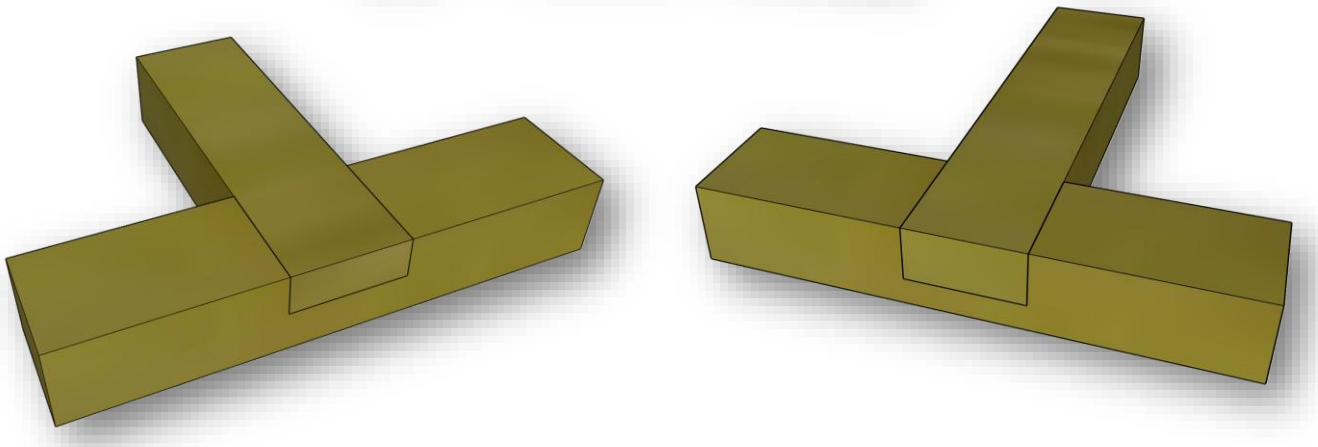
STRETCH & CHALLENGE!

T OR TEE



S&C Code: S&C003
S&C Type: Individual
S&C Title: T or Tee?
Rating: Medium/Difficult

Educon

LCB

STRETCH & CHALLENGE!

This end-of-year Stretch & Challenge event is designed to push your carpentry and joinery skills further than ever before. Throughout the course you've built confidence with tools, techniques, and teamwork — now it's time to put those abilities to the test in a series of fun, hands-on challenges.

You'll work both individually and as part of a team to produce accurate joints, solve practical problems, and demonstrate the craftsmanship you've developed this year. Each task is designed to stretch your precision, creativity, communication, and professional standards, giving you a taste of the expectations found in real workshop environments.

This is your chance to show what you can do, challenge yourself, and take pride in the progress you've made. Let's see your best work.

AIM:

The aim of this activity is to challenge learners to correctly identify, name, and construct two commonly confused wood joints — one familiar and one unfamiliar — while developing precision, accuracy, and deeper technical understanding. The competition highlights the importance of correct terminology in joinery and encourages learners to refine their practical skills through hands-on construction.

LEARNING OBJECTIVES:

By the end of this activity, learners will be able to:

- Distinguish between two commonly misnamed joints and use correct terminology
- Accurately mark out and construct both joints using appropriate datum edges
- Apply safe and precise hand-tool techniques to achieve clean, accurate fits
- Demonstrate problem-solving when refining joint tolerances
- Reflect on why correct naming and identification matter in professional carpentry
- Compare the difficulty, purpose, and application of each joint

ACTIVITY OVERVIEW:

Learners will construct **two joints**:

1. **A joint they already know** (e.g., a T-halving or tee-lap joint)
2. **A joint they often misname or confuse with the first** (e.g., a tee-bridle or T-joint variation)

The competition element challenges learners to:

- Correctly identify each joint
- Produce both joints to the highest standard
- Demonstrate accuracy, clean workmanship, and correct terminology
- This activity blends theory and practice, helping learners understand why misnaming joints can lead to errors in communication, ordering, and construction.

WHY?:

This activity strengthens:

- **Technical vocabulary** — ensuring learners use correct joinery terminology
- **Practical accuracy** — marking out and cutting two medium–hard joints
- **Comparative understanding** — analysing similarities and differences between joints
- **Fine motor skills** — controlled sawing, chiselling, and paring
- **Professional communication** — using correct names when discussing work
- **Confidence** — tackling a joint they may not have seen before
- It also prepares learners for Level 2 progression by exposing them to more complex joint variations.

