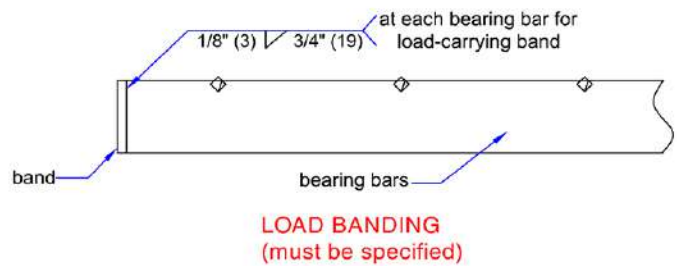
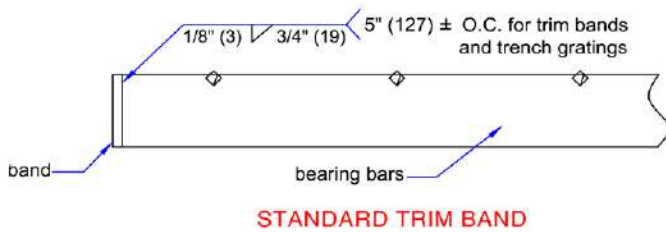
STAIR TREAD TOLERANCES



TOE PLATES

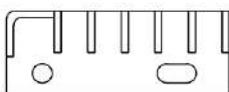
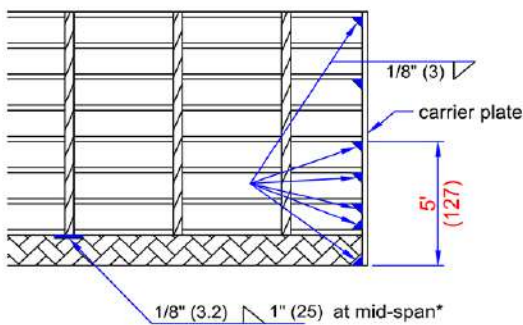


BANDING



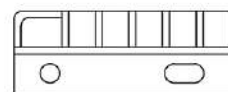
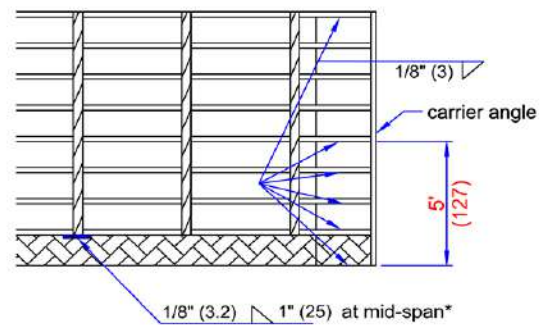
STANDARD STAIR TREADS

(bearing bar thickness less than 1/4" (6.4mm) and bearing bar clear opening greater than or equal to 5/8" (16mm))



for stair treads 3' - 0 and greater (914mm)

When carrier plates and carrier angles are used, the bearing bars in the front five inches, the back bearing bar, and the nosing shall be welded to the carrier plate or carrier angle as shown.

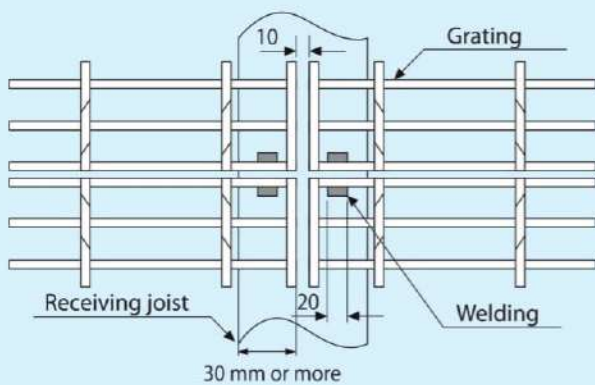


for stair treads 3' - 0 and greater (914mm)

On treads over 9- 3/4 in. (248) wide weld end of centre bar also.
* Treads spanning 4 ft. (1.2m) or more shall have welds located at the third points.

