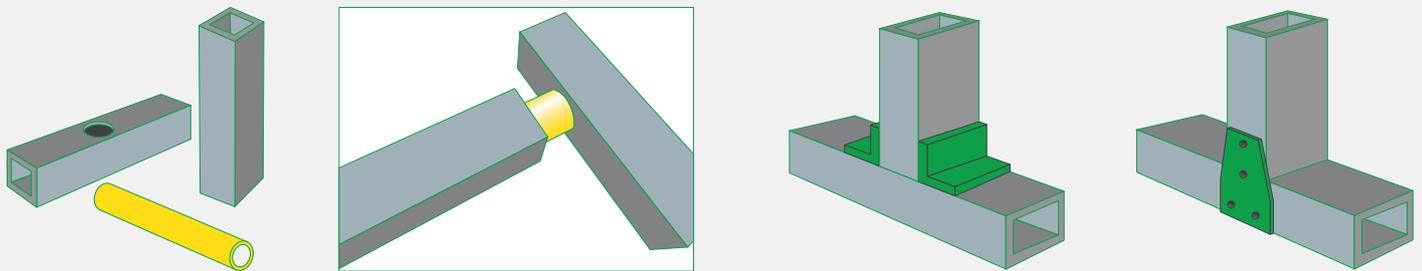


GRP Profiles such as angles, channels, I beams, box sections, tubes and flat plate are used to fabricate various types of structures eg platforms, walkways and handrail systems. GRP Profiles cannot be welded together like steel and therefore connections are made using mechanical fasteners or adhesive or a combination of the two.

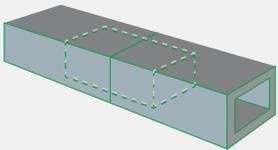
The following illustrations are a guide as to how the profiles can be connected. It is not an exhaustive list and the appropriate method will also be determined by the design loading required and the environment in which the final structure will be used.

One: Box Joint

- Use angle cleats to bolt sections together, can also use a plate on the outside to joint rectangular box together
- Drill a 38mm blind hole, use 38/32mm tube to slide inside the hole and box on top and rivet in place

