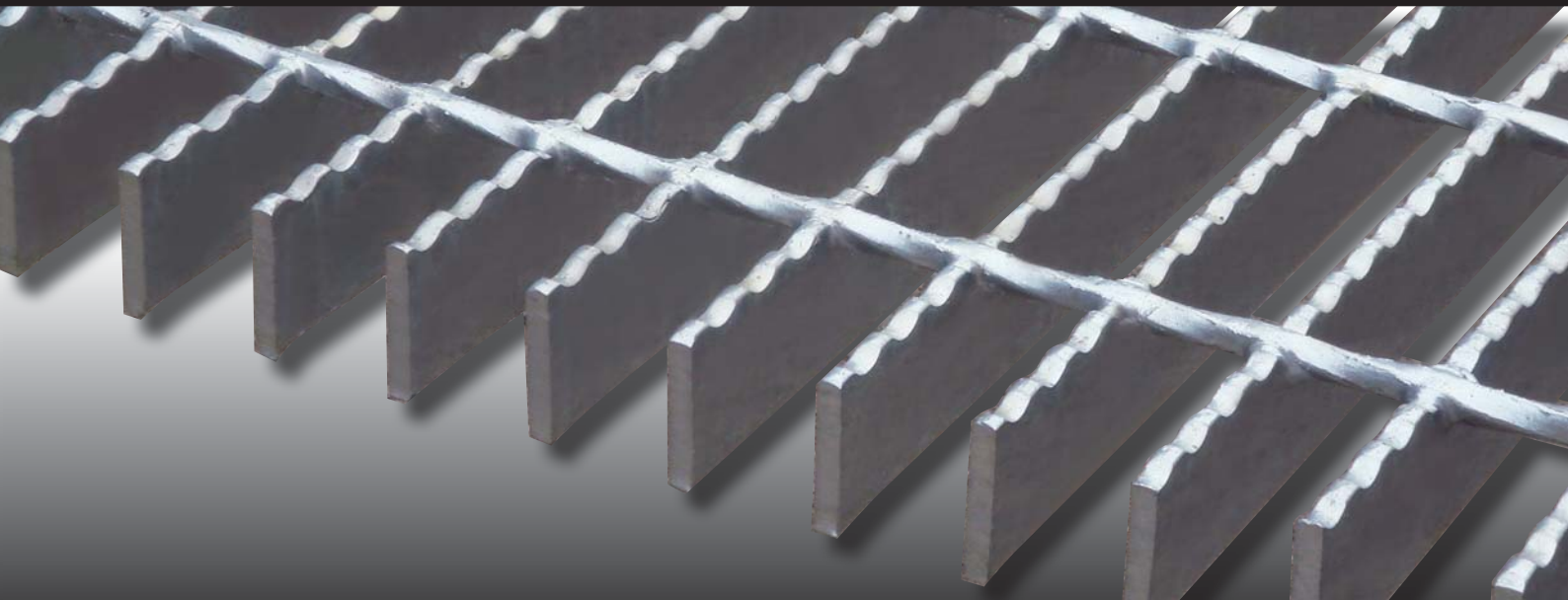




# STEEL GRATING



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## TOTAL GRATING SOLUTIONS

Look to ALdek for complete hassle-free grating solutions! We offer complete packages in industrial metal flooring installation. A respected and reliable provider of structural and specialised steel fabrication and grating, our products have been used in a diverse range of industrial fields.

At ALdek, our commitment to deliver the highest quality products with unmatched services ensures that we often exceed customer's expectations.

# ALdek STEEL GRATING

## Ensuring Quality Goods and Timely Deliveries

We aim to be your partner in excellence. We oversee your projects with absolute meticulousness to ensure they are produced to your specifications and requirements.

### UNDERSTAND

From design and manufacture through final installation and after-sales service, our experienced project manager will understand your requirements and advise on the scope and application.

### DESIGN

Every part of the layout will be studied to ensure a perfect fit for your grating. The grating will then be constructed based on the dimension, size, type and tread desired.

### CHECK

Guided by a stringent quality control system and strong work ethics, we will ensure that the production is free from error and untimely delay.

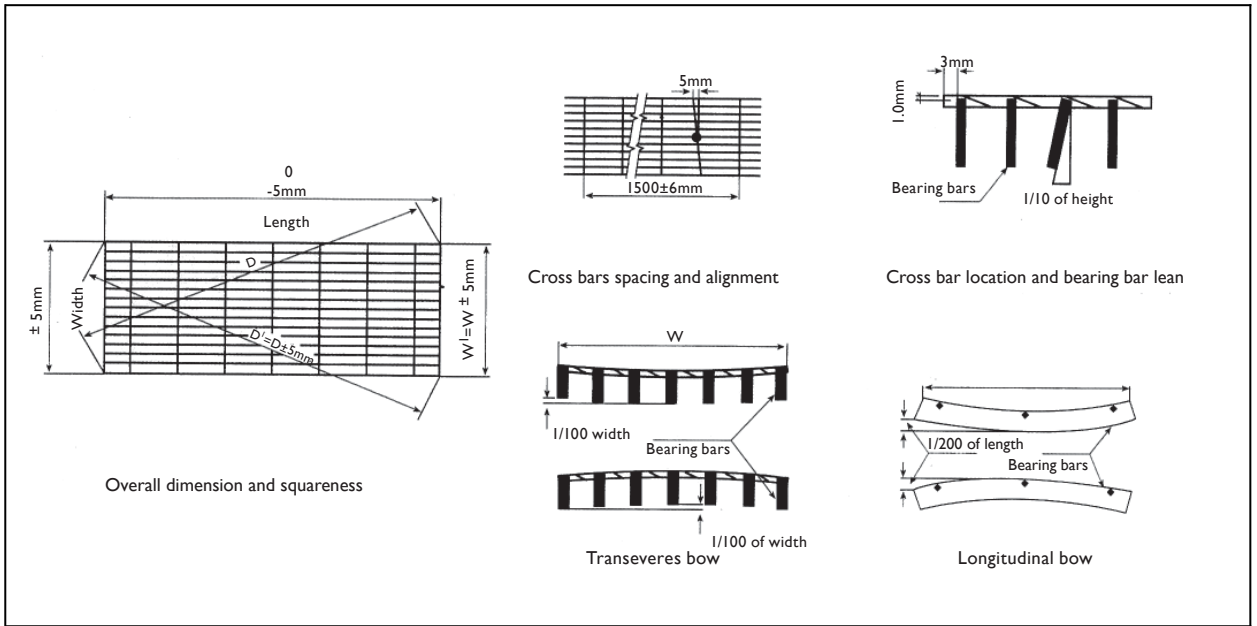
### DELIVER

Our jobs are not finished till yours are! With our timely delivery and quality assurance, we are confident to meet and exceed your expectation in every way.

