

STEEL GRATINGS

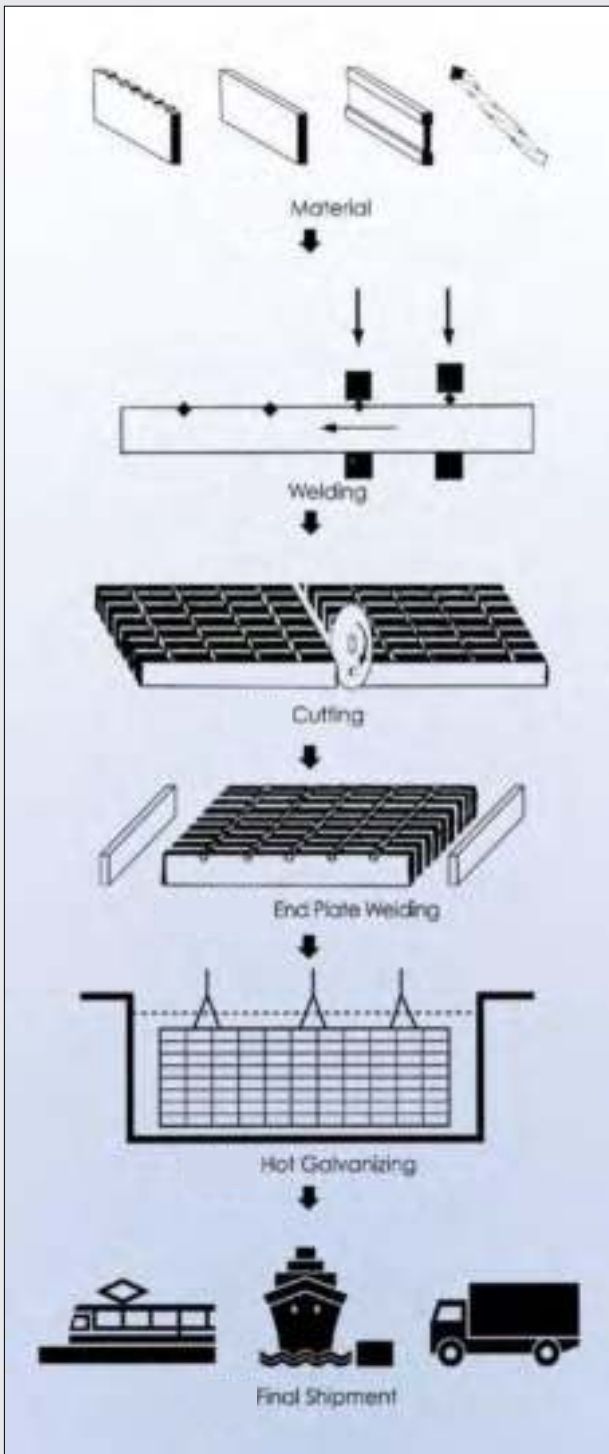


Product Details & Distribution

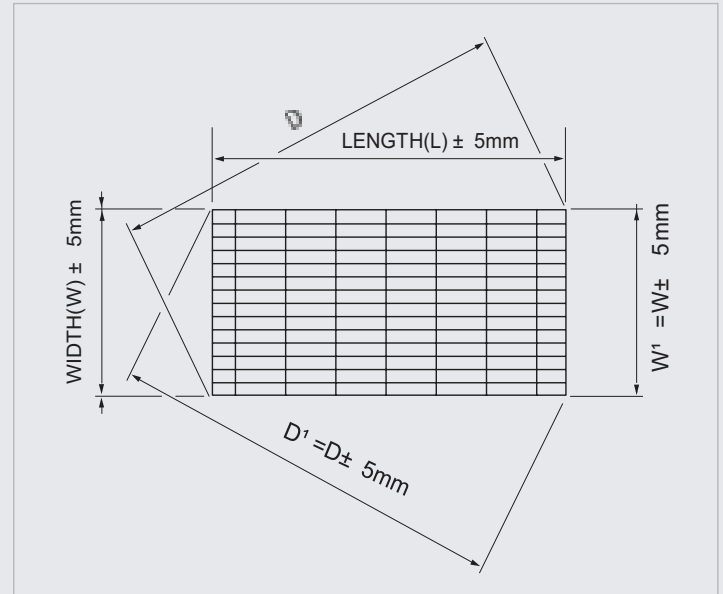
GI Steel Grating

Manufacturing Process

Made by the world first-class Italian equipment, which can arrange the bearing bar and cross bar in longitude and latitude order to certain distance. Cross bar is pressed into the bearing bar by high tension resistance welding which is controlled by computer. So we can produce high quality gratings with firm welding, smooth surface and high strength.



