

puretree
worktops



SOLID WOODEN WORKTOPS INSTALLATION GUIDE

August 2021

puretreeworktops.com

Introduction

Thank you for purchasing a Puretree worktop a unique natural product which has been manufactured to order in our factory in Devon.

Since wood is a natural living material which will adjust to its surroundings, we request that you carefully read and follow the instructions and guidelines provided in this booklet. These guidelines have been developed over many decades and following them will help to ensure a trouble free installation.

Guarantee

All worktops are provided with a 5 year guarantee from date of purchase which covers any manufacturing defects. The guarantee is conditional upon the installation and maintenance instructions being followed and does not include any costs associated with removing and/or reinstalling the worktops after they have been fitted. Poor treatment, handling, lack of maintenance or incorrect storage and installation of worktops will void the guarantee.

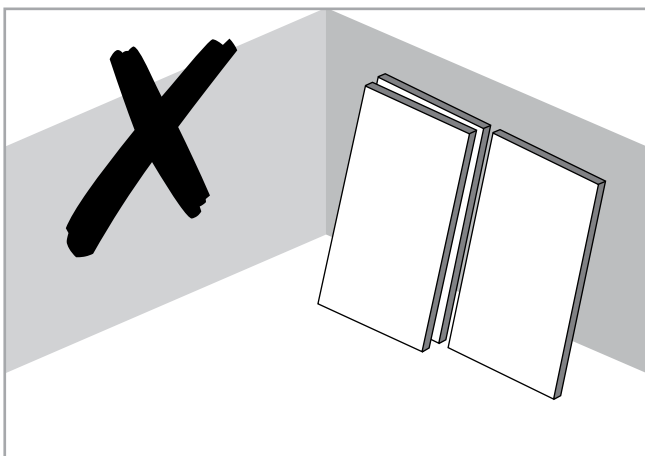
Delivery & Storage

Upon delivery, it is important that you inspect the worktops and check that the packaging is intact. If there is any evidence of damage, it must be written on the delivery note and it should be reported to the Puretree Sales Office immediately.

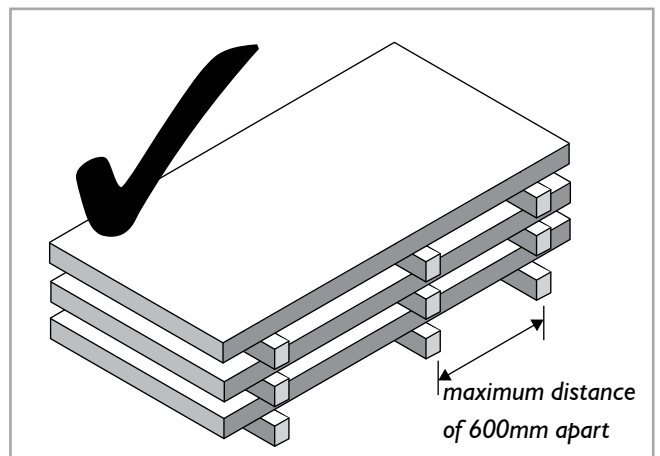
Solid wooden worktops should not be stored for more than 5 days before installation. If immediate installation is not possible, the worktops should be stored in their packaging, indoors, on a dry level surface with bearers separating the worktops from the floor and each other.

Worktops should never be leant against walls or stored in garages/outbuildings or any area where there is evidence of wet plaster, concrete or recent building work.

Puretree do not cover consequential costs as a result of delivery delays or due to defects in the goods supplied.



Incorrect Worktop Storage



Correct Worktop Storage

Contents

Tools Required	4
Installation Pack	5
Understanding Wooden Worktops	
Movement in Service	6
Cupping and Crowning	6
Shakes and Small Cracks	6
Types of Fixings	
Solid Screw Fixing	7
Sliding Screw Fixing	7
Specific Installation Guidance for	
Worktop Joints	8
Cut Outs and Tap Holes	8
Moisture Barriers	8
Edge Protection	8
Voids	9
Overhangs	9
Crossbands	9
Hob Bars	9
Upstands	9
Oiling	9
Pre-installation Check List	10
Installation Examples	
Galley	11
L-Shaped	12
U-Shaped	14
Breakfast Bar	16
Islands	17

Recommended Tools



Pencil



Tape Measure



Spirit Level



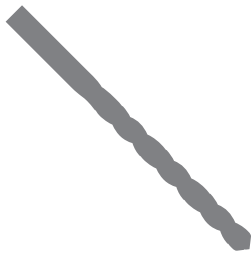
Pozi Screw Driver - PZ2



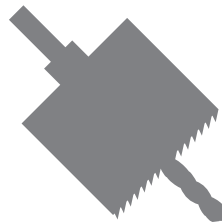
Slotted Screw Driver



Drill



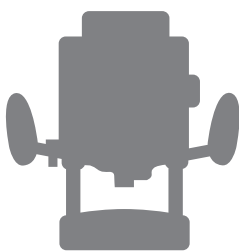
Drill Bit - 10mm



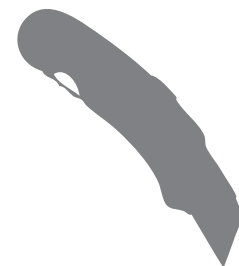
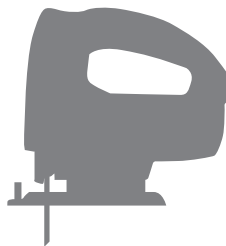
Hole Saw - 50mm



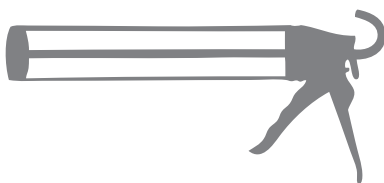
Adjustable Spanner



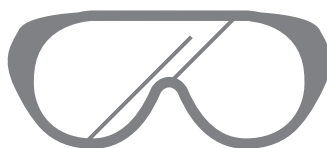
Router with 10mm plunge cutter or a Jigsaw



Knife



Skeleton Gun

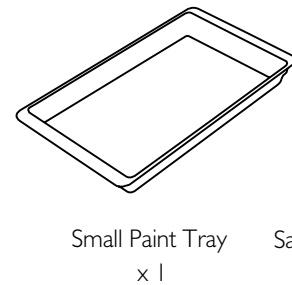
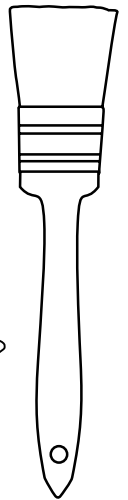
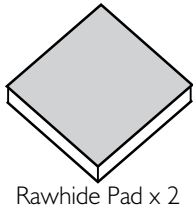
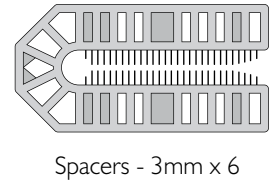
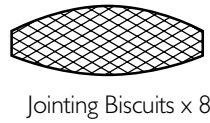
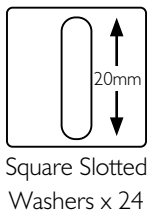
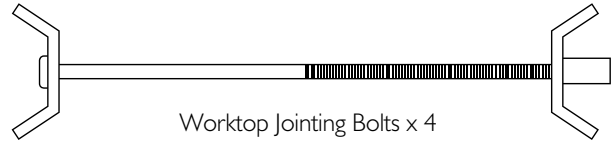
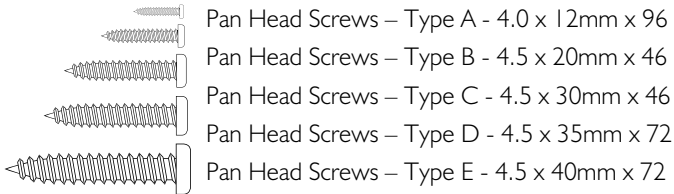


Safety glasses



Mask

Worktop Installation Pack



Worktop Installation Packs can be purchased separately from the Puretree Sales Office

Pan Head Screw Usage

Worktop Thickness	Open Topped Carcasses		Solid Topped Carcasses	
	Solid Fixings	Slotted Fixings	Solid Fixings	Slotted Fixings
27mm	D	B	D	D
30mm	D	B	D	D
40mm	E	C	E	E

IMPORTANT: If the kitchen carcasses are less than 15mm thick please contact the Puretree Sales Office

Movement in Service

Wood is a hygroscopic material, which means that its moisture content changes in response to the fluctuations in air temperature and relative air humidity of its surroundings.

