



# FRP

>> professional  
manufacturer



河北众业  
环保设备有限公司



HEBEI ZHONGYE ENVIRONMENTAL PROTECTION EQUIPMENT CO.,LTD.



COMPANY PROFILE



## HEBEI ZHONGYE

HEBEI ZHONGYE ENVIRONMENTAL PROTECTION EQUIPMENT CO., LTD. is located in Zaoqiang Industrial Park, Hengshui City, Hebei Province. Our company is specialized in FRP production and after-sales service of FRP products. It is a modern technology-based enterprise integrating design, production, sales and service.

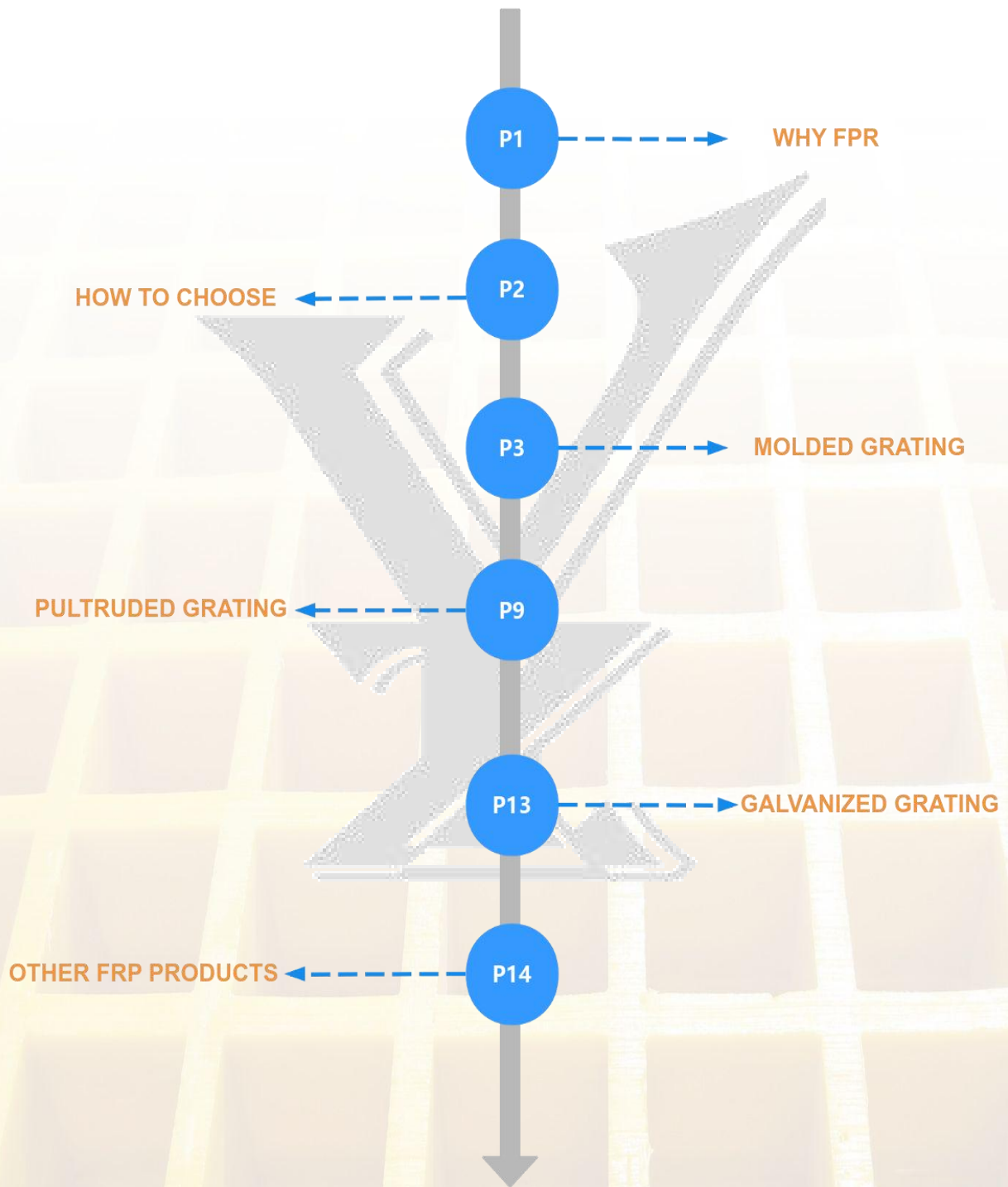
Our main products include: FRP grating series, FRP pipe series, FRP stairs, FRP power guardrail, FRP transformer fence, FRP sign pile, FRP walkway, etc.