Installation

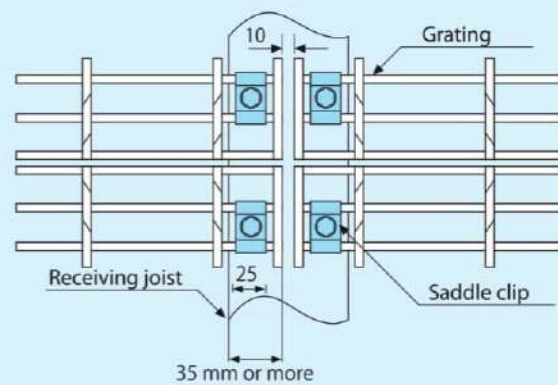
When removal is not required



Grating overlap should be 30 mm or more.
Grating is welded to the receiving joist.

When removal is required

Grating overlap should be 35 mm or more.

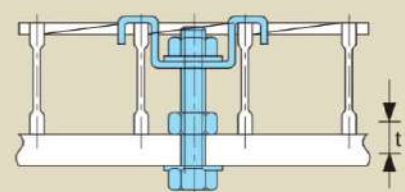
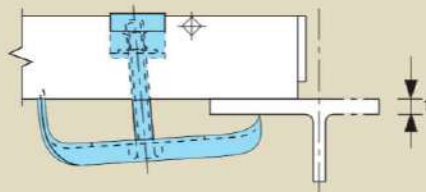
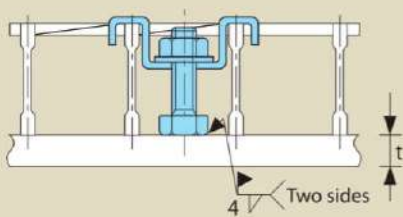


Fix grating at receiving joist by saddle clip.

Saddle clip SA type

Saddle clip SY type

Saddle clip SE type



Please kindly choose type of stainless steel saddle clip required.
t symbol is representative of height.

Design focused on safety for up and down movement

Mass-production grating with correct finishing boasts high quality.

Serrated Type

Welding type



Bolt type

Plain type

Welding type



Bolt type



Warp stripe steel panel is used for nosing material to clearly show position. Hubby material increases traction. This tread increases traction for up and down movement to achieve excellent safety.

Relationship between stair tread width and attachment bolt pitch

(common to hubby and plain type)

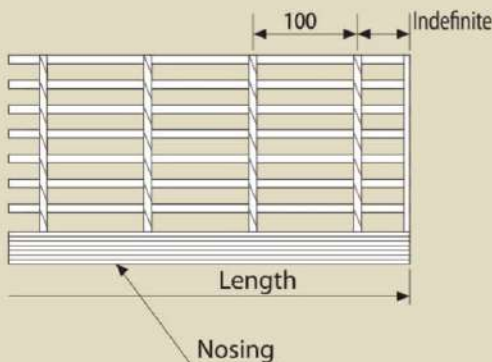
Width of stair tread	155	185	215	245	275	305
Bolt center distance d (mm)	65	115	115	180	180	180

Standard dimension and weight

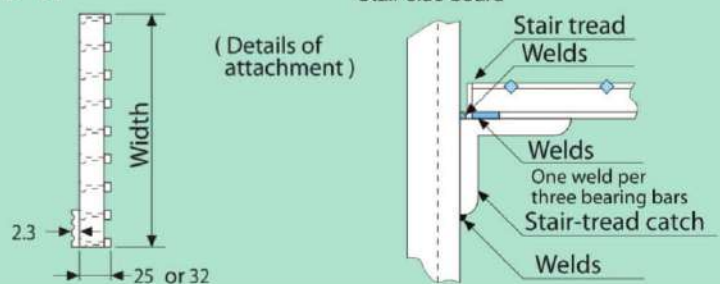
(W: welding type, B: bolt type)

P	Details	Length(mm)	500		600		700		800		900		*Caution
			Weight(kg/sheet)		Weight(kg/sheet)		Weight(kg/sheet)		Weight(kg/sheet)		Allowable maximum span		
Plain	Type	Width(mm)	W	B	W	B	W	B	W	B	W	B	Load condition: concentrated load 100kg Deflection/distance between supports: 1/300 or less Dimensions shown left are that of standard items. Other dimensions can be manufactured. Please feel free to inquire.
	FB25x5	155	3.9	4.4	4.6	5.2	5.3	5.9	6.1	6.7	6.5	7.0	
		245	5.6	6.5	6.6	7.6	7.7	8.7	8.7	9.7	9.2	10.2	
275	6.2	7.2	7.3	8.4	8.5	9.6	9.6	10.7	10.1	11.3			