The fluctuations in temperature and air humidity will vary according to the time of year (see graph below) but they can also be artificially influenced by environmental factors such as central/underfloor heating, Aga's, wood burning stoves, large Velux windows or a properties proximity to water.

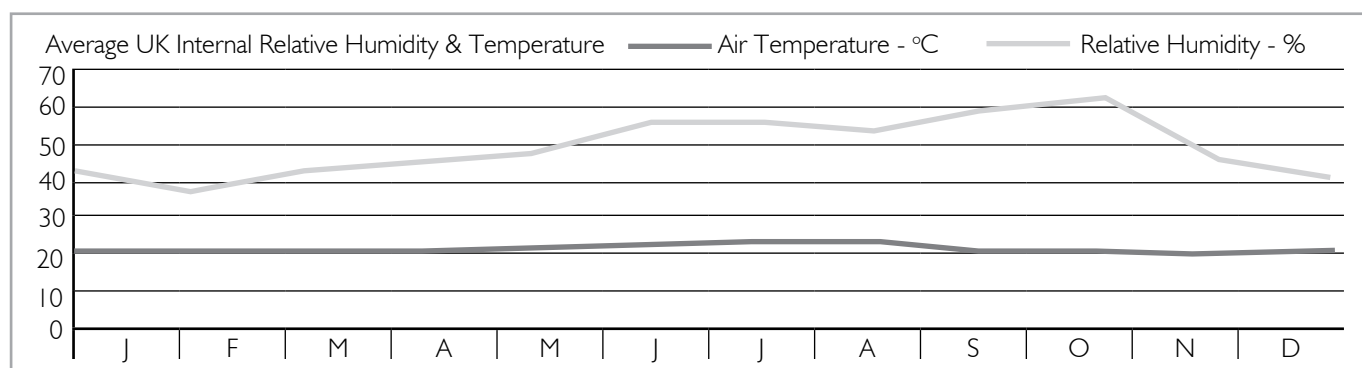
Our solid wooden worktops are kiln dried to a moisture content of $9\% \pm 2\%$ and when installed at a temperature of 20°C and a relative air humidity of 50% they will remain stable. If however, there is an increase in the relative air humidity, the moisture content of the wood will increase (see table below) and the worktop will expand. Vice versa, if there is a decrease in the relative air humidity, the worktop will contract due to a decrease in the moisture content of the wood.

Relative Air Humidity	Worktop Moisture Content
0%	0%
25%	5%
50%	9%
75%	14%
99%	23-30%

As a rule of thumb, a change in the moisture content of the wood by 4% would lead to a 1.5% change in the width of the worktop.

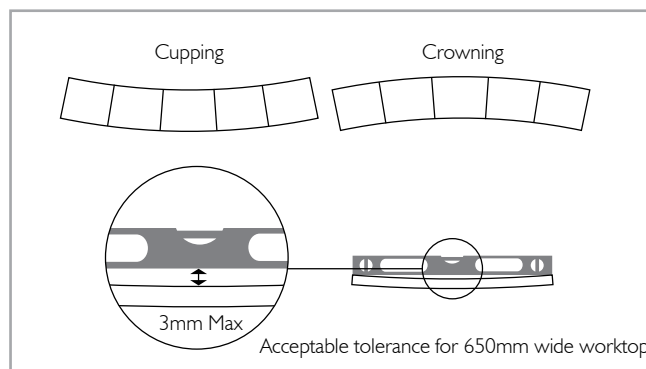
E.g. Movement = $650\text{mm} \times 1.5\% = 9.75\text{mm}$

IMPORTANT: As a result of this movement it is imperative that all solid wood worktops are installed with fixings which allow the width of the worktop to expand and contract as the surrounding conditions change.



Cupping and Crowning

Cupping or crowning can occur if the worktop is exposed to an imbalance of humidity between the surface and the underside. If the cupping or crowning occurs prior to installation, the worktop should be turned over and allowed to rest. Under normal conditions the worktop will become level again.



If cupping or crowning occurs after installation, the source of the moisture must be rectified before the worktop should be weighed down and the fixings slowly tightened day by day.

Shakes and Small Cracks

Small cracks, also known as shakes, are a natural result of the varying temperature and humidity of the environment in which the worktops have been stored or installed.

Shakes are a common occurrence after installation in open pored timber such as ash and oak.

Shakes can be easily repaired with retouch crayons which can be purchased from the Puretree Sales Office.

Small shakes and small cracks do not constitute grounds for complaint and do not affect the performance of your worktop.

Types of Fixings

Solid wooden worktops must be installed using a series of solid and slotted fixings to allow the width of the worktop to expand and contract as the surrounding conditions change. Before commencing installation, please ensure you are familiar with the following types of fixings.

Solid Screw Fixing

Solid screw fixings are designed to hold one edge of the worktop in place so that the worktop can expand and contract with the movement hidden at the back edge of the worktop.

1. Drill a pilot hole through the carcass and 75% of the way through the worktop using a 3mm brad point drill bit
2. Enlarge the pilot hole in the carcass only, using a 10mm drill bit to create a clearance hole
3. Using a PZ2 screw bit, slowly tighten the corresponding screw and penny washer from the Installation Pack into the worktop

IMPORTANT: Solid screw fixings must be used in conjunction with sliding fixings. Solid screw fixings should never be used as the sole method of fixing.

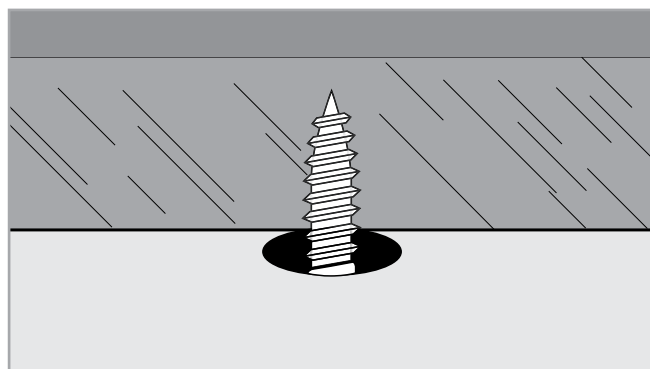


Fig A - 3mm Pilot hole must be drilled prior to fixing

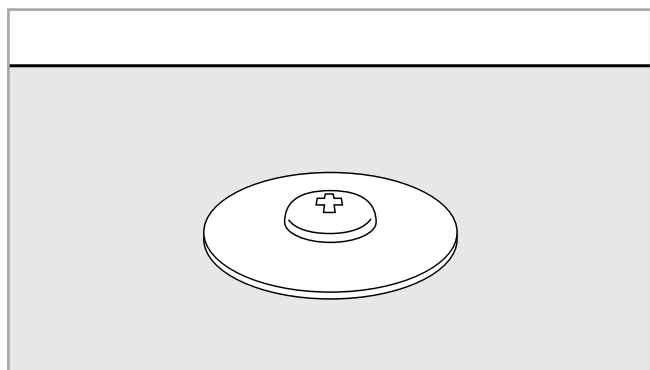


Fig B – Penny washers must be used on all solid fixings

Sliding Screw Fixing

Sliding screw fixings are designed to allow a worktop to expand and contract as the surrounding conditions change.

