



WORKSTATION

Product Manual

SW1-AA

WARNINGS

To reduce the risk of injury, you must read and understand this product manual.

This product is intended for use with Shaper Origin. Read and understand the Shaper Origin product manual prior to use.

- ▲ **WARNING!** Failure to follow the warnings and instructions in either of the above manuals may result in serious injury.
- ▲ **WARNING!** It is possible to cut into the aluminum parts of the Shaper Workstation! Follow instructions and use extra care to reduce this possibility.
- ▲ **WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to: www.P65Warnings.ca.gov/wood.

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Save all warnings and instructions for future reference.

Personal Safety

Always use appropriate eye, ear and respiratory protection when operating power tools. Keep the manufacturer-supplied guard installed.

Keep fingers and other body parts away from rotating cutting tools when plugged in.

Support

Visit support.shapertools.com to see answers to frequently asked questions and find Shaper Support contact information.

Warranty

The Shaper Workstation carries a warranty. Visit support.shapertools.com for information.

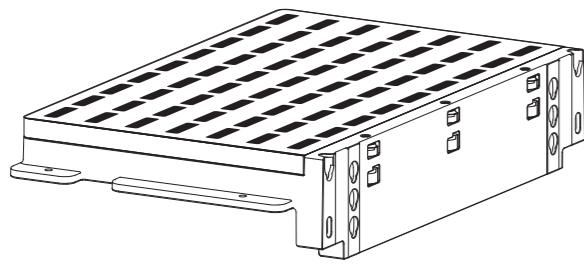


shapertools.com/workstation/start

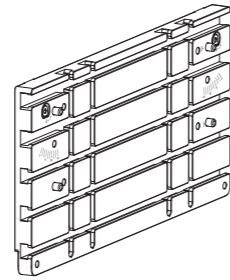
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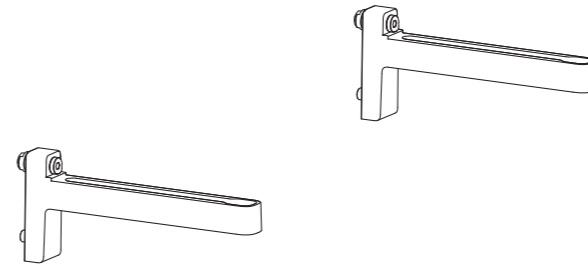
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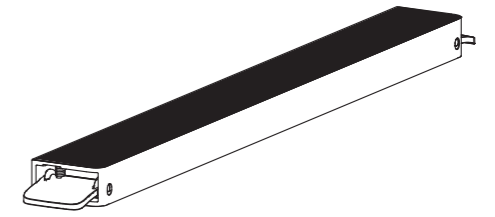
Body
The ShaperTape surface and core of the Workstation.



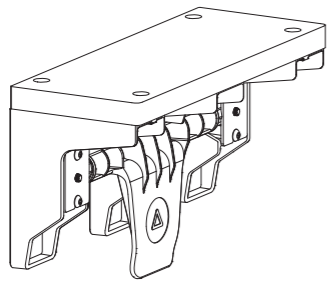
Clamping Face
A versatile clamping platform that attaches to the Body at 90°.



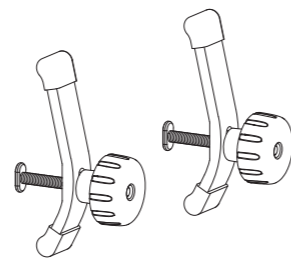
Support Arms
Hold the Support Bar in plane with the ShaperTape surface of the Body.



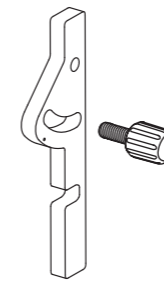
Support Bar
Adjustable support for the front edge of Origin.



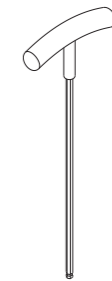
Shelf
Height-adjustable surface for fixturing small or difficult-to-hold workpieces.



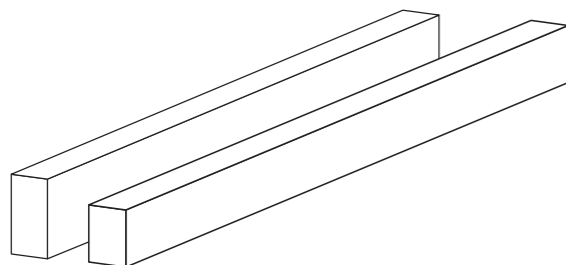
Hold Down Clamps
Included T-Track Clamps for versatile and secure fixturing.



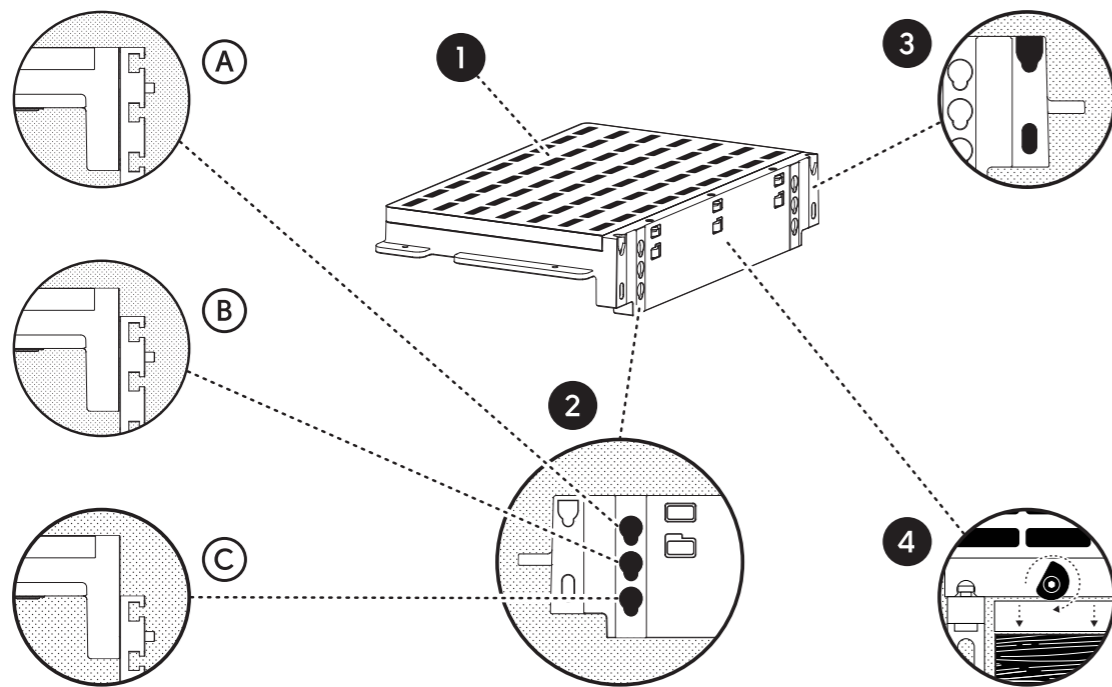
Angle Fence
Easy-to-adjust fence used for simple alignment of a workpiece at an angle.



4mm Wrench
T-Handle Hex Wrench for every commonly used screw on the Workstation.