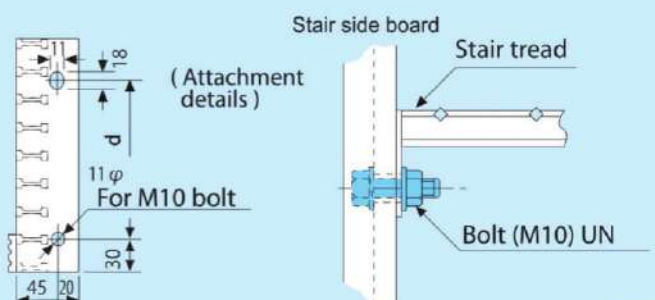
Structure

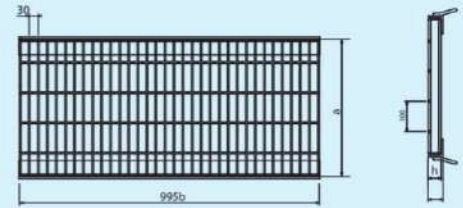


Welding type



Bolt type





SIDE TRENCH

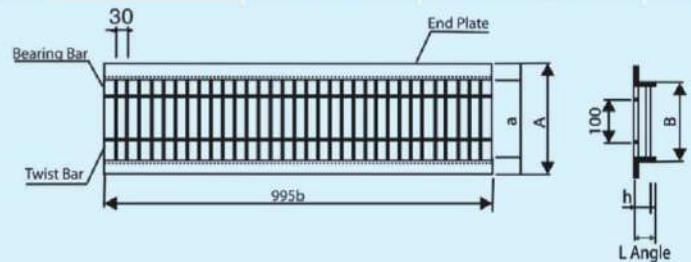
TRANSVERSE TRENCH

Type of Vehicle	Dimension of Ditch (mm)	Dimension (mm) b x a x h	Weight (kg)
T-20	200	995x300x32	12.2
	250	995x350x40	21.7
	300	995x400x45	27.7
	350	995x450x50	34
	400	995x500x60	48
	450	995x550x65	62.8
500	995x600x65	68.4	

Type of Vehicle	Dimension of Ditch (mm)	Dimension (mm) b x a x h	Weight (kg)
T-20	200	995x300x35	16.3
	250	995x350x44	19
	300	995x400x50	30.6
	350	995x450x55	37.3
	400	995x500x60	45
	450	995x550x65	62.8
500	995x600x65	68.4	

Type of Vehicle	Dimension of Ditch (mm)	Dimension (mm) b x a x h	Weight (kg)
T-14	200	995x300x25	12.1
	250	995x350x32	13.9
	300	995x400x40	24.7
	350	995x450x44	23.9
	400	995x500x50	37.6
	450	995x550x60	49
500	995x600x60	53.3	

Type of Vehicle	Dimension of Ditch (mm)	Dimension (mm) b x a x h	Weight (kg)
T-14	200	995x300x32	12.2
	250	995x350x35	18.6
	300	995x400x40	24.7
	350	995x450x45	30.7
	400	995x500x50	37.6
	450	995x550x55	45.6
500	995x600x60	53.3	



SIDE TRENCH

Type of Vehicle	Dimension of Ditch (mm)	Dimension (mm) b x a x h	Dimension A	Dimension B	L Angle	Weight (kg)
T-14	150	995x130x25	210	140	L40x40x5	10
	200	995x180x32	260	190	L40x40x5	11
	250	995x230x40	310	240	L40x40x5	16
	300	995x275x45	375	287	L50x50x6	23
	350	995x325x50	425	337	L50x50x6	31

