



PRODUCT CATALOG

China FRP Profiles & Gratings

Brochure for
FRP Profiles & Gratings

Professional Composite Manufacturer & Solution Designer

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01. FRP Angles

Ideal for Reinforcement & Anti-Slipping

FRP structural angles are ideal material for reinforcement and safety access application. It is available for smooth and gritted surface.

Smooth surface angles are ideal for reinforcement on part connection.

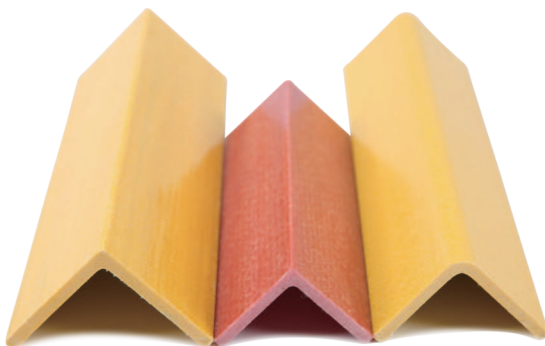
Gritted surface features excellent slipping resistance performance, which is ideal for stair treads nosing and other decking edge for safety access.



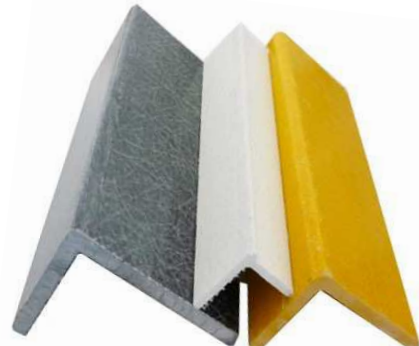
Available Surfaces



Available Structures



Equal Edge Structure



Unequal Edge Structure

Features

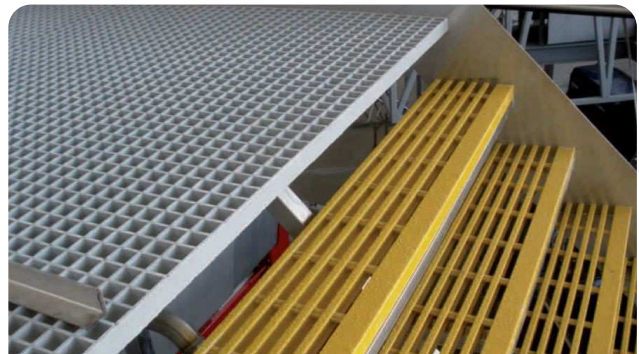
- Superior shear and bending capacity.
- Good hardness.
- Easy fabrication.
- Corrosion resistance.
- Anti-slipping performance.
- Lightweight.
- Wide range of applications.

Classical Applications

- **Handrail system.** Top rail of handrails.
- **Stair system.** Stair treads nosing of gratings.
- Decking ledges of checker plate.
- Connection elements in FRP structures.
- Support ledges for grating or beams



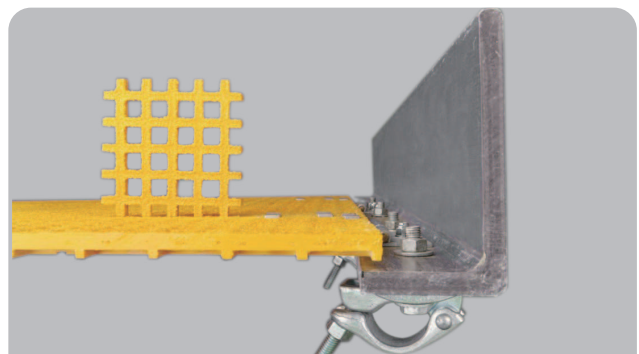
FRP Handrails



Stair Treads Nosing



Decking Ledges



Grating Support Ledge

Common Specifications

Item	Width (mm)	Height (mm)	Thickness (mm)	Item	Width (mm)	Height (mm)	Thickness (mm)
FRPA-01	10	10	2.5	FRPA-25	50	35	3
FRPA-02	15	15	2.5	FRPA-26	50	50	3
FRPA-03	15	15	5	FRPA-27	50	50	5
FRPA-04	19	16	2	FRPA-28	50	50	6
FRPA-05	20	20	3	FRPA-29	60	40	6
FRPA-06	25	15	4	FRPA-30	60	60	3
FRPA-07	25.4	16	3	FRPA-31	60	60	6
FRPA-08	25	25	3	FRPA-32	75	75	6
FRPA-09	30	20	4	FRPA-33	75	75	8
FRPA-10	30	25	8	FRPA-34	80	45	6
FRPA-11	30	30	3	FRPA-35	80	80	8
FRPA-12	30	30	5	FRPA-36	90	90	3
FRPA-13	30	30	6	FRPA-37	95	25	2
FRPA-14	34	29.5	4	FRPA-38	100	50	8
FRPA-15	35	35	5	FRPA-39	100	65	10
FRPA-16	40	20	2	FRPA-40	100	80	8
FRPA-17	40	20	4	FRPA-41	100	100	5
FRPA-18	40	26	6	FRPA-42	100	100	6
FRPA-19	40	40	3	FRPA-43	100	100	8
FRPA-20	40	40	4	FRPA-44	100	100	10
FRPA-21	40	40	5	FRPA-45	150	150	12
FRPA-22	40	40	8	FRPA-46	250	30	3
FRPA-23	43	35	5	FRPA-47	300	30	3
FRPA-24	50	20	3				

02. FRP Channel

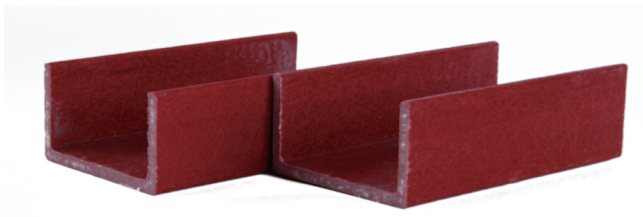
Low Deformation Rate and Good Corrosion Resistant FRP Profile

FRP channel is one kind of FRP profiles with uniform cross section. And it is formed continuously after being heated by high temperature.

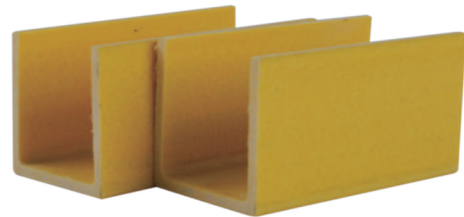
FRP channel is mainly used to insulated ladders, handrails and roof supports, because of excellent anti-corrosion, insulation and economic benefits.



Available type



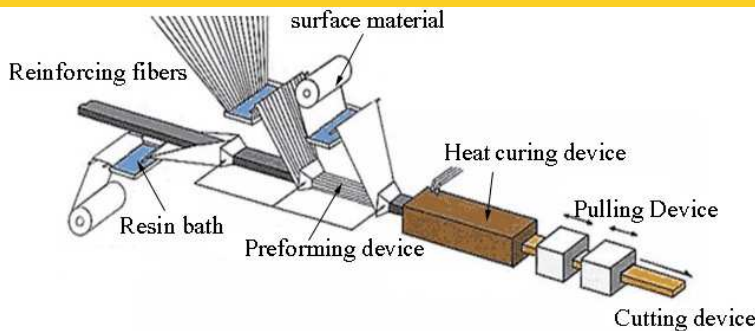
FRP C channel



FRP U channel

Production process

The simple steps are fiberglass roving, dipped in resin, preforming, pultrusion, and cutting. Reinforcing fibers and surface materials with the resin mixture in the resin bath is wrapped in a preforming device. Then the completed package will go into heat curing device for pultrusion. The die is the exact shape of the final part desired. Upon exiting the die, the part is over 90% cured and solid. The length of the part required is pulled through the cutoff saw and the process is complete.



FRP channels production process

Features

- *UV resistant.*
- *Low Deformation rate.*
- *High strength and light weight.*
- *Good corrosion resistant.*
- *Various colors for choice.*
- *Thermal stability.*
- *Easy to install and maintain.*
- *Anti-aging.*
- *Non-toxic.*
- *Insulation.*
- *Excellent economic benefits.*

Classical applications

- Ladder supports.
- Handrails.
- FRP battery stands.
- Cable tray



FRP Channel Ladders Supports



FRP Channel Handrail




FRP Channel Cable Tray



FRP Channel Battery Stand

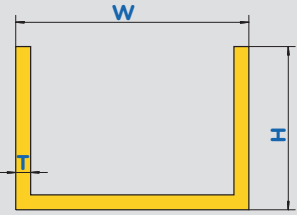
Common Specifications

Common Specification of FRP C Channel

Section	Item	Width (mm)	Height (mm)	Thickness (mm)	Item	Width (mm)	Height (mm)	Thickness (mm)
	FCC-01	25	14	3	FCC-06	102	35	4.8
	FCC-02	40	24	3.2	FCC-07	120	44	6.4
	FCC-03	50	14	3.2	FCC-08	152	42	9.5
	FCC-04	75	35	5	FCC-09	203	56	9.5
	FCC-05	76	38	6.4	FCC-10	254	70	12.7

Note: Special sizes can be customized.

Common Specification of FRP U Channel

Section	Item	Width (mm)	Height (mm)	Thickness (mm)	Item	Width (mm)	Height (mm)	Thickness (mm)
	FUC-01	6	6	2	FUC-27	50	35	3.5
	FUC-02	12	7.5	2.5	FUC-28	58	23	3
	FUC-03	14	11	3.5	FUC-29	60	50	4
	FUC-04	14	17	3	FUC-30	70	30	5
	FUC-05	15	7.5	2.5	FUC-31	72	57	3
	FUC-06	18	7.5	2.5	FUC-32	87	40	6
	FUC-07	20	21	4	FUC-33	89	40	4
	FUC-08	22.2	7.5	2.5	FUC-34	89	44.5	3.5
	FUC-09	25	20	3	FUC-35	95	15	2.5
	FUC-10	30	22	3	FUC-36	100	45	5
	FUC-11	30	30	3	FUC-37	100	50	6
	FUC-12	30	30	5	FUC-38	100	60	6
	FUC-13	32.5	28.3	3	FUC-39	100	80	2.5
	FUC-14	36.3	20	4.5	FUC-40	105	105	2.5
	FUC-15	36.6	20	3	FUC-41	110	53	3
	FUC-16	38	25	4	FUC-42	120	50	6
	FUC-17	38.1	24	3	FUC-43	120	60	6
	FUC-18	40	20	4	FUC-44	128	65	3
	FUC-19	43	43	4	FUC-45	138	100	4
	FUC-20	45	7.5	2.5	FUC-46	180	70	8
	FUC-21	45	20	4	FUC-47	190	82	5
	FUC-22	46	40	3	FUC-48	200	80	8
	FUC-23	48	40	4	FUC-49	205	105	2.5
	FUC-24	50	22	8	FUC-50	300	80	4
	FUC-25	50	30	4	FUC-51	300	100	10
	FUC-26	50	34	3	FUC-52	400	80	4

Note: Special sizes can be customized.

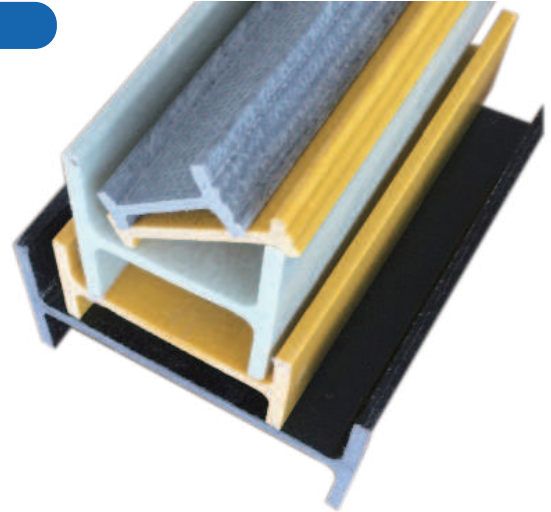
03. FRP Beam

Excellent Bearing Structures and Supporting Parts

FRP beams are good materials with high strength support structure.

It is suitable for crowds of long-span and high-strength structures.

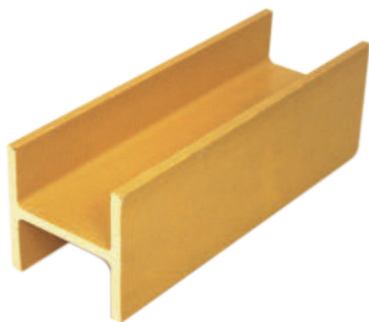
FRP beams have excellent bearing capacity and they are widely used in bridges, roof bracing structures and industrial platforms.



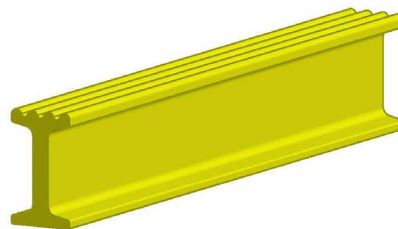
Available Surfaces



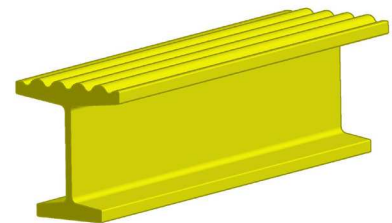
Available Types



FRP Wide Flange Beam



FRP I Beam



FRP Unequal Flange I Beam

Features

- *Good bearing capacity.*
- *Superior shear and bending capacity.*
- *Easy fabrication.*
- *Corrosion resistance.*
- *Anti-slipping performance.*
- *Lightweight.*
- *Wide range of applications.*
- *Good looking, corrosion-resistant.*
- *Free maintenance, fire retardant, anti-UV.*
- *Excellent insulation, magnetic permeability.*
- *Any color, length, and specification.*

Classical applications

- Beam structure of bridge.
- Roof support structure.
- Industrial platform.
- FRP beam support stair.
- FRP Fencing system.
- Cable management systems and support.
- Cooling tower structure.
- Grating structure component.
- Platforms and walkways where non electrical and thermal insulating properties are required.



Structure Support



Cable ladder



FRP Fencing

Common Specifications of FRP Wide Flange Beam

Item	A (mm)	B (mm)	T1 (mm)	T2 (mm)	Item	A (mm)	B (mm)	T1 (mm)	T2 (mm)
FRPWFB-01	6	6	4	6	FRPWFB-22	76	38	6.4	6.4
FRPWFB-02	8.5	8.5	6.5	13	FRPWFB-23	100	100	8	8
FRPWFB-03	12	12	6	19	FRPWFB-24	100	100	6.35	6.35
FRPWFB-04	15	25	4	50.8	FRPWFB-25	100	80	8	8
FRPWFB-05	15	15	4	38	FRPWFB-26	100	80	5.5	5.5
FRPWFB-06	15	15	4	25.4	FRPWFB-27	102	102	8	8
FRPWFB-07	19	19	4	4	FRPWFB-28	102	102	6.4	6.4
FRPWFB-08	25	30	3.6	2.6	FRPWFB-29	120	100	8	8
FRPWFB-09	25	25	4	4	FRPWFB-30	140	140	10	10
FRPWFB-10	30	25	3.6	3.6	FRPWFB-31	148	148	18	18
FRPWFB-11	38	38	4	4	FRPWFB-32	152	152	9.5	9.5
FRPWFB-12	38	30	3	3	FRPWFB-33	152	152	6.4	6.4
FRPWFB-13	38	30	2.5	2.8	FRPWFB-34	152	152	6.35	6.35
FRPWFB-14	40	40	5	5	FRPWFB-35	152	127	12.7	12.7
FRPWFB-15	40	30	3.6	3.6	FRPWFB-36	152	127	9.5	9.5
FRPWFB-16	40	30	3.6	2.6	FRPWFB-37	203	203	12.7	12.7
FRPWFB-17	50	50	8	8	FRPWFB-38	203	203	9.5	9.5
FRPWFB-18	58	58	5	5	FRPWFB-39	203	203	6.4	6.4
FRPWFB-19	58	58	4	4	FRPWFB-40	254	254	12.7	12.7
FRPWFB-20	76	76	6.4	6.4	FRPWFB-41	254	254	9.5	9.5
FRPWFB-21	76	76	6.35	6.35	FRPWFB-42	305	305	12.7	12.7

Common Specifications of FRP I-Beam

Item	A (mm)	B (mm)	C (mm)	Item	A (mm)	B (mm)	C (mm)
FRPIB-01	13	8.5	6.5	FRPIB-30	100	50	8
FRPIB-02	15	12	6	FRPIB-31	100	50	6.4
FRPIB-03	15	11	8	FRPIB-32	100	50	4
FRPIB-04	19	12	6	FRPIB-33	102	51	6.4
FRPIB-05	25	15	6.4	FRPIB-34	102	50	8
FRPIB-06	25	15	5	FRPIB-35	102	50	6.4
FRPIB-07	25	15	4.2	FRPIB-36	108	80	50
FRPIB-08	25	15	4	FRPIB-37	110	50	5
FRPIB-09	25	15	3.8	FRPIB-38	120	60	6
FRPIB-10	25	15	3.5	FRPIB-39	140	80	10
FRPIB-11	25.4	15	4	FRPIB-40	150	100	12
FRPIB-12	32	15	4	FRPIB-41	150	100	8
FRPIB-13	38	15	6.4	FRPIB-42	150	100	7
FRPIB-14	38	15	5.5	FRPIB-43	150	75	8
FRPIB-15	38	15	5	FRPIB-44	152	76	9.5
FRPIB-16	38	15	4.2	FRPIB-45	152	76	6.4
FRPIB-17	38	15	4	FRPIB-46	160	80	8
FRPIB-18	38	15	4	FRPIB-47	180	60	6.4
FRPIB-19	38	15	3.8	FRPIB-48	180	45	12.7
FRPIB-20	50	18	4.5	FRPIB-49	180	45	12.7
FRPIB-21	50	15	4	FRPIB-50	180	45	9
FRPIB-22	50.8	15	4	FRPIB-51	200	100	10
FRPIB-23	57	15	5	FRPIB-52	203	102	12.7
FRPIB-24	58	15	6	FRPIB-53	203	102	9.5
FRPIB-25	58	15	5	FRPIB-54	240	120	12
FRPIB-26	58	15	3.8	FRPIB-55	254	127	12.7
FRPIB-27	65	30	3.6	FRPIB-56	254	127	9.5
FRPIB-28	70	15	6	FRPIB-57	305	152	12.7
FRPIB-29	80	15	5	FRPIB-58	305	152	9.5

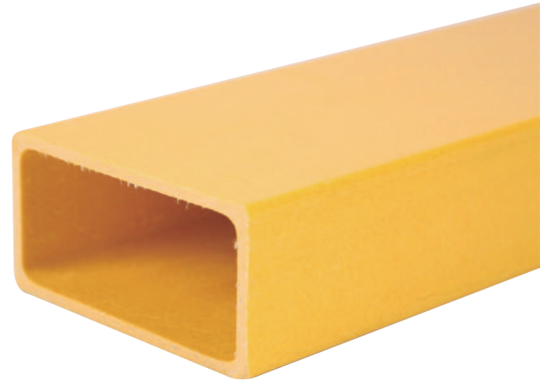
Common Specifications of FRP Unequal Flange I-Beam

Item	h (mm)	W1 (mm)	W2 (mm)	W (mm)
FRPUFIB-02	35	40	25	2

04. Rectangular Tubes

Anti-Corrosion & Anti-Aging FRP Structural Profile

Rectangular tubes are a kind of glass fiber reinforced plastic composite materials, which uses high strength fiberglass roving as reinforcing material, thermosetting resin as base. They have many features, such as high strength, light weight, corrosion resistant. And they are widely used in structural supports and ladders.