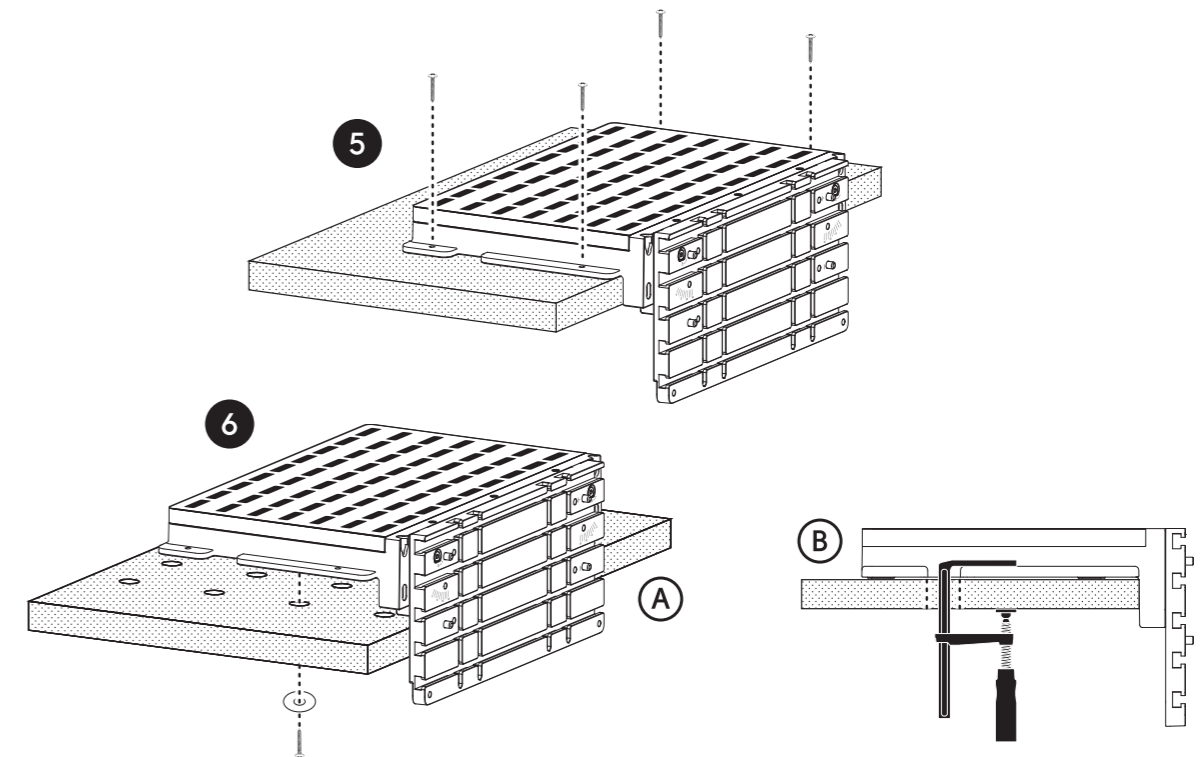


Spoilboards
Sacrificial material (MDF) used to minimize tear-out when cutting.



Body

- 1 ShaperTape Surface
- 2 Clamping Face Mounts (3x)
Each set mounts the Clamping Face at a specific height relative to the top surface of the Body. This allows for different height Spoilboards to be installed.
 - A. 0mm – No Spoilboard
 - ▲ **WARNING!** Risk of cutting into aluminum. Only use this setting when you do not intend to cut beyond the back edge of your material.
 - B. 25mm Spoilboard
 - C. 50mm Spoilboard
- 3 Support Arm Mounts
- 4 Spoilboard Tensioning Cams (3x)
Cams used to clamp the Spoilboard against the back edge of your material; this will minimize tear-out in your work. Use the 4mm Wrench to tighten the Cam screws on the top edge of the Body. Do not over-tighten the Cams; too much pressure can push your material out of alignment.



Secure Body to Bench

The Shaper Workstation has been designed to easily attach to any workbench. See the options below.

Remove the Clamping Face from the underside of the Body

Rotate the Lock Screws counterclockwise with the included 4mm Wrench and slide the entire assembly up, then out.

You can reattach the Clamping Face to the underside of the Body for storage.

5 Attach the Workstation to any wooden bench top

Use the holes (four total) located in the flanges on the right and left side of the Body to permanently attach the Workstation to your bench with the provided wood screws. Tighten screws until snug, but do not overtighten.

Optionally, you can install threaded inserts or bolt holes. Refer to page 29 for hole pattern details.

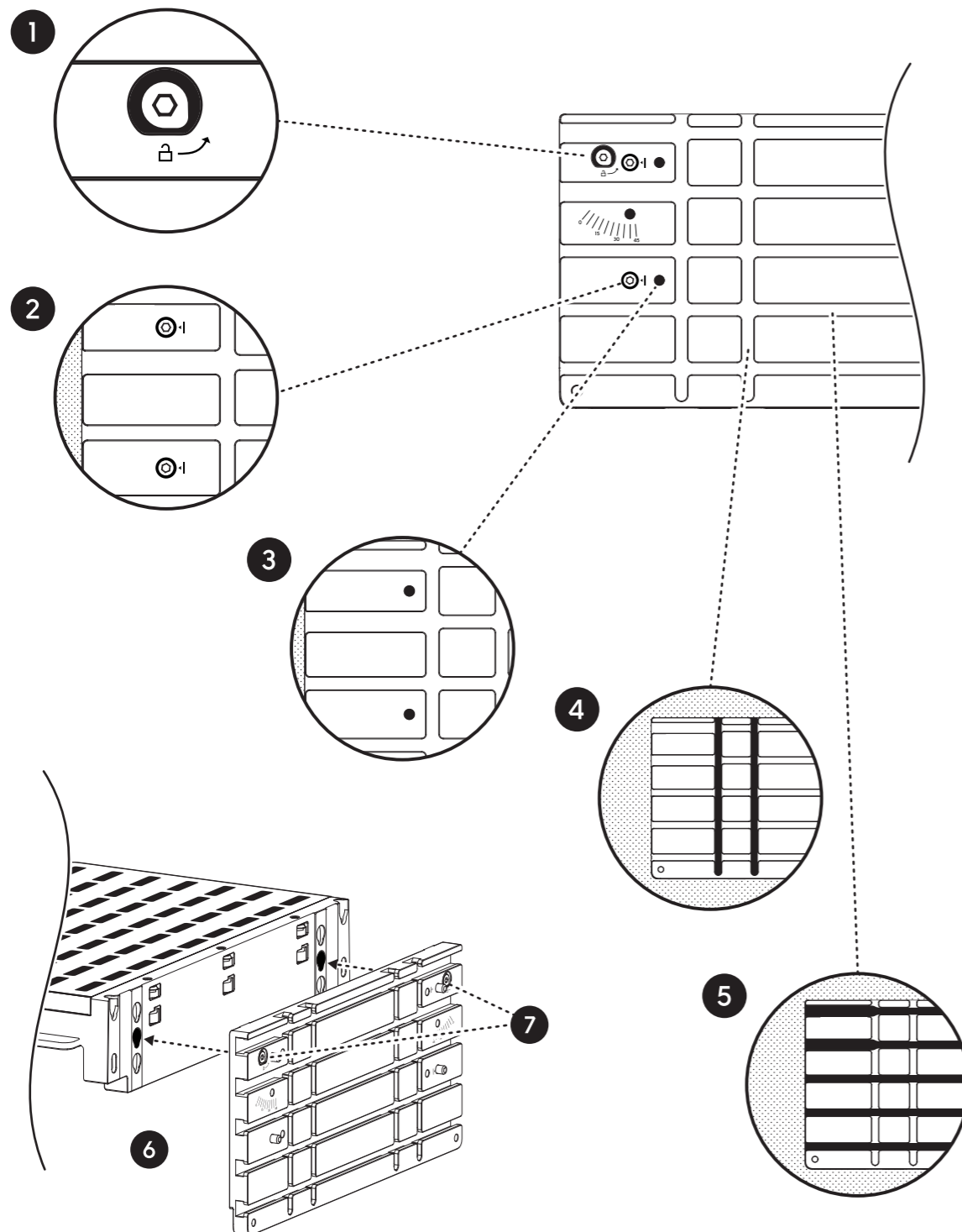
6 Attach the Workstation to a Festool MFT/3 or MW 1000

A. Align the mounting points on the bottom of the Body with the hole pattern on the top of your MFT/3 or MW 1000. To attach, use an M6 x 1.0 x 40mm screw or threaded knob and an M6 fender washer (not provided).

B. Attach with two FSZ 120 or FS-HZ 160 clamps, using the notch in the flange on the right and left side of the Body.


See page 29 for more information.

▲ **WARNING!** For your safety and the stability of the Workstation, do not skip this step.



Clamping Face

- 1 Lock Screws
- 2 Vertical Alignment Pins (2x Left, 2x Right)

The four Vertical Alignment Pins are marked with this icon: 
 To extend, rotate the pin counter-clockwise with the 4mm Wrench.

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Ensure that the Alignment Pins are extended until snug before using, but do not over-tighten.
- 3 Auxiliary Mounting Holes

Used to secure custom or project-specific fixtures to the Clamping Face.

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Refer to page 29 for more information.
- 4 Vertical Clamping T-Slots

Use with the Hold Down Clamps when holding work horizontally.

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Refer to page 26 for specific dimensions and other compatible clamps.
- 5 Clamping T-Slots

Use along with the Hold Down Clamps for general workholding.

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Refer to page 26 for specific dimensions and other compatible clamps.