Type of Vehicle	Dimension of Ditch (mm)	Dimension (mm) b x a x h	Dimension A	Dimension B	L Angle	Weight (kg)
T-2	150	995x130x25	210	140	L40x40x5	10
	200	995x180x25	260	190	L40x40x5	11
	250	995x230x25	310	240	L40x40x5	12
	300	995x280x25	360	290	L40x40x5	14
	350	995x330x32	410	240	L40x40x5	18
	400	995x380x32	460	390	L40x40x5	20
450	995x430x32	510	440	L40x40x5	22	

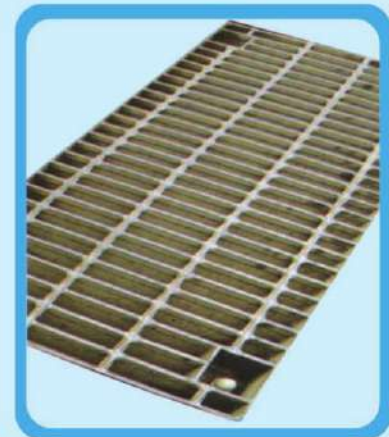


SIDE				
Type of Vehicle	Dimension of Ditch (mm)	Dimension	GR Weight (kg)	Frame Weight (kg)
T-25	200	995 x 300 x 32	15.4	9.2
	250	995 x 350 x 40	22.0	10.0
	300	995 x 400 x 50	32.1	11.1
	350	995 x 450 x 55	38.9	11.4
	400	995 x 500 x 65	50.6	12.3
	450	995 x 550 x 75	63.9	13.3
	500	995 x 600 x 80	71.1	13.8



TRANSVERSE				
Type of Vehicle	Dimension of Ditch (mm)	Dimension	GR Weight (kg)	Frame Weight (kg)
T-25	200	995 x 300 x 40	19.3	10.0
	250	995 x 350 x 50	28.3	11.1
	300	995 x 400 x 55	35.1	11.4
	350	995 x 450 x 60	42.4	11.8
	400	995 x 500 x 65	50.6	12.3
	450	995 x 550 x 75	63.9	13.3
	500	995 x 600 x 75	69.6	13.8

TRANSVERSE BOLT FIX				
Type of Vehicle	Dimension of Ditch (mm)	Dimension	GR Weight (kg)	Frame Weight (kg)
T-25	200	995 x 300 x 40	22.8	11.1
	250	995 x 350 x 50	32.2	11.4
	300	995 x 400 x 55	39.0	11.8
	350	995 x 450 x 60	46.3	12.3
	400	995 x 500 x 65	54.5	13.0
	450	995 x 550 x 75	67.8	13.6
	500	995 x 600 x 75	73.5	13.6











SQUARE COVER

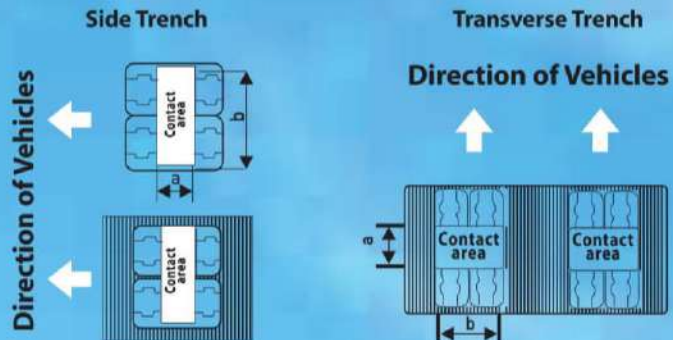
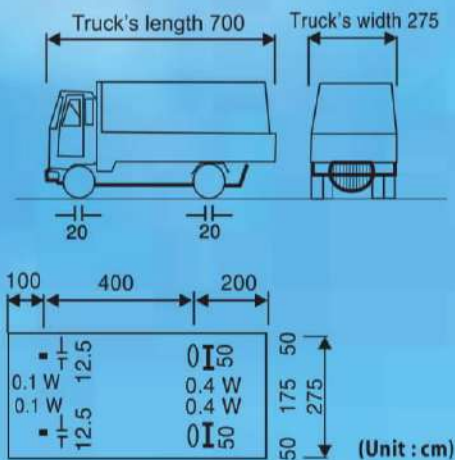
Type of Vehicle	Dimension of Ditch (mm)	Dimension	GR Weight (kg)	Frame Weight (kg)
T-25	300	400 x 400 x 45	11.4	7.7
	400	500 x 500 x 55	22.1	9.7
	450	550 x 550 x 60	28.1	12.4
	500	600 x 550 x 60	37.6	13.8
	600	700 x 700 x 75	59.2	18.1
	700	800 x 800 x 80	83	23.3
	800	900 x 900 x 90	109.8	25.1
	900	1000 x 1000 x 100	149.9	29.7