STUDENT INSTRUCTIONS:

1. Collect your timber pieces and check they are square and free from defects.
2. Identify the two joints you will be constructing.
3. Study the diagrams provided and note the differences between the joints.
4. Mark out Joint 1 using datum edges and accurate measurements.
5. Cut and chisel the joint carefully, test-fitting as you go.
6. Repeat the process for Joint 2, paying attention to the features that differ.
7. Label each joint with its correct name.
8. Present both joints for comparison, assessment, and competition judging.

LECTURER INSTRUCTIONS:

- Introduce the concept of misnamed joints and why accuracy matters in industry.
- Show examples of both joints and highlight key differences.
- Demonstrate marking out for each joint, emphasising datum control.
- Model safe chisel and saw techniques for internal and external cuts.
- Support learners with measurement checks and tool selection.
- Facilitate the competition by displaying finished joints and encouraging peer comparison.
- Provide feedback focusing on accuracy, terminology, and craftsmanship.

SCAFFOLDING STRATEGY:

(SEND-friendly & mixed-ability)

- Provide **side-by-side diagrams** showing the differences between the two joints.
- Offer **pre-marked templates** for learners who need support with layout.
- Supply **partially prepared stock** for learners who struggle with sawing accuracy.
- Use **colour-coded diagrams** to highlight waste areas vs. joint features.
- Provide **practice blocks** for learners to rehearse chisel control.
- Allow **paired working** for learners who benefit from collaborative support.
- Offer **guided worksheets** with step-by-step marking-out prompts.

DIFFERENTIATION STRATEGIES:

For learners needing support:

For learners needing support:

- Simplify one of the joints by reducing the number of interlocking features
- Provide a “fill-in-the-blanks” marking-out sheet
- Allow extended time or break the task into smaller steps
- Use thicker stock to make features easier to visualise
- Provide a labelled diagram showing each part of the joint

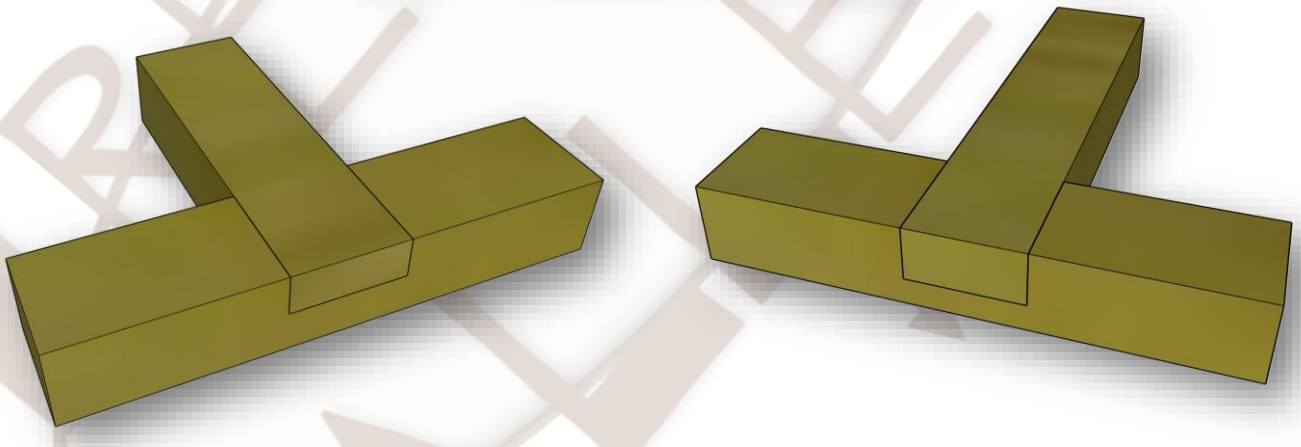
For learners ready for challenge:

- Introduce a third joint variation and ask learners to compare all three
- Add a time-based competitive element
- Require learners to produce a technical sketch of both joints
- Ask learners to explain why the two joints are commonly misnamed
- Introduce tolerance targets (e.g., <1mm gap)
- Challenge learners to teach another student the difference between the joints