Clamping Face Attachment

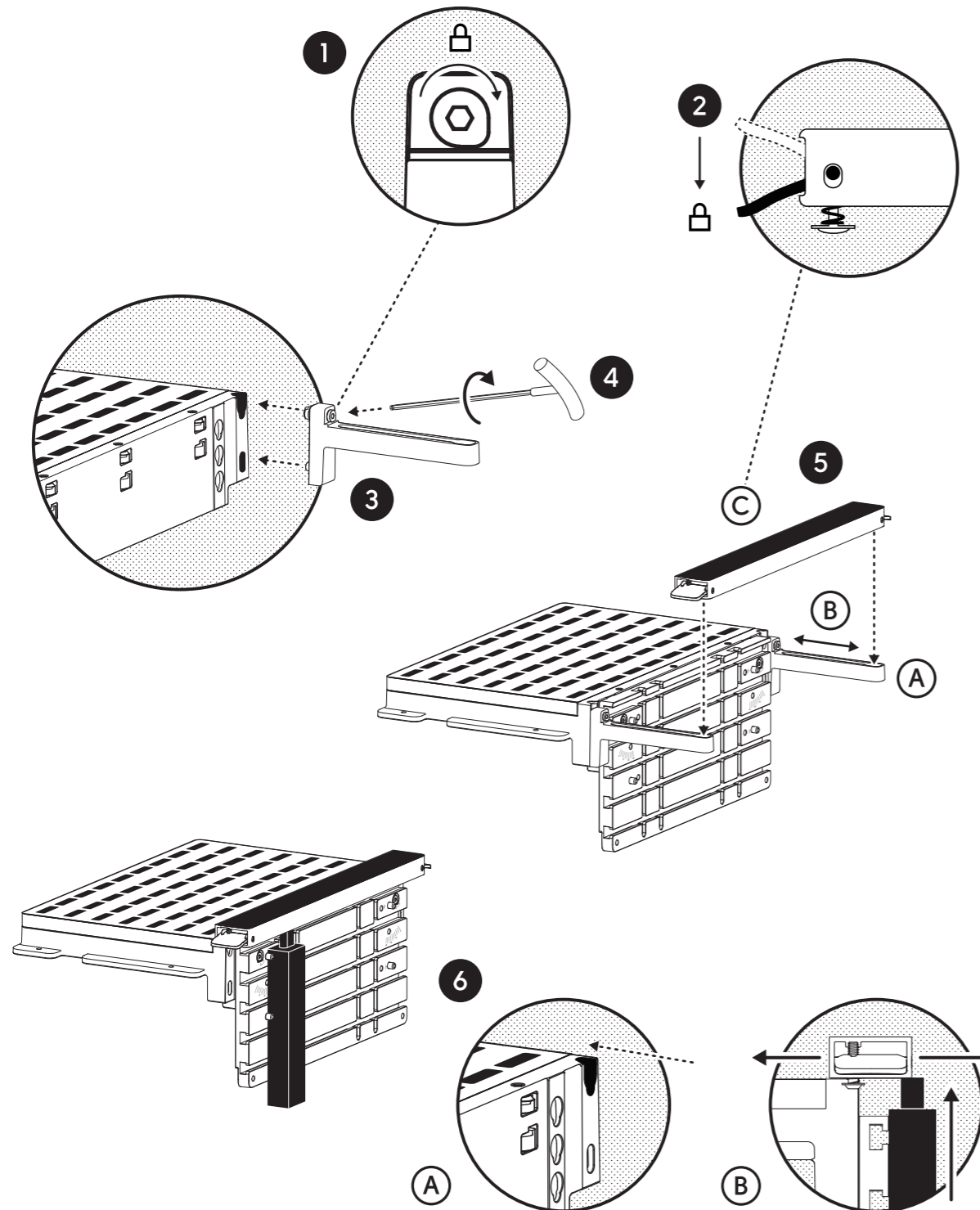
- 6 Attach Clamping Face to Body

There are three sets of mounting holes on the front edge of the Workstation Body. Align the pegs on the back side of the Clamping Face with the middle set of mounting holes. Insert the Clamping Face and slide it down into place.

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For information on mounting positions, see page 6.
- 7 Tighten the two Lock Screws

Rotate the Lock Screws clockwise until snug, but do not over-tighten. There is a hard limit built into the Lock Screw, but you may not be able to tighten all the way to that limit. Do not force the Lock Screws.



Support Bar & Support Arms

- 1 Lock Screw
- 2 Lock Handles

Support Bar Attachment

- 3 Attach both Support Arms to the Body

The Support Arms attach to the outermost mounting positions on the front of the Body.

Align the clamping peg and pin on the Support Arm with the corresponding holes on the Body. Insert each Support Arm and slide it down into place.

- 4 Tighten the Lock Screws

Rotate the Lock Screws clockwise until snug, but do not over tighten.

Though there is a hard limit built into the Lock Screw, you may not be able to tighten all the way to that limit. Do not force the Lock Screw!

- 5 Install the Support Bar

A. Align the two screws on the underside of the Support Bar with the openings at the end of both Support Arms.

B. Insert the screws and slide the Support Bar forward along the tracks. Adjust the Support Bar depending on the needs of your project.

▲ **WARNING!** Risk of cutting into aluminum. Always be sure to leave room for your cutter between your workpiece and the Support Bar.

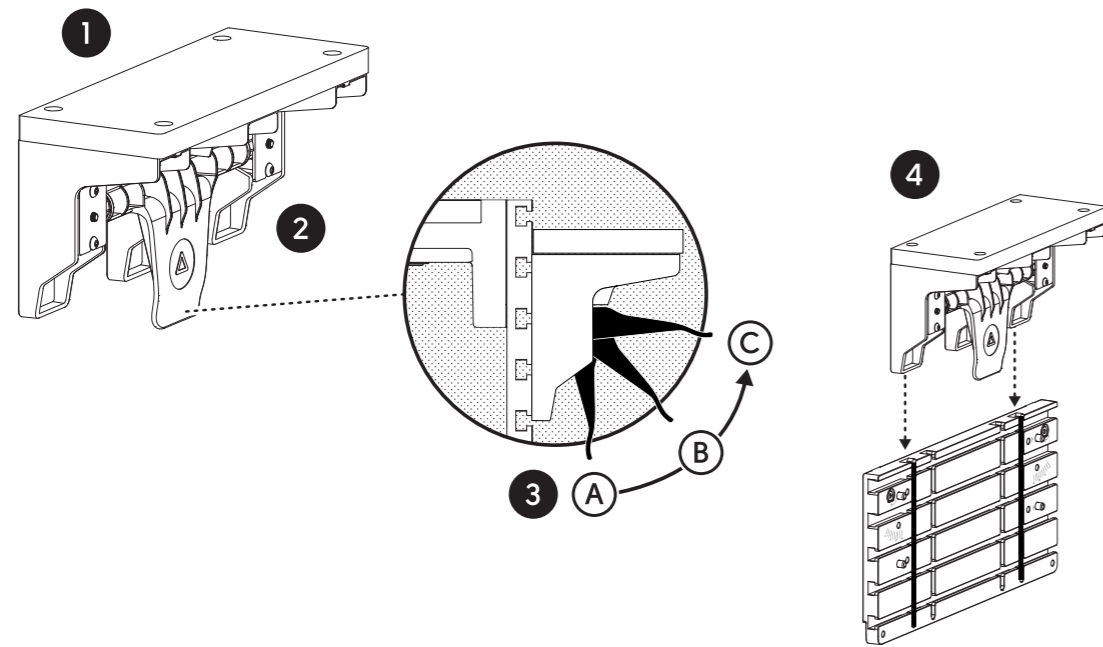
C. Press down on the left and right Lock Handles to lock the Support Bar in place.

.....
 Always align the sensor bar on the front edge of Origin's base with the top of the Support Bar for a successful Z-Touch directly on your workpiece.

- 6 Configure as vertical end stop for repeatable clamping

A. Insert screws on the bottom of the Support Bar with corresponding slots on the front edge of the Body. Clamp in place with the Lock Handles.

B. This configuration is useful for aligning ANY stock surface with the top surface of the workstation. Common applications include working vertically, horizontally or on small stock.



Shelf

1 Shelf Top

The Shelf Top is a consumable platform for mounting work to the Shelf.

Refer to page 26 for information on replacing or creating custom Shelf Tops.

2 Shelf Body

Holds the Shelf Top perpendicular to the Clamping Face

3 Lock Handle

The Lock Handle has three distinct stop positions: Unlocked, Adjustable, and Locked.

- A. Press the Handle all the way down for the Unlocked position.
- B. Pull the Handle towards you to the first stop. This is the Adjustable position. The Adjustable position is snug, but still allows the Shelf to move up and down in the tracks.

- C. Pull the Handle towards you to the last stop. This places the Shelf in Locked position.