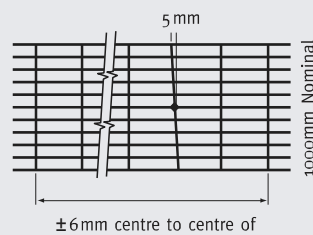
Size, Dimension and Tolerance



W and W1 are overall lengths of cross bars at opposite ends of panel.

D and D1 are overall diagonal dimensions

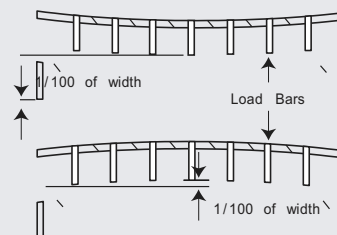
Cross Rod Alignment and Spacing



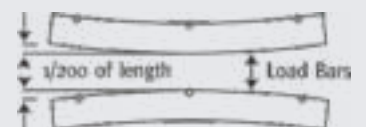
Cross Bar Location and Bearing Bar



Transverse Bow

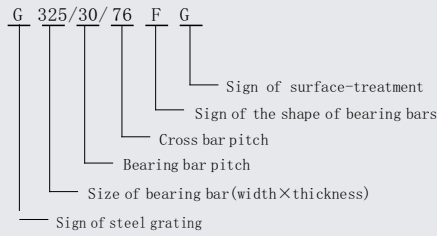


Longitudinal Bow



GI Steel Grating

Symbol of Steel Grating



Note:

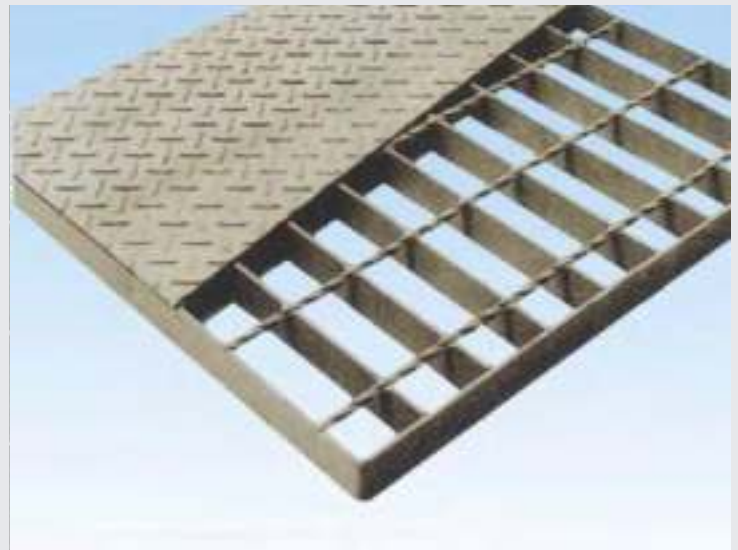
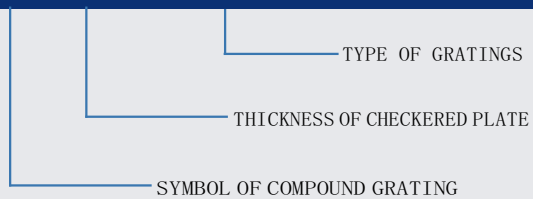
1. Bearing bar pitches may be 15 to 22, 25, 30, 32.5, 34, 40, 50, 60, 80, 90mm, of which 25, 30, 34 and 40mm are recommended.
2. Cross bar pitches may be 24-200mm, of which 50mm, 76mm and 100mm are recommended.
3. Sign of the shape of bearing bars:
F-Plain style (may be omitted in the symbol of steel grating)
S-Serrated style
I-I-section style
4. Sign of surface-treatment:
G-Hot galvanizing (may be omitted in the symbol of steel grating)
P-Painted
U-Untreated



Brand Compound Steel Grating

- Compound Grating is a product which combines grating of good horizontal bearing capacity with checkered plate.
- After being galvanized, the compound grating may be bend upwards, especially for large type grating. It is very difficult to rectify, so you should pay special attention while ordering.
- Compound Grating is normally made up the gratings with bearing bars of the pitch 30, and 40mm as base part and the checkered plate of the pitch 3mm, 4mm, 5mm and 6mm as cover. The most popular gratings as base parts are the types of G323/40/100, G253/30/100 and G323/60/100.