ASSESSMENT OPPORTUNITIES:

- **Terminology accuracy** — correct naming and identification of both joints
- **Marking out** — clarity, accuracy, and correct use of datum edges
- **Cutting precision** — clean saw lines, minimal tear-out
- **Chisel control** — smooth internal faces, no over-cutting
- **Joint fit** — tightness, alignment, and engagement
- **Workmanship** — finish quality, safe working, tool care
- **Reflection** — learner explanation of differences between the joints

T OR TEE

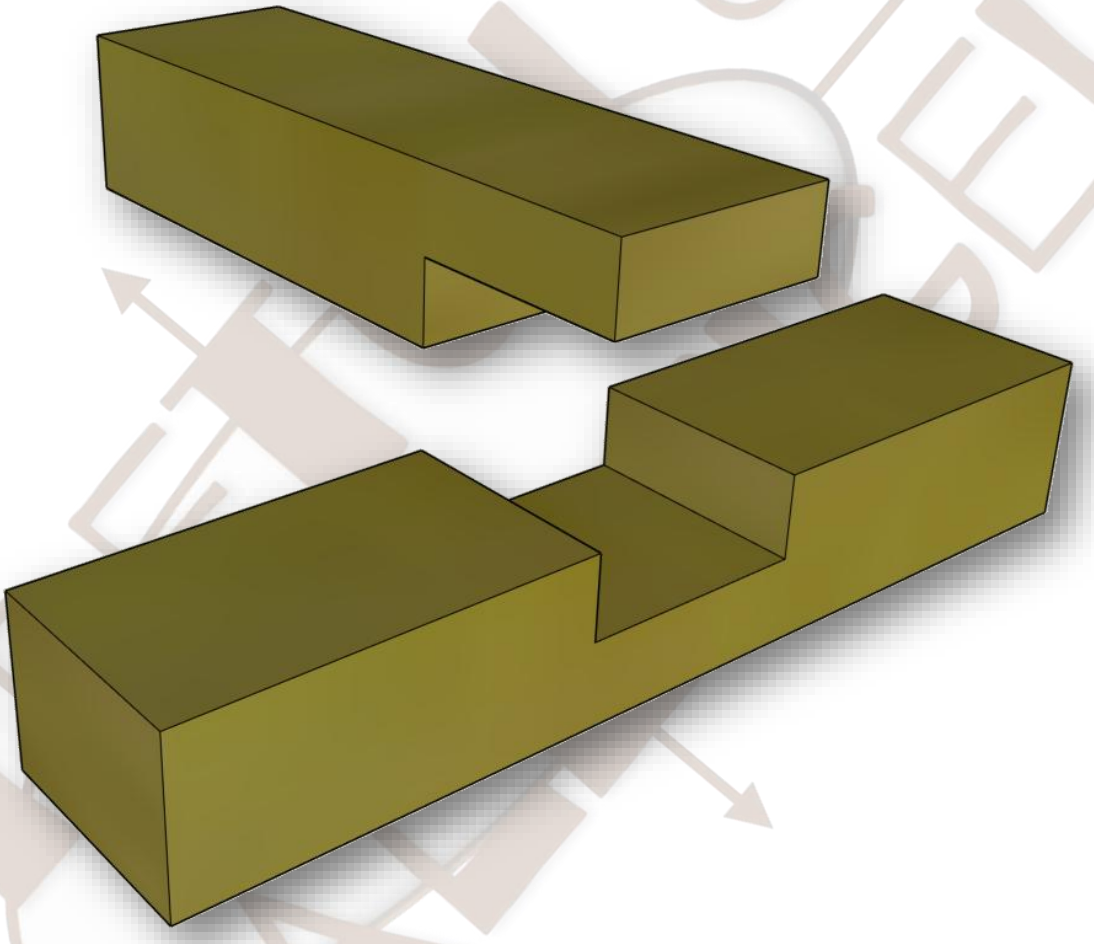


S&C003:
T or Tee?

LCB STRETCH & CHALLENGE!	Stretch & Challenge.
	Leeds College of Building
S&C003	Scale: none.
	Drawing No.001.
Date20/04/2026.	James Rix.

T Halving Joint.