1. Drill a pilot hole through the carcass and 75% of the way through the worktop using a 3mm brad point drill bit
2. Remove the worktop from the top of the carcass and place a slotted washer from the installation pack over the middle of the pilot hole, making sure the slotted washer is at 90° to the grain direction
3. Using a pencil, mark the 20mm slot out on the top of the carcass
4. Using either a router with an 10mm plunge cutter or a jigsaw, cut out the slot marked on the top of the carcass
5. Place the worktop back on top of the carcass
6. Using a PZ2 screw bit, slowly tighten the corresponding screw and slotted washer from the Installation Pack into the worktop, making sure the screw is in the middle of the slot and that the slotted washer is at 90° to the grain direction
7. Using a manual screw driver untighten the screw by a quarter turn to allow the screw to slide across the top of the slotted washer should the worktop need to expand or contract.

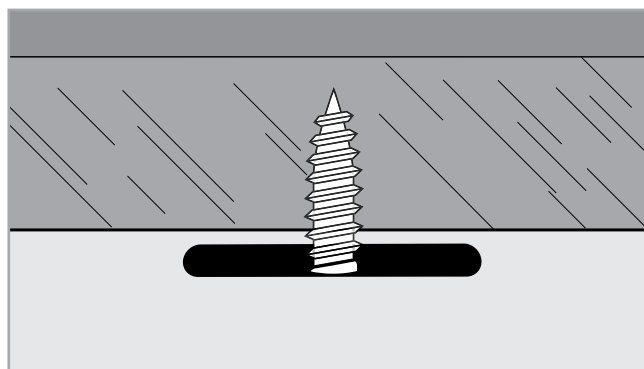


Fig C - Screw must be inserted in the middle of the slot

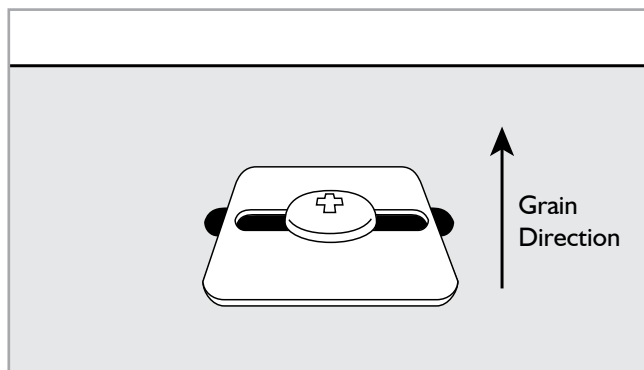
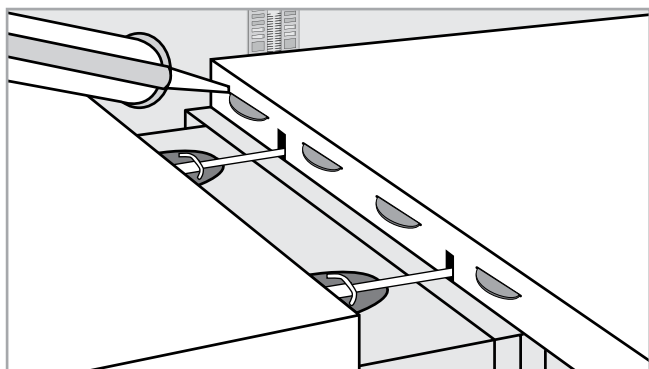


Fig D – Slotted Washer must be positioned at 90° to the grain direction

Worktop Joints

Solid wooden worktops should only be jointed using straight butt joints. Butt and scribe, or mitred joints, are not suitable and will void your worktop guarantee.

Worktop joints should consist of a minimum of 2 worktop connecting bolts and 4 beech jointing biscuits from the installation pack for a 650mm wide worktop.

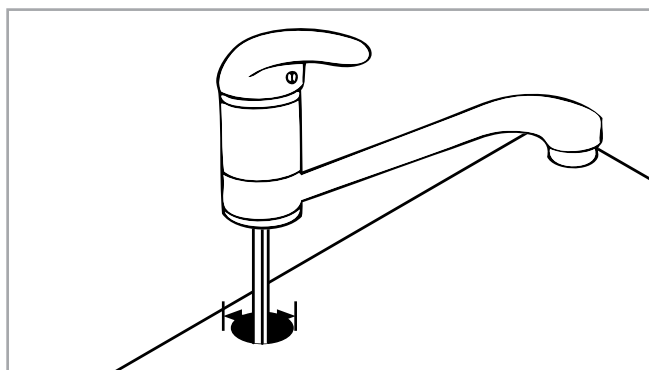


Joints should be dry assembled prior to fitting to ensure that there is a tight fit. A thin bead of Sika EBT Plus Clear from the installation pack should then be applied to both faces and gently pulled tight with the worktop connecting bolts – do not over tighten! Excess Sika EBT Plus should be removed immediately.

When fitting worktops on solid topped carcasses, two 80mm diameter access holes should be drilled, to allow the worktop connecting bolts to be tightened from underneath.

Cut-Outs and Tap Holes

Any cut-outs for sinks, hobs and tap holes must be enlarged by a minimum of 5mm, to allow the worktop to expand and contract.



There should be a minimum distance of 250mm between individual cut-outs, joints or the end of the worktop, and a minimum distance of 60mm to the front or back edge of the worktop.

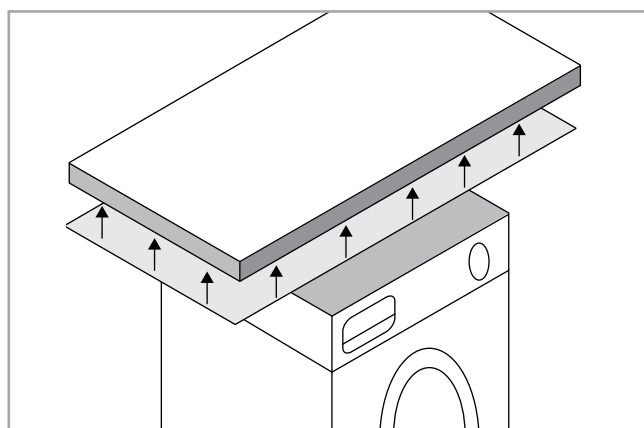
Always mark and machine cut-outs on the underside of the worktop to prevent the wood from splitting. Never use blunt or chipped blades as this will lead to a poor quality finish.

All machined edges must be re-coated with a minimum of 3 coats of oil to prevent the ingress of water. Tap holes, hobs, and overmounted sink cut outs, should also be protected by aluminium tape provided in the Installation Pack, to act as a further moisture barrier.

The end grain around Belfast and Butler sinks must be treated regularly with Saicos Worktop Oil or Saicos Premium Hardwax Oil to prevent the ingress of water and help avoid the worktop splitting.

Moisture Barriers

Moisture barriers should be fitted to protect the underside of the worktop from heat and steam produced by washing machines, dishwashers, coffee machines and microwaves. Self-adhesive moisture barriers are available from the Puretree Sales Office and should always overlap by a minimum of 200mm onto the adjacent units, to prevent the moisture being transferred.



Edge Protection

Any edges which have been exposed after the factory oiling process must be re-coated with a minimum of 3 coats of oil to prevent the ingress of water. Aluminium tape from the Installation Pack must also be applied to the edge of all worktops when installed against walls or other solid objects, to further prevent the ingress of moisture.

Voids

Solid wooden worktops must be fully supported and secured at all times. In situations where worktops span voids or where the base units do not reach the wall, worktops must be installed using suitable softwood battens to provide adequate support.

Overhangs

Worktops with overhangs exceeding 250mm must be supported by a suitable leg or angle bracket, to avoid warping. All leg supports must be fixed to the floor. If your kitchen requires a worktop with an overhang which exceeds 250mm please contact the Puretree Sales Office for alternative solutions.

Crossbands

Crossbands are designed to protect the end grain of the wood and help stop it from drying out. Crossbands must be installed where solid wood worktops are installed next to a constant heat source, such as AGAs, range cookers or boilers.

Crossbands will expand and contract at different rates to the worktop and as a result a small shoulder can be visible at certain times during the year. This does not constitute grounds for complaint or a claim under the 2 year guarantee.

Hob Bars

Hob bars should be situated next to hobs, ovens & microwaves to create a built in trivet to avoid hot items being placed directly on the surface of the worktop.