Zhongye continuously improves the production process, accumulates rich production experience in this field, relies on the excellent machinery equipment, the scientific management system and the joint efforts of the employees with profound qualifications, creates its own brand, produces high quality products, and becomes a well-known FRP manufacturer.

The products of Zhongye are supplied to wholesalers, foreign trade companies and engineering companies. and are well received by customers all over the world. Our company has established research department to make great efforts to improve and perfect the production monitoring and quality.

Zhongye in line with the principle of "Integrity first, Customer foremost", We sincerely welcome friends from all walks of life to visit, investigate and negotiate business.

# CONTENTS

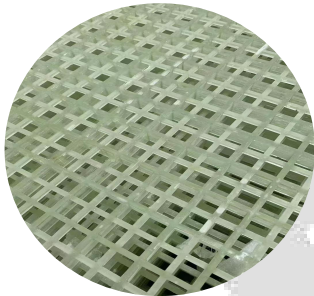




## Characteristics of FRP Grating

### 1. Corrosion resistance

Different resins give FRP different corrosion resistance properties, allowing it to be used in different corrosive environments for a long time.



### 2. Lightweight and high strength

The specific gravity of the same product is only 1/4 of steel.

It has unique lightweight and high-strength properties.

### 3. Aging resistance

The long-lasting anti-aging properties of FRP enable the product to maintain sustained high strength and have a service life of more than 20 years.

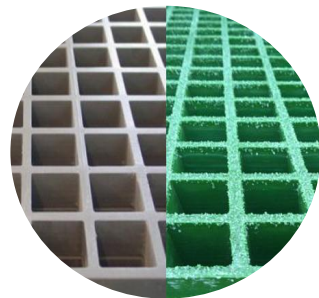


### 4. Designability

The color of the product can be customized according to customer requirements, and the appearance size can also be cut and spliced into the size required by the customer.

### 5. Safe and anti-slip

Different surface effects make the grille anti-skid, providing anti-skid performance for different use occasions. Slight elasticity can also reduce worker fatigue.



## HOW TO CHOOSE?

### 1. Resin type

Code	Resin type	Color	Application
MP-5	Phenolic	Brown	Low toxicity and high flame retardancy, used in occasions where fire safety is extremely important
VEFR-25	Vinyl type	Green, Yellow, Gray, Orange	In severe corrosive environments such as acids and alkaline solvents
VEFR-10	Vinyl type	Dark gray, Black	Occasions with high flame retardant requirements and excellent acid and alkali resistance
R-25	Isophenylene type	Green. Yellow. Grey	More economical than VER type. And excellent acid resistance, moderate resistance to alkali and solvents
IFGR-30	Mesophenylene food grade	Yellow	Mainly used in meat products and food processing plants
OFR-25	O-benzene type	Green. Yellow. Grey	Generally resistant to acid and alkali environments
CDR	O-benzene type	green, yellow, gray	More economical than OFR-25, no obstruction requirements

### 2. Fiberglass type

Code	Glass fiber type	Application
E	Alkali-free glass fiber	Applied in situations with high strength requirements and high corrosion resistance
C	Medium alkali glass fiber	More economical than E relatively lighter, and less resistant to acid and alkali than E

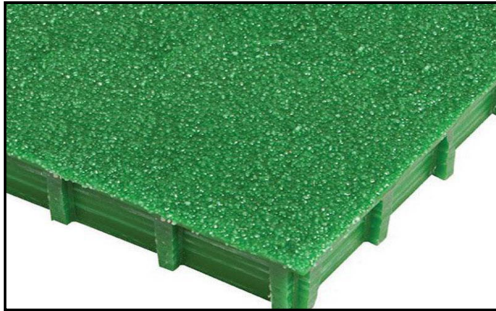
### 3. Filler type

Code	Filler type	Application
ATH	Aluminum hydroxide	Flame-retardant, smoke-suppressing and corrosion-resistant occasions
CAO	Calcium carbonate	More economical than ATH, no flame retardant requirements
PR	no filler	Occasions with higher requirements on corrosion resistance