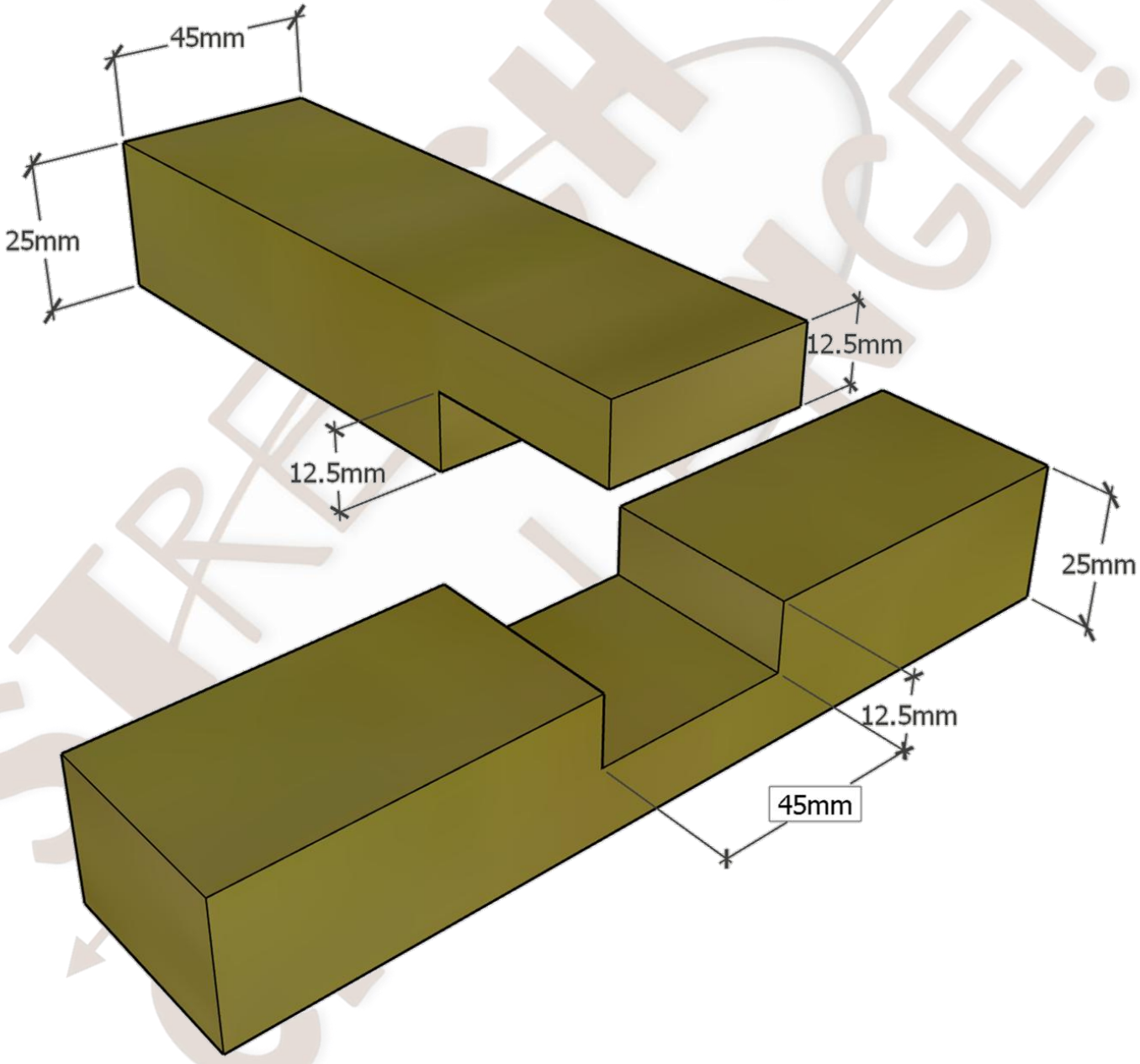
Exploded View.



A **T-halving joint** is a woodworking connection where two pieces of timber intersect at a right angle, each cut to half its thickness so they fit flush together in a “T” shape. It provides a strong, neat joint commonly used in frame construction and furniture making.