H F 3 (G 3 2 3 / 4 0 / 1 0 0)



GI Steel Grating

Fields of Application

- ◆ Light chemical industry
- ◆ Petro-chemistry
- ◆ Machinery industry
- ◆ Textile chemistry
- ◆ Port engineering
- ◆ Oil and grease chemistry
- ◆ Agriculture husbandry
- ◆ Horticulture
- ◆ Steel industry
- ◆ Waste disposal
- ◆ Food processing
- ◆ Aquatic breeding
- ◆ Fertilizer industry
- ◆ Pharmaceutical industry
- ◆ Parking lot
- ◆ Cement plant

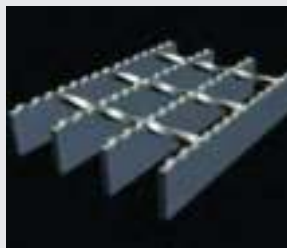
- ◆ Oil refinery
- ◆ Mining and refinery
- ◆ Power plant
- ◆ Public utilities
- ◆ Marine engineering
- ◆ Shipbuilding
- ◆ Construction material industry
- ◆ Defense project
- ◆ Airport project
- ◆ Water plant
- ◆ Sewage disposal
- ◆ Paper and pulp industry
- ◆ Construction industry
- ◆ Transportation industry
- ◆ Automotive industry

General Usage of Grating

- ◆ Flooring
- ◆ Catwalk
- ◆ Mezzanines/decking
- ◆ Stair tread
- ◆ Fencing
- ◆ Vault bin floor
- ◆ Ramp
- ◆ Dock

- ◆ Trench cover
- ◆ Window and machinery safe guards
- ◆ Wash rack
- ◆ Ventilation screen
- ◆ Storage rack
- ◆ Suspended ceiling
- ◆ Drainage pit cover

Type of Steel Grating



There are three kinds of steel gratings distinguished by different bearing bar types. The respective of features are as follows:

1. Plain: One of the most widely used gratings, available for flooring sidewalk, drainage pit cover, stair tread, etc.
2. Serrated: Better non-skid property & safety compared with plain grating
3. I-shape: lighter, more economical and practical comparing with plain grating.
4. Serrated I-shape: anti-skid, can bear heavy duty.



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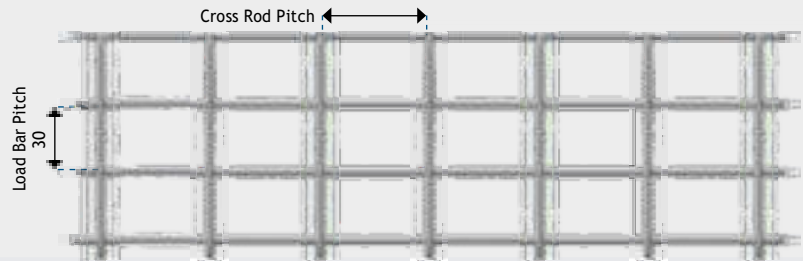
GI Steel Grating

Steel Gratings Most-Popular Specifications

Supplied as 5800 x 995mm Panels as standard, unless other sizes or cut outs are specified.

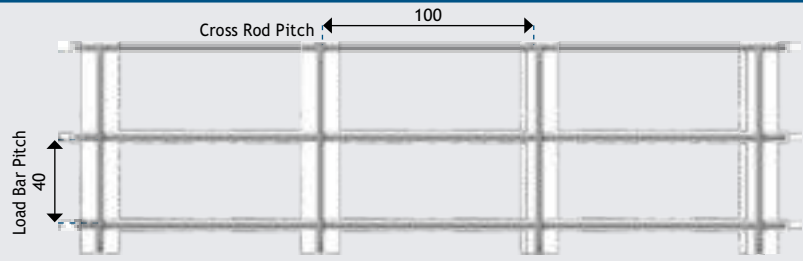


Supplied as 5800 x 995mm Panels as standard, unless other sizes or cut outs are specified.



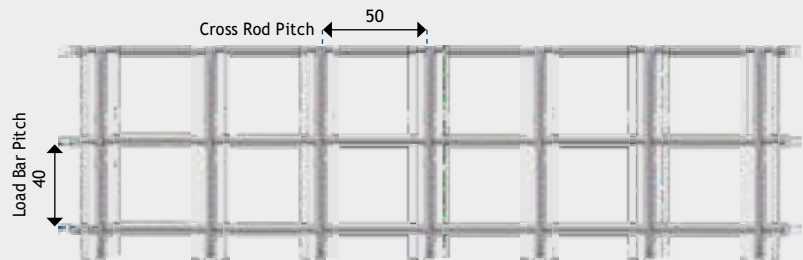
KGC Pattern

Supplied as 5800 x 1003mm TYP Panels as standard, unless other sizes or cut outs are specified.



KGD Pattern

Supplied as 5800 x 1000mm Panels as standard, unless other sizes or cut outs are specified.



KGF Pattern

Supplied as 5800 x 970mm Panels as standard, unless other sizes or cut outs are specified.