TYPE OF VEHICLE	Load	Total load (tons)	Rear wheel load (kg.)	Wheel contract length (a)	Rear wheel width (b)
Heavy truck A 	T-25	25	10.000	20	50
Heavy truck B 	T-20	20	8000	20	50
BUS 	T-14	14	5600	20	50
Small truck 	T-6	6	2400	20	24
Passenger car 	T-2	5	800	20	16
Side walk 	500 kg/m ² Pedestrian / 360kg/m ² Floor				

Class	Impact Factor
Side trench	0
Transverse trench	0.4

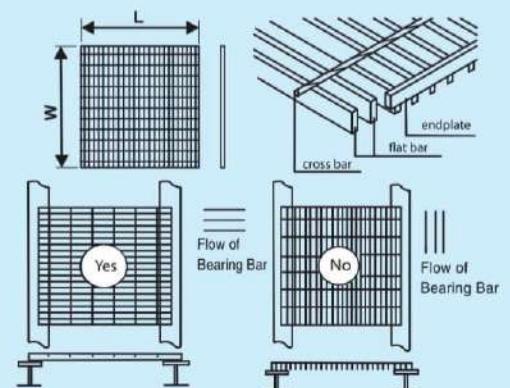
Fy = 2400 (kg/cm²)
 Allowable bending stress = 1800 (kg/cm²)



Grating Open Space

Dimension of Bearing Bar	Bearing Bar Pitch	Cross Bar Pitch	Open Space (%)
FB 25 x 3	30	100	85
	30	50	81
FB 25 x 5	30	100	78
	30	50	75
IB 44 x 5 x 3	30	100	79
	30	50	75
IB 75 x 7 x 4	35	100	75
	35	50	70

Flow of Bearing Bar Picture



The strength of grating is sustained by the bearing bar. In case that it is not supported at both ends of the bar, the strength of the grating is compromised.

Side Trench (i=0, Allowable Bending Stress : 1800kgf/cm²)