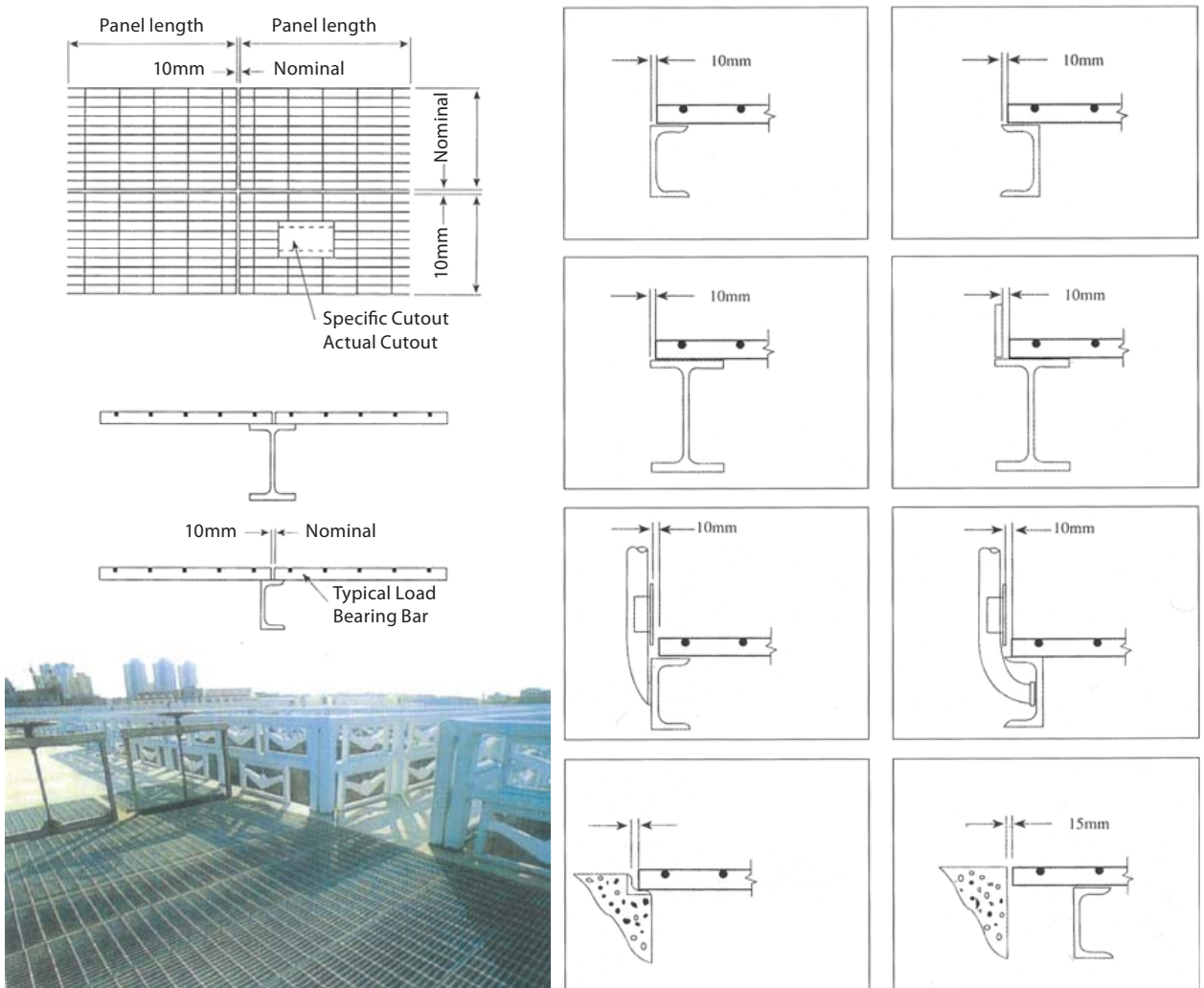
## APPLICATION OF ALdek GRATING

The company can supply the applied grille board for industrial department as below:

Oil refinery	Construction	Aquatic product breed aquatics	Cleaning frame
Mining and refine industry	Transport	Chemical fertilizer industry	Sunshade curtain
Power station	Light chemical industry	Manufacture medicine industry	Tie boat yard
Municipal administration constructs	Machinery industry	Platform	Sidewalk for over bridge
Sea constructs	Textile and chemical fibre	Sidewalk	Sidewalk by bridge
Shipbuilding	Port construction	Loading platform	Corridor loading platform
Construction and material	Oil and chemical industry	Artesian well platform	Filter grille
War industry constructs project	Agriculture and animal husbandry	Ladder footboard	Revolve grille
Airport constructs	Garden	Drain cover	Ventilating barrier
Tap water factory	Steel industry	Sandy well cover	Frame
Waste water treatment	Airport illuminate guardrail	Handrail grille	Decoration grilles
Oil and chemical industry	Waste things treatment	Handrail for keeping in store	Transport corridor loading platform
Paper pulp and paper making	Food machining	Scaffold sea shipyard	Sea shipyard
The floor of ventilating window	Theft proof door and window	Barrier for bounding wall	Equipment sidewalk
Equipment safety handrail	Avoiding snow grille	Footboard on land in ship	Sidewalk on the top of truck