We can supply you all kinds of standard rectangular tubes, detailed data refers to the following chart. And special specifications can be customized according to your requirements.

Features

- **Light weight.**
- **Corrosion resistant. No rust, resistance to acid, alkali, organic solvent, salt and other gas and liquid mixture. It has predominant advantages in corrosion resistant field.**
- **High strength.**
- **Anti-aging. Have more than 20 years effective service life under normal outdoor working condition.**
- **Easy maintenance.**
- **Dimensional stability.**
- **Excellent electromagnetism property.**
- **Non-conductive.**

Classical applications



Insulation Ladder



FRP Handrails



FRP Fence

Common Specifications

Common Specification of FRP Rectangular Tube

Item	Width (mm)	Height (mm)	Thickness (mm)	Item	Width (mm)	Height (mm)	Thickness (mm)
FRPRT-01	15	15	2.4	FRPRT-34	64	27	2
FRPRT-02	20	20	4	FRPRT-35	70	26	3
FRPRT-03	25	25	2.5	FRPRT-36	73	25	3
FRPRT-04	25.5	25.5	3	FRPRT-37	73	25	3
FRPRT-05	30	10	2.5	FRPRT-38	75	40	3
FRPRT-06	30	15	2.5	FRPRT-39	75	75	6
FRPRT-07	30	30	2.5	FRPRT-40	75	75	9
FRPRT-08	30	30	5	FRPRT-41	80	33	3
FRPRT-09	35.5	35.5	5	FRPRT-42	80	40	3
FRPRT-10	36.5	27	3	FRPRT-43	83	28	3
FRPRT-11	38	24	2.5	FRPRT-44	98	25	3
FRPRT-12	38	38	3	FRPRT-45	98	25	3
FRPRT-13	38	38	4	FRPRT-46	100	40	3
FRPRT-14	40	32	3	FRPRT-47	100	100	3.32
FRPRT-15	40	36.5	3	FRPRT-48	100	100	5
FRPRT-16	40	40	5	FRPRT-49	100	100	6
FRPRT-17	42	40	3	FRPRT-50	100	100	8
FRPRT-18	44	44	6	FRPRT-51	100	110	4
FRPRT-19	50	29	2.1	FRPRT-52	101	50	3.87
FRPRT-20	50	30	3	FRPRT-53	107	18	9
FRPRT-21	50	50	3	FRPRT-54	114	114	6
FRPRT-22	50	50	4	FRPRT-55	114	114	8
FRPRT-23	50	50	5	FRPRT-56	120	60	3
FRPRT-24	50	50	6	FRPRT-57	120	60	5
FRPRT-25	51	32	4	FRPRT-58	125	125	6
FRPRT-26	58	25	3	FRPRT-59	130	130	6
FRPRT-27	60	20	3	FRPRT-60	130	130	7
FRPRT-28	60	22	3.5	FRPRT-61	130	130	9
FRPRT-29	60	25	3	FRPRT-62	160	70	3.5
FRPRT-30	60	30	2.5	FRPRT-63	160	70	5
FRPRT-31	60	60	4	FRPRT-64	200	100	8
FRPRT-32	60	60	5	FRPRT-65	500	200	10
FRPRT-33	60	60	9				

05. Square Tube

Pultruded tube with Corrosion and Impact Resistance

FRP square tubes are composed of unsaturated polyester resin, continuous glass fiber yarn and mat through pultrusion process. The process is irreversible. It can not melt or form again and has high strength, light weight, anti-corrosion and other features. And FRP square tubes are widely used in chemical industries, operating platforms and electrical appliance industry.

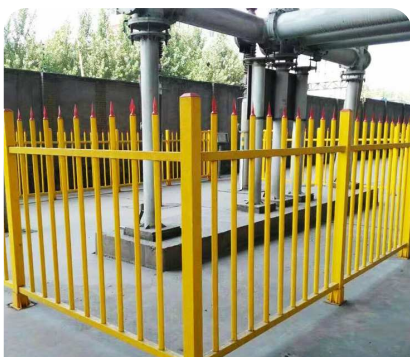


Features

- *Light weight and high strength.*
- *Anti-corrosion.*
- *Chemical resistant.*
- *Safety.*
- *Impact resistant.*
- *Anti-ageing.*
- *Rich colors. A variety of colors can be selected.*
- *Maintenance convenient.*
- *Low thermal conductivity.*

Classical applications

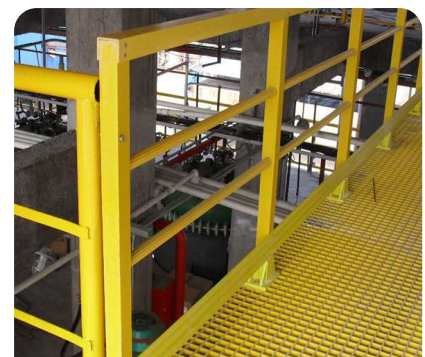
- Insulation ladders.
- Handrails.
- Fences.



FRP Fence



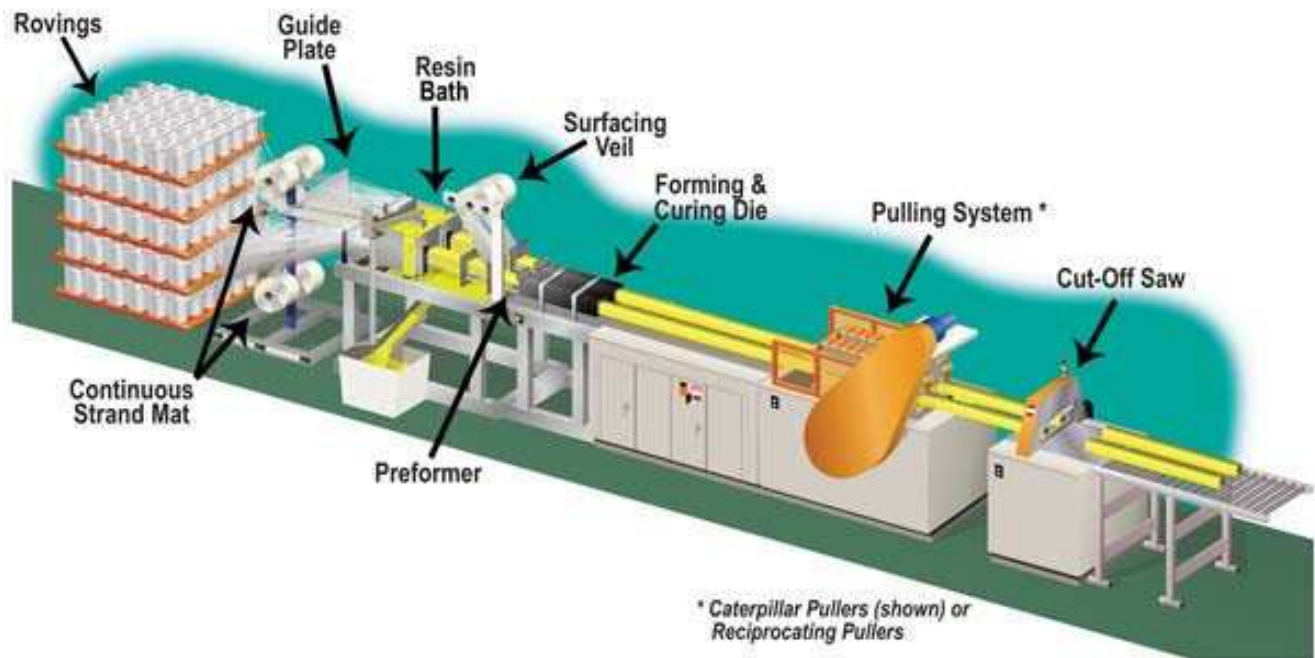
FRP Insulation Ladder



FRP Handrails

Production process

FRP square tube production process is a continuous production process to produce fiber-reinforced polymer profiles of any length and constant section. Reinforcement fibers may be roving, continuous mat, woven roving, carbon or others. The fibers are impregnated with polymer matrix (resin, minerals, pigments, additives) and passed through a preforming station that produces the stratification necessary to give the profile the desired properties. After the preforming step, the resin-impregnated fibers are pulled through a heated die to polymerize the resin.



Common Specifications

Common Specification of FRP Square Tube

Item	Specification (mm)
FRPST-01	38 × 38 × 4
FRPST-02	50 × 50 × 4
FRPST-03	60 × 60 × 5
FRPST-04	75 × 75 × 6
FRPST-05	80 × 80 × 5
FRPST-06	100 × 100 × 5
FRPST-07	120 × 120 × 5

Note: Special sizes can be customized.

06. FRP Round Tube

Good Insulation and Protection Material

FRP round tube has good insulation and it is an ideal material for safety protection.

Its high tensile strength and corrosion resistance make it an ideal choice for corrosion prevention tools and reinforcement tools.

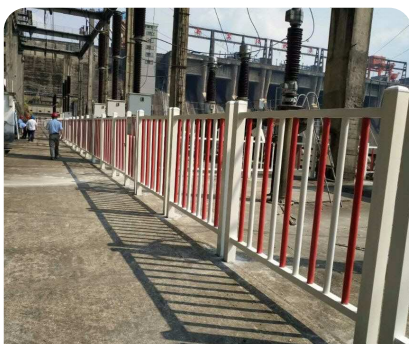


Features

- *Good insulation performance.*
- *Smooth surface.*
- *High tensile strength.*
- *Multiple colors.*
- *Good hardness.*
- *Easy fabrication.*
- *Corrosion resistance.*
- *Lightweight.*
- *Wide range of applications.*
- *Adapt to the environmental requirements.*
- *Low density: 67% - 74% of aluminum.*

Classical applications

- Guardrail.
- Water treatment system.
- Tool handle.
- Freeway anti-glare shield and its handrail.
- Railing system.
- Huge industry cooling tower structure.
- Working platform.
- Safety fencing.
- Residential structure.
- Insulator rod for polymer insulators.
- Golf flag poles and soccer poles.
- Telescoping Tools.
- Tent poles and umbrella ribs.



FRP Round Tube Fencing



FRP Round Tube Tool Handles



FRP Round Tube Handrail

Common Specifications

Common Specifications of FRP Round Tube

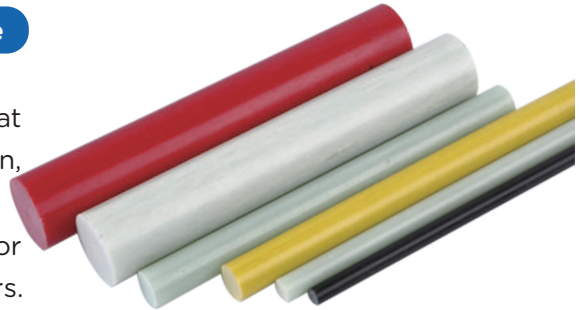
Item	OD (mm)	ID (mm)	Thickness (mm)	Item	OD (mm)	ID (mm)	Thickness (mm)
FRPRT-01	8	3.6	2.2	FRPRT-40	40	32	4
FRPRT-02	12	6	3	FRPRT-41	40	34	3
FRPRT-03	12.5	6.5	3	FRPRT-42	42	30	6
FRPRT-04	12.7	6.7	3	FRPRT-43	42	32	5
FRPRT-05	14	5	4.5	FRPRT-44	44	36	4
FRPRT-06	14	10	2	FRPRT-45	46	42	2
FRPRT-07	19	13	3	FRPRT-46	48	38	5
FRPRT-08	19	14	2.5	FRPRT-47	50	37.2	6.4
FRPRT-09	19	12.5	3.25	FRPRT-48	50	37.3	6.35
FRPRT-10	20	15	2.5	FRPRT-49	50	40	5
FRPRT-11	20	17	1.5	FRPRT-50	50	42	4
FRPRT-12	22.4	17.4	2.5	FRPRT-51	50	43	3.5
FRPRT-13	24	19	2.5	FRPRT-52	50	44	3
FRPRT-14	24	20	2	FRPRT-53	50.8	38	6.4
FRPRT-15	25	18.6	3.2	FRPRT-54	50.8	42.8	4
FRPRT-17	25	21	2	FRPRT-55	59	51	4
FRPRT-18	25.4	20.4	2.5	FRPRT-56	62	54.2	3.9
FRPRT-19	25.4	19.4	3	FRPRT-57	65	57	4
FRPRT-20	25.4	19.05	3.175	FRPRT-58	70	61	4.5
FRPRT-21	30	24	3	FRPRT-59	76	63.2	6.4
FRPRT-22	30	26	2	FRPRT-60	76	66	5
FRPRT-23	31	25	3	FRPRT-61	76	70	3
FRPRT-24	32	19.2	6.4	FRPRT-62	80	68	6
FRPRT-25	32	25.6	3.2	FRPRT-63	80	70	5
FRPRT-26	32	26	3	FRPRT-64	80	74	3
FRPRT-27	32	26.5	2.75	FRPRT-65	89	76.2	6.4
FRPRT-28	32	27	2.5	FRPRT-66	89	79	5
FRPRT-29	32	28	2	FRPRT-67	89	80	4.5
FRPRT-30	35	22.2	6.4	FRPRT-68	89	82.6	3.2
FRPRT-31	35	26	4.5	FRPRT-69	99	86.2	6.4
FRPRT-32	36	27	4.5	FRPRT-70	99	89	5
FRPRT-33	36	28	4	FRPRT-71	100	90	5
FRPRT-34	36	30	3	FRPRT-72	100	94	3
FRPRT-35	38	25.2	6.4	FRPRT-73	110	103.6	3.2
FRPRT-36	38	30	4	FRPRT-74	110	104	3
FRPRT-37	38	31.6	3.2	FRPRT-75	114	104	5
FRPRT-38	38	32	3	FRPRT-76	114	107.6	3.2
FRPRT-39	38	33	2.5	FRPRT-77	142	132	5

07. FRP Round Rod

Good Selection of Insulating & High-Strength Structure

FRP round rod has extremely high strength and great insulating property to be used in electrical protection, chemical industry and agricultural support equipment.

It is light in weight and stable in size. It is a good choice for various structural parts such as grilles and cooling towers.

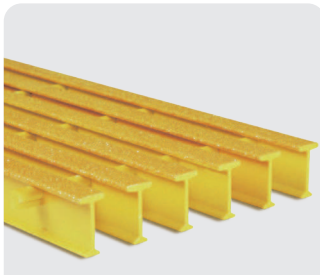


Features

- *Good insulation.*
- *Corrosion resistant.*
- *Extremely strong and durable.*
- *Dimensional stable and seamless, sound proof.*
- *No flaw, crack in the surface and interior.*
- *UV resistant.*
- *Lightweight.*
- *Excellent slipping resistance performance.*
- *Easy to install and available in any size.*
- *Convenient maintenance.*
- *Nontoxic and harmless.*
- *Many colors for choose.*

Classical applications

- Grating and cooling tower element composition.
- Railway overhead contact line.
- Cooling tower component.
- Green house frame.
- Insulator.
- Chemical industry platform.
- Water management system.
- Outer space and terrestrial antennae supports.
- Tent Poles, marker flag poles and flagpoles.
- Umbrella rods.
- Sporting goods.
- Tent support.



FRP round rod grating



FRP round rod railway overhead contact line



FRP round rod tent support



FRP round rod green house frame

Common Specifications

Common specifications of FRP Round Rod

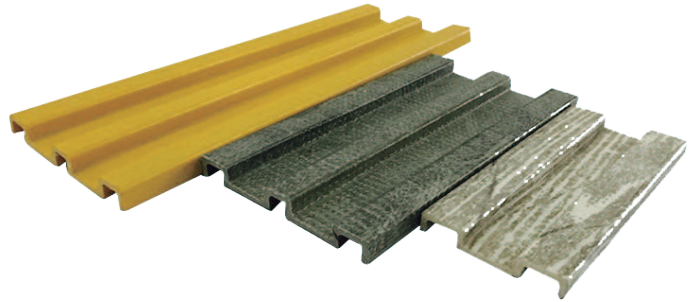
Item	Diameter (mm)	Item	Diameter (mm)	Item	Diameter (mm)
FRPRR-01	1	FRPRR-35	12.05	FRPRR-69	38
FRPRR-02	1.5	FRPRR-36	12.5	FRPRR-70	40
FRPRR-03	1.8	FRPRR-37	12.7	FRPRR-71	42
FRPRR-04	2	FRPRR-38	13	FRPRR-72	44
FRPRR-05	2.5	FRPRR-39	14	FRPRR-73	44.5
FRPRR-06	2.8	FRPRR-40	15	FRPRR-74	45
FRPRR-07	3	FRPRR-41	16	FRPRR-75	46
FRPRR-08	3.5	FRPRR-42	17	FRPRR-76	47
FRPRR-09	4	FRPRR-43	17.48	FRPRR-77	48
FRPRR-10	4.2	FRPRR-44	17.5	FRPRR-78	48.6
FRPRR-11	4.5	FRPRR-45	17.8	FRPRR-79	50
FRPRR-12	5	FRPRR-46	18	FRPRR-80	51
FRPRR-13	5.4	FRPRR-47	19	FRPRR-81	51.5
FRPRR-14	5.5	FRPRR-48	20	FRPRR-82	52
FRPRR-15	6	FRPRR-49	22	FRPRR-83	53
FRPRR-16	6.3	FRPRR-50	23	FRPRR-84	55
FRPRR-17	6.35	FRPRR-51	23.5	FRPRR-85	60
FRPRR-18	6.5	FRPRR-52	24	FRPRR-86	63
FRPRR-19	6.75	FRPRR-53	25	FRPRR-87	63.5
FRPRR-20	6.9	FRPRR-54	25.4	FRPRR-88	65
FRPRR-21	7	FRPRR-55	26	FRPRR-89	70
FRPRR-22	7.3	FRPRR-56	27	FRPRR-90	75
FRPRR-23	7.5	FRPRR-57	28	FRPRR-91	76
FRPRR-24	7.65	FRPRR-58	30	FRPRR-92	78
FRPRR-25	7.9	FRPRR-59	31	FRPRR-93	80
FRPRR-26	8	FRPRR-60	31.8	FRPRR-94	90
FRPRR-27	8.5	FRPRR-61	32	FRPRR-95	100
FRPRR-28	9	FRPRR-62	32.5	FRPRR-96	110
FRPRR-29	9.5	FRPRR-63	33	FRPRR-97	120
FRPRR-30	10	FRPRR-64	34	FRPRR-98	130
FRPRR-31	10.1	FRPRR-65	35	FRPRR-99	140
FRPRR-32	11	FRPRR-66	36	FRPRR-100	150
FRPRR-33	11.2	FRPRR-67	36.5	FRPRR-101	160

08. FRP Kick Plates

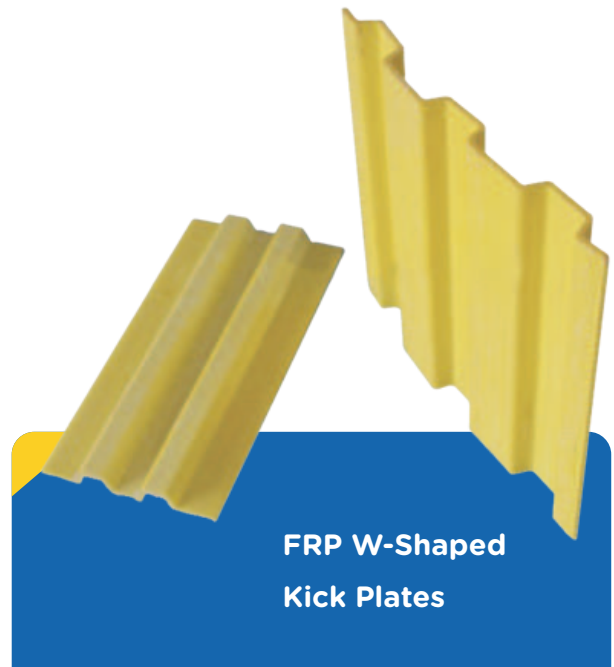
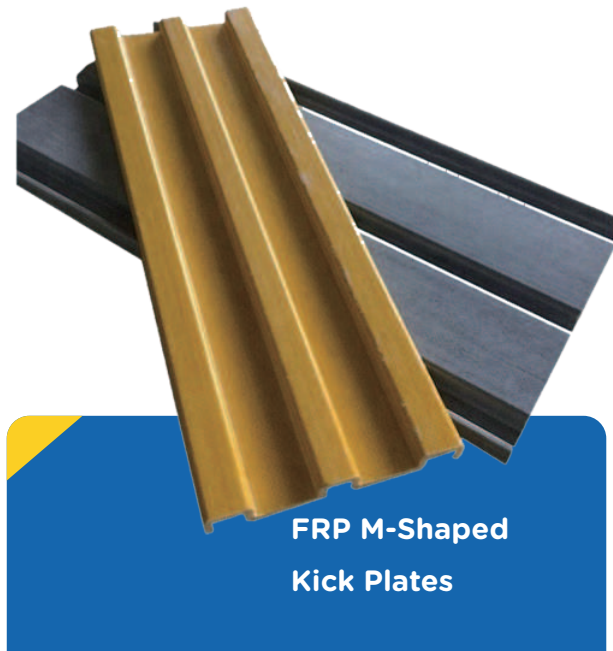
Ideal for Handrails and Guardrails, Especially Those at Risk

FRP kick plates, also called FRP toe plate, are manufactured through a pultrusion process and have the characteristics of safety and corrosion resistance. FRP kick plates should be added on protective railings on working platforms or channels which may use tools and equipment items or may have dangerous devices such as pickling, plating or degreasing.

We have various colors and sizes FRP kick plates. You can tell us what do you like and we provide services to you, and special sizes can be customized.



Available shape

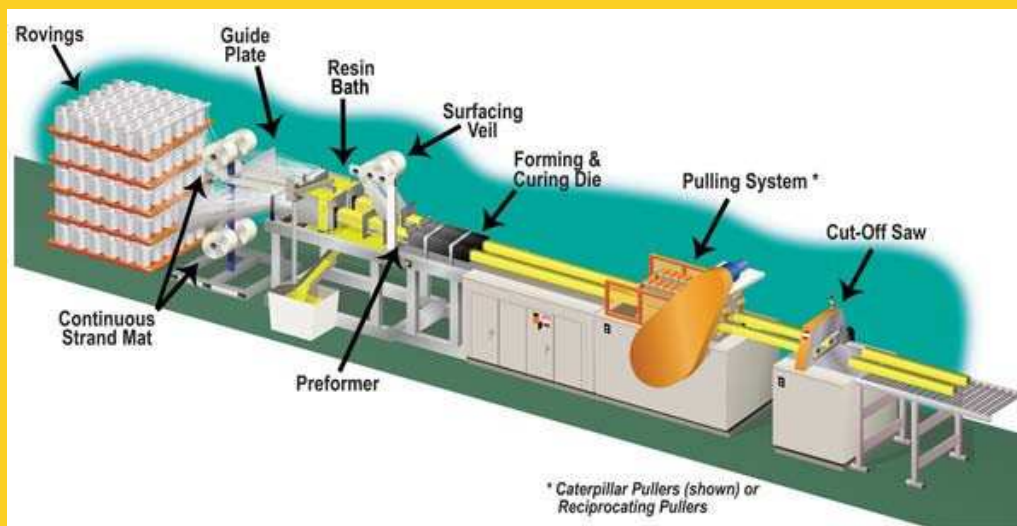


Features

- *Light weight and high strength.*
- *Anti-corrosion. No rust, resistance to acid, alkali, organic dissolvent, salt and other gas or liquid mixture.*
- *Safety.*
- *Anti-aging.*
- *Easy-maintenance.*
- *Anti-fire.*
- *Any color, length and specification.*
- *Anti-UV.*
- *Anti-slippery.*

Production process

FRP Pultrusion production is a continuous production process to produce fiberglass reinforced polymer profiles of any length and constant section. And a continuous reinforcing fibre is an important part of the process and the finished product. Reinforcing fibers may be roving, continuous mat, woven roving, carbon or others. The basic operation consists of pulling a reinforcement through a resin impregnation bath or other facility, and then through a die to produce the finished profiles.



FRP kick plates production process

Applications

- Handrails.
- Guardrails.



FRP Kick Plates Guardrail



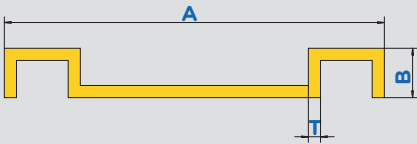
FRP Kick Plates Handrail



FRP Kick Plates Guardrail

Common Specifications

Common Specification of FRP C Channel

Section	Item	Width A(mm)	Height B(mm)	Thickness T(mm)
	M1-M-Shaped	100	13	3.2
	M2-M-Shaped	100	14	3
	M3-M-Shaped	148	12	3

Note: Special sizes can be customized.

Common Specification of FRP Kick Plates

Section	Item	Width A(mm)	Height B(mm)	Thickness T(mm)
	W1-W-Shape	100	14	3
	W2-W-Shaped	100	15	3.2
	W3-W-Shaped	100	19	5

Note: Special sizes can be customized.

Products-FRP Profiles

Professional Composite Manufacturer & Solution Designer



09. FRP Ladder Rung

Ideal Selection of Large Anti-skid Material

FRP Ladder Rung is an ideal material for anti-slip tools. The rough surface structure increases the friction coefficient. It has high strength performance. It is an ideal choice for making safety tools such as ladders and handrails.



Features

- **High-strength.** Higher strength than structure steel on a weight to weight ratio.
- **Anti-corrosion.** FRP products are not susceptible to rusting, peeling nor flaking and are impervious to a broad range of corrosive elements.
- **Electromagnetic transparency.** FRP products are transparent to radio waves, microwaves and other electromagnetic frequencies.
- **Lightweight.** Easier to transport and install with standard tools.
- **Non-conductive.** FRP material has low thermal conductivity and are non-conductive.
- **Dimensional stability.** The coefficient of thermal expansion of FRP products are marginally less than steel and aluminum.
- **Good anti-skid performance.**
- **Long service life, no maintenance and UV resistant.**
- **Easy to cut and install.**
- **Various colors and sizes.**
- **Fire Retardant.**

Application

- FRP ladder rung
- Handrails



Products-FRP Profiles

Professional Composite Manufacturer & Solution Designer



FRP Insulation Ladders



FRP Caged Ladders



FRP Handrails

Common Specifications

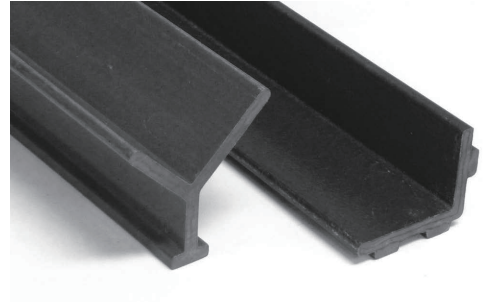
Common Specifications of FRP Ladder Rung

Item	OD (mm)	ID (mm)	Item	OD (mm)	ID (mm)
FRPRT-01	28	21.3	FRPLR-12	36	25
FRPRT-02	31.7	19	FRPLR-13	36	6.4
FRPRT-03	31.7	3.2	FRPLR-14	36	5
FRPRT-04	32	25	FRPLR-15	45	32
FRPRT-05	32	19	FRPLR-16	45	28
FRPRT-06	34	25.4	FRPLR-17	51	45
FRPRT-07	34	25	FRPLR-18	75	63
FRPRT-08	34.5	25	FRPLR-19	76	63
FRPRT-09	36	28	FRPLR-20	90	78
FRPRT-10	36	27	FRPLR-21	90	71
FRPRT-11	36	26			

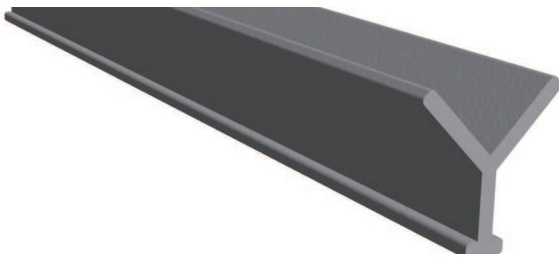
10. FRP Embedment Angle

Perfect Material for Reinforcement Application

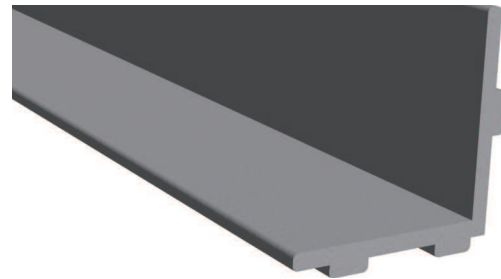
FRP embedment angle is perfect material for reinforcement application. FRP embedment angle, available for Y and EZ angles, can be embedded into concrete for stable installation of FRP gratings to prevent the rocking and creak. It offers a steady and durable seat for grating, concrete trenches and pits. FRP embedment angle also saves replacement cost of steel frames in corrosive environment.



Available type



Y Angle



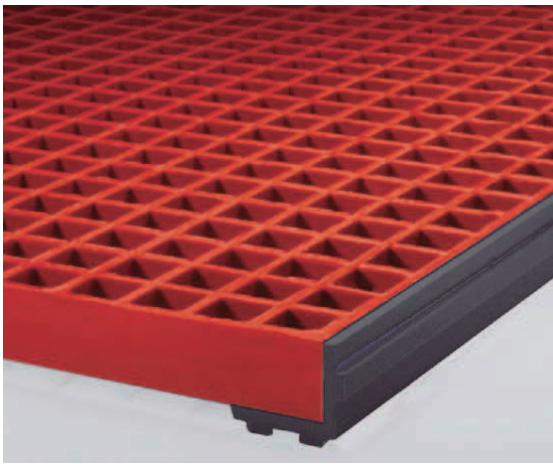
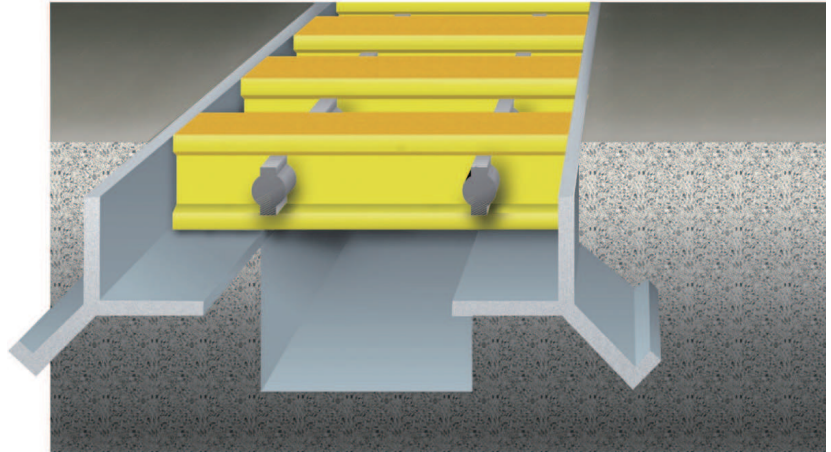
EZ Angle

Features

- Inclusive compatibility with all standard depth grating systems.
- Impact resistant.
- Fire retardant.
- High strength.
- Lightweight.
- Long span ability.
- Easy to cut / install.
- Superior corrosion resistance.
- Excellent water sealing property.
- Prevent rocking.
- Lessen creak.
- Various colors and sizes.
- Convenient transportation.

Applications

- Walkway.
- Trench cover.
- Platform.
- Ladder.



Packing

- Pallet.
- Plastic bag.
- Carton.
- Wood box.



Pallet



Plastic bag

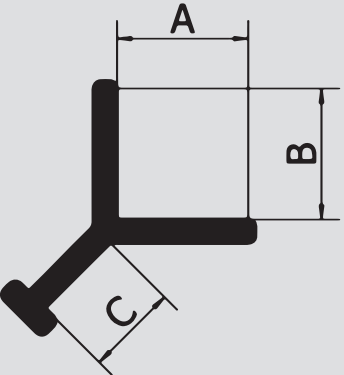


Carton

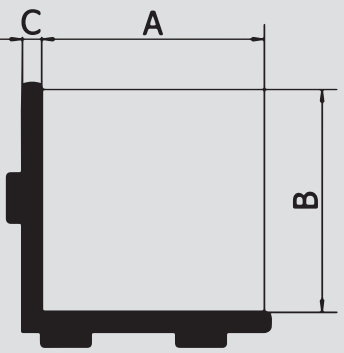


Wood box

Common Specifications

Section	Item	Size (A × B × C)	Length	Color
	YEA-01	1.5" × 1.5" × 1.5"	240"	Red
	YEA-02	1.5" × 1.5" × 1.5"	250"	Dark Gray
	YEA-03	2.0" × 1.5" × 1.5"	240"	Dark Gray
	YEA-04	2.0" × 1.5" × 1.5"	250"	Green
	YEA-05	2.0" × 1.5" × 2.0"	250"	Dark Gray
	YEA-06	2.0" × 1.5" × 2.0"	230"	Yellow
	YEA-07	2.0" × 1.5" × 2.0"	250"	Red
	YEA-08	2.0" × 2.0" × 2.0"	230"	Yellow
	YEA-09	2.0" × 2.0" × 2.0"	240"	Dark Gray
	YEA-10	3.0" × 2.0" × 2.0"	250"	Black

Note: Special sizes can be customized.

Section	Item	Size (A × B × C)	Length	Color
	EZEA-01	1.5" × 1.5" × 1.5"	240"	Red
	EZEA-02	1.5" × 1.5" × 1.5"	250"	Dark Gray
	EZEA-03	2.0" × 1.5" × 1.5"	240"	Dark Gray
	EZEA-04	2.0" × 1.5" × 1.5"	250"	Green
	EZEA-05	2.0" × 1.5" × 2.0"	250"	Dark Gray
	EZEA-06	2.0" × 1.5" × 2.0"	230"	Yellow
	EZEA-07	2.0" × 1.5" × 2.0"	250"	Red
	EZEA-08	2.0" × 2.0" × 2.0"	230"	Yellow
	EZEA-09	2.0" × 2.0" × 2.0"	240"	Dark Gray
	EZEA-10	3.0" × 2.0" × 2.0"	250"	Black

Note: Special sizes can be customized.

Products-FRP Profiles

Professional Composite Manufacturer & Solution Designer



11. FRP Handrail Fittings

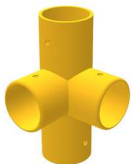
Connecting and Securing Handrail Systems

FRP handrail fittings also named FRP handrail connectors. FRP handrail fittings are the ideal choice to connect and secure bridge railings and stair guardrail on account of their different angles and types. FRP handrail fittings have unique properties for anti-aging, light weight and high strength. It maximally ensures the handrail strength. Common FRP handrail fittings types are round base flange, adjustable fitting, square base and other types. Special shapes can be customized.



Round FRP Handrail Fittings

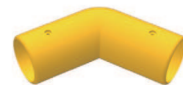
Round FRP handrail fittings have various angles and types. Below are some common round FRP handrail fittings.



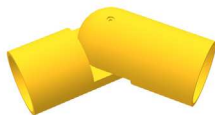
4-Way Corner Fitting



90 Degree Fitting



120 Degree Fitting



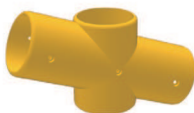
Adjustable Fitting



3-Way 90 Degree Fitting



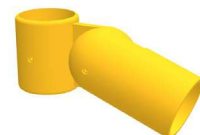
3-Way 60 Degree Fitting



4-Way 60 Degree Fitting



3-Way Corner Fitting



3-Way Adjustable Fitting



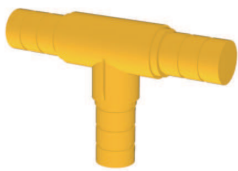
3 Bolt Triangular Fitting



Side Mount Fitting



Round Tube Fitting



3-Way Tee Fitting



4-Way Tee Fitting



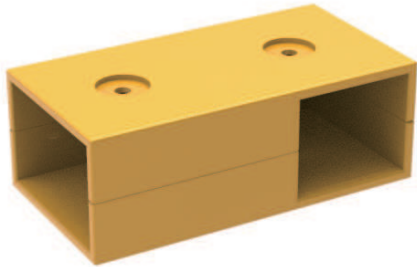
Base Flange

Common Specifications

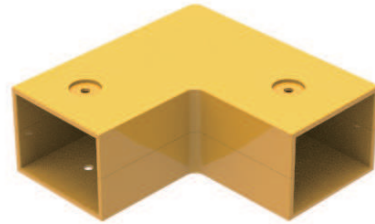
Type	Diameter (mm)	Degree (°)
Round Elbow	30, 36, 50, 76	90, 120
Adjustable	50	random
3-way elbow	50	60, 90
4-way 60 degree	50	60
3-way corner	50	90
4-way corner	50	90
Base Flange	36, 50, 76	—

Square FRP Handrail Fittings

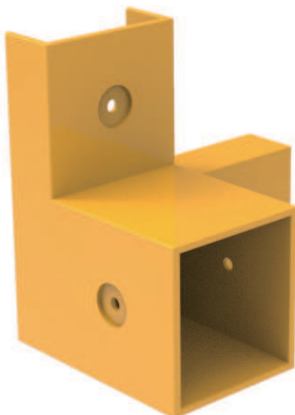
Square FRP handrail fittings have various angles and types. Below are some common square FRP handrail fittings.



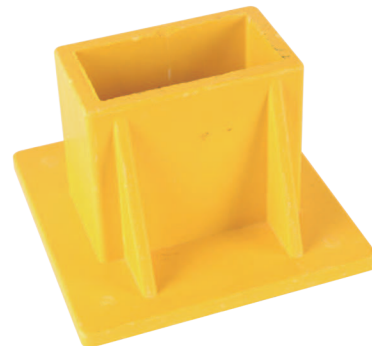
2-Way 90 Degree Fitting



90 Degree Fitting



3-Way 90 Degree Fitting



Square Base

Common Specifications

Type	Specification (mm)
2 way 90 degree	50 × 50
3 way 90 degree	50 × 50
Square Base	75 × 75
	76 × 76
	80 × 80
	100 × 100

Features

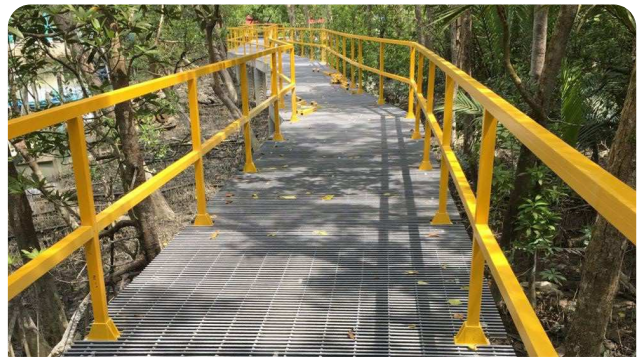
- *Light but high loaded strength. Specific strength is superior to ordinary carbon steel.*
- *Excellent anti-corrosion performance.*
- *Anti-aging and excellent ruggedness.*
- *Easy installation.*
- *Easily for clean.*
- *Excellent comprehensive economic benefits.*
- *Various sizes and colors available.*

Classical Applications

- Stair guardrail.
- Pool guardrail.
- Walkway guardrail.
- FRP fencing.



Pool Guardrail



Walkway Guardrails



Roof walkway Guardrail



Pasture Walkway Guardrail

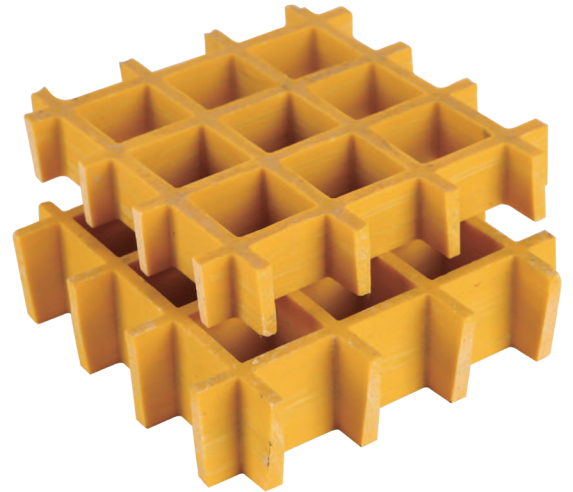
01. Molded FRP Grating

Strong but Lightweight

Molded FRP grating is a new type composite material, which is produced from glass fiber as framework and reinforced resins, including unsaturated polyester, epoxy resin and phenolic resin.

Nowadays, the FRP grating gradually replace the steel gratings in commercial and industrial plants as its own advantages.

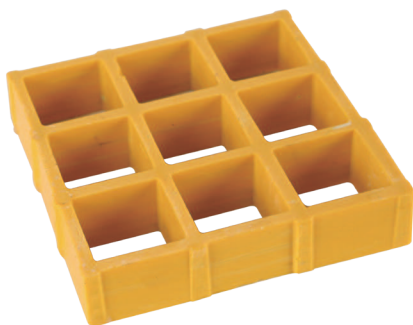
Strong, lightweight, extremely excellent corrosion and rust resistance are best representative of FRP grating.



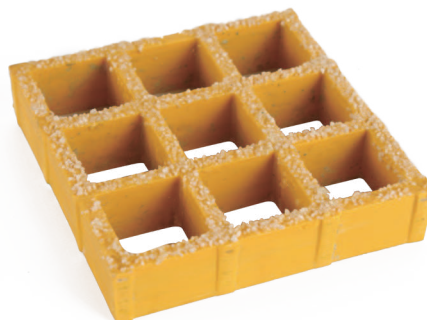
Available Resin Type

- **FR.** Isophehalic polyester resin system supplies the most economical and widely used type.
- **VFR.** Vinyl ester resin system provides high hardness, highest corrosion resistance.
- **EP.** Epoxy resin supplies best insulating property for electric power plant.

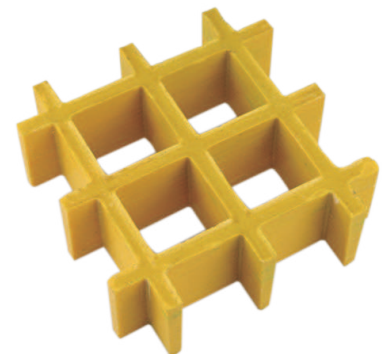
Available Resin Type



Smooth Surface

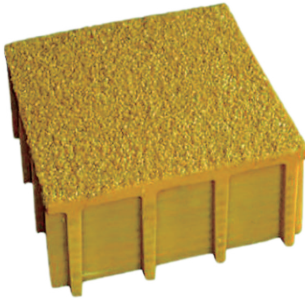


Gritted Surface

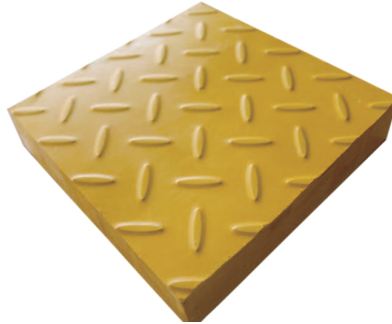


Meniscus Surface

Available Resin Type



Gritted Top Cover

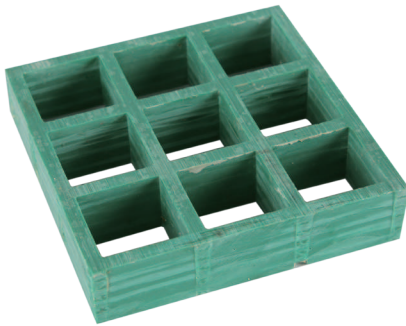


Checker Plate Top Cover



Polished Top Cover

Available Mesh Type



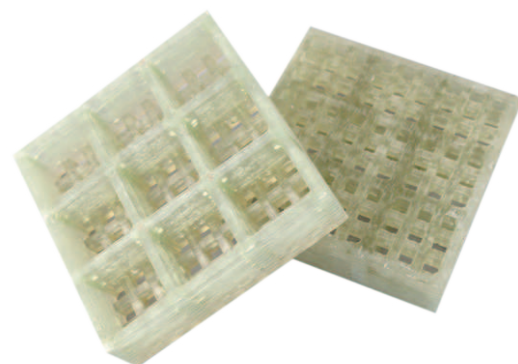
Square Meshes



Rectangular Meshes



Mini Meshes



Micro Meshes

Features

- Strong and durable structure.
- Slip resistance.
- Lightweight.
- Low maintenance.
- Corrosion resistance
- Excellent insulating property.
- Fire retardant.

Applications

- Platform & Walkways.
- Ceiling.
- Catwalks.
- Stair system.
- Flooring
- Car washing.
- Fencing System.
- Trench covers.
- Tree guard.



Working Platform



Catwalk



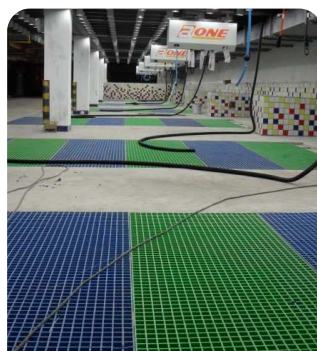
Walkway



Ceiling



Stair Treads



Car Washing Grating



Tree Guard



Trench Cover

Common Specifications

Type	Grid Type	Grid Dimension	Grating Dimension
MGS-01	Square grid	1" × 3/4" × 3/4"	4' × 12'
MGS-02	Square grid	1-1/2" × 3/4" × 3/4"	4' × 12'
MGS-03	Square grid	1" × 1-1/2" × 1-1/2"	3' × 10'
MGS-04	Square grid	1" × 1-1/2" × 1-1/2"	4' × 8'
MGS-05	Square grid	1" × 1-1/2" × 1-1/2"	4' × 12'
MGS-06	Square grid	1-1/2" × 1-1/2" × 1-1/2"	3' × 10'
MGS-07	Square grid	1-1/2" × 1-1/2" × 1-1/2"	3' × 12'
MGS-08	Square grid	1-1/2" × 1-1/2" × 1-1/2"	4' × 8'
MGS-09	Square grid	1-1/2" × 1-1/2" × 1-1/2"	4' × 10'
MGS-10	Square grid	1-1/2" × 1-1/2" × 1-1/2"	4' × 12'
MGS-11	Square grid	1-1/2" × 1-1/2" × 1-1/2"	5' × 10'
MGS-12	Square grid	2" × 2" × 2"	4' × 12'
MGS-13	Rectangular grid	1" × 1" × 4"	3' × 10'
MGS-14	Rectangular grid	1" × 1" × 4"	4' × 12'
MGS-15	Rectangular grid	1-1/2" × 1.5" × 6"	3' × 10'
MGS-16	Rectangular grid	1-1/2" × 1.5" × 6"	3' × 12'

Products-2.FRP Gratings

Professional Composite Manufacturer & Solution Designer

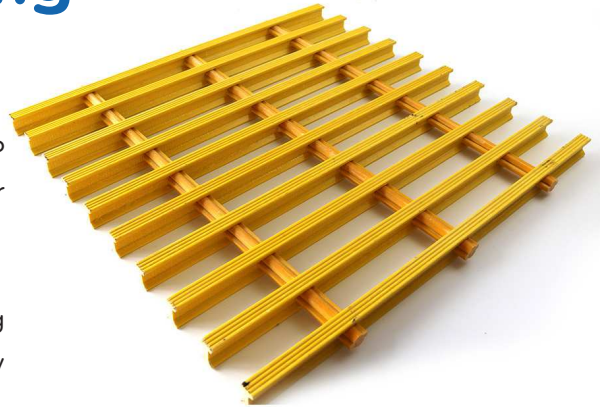


02. Pultruded FRP Grating

Heavier Loads & Longer Spans

Pultruded Fiberglass grating is constructed of FRP pultruded profiles. It can supply heavier loads and longer spans than comparably sized molded FRP Grating.

I bar, T bar or High-Load bars are supplied for demanding applications ranging from ADA-compliant walkways to heavy duty vehicle traffic decking.



Available bearing bars



I bars

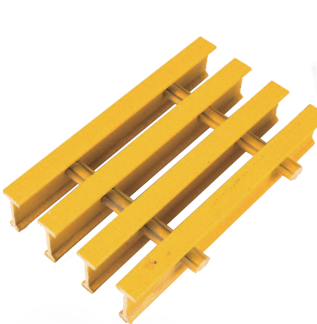


T bars



High-Load bars

Available Surface Type



Smooth surface



Gritted surface



Convex surface



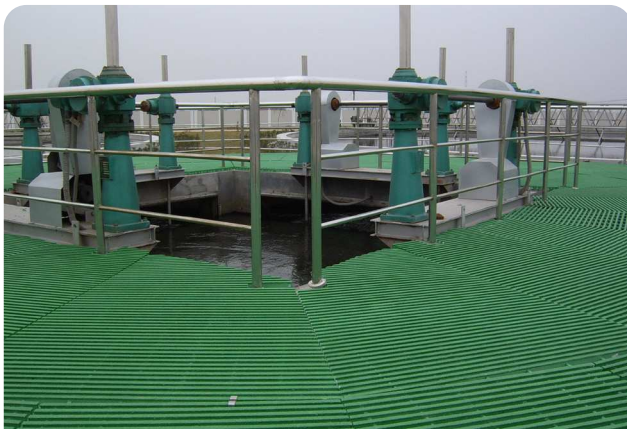
Corrugated Surface

Features

- Higher loads. *Higher loads and longer span than molded grating.*
- Lightweight. *1/3 lighter than steel grating.*
- Anti-slipping. *Gritted, corrugated or convex surface for safe access.*
- Flame retardant. *UV inhibitor for UV resistant and fire retardant.*
- Corrosion resistance. *Excellent chemical and harsh condition resistance.*
- Extended life. *The coated resin surface increases resistance to chemical corrosion and continuous UV exposure.*
- Easy fabrication. *Lightweight structure is easy to fabricate by simple hand tools.*
- Stability. *Higher loads and corrosion resistance for maximum stability.*

Classical Applications

- Platform.
- Walkway.
- Catwalk.
- Trench cover.
- Stair treads.
- Security fence.
- Boat deck.
- Transformer grating.



Working Platform



Catwalk

Products-2.FRP Gratings

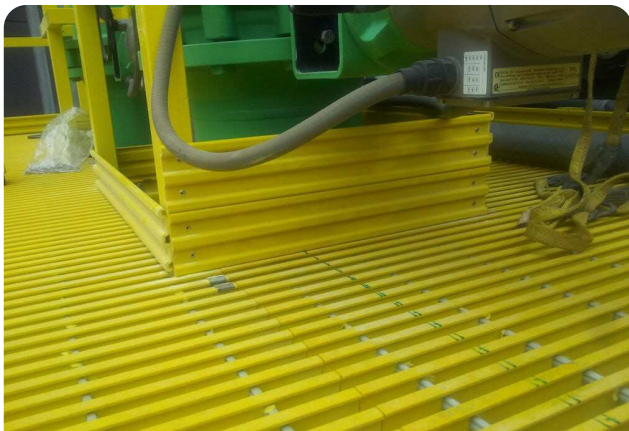
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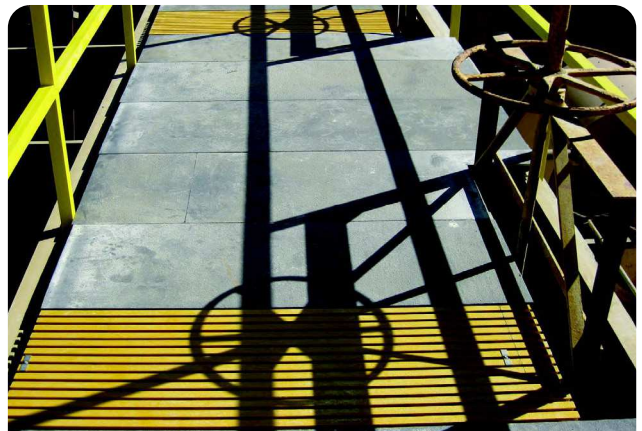
Walkway



Stair Treads



Transformer Grating



Drainage Cover



Boat Decking



Trench Cover



Products-2.FRP Gratings

Professional Composite Manufacturer & Solution Designer

Common Specifications

Type	Thickness (inch/mm)	Bearing Bars (Top/Bottom) (inch)	Weight (kg/m ²)	Open Area
I-4010	1"/25.4	1"/1"	18.6	40%
I-5010	1"/25.4	1"/1"	14.3	50%
I-6010	1.25"/31.75	1"/1"	12.8	60%
I-40125	1.25"/31.75	1"/1"	19.88	40%
I-50125	1.25"/31.75	1"/1"	17.4	50%
I-60125	1.25"/31.75	1"/1"	13.8	60%
I-4015	1.5"/38.1	1"/1"	23.6	40%
I-5015	1.5"/38.1	1"/1"	19.82	50%
I-6015	1.5"/38.1	1"/1"	17.80	60%
I-4020	2"/50.8	1"/1"	30.82	40%
I-5020	2"/50.8	1"/1"	26.62	50%
I-6020	2"/50.8	1"/1"	22.02	60%
T-1210	1"/25.4	1.5"/1"	17.54	12%
T-1810	1"/25.4	1.625"/0.6"	15.80	18%
T-2510	1"/25.4	1.5"/0.6"	12.50	25%
T-3310	1"/25.4	1.625"/0.6"	13.50	33%
T-3810	1"/25.4	1.5"/0.6"	10.50	38%
T-1215	1.5"/38.1	1.5"/0.6"	19.80	12%
T-2515	1.5"/38.1	1.5"/0.6"	16.70	25%
T-3815	1.5"/38.1	1.5"/0.6"	14.20	38%
T-5015	1.5"/38.1	1"/0.6"	10.50	50%
T-3320	2"/50.8	1"/0.6"	21.80	33%
T-5020	2"/50.8	1"/0.6"	17.30	50%
HL-4020	2"/50.8	0.6"/0.6"	70.10	40%
HL-5020	2"/50.8	0.6"/0.6"	52.01	50%
HL-6020	2"/50.8	0.6"/0.6"	44.00	60%
HL-6520	2"/50.8	0.6"/0.6"	33.50	65%
HL-5825	2.5"/63.5	0.625"/0.625"	48.00	58%

Applications

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1. FRP Handrail System

Widely Used in Chemical and Electric Areas

There are three main types of **FRP handrail system**, namely all round tubes handrails, all square tubes handrails and channel top handrails.

They are known for their corrosion resistance, electrical conductivity and long services life. FRP handrail system is used in the fields of chemical industry, electric power, construction and so on.



Available Type

- All round tube handrail system.
- All square tube handrail system.
- Channel top handrails.



FRP All Round Tubes Handrail



FRP All Square Tubes Handrail



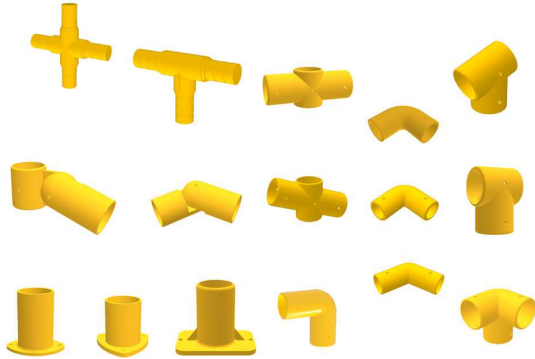
Channel Top FRP Handrail

Handrail Profiles

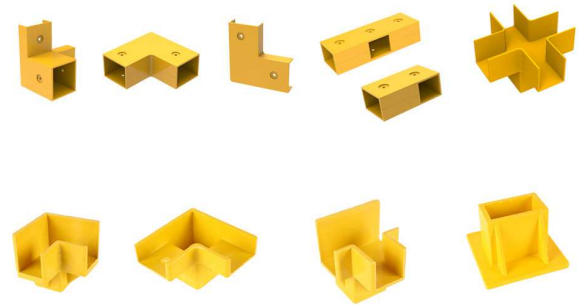
- Round tube.
- Square tube.
- Kick plate.
- Channel top.

Handrail fittings

- Round handrail fittings.
- Square handrail fittings.



FRP Round Handrail Fittings



FRP Square Handrail Fittings

Features

- *Low maintenance.*
- *Corrosion resistant.*
- *Non-conductive.*
- *Anti-aging.*
- *Flame resistance.*
- *Long service life.*
- *Ease of assembly.*
- *Cost effective.*
- *Safety yellow color.*
- *UV resistant.*

Applications

1. Function

- Stair treads handrails.
- Walkways & platform guardrails.



FRP Round Handrail Fittings



FRP Square Handrail Fittings

Applications

Professional Composite Manufacturer & Solution Designer



2.Fields

- Chemical Processing.
- Water & Sewage Treatment
- Electricity & Energy.
- Oil & Gas.
- Mechanical Engineering.
- Building & Constructions.



Chemical Industry



Construction Engineering



Electrical Power Engineering



Water And Waste Water Treatment

2. FRP Platform & Walkways

Good Selection for Insulating & Corrosive Environment

FRP platform & walkways are acid-base corrosion resistant, insulating and easy to install.

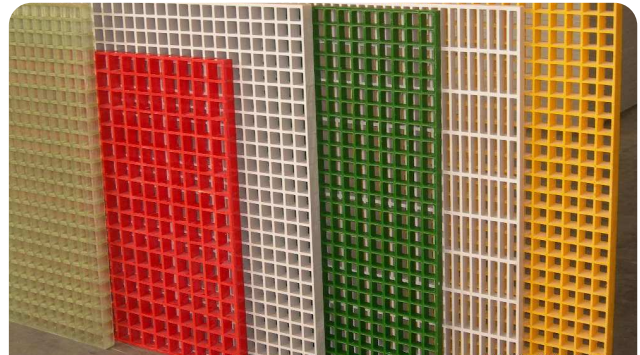
FRP platform & walkways system include gratings, handrails and connection fittings. They are used in power plants, chemical plants, water treatment and oil platforms and other corrosion environment.



Platform & Walkway Grating Types



Pultruded FRP Gratings



Molded FRP Gratings

Platform & walkway handrail types

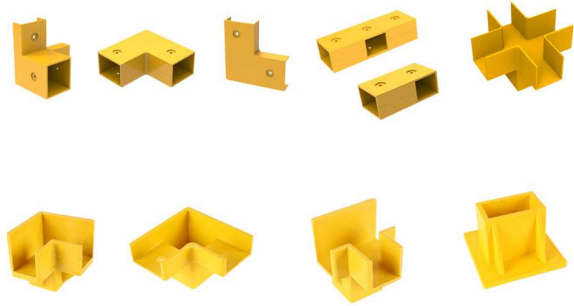


Square Handrails Platform

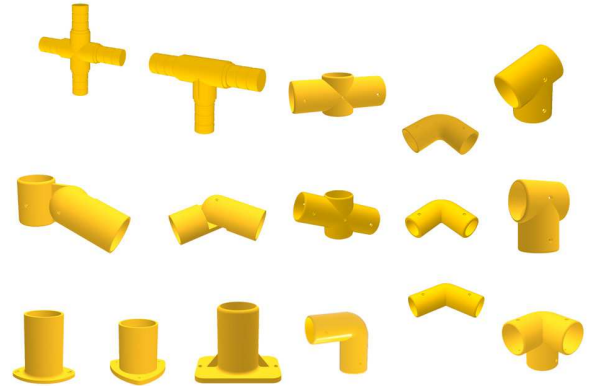


Round Handrails Platform

Platform & walkway handrail fitting types



Square Handrail Fittings



Round Handrail Fittings

Features

- *Lightweight.*
- *Anti-corrosive.*
- *Chemical stability.*
- *Insulation.*
- *High strength and high loading capacity.*
- *Anti-slipping performance.*
- *Easy fabrication.*
- *Fire resistant.*
- *Dimensional stability.*
- *No maintenance.*
- *Easy installation.*

Applications

1. Function



FRP Platform



FRP Walkway

Applications

Professional Composite Manufacturer & Solution Designer



2.Fields

- Electricity & Energy (insulation performance)
- Water & Sewage Treatment (anti-corrosive in various chemical elements)
- Oil & Gas (anti-corrosive performance for offshore, seaside and other corrosive environments)
- Chemical Processing (acid and alkali resistance and chemical stability)
- Building & Constructions (high strength and high loading capacity)
- Mechanical Engineering
- Entertainment platform (anti-slipping performance and no maintenance)



FRP Power Insulation Platform



FRP Offshore Platform



FRP Entertainment Platform



FRP Chemical Industries Platform



FRP Common Industries Platform



FRP Industries Walkways

3. FRP Stair System

Good Selection of Safety and High Strength

FRP Stair System include FRP grating stair treads, hand-rails and handrail fittings.

Stair treads with nosings have anti-slipping rough surfaces to ensure safe access. Additional, strong handrail systems can protect users from falling down accidentally.

They are used in chemical industries, water treatment, electrical power projects and other fields.

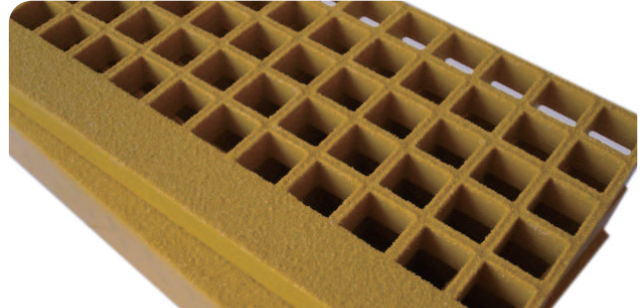


FRP stair treads types

- Pultruded FRP Gratings.
- Molded FRP Gratings.



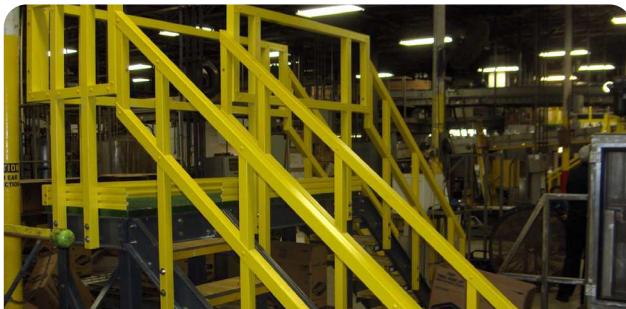
Pultruded FRP Gratings



Molded FRP Gratings

Handrail types

- Square tube handrail system.
- Round tube handrail system.



Square Tube Handrails



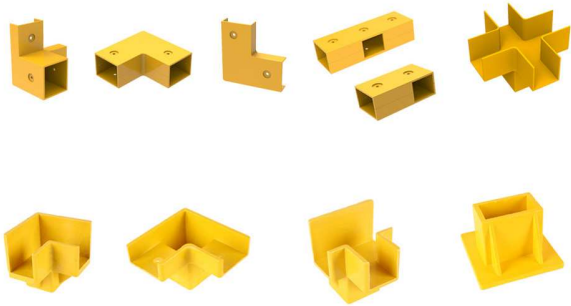
Round Tube Handrails

Applications

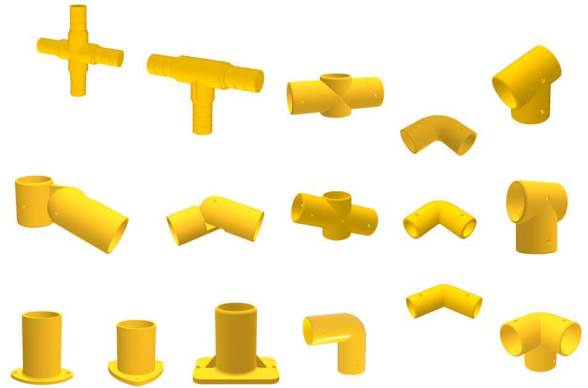
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Handrails fitting types



Square Handrail Fittings



Round Handrail Fittings

Features

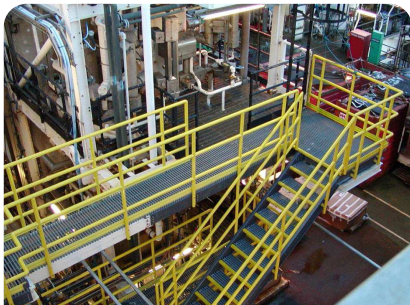
- *Anti-slipping performance.*
- *High strength and high loading capacity.*
- *Lightweight.*
- *Anti-corrosive.*
- *Chemical stability.*
- *Insulation.*
- *Easy fabrication.*
- *Fire resistant.*
- *UV resistant.*
- *Dimensional stability.*
- *No maintenance.*
- *Easy installation.*

Applications

- **Industrial stairs**
(high strength and high loading capacity)
- **Sea level stairs**
(anti-corrosive, anti-slipping and UV resistant)
- **Apartment stairs**
(anti-slipping performance and no maintenance)

Fields

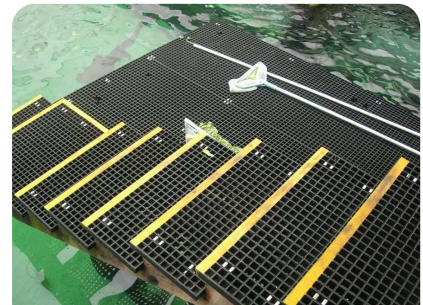
- Chemical Processing
- Water & Sewage Treatment
- Electricity & Energy
- Oil & Gas
- Mechanical Engineering
- Building & Constructions



FRP Industries Stair System



FRP Engineering Stair System



FRP Sea Level Stair System

01. FRP Fixed Straight Ladders

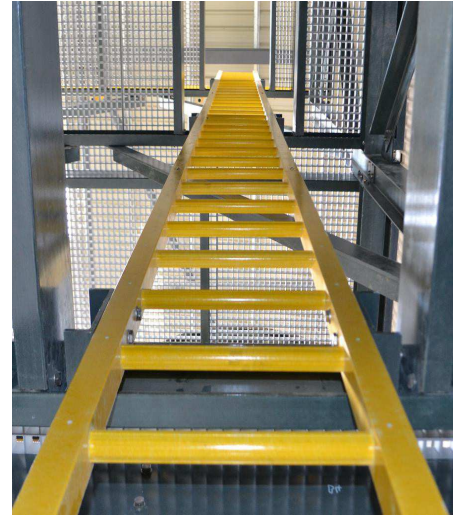
for Chemical and Electrical Power Plants

Fiber-Reinforced Plastic (FRP) fixed ladders are produced by high temperature polymerization pultrusion process.

Standard FRP fixed ladders can be used up to 20' without safety cages.

The FRP fixed straight ladders are floor, equipment or wall mounted for best fixation and stability.

FRP ladders have excellent chemical and corrosion stability and insulation performance. Thus, FRP fixed ladders are widely used in chemical, marine and other corrosive industrial as well as electrical power engineering.



Materials of FRP fixed Ladders

All materials of FRP fixed straight ladders including side rails and ladder rungs are made of high quality fiberglass material with VE or epoxy reins.

- **VE reins.** Excellent abrasion resistance, good hardness and outstanding corrosion and chemical resistance.
- **Epoxy rein.** Best insulation performance among all rein types. It is ideal for electrical power engineering.

Production of FRP Fixed Ladders

The fixed straight ladders are composed of pultruded FRP profiles. The ladder rungs are insert into side rails. And rung to side rail connections are bonded and pinned with a dowel rod to prevent any possibility of rung rotation and pullout.

Available side rail type

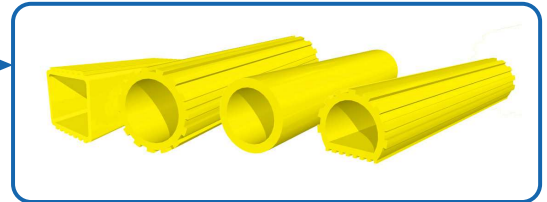
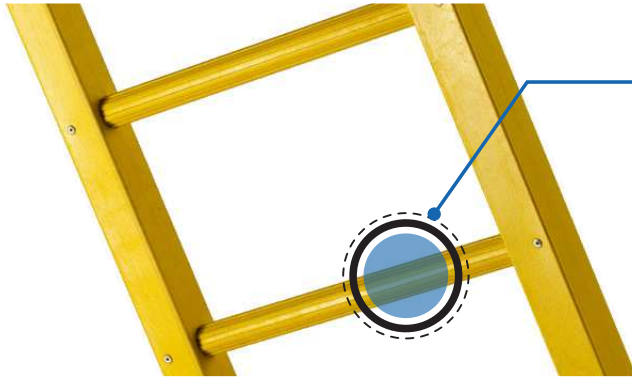


Square Tube Rail



Rectangular Tube Rail

Available ladder rung type



Gear tube and other customized ladder rungs for anti-slip and safety protection.

Available Mount type



Standard floor mounting



Heavy duty floor mounting



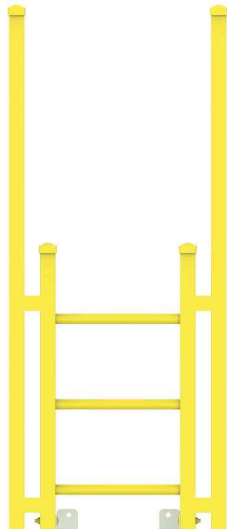
Standard wall mounting



Heavy duty wall mounting

Customized types

- **Ladder with grab stile.** It is deal for places where there is a requirement for extra security above 1.5 m.
- **Ladder with return.** It is designed to provide access to roof areas and other platforms. It also features walk-through hand railing and a return ladder to assure safe access.



Ladder with grab stile



Ladder with returns

Features

- *Anti-slip ladder rungs. Fluted surface of ladder rung increase friction and supply anti-skid surface for workers.*
- *OSHA standard. All the FRP fixed straight ladders are accordance in OSHA standards.*
- *Ultraviolet (UV) resistance. UV inhibitor additives ensures stable property of FRP ladder even being exposed into burning suns.*
- *Flame retardant.*
- *High strength.*
- *Corrosive and chemical resistance.*
- *Little or free maintenance.*

Applications

Fiberglass fixed straight ladders can be used in high corrosive environments even in complete immersion applications.

Good insulation performance make it ideal for electrical power engineering.

Fiberglass straight ladders mounted on the side of tanks and buildings are a common and widely used ladder type in a wide range of corrosive and electrical related industries.

- *Chemical plants.*
- *Manufacture.*
- *Transportation.*
- *Water and Sewage Water.*
- *Electrical power engineering.*
- *Fire protections.*
- *Paper industry*
- *Food processing plants*
- *Smelters*
- *Ore Mountain*
- *Saltworks*
- *Nuclear power plants*



**FRP fixed ladders
for platform access**



**FRP fixed ladder for
deep well access**



**FRP fixed ladder for
roof access.**



**FRP fixed ladder for
tank access**

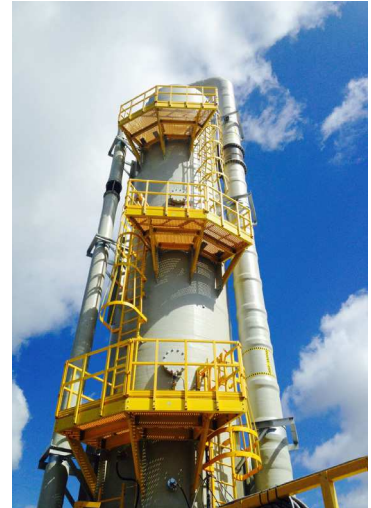
02. FRP Caged Ladder

With Good Stability, UV Protected and Longevity

FRP caged ladders are assembled with FRP pultrusion profiles. They are produced by a premium grade polyester resin system with the strong points of anti-corrosion, good stability and non-slippery elastomer feet.

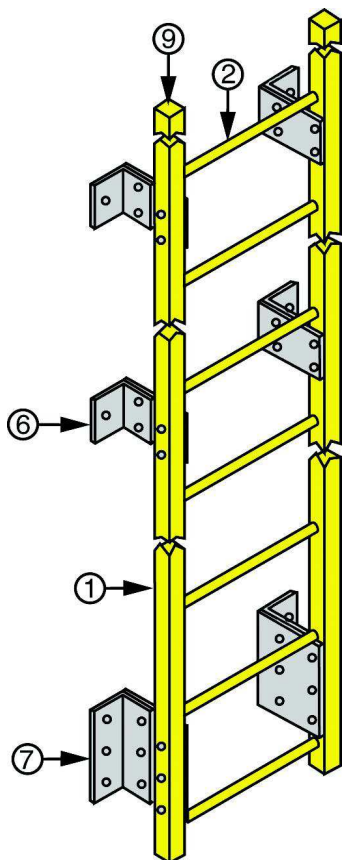
FRP caged ladders are mainly to ensure the safety of workers who are working at heights.

They are gradually become an ideal safety protection solution in corrosive environments, such as chemical plant, water and sewage water treatment plant. They are also widely used in electric power plant. In addition, they are also used in family as uphill tools.



Components

The main components are as follow.



1. Side rail.

- (1) Square tube.
- (2) Rectangular tube.

2. Ladder Rung.

3. Top or bottom hoop.

4. Intermediate.

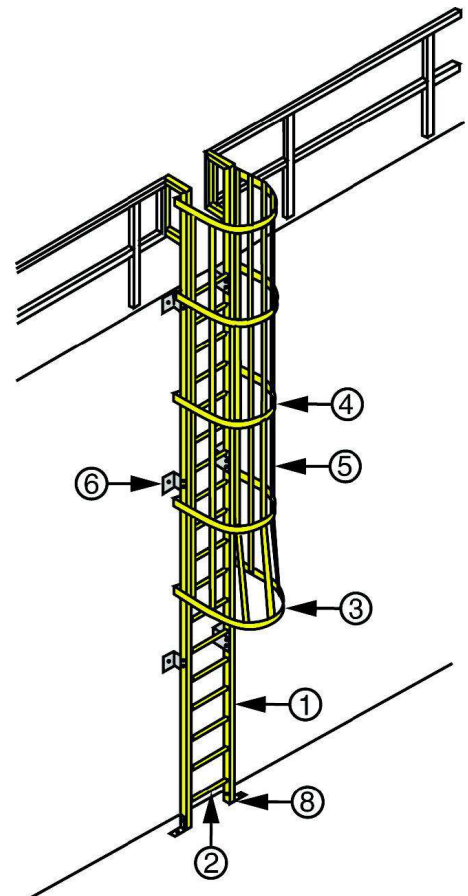
5. Cage straps.

6. Standoff bracket.

7. Standoff bracket.

8. Base angle.

9. End plug.

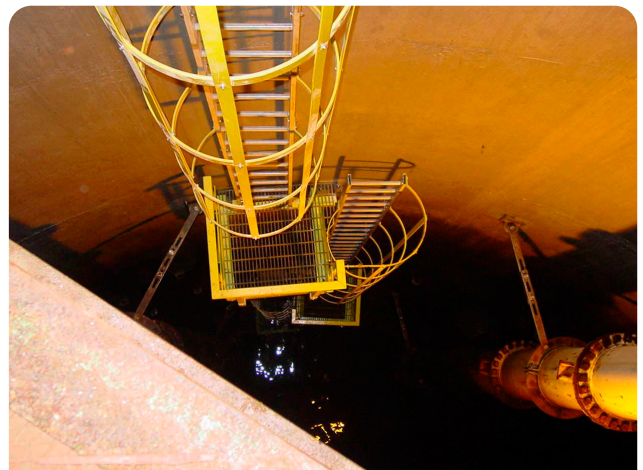


Features

- *Corrosion resistant.*
- *Longevity.*
- *UV protected*
- *High strength.*
- *Easy to install.*
- *Good stability.*
- *Non-conductive.*

Application Fields

- Chemical Processing
- Water & Sewage Treatment
- Electricity & Energy
- Oil & Gas
- Mechanical Engineering
- Building & Constructions



03. Insulation Ladders

Non-Slip in Chemical and Power Fields

FRP insulation ladders are used to glass fiber and epoxy resin as the main material and pull extrusion molding of glass fiber reinforced plastic profile.

FRP insulation ladders have the advantages of high strength, corrosion resistance, beautiful appearance and good electrical properties. They are widely used in electrical power and chemical industry, etc.



In addition, FRP insulation ladders have four types as follow.

Available Mount type



FRP Insulating Single Straight Ladder



FRP Step Ladders



FRP Extension Ladder



FRP Folding Ladders

FRP Single Straight Ladder

- Light weight. *Easy to carry or move.*
- Red rung reminding the height limit. *In order to remind and guarantee safety.*
- High strength. *Braces provide more supporting.*
- Rails use FRP rectangular tubes. *High quality fiber glass tubes provide higher strength and surface.*
- Non-slip. *Full wrapping design rubber ladder feet.*



FRP Step Ladder

- Multi function top plate. *A place for parts and tools.*
- Remind the height limit. *Gray rung reminds you do not stand above this step.*
- High strength braces provide more supporting.
- Anti-slip. *Full wrap type rubber ladder feet.*



FRP Extension Ladder

- **Non-slip and weather-proof.** *Non-slip belt to lean on the pole made by special rubber, and safety hook wrapped by non-slip rubber.*
- **Red rung reminding the height limit.**
Wear resistant. Pulley made of wear-proof nylon, bearing inside of pulley to ensure smoothness when up and down. And fixed dip made of
- **high-strength steel plate by stamping.**
High strength and wear resistant insulating rope.
- **Adjustable iron non-slip ladder foot.**



FRP Folding Ladder

- **High quality joint device, flexible to use with stable performance.**
Multiple joints can be used for many purposes
- **Anti-slip.** *FRP square tube steps are non-slip and can be moved safely. And anti-slip full wrapping design rubber foot.*
- **The joint can 180 ° adjusts.**
- **High strength and non-conductive.**



Associated Profiles

- **Side rail.**
 - Square tube.
 - Rectangular tube.
- **Ladder rung.**

Applications

FRP insulation ladders have the characteristics of corrosion resistance, non-conduction, UV protection and anti-aging. These help it apply in the following fields as uphill tools.

- Chemical industry.
- Electrician.
- Building & Construction.

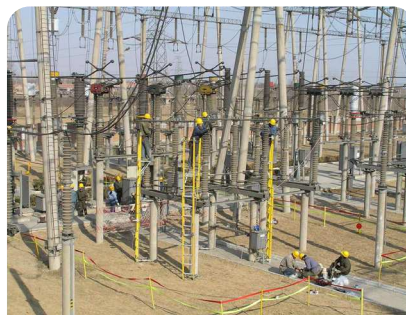
Common Specifications

Common Specification of FRP Single Straight Ladder

Item	Full Length (m)	Weight (kg)	Width (cm)	Maximum Use Height (m)	Rated Load (kg)	Ladder Spacing (mm)	Voltage Level (kV)
FRPSSL-01	1.5	3.5	43	2.87	100	300	0-220
FRPSSL-02	2	5	43	3.36	100	300	0-220
FRPSSL-03	2.5	6	43	3.55	100	300	0-220
FRPSSL-04	3	7	43	4.04	100	300	0-220
FRPSSL-05	4.5	9.5	43	4.52	100	300	0-220
FRPSSL-06	4	11	43	4.99	100	300	0-220
FRPSSL-07	4.5	14	43	5.48	100	300	0-220
FRPSSL-08	5	17.5	43	5.9	100	300	0-220
FRPSSL-09	6	21.5	43	6.93	100	300	0-220



Chemical Process



Electricity & Power



Building & Construction

Common Specifications

Common Specification of FRP Step Ladder

Item	Tread Width (mm)	Full Length (m)	Weight (kg)	Maximum Use Height (m)	Load Weight (kg)	Voltage Level (kV)
FRPSL-01	440	1.5	10	2.9	100	0-110
FRPSL-02	440	2	12	3.4	100	0-110
FRPSL-03	440	2.5	15	3.6	100	0-110
FRPSL-04	440	3	19	4	100	0-220
FRPSL-05	440	3.5	22	4.5	100	0-220
FRPSL-06	440	4	25	5	100	0-220
FRPSL-07	440	4.5	30	5.5	100	0-220
FRPSL-08	440	5	35	5.9	100	0-220
FRPSL-09	440	6	41	6.9	100	0-220

Common Specification of FRP Extension Ladder

Item	Full Length (m)	Weight (kg)	Maximum Use Height (m)	Retraction Length (m)	Rated Load (kg)	Ladder Spacing (mm)	Voltage Level (kV)
FRPEL-01	4	18	4.9	2.5	100	300	0-220
FRPEL-02	4.5	20	5.4	2.75	100	300	0-220
FRPEL-03	5	22	5.9	3	100	300	0-220
FRPEL-04	6	24.5	6.9	3.5	100	300	0-220
FRPEL-05	7	29	7.9	4	100	300	0-220
FRPEL-06	8	31.5	8.8	4.5	100	300	0-220
FRPEL-07	9	40.75	9.8	5	100	300	0-220
FRPEL-08	10		10.8	5.5	100	300	0-220
FRPEL-09	11		11.75	6	100	300	0-220
FRPEL-10	12		12.7	6.5	100	300	0-220

Common Specification of FRP Step Ladder

Item	Full Length (m)	Folding Length (m)	Step Space (mm)	Step Width (mm)	Usage Angle (°)	Max. Load (kg)
FRPFL-01	3	1.5	330-400	35	75	100
FRPFL-02	4	2	330-400	35	75	100
FRPFL-03	5	2.5	330-400	35	75	100
FRPFL-04	6	3	330-400	35	75	100
FRPFL-05	8	4	330-400	35	75	100

Applications

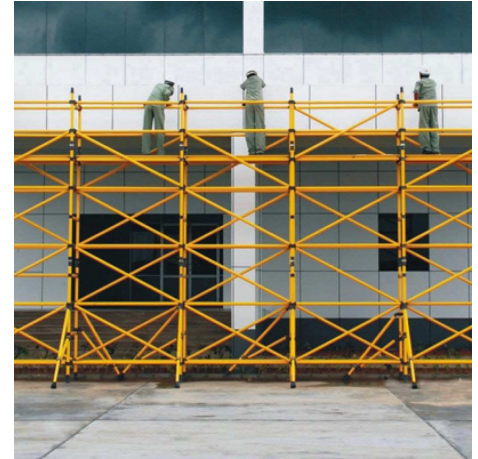
Professional Composite Manufacturer & Solution Designer



5. FRP Scaffolding

With Good Stability, UV Protected and Longevity

We are a professional manufacturer and supplier of FRP scaffolding. FRP scaffolding is divided into two types according to the width: single width tower and double width tower. It has many features: non-conductive, easy installation and resistant corrosion performance, etc. It is commonly used in the power station and construction site. It has been widely accepted by users.



Available Width Types

- **Single Width Tower**
 - Light weight, high strength, non-conductive, easy installation.
 - Suitable for working in limited space.
 - It can be equipped with vertical or inclined ladders.
- **Double Width Tower**
 - Light weight, high strength, non-conductive and easy installation.
 - Suitable for construction and industrial use.
 - The unique design improves utilization efficiency and saves space.

Available Ladder Types



Vertical Ladders



Inclined Ladders

Applications

Professional Composite Manufacturer & Solution Designer



Features

- *Non-conductive.*
- *Anti-oxidizing.*
- *Corrosion resistant performance.*
- *Light weight and high strength.*
- *Instant assembly with fold-out frame.*
- *Easy installation.*
- *Anti-slip.*
- *Easy assembling & dismantling.*
- *Non-sparking.*
- *Clean comfortable to handle in both very cold and warm climates.*

Applications

- Factory.
- Warehouse.
- Schools.
- Hospitals.
- Institutions.
- Fashion industry.
- Electrical utilities.
- Construction site.
- Building connectors.
- Electrical connectors.



Building & Construction



Electricity & Power

Common Specifications

FRP Scaffolding (Single Width Tower)

500 Series		460 Series	
Working Height (m)	Platform Height (m)	Working Height (m)	Platform Height (m)
4.1	2.1	4.23	2.23
4.6	2.6	4.81	2.81
5.1	3.1	5.27	3.27
6.1	4.1	5.73	3.73
6.6	4.6	6.20	4.20
7.1	5.1	6.66	4.66
7.6	5.6	7.13	5.13
8.2	6.2	7.59	5.59
8.7	6.7	8.05	6.05
9.2	7.2	8.52	6.52
10.2	8.2	8.98	6.98
10.7	8.7	9.45	7.45
11.2	9.2	9.91	7.91
11.7	9.7	10.37	8.37
12.2	10.2	10.84	8.84
12.7	10.7	11.30	9.30
13.2	11.2	11.77	9.77
13.7	11.7	12.23	10.23

FRP Scaffolding (Single Width Tower)

500 Series		460 Series	
Working Height (m)	Platform Height (m)	Working Height (m)	Platform Height (m)
4.1	2.1	4.23	2.23
4.6	2.6	4.81	2.81
5.1	3.1	5.27	3.27
6.1	4.1	5.73	3.73
6.6	4.6	6.20	4.20
7.1	5.1	6.66	4.66
7.6	5.6	7.13	5.13
8.2	6.2	7.59	5.59
8.7	6.7	8.05	6.05
9.2	7.2	8.52	6.52
10.2	8.2	8.98	6.98
10.7	8.7	9.45	7.45
11.2	9.2	9.91	7.91
11.7	9.7	10.37	8.37
12.2	10.2	10.84	8.84
12.7	10.7	11.30	9.30
13.2	11.2	11.77	9.77
13.7	11.7	12.23	10.23

Applications

Professional Composite Manufacturer & Solution Designer



6. FRP Insulated Stool

Safe & Efficient Working at Height

FRP insulated stool is made of glass fiber and epoxy resin, which features with excellent insulation, anti-aging, lightweight, high strength and good appearance. Four support frames are fiberglass square tubes which bear most of loading and they are not easy to deformation. Its rivet is the aluminum rivet. Common types are single layer, double-layer, three layers, four layers and five layers. It finds favor with many people, especially electricians.



Single Layer FRP Insulated Stool



Double-Layer FRP Insulated Stool



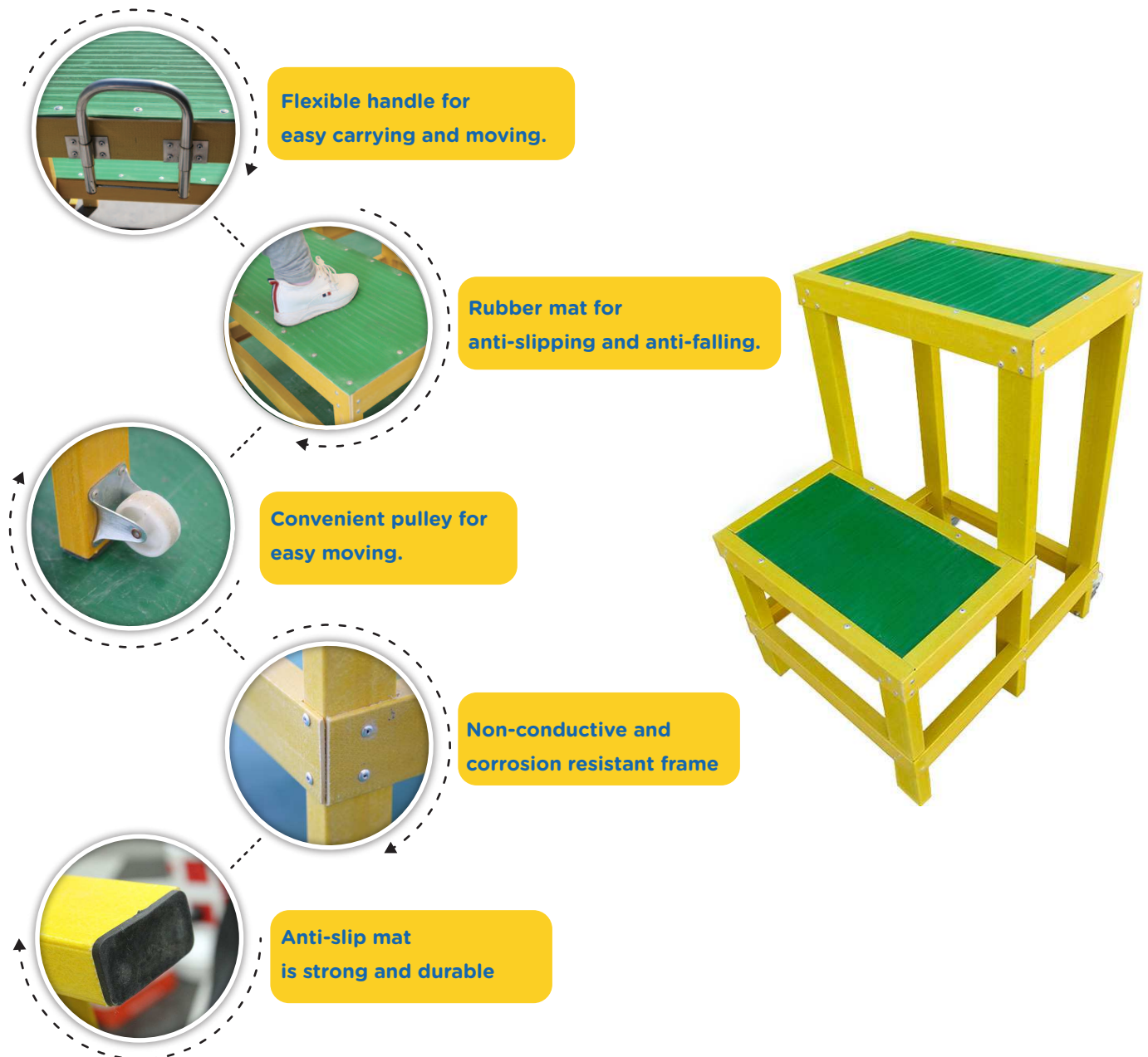
Three Layers FRP Insulated Stool



Four Layers FRP Insulated Stool

Product Details

- It is made of glass fiber, glass fiber, epoxy resin, excellent insulation performance.
- Aluminum rivet.
- The handle can be detachable.
- Its frame is fiberglass square tube in yellow.
- It is made of glass fiber, glass fiber, epoxy resin and excellent insulation performance.
- Installation with casters, light weight and convenient for transportation and storage.



Applications

Professional Composite Manufacturer & Solution Designer



Features

- Anti-slipping performance.
- Light weight, high strength.
- Non-conductive.
- Anti-slipping performance.
- Light weight, high strength.
- Non-conductive.

Classical Applications

- Family.
- Factory.
- Warehouse.
- Electric industry.
- Power distribution room.
- Power station.

Common Specifications

Item	Height (mm)	Weight (kg)	Number of Layers	Load Weight (kg)
FRPIS-01	0.5	6.5	2	100
FRPIS-02	0.6	6.8	2	100
FRPIS-03	0.7	9.5	2	100
FRPIS-04	0.8	10.2	2	100
FRPIS-05	0.9	12	3	100
FRPIS-06	1	13	3	100
FRPIS-07	1.1	13.5	3	100
FRPIS-08	1.2	14	3	100
FRPIS-09	1.3	16	4	100
FRPIS-10	1.4	18	5	100
FRPIS-11	1.5	19.4	5	100



7. FRP Cable Tray

Ideal for Managing and Protecting Cables

FRP cable tray is the support system for managing cables and protect cables from heating, rains and corrosive elements.

There are two types, FRP ladder type cable tray and FRP channel cable tray. They are widely used in chemical plants, building constructions and residential life by virtue of its strong advantages such as lightweight, high strength, good anti-corrosion and flexible installation.



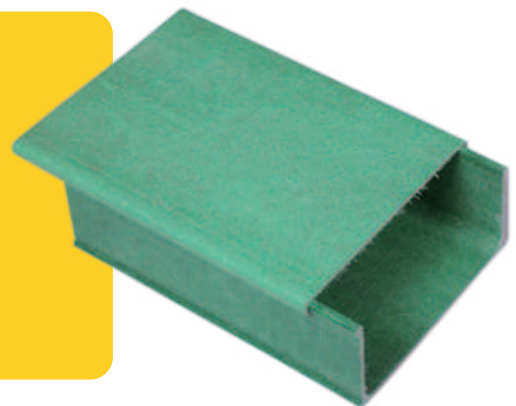
Available type

- **FRP ladder type cable tray**

FRP ladder type cable tray is assembled with two longitudinal sides and a plurality of rungs. The ladder structure is ventilated and has good heat dissipation performance. They are suitable for containing multiple cables, most of which are used in building wiring system.

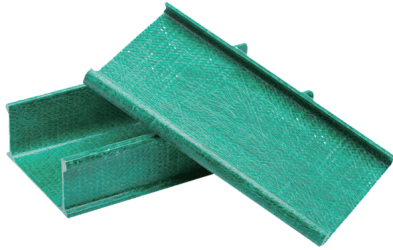
- **FRP channel cable tray**

The structure of FRP channel cable tray shows a solid or perforated bottom with integral side rails. Plus a cover on it, it is closed. It is generally used in places that fire-proof, moisture-proof, dust-proof, anti-interference, and mechanical damage, such as residential buildings, office buildings, supermarkets and hotels.



Applications

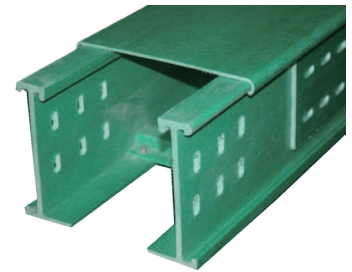
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Flat side beam



Ragged side beam



Perforated beam

Available Covers

Besides, FRP channel cable tray and FRP ladder type cable tray are also available with cover. For further security, covers are used where cable protection is required or desired.

The flat cover is more widely used and fits most applications. In some places that exist the accumulation of snow or other particulate, the peaked cover can help shed excessive loads to reduce the pressure of FRP cable tray.



Resin material

- **Polyester resin.** (Standard Product) It offers good UV and weather resistance.
- **Vinylester resin.** It offers better corrosion and heat resistance.
- **Epoxy resin.** Excellent insulation performance for electrical power projects.
- **Phenolic.** It offers extreme low smoke and toxicity properties.

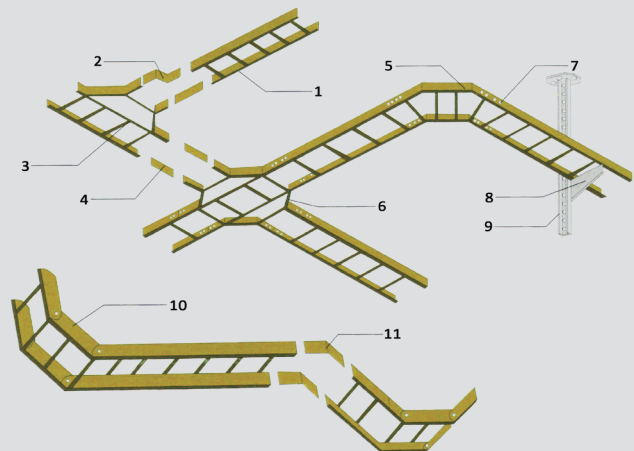
Features

- *Non-conductive.*
- *Non-magnetic.*
- *Anti-corrosion.*
- *Fast heat dispersion.*
- *Superior strength.*
- *Light weight.*
- *UV resistance.*
- *Fire retardant.*
- *Impact resistance.*
- *Easy to install.*
- *No welding required.*
- *Easy to cut and drill.*
- *Long life span.*
- *High performance in extreme weather.*
- *No rusting. No painting.*
- *Full ventilation.*
- *Resistant to microbial growth.*
- *multiple colors, sizes and resin choices.*
- *Cable tray with cover section to prevent ingress of dust and liquid.*
- *Aesthetically pleasing appearance.*
- *Accommodate changes in direction and elevation of cable runs.*
- *Safe smooth edge to protect cables.*
- *Easy maintenance, easy for line check and cleaning.*

Assembly System

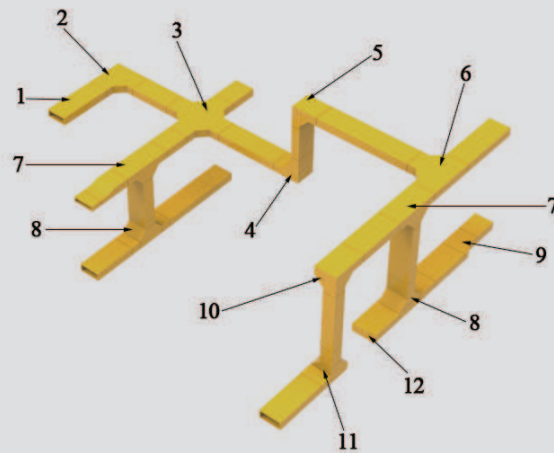
FRP Ladder Cable Tray Assembly System

Item	Parts
1	Straight cable tray
2	Width adjustable piece
3	Horizontal tee
4	Connecting piece
5	Horizontal elbow
6	Horizontal cross
7	Bolt
8	Corbel
9	Channel post
10	Ladder type movable elbow
11	Adjustable piece



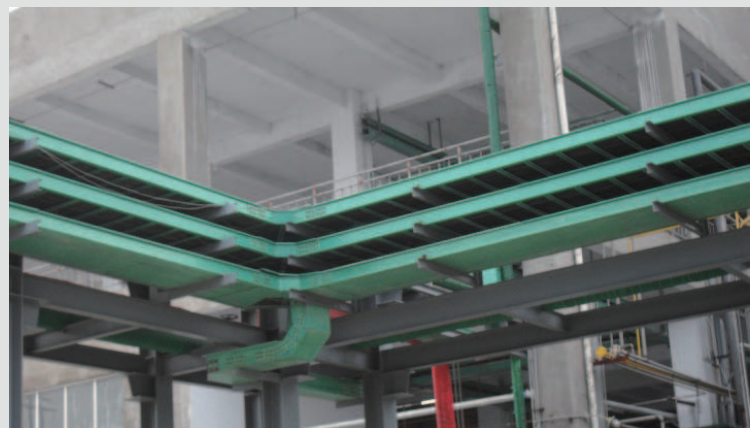
FRP Channel Cable Tray Assembly System

Item	Parts
1	Straight cable tray
2	Horizontal elbow
3	Horizontal cross
4	Down vertical elbow
5	Up vertical elbow
6	Horizontal tee
7	Up vertical tee
8	Down vertical tee
9	Reducer
10	Up right elbow
11	Down left elbow
12	End



Applications

- Chemical and purification plants.
- Offshore/onshore platforms.
- Power plants.
- Tunnels.
- Marine industry.
- Metallurgical plants.
- Oil & Gas sector.
- Water treatment plants.
- Paper industry.
- Mining.
- EMI/RFI testing.
- Building construction.
- Radar.
- Pollution control.





Cable Laying

- Railway cable laying.
- Highway bridge cable laying.
- Petrochemical engineering cable laying.
- Computer cable laying.
- Post and telecommunication cable laying.

Common Specifications

FRP Ladder Type Cable Tray

Item	Width (mm)	Height (mm)	Length (mm)	Rung Spacing (mm)	Color	Remark
LFRPCT-01	50	50	2000	300	Gray	Polyester
LFRPCT-02	100	50	2000	300	Green	Polyester
LFRPCT-03	300	50	2000	300	Gray	Vinylester
LFRPCT-04	300	100	3000	400	Gray	Flat cover
LFRPCT-05	400	100	3000	300	Gray	Polyester
LFRPCT-06	500	100	4000	300	Green	Peaked cover
LFRPCT-07	500	150	4000	300	Gray	Phenolic
LFRPCT-08	600	150	5000	400	Green	Polyester
LFRPCT-09	700	180	5000	400	Gray	Polyester
LFRPCT-10	1000	200	7000	500	Gray	Flat cover

FRP Ladder Type Cable Tray

Item	Width (mm)	Height (mm)	Length (mm)	Color	Remark
CFRPCT-01	50	50	2000	Gray	Flat cover
CFRPCT-02	100	50	2000	Green	Ragged sides
CFRPCT-03	100	100	3000	Gray	Flat cover
CFRPCT-04	300	100	3000	Gray	Flat cover
CFRPCT-05	400	100	3000	Gray	Flat cover
CFRPCT-06	500	150	4000	Green	Ragged sides
CFRPCT-07	600	200	5000	Green	Flat cover
CFRPCT-08	700	200	6000	Green	Polyester
CFRPCT-09	800	250	6000	Green	Peaked cover
CFRPCT-10	900	250	8000	Green	Peaked cover

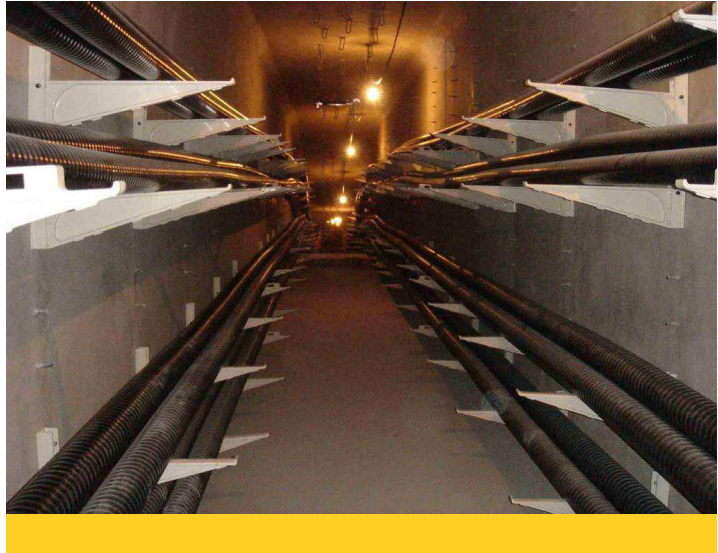
08. FRP Cable Bracket

For Channel and Trench Cable Wiring

FRP cable bracket is a material with good insulation performance. It is suitable for tunnel and trench cable laying occasions.

FRP cable bracket resists electromagnetic interference and prevents the production of eddy current effectively.

It has a smooth surface and a small friction coefficient to protect the cable.



Classical applications

- Cable trenches.
- Cable laying work wells.
- Cable tunnels.
- Cable inter-layer.