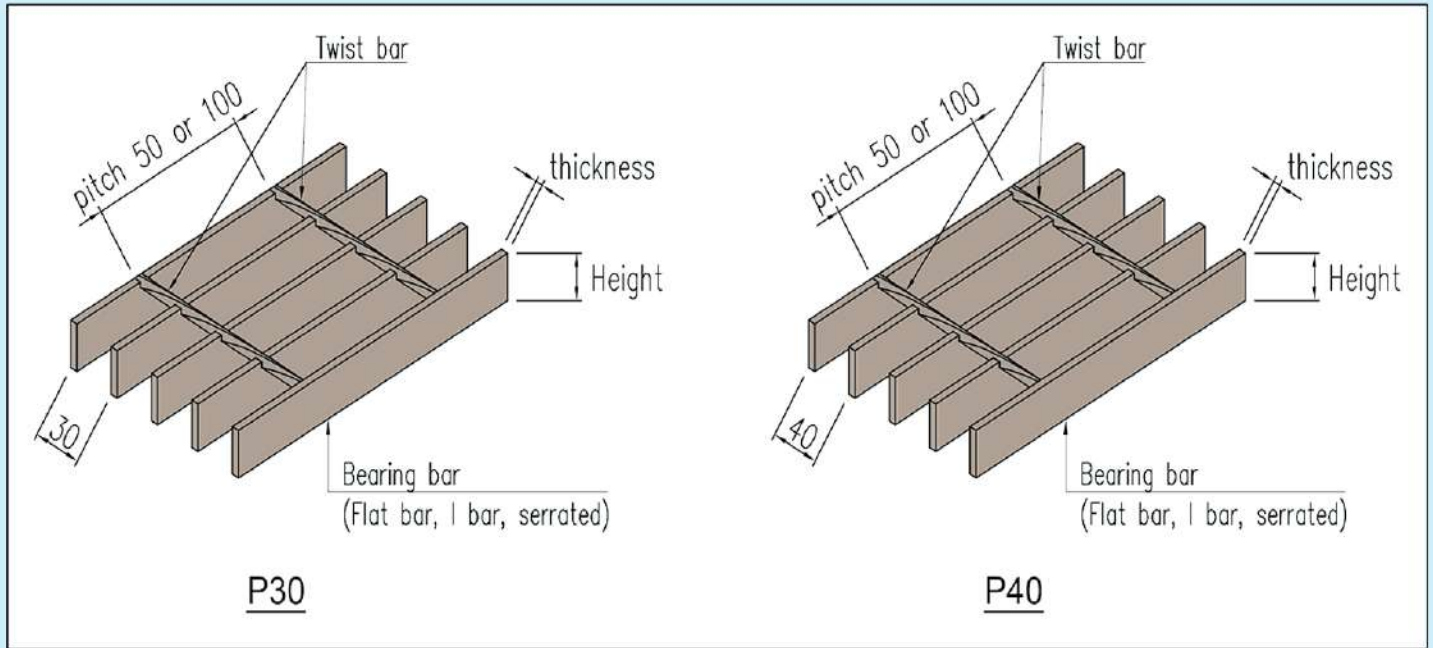
Span Type	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1100	1200
	FB 20x3	T-2																	
FB 25x3	T-2	T-2																	
FB 20x5	T-2	T-2																	
FB 25x5	T-14	T-2	T-2	T-2															
FB 32x3	T-14	T-2	T-2	T-2															
FB 35x3	T-14	T-2	T-2	T-2	T-2														
IB 32x5x3	T-20	T-14	T-2	T-2	T-2	T-2	T-2												
FB 40x3	T-20	T-14	T-2	T-2	T-2	T-2	T-2	T-2											
FB 30x5	T-25	T-14	T-2	T-2	T-2	T-2	T-2	T-2											
FB 35x5	T-25	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2									
FB 40x5	T-25	T-25	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2					
IB 44x5x3	T-25	T-25	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2			
FB 45x5	T-25	T-25	T-20	T-14	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	
FB 50x6	T-25	T-25	T-25	T-20	T-14	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
IB 50x7x4	T-25	T-25	T-25	T-20	T-14	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
FB 55x6	T-25	T-25	T-25	T-25	T-14	T-14	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
IB 55x7x4	T-25	T-25	T-25	T-25	T-14	T-14	T-6	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
FB 60x6	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
IB 60x7x4	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2
FB 65x6	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2
IB 65x7x4	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-6	T-2	T-2	T-2	T-2	T-2
FB 75x6	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-2	T-6	T-2	T-2
IB 75x7x4	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-2	T-6	T-2	T-2
FB 80x6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-6	T-6	T-6
FB 90x6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-14	T-14	T-14	T-6	T-6	T-6	T-6	T-6	T-6
FB 100x6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-14	T-20	T-20	T-14	T-14	T-14	T-14	T-6	T-6	T-6

Bearing Bar Pitch : 30 mm ※ Pitch 35.3mm

Transverse Trench (i=0, Allowable Bending Stress : 1800kgf/cm²)

Span Type	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1100	1200
	FB20 x 3																		
FB25 x 3	T-2																		
FB20 x 5	T-2	T-2																	
FB25 x 5	T-14	T-2	T-2																
FB32 x 3	T-14	T-2	T-2																
FB35 x 3	T-14	T-2	T-2																
IB32x5x3	T-20	T-14	T-2	T-2	T-2	T-2													
FB40 x 3	T-20	T-14	T-2	T-2	T-2	T-2													
FB32 x 5	T-25	T-14	T-6	T-2	T-2	T-2	T-2												
FB35 x 5	T-25	T-20	T-14	T-2	T-2	T-2	T-2	T-2											
FB40 x 5	T-25	T-25	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2								
IB44x5x3	T-25	T-25	T-20	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2						
FB45 x 5	T-25	T-25	T-25	T-20	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2				
FB50 x 6	T-25	T-25	T-25	T-20	T-20	T-14	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	
IB50x7x4	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2	
FB55 x 6	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-14	T-6	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
IB55x7x4	T-25	T-25	T-25	T-25	T-25	T-20	T-14	T-14	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2	T-2	T-2
FB60 x 6	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-14	T-14	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2
IB60x7x4	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-14	T-14	T-14	T-14	T-6	T-2	T-2	T-2	T-2	T-2	T-2
FB65 x 6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-14	T-14	T-14	T-14	T-14	T-6	T-6	T-2	T-2	T-2
IB65x7x4	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-14	T-14	T-14	T-14	T-14	T-6	T-6	T-2	T-2	T-2
FB75 x 6	T-25	T-20	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-20	T-14	T-14	T-14	T-14	T-14	T-6
IB75x7x4	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-20	T-14	T-14	T-14	T-14	T-14	T-6
FB80 x 6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-20	T-14	T-14	T-14	T-14
FB90 x 6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20	T-20	T-20	T-14
FB100x6	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-25	T-20