## INSTALLATION OF STEEL GRATING



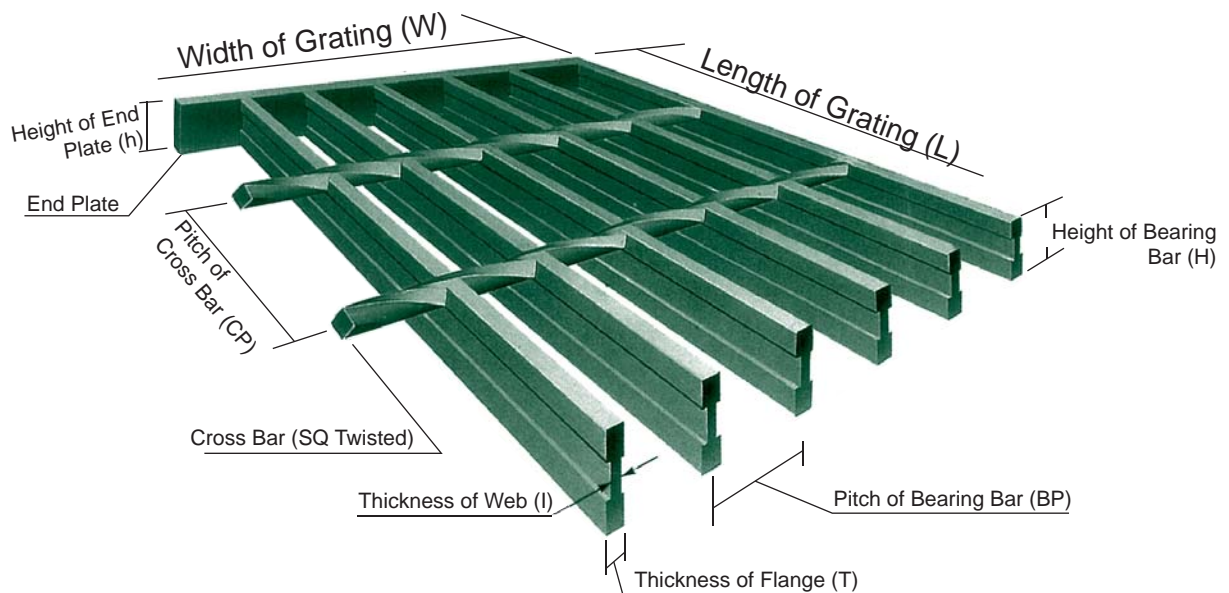


# 04

## SYMBOL OF STEEL GRATING

### Engineering & Design

ALdek offers a complete engineering and design package in support of its range of grating. It includes the design of the most appropriate and economical system for any particular application, calculations of desired loadings, provision of grating layout drawings if required and its safety considerations.



Each **ALdek Steel Grating** type is coded for easy identification as shown in the following.

Example



<b>AL</b>	<b>AIK LEE</b>	
<b>A</b> <b>B</b>	<p><b>Pitch of cross bar - 100mm</b> <b>Pitch of cross bar - 50mm</b></p> <p>A centre distance between the two cross bars adjacent to each other is called pitch of cross bar and its standard is 100mm. Both ends are divided by the width. The standard pitch of cross bar having 150mm wide-trench of U-type grating is 80mm. The pitch of cross bar is manufactured by a scale ranging from 50mm up to around 150mm according to its usage.</p>	

### 325

**Size of bearing bar ( width x thickness )**

### 30

A centre distance between the two bearing bars adjacent to each other is called pitch of bearing bar.

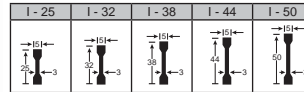
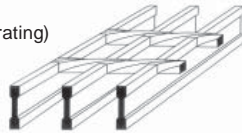
Standard pitch is 12.5mm, 15mm, 25mm, 30mm, 35.3mm and 40 mm by the use

PITCH (mm)	DIMENSION(mm)
12.5 15 30	
30 35.3 40	
35.3 40	

### F S I

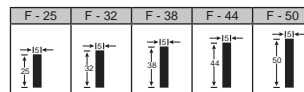
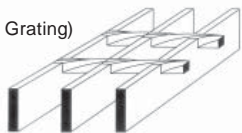
**Shape of bearing bar - Plain**  
**Shape of bearing bar - Serrated**  
**Shape of bearing bar - I section**

IB-Type  
(I-Bar Grating)



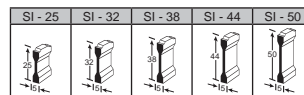
The bearing bar comes in the form of an I-Section. This type of grating is used where high strength is required and light weight is critical.

FB-Type  
(Flat Bar Grating)



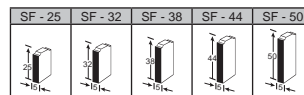
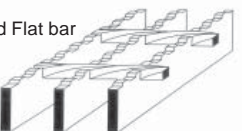
The bearing bar comes in the form of a plain surface flat bar. Commonly used for platforms and walkways.

SI-Type  
(Serrated I-Bar Grating)



The bearing bar comes in the form of an I-Section with the top surface formed by a series of notches. These type of gratings in addition to its high strength and light weight capabilities also has its non-slip characteristics.

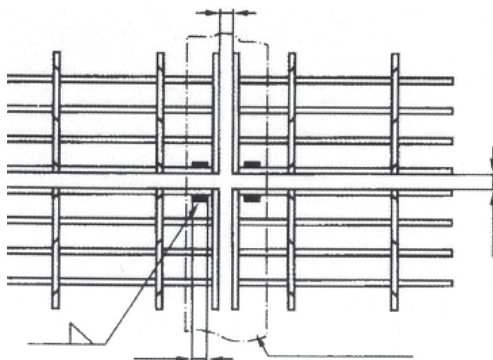
SF-Type  
(Serrated Flat bar Grating)



The top surface of the bearing bar are formed by a series of notches thus enhancing its non-slip characteristics. It is particularly suitable for use in slippery conditions such as oil refineries, tankers, stairways and etc.

### G P U

**Surface treatment - Hot galvanizing**  
**Surface treatment - Painted**  
**Surface treatment - Untreated**



Field installation and fixing sketch



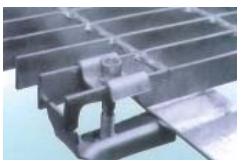
Type A



Type B



Type C



There are two ways of installation for grating. One way is by welding and the other is by installing fastener. The welding method is suitable for those parts which will be fixed permanently, such as platforms for equipment. The method by installing fastener facilitates assembly and disassembly while preventing the destruction of the zinc layer.

Installing fasteners are suitable for all types of grating. It is made of up-fastener, down-fastener and inside turret cylinder bolt M10.

The welding method includes angle welding the first bearing bar of every corner on the grating. The welding seam will be a minimum of 20mm in length and 3mm in height.

At least four lots of fasteners need to be fixed on every grating. More fasteners on the supporting construction are required when the span is larger.

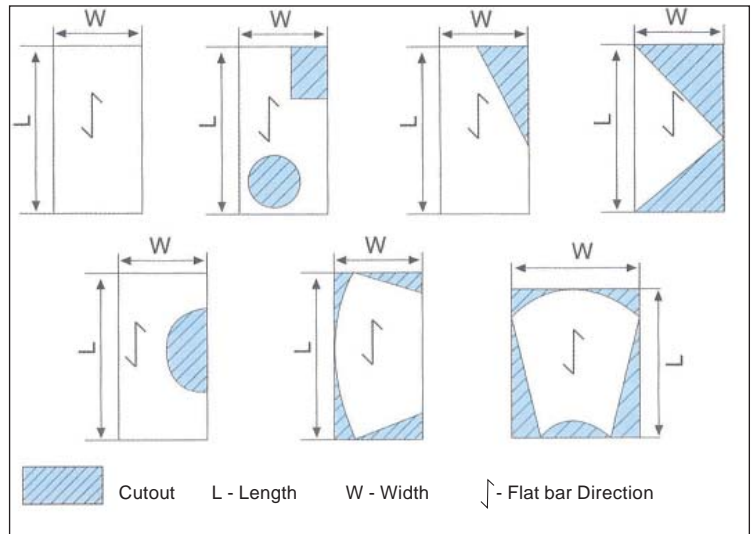
We can supply stainless steel fasteners to satisfy our customers as well. Please indicate clearly the type, quantity and material when you purchase fasteners.