GI Steel Grating

Surface Process of Gratings

Hot Galvanizing

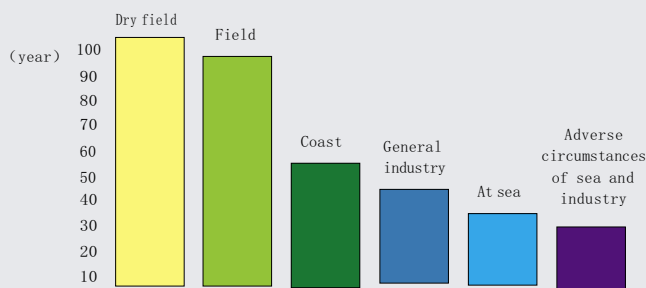
Normally, Hot galvanizing will be carried out after end welding process. When the thickness of bearing bars is not less than 5mm, the weight of average Zinc Layer will not be less than 610g/m². When the thickness of bearing bars is less than 5mm, the weight of average Zinc Layer will not be less than 460g/m². The quality and requirements after hot galvanizing are subject to the standards of GB/T 13912.

Lacquering

To gain protection layer through the ways of spraying, brushing and soaking.

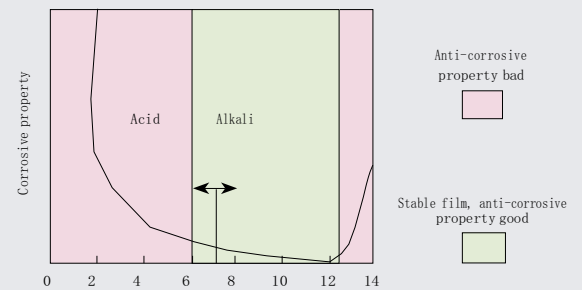
Service life of hot galvanizing

Coated zinc thickness 100μm, the anticipated life of products in various circumstances.



Anti-acid and alkali corrosion capacity

The range of PH6 to PH12.5, a stable protective film will be formed on the zinc surface. It has good anti-corrosive property.



GI Steel Grating

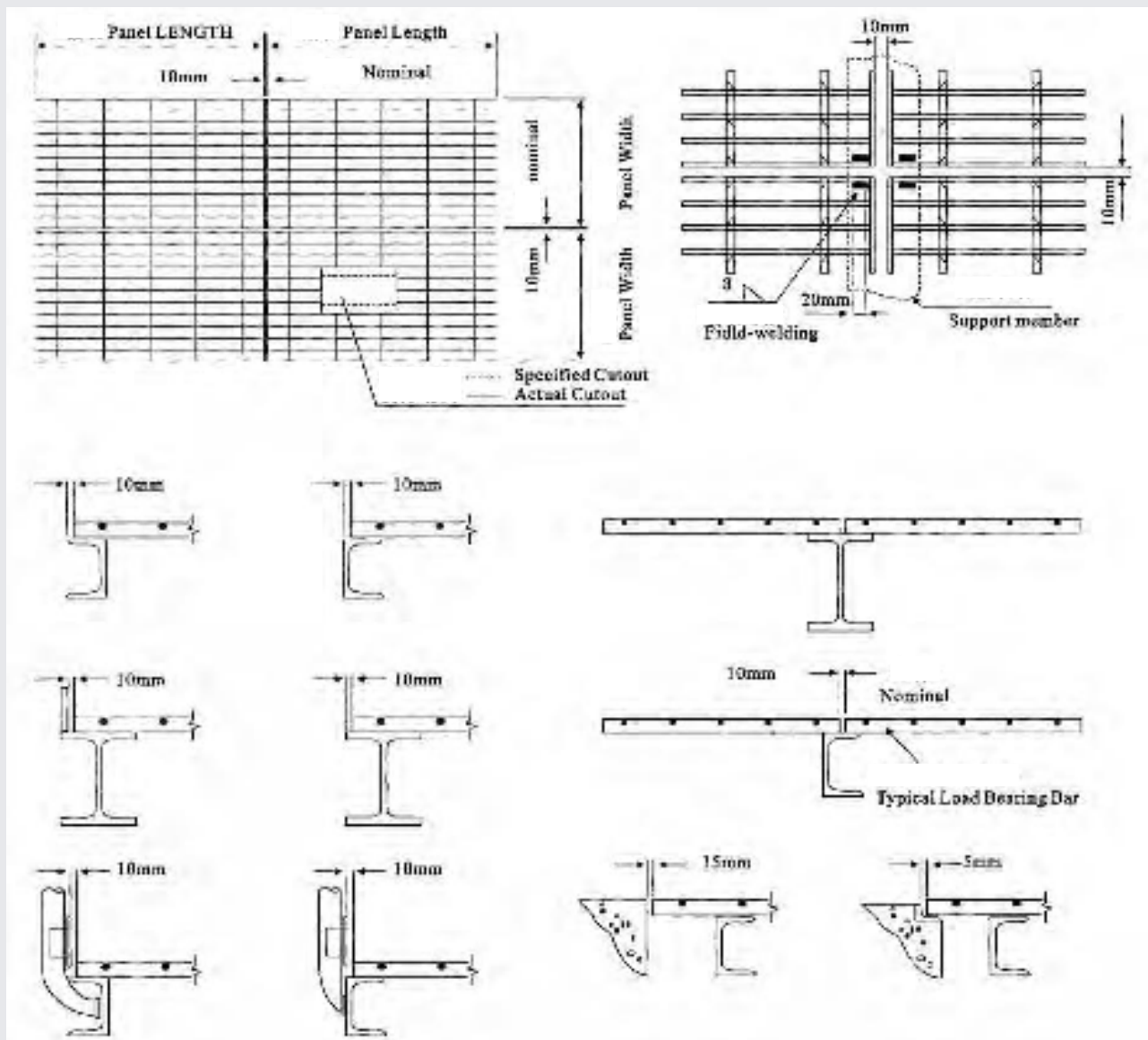
Table of safe load & general type of steel grating with bearing bar pitch at 40mm