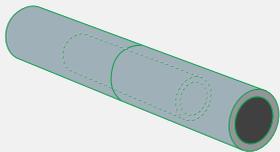


- Use internal grp box spigots to attach sections together



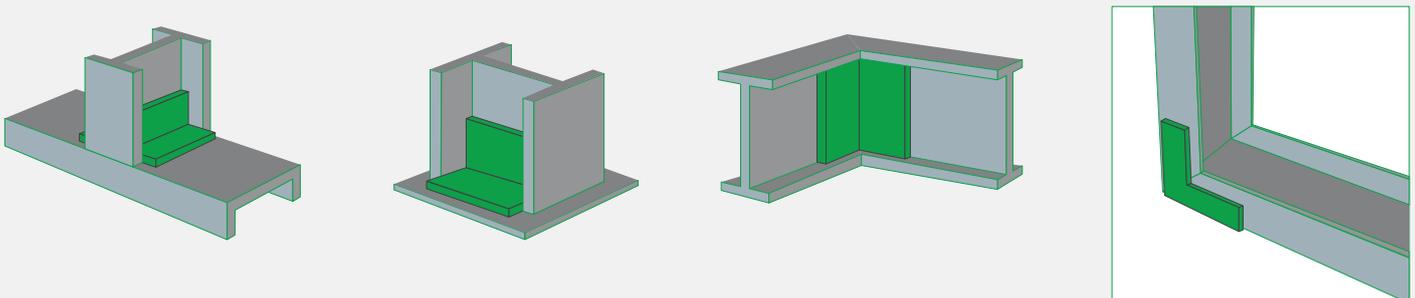
Two: Tube Joints

- Use an internal Tube as a Spigot to bolt both tubes together



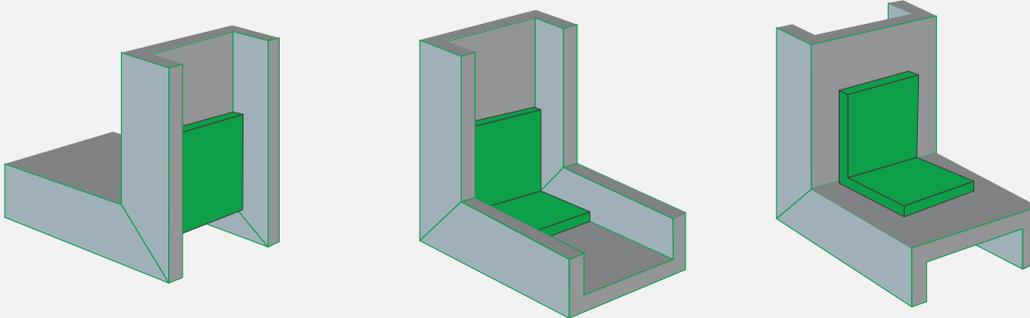
Three: Beam Joint

- Use angle cleats on either the inside or outside of the joint
- Use 90 degree flat plate on outside edge of I beam



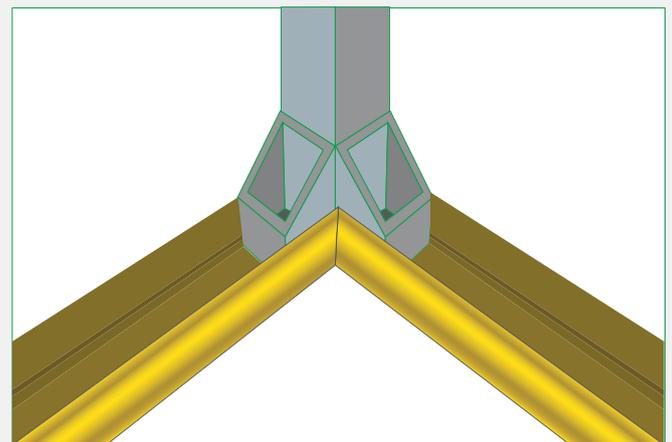
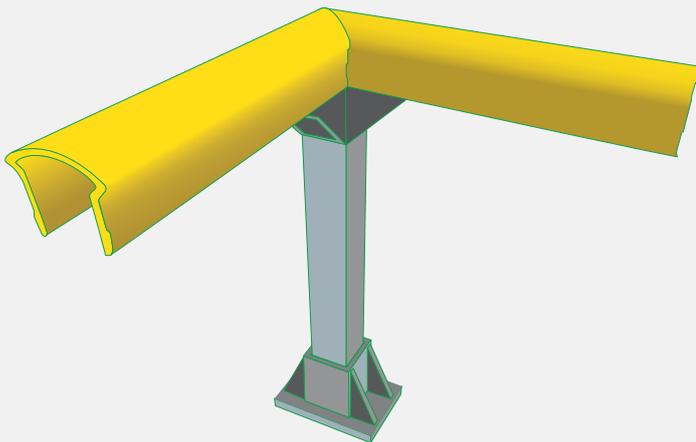
Four: Channel Joints

- Use angle cleats on either the inside or outside of the joint



Five: Handrail Profile joint 90 degree bend

- Small box profiles are used to support the post leg.
- The small box sections are cut to 45 degree to enable rivets to be inserted through the small box and the post.



Six: Other helpful tips

- For ease of cutting use a diamond tipped blade
- Bolts should be used with washers to spread the load on both sides of the profile
- Bolt holes should be only slightly larger than the bolt size
- As a rule of thumb spacing from the edge of the profile for bolt holes should be not less than 2 bolt diameters
- Rivets should be bulb tite or large dome head rivets
- When using adhesive abrade the surface, remove the dust, degrease with solvent and then apply the adhesive following the manufacturers instructions
- If painting the profiles use yacht paint