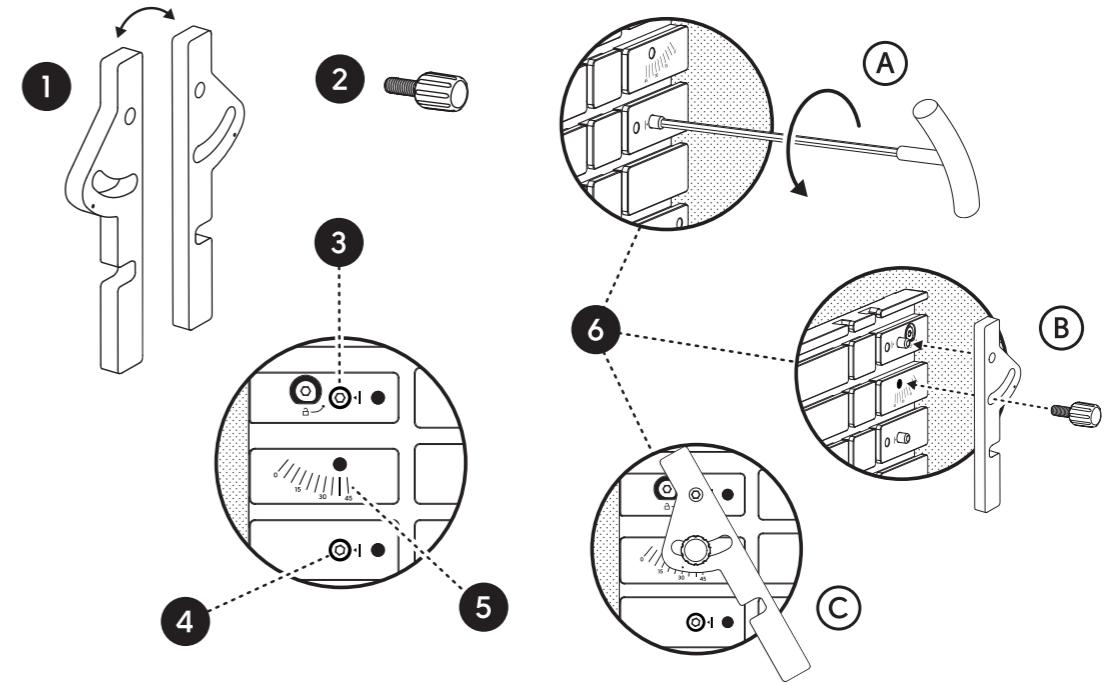
Shelf Attachment

4 Install the Shelf

Align the T-Slot connectors on the back of the Shelf with the corresponding vertical tracks in the front of the Clamping Face. Slide the Shelf down into the tracks, and hold it in place.

Secure with the Lock Handle

Locate the plastic handle under the top surface of the Shelf. Pull the handle towards you to lock.



Angle Fence

The Angle Fence is primarily intended to be used as a repeatable angle reference. Common applications include Angled/Dog-leg Tenons.

1 Angle Fence

The Angle Fence can be used on either the left or right side of the Clamping Face.

The Angle Fence can also be used to support short workpieces vertically, when the workpiece is not long enough to make contact with both Vertical Alignment Pins.

2 Lock Screw

Locks Angle Fence in place.

3 Upper Vertical Alignment Pin

The Angle Fence pivots on this pin.

4 Lower Vertical Alignment Pin

The Angle Fence hard stops at 0° on this pin.

5 Scale

The Scale is marked in 5° increments between 0° – 45°

Angle Fence Attachment

6 Install the Angle Fence

- A. Use the 4mm Wrench to extend the upper and lower Vertical Alignment Pins on the side of the Clamping Face that you will be using.

Ensure that the Vertical Alignment Pins are extended until snug before using the Angle Fence.

- B. Press the Angle Fence on, aligning the upper hole on the Angle Fence with the Upper Vertical Alignment Pin.
- C. Install the included Lock Screw through the slot on the Angle Fence and into the corresponding threaded hole on the Clamping Face.

Vertical Workholding

Cutting Tenons & Finger Joints

Install the Clamping Face at the appropriate height setting for your project

Set the Clamping Face lower than the maximum depth of cut for your project.

▲ **WARNING!** Always double-check your depth of cut so as to not cut into the Clamping Face!

1 Extend both of the Vertical Alignment Pins

Select the side of the Clamping Face that you will be using and extend both Vertical Alignment Pins using the 4mm Wrench.

2 Configure the Support Bar as a vertical end stop

This will make it easy to adjust your workpiece height

.....
See page 11 for instructions.

3 Clamp your stock into the Workstation

Ensure the reference edge is pressed against the alignment pins and the top is in contact with the end stop. Secure your work, ideally using more than one clamp to ensure a strong hold.

4 Replace the Support Bar

Move the Support Bar back onto the Support Arms. Adjust, leaving clearance for your cutter between the workpiece and the edge of the Support Bar.

▲ **WARNING!** Risk of cutting into aluminum. Always be sure to leave room for your cutter between your workpiece and the Support Bar.

5 Install and Adjust Spoilboard

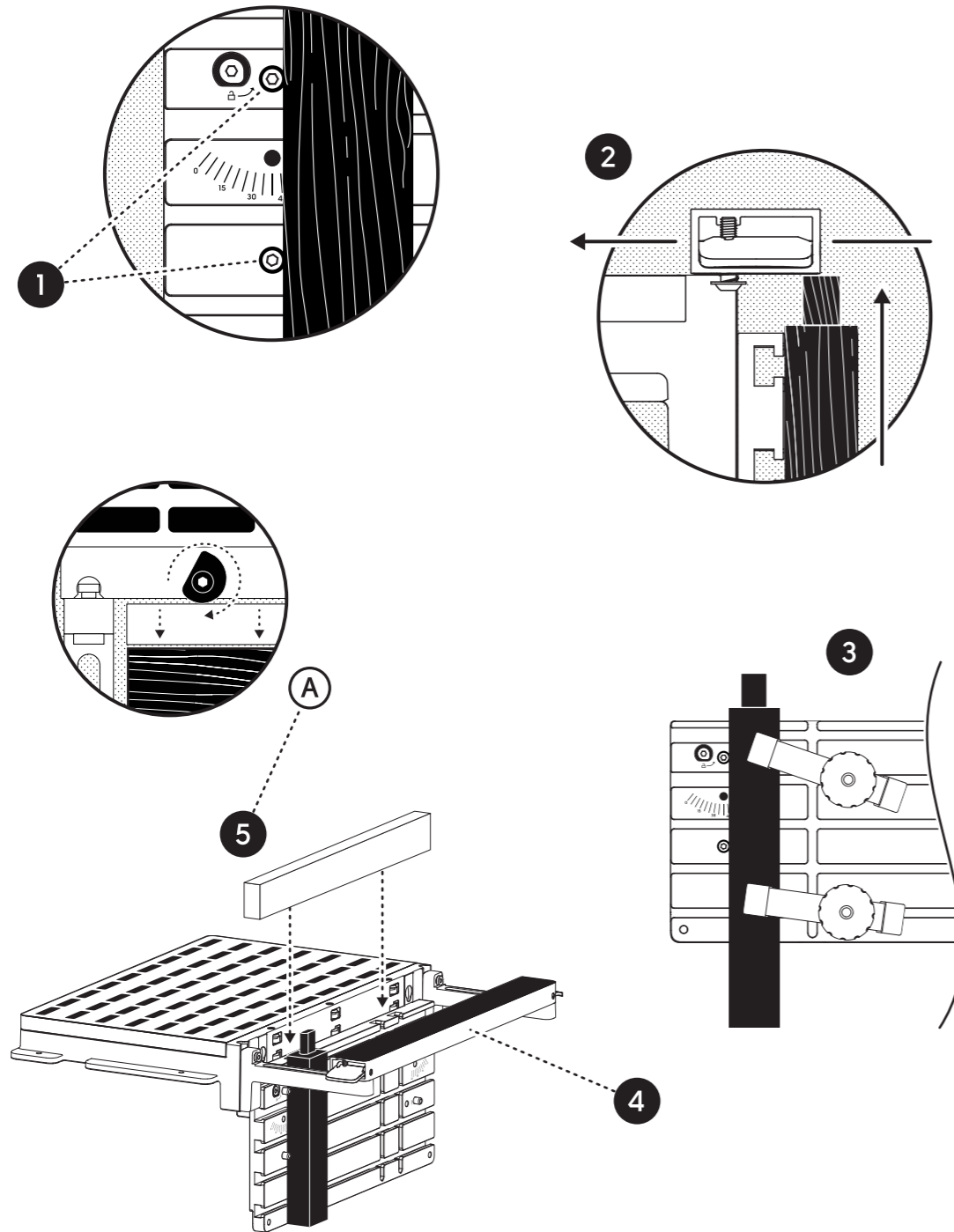
Spoilboard is only necessary if you are cutting beyond the edges of your workpiece.

A. Adjust the Spoilboard Cams until the Spoilboard is pressed firmly against the back side of your material.

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Be careful to not over-tighten the Cams, as this can move your material out of alignment.