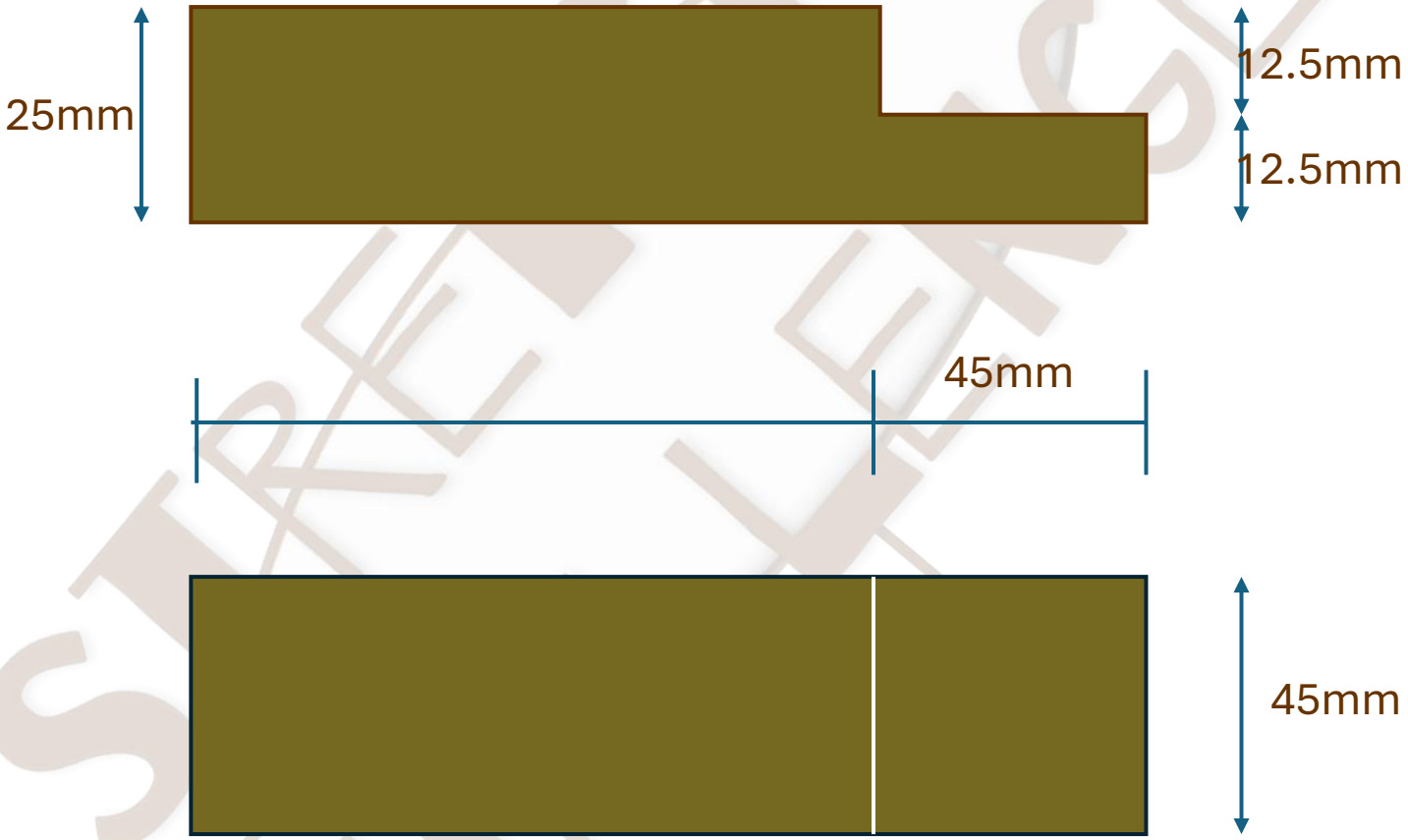
T Halving Joint.

3D Perspective.