Type	Width of bearing bar mm	Thickness of bearing bar mm	Min weight kg/m ²	Load direction	mm Clearance															
					200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	
Q235K400W	40	3	81.7	U	250	740	330	100	119	80	61	46	36	28	24	20	17	15		
					D	0.77	0.42	0.26	1.7	2.65	3.84	5.03	6.75	8.34	10.04	12.04	15.25	17.97	21.40	
Q235K400W	40	3	79.7	C	299	169	10	74	50	40	32	27	23	20	17	14	12	11		
					D	0.92	0.34	0.70	1.25	2.1	3.03	4.14	5.47	6.99	8.49	10.20	12.32	15.1	17.35	
Q235K400W	60	3	70.9	U	300	427	300	159	100	70	52	39	31	25	21	17	15			
					D	0.71	0.46	1.03	1.84	2.85	4.02	4.97	7.22	9.36	11.57	14.21	16.54	20.27		
Q235K400W	60	3	70.9	C	256	177	10	63	37	42	36	31	26	22	21	19				
					D	0.96	0.27	0.60	1.46	2.24	3.31	4.52	5.84	7.34	9.39	11.2	13.74	16.97		
Q235K400W	25	3	70.1	U	2142	325	236	133	80	59	42	32	26	21	17	14				
					D	0.13	0.5	1.13	2	3.13	4.31	5.58	6.95	10.02	12.60	15.11	17.77			
Q235K400W	25	3	67.1	C	214	107	71	53	42	30	20	16	13	11	10					
					D	0.1	0.4	0.9	1.59	2.49	3.59	4.8	6.39	8.19	10.2	12.36	14.54			
Q235K400W	30	3	64.2	U	1770	442	306	170	71	49	36	27	21	17	14					
					D	0.14	0.55	1.24	2.2	3.43	4.6	5.12	6.78	11.02	13.69	16.64				
Q235K400W	30	3	61.2	C	177	86	56	44	36	29	25	20	16	14						
					D	0.11	0.44	0.99	1.76	2.75	3.96	5.40	7.3	8.93	11.08	13.86				
Q235K400W	30	3	49.4	U	1002	280	170	86	42	30	21	16	12	10						
					D	0.14	0.55	1.24	2.2	3.43	4.6	5.12	6.78	11.02	13.69	16.64				
Q235K400W	30	3	39.6	C	106	50	30	20	17	15	12	11	10							
					D	0.11	0.44	0.99	1.74	2.75	3.87	5.40	7.11	8.96	10.9					
Q420K400W	45	3	55.4	U	1434	339	229	119	57	39	29	22	17	14	11					
					D	0.15	0.61	1.36	2.44	3.83	5.46	6.67	9.05	12.26	15.55	19.06				
Q420K400W	45	3	55.4	C	143	71	47	30	20	15	12	10	9	8						
					D	0.12	0.49	1.09	1.82	3.02	4.31	5.89	7.67	9.72	12.14	15.04				
Q420K400W	40	3	52.4	U	1135	293	190	70	49	31	23	17	12	11						
					D	0.17	0.69	1.54	2.74	4.22	6.2	8.42	10.99	13.45	17.47					
Q420K400W	40	3	49.6	C	113	56	37	20	12	10	14	12	11							
					D	0.14	0.54	1.22	2.19	3.39	4.82	6.60	8.62	11.02	14.12					
Q420K400W	40	3	36.3	U	680	171	70	42	27	19	12	10	8							
					D	0.17	0.69	1.54	2.74	4.22	6.01	8.09	10.71	13.84						
Q420K400W	40	3	20.2	C	68	34	20	17	13	11	9	8	7							
					D	0.14	0.55	1.21	2.20	3.34	4.60	6.45	8.64	10.9						
Q235K400W	30	3	46.8	U	867	216	140	54	34	24	17	12	10							
					D	0.2	0.75	1.77	3.18	4.85	7.08	9.72	12.49	15.54						
Q235K400W	30	3	42.8	C	86	42	26	17	14	12	10	9								
					D	0.16	0.62	1.39	2.46	3.81	5.61	7.71	10.27							
Q235K400W	25	3	21.6	U	520	131	87	39	20	14	10	9								
					D	0.2	0.75	1.75	3.12	4.79	7	9.01	12.05							
Q235K400W	25	3	26.6	C	52	26	17	12	10	9	7	6								
					D	0.16	0.62	1.4	2.54	3.85	5.37	7.52	9.75							
Q235K400W	20	3	43.3	U	720	181	110	45	29	20	14	11								
					D	0.21	0.80	1.93	3.45	5.45	7.94	10.7	13.90							
Q235K400W	20	3	40.0	C	72	36	24	16	14	12	10	9								
					D	0.17	0.68	1.55	2.79	4.25	6.21	8.40	11.44							
Q235K400W	20	3	26.4	U	420	100	48	27	17	12	9									
					D	0.21	0.80	1.93	3.45	5.24	7.84	10.27								
Q235K400W	20	3	26.4	C	42	21	14	10	9	7	6									
					D	0.17	0.67	1.3	2.56	4.04	6.19	8.47								
Q235K400W	25	3	26.1	U	442	101	49	27	17	12	9									
					D	0.27	1.1	2.48	4.25	6.74	9.94	13.46								
Q235K400W	25	3	22.1	C	44	22	14	11	9	7	6									
					D	0.27	0.66	1.6	3.35	5.1	7.79	10.74								
Q235K400W	25	3	24.3	U	260	66	30	16	10	7										
					D	0.27	1.1	2.45	4.3	6.62	9.71									
Q235K400W	25	3	21.3	C	26	13	9	6	5	4										
					D	0.22	0.67	1.61	2.94	4.33	6.40									
Q235K400W	30	3	29.0	U	262	70	31	17	11	7										
					D	0.24	1.26	3.08	5.27	8.06	11.46									
Q235K400W	30	3	26.3	C	26	14	9	7	5	4										
					D	0.27	1.09	2.26	4.44	6.26	8.84									
Q235K400W	30	3	20.4	U	170	42	18	10	6											
					D	0.24	1.27	2.98	5.25	7.94										
Q235K400W	30	3	17.6	C	17	8	5	4	3											
					D	0.26	1.04	2.22	4.25	6.32										