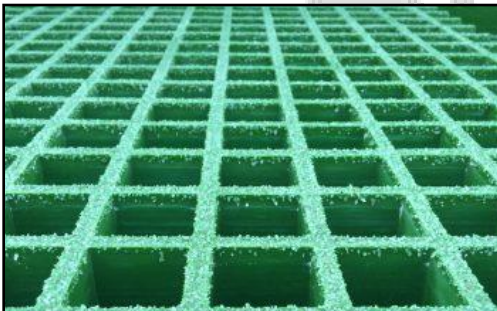
## MOLDED GRATINGS



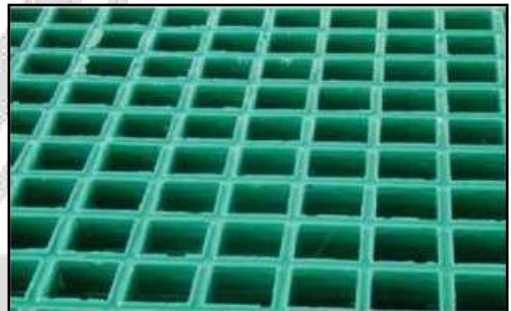
**FRP gritted top cover**



**FRP chequered top cover**



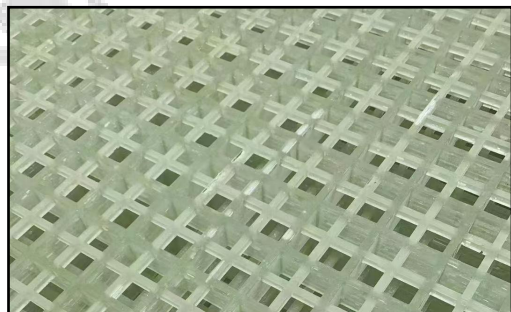
**Gritted surface grating**



**Meniscus surface grating**



**Smooth surface grating**



**Pure resin grating**

## Parameter tables

### ➞ 25x38x38mm

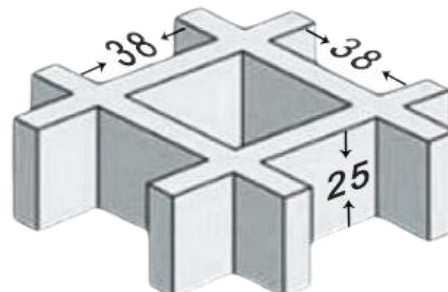
※ Lip wall thickness (upper/lower): 6.0/5.0

※ Center distance of bearing rod: 38

※ Opening rate: 68%

※ Weight: about 12.3 kg/m<sup>2</sup>

※ Panel size: 1220\*4000mm 1220\*3660mm 1220\*2440mm and so on



### Uniformed load-deflection in mm

Deflection/ Span (mm)	Kg/m						
	240	480	980	1450	2450	3650	4880
450	0.660	1.092	1.930	2.769	4.470	6.579	
600	1.118	2.108	4.140	6.172	10.211	15.265	
750	2.667	5.387	10.820	16.280			
900	5.537	11.176	21.717				

### Concentrated line load-deflection in mm

Deflection/ Span (mm)	Kg/m						Break Point
	75	150	300	450	600	750	
450	0.559	1.146	2.159	3.073	4.115	4.750	3910.0
600	0.864	1.702	3.505	5.156	6.706	8.179	2924.0
900	2.896	5.918	12.116	18.440			1948.0
1200	5.715	111.633					1461.0

Above are some of our products. If there is no type you want, please contact us and we can customize the products according to your needs.

## Parameter tables

### ➞ 30x38x38mm

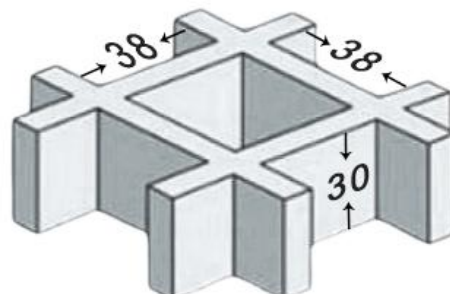
※ Lip wall thickness (upper/lower): 6.0/5.0