## QUALITY MEASUREMENTS

Quality measurements for grating, ordered to specific dimensions from customer, excluding drawings, shall be based on the Length (L) x Width (W) of each panel, with no deduction made for cut-out.

For grating quantities where we supply the layout according to the customer's drawing, the measurement shall be on the basis of gross area of the total periphery (critical) dimensions in drawings, with no deduction made for cut-out.



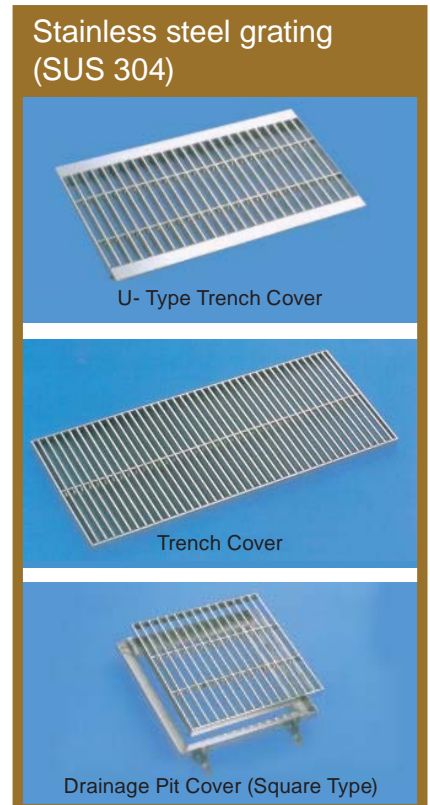
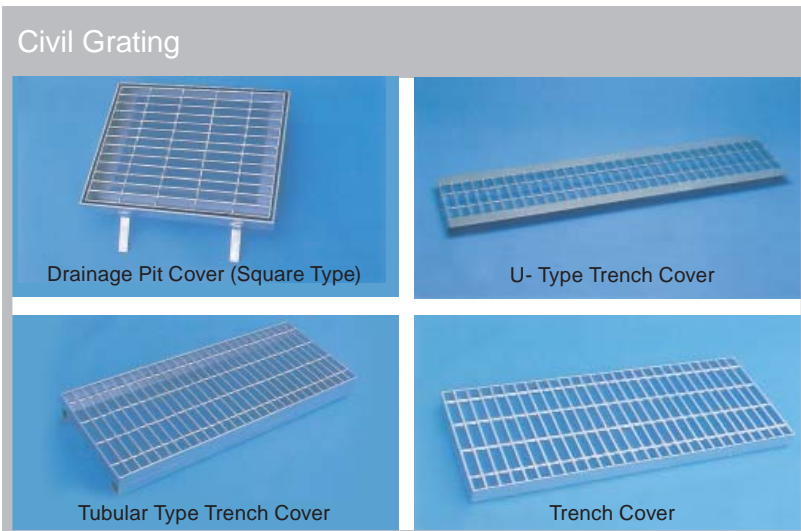
For special shaped grating, the final grating quantities shall be based on the total gross area calculated by the Length (L) x Width (W) of all the pieces furnished, with no deduction made for cut-out.

## OTHER PRODUCTS

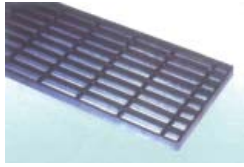
### Civil Grating / Stainless & Fence Grating

This type of product, besides the basic styles is manufactured in many other various forms for a variety of purposes. We deliver many different types to be used in vessels and various plants for both import and export markets.

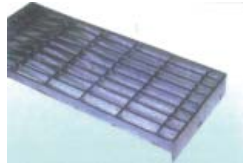
Through investments in technologies and a good system of facility management, ALdek is able to develop special and various purpose products of the highest quality.



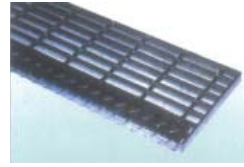




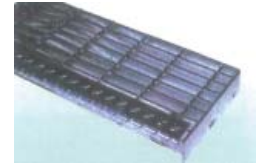
Welded fixing  
Without nosing



Bolted fixing  
Without nosing

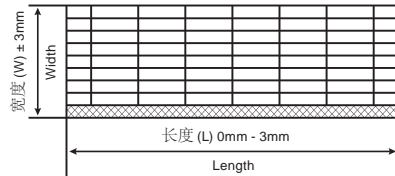


Welded fixing  
Checked plate nosing

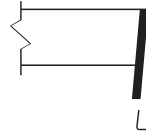


Bolted fixing  
Checked plate nosing

## Stairtread Tolerance

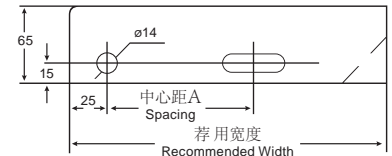


**Note:** Length is the distance of both outside welding end plate.



### Deeply Processing Weld:

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



End plate uses 65 x 5 bearing bar mitted only when requested by customer in order to install.

## Stairtread Data Types

### Recommended Width (mm)

JT1-JT4	125	155	185	215	245	275	305
<b>30mm Bearing bars at 30mm pitch</b>							

JT1-JT2	125	165	-	205	245	285	325
<b>40mm Bearing bars at 40mm pitch</b>							

JT3-JT4	115	155	-	195	235	275	15
<b>40mm Bearing bars at 40mm pitch</b>							

JT1-JT2	-	-	185	-	245	-	305
<b>60mm Bearing bars at 60mm pitch</b>							

JT3-JT4	-	155	-	215	-	275	-
<b>60mm Bearing bars at 60mm pitch</b>							

(A) Spacing 45 75 75 100 100 150 150

### Maximum Length

Bearing bar	25 x 3	25 x 5	32 x 5	40 x 5
-------------	--------	--------	--------	--------

<b>Bearing bars at 30mm pitch</b>	550	900	1300	1600
-----------------------------------	-----	-----	------	------

<b>Bearing bars at 40mm pitch</b>	450	750	1200	1500
-----------------------------------	-----	-----	------	------

<b>Bearing bars at 60mm pitch</b>	-	550	850	1350
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**Notes:** Stairtread may be made of any types of grating, the size may be up to no-standard specification.