GI Steel Grating

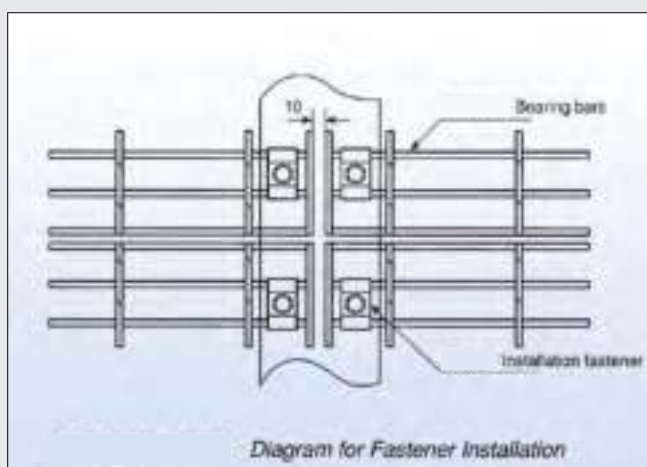
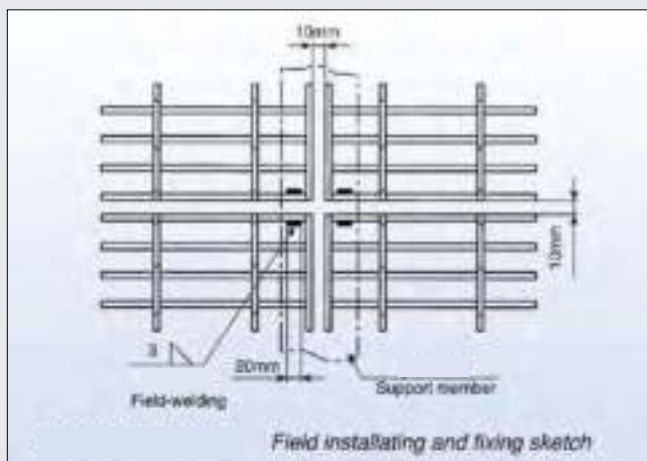
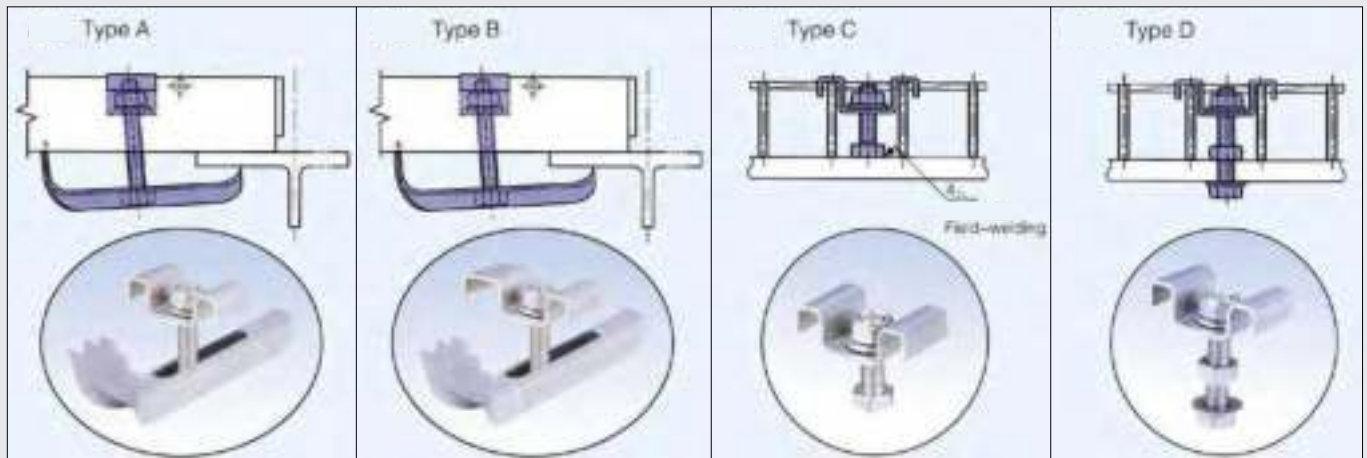
Installation of Steel Grating