※ Center distance of bearing rod: 38

※ Opening rate: 68%

※ Weight: about 14.6 kg/m<sup>2</sup>

※ Panel size: 1220\*4000mm 1220\*3660mm 1220\*2440mm and so on



### Uniformed load-deflection in mm

Deflection/ Span(mm)	Kg/m						Break Point
	350	500	750	1000	1500	2500	
300	<0.254	<0.254	<0.254	<0.254	0.254	0.508	32500.8
450	0.254	0.508	0.762	1.016	1.524	2.286	21661.2
600	1.060	1.524	2.286	2.794	4.318	7.366	12980.8
750	2.540	3.810	5.842	7.620	11.684		8296.0
900	4.572	7.112	10.668				5758.4

### Concentrated line load-deflection in mm

Deflection/ Span(mm)	Kg/m						Break Point
	75	150	300	450	750	1500	
300	<0.254	<0.254	0.254	0.508	0.762	1.524	993.4
450	0.254	0.508	1.016	1.524	2.540		4827.6
600	0.508	1.270	2.286	3.556	5.842		4112.4
750	1.270	2.540	4.826	7.366	12.446		3173.7
900	1.778	3.810	7.620	11.430			2637.3

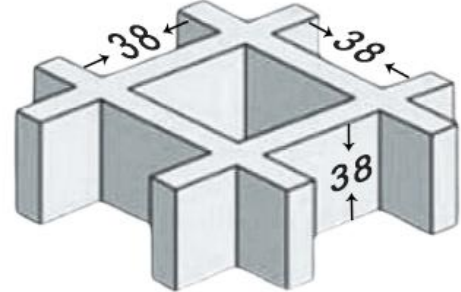
Above are some of our products. If there is no type you want, please contact us and we can customize the products according to your needs.



## Parameter tables

### ➞ 38x38x38mm

- ※ Lip wall thickness (upper/lower): 7.0/5.0
- ※ Center distance of bearing rod: 38
- ※ Opening rate: 68%
- ※ Weight: about 19.5 kg/m<sup>2</sup>
- ※ Panel size: 1220\*4000mm 1220\*3660mm 1220\*2440mm and so on



### Uniformed load-deflection in mm

Deflection/ Span(mm)	Kg/m						
	240	480	980	1450	2450	3650	4880
300	0.254	0.305	0.381	0.457	0.635	0.838	
600	0.432	0.813	1.549	2.311	3.835	5.740	
900	1.702	3.454	6.959	10.465	17.475		
1200	5.969	12.167	24.511				

### Concentrated line load-deflection in mm

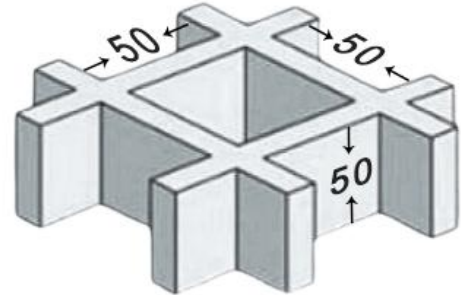
Deflection/ Span(mm)	Kg/m						Break Point
	75	150	300	450	600	750	
300	0.279	0.356	0.483	0.610	0.762	0.889	17116.0
600	0.356	0.660	1.245	1.850	2.464	3.073	87818.0
900	0.864	1.803	3.683	5.563	7.417	9.296	5817.0
1220	2.261	4.749	9.677	14.630	19.583		3755.0

Above are some of our products. If there is no type you want, please contact us and we can customize the products according to your needs.

## Parameter tables

### ➞ 50x50x50mm

- ※ Lip wall thickness (upper/lower): 8.0/6.0
- ※ Center distance of bearing rod: 50
- ※ Opening rate: 78%
- ※ Weight: about 13.7 kg/m<sup>2</sup>
- ※ Panel size: 1220\*4000mm 1220\*2440mm and so on



### Uniformed load-deflection in mm

Deflection/ Span (mm)	Kg/m						
	240	480	980	1450	2450	3650	4880
300	0.254	0.279	0.330	0.381	0.483	0.483	
600	0.381	0.584	0.965	1.372	2.134	4.115	
900	1.194	2.108	3.937	5.766	9.449	18.593	
1200	2.413	4.928	9.957	14.961			