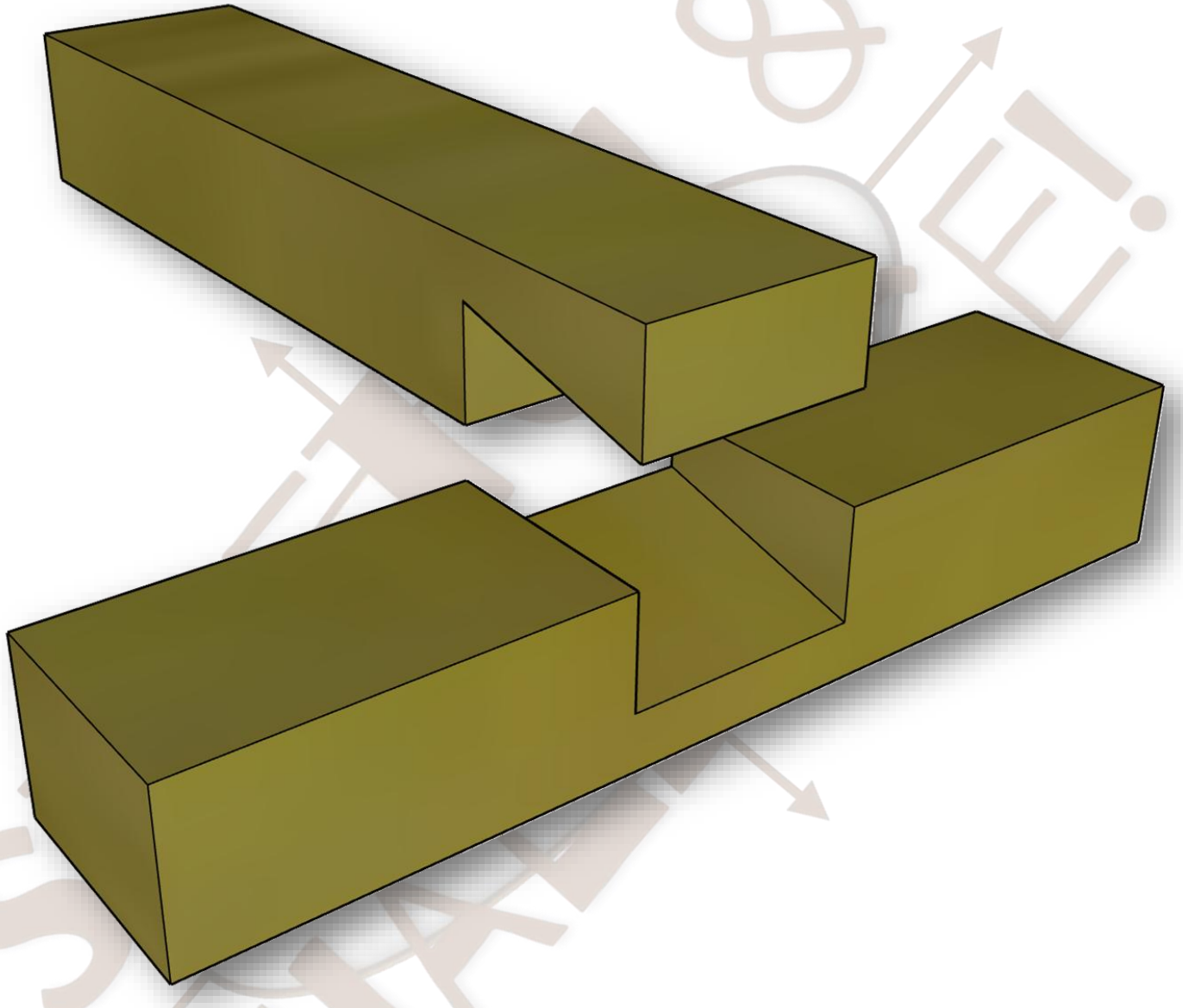


T Halving Joint.

Orthographic View.