Bearing Bar Pitch: 30mm ※ Pitch 35.3mm ※ In case of "Type of vehicle" is over T-25, please do not hesitate to contact our Sale department.



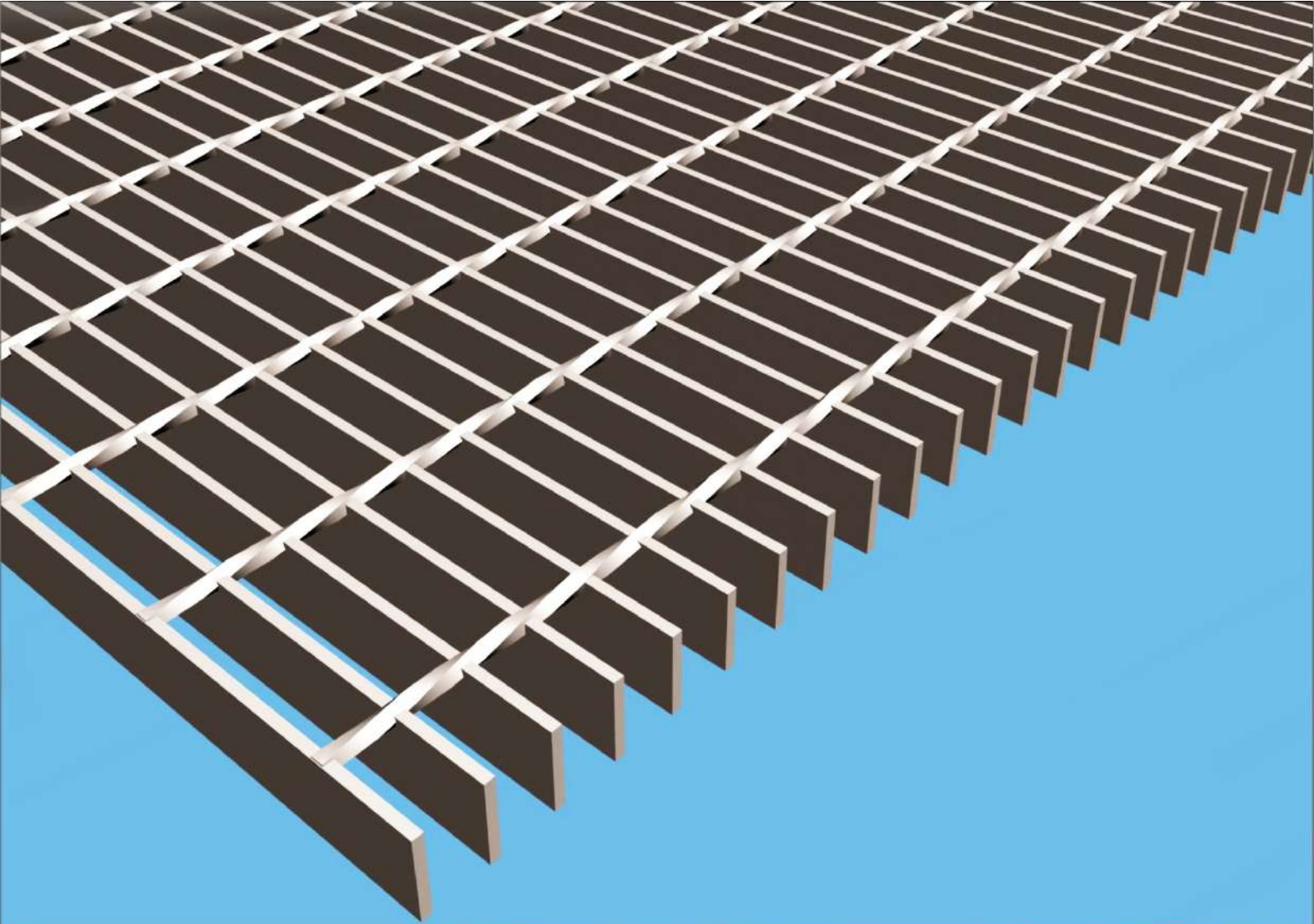
APPLICATION SELECTION

Maximum recommended spans (mm)

Load bar size (mm)	MAINTENANCE FLOORS NO PUBLIC USE		PEDESTRIAN TRAFFIC PUNLIC, RESIDENTIAL AND LIGHT USE		PEDESTRIAN TRAFFIC PUNLIC, COMMERCIAL AND CROWD USE		GENERAL FACTORIES AND WORKSHOP, MOTOR ROOMS, WHEEL TROOYES				GENERAL HEAVY LOADING AREAS, BOILER EQUIPMENT, HEAVY EQUIPMENT AREAS			
	U= 2.5 kPa, C= 5 mm		U= 3 kPa, C= 5 mm		U= 4 kPa, C= 5 mm		U= 5 kPa, C= 5 mm		U= 5 kPa, C= 10 mm		U= 5 kPa, C= 5 mm		U= 5 kPa, C= 10 mm	
	P30	P40	P30	P40	P30	P40	P30	P40	P30	P40	P30	P40	P30	P40
20x3	1190	1110	1140	1060	1060	980								
20x5	1350	1260	1290	1200	1200	1120								
25x3	1410	1310	1350	1250	1250	1170								
25x4.5	1560	1450	1490	1390	1390	1290	1310	1220	1560	1450	1180	1100	1410	1310
25x5	1600	1490	1530	1420	1420	1320	1350	1250	1600	1490	1220	1130	1450	1350
32x3	1700	1580	1620	1510	1510	1400								
32x4.5	1880	1750	1790	1670	1670	1550	1580	1470	1880	1750	1430	1330	1700	1580