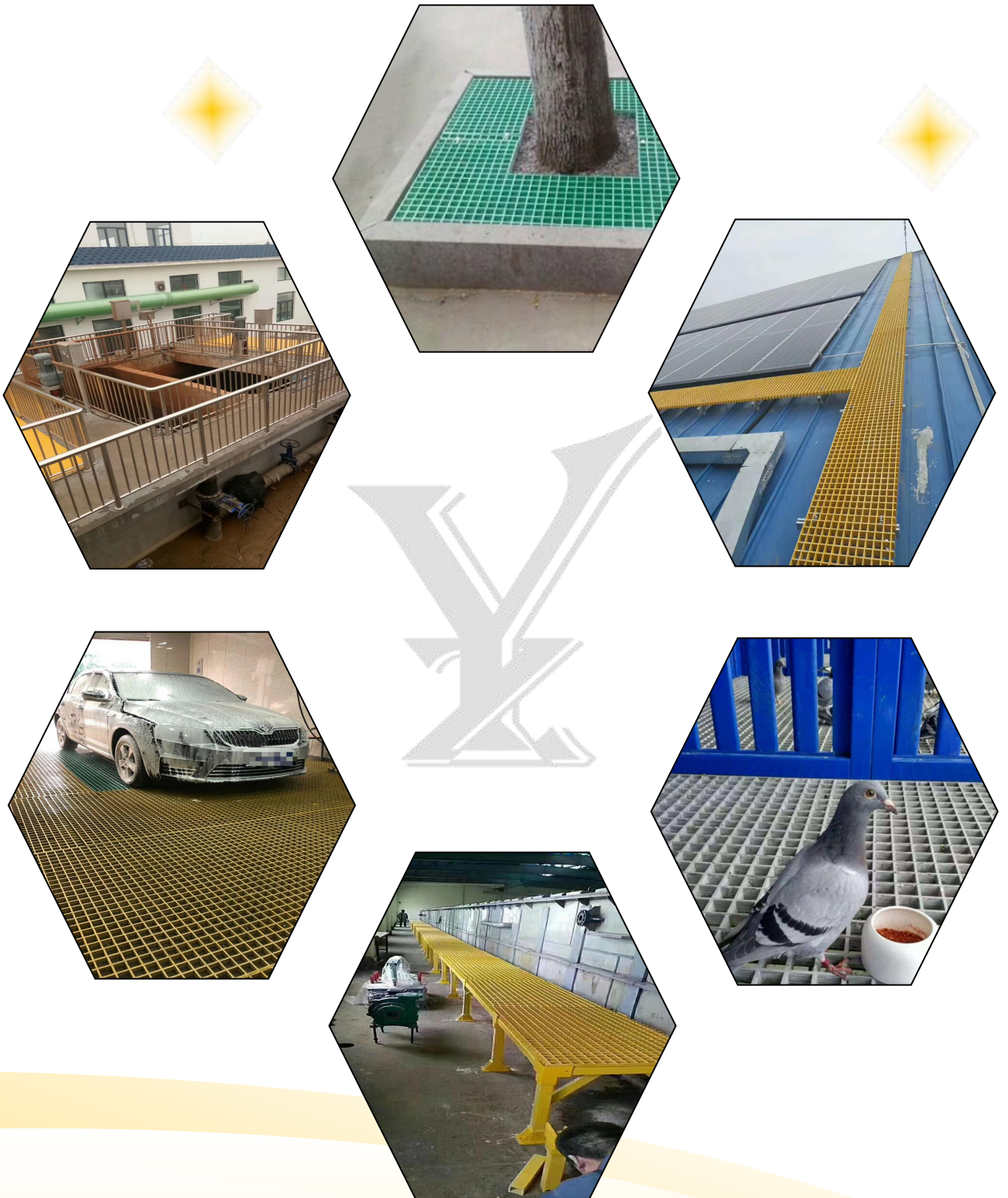
### Concentrated line load-deflection in mm

Deflection/ Span(mm)	Kg/m						Break Point
	75	150	300	450	600	750	
300	0.279	0.306	0.406	0.483	0.635	1.041	21727.0
600	0.356	0.508	0.813	1.128	1.753	3.327	11713.0
900	0.508	1.118	2.235	3.200	5.156	10.058	7780.0
1200	0.914	1.930	3.937	5.918	9.957		5834.0

Above are some of our products. If there is no type you want, please contact us and we can customize the products according to your needs.