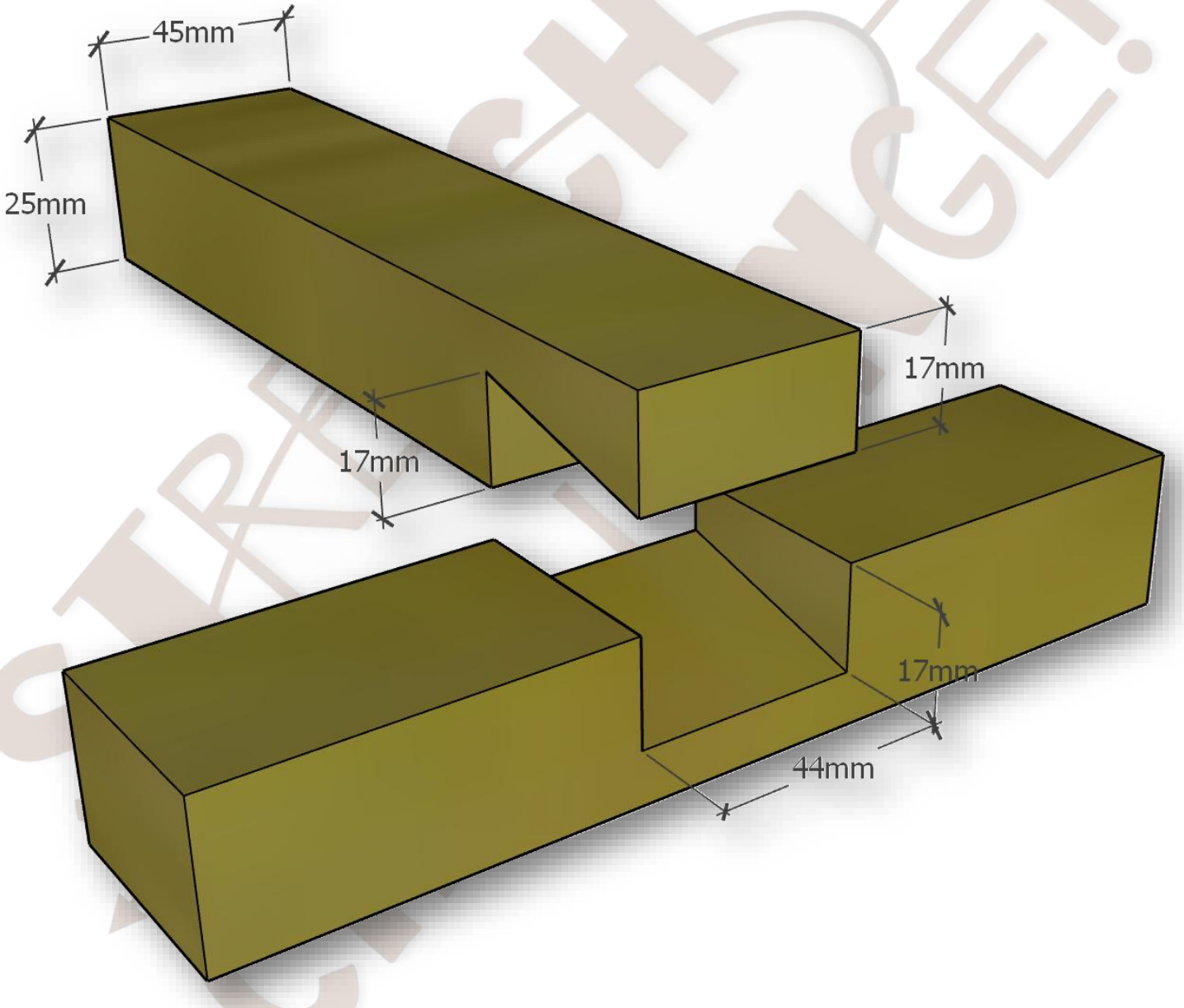
Tee Halving Joint.



A **tee joint** is a woodworking connection where one piece of timber meets another at a right angle, forming a “T” shape. It’s commonly used in framing, carcassing, and structural assemblies where a vertical member needs to join securely into the face of a horizontal one.