Continue Setup on Origin

Scan, Grid, Place and Cut.



Horizontal Workholding

Cutting Mortises

Remove the Support Bar and Support Arms

1 Install the Clamping Face at 0mm height setting

This setting will provide the best clamping surface, but should only be used when cutting inside the edges of your work.

▲ **WARNING!** Risk of cutting into aluminum Clamping Face. Use this setting only when you do not intend to cut beyond that back edge of your material.

2 Configure the Support Bar as a vertical end stop

This will make for easy leveling of your workpiece.

.....
See page 11 for instructions.

Optionally, you can use the Angle Fence as a lateral end stop if you plan to make repetitive cuts.

3 Clamp your workpiece from the underside

All Vertical Tracks are useful when clamping workpieces horizontally. Be sure your workpiece is pressed firmly against your endstops before fully tightening clamps.

Optionally, Install and Adjust the Spoilboard

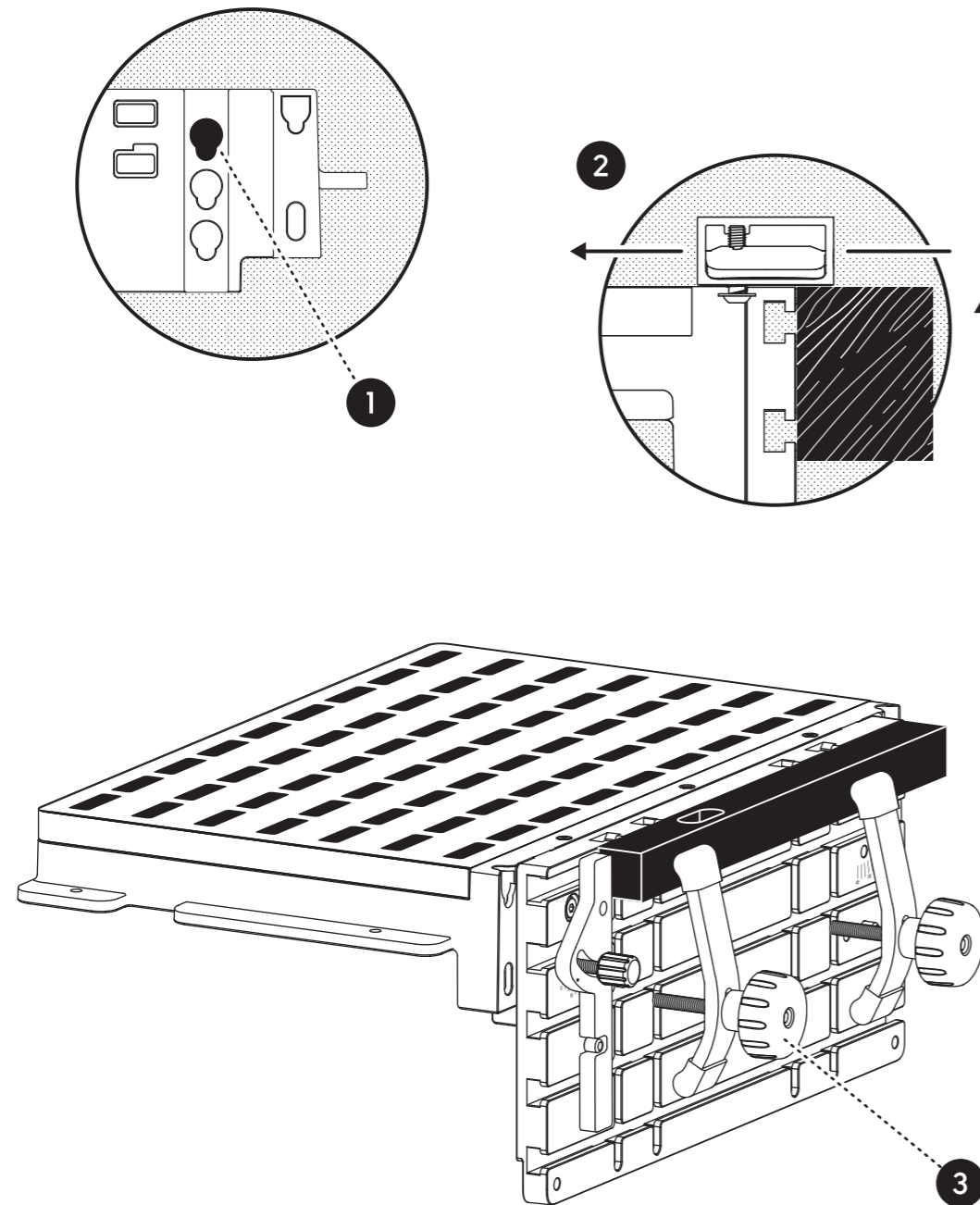
A spoilboard is only needed if you are cutting beyond the edges of your workpiece. Adjust the Spoilboard Cams until the Spoilboard is pressed firmly against the back side of your material.

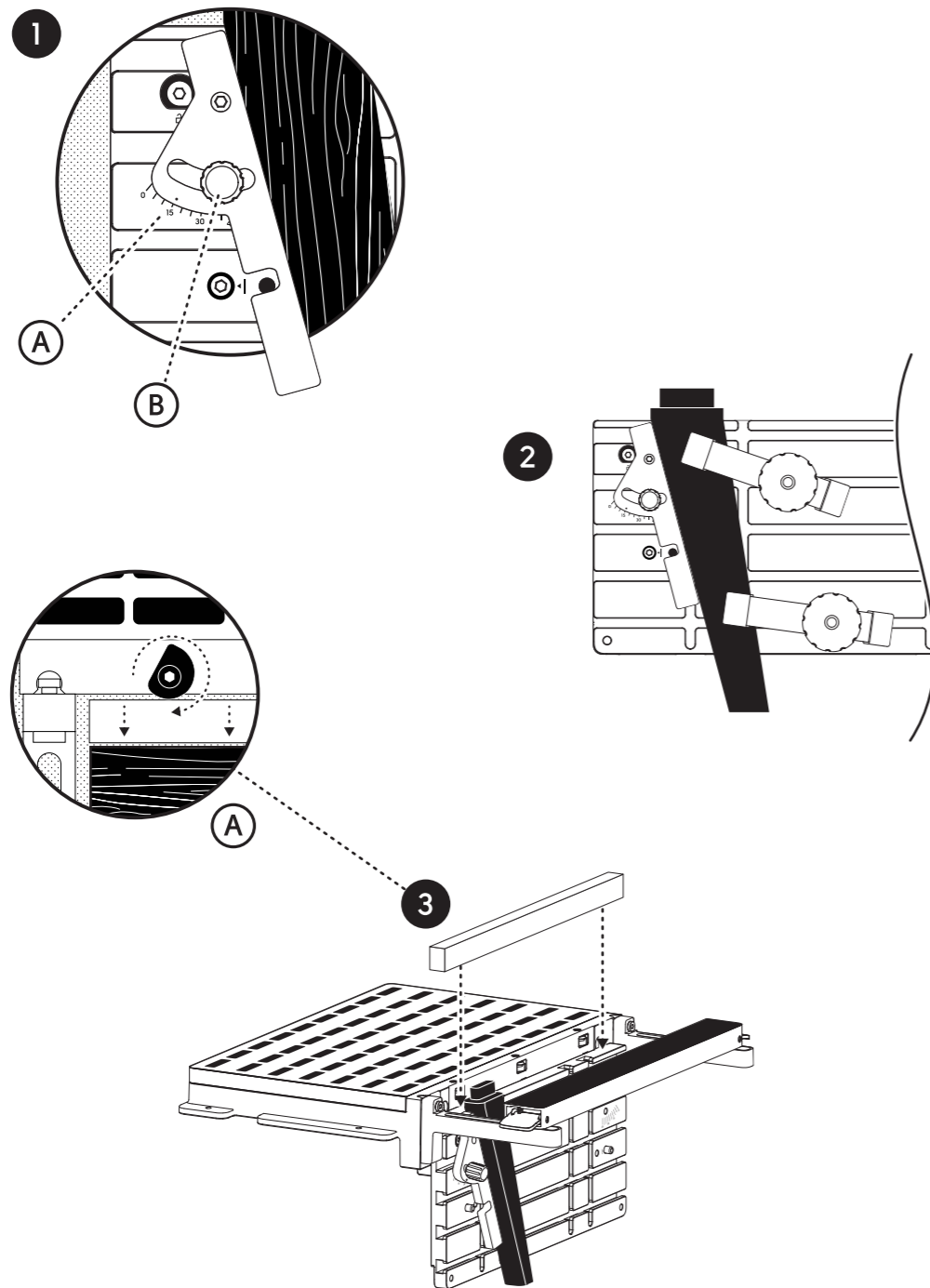
.....
Be careful to not over-tighten the Cams, as this can move your material out of alignment.

