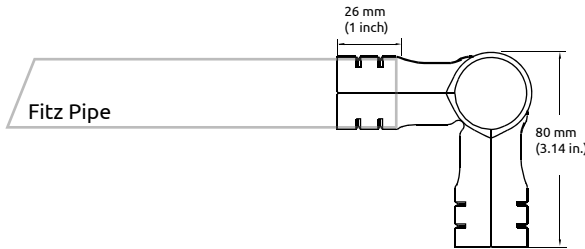




Designing with the Fitz system: Quick Guide to Parts Specs

Sizing the joints

When you're designing something with the Fitz system, you need to take into account the size of the joints.



This is an L-joint, it's a good example of a standard joint. Almost all the lengths of the different joints are the same, but look at the specs on the part listing (on fitzkits.com) to make sure.

SIMPLE RULE OF THUMB WHILE BUILDING:

**The joints are about 3.14 inches (80 mm) long on each side, and
The poles go into them about 1 inch (26mm).**

THIS MEANS:

Each joint adds about 2 inches (50 mm) to the total length of a span.

FOR EXAMPLE:

To build a simple table with 4 L-joints where the outer edge of the tabletop is a 24-inch square, each tabletop pipe must be 24 inches MINUS 2 inches on each side (because there is a joint on each end of the pipes), or about 20 inches.

We suggest using the most precise measurements you can, however if you cut a pole slightly too short it will probably still fit (just be sure it doesn't weaken the support for your project).

Fitz Pipe Strength

Fitz pipe comes in various gauges. To the right is a chart of weight-bearing capabilities of the lightest strength.

To give you an idea of how thick the pipe is, it is roughly similar to 1" EMT conduit.

Fitz Joint Strength

The holding strength for two Fitz joints against a vertical force is about 80 kg, or 176 lbs.

For example, the 24-inch table example above should support about 352 lbs.

Weight limits to light duty (G1 gauge) poles

Span	Weight Limit
450 mm (1'5")	140kg (308 lbs)
900 mm (2'11")	70kg (154 lbs)
1,000 mm (3'3")	58kg (128 lbs)
1,100 mm (3'7")	52kg (115 lbs)
1,300 mm (4'3")	46kg (101 lbs)
1,500 mm (4'11")	38kg (84 lbs)
1,800 mm (5'10")	32kg (70 lbs)