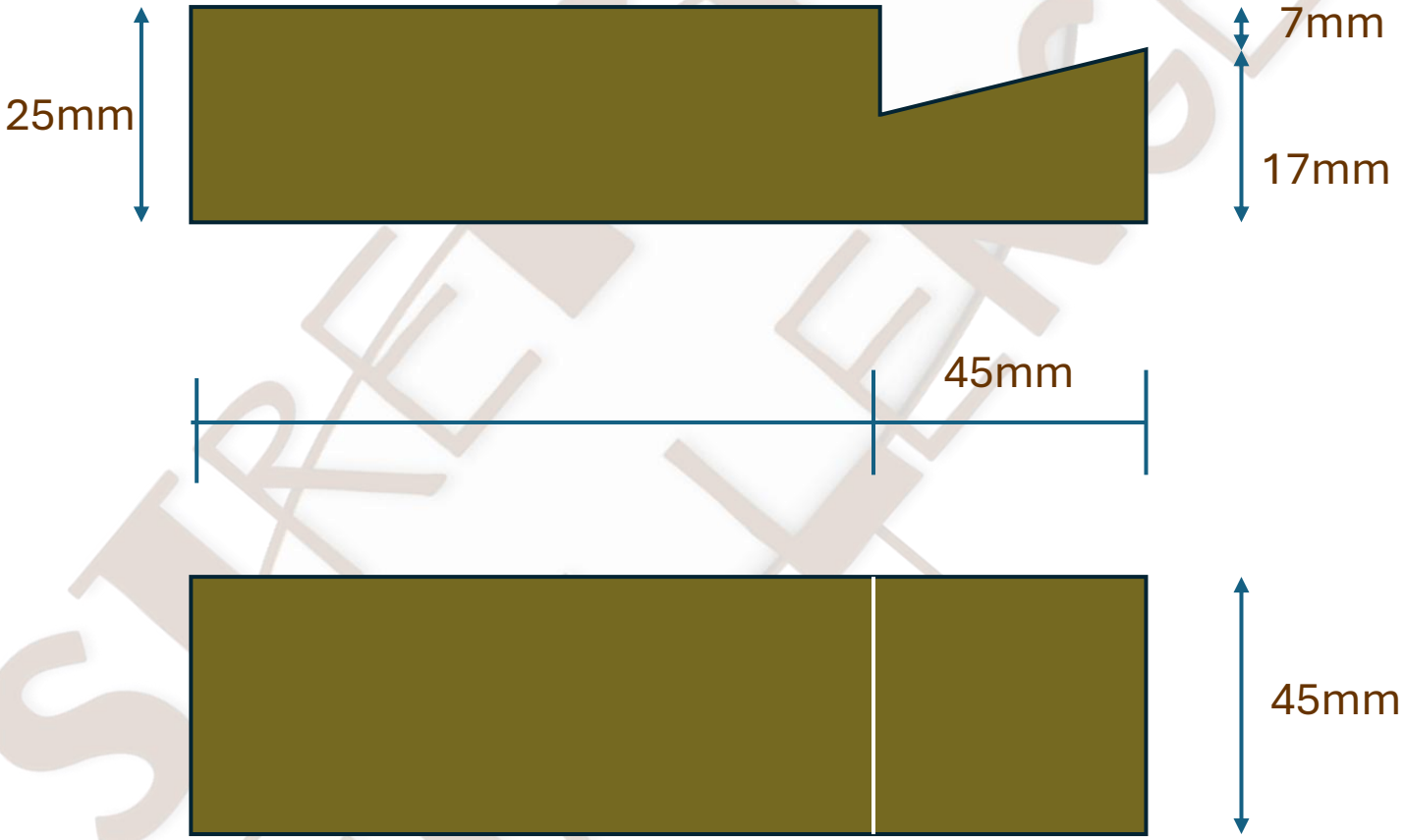
Tee Halving Joint.

3D Perspective.



Tee Halving Joint.

Orthographic View.



T Halving Joint

MARKING CRITERIA:

Task	★★★	★★☆	★☆☆
Marking Out			
Face side & face edge marked	yes	no	Not used
Lines are sharp, clear and consistent	Good	Medium	Requires Improvement
Lines are within accuracy	1mm	2mm	3mm
Waste clearly identified			
Sawing			
Saw cuts with no drifting	1mm	2mm	3mm
Cuts are straight and vertical	1mm	2mm	3mm
Accuracy of cutting to lines	1mm	2mm	3mm
Tear out & Bruising			
Chisel Work			
Cuts are controlled and follow marked lines	1mm	2mm	3mm
Shoulders are crisp and square	Yes	No	N/A
Depth is consistent	Yes	No	N/A
Waste removed cleanly			
Joint Fit			
Joints fit together without force	1mm	2mm	3mm
No visible gaps when assembled	1mm	2mm	3mm
Shoulders are tight and sit flush	1mm	2mm	3mm
Joint sits square when fitted	1mm	2mm	3mm

Task	★★★	★★☆	★☆☆
Surface Quality			
Edges are clean and free from splinters			
No deep tool marks or gouges			
Faces are smooth and consistent			
Arrises are slightly eased			
Behaviours			
Tools used safely and correctly			
Work area kept tidy and safe			
Handled with care			
Good communication throughout			

Tee Halving Joint

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