## Industrial

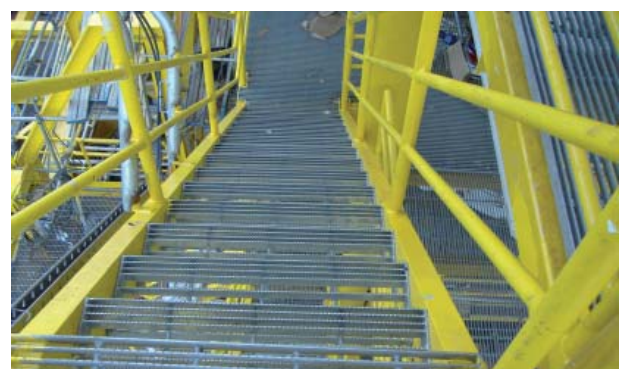
### Vigil Antislip Industrial Products:

- Ladder Rung Covers
- Stair Nosings
- Vinyl Deck
- Boardwalk
- Offshore Evacuation Systems

Vigil Antislip is your most cost-effective insurance against injuries and trauma that accompany work place accidents attributed to slips, trips and falls.

By installing Vigil Antislip you will:

- Reduce accidents and personal trauma
- Reduce time lost due to accident and injury
- Reduce the potential for legal action based on unsafe work areas
- Reduce your compensation and insurance costs
- Provide the strongest possible evidence of your commitment to employee safety
- Create a more productive and harmonious working environment



## LOAD & DEFLECTIONS TABLE (I) I-Bars & Serrated I-Bars Type

\*This table is theoretical and on a uniform Load of 300 Kg/m<sup>2</sup> (3KN/m<sup>2</sup>)

### LOAD BEARING BARS AT 35 MM PITCH

Code	Bearing Bar Size (mm)	Cross Bar Pitch (mm)	Weight (Kg/m <sup>2</sup> )		Serrated Factors		Span (mm)																							
			Cut End	Close End	S	D	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000							
SA757/35/IB	75 x 7 x 4	100	90.3	97.4			S	0.14	0.17	0.21	0.26	0.33	0.42	0.52	0.63	0.75	0.88	1.03	1.17	1.37	1.51	1.69	1.88	2.09						
SB757/35/IB		50	95.3	102.4			D	0.007	0.013	0.022	0.037	0.064	0.102	0.155	0.228	0.322	0.444	0.597	0.787	1.019	1.30	1.63	2.03	2.49						
SA657/35/IB	65 x 7 x 4	100	79	85.1			S	0.18	0.23	0.28	0.34	0.44	0.56	0.69	0.84	1.00	1.17	1.36	1.56	1.78	2.00	2.25	2.50	2.77						
SB657/35/IB		50	84	90.1			D	0.010	0.020	0.034	0.056	0.098	0.156	0.23	0.34	0.48	0.66	0.91	1.21	1.56	1.99	2.50	3.10	3.81						
SA607/35/IB	60 x 7 x 4	100	73.5	79.2			S	0.22	0.27	0.32	0.40	0.52	0.65	0.81	0.98	1.16	1.37	1.58	1.82	2.07	2.34	2.62	2.92	3.23						
SB607/35/IB		50	78.5	84.2			D	0.013	0.025	0.043	0.072	0.123	0.197	0.30	0.44	0.62	0.86	1.15	1.52	1.97	2.51	3.15	3.92	4.81						
SA557/35/IB	55 x 7 x 4	100	68	73.2			S	0.26	0.32	0.39	0.47	0.62	0.78	0.97	1.17	1.39	1.63	1.89	2.17	2.47	2.79	3.13	3.48	3.86						
SB557/35/IB		50	73	78.2			D	0.017	0.033	0.057	0.091	0.161	0.258	0.39	0.58	0.82	1.12	1.51	1.99	2.58	3.29	4.13	5.13	6.30						
SA507/35/IB	50 x 7 x 4	100	62.7	67.4			S	0.31	0.39	0.46	0.57	0.74	0.94	1.16	1.40	1.67	1.96	2.27	2.96	3.35	3.75	4.18	4.63							
SB507/35/IB		50	67.8	72.5			D	0.021	0.043	0.074	0.124	0.212	0.339	0.517	0.757	1.072	1.476	1.985	2.617	3.388	4.32	5.43	6.73	8.27						

### LOAD BEARING BARS AT 30 MM PITCH

SA505/30/IB	50 x 5 x 3	100	51.4	55	0.92	1.12	S	0.37	0.46	0.55	0.67	0.88	1.11	1.37	1.66	1.98	2.32	2.69	3.09	3.51	3.97	4.45	4.96	5.49
SB505/30/IB		50	54.3	57.8			D	0.03	0.05	0.09	0.15	0.25	0.40	0.61	0.90	1.27	1.75	2.30	3.10	4.02	5.12	6.43	7.99	9.81
SA445/30/IB	44 x 5 x 3	100	47	50.1	0.89	1.16	S	0.46	0.58	0.69	0.85	1.11	1.40	1.73	2.09	2.49	2.92	3.39	3.89	4.43	5.00	5.62	6.24	
SB445/30/IB		50	49.9	53			D	0.04	0.07	0.13	0.21	0.36	0.58	0.88	1.24	1.76	2.42	3.26	4.30	5.56	7.09	8.91	11.06	
SA385/30/IB	38 x 5 x 3	100	41.2	43.9	0.87	1.2	S	0.62	0.77	0.92	1.13	1.48	1.87	2.31	2.79	3.33	3.99	4.53	5.20	5.91				
SB385/30/IB		50	44.1	46.8			D	0.06	0.12	0.20	0.33	0.56	0.89	1.36	1.99	2.81	3.87	5.21	6.87	8.89				
SA325/30/IB	32 x 5 x 3	100	35.5	37.8	0.84	1.25	S	0.86	1.08	1.29	1.59	2.07	2.62	3.24	3.92	4.66	5.47	6.34						
SB325/30/IB		50	38.3	40.6			D	0.10	0.19	0.33	0.54	0.93	1.48	2.26	3.31	4.68	6.45	7.99						
SA255/30/IB	25 x 5 x 3	100	29.3	31.1	0.82	1.3	S	1.39	1.74	2.09	2.56	3.35	4.24	4.71	6.33									
SB255/30/IB		50	32.3	34			D	0.12	0.29	0.61	1.12	1.91	3.06	4.67	6.84									

### SERRATED I-BAR CODE : SA000/30/SI,SB000/30/SI

W : Load Per Each Bearing Bar in Kg/each bearing bar  
 S : Stress in Kg/mm<sup>2</sup>  
 D : Deflection in mm  
 Allowable Stress:18 Kg/mm<sup>2</sup>  
 Allowable Deflection:L(Span)/300mm

### STRESS & DEFLECTION FACTOR

Uniform Load Kg/m <sup>2</sup> (KN/m <sup>2</sup> )	Factor(i)
200 (2.0)	0.67
250 (2.5)	0.83
300 (3.0)	1.00
360 (3.6)	1.20
500 (5.0)	1.67
750 (7.5)	2.50