Continue Setup on Origin

Scan, Grid, Place and Cut.

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Visit shapertools.com/workstation/start for more information.





Working at an Angle

Install the Clamping Face at the appropriate height setting for your project

Set the Clamping Face lower than the maximum depth of cut for your project.

▲ **WARNING!** Risk of cutting into aluminum. Always double check the Clamping Face height before cutting.

Install the Angle Fence

Select which side of the Workstation you will be working on (right or left), then attach the Angle Fence.

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See page 13 for instructions.

1 Set the angle

A. Align the dot on the Angle Fence with the desired angle marking on the Scale.

B. Hold the Angle Fence in place and tighten the Lock Screw to secure.

.....
Although this fence is ideal for repeatability, we recommend using a custom fixture if your project requires a very precise angle. More information on Custom Fixtures can be found on page 23.

2 Clamp your stock into the Workstation

Ensure the edge is pressed firmly against the Angle Fence.

.....
Depending on your project, you may want to configure the Support Bar as a vertical end stop for easy height adjustment. See page 11 for more information.

3 Install and Adjust Spoilboard

Spoilboard is only necessary if you are cutting beyond the edges of your workpiece.

A. Adjust the Spoilboard Cams until the Spoilboard is pressed firmly against the back side of your material.

.....
Be careful to not over-tighten the Cams, as this can move your material out of alignment.

Continue Setup on Origin

Scan, Grid, Place and Cut.

.....
Visit shapertools.com/workstation/start for more information.

Small Piece Fixturing

The Workstation can be used for fixturing workpieces that do not have enough surface area to accommodate ShaperTape.

Attach the Shelf to the Clamping Face

See page 12 for instructions.

1 Affix your workpiece to the Shelf Top

Use thin double sided tape or screws to securely affix the workpiece to the Shelf Top. To ensure good cut quality, it is critical that the workpiece does not move.

You can also make your own Shelf Top. See page 26 for more information.

2 Configure the Support Bar as a vertical end stop

This will make for easy leveling of your workpiece.

See page 11 for instructions.

3 Adjust the Shelf and lock it

A. Move the Lock Handle into the Adjustable position.

B. Slide the Shelf up until your workpiece makes contact with the Support Bar end stop.

C. Move the Lock Handle into its locked position.

Remove the Support Bar end stop.

4 Replace the Support Bar

Optional, skip this step if your material obstructs the Support Bar.

WARNING! Risk of cutting into aluminum. Always be sure to leave room for your cutter between your workpiece and the Support Bar.

Install and Adjust the Spoilboard

Optional, a Spoilboard is only necessary if you are cutting beyond the edges of your workpiece.

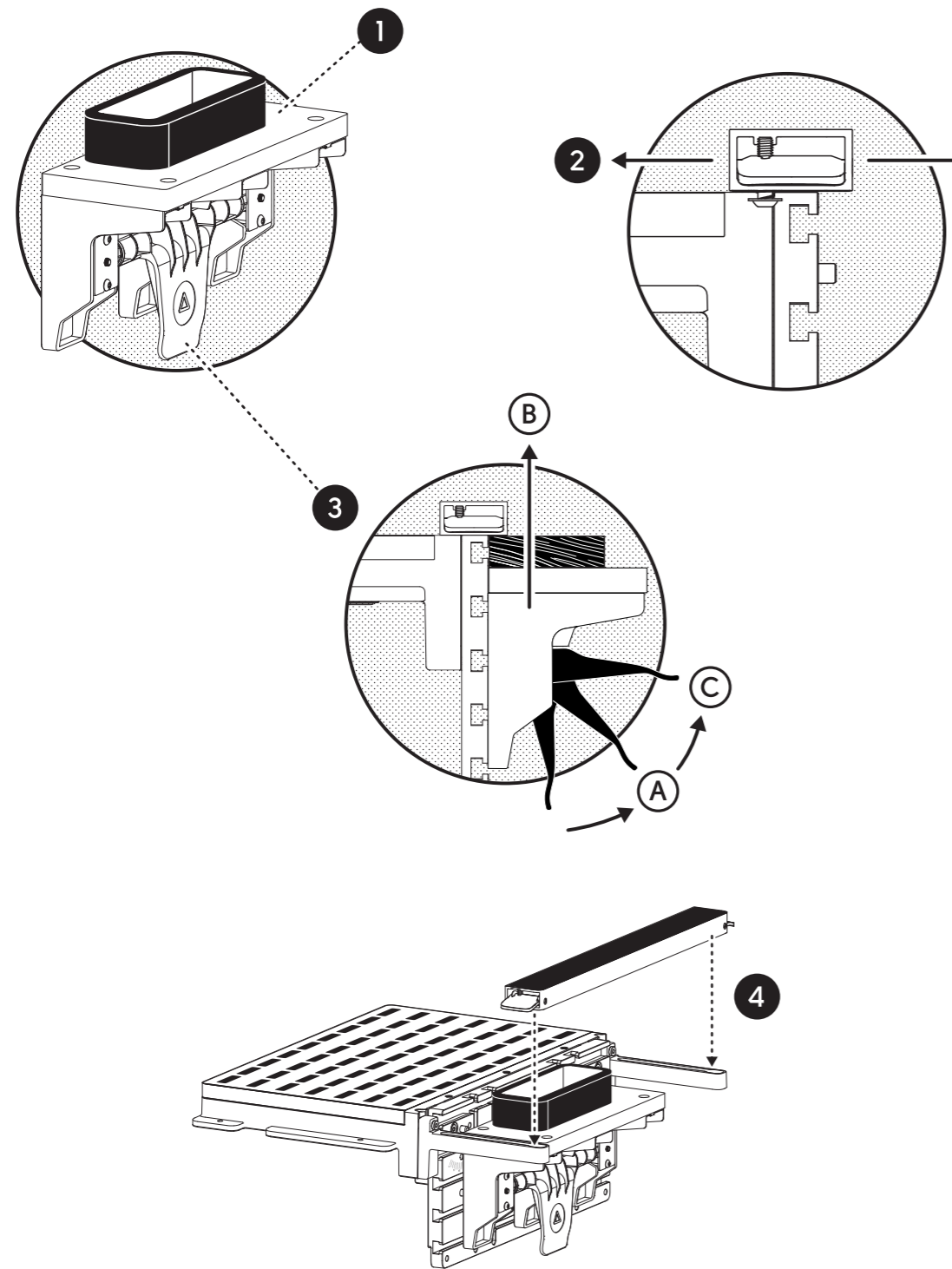
Adjust the Spoilboard Cams until the Spoilboard is pressed firmly against the back side of your material.

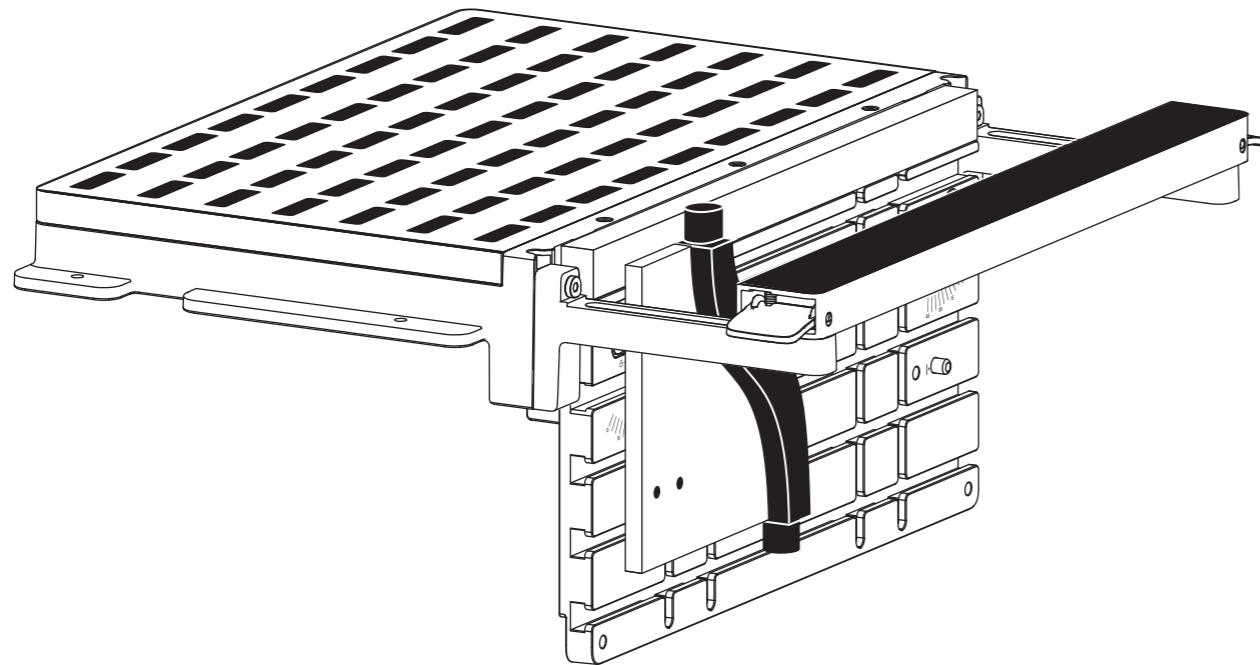
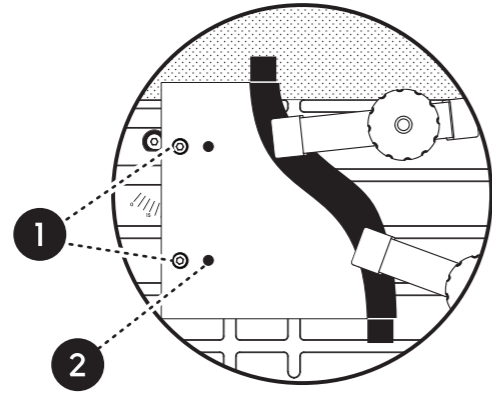
Be careful to not over-tighten the Cams, as this can move your material out of alignment.

