

## Evenly Distributed Horizontal Load Rating

Length Between Uprights	Steel	Aluminum	1" x 2" Tall	1" x 2" Wide
12"	970 lbs.	648 lbs.	8,250 lbs.	2,648 lbs.
24"	480 lbs.	319 lbs.	4,082 lbs.	1,310 lbs.
36"	304 lbs.	204 lbs.	2,586 lbs.	830 lbs.
48"	242 lbs.	161 lbs.	2,058 lbs.	661 lbs.
60"	194 lbs.	130 lbs.	1,650 lbs.	530 lbs.
72"	148 lbs.	105 lbs.	1,259 lbs.	404 lbs.
84"	138 lbs.	91 lbs.	1,174 lbs.	377 lbs.
96"	122 lbs.	81 lbs.	1,038 lbs.	333 lbs.
108"	104 lbs.	69 lbs.	930 lbs.	295 lbs.
120"	96 lbs.	50 lbs.	826 lbs.	264 lbs.

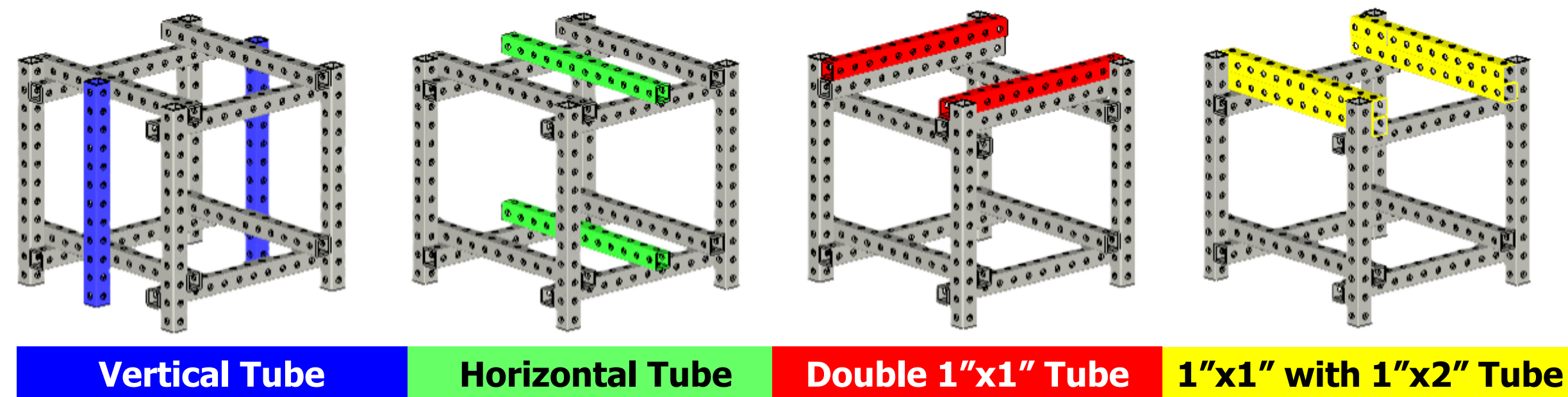
The Above Load Rating is based on the Direct Bolt joint, not Bracketed Joints.

### Calculating Load Capacity example

- An Evenly Distributed Load placed on 2 – 36" steel tubes would start to yield/deflect around 608 lbs. (2 tubes x 304 lbs.).
- Single point load is 1/2 the strength of an evenly distributed load.

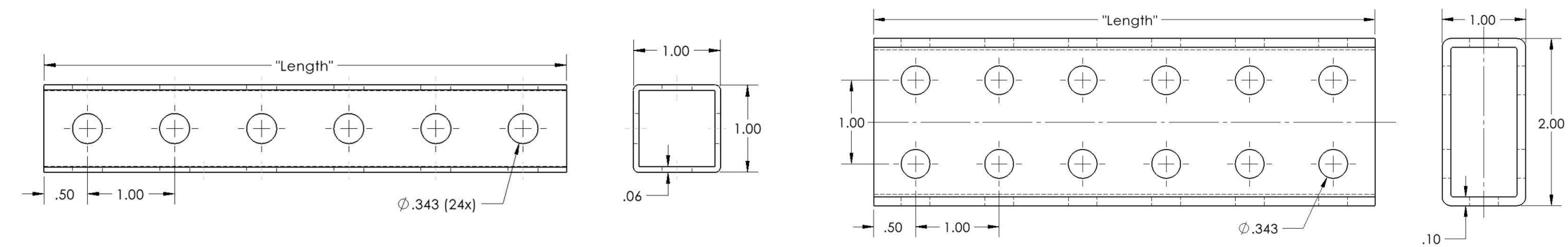
### Adding strength

Add either (or both) additional vertical or horizontal tube supports for additional strength. Double tubes by bolting 2 tubes together horizontally or vertically redistributing the load weight from 2 tubes to 4 tubes. Another option can include incorporating 1x2 tubing where extra support is needed.