The solid stainless steel rods should be removed from the worktop during installation, cleaning and oiling.

Upstands

Solid wooden upstands are designed to cover the 3mm expansion gap required by solid wooden worktops.

Upstands should be carefully cut and dry assembled around the complete perimeter of worktops prior to fitting. A thin bead of clear Sika EBT Plus from the Installation Pack should then be applied to the back edge of the worktop, to prevent water ingress and Sika EBT Plus should be applied to the back of the upstands in a z-bead. The upstands should be pressed against the wall and down into the bead of Sika EBT Plus.

Excess Sika EBT Plus should be removed immediately.

Oiling

Puretree only recommend the application of Saicos Worktop Oil or Saicos Premium Hardwax Oil. The use of other oils may not provide sufficient protection and may lead to worktop failure and invalidation of your Puretree guarantee.

Saicos Worktop Oil is a special type of oil developed to the latest research to provide a durable, hardwearing natural surface with a quick drying time – normally between 4-5 hours.

Unlike other oils, Saicos Worktop Oil protects from the inside, retaining the woods elasticity, whilst natural waxes protect the surface and ensure high durability.

Solid wooden worktops must be oiled with a minimum of 3 coats of oil on all faces, to provide protection against moisture ingress and staining. Any cut-outs for sinks, hobs and tap holes must also be coated with three coats of oil prior to installation and taped, according to the Cut-Outs and Tap Holes section.

Worktops which have been factory oiled will generally only require 1 further coat of oil to be applied onsite, however as each worktop is unique, in some cases 2 coats of oil may be required.

Failure to adequately oil the worktop either prior to installation or after installation will void your worktop guarantee.

White Oiled Worktops

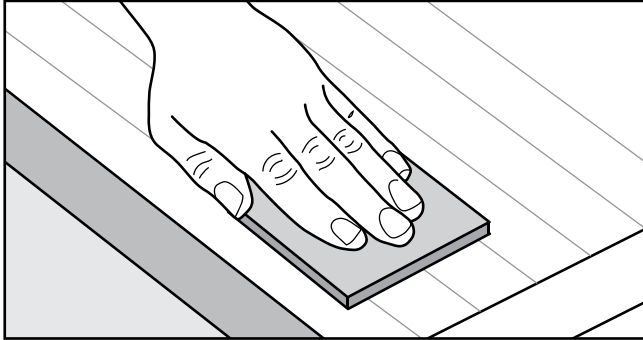
Our white oiled worktops are pre-finished with Saicos Worktop Base – Extra White prior to leaving the factory. In cases where the worktops are sanded or re-machined on site, an additional coat of Saicos Worktop Base – Extra White must be applied prior to the application of Saicos Worktop Oil to retain the white finish.

Saicos Worktop Base requires a minimum of 8 hours drying prior to over coating with Worktop Oil.

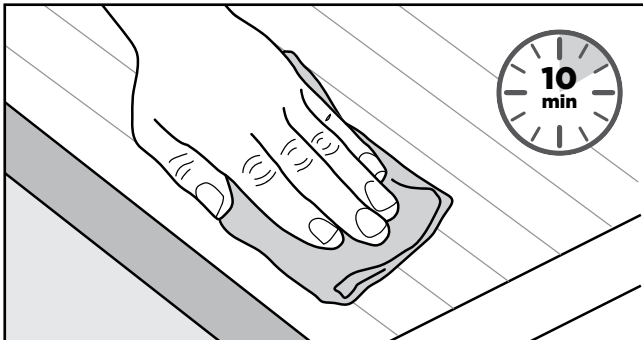
Failure to follow these guidelines may lead to a patchy or uneven colour finish.

Worktop Oiling Process

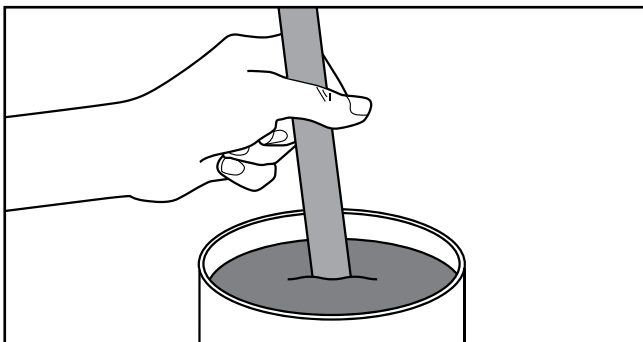
Step 1 – Lightly sand the surface using a rawhide pad to remove any rough patches and any marks. For extremely worn worktops or to remove deep scratches it may be necessary to use 120 grit sandpaper rather than a rawhide pad. If sandpaper is used, it is important that a minimum of 2 coats of oil are applied as per the following procedure to ensure sufficient protection.



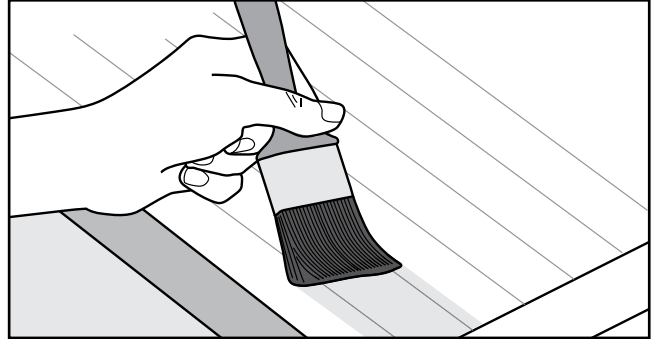
Step 2 – Wipe the worktop down with a well wrung out cloth to pick up any dust left from the rawhide pad and allow to completely dry, normally around 10 minutes.



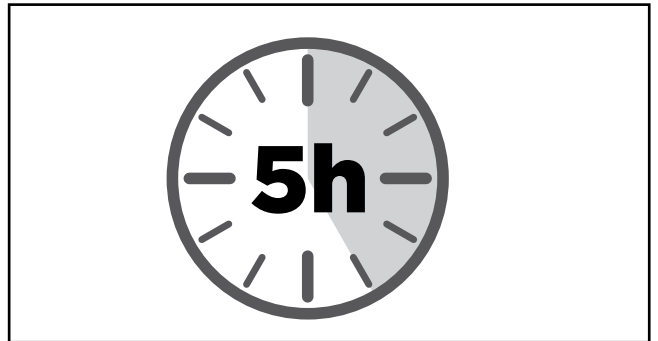
Step 3 – Stir the oil thoroughly before pouring into a paint tray.



Step 4 – Apply a thin and even coat of oil using the Saicos oil brush in the direction of the grain, avoiding over application.



Step 5 – Leave to dry for a minimum of 5 hours or ideally overnight before using the worktop.



Important - If after the oil has dried the surface is slightly rough, the worktop can be lightly sanded with a rawhide pad and a further coat of oil can be applied with a brush. After 5 minutes, the worktop can then be dried with an oiling cloth, leaving the worktop almost completely dry. Once dry (minimum of 5 hours) the worktop will be very smooth.



Due to the risk of self-ignition it is important that sanding dust and oil wetted cloths are soaked in water and are disposed of in a tightly closed container after use.

Pre-Installation Checklist

- ✓ Inspect the worktops for damage and check the specification against the order. If you (the fitter) or your customer is not happy with the worktops, do not fit them, instead contact the Puretree Sales Office immediately.

