

spectra

Extra-Slim

Contemporary laminate surfaces



Installation Instructions

IMPORTANT: Please inspect this product fully prior to cutting, jointing or installation (including colour, texture, profile, visible imperfections and defects), as any consequential fitting costs in reference to these visible discrepancies will not be accepted at a later stage.

PRODUCTS GUARANTEE

This product has been manufactured to demanding high quality standards and should last many years provided that the work surface is installed and used in accordance with these instructions.

Typically, manufacturing defects are visible on inspection or manifest during/soon after installation. Where a work surface can be shown to have failed by reason of manufacturing defect (subject to wear and tear), we will always consider each claim within its own merit in conjunction with your statutory rights.

Spectra Extra-Slim work surfaces are produced to a predetermined colour tolerance, however variations may occur. All work surfaces should be thoroughly checked for colour match prior to cutting or installation.

Manufacturer reserves the right to determine what remedy is required – repair and/or replacement of work surfaces. Manufacturer reserves the right to request proof of date and place of purchase to support any submitted claim.

INSTALLATION TOOLS

The following list of tools is recommended to produce the best results:

- **Hand Held Circular Saw** Use a circular saw with high quality TCT triple chip blades for a fine finish cut. A hand router must be used for the final sizing of exposed edges. Allow at least 2-3mm oversize for final pass. A variable rotation speed and high quality double flute tungsten carbide tipped cutter is used for straight cuts, mitre joints and cut-outs.
- **Extraction Unit**
- **Hand Router**
- **Random Orbital Sander** 180 grit - 240 grit
- **Scotchbrite™ Pad** To sand the exposed front edge after cutting or trimming ensure a good quality orbital palm sander and extraction unit is used.
- **Palm Sander**
- **Electric Drill** Use a good quality variable speed drill with 1/2" chuck. Standard high speed drill bits are suitable for Spectra Extra-Slim work surfaces.

- **Edge/Profile Trimmer** To apply a profile on any exposed cut edges use a fixed tip guide trim cutter with a profile trim cutter.
- **Speed Clamps**
- **Suction Clamps** Used to clamp two pieces together and secure in position.
- **Cleaning Solvent** To clean surfaces thoroughly prior to bonding and to remove any spillage of epoxy resin.
- **Seam Adhesive** Clear 2-part epoxy resin will have to be mixed, please follow manufacturer's guidelines.
- **Silicone Sealant** Waterproof and mould resistant sealant for sealing sinks and bonding work surfaces to the base units.
- **Aluminium Tape** Reflective tape used to reduce the heat transfer between the hob and internal cut-out.
- **Biscuits** Biscuit joints help to strengthen joints and produce a level surface.
- **Jigsaw and Metal Cutting Blades**
- **Undermount Sink Clip Inserts** Hafele Brass Spreading Dowel 9mm.



**CAUTION: HEAVY PRODUCT
RECOMMENDED 2 MAN LIFT**



**PLEASE CARRY VERTICALLY ALONG
THE LENGTH TO AVOID ANY DAMAGE**



HANDLING AND PLANNING

Handling

Before handling please ensure adequate manpower is available to safely lift the work surface. Work surfaces should always be carried by two people. When carrying manually, we advise that it is held vertically along the width. Do not carry flat.

Planning

The positioning of the joints is very important so careful planning is required to achieve the best results. Joints should not extend across any hob or sink cut-out and should always be supported.

Fixing

Always use a silicone sealant to fix Spectra Extra-Slim work surfaces to the base cabinets. **PLEASE NOTE: do not use screws to attach the base cabinets to the work surface.**

Appliance Considerations

Any heat generating appliances, such as an AGA, that are adjacent to the work surface should be positioned a minimum of 50mm from the end. There is no restriction on the positioning of fitted dishwashers, washing machines or tumble dryers, however it is advisable to apply additional protection to the underside of the full length of any joint to eliminate any moisture ingress. For free standing appliances we recommend the unsupported length to be a maximum of 600mm which will restrict the use of appliances positioned side by side.

Storage

Spectra Extra-Slim work surfaces must always be stored in a ventilated, dry, enclosed area, face up, flat and supported the full length. When stacking, check for and remove any particles that may get in between the work surfaces and cause abrasion damage. During installation Spectra Extra-Slim work surfaces can be stored vertically on the long edge, for short periods.

Thermal expansion

Thermal expansion for Spectra Extra-Slim is 1mm for every metre.

Summary

Do's

- ✓ Always check for design and colour compatibility before fitting
- ✓ Ensure a 50mm ventilation gap between the end of the work surface and any heat generating appliance

Don'ts

- ✗ Never drill Spectra Extra-Slim solid laminate work surfaces without the use of a solid base underneath to avoid breakout or flaking on the exit side of the work surface .
- ✗ Never use auger type drill bits

CUTTING

Spectra Extra-Slim work surfaces are hardwearing and require good quality machinery and clean, sharp cutters to produce a professional finish that ultimately saves time and effort.

Cutting Spectra Extra-Slim work surfaces can be carried out using a portable hand-held circular saw.

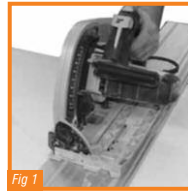
1. All joint edges and final finished ends must be skimmed using a hand router with a sharp blade. Allow for 2-3mm for final skim to size.
2. Check measurements repeatedly to avoid costly errors.
3. Slow or soft start tools must achieve full speed before beginning cuts.
4. Ensure all work surfaces are adequately supported during all cutting processes.
5. Use appropriate clamps to ensure there is no movement of the guide during the cutting process.
6. Having a sharp top edge and smooth jointing face is the key to a satisfactory joint.
7. Check the quality of the fit.
8. Repeat the trimming process if necessary.
9. Ensure the cut is cleaned to allow for a good bond and finish to the joint.

SCRIBING

When scribing the work surface to the wall with a circular saw or jigsaw (jigsaw blade fitted with a metal cutting blade), also sand top and bottom edges to remove any chipping that may have occurred during cutting.

1. Use a pencil to mark the required cut line on the work surface . Recommend using a scribing tool.
2. If this line is straight it will be possible to use a circular saw and perform the cut in the same manner as you would cut to length, except the cut line will be angled. (Fig 1)
3. Remember you may have a margin for error dependent on the upstands / tiling used above the work surface .
4. However if a straight cannot be achieved the cut will have to be performed using a jigsaw with a metal cutting blade.
5. Don't forget to sand top and bottom edges with 240 grit sandpaper to remove any chipping. (Fig 2)

Top Tip: It is advisable to carry out a dry fit prior to installation once all the components have been prepared.



JOINTING

A clear 2-part epoxy resin adhesive is used to bond two work surfaces together, at the same time acting as a waterproof sealant. It must be applied correctly to ensure a controlled mix of adhesive and hardener.

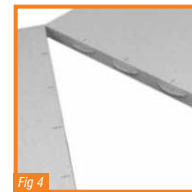
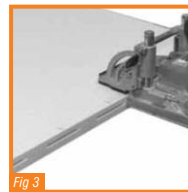
Joint Layