



# Structural Profiles

## A Superior Construction Solution

- Strong and lightweight
- Corrosion resistant
- Electrically non-conductive
- Thermally non-conductive
- Fire retardant
- Low installation cost
- Low maintenance
- UV stable
- Dimensionally stable
- Custom Design Service

FRP Structural Profiles are as strong as traditional materials such as steel, timber, and aluminium. In fact, they are highly superior compared with other traditional materials as they are lightweight, corrosion resistant, fire retardant,

and much more. They are also cost-effective with low installation costs and little to no maintenance required.

At FRP Engineering, **we stock** a large variety of FRP Profiles ready for your construction needs. These include:

- |               |                        |                 |
|---------------|------------------------|-----------------|
| • 'C' Channel | • Round Tube           | • Square Tube   |
| • 'I' Beam    | • Embedment Angle      | • Kickplate     |
| • 'WF' Beam   | • Unistrut             | • Unequal Angle |
| • Equal Angle | • Rectangular Box Beam |                 |

These ready-made construction profiles can be sourced within your construction schedule.

FRP Structural Profiles are manufactured using the pultrusion process. Glass mat and rovings are drawn through a resin bath and pulled into a heated die to form the required shape. This process allows for the production of a vast array of structural shapes.

We also offer a custom design and FRP fabrication service based on your unique needs. Whether it is a small project or a large-scale installation, our experienced Engineers and Technicians are ready to help you by providing specially designed, top quality FRP products to suit your specifications.

## Industries Serviced

- Chemical processing ■ Oil and Gas refining ■ Offshore Services
- Water and Wastewater treatment ■ Food and Beverage
- Maritime construction ■ Transportation



### Equal Leg Angle

Size in mm	Weight (kg/m)	In stock
25 x 25 x 2.5	0.24	
38.1 x 38.1 x 6.35	0.88	
40 x 40 x 2.5	0.38	
<b>50.8 x 50.8 x 6.35</b>	<b>1.20</b>	✓
76.2 x 76.2 x 6.35	1.84	
<b>76.2 x 76.2 x 9.525</b>	<b>2.69</b>	✓
101.6 x 101.6 x 6.35	2.47	
<b>101.6 x 101.6 x 9.525</b>	<b>3.65</b>	✓
152.4 x 152.4 x 9.525	5.57	

### 'I' Beams

Size in mm	Weight (kg/m)	In stock
101.6 x 50.8 x 6.35	2.40	
<b>152.4 x 76.2 x 6.35</b>	<b>3.67</b>	✓
<b>203.2 x 55.56 x 9.525</b>	<b>5.70</b>	
203.2 x 101.6 x 9.525	7.31	✓
304.8 x 152.4 x 12.7	14.69	

### Wide Flange Beams

Size in mm	Weight (kg/m)	In stock
<b>76.2 x 76.2 x 6.35</b>	<b>2.71</b>	✓
<b>101.6 x 101.6 x 6.35</b>	<b>3.67</b>	✓
<b>152.4 x 152.4 x 6.35</b>	<b>5.59</b>	✓
<b>152.4 x 152.4 x 9.525</b>	<b>8.26</b>	✓
203.2 x 203.2 x 9.525	11.15	

### Un-Equal Leg Angle

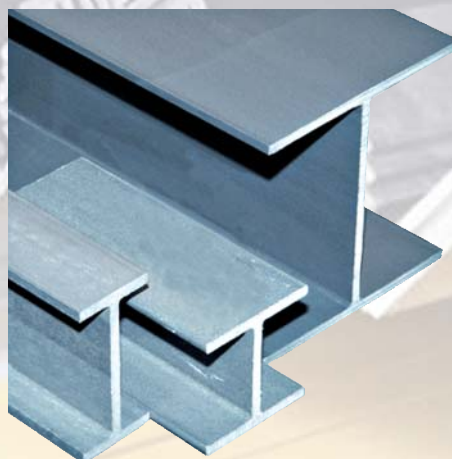
Size in mm	Weight (kg/m)	In stock
60 x 40 x 6	1.12	
90 x 50 x 6	1.59	

Items marked in bold are generally carried as a stock item in both IsoFR and VEFR resin system.

Non-stock items are available however minimum order quantities may apply. Please contact your local FRP Engineering representative for details.

### 'C' Channel

Size in mm	Weight (kg/m)	In stock
37 x 28 x 3	0.51	
45 x 25 x 3	0.50	
48.5 x 30 x 3	0.58	
50 x 14 x 3.175	0.43	
76.2 x 22.22 x 6.35	1.36	
80.7 x 30 x 3	0.77	
88.9 x 38.1 x 4.76	1.47	
88.9 x 38.1 x 6.35	1.92	
101.6 x 28.575 x 3.175	0.96	
101.6 x 28.575 x 9.525	2.63	
101.6 x 29.63 x 4.23	1.28	
101.6 x 34.93 x 4.76	1.53	
<b>101.6 x 28.575 x 6.35</b>	<b>1.84</b>	✓
114.6 x 63.6 x 6	2.73	
121.28 x 50.8 x 6.35	2.64	
127 x 34.925 x 6.35	2.55	
139.7 x 38.1 x 6.35	2.55	
150 x 50 x 6	2.83	
<b>152.4 x 41.27 x 6.35</b>	<b>2.78</b>	✓
152.4 x 41.27 x 9.525	4.13	
203.2 x 55.56 x 6.35	3.79	
<b>203.2 x 55.56 x 9.525</b>	<b>5.57</b>	✓
208 x 120 x 4	3.49	
<b>254 x 69.85 x 12.7</b>	<b>9.26</b>	✓
<b>304.8 x 76.2 x 12.7</b>	<b>10.86</b>	✓
355.6 x 88.9 x 9.525	9.70	