An installed worktop is an accepted worktop

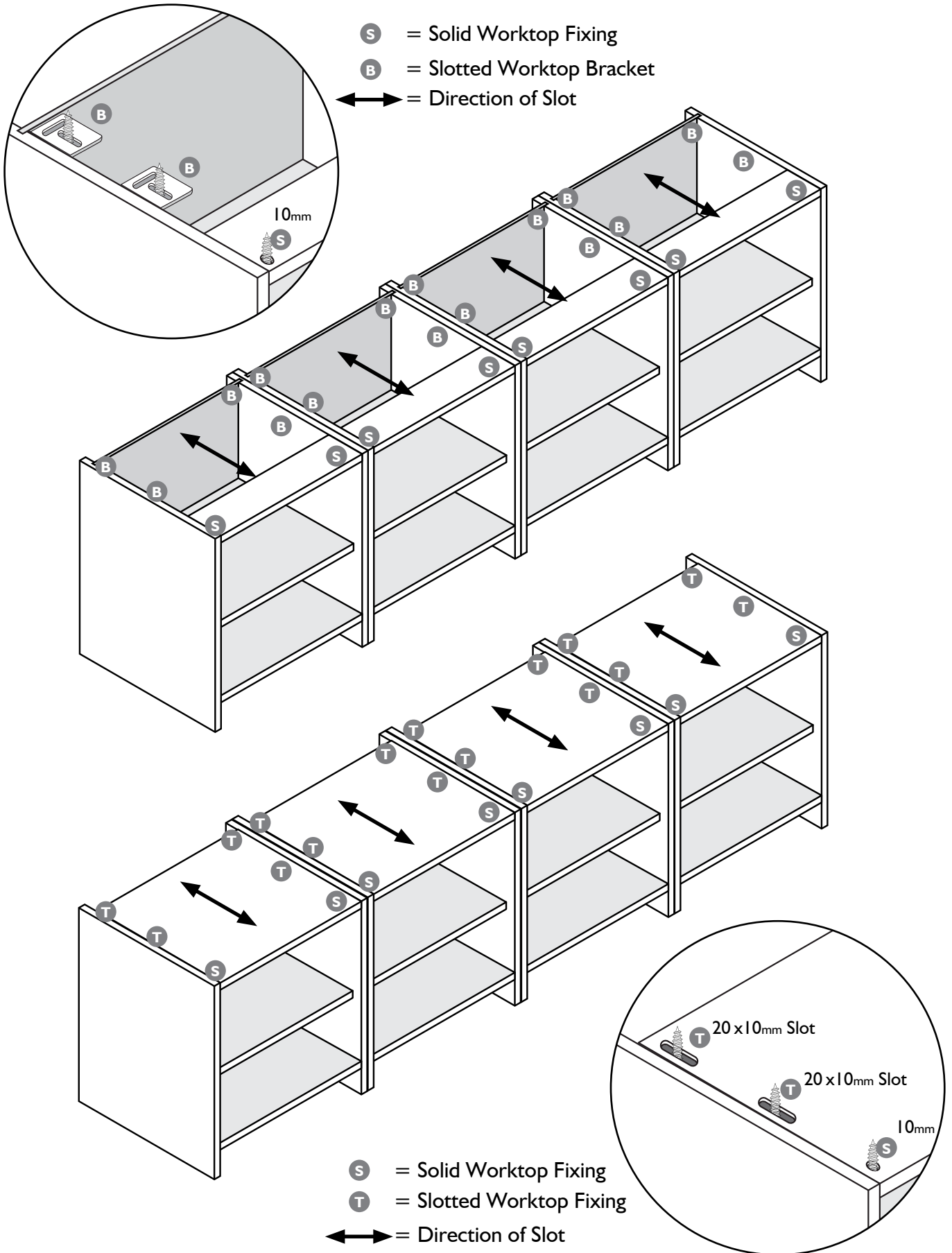
- ✓ Check that you have all of the tools required for the installation (page 4)
- ✓ Check that you have selected the correct screws from the installation pack (page 5)
- ✓ Check that the kitchen carcasses are level and secure
- ✓ Check that all worktop faces and cut-outs have been oiled with a minimum of 3 coats of oil
- ✓ Check that the all overmounted sink cut-outs, hob cut-outs and that the back edge of all worktops have had aluminium tape applied.
- ✓ Check that moisture barriers have been fitted to the underside of the worktop, where heat or steam is produced

DO NOT START to fit any worktops if any wet trades are working in the same building or if there is evidence of wet plaster, concrete or recent building work painting etc. Conditions must be the same as when the room will be in final use.

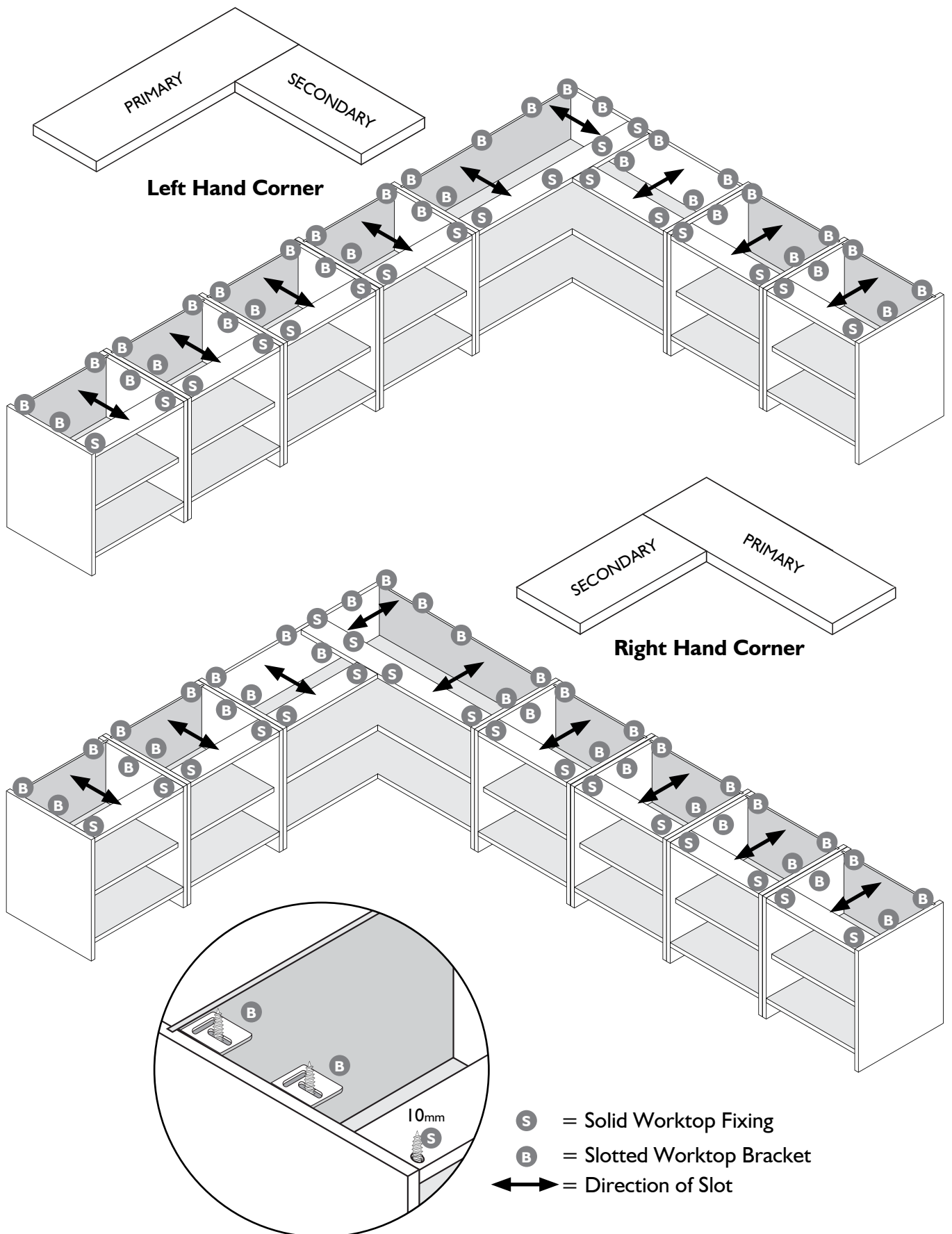
We recommend that all of our worktops are installed by a professional wooden worktop specialist.

If you have any questions regarding the installation of your worktops, please contact our sales office prior to starting.