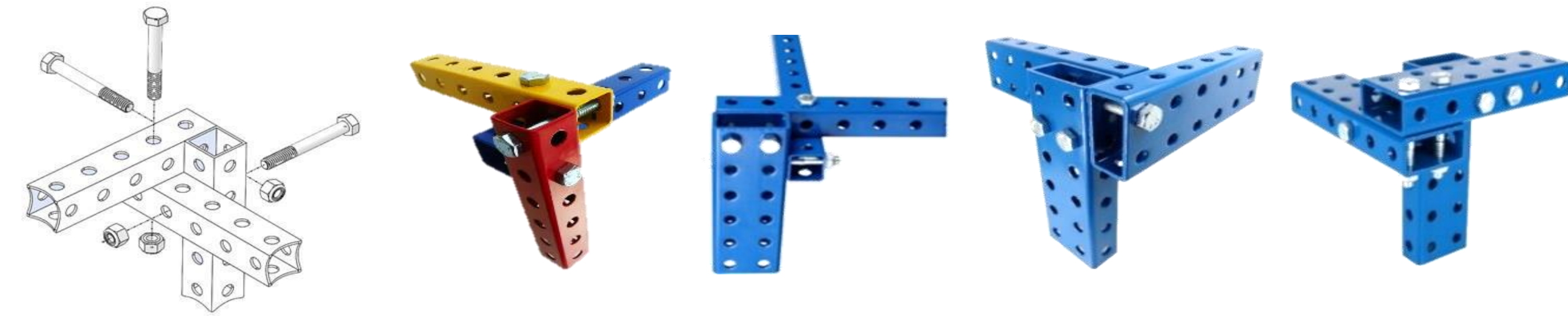
### Technical Specifications

- **Technical specifications are for reference only and are subject to change.**
- **Not intended for human support.**
- 1"x1" 16ga mechanical steel tube recommended torque setting of 7.5ft-lb. & weighs 0.7 lb/ft
- 1"x1" 16ga Aluminum tube recommended torque setting of 4ft-lb. & weighs 0.2 lb/ft
- 1"x2" 12ga mechanical steel tube recommended torque setting of 12ft-lb. & weighs 1.81 lb/ft (Recommended torque settings are to avoid denting the tube.)
- 1" x 2" tube works as a stand-alone framing system and integrates with the 1" x 1" system.
- Bolts used are 5/16 – 18 UNC



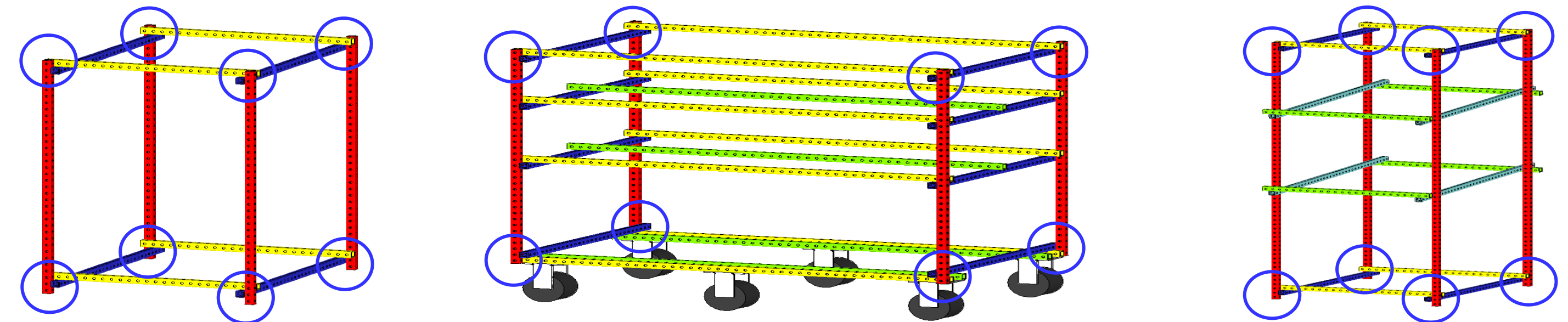
### Direct Bolt Joint\* *Patented, all rights reserved.*

Also known as a 3-point Registration is the most robust joint for constructing the frame of your project. This automatically squares your framework when the bolts are fully tightened. (See Law of cubing) When bolting 2" of tube together use a 2 1/2" bolt, for 3" of tube use a 3 1/2" bolt, etc.



### Law of cubing *Using Direct Bolt Joints*

For the strongest possible construction, use the direct bolt method on as many corners as possible. At a minimum use the direct bolt joint on all outside corners and then fill to fit your needs.



### Casters & Feet

**Expandable casters** turn the top jam nut snug on the rubber spacer. Place the caster into a tube and twist the large lock ring until the rubber locks in the tube.

**Plate casters** use 2-3/4" bolts through 2 tubes and 1-3/4" bolts through 1 tube. Bolt threads must be down, and a nylon lock nut is recommended.

**Universal footers** attach two brackets on opposing corners of the tube. For a 1"x1" tube use 1-3/4" bolts in a perpendicular pattern as shown below. For a 1"x2" tube use a 2-3/4" bolt on top and through both brackets and 1-3/4" bolts on the bottom. Use Nylok nuts to secure.

