

Lesson 10: Wood Joinery for Construction

Introduction

Woodworking joinery is the process of connecting pieces of wood together to create a sturdier and more lasting piece of furniture or a structure. They are most commonly used for furniture and wood framing structures for buildings and houses.

At its core, joinery provides more than just the structural integrity and it also elevates one's craftsmanship, allowing the individual to create durable and elegant workpieces.



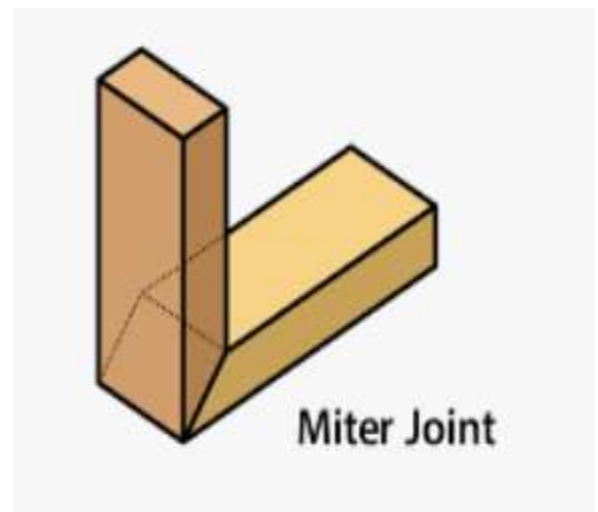
Types of Wood Joinery

Butt-Miter Joint

The **Butt-Miter Joint** is constructed when two pieces of wood are cut at complementary angles, which is 45 degrees. These are then joined together, forming the 90-degree corner.

Characteristics

- Primarily aesthetic
- Structurally weak unless reinforced
- A precise angle is essential for the 90-degree connection



Mitered Half-lap Joint

The Mitered Half-Lap Joint is formed from the overlapping technique of half-lap with the angled aesthetic of a miter joint. Each wood piece is notched to half its thickness, and the exposed surfaces are mitered at an angle of 45 degrees.

Characteristics

- Offers aesthetic appeal
- Has good structural strength



Keyed Miter Joint

The keyed Miter Joint is a type of miter joint that has a decorative “key” which is placed in the slot of the mitered corner of the two combined wood pieces.

Characteristics

- Stronger than normal Miter Joint
- Has a decorative frame appearance
- Very durable because of its key



Mortise and Tenon Joint

The **Mortise and tenon joint** is a woodworking joint that connects two workpieces at an angle of 90 degrees. The joint consists of two primary components, which are the “Mortise” and “Tenon”.

Characteristics

- Extremely strong and stable
- Considered the strongest standard wood joint

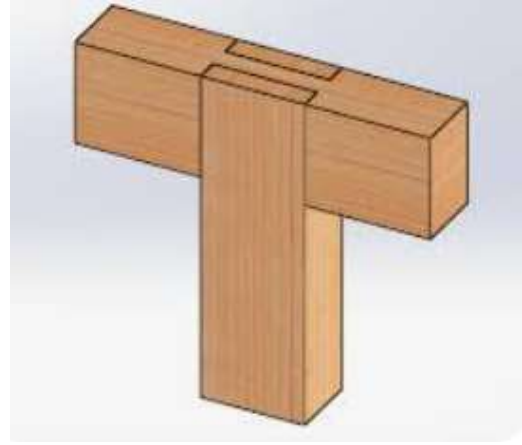


T-Bridle Joint

The **T-Bridle Joint** is a type of woodworking joint that is similar to a Mortise and Tenon joint. The difference is that the Tenon and slot are extended across the full width.

Characteristic

- Highly resistant to racking
- Has an excellent glue surface
- Holds together well even without glue



Terminologies

Wood Joinery– A woodworking technique that utilizes two workpieces to have a shaped feature that allows them to lock in with each other, creating a strong and effective lock.

Key – In the Key Miter join, the “Key” is a small wood piece that is inserted in the mitered corners of the wood.

Mortise – In woodworking, the “Mortise” is the housing or the hole where the tenon slides in forming the Mortise and Tenon Joint.

Tenon – The “Tenon: is the piece that has a tongue-like piece that slides into the Mortise, forming the Mortise and Tenon Joint.

Reference

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