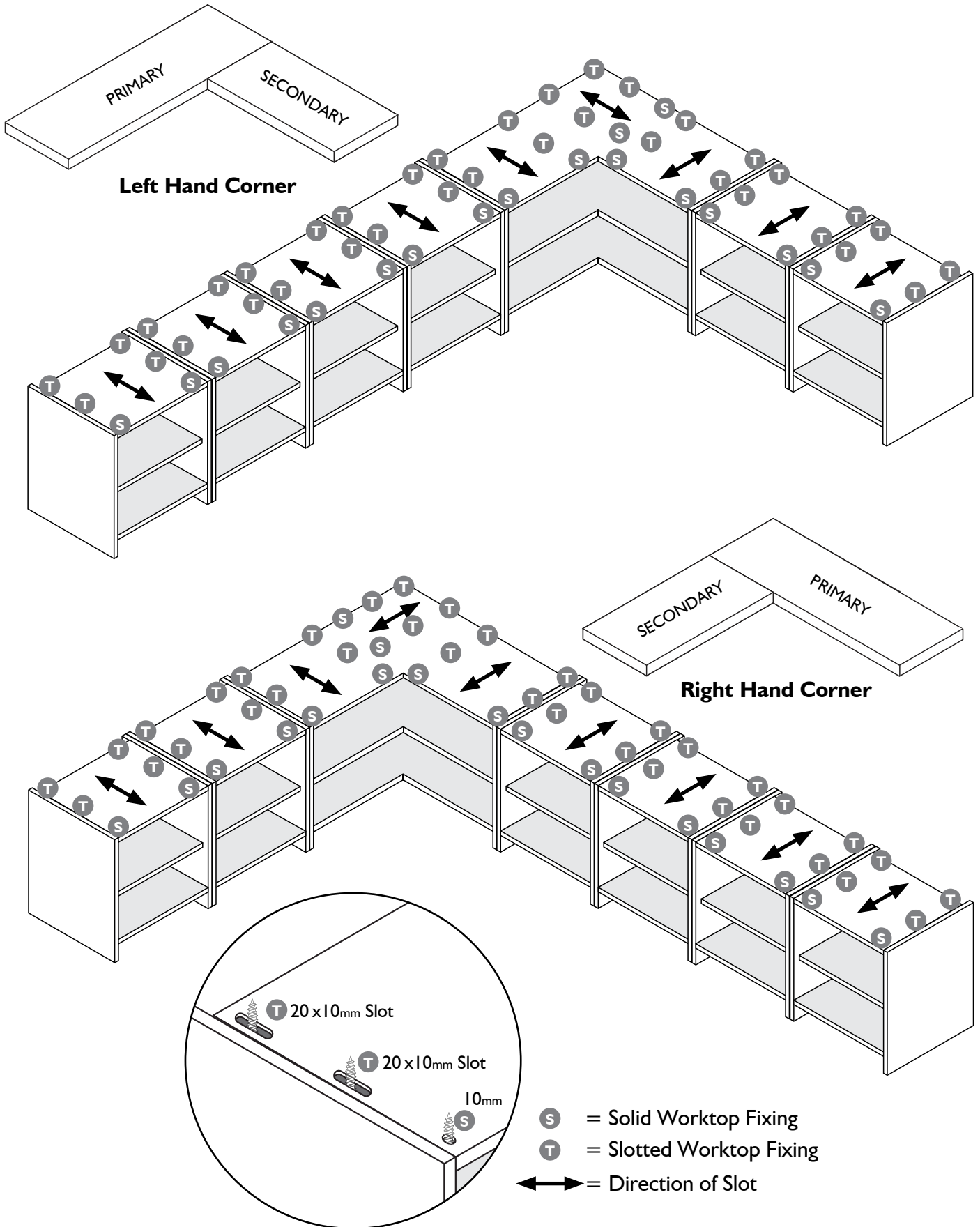
Galley Worktop Installation



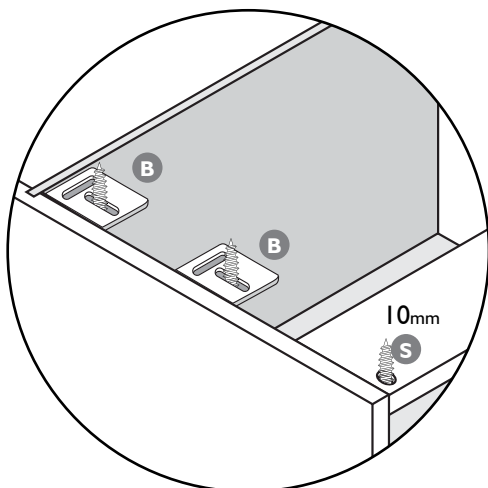
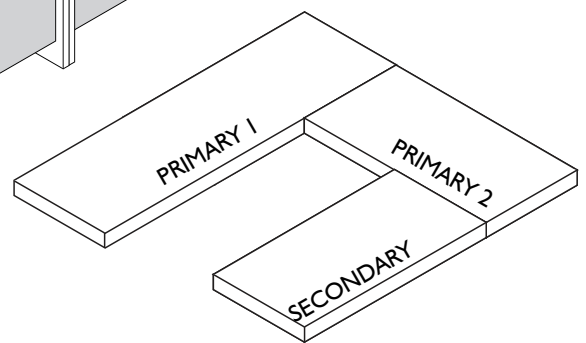
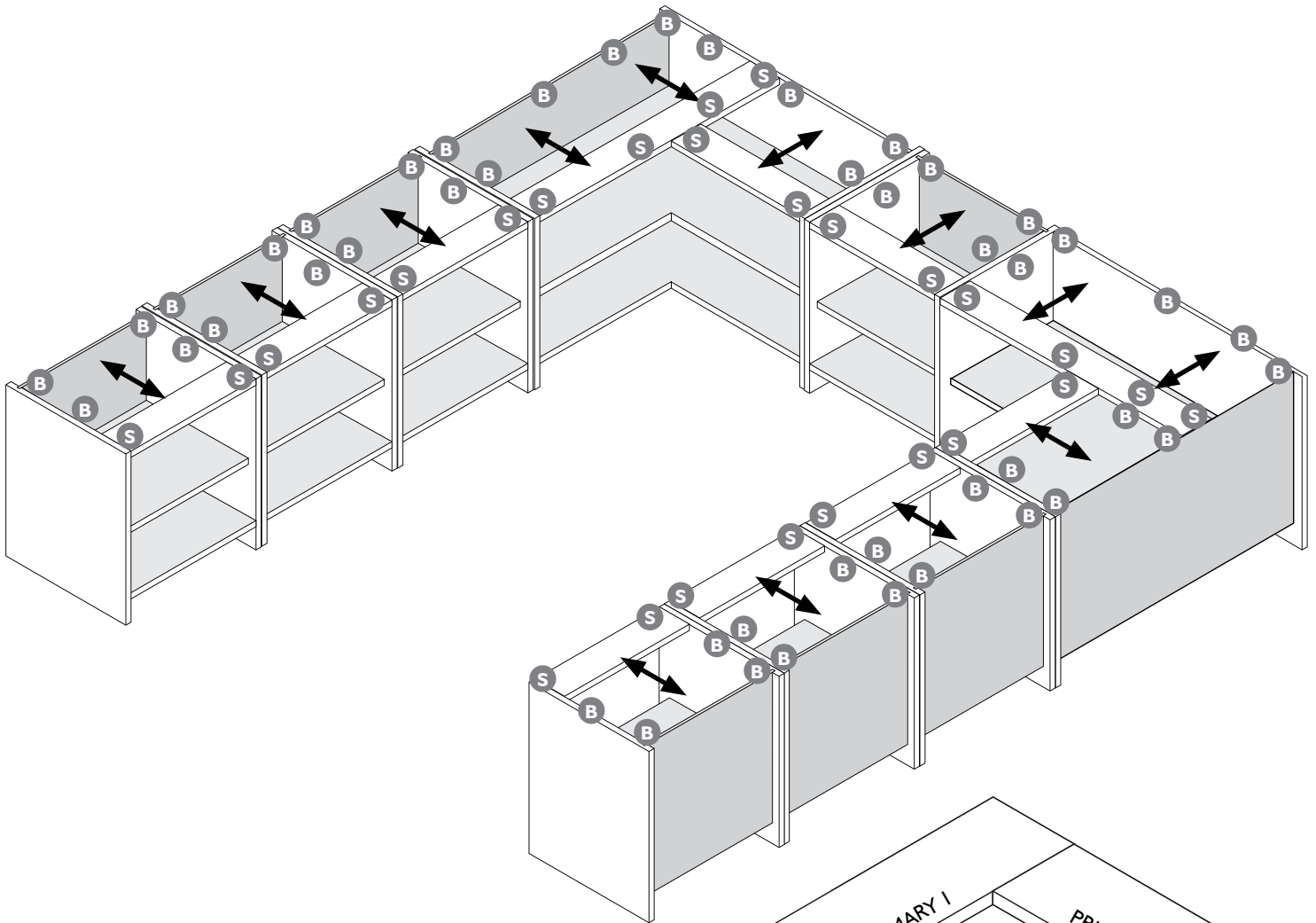
L-Shaped Installation - Open Top Carcasses