1. Welding & using saddle clips are two ways for installation of grating . The welding is suitable for those places where there is no need to move or dismental, for instance, the flooring around the machines. However, using saddle clips are featuring in easy installation & saving zinc layer.
2. Regarding welding installation, angle wolding would be used at the first bearing bar of every corner, which the welding length is no less than 20mm, & the height is no less than 3mm.
3. Saddle clip composed of a top plate, a hold down & a M8 bolt, is suitable for all kinds of steel gratings installation.
4. Regarding saddle clip installation, at least four sets of saddle clips would be used in one pc grating. It woule be better using more in the staddle for thoes gratings with a bigger span.



GI Steel Grating

Installation Fastner



GI Steel Grating

Stairway Series

Stairway series cover a range of footstep from 30° to 90°. There is a management and production standards to make the stairways from raw materials, type and height of footsteps, specifications and banisters, etc. (refer to table). Furthermore, products could be made according to customer's requirements and conditions on site.



kinds	Angle	Type	Width of ladder		Stairhead height	Stairhead		Materials	Limited height	Notes					
			Stairhead length	General width		Specifications	Style								
Stair	30°	TT30-10	1000	1140	160	G325/30/100-305 x 1000	T1	[18]	5m	<ol style="list-style-type: none"> 40° steel ladder is recommended, handrail and column reserved. Choose freely from T1 to T6. Set platforms and set ladders by stage if it is more than 5m. Handrails with the ball-type column or square. Column pitch is not more than 1.2m. 					
		TT30-09	900	1040	160	G325/30/100-305 x 900									
	35°	TT35-10	1000	1140	175	G325/30/100-305 x 1000									
		TT35-09	900	1040	175	G325/30/100-305 x 900									
	40°	TT40-10	1000	1130	185	G325/30/100-275 x 1000					T2	[16]	5m		
		TT40-09	900	1030	185	G325/30/100-275 x 900									
	Leaning ladder	45°	TT45-10	1000	1130	200					G325/30/100-245 x 1000	T3	[14]	5m	
			TT45-09	900	1030	200					G325/30/100-245 x 900				
50°		TT45-08	800	930	200	G255/30/100-245 x 800									
		TT45-07	700	830	200	G255/30/100-245 x 700									
55°		TT45-06	600	730	200	G255/30/100-245 x 600	T4	[14 a]	5m						
		TT50-10	1000	1130	210	G325/30/100-215 x 1000									
60°		TT50-09	900	1030	210	G325/30/100-215 x 900	T5	[12]	5m						
		TT50-08	800	930	210	G255/30/100-215 x 800									
65°	TT50-07	700	830	210	G255/30/100-215 x 700	T6	[12]	5m							
	TT50-06	600	730	210	G255/30/100-215 x 600										
Seizing ladder	70°	TT50-08	800	916	225	G255/30/100-185 x 800	T6	[12]	5m						
	75°	TT50-07	700	816	225	G255/30/100-185 x 700									
Straight ladder	80°	TT60-08	800	916	235	G255/30/100-185 x 800	T6	[12]	5m						
	85°	TT60-07	700	816	235	G255/30/100-185 x 700									
	90°	TT65-07	700	816	245	G255/30/100-185 x 700									
Straight ladder	80°	TT65-06	600	716	245	G255/30/100-155 x 600	T6	[12]	5m						
	85°	TT70-06	600	706	255	G255/30/100-125 x 600									
Straight ladder	85°	TT75-06	600	706	265	G255/30/100-125 x 600	T6	[12]	5m						
	90°	TT80-06	500	596	300	1" Pipe									
Straight ladder	85°	TT85-04	400	485	300	3/4" Pipe	T6	[12]	5m						
	90°	TT90-04	400	485	300	3/4" Pipe									