### GRATING WIDTH AND NUMBER OF BEARING BARS

Grating width and Number of bearing bars

BB	T	No	Pitch																										
			5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
PITCH 35.3mm		5	146	182	217	252	287	323	358	393	429	464	499	535	570	605	640	676	711	746	782	817	852	888	923	958	993		
			6	147	183	218	253	288	324	359	394	430	465	500	536	571	606	641	677	712	747	783	818	853	889	924	959	994	
				7	148	184	219	254	289	325	360	395	431	466	501	537	572	607	642	678	713	748	784	819	854	890	925	960	995
PITCH 30mm		10	273	303	333	363	393	423	453	483	513	543	573	603	633	663	693	723	753	783	813	843	873	903	933	963	993		
			5	275	305	335	365	395	425	455	485	515	545	575	605	635	665	695	725	755	785	815	845	875	905	935	965	995	
				6	276	306	336	366	396	426	456	486	516	546	576	606	636	666	696	726	756	786	816	846	876	906	936	966	996

## LOAD & DEFLECTIONS TABLE (2) I-Bars & Serrated I-Bars Type

*\*This table is theoretical and on a uniform Load of 300 Kg/m<sup>2</sup> (3KN/m<sup>2</sup>)*

### LOAD BEARING BARS AT 40 MM PITCH

Code	Bearing Bar Size (mm)	Cross Bar Pitch (mm)	Weight (Kg/m <sup>2</sup> )		Serrated Factors		Span (mm)																							
			Cut End	Close End	S	D	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000							
SA757/40/IB	75 x 7 x 4	100	81.5	88.6			S	0.16	0.20	0.24	0.29	0.38	0.48	0.59	0.72	0.85	1.00	1.16	1.33	1.51	1.71	1.92	2.14	2.37						
SB757/40/IB		50	86.5	93.6			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA657/40/IB	65 x 7 x 4	100	71.3	77.4			S	0.21	0.26	0.31	0.39	0.50	0.64	0.79	0.95	1.13	1.33	1.54	1.77	2.01	2.27	2.55	2.84	3.14						
SB657/40/IB		50	76.3	82.4			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA607/40/IB	60 x 7 x 4	100	66.4	72.1			S	0.24	0.31	0.37	0.45	0.59	0.74	0.92	1.11	1.32	1.55	1.79	2.06	2.34	2.65	2.97	3.30	3.66						
SB607/40/IB		50	71.4	77.1			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA557/40/IB	55 x 7 x 4	100	61.4	66.6			S	0.29	0.36	0.44	0.54	0.70	0.89	1.09	1.32	1.57	1.85	2.14	2.46	2.80	3.16	3.54	3.95	4.37						
SB557/40/IB		50	66.5	71.7			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA507/40/IB	50 x 7 x 4	100	56.8	61.5			S	0.35	0.44	0.52	0.64	0.84	1.06	1.31	1.59	1.89	2.22	2.57	2.95	3.36	3.79	4.25	4.74	5.25						
SB507/40/IB		50	61.8	66.5			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA505/40/IB	50 x 5 x 3	100	40	43.5	0.92	1.12	S	0.49	0.61	0.73	0.90	1.17	1.48	1.83	2.21	2.64	3.09	3.59	4.12	4.69	5.29	5.93	6.61	7.37						
SB505/40/IB		50	42.8	46.3			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA445/40/IB	44 x 5 x 3	100	36.6	39.7	0.89	1.16	S	0.61	0.77	0.92	1.13	1.48	1.87	2.31	2.79	3.32	3.90	4.52	5.19	5.90	6.66	7.47	8.33	9.27						
SB445/40/IB		50	39.5	42.6			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA385/40/IB	38 x 5 x 3	100	32.2	34.9	0.87	1.2	S	0.82	1.03	1.23	1.51	1.97	2.49	3.08	3.73	4.43	5.20	6.04	6.93	7.88	8.93	10.07	11.29	12.59						
SB385/40/IB		50	35	37.7			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA325/40/IB	32 x 5 x 3	100	27.8	30.1	0.84	1.25	S	1.15	1.44	1.73	2.11	2.76	3.50	4.32	5.22	6.21	7.29	8.46	9.72	11.07	12.51	14.04	15.66	17.37						
SB325/40/IB		50	30.6	32.9			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						
SA255/40/IB	25 x 5 x 3	100	23.1	24.9	0.82	1.3	S	1.86	2.32	2.79	3.42	4.46	5.65	6.97	8.44	10.00	11.65	13.39	15.22	17.14	19.14	21.22	23.38	25.62						
SB255/40/IB		50	25.9	27.7			W	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6	32.4	34.2	36.0						

### SERRATED I-BAR CODE : SAOOO/40/SI, SBOOO/40/SI

W : Load Per Each Bearing Bar in Kg/each bearing bar  
 S : Stress in Kg/mm<sup>2</sup>  
 D : Deflection in mm  
 Allowable Stress: 18 Kg/mm<sup>2</sup>  
 Allowable Deflection: L(Span)/300mm

### STRESS & DEFLECTION FACTOR

Uniform Load Kg/m <sup>2</sup> (KN/m <sup>2</sup> )	Factor(i)
200 (2.0)	0.67
250 (2.5)	0.83
300 (3.0)	1.00
360 (3.6)	1.20
500 (5.0)	1.67
750 (7.5)	2.50

### CALCULATION

Uniform Load : 500Kg/m<sup>2</sup>(5KN/m<sup>2</sup>)  
 Type : SA325/30/IB  
 Span : 1500mm  
 Factor : i=1.67  
 Stress : 3.24 x 1.67 = 5.41Kg/mm<sup>2</sup>  
 Deflection : 2.26 x 1.67 = 3.77 mm  
 3.77mm < L/300  
 ∴

### GRATING WIDTH AND NUMBER OF BEARING BARS

BB	T	No	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
			PITCH 35.3mm	3	43	83	123	163	203	243	283	323	363	403	443	483	523	563	603	643	683	723	763	803	843	883	923
5	45	85		125	165	205	245	285	325	365	405	445	485	525	565	605	645	685	725	765	805	845	885	925	965	1005	
6	56	86		126	166	206	246	286	326	366	406	446	486	526	566	606	646	686	726	766	806	846	886	926	966	1006	
7	47	87		127	167	207	247	287	327	367	407	447	487	527	567	607	647	687	727	767	807	847	887	927	967	1007	

## TABLE OF BEARING BARS

### LOAD & DEFLECTIONS TABLE (3) Flat Bars & Serrated Flat Bars Type

\*This table is theoretical and on a uniform Load of 300 Kg/m<sup>2</sup> (3KN/m<sup>2</sup>)