## PRODUCTS

## APPLICATION

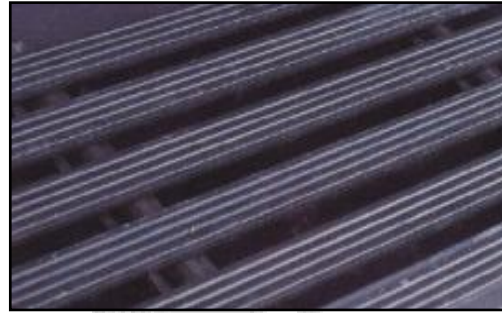




# PULTRUDED GRATINGS



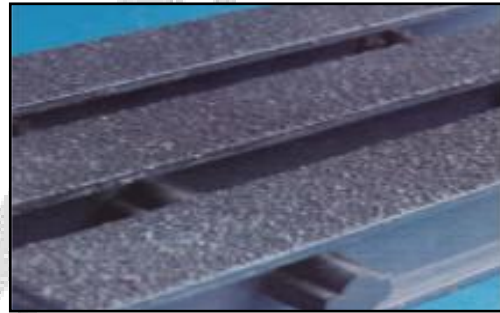
Smooth surface grating



Meniscus surface grating



Gritted top cover grating



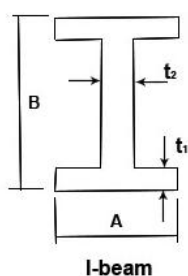
Gritted surface grating

## PULTRUDED PROFILES



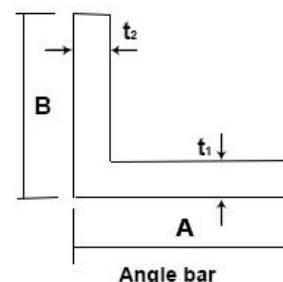


## Parameter tables



I-beam

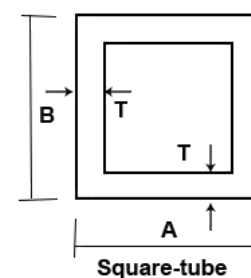
Type	Dimension (mm)	Weight
I-beam	$A \times B \times T_1 \times T_2$	(kg/m)
IB25	15×25×6.4×4.0	0.40
IB32	15×32×6.4×4.0	0.44
IB38A	15×38×4.0×6.4	0.51
IB38B	15×38×3.0×3.0	0.53
IB45A	45×180×12.0×9.0	5.20
IB45B	45×180×12.7×12.7	6.00
IB50A	50×102×6.4×6.4	2.40
IB50B	50×102×8.0×8.0	3.00
IB60B	60×180×6.4×6.4	3.60
IB76A	76×152×6.4×6.4	3.59
IB76B	76×152×9.5×9.5	5.32



Angle bar

Type	Dimension (mm)	Weight
Angle bar	$A \times B \times T_1 \times T_2$	(kg/m)
EL25A	25×25×3.2×3.2	0.33
EL25B	25×25×6.4×6.4	0.56
EL30B	30×30×5.0×5.0	0.57
EL32	32×32×4.0×4.0	0.42
E138A	38×38×5.0×5.0	0.68
EL38B	38×38×6.4×6.4	0.85
EL45	45×45×4.8×4.8	0.75
EL50A	50.8×50.8×3.2×3.2	0.61
EL50B	50×50×6.4×6.4	1.14
EL60	60×60×9.0×9.0	1.90
EL76C	76×76×6.4×6.4	1.77
EL76D	76×76×9.5×9.5	2.57
EL76E	76×76×12.7×12.7	3.40
EL101A	101×101×6.4×6.4	2.50
EL101B	101×101×8×8	2.95

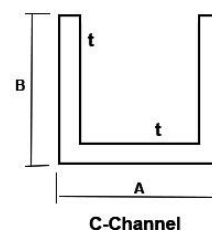
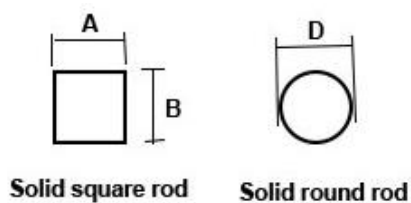
Type	Dimension	Weight	Type	Dimension)	Weight
Square-tube	$A \times B \times T$ (mm)	(kg/m)	Square-tube	$A \times B \times T$ (mm)	(kg/m)
ST16	16×16×2.5	0.25	ST50A	50×50×3.2	1.14
ST19	19×19×2.5	0.31	ST50B	50×50×4.0	1.42
ST22	22×22×2.5	0.36	ST54A	54×54×3.2	1.24
ST25A	25×25×2.5	0.42	ST54B	54×54×4.8	1.78
ST32	32×32×6.4	1.24	ST60A	60×60×5.0	2.10
ST38A	38×38×3.2	0.85	ST64A	64×64×3.2	1.48
ST38B	38×38×5.0	1.25	ST64B	64×64×4.4	1.97
ST44A	44×44×3.2	1.01	ST76A	76×76×3.2	1.77
ST44B	44×44×6.4	1.83	ST76B	76×76×5.0	2.70