- Set platforms and set ladders by stage if it is more than 5m
- Handrails and ladders will be welded with T pipe or use special column
- Column pitch is not more than 1m
- T1 to T6 can be chose freely

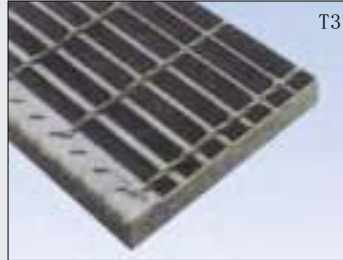
- If it is over 3m should set safety belt

GI Steel Grating

Stairtread



Welded fixing Without nosing



Welded fixing Checkered plate nosing



Welded fixing Bar steel nosing



Bolted fixing Without nosing



Bolted fixing Checkered plate nosing



Bolted fixing Bar steel nosing

Note: Serrated stairtread can also be made according to customer's requirements.

Stairtread data type

(mm) Recommended Width

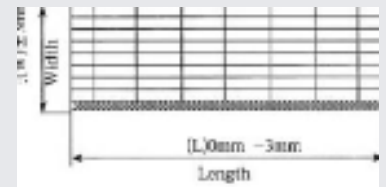
T1-T6	125	155	185	215	245	275	305
30mm Bearing bars at 30mm pitch							
T1-T2 T5-T6	125	165	---	205	245	285	325
40mm Bearing bars at 40mm pitch							
T3-T4	115	155	---	195	235	275	315
40mm Bearing bars at 40mm pitch							
T1-T2 T5-T6	---	---	185	---	245	---	305
60mm Bearing bars at 60mm pitch							
T3-T4	---	155	---	215	---	275	---
60mm Bearing bars at 60mm pitch							
Spacing	45	75	75	100	100	150	150

(mm) Maximum Length

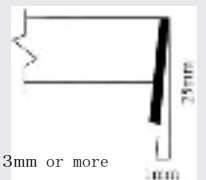
Bearing bar	25×3	25×5	32×5	40×5
Bearing bars at 30mm pitch	550	900	1300	1600
Bearing bars at 40mm pitch	450	750	1200	1500
Bearing bars at 40mm pitch	---	550	850	1350

Notes: Stairtread may be made of any types of grating, the size may be up to non-standard specification.

Stairtread tolerance

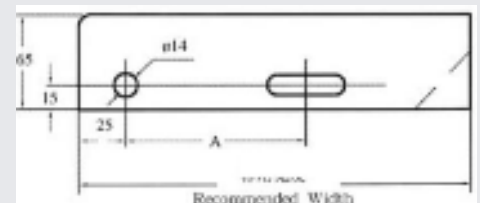


Notes: Length is the distance of both outside welding end plate.



Deeply Processing Weld:

End plate and nosing's seams are 3mm or more than at every bearing bar's welding seam.



Side plate uses 65×5 bearing bar
Mitred only when requesting by customer in order to install.

GI Steel Grating

fences table

Type	Square hole mm	Bearing bar mm	Height mm	Column mm	Spacing mm	Weight kg/sqm
	60×130	* 30×4	930	* 80×8	2000	23.4
	60×130	* 30×4	1326	* 80×8	2000	22.5
	60×130	* 30×4	1722	* 80×8	2000	22.1
	60×130	* 30×4	2118	* 80×8	2000	21.8
	60×130	* 30×4	2514	* 80×8	2000	21.6
	120×130	* 25×3	930	* 60×8	2000	10.7
	120×130	* 25×3	1326	* 60×8	2000	10.0
	120×130	* 25×3	1722	* 60×8	2000	9.6
	60×130	* 25×3	930	* 60×8	2000	15.5
	60×130	* 25×3	1326	* 60×8	2000	14.7
	60×130	* 25×3	1722	* 60×8	2000	14.4
	60×130	* 25×3	2118	* 60×8	2000	15.0
	60×130	* 25×3	2514	* 60×8	2000	14.9
	60×65	* 25×3	930	* 60×8	2000	16.8
	60×65	* 25×3	1326	* 60×8	2000	16.0
	60×65	* 25×3	1722	* 60×8	2000	15.7
	60×65	* 25×3	2118	* 60×8	2000	16.3
60×65	* 25×3	2514	* 60×8	2000	16.2	



- Steel fences has many fields of appliance in municipal engineering, gardening, transpotion and construction. It is widely used for fences, frames, etc. It has many advantages like beautiful looking , good ventilation and easy construction, etc.

- Steel fence is available of many types of colorful painting coats.

- We can also supply non-standard grating as per customers' demands.