#### LOAD BEARING BARS AT 30 MM PITCH

Code	Bearing Bar Size (mm)	Cross Bar Pitch (mm)	Weight (Kg/m <sup>2</sup> )		Serrated Factors		Span (mm)																							
			Cut End	Close End	S	D	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000							
SA605/30/FB	60 x 5	100	82.9	87.6			S	0.14	0.21	0.30	0.41	0.54	0.68	0.84	1.02	1.21	1.43	1.65	1.90	2.16	2.44	2.73	3.05	3.38						
SB605/30/FB		50	85.7	90.4			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA555/30/FB	55 x 5	100	76.2	80.5			S	0.27	0.34	0.40	0.49	0.64	0.81	1.01	1.22	1.45	1.70	1.97	2.26	2.57	2.90	3.25	3.62	4.02						
SB555/30/FB		50	79	83.3			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA505/30/FB	50 x 5	100	69.6	73.5	0.94	1.1	S	0.32	0.41	0.49	0.60	0.78	0.98	1.22	1.47	1.75	2.05	2.38	2.73	3.11	3.51	3.94	4.39	4.86						
SB505/30/FB		50	72.4	76.3			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA445/30/FB	44 x 5	100	54.5	57.9	0.93	1.11	S	0.42	0.52	0.63	0.77	1.00	1.27	1.57	1.90	2.26	2.65	3.08	3.53	4.02	4.54	5.08	5.67	6.32						
SB445/30/FB		50	57.4	60.8			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA385/30/FB	38 x 5	100	53.5	56.5	0.92	1.13	S	0.56	0.70	0.84	1.03	1.35	1.70	2.10	2.55	3.03	3.56	4.12	4.73	5.39	6.08	6.82	7.61	8.45						
SB385/30/FB		50	56.4	59.4			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA383/30/FB	38 x 3	100	32.4	34.2	0.92	1.13	S	0.93	1.17	1.40	1.72	2.24	2.84	3.51	4.24	5.05	5.92	6.87	7.89	8.98	10.14	11.38	12.69	14.07						
SB383/30/FB		50	34.4	36.2			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA355/30/FB	35 x 5	100	49.2	52.2	0.92	1.14	S	0.66	0.83	0.99	1.22	1.59	2.01	2.48	3.00	3.57	4.19	4.86	5.58	6.35	7.18	8.05	8.97	9.94						
SB355/30/FB		50	52.4	55.1			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA353/30/FB	35 x 3	100	30	31.6	0.92	1.14	S	1.10	1.38	1.65	2.02	2.64	3.34	4.13	5.00	5.95	6.98	8.09	9.34	10.73	12.25	13.90	15.67	17.56						
SB353/30/FB		50	31.9	33.5			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA325/30/FB	32 x 5	100	45.5	48	0.91	1.15	S	0.79	0.99	1.19	1.45	1.90	2.40	2.97	3.59	4.27	5.02	5.82	6.67	7.58	8.54	9.56	10.63	11.75						
SB325/30/FB		50	48.4	50.9			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA323/30/FB	32 x 3	100	27.6	29.1	0.91	1.16	S	1.32	1.65	1.98	2.42	3.16	4.00	4.94	5.98	7.12	8.36	9.70	11.14	12.68	14.32	16.06	17.90	19.84						
SB323/30/FB		50	29.5	31			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA255/30/FB	25 x 5	100	36.2	38.2	0.88	1.2	S	1.30	1.62	1.94	2.38	3.11	3.94	4.86	5.88	6.99	8.19	9.48	10.87	12.36	13.94	15.61	17.37	19.22						
SB255/30/FB		50	39	41			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA253/30/FB	25 x 3	100	22	23.2	0.88	1.21	S	2.16	2.70	3.23	3.96	5.18	6.55	8.09	9.73	11.46	13.28	15.19	17.19	19.27	21.44	23.70	26.05	28.49						
SB253/30/FB		50	23.9	25.1			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA195/30/FB	19 x 5	100	29.5	31	0.88	1.21	S	2.24	2.80	3.36	4.12	5.38	6.81	8.40	10.04	11.73	13.47	15.26	17.10	19.00	20.95	22.95	25.00	27.10						
SB195/30/FB		50	32.3	33.8			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						
SA193/30/FB	19 x 3	100	17.2	18.1	0.88	1.21	S	3.73	4.66	5.59	6.85	8.95	11.10	13.40	15.84	18.42	21.04	23.70	26.40	29.14	31.92	34.74	37.60	40.50						
SB193/30/FB		50	19.1	20			W	5.4	6.75	8.1	9.45	10.8	12.15	13.5	14.85	16.2	17.55	18.9	20.25	21.6	22.95	24.3	25.65	27.0						

#### SERRATION FACTOR

The tabulated load and deflection should be multiplied by the factor shown when using serration flooring.

#### PANEL WEIGHTS

Weights shown are for flooring with 50mm and 100mm pitch transverse bars. Weight for other specifications can be obtained from our office.

#### SERRATED FLAT BAR CODE : SA000/30/SF,SB000/30/SF

W : Load Per Each Bearing Bar in Kg/each bearing bar  
 S : Stress in Kg/mm<sup>2</sup>  
 D : Deflection in mm  
 Allowable Stress:18 Kg/mm<sup>2</sup>  
 Allowable Deflection: L(Span)/300mm

#### STRESS & DEFLECTION FACTOR

Uniform Load Kg/m <sup>2</sup> (KN/m <sup>2</sup> )	Factor(i)
200 (2.0)	0.67
250 (2.5)	0.83
300 (3.0)	1.00
360 (3.6)	1.20
500 (5.0)	1.67
750 (7.5)	2.50

#### GRATING WIDTH AND NUMBER OF BEARING BARS

BB	T	No	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
			PITCH 35.3mm	3	273	303	333	363	393	423	453	483	513	543	573	603	633	663	693	723	753	783	813	843	873	903	933
5	275	305		335	365	395	425	455	485	515	545	575	605	635	665	695	725	755	785	815	845	875	905	935	965	995	
6	276	306		336	366	396	426	456	486	516	546	576	606	636	666	696	726	756	786	816	846	876	906	936	966	996	



## LOAD & DEFLECTIONS TABLE (4) Flat Bars & Serrated Flat Bars Type

*\*This table is theoretical and on a uniform Load of 300 Kg/m<sup>2</sup> (3KN/m<sup>2</sup>)*