FRP cable bracket in cable tunnels



FRP cable bracket in cable trenches

Applications

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FRP cable bracket types



Integral type

Socket Type

Combined Suspension Type

Screw Type

Directly Buried Type

Common Specifications

Common Specifications of FRP Integral Type Cable Bracket

Item	Total Length (mm)	Buried Length (mm)	Effective Length (mm)
FRPITCB-01	250	/	250
FRPITCB-02	300	/	300

Common Specifications of FRP Integral Type Cable Bracket

Item	Total Length (mm)	Buried Length (mm)	Effective Length (mm)
FRPSTCB-01	400	150	250
FRPSTCB-02	450	150	250
FRPSTCB-03	500	150	350
FRPSTCB-04	540	150	390
FRPSTCB-05	600	200	400
FRPSTCB-06	700	200	500

Common Specifications

Common Specifications of FRP Combined Type Cable Bracket

Item	Total Length (mm)	Buried Length (mm)	Effective Length (mm)
FRPCTCB-01	200	/	200
FRPCTCB-02	250	/	250
FRPCTCB-03	300	/	300
FRPCTCB-04	350	/	350
FRPCTCB-05	400	/	400
FRPCTCB-06	450	/	450
FRPCTCB-07	500	/	500
FRPCTCB-08	600	/	600

Common Specifications of FRP Screw Type Cable Bracket

Item	Total Length (mm)	Buried Length (mm)	Effective Length (mm)
FRPSTCB-01	150	/	150
FRPSTCB-02	200	/	200
FRPSTCB-03	250	/	250
FRPSTCB-04	300	/	300
FRPSTCB-05	350	/	350
FRPSTCB-06	400	/	400
FRPSTCB-07	450	/	450
FRPSTCB-08	500	/	500
FRPSTCB-09	600	/	600
FRPSTCB-10	670	/	670
FRPSTCB-11	880	/	880
FRPSTCB-12	1250	/	1250
FRPSTCB-13	1300	/	1300

Common Specifications of FRP Directly Buried Type Cable Bracket

Item	Total Length (mm)	Buried Length (mm)	Effective Length (mm)
FRPDBTCB-01	300	150	150
FRPDBTCB-02	400	150	250
FRPDBTCB-03	450	150	300
FRPDBTCB-04	500	150	350
FRPDBTCB-05	540	150	390
FRPDBTCB-06	600	200	400
FRPDBTCB-07	700	200	500

9. FRP Fencing

FRP Fencing - Ideal Solution to Isolation and Protection

FRP fencing is a complete solution to safety in both residential areas and heavy industries. It is used for protection and isolation and it is applied to many areas that require rapid installation. It has many advantages: easy installation, excellent anti-corrosion performance and cost effective features.

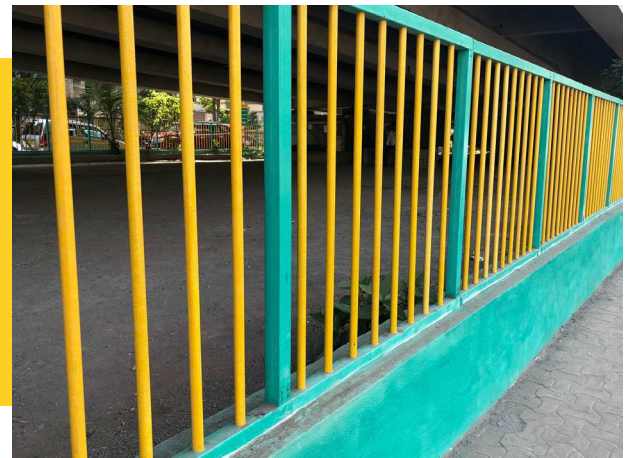
The FRP fencing has many different types: FRP fencing railing, FRP picket fence, FRP molded grating fencing and FRP pultruded grating fencing. Below are some common FRP fences. Special shapes can be customized.



Available type

- **FRP Fencing Railing.**

FRP fencing railing is the most common fence. The FRP fencing railing can be used as road divider and industry guardrail on account of solid structure. Normally, its infills can be circular, square and rectangular tubes.



- **FRP Picket Fence.**

FRP picket fence is widely used in garden, household and factory, etc. It can be made of flat FRP profiles and rectangular FRP profiles. It serves as decoration due to its unique visual effect and excellent durability.

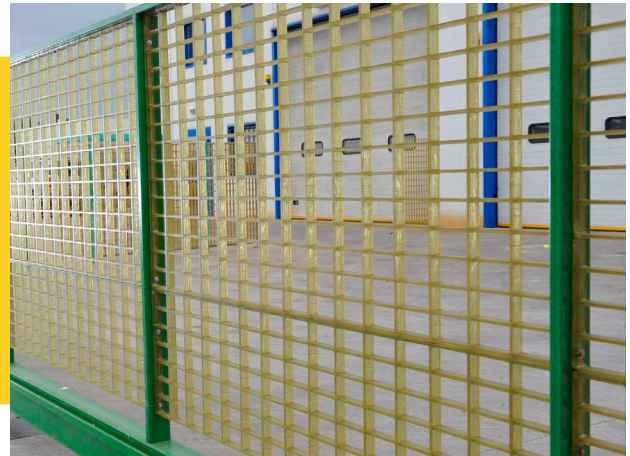
Applications

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• FRP Molded Grating Fencing.

FRP molded grating fencing has many features: non-conductive, anti-aging and corrosion resistant performance, etc. It is widely used in electrical substations and high voltage pylons due to its non-conductive feature.



• FRP Pultruded Grating Fencing.

FRP pultruded grating fencing has a good appearance. It is constructed of I beam, round cross rod and tube frames. It has corrosion resistant performance.

Features

- *Cost effective.*
- *Fast to install.*
- *Termite proof.*
- *Maintenance free.*
- *Corrosion resistant performance.*
- *Non-conductive.*
- *Anti-aging.*
- *Good appearance.*

Applications

- Electrical substation.
- Garden fencing.
- Walkways, footbridges & staircase.
- Road divider fencing.
- High voltage pylons.
- Architecture and construction industry.



Walkways And Roads



Power Station Fencing



Electrical Substation Guardrail



Industry Guardrail



FRP Picket Fencing



FRP Pultruded Grating Fencing

10. FRP Structure Mounting

Support Solar Panels Stably

FRP structure mounting, made of FRP, is installed on roof or ground to support the solar panels.


FRP structure mounting is including various structure profiles, which are good UV and aging resistance for durable life. Besides, they can be used in seaside and other harsh environments due to its excellent corrosion and rust resistance performance.

There are many types of panel mounting to be customized.




Type of Structural Profiles

Item	Type
1	Angle
2	C channel
3	Rect box section
4	Sq. box section
5	I beam
6	Rail channel
7	Flat bed strut channel
8	Strut channel
9	Double strut channel
10	Sigma
11	Z profile
12	Custom profile




1
Angle




2
C Channel



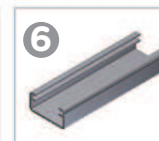
3
Rect Box Section



4
Sq. Box Section



5
I Beam



6
Rail Channel



7
Flat Bed Strut Channel



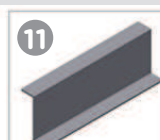
8
Strut Channel



9
Double Strut Channel



10
Sigma

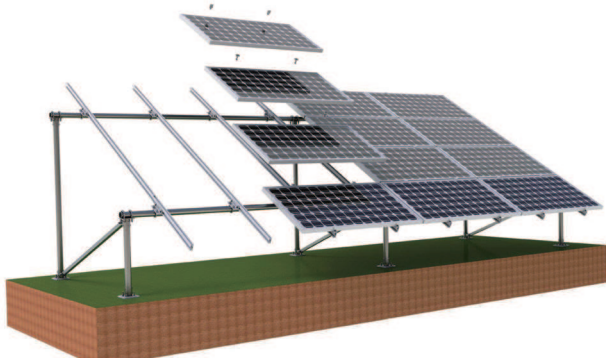


11
Z Profile



12
Custom Profile

Types of solar panel mounting



Ground mounting



Roof mounting

Features

- *Cost effective.*
- *Various options.*
- *Flexible and adjustable.*
- *Fast and simple assembly.*
- *Highly anti-corrosion.*
- *Withstand high wind speed and rain loads.*
- *Weather-proof.*
- *Adjustable tilt angle.*
- *Superior appearance.*
- *Lightweight.*
- *Fire retardant.*
- *Safety and reliability.*

Applications

- Solar panel industry.
- Auto part industry.
- Heat sink industry.
- Sanitary ware industry.
- Carport solar installations.
- Floating solar installations.
- Air Conditioner Support.



Solutions

Provide Best Solutions to All Industries

Professional Composite Manufacturer & Solution Designer

FRP materials are durable and tough material which is regard as replacement of wood and steels. FRP structural profiles and gratings are commonly seen in nowadays - handrails, stair treads, insulation ladders and many other industrial applications.

But they are not widely accepted in some countries and areas. Here we will introduce you where they can be used and why we need choose them in your projects.



Six Main Industries

1. Chemical Processing
2. Water & Sewage Treatment
3. Electricity & Energy
4. Oil & Gas
5. Mechanical Engineering
6. Building & Constructions

1. Chemical Processing

Strong Corrosive Resistant FRPs in Chemical Processing

Chemical Processing are full of corrosion, including acid, alkali, organic solvent, salt and many other gas and liquid media. During production, there need lots of platforms and protective measures for safe and efficient working.

Polyester resin type FRP profiles and gratings are ideal choice to solve all these problems. And they are more and more accepted by chemical industries in native or abroad.



Why Choose FRP Products

- **Perfect Chemical Stability.** Won't rust and corrosion like galvanized or aluminum products.
- **Strong but lightweight.** Same loading capacity but 1/3 weight of steels.
- **Easy installation & fabrication.** Lightweight FRPs make installation and fabrication easy and fast.
- **Little maintenance.** No need cleaning or painting to save maintenance costs.
- **Anti-aging performance.** UV inhibitors are added for anti-aging even in harshest environments.
- **Long term durability.** More than 35 years lifespan is worthy for your choice.

Solutions

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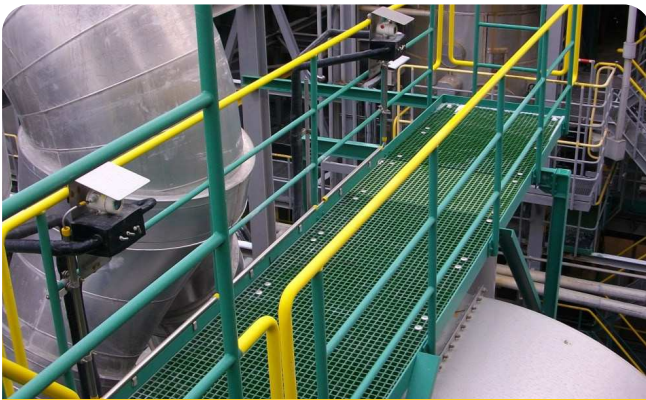
What We can Supply



Handrails



Stairs



Platforms & Walkways



Fixed Ladders



Caged Ladders



Cable Tray

2. Water & Sewage Treatment

Chemical and Physical Stability FRPs in Sewage Treatment

Waste waters will be purified through physical, chemical and biological methods to reduce pollution and make full of water resources.

The original steel devices are easy corroded by the chemical agents and they need lots of maintenance costs like painting.

FRP materials including FRP profiles and gratings are ideal materials for water and waste water treatment industries due to its excellent chemical and physical stability.



Why Choose FRP Products

- **Perfect Chemical Stability.** Won't rust and corrosion like galvanized or aluminum products.
- **Humidity resistance.** No shrinking or deformation even being exposed to the corrosive waters for long time.
- **Strong but lightweight.** Same loading capacity but 1/3 weight of steels.
- **Easy installation & fabrication.** Lightweight FRPs make installation and fabrication easy and fast.
- **Little maintenance.** No need cleaning or painting to save maintenance costs.
- **Anti-aging performance.** UV inhibitors are added for anti-aging even in harshest environments.
- **Long term durability.** More than 35 years lifespan is worthy for your choice.

Solutions

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What We can Supply



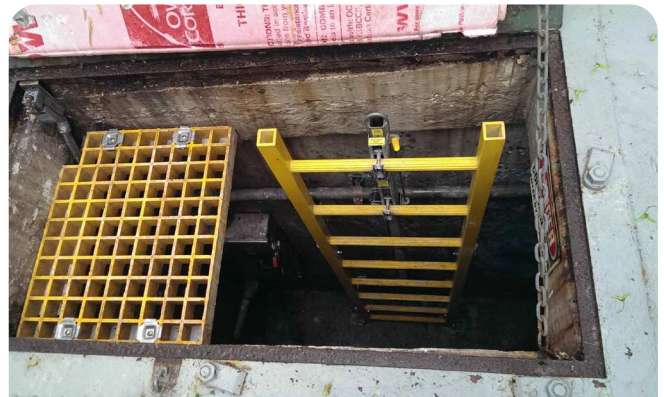
Handrails



Stairs



Platforms & Walkways



Fixed Ladders



Caged Ladders

MORE
coming soon

3. Electricity & Power

Insulating and strong FRPs in Electricity & Power

In the electricity and power industries, insulation is most important to secure workers' safe and efficient production. Traditional steel cable management and operation tools are not safe and even dangerous to be used in high risk electricity and power industries.

FRP are fiber reinforced plastic, which has excellent insulating and humidity resistance performance. So the **FRP profiles and gratings** are widely used in electrical power engineering.



Why Choose FRP Products

- **Excellent insulating performance.** Secure workers' safe and guarantee efficient production.
- **Humidity resistance.** No shrinking or deformation even being exposed outdoors for long time.
- **Strong but lightweight.** Same loading capacity but 1/3 weight of steels.
- **Anti-aging performance.** UV inhibitors are added for anti-aging even in harshest environments.
- **Easy installation & fabrication.** Lightweight FRPs make installation and fabrication easy and fast.
- **Little maintenance.** No need cleaning or painting to save maintenance costs.
- **Long term durability.** More than 35 years lifespan is worthy for your choice.

Solutions

Professional Composite Manufacturer & Solution Designer



What We can Supply



Insulation Ladders



Cable Trays



Cable Bracket



scaffolding



Platform & Walkways



Structure Mounting



Insulation stool



FRP Fencing

MORE
coming soon

4. Oil & Gas

Strong Corrosive Resistant FRPs in Offshore Rigs of Oil & Gas

In oil drilling and natural gas extraction processing, offshore rigs are exposed to salt water and salt airs for long times. Common steel materials are easy corroded in these harsh environments and need much more maintenance costs.

FRPs like **FRP profiles and gratings** are ideal choice to solve all these problems. And they are more and more accepted by chemical industries in native or abroad.



Why Choose FRP Products

- **Perfect Salty Resistance.** Won't rust and corrosion like galvanized or aluminum products.
- **High & stable loading capacity.** It has same and superior loading capacity in more than 35 years life.
- **Humidity resistance.** No shrinking or deformation even being exposed to the salty water or air for long time.
- **Strong but lightweight.** Same loading capacity but 1/3 weight of steels.
- **Easy installation & fabrication.** Lightweight FRPs make installation and fabrication easy and fast.
- **Little maintenance.** No need cleaning or painting to save maintenance costs.
- **Long term durability.** More than 35 years lifespan is worthy for your choice.
- **Safe Structure.** Handrails and anti-slipping platforms and stairs can guarantee safe working.

Solutions

Professional Composite Manufacturer & Solution Designer



What We can Supply



Handrails



Stairs



Platforms & Walkways



Fixed Ladders



Caged Ladders

MORE
coming soon

5. Mechanical Engineering

Flexible & Customized FRP Profiles in Mechanical Engineering

In the mechanical engineering, FRP profiles play important roles due to its good hardness, high loading capacity and flexible structures. They are widely used in machine guarding and structure support applications.



Why Choose FRP Products

- **Good hardness.** Vinyl ester resin supply excellent mechanical property.
- **High loading capacity.** Strong structures well for long terms.
- **Flexible structures.** Customized shapes can satisfy different machine part requirements.
- **Excellent insulating performance.** Secure workers' safe and guarantee efficient production.
- **Humidity resistance.** No shrinking or deformation even being exposed to the salty water or air for long time.
- **Strong but lightweight.** Same loading capacity but 1/3 weight of steels.
- **Anti-aging performance.** UV inhibitors are added for anti-aging even in harshest environments.
- **Easy installation & fabrication.** Lightweight FRPs make installation and fabrication easy and fast.
- **Little maintenance.** No need cleaning or painting to save maintenance costs.
- **Long term durability.** More than 35 years lifespan is worthy for your choice.

Solutions

Professional Composite Manufacturer & Solution Designer



What We can Supply



Fencing



Platform & Walkways



Cable Trays



Fixed Ladders



Caged Ladders



Handrails

6. Building & Constructions

Long Term Durability And Anti-Corrosive FRP In Constructions

In the building and constructions, there need lots of structure supporting, walkways and cable management.

The FRP is more and more popular all over the world, and it is regard as replacement of wood and steels because of its lightweight but strong structure. **FRP profiles** are widely used for support structures and FRP gratings are used in parks and other buildings are platforms and walkways.



Why Choose FRP Products

- **High Loading capacity.** For structure supporting and heavy vehicles access.
- **Humidity resistance.** No shrinking or deformation even being exposed to the salty water or air for long time.
- **Strong but lightweight.** Same loading capacity but 1/3 weight of steels.
- **Anti-aging performance.** UV inhibitors are added for anti-aging even in harshest environments.
- **Easy installation & fabrication.** Lightweight FRPs make installation and fabrication easy and fast.
- **Little maintenance.** No need cleaning or painting to save maintenance costs.
- **Long term durability.** More than 35 years lifespan is worthy for your choice.

Solutions

Professional Composite Manufacturer & Solution Designer



What We can Supply



Platform & Walkways



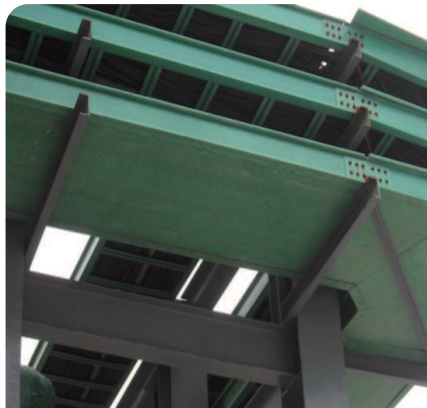
Stair System



Scaffolding



Insulation Ladders



Cable Tray



Cable Bracket



Fencing

MORE
coming soon



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