Continue Setup on Origin

Scan, Grid, Place and Cut.

Visit shapertools.com/workstation/start for more information.





Custom Fixtures

The Workstation can be used as a platform if your project requires a more custom fixturing solution. The Clamping Face provides a base reference as well as mounting points to help you align and clamp oddly shaped or non-rectilinear parts.

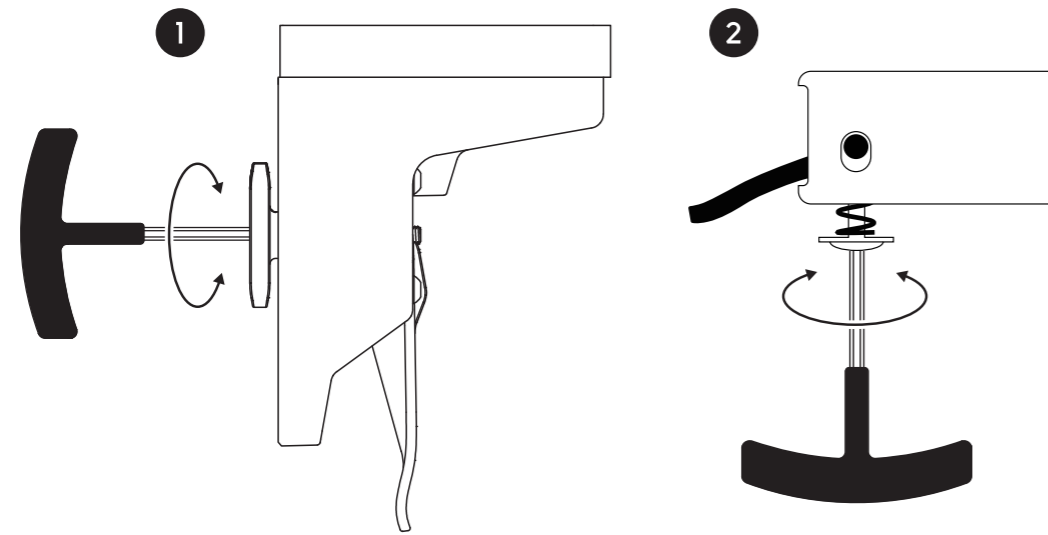
- 1 Use the Vertical Alignment Pins for registration
A slip fit over these pins will establish vertical registration to the Clamping Face.
- 2 Use the Auxiliary Mounting Points to fasten your fixture to the Clamping Face
Mounting holes are threaded M8 Coarse (M8 x 1.25).

Hole Pattern

The hole pattern information can be found on page 29.

Get creative

Visit shapertools.com/workstation/start for inspiration.



Adjustments

1 Tightening the Shelf Handle

- If the Shelf is slipping downward when it is in the Locked position, you may need to adjust the lock tension.
- Use the 4mm Wrench to adjust the screws located on the back side of the Shelf.

The screws will not need much adjustment. Even a fraction of a turn has a significant effect on the clamping force. Tighten each screw in roughly 5 degree increments and test after each adjustment to ensure that you do not over-tighten and damage the Shelf Lock.

2 Tightening the Support Bar Locks

- If the Support Bar moves easily when the Locks are engaged, you may need to adjust the lock tension.
- Use the 4mm Wrench to adjust the screws located on the underside of the Support Bar.

The screws will not need much adjustment. Even a fraction of a turn has a significant effect on the clamping force. Tighten each screw in roughly 5 degree increments and test after each adjustment to ensure that you do not over-tighten and damage the Support Locks.

Adjusting the Support Arms

- ▲ **WARNING!** The Support Arms are factory calibrated and do not need any adjustment out of the box. Do not make adjustments to these screws unless absolutely necessary, or instructed to do so by Shaper Support.

To restore coplanarity between the Support Bar and the Tape Surface on the Body:

- Use a 2mm Hex Wrench (not included) to adjust.
- Place a known flat surface (such as a good straight edge) between the Tape Surface and the top of the Support Bar.
- Gently tighten or loosen set screws on each side as needed to eliminate any gap between your known surface and both top surfaces of the Workstation.

For further assistance, contact Shaper Support

Consumable Items

Replacing the Shelf Top

- The Shelf Top is consumable and will eventually need to be replaced.
- To replace the Shelf Top, remove the four screws holding the Shelf Top to the Shelf Body with the included 4mm Wrench.
- We designed the Workstation to easily accept shop-made Shelf Tops.

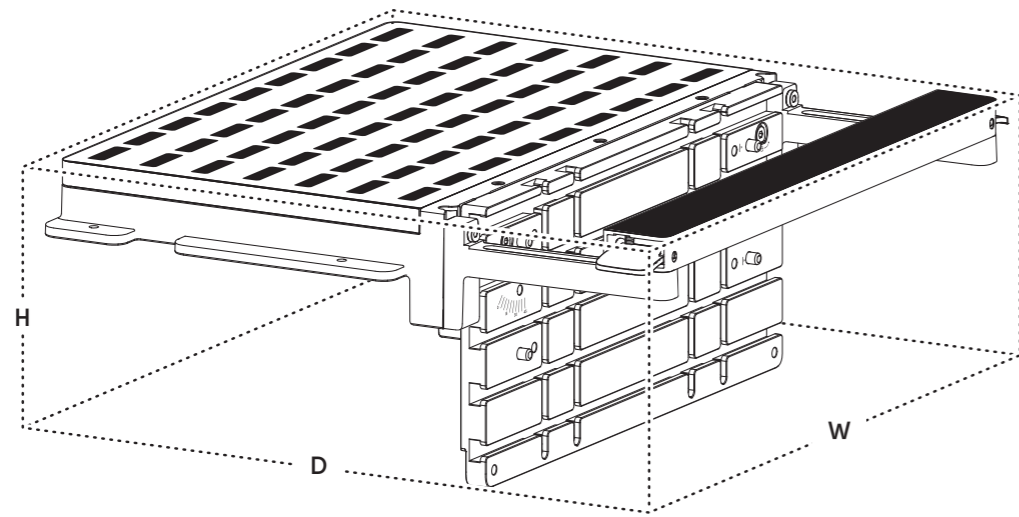
See hole pattern information on page 26.

If you wish to extend the life of your Shelf Top, you can use double sided tape to apply a thin spoilboard in between your work and the Shelf Top.

Replacing the Spoilboards

- Spoilboards are consumable items that will need to be regularly replaced.
- Remember that each Spoilboard can be reused at least eight times by flipping or rotating the spoilboard, and using both the left and right sides of the Clamping Face.
- We designed the Workstation to easily accept shop-made Spoilboards.

See dimensions on page 26.



Specifications

Assembled Weight

- 9.75kg, 21.5lbs

Assembled Dimensions

- Width: 515mm
- Depth: 465mm
- Min. Height: 200mm (Clamping Face at 0mm height setting)
- Max. Height: 250mm (Clamping Face at 50mm height setting)

1 Shelf Top Dimensions

- Shop-made Shelf Tops can be cut using the listed dimensions.
- Shelf Tops can also be customized to suit the needs of your project.

Visit shapertools.com/workstation/start for more information.