### LOAD BEARING BARS AT 40 MM PITCH

Code	Bearing Bar Size (mm)	Cross Bar Pitch (mm)	Weight (Kg/m <sup>2</sup> )		Serrated Factors		Span(mm)																							
			Cut End	Close End	S	D	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000							
SA605/40/FB	60 x 5	100	82.9	87.6			S	0.30	0.38	0.45	0.55	0.72	0.91	1.13	1.36	1.62	1.90	2.21	2.53	2.88	3.25	3.65	4.06	4.50						
SB605/40/FB		50	85.7	90.4			D	0.018	0.035	0.060	0.101	0.171	0.275	0.419	0.613	0.868	1.20	1.61	2.12	2.74	3.50	4.39	5.45	6.70						
SA555/40/FB	55 x 5	100	76.2	80.5			S	0.36	0.45	0.54	0.66	0.86	1.08	1.34	1.62	1.93	2.26	2.62	3.01	3.43	3.89	4.34	4.83	5.36						
SB555/40/FB		50	79	83.3			D	0.023	0.045	0.078	0.131	0.223	0.36	0.54	0.80	1.13	1.55	2.09	2.75	3.56	4.54	5.70	7.08	8.69						
SA505/40/FB	50 x 5	100	69.6	73.5		9.4	1.1	S	0.43	0.54	0.65	0.79	1.04	1.31	1.62	1.96	2.33	2.74	3.18	3.65	4.15	4.68	5.25	5.85						
SB505/40/FB		50	72.4	76.3			D	0.031	0.06	0.11	0.17	0.30	0.48	0.72	1.06	1.50	2.07	2.78	3.66	4.74	6.04	7.59	9.42	11.57						
SA445/40/FB	44 x 5	100	54.5	57.9		0.93	1.11	S	0.56	0.70	0.84	1.06	1.34	1.70	2.09	2.53	3.01	3.54	4.10	4.71	5.36	6.05	6.78	7.54						
SB445/40/FB		50	57.4	60.8			D	0.045	0.088	0.15	0.26	0.44	0.70	1.06	1.55	2.20	3.03	4.08	5.37	6.96	8.86	11.14								
SA385/40/FB	38 x 5	100	53.5	56.5		0.92	1.13	S	0.75	0.94	1.12	1.38	1.80	2.27	2.81	3.40	4.04	4.74	5.50	6.31	7.18									
SB385/40/FB		50	56.4	59.4			D	0.07	0.14	0.24	0.40	0.68	1.08	1.65	2.41	3.42	4.71	6.33	8.34	10.80										
SA383/40/FB	38 x 3	100	32.4	34.2		0.92	1.13	S	1.25	1.56	1.87	2.29	2.99	3.79	4.67	5.66	6.73	7.90	9.16	10.52										
SB383/40/FB		50	34.4	36.2			D	0.12	0.23	0.40	0.66	1.12	1.80	2.75	4.02	5.69	7.84	10.55	13.90											
SA355/40/FB	35 x 5	100	49.2	52.2		0.92	1.14	S	0.88	1.10	1.32	1.62	2.12	2.68	3.31	4.00	4.76	5.59	6.48											
SB355/40/FB		50	52.4	55.1			D	0.09	0.18	0.30	0.51	0.86	1.38	2.11	3.09	4.37	6.02	8.10												
SA35340/FB	35 x 3	100	30	31.6		0.92	1.14	S	1.47	1.84	2.20	2.70	3.52	4.46	5.51	6.66	7.93	9.30												
SB353/40/FB		50	31.9	33.5			D	0.15	0.29	0.51	0.84	1.44	2.31	3.51	5.14	7.29	10.04													
SA325/40/FB	32 x 5	100	45.5	48		0.91	1.15	S	1.06	1.32	1.58	1.94	2.53	3.20	3.96	4.79	5.70	6.69												
SB325/40/FB		50	48.4	50.9			D	0.12	0.23	0.40	0.66	1.13	1.81	2.76	4.04	5.72	7.88													
SA323/40/FB	32 x 3	100	27.6	29.1		0.91	1.16	S	1.76	2.20	2.64	3.23	4.22	5.34	6.59	7.98														
SB323/40/FB		50	29.5	31			D	0.20	0.38	0.66	1.10	1.88	2.84	4.26	6.26	8.84														
SA255/40/FB	25 x 5	100	36.2	38.2		0.88	1.2	S	1.73	2.16	2.59	3.17	4.15	5.25	6.48	7.84														
SB255/40/FB		50	39	41			D	0.25	0.48	0.83	1.39	2.37	3.80	5.79	8.47															
SA253/40/FB	25 x 3	100	22	23.2		0.88	1.21	S	2.88	3.59	4.31	5.28	6.90	8.73	10.78															
SB253/40/FB		50	23.9	25.1			D	0.41	0.80	1.39	2.31	3.95	6.32	9.63																
SA195/40/FB	19 x 5	100	29.5	31				S	2.99	3.74	4.49	5.49	7.18	9.08																
SB195/40/FB		50	32.3	33.8			D	0.56	0.82	1.90	3.16	5.39	8.64																	
SA193/40/FB	19 x 3	100	17.2	18.1				S	4.97	6.22	7.46	9.14																		
SB193/40/FB		50	19.1	20			D	0.94	1.84	3.17	5.29																			

### STRESS & DEFLECTION FACTOR

Uniform Load Kg/m <sup>2</sup> (KN/m <sup>2</sup> )	Factor(i)
200 (2.0)	0.67
250 (2.5)	0.83
300 (3.0)	1.00
360 (3.6)	1.20
500 (5.0)	1.67
750 (7.5)	2.50

### SERRATED FLAT BAR CODE : SAOOO/40/SF,SBOOO/30/SF

W : Load Per Each Bearing Bar in Kg/each bearing bar  
 S : Stress in Kg/mm<sup>2</sup>  
 D : Deflection in mm  
 Allowable Stress : 18 Kg/mm<sup>2</sup>  
 Allowable Deflection : L (Span)/300mm

### STRESS & DEFLECTION FACTOR

Uniform Load Kg/m <sup>2</sup> (KN/m <sup>2</sup> )	Factor(i)
200 (2.0)	0.67
250 (2.5)	0.83
300 (3.0)	1.00
360 (3.6)	1.20
500 (5.0)	1.67
750 (7.5)	2.50

### GRATING WIDTH AND NUMBER OF BEARING BARS

BB	T	No	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
			PITCH 35.3mm	3	43	83	123	163	203	243	283	323	363	403	443	483	523	563	603	643	683	723	763	803	843	883	923
	5	45	85	125	165	205	245	285	325	365	405	445	485	525	565	605	645	685	725	765	805	845	885	925	965	1005	
	6	46	86	126	166	206	246	286	326	366	406	446	486	526	566	606	646	686	726	766	806	846	886	926	966	1006	
	7	47	87	127	167	207	247	287	327	367	407	447	487	527	567	607	647	687	727	767	807	847	887	927	967	1007	

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