32x5	1930	1790	1840	1710	1710	1590	1620	1510	1930	1790	1460	1360	1740	1620
35x5	2060	1920	1970	1830	1830	1710	1730	1610	2060	1920	1570	1460	1860	1730
38x4.5	2140	1990	2040	1900	1900	1770	1800	1670	2140	1990	1620	1510	1930	1800
38x5	2190	2040	2100	1950	1950	1820	1840	1720	2190	2040	1670	1550	1980	1840
40x3	2010	1870	1920	1780	1780	1660								
40x5	2280	2120	2180	2030	2030	1890	1920	1780	2280	2120	1730	1610	2060	1920
45x5							2090	1950	2490	2320	1890	1760	2250	2090
50x5							2270	2110	2700	2510	2050	1910	2440	2270
55x5							2440	2270	2900	2700	2200	2050	2620	2440
65x5							2760	2570	3290	3060	2490	2320	2970	2760
75x5							3080	2860	3660	3400	2780	2590	3300	3080
75x6							3220	3000	3830	3560	2910	2710	3460	3220
NOTE	LIGHT & MEDIUM DUTY						HEAVY DUTY							

SERRATED CONVERSION FACTORS

Load bar	20 x 3	20 x 5	25 x 3	25 x 4.5	25 x 5	32 x 3	32 x 4.5	32 x 5	35 x 4.5	35 x 5	38 x 5	40 x 3	40 x 5	45 x 5	50 x 5	65 x 5
Load	Not recommended		0.79	0.79	0.79	0.83	0.83	0.83	0.85	0.85	0.86	0.87	0.87	0.88	0.89	0.92
Deflection	Not recommended		1.12	1.12	1.12	1.09	1.09	1.09	1.08	1.08	1.07	1.07	1.07	1.07	1.06	1.04



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