2 Spoilboard Dimensions:

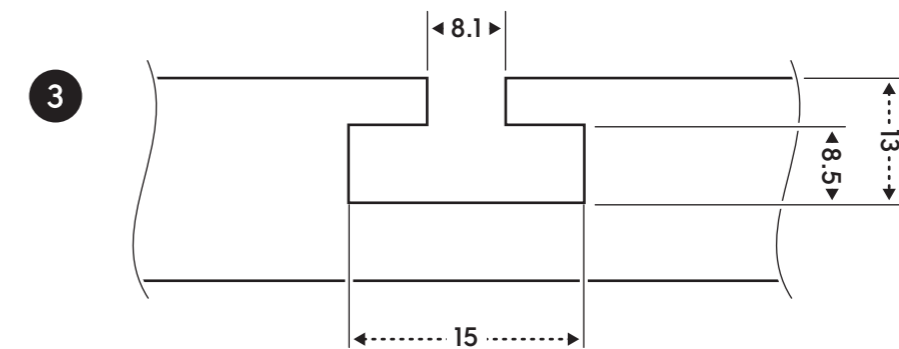
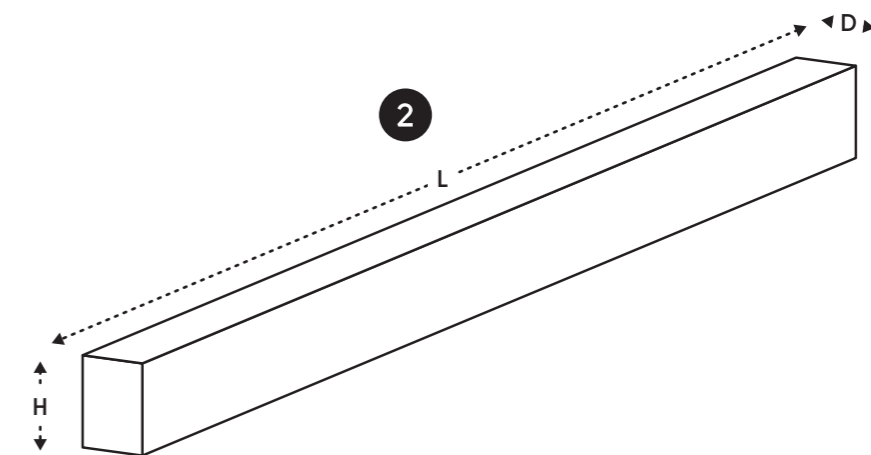
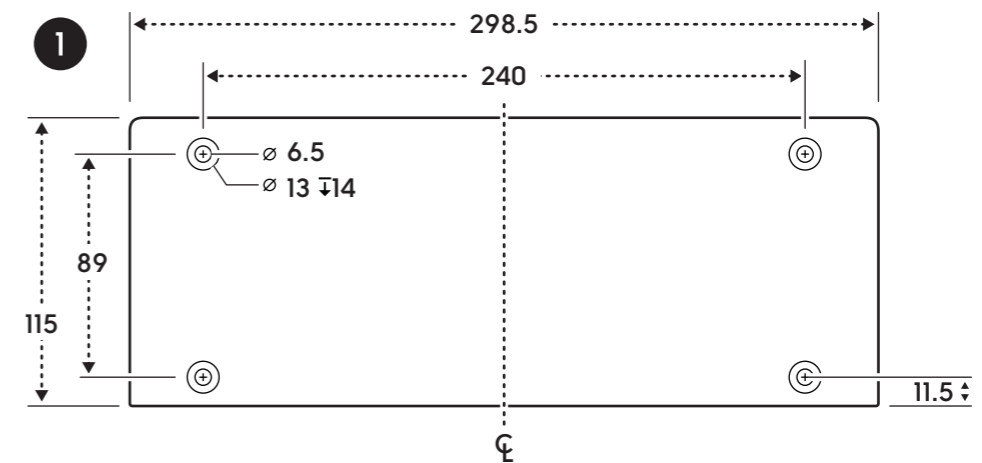
- Shop-made Spoilboards can be cut using the listed dimensions. Use the Spoilboard Tensioning Cams to adjust for variations in material thickness.
- We recommend that Spoilboards be made from MDF or a similar material.

H	L	D
25mm	423mm	18.1mm – 20.75mm
50mm	421mm	18.1mm – 20.75mm

3 T-Slot Dimensions

T-Slots accept DIN 508-8 T-Slot Nuts.
Other Compatible Bolts & Clamps:

- M6 – M8 Hex or T-Slot Bolt
- 1/4" – 5/16" Hex or T-Slot Bolts
- Festool Fastening Clamp (FSZ 120)
- Festool Lever Clamp (FS-HZ 160)



Mounting Hole Patterns

1 Body To Bench

For mounting to any generic bench top, see Mounting Screws in figure 1

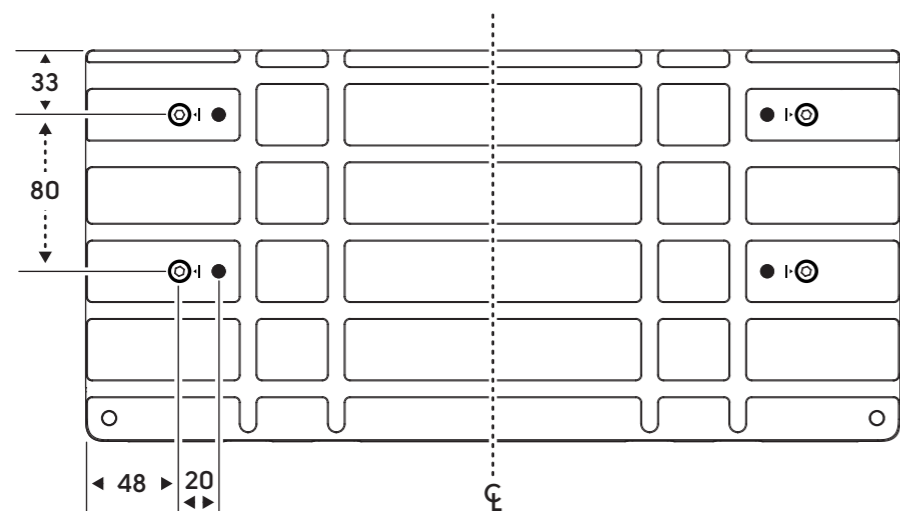
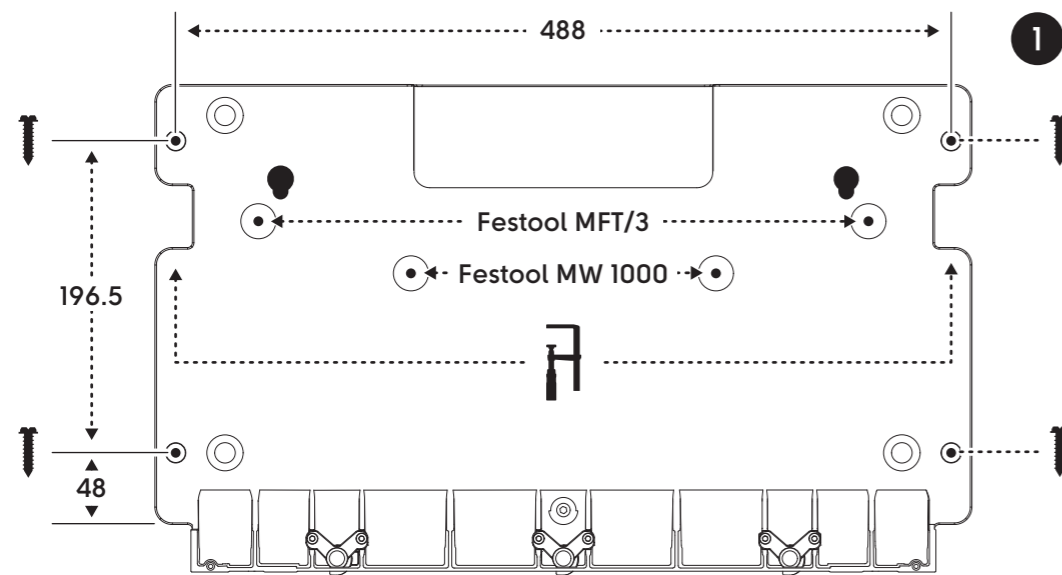
- Size holes for M6 or ¼-20 threaded inserts.
- Visit shapertools.com/workstation/start for more information.

For Mounting to a Festool MFT/3 or MW 1000

- See hole pattern here, and instructions on page 7.

2 Auxiliary Mounting Holes

- The Mounting Holes are threaded M8 Course (M8 x 1.25).
- Use 8mm holes for the Vertical Alignment Pins.
- Visit shapertools.com/workstation/start for more information. ◀



NOTES

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