L-Shaped Installation - Solid Top Carcasses

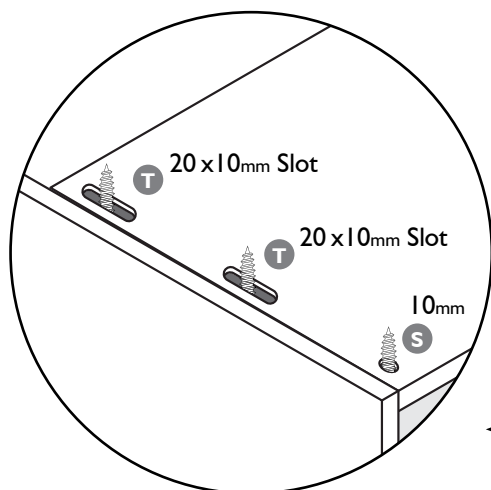
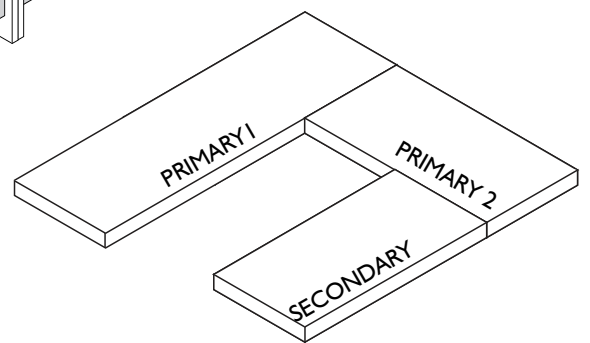
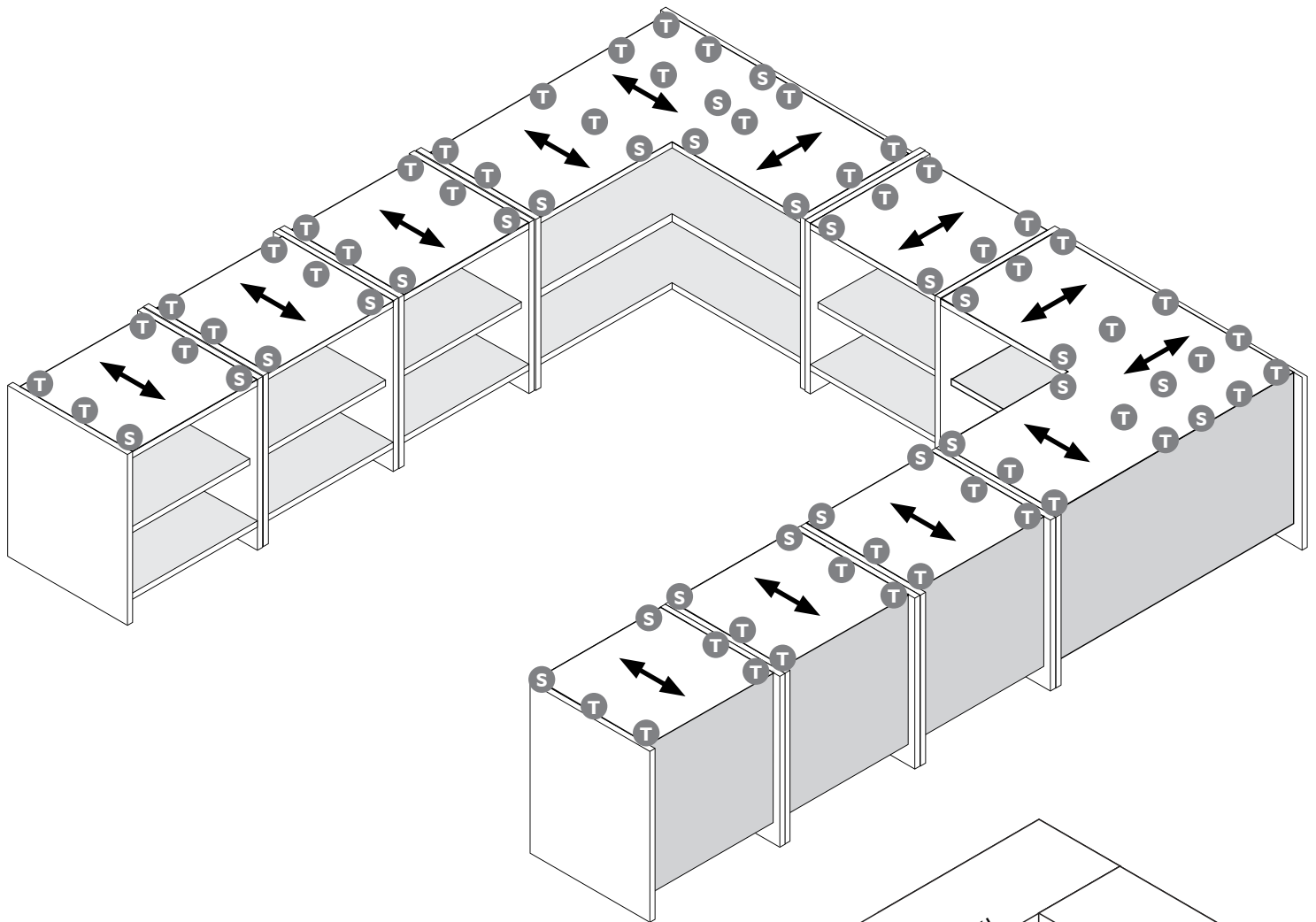


U-Shaped Installation - Open Top Carcasses



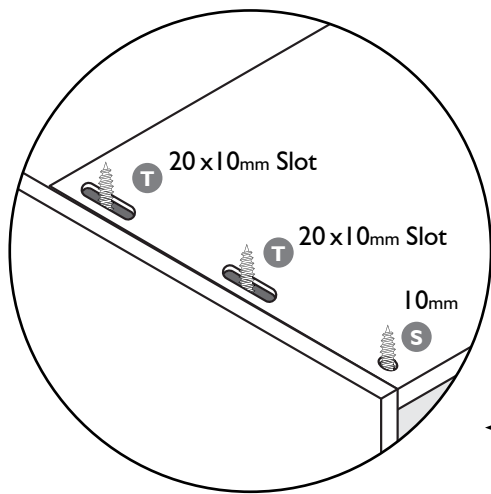
- S** = Solid Worktop Fixing
- B** = Slotted Worktop Bracket
- ↔** = Direction of Slot