Square-tube



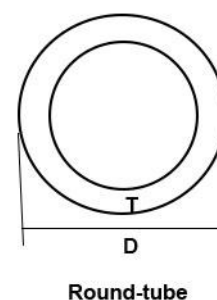
## Parameter tables



Type	Dimension	Weight
Solid square rod	A×B(mm)	(kg/m)
SSR25	25×25	1.23
SSR32	32×32	2.00
SSR38	38×38	2.80
Solid round rod	D(mm)	
SRR60	6.5	0.08
SRR95	9.5	0.14
SRR127	12.7	0.26
SRR254	25.4	1.00
SRR328	31.8	1.51
SRR380	38	2.15
SPR42	4.2	0.03
SPR80	8	0.10
SPR16	16	0.41
SPR19	19	0.55
SPR20	20	0.62
SPR22	22	0.72

Type	Dimension	Weight
C-Channel	A×B×T(mm)	(kg/m)
C25	25×14×3.0	0.28
C26	26×17×3.2	0.30
C31	31×23×4.0	0.65
C32	32×13×3.0	0.25
C33	33×29×4.0	0.65
C40	40×24×3.2	0.50
C45	45×28×6.4	0.92
C50	50×14×3.2	0.44
C52	52×50×6.0	1.63
C70	70×30×4.5	0.95
C75	75×35×5.0	1.30
C76	76×22×6.4	1.31
C90	90×35×8.0	2.10
C102	102×27×3.2	0.91
C102	102×29×4.8	1.42
C102E	102×44×4.8	1.65
C102F	102×44×6.4	2.10

Type	Dimension	Weight	Type	Dimension	Weight
Round-tube	D×T(mm)	(kg/m)	Round-tube	D×T(mm)	(kg/m)
RT25	25×3.2	0.44	RT50A	50×3.2	0.84
RT26A	26×3.0	0.42	RT50B	50×4.0	1.10
RT26B	26×4.8	0.63	RT50C	50×5.0	1.34
RT32A	32×3.2	0.55	RT64A	64×3.5	1.26
RT32B	32×5.0	0.81	RT64B	64×6.4	2.38
RT38A	38×3.2	0.65	RT75	75×4.2	1.80
RT38B	38×4.0	0.81	RT89A	89×3.2	1.54
RT42A	42×3.2	0.70	RT89B	89×5.0	2.51
RT42B	42×5.0	1.11	RT99	99×5.0	2.81



## PRODUCTS

## APPLICATION

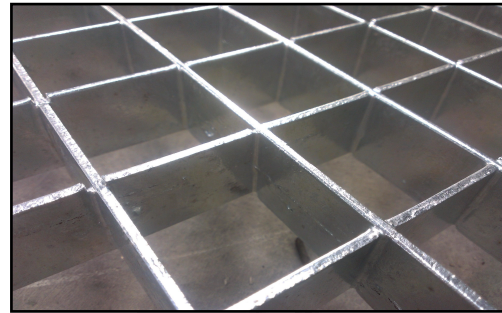




# GALVANIZED GRATING



**Corrugated steel grating**



**Smooth steel grating**



**Custom shaped steel grating**



**Steel grating with top cover**

- 1. The product has beautiful appearance: simple lines, silver appearance**
- 2. The large mesh has the best drainage: the leakage area reaches 83.3%, which is more than twice that of cast iron.**
- 3. Use high-strength carbon steel to make the steel grating have high strength: the strength and toughness are much higher than cast iron, and can be used in long-span and heavy-load environments.**
- 4. Variety of products: to meet the needs of different environments, loads, spans and shapes, sizes and shapes can be provided according to customers.**





# OTHER FRP PRODUCTS