### Round Tube

Size in mm	Weight (kg/m)	In stock
16 OD x 2.5 THK	0.19	
24.5 OD x 2.5 THK	0.47	
33.5 OD x 2.6 THK	0.57	
<b>38.0 OD x 4.8 THK</b>	<b>0.97</b>	✓
<b>44 OD x 4.0 THK</b>	<b>1.00</b>	✓
44 OD x 6.2 THK	1.46	
48.36 OD x 3.2 THK	1.00	
<b>48.3 OD x 5.0 THK</b>	<b>1.56</b>	✓
50.8 OD x 2.5 THK	0.74	
50.8 OD x 4 THK	1.32	
50.8 OD x 6 THK	1.67	
60.4 OD x 3.2 THK	1.14	
60.4 OD x 7.2 THK	2.38	
60.4 OD x 9.5 THK	3.01	
76.2 x 4.76 THK	2.13	
83 OD x 3.5 THK	1.73	
87 OD x 5.5 THK	2.79	
150 OD x 6THK	5.38	
150 OD x 10 THK	8.71	
150 OD x 15 THK	12.60	

### Rectangular Box Beam

Size in mm	Weight (kg/m)	In stock
50.8 x 25.4 x 3.175	0.88	
60 x 30 x 3	0.99	
75 x 30 x 3	1.17	
75 x 45 x 3.75	1.66	
75 x 45 x 4.76	2.07	
85 x 25 x 3	1.29	
88.9 x 38.1 x 3.175	1.40	
101.6 x 25.4 x 3.175	1.52	
101.6 x 50.8 x 6.35	3.51	
150 x 100 x 6	6.06	
192 x 50 x 3.5	3.28	
192 x 100 x 3.5	3.97	
200 x 50 x 3.5	3.39	
200 x 100 x 3.5	4.08	

### Square Tube

Size in mm	Weight (kg/m)	In stock
25 x 25 x 6	0.90	
25.4 x 25.4 x 3.175	0.56	
<b>32 x 32 x 6</b>	<b>1.24</b>	✓
<b>38.1 x 38.1 x 3.175</b>	<b>0.88</b>	✓
<b>38.1 x 38.1 x 6.35</b>	<b>1.60</b>	✓
<b>44.45 x 44.45 x 3.175</b>	<b>1.02</b>	✓
<b>45 x 45 x 6.35</b>	<b>1.85</b>	✓
50.8 x 50.8 x 3.175	1.20	
50.8 x 50.8 x 4.76	1.74	
50.8 x 50.8 x 6.35	2.24	
<b>53.97 x 53.97 x 4.76</b>	<b>1.84</b>	✓
57.5 x 57.5 x 3.5	1.50	
63.5 x 63.5 x 4.5	2.10	
63.5 x 63.5 x 6.35	2.87	
64 x 64 x 2.6	1.18	
65 x 65 x 3.5	1.65	
76.2 x 76.2 x 3	1.74	
76.2 x 76.2 x 4	2.29	
<b>76.2 x 76.2 x 6.35</b>	<b>3.51</b>	✓
<b>76.2 x 76.2 x 9.525</b>	<b>5.03</b>	✓
88.9 x 88.9 x 6.35	3.45	
101.6 x 101.6 x 3.175	2.47	
101.6 x 101.6 x 6.35	4.79	
101.6 x 101.6 x 10	7.25	
114 x 114 x 6	5.13	
114 x 114 x 8	6.72	
152.5 x 152.5 x 10	11.29	

### FRP Threaded Rod and Composite Nuts



## Resin Types

FRP Structural Profiles are produced in two main resin types:

**Isophthalic Fire Retardant - (ISOFR)** - The most popular resin system for marine and industrial applications. ISOFR provides long lasting performance in areas where corrosion is traditionally an issue. The inclusion of Fire Retardant additives gives the profiles a low flame spread rating.

**Vinyl Ester Fire Retardant - (VEFR)** - The premium resin for all applications. VEFR is designed to offer a long service life in the harshest of environments where acids and caustics are present. Structural Profiles constructed from this resin in used in, among others, the oil & gas industry, chemical plants, and fertiliser operations. The inclusion of Fire Retardant additives gives the profiles a low flame spread rating.

### Not sure how to best use FRP Structural Profiles?

FRP Engineering can help you with our Custom Design Service. We can provide all the engineering data for you to make your choices, or we can help design the project to efficiently and effectively use FRP materials. Contact us if you would like to use this professional service.



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### Embedment Angle

Size in mm	Weight (kg/m)	In stock
<b>60 x 40 x 6</b>	<b>1.12</b>	✓
90 x 50 x 6	1.59	

### Kick Plate

Size in mm	Weight (kg/m)	In stock
<b>101.6 x 12.7 x 3</b>	<b>0.84</b>	✓
110 x 3	0.86	
150 x 3	1.06	

### Unistrut

Size in mm	Weight (kg/m)	In stock
<b>41 x 20 x 4</b>	<b>0.70</b>	✓
<b>41 x 25 x 4</b>	<b>0.72</b>	✓
45 x 45 x 3.8	1.10	

## Contact Us

Please contact us for more information about our products and services:

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