U-Shaped Installation - Solid Top Carcasses

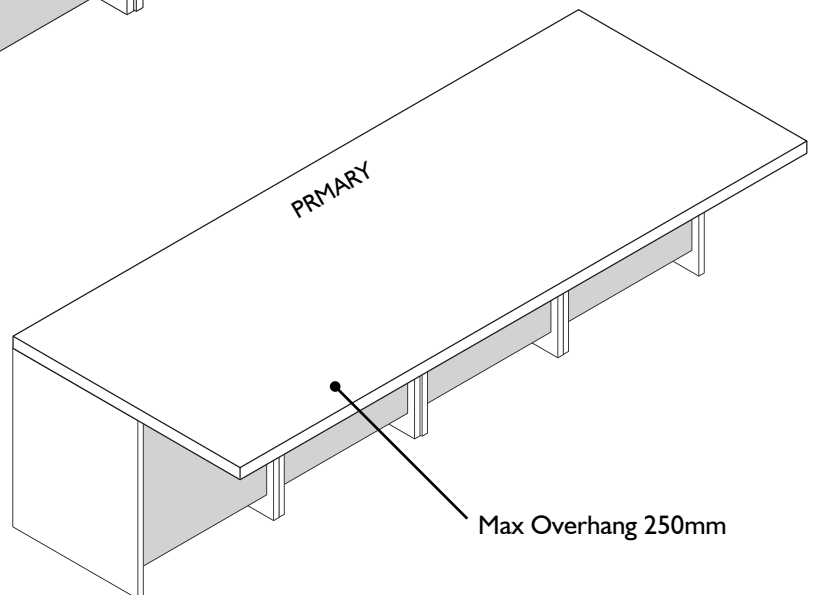
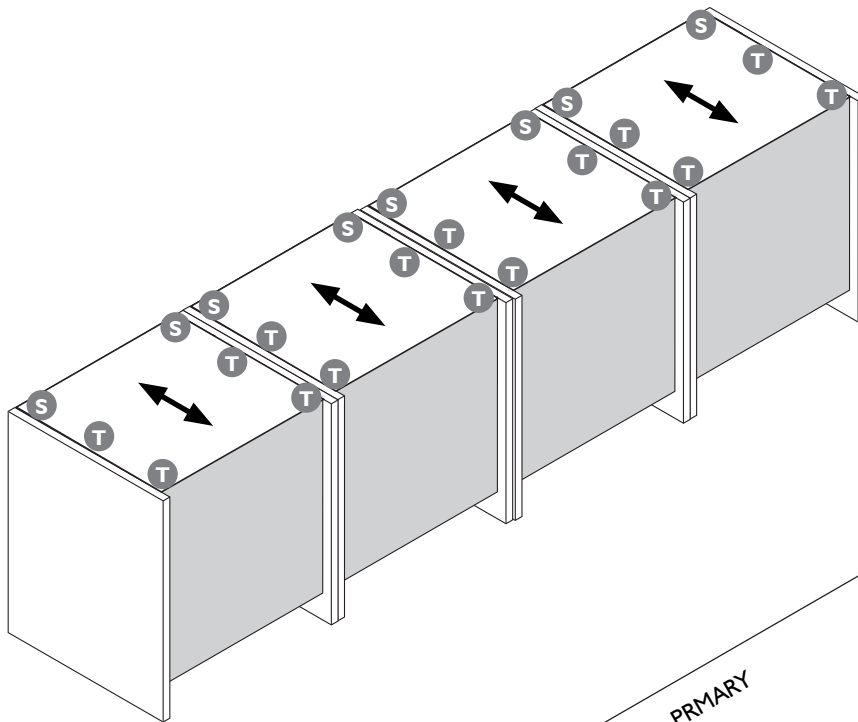


- (S) = Solid Worktop Fixing
- (T) = Slotted Worktop Fixing
- ↔ = Direction of Slot

Breakfast Bar Installation



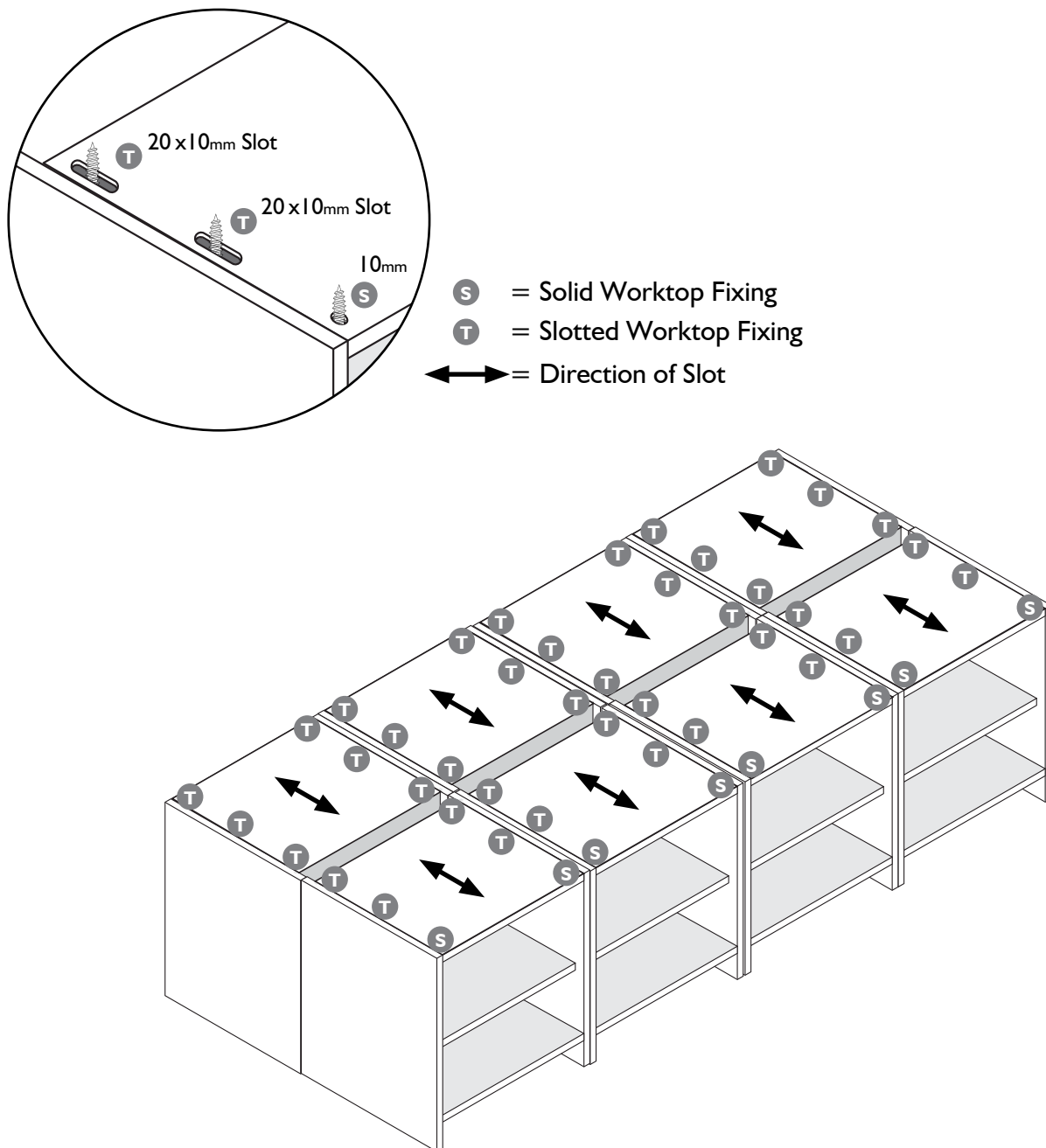
- (S) = Solid Worktop Fixing
- (T) = Slotted Worktop Fixing
- ↔ = Direction of Slot



IMPORTANT

Worktops with overhangs exceeding 250mm must be supported by a suitable leg or angle bracket, to avoid warping. All leg supports must be fixed to the floor.

Island Installation



IMPORTANT

The solid fixings should be facing towards any sources of heat. If an Aga, wood burner or range cooker etc is situated near an island the solid fixings should be on the same side.

Notes

puretree worktops

puretreeworktops.com

Pure Tree Ltd T/A Puretree Worktops, Western Road, Exeter, Devon EX4 1EQ
Tel. 01392 849119 • Email. contact@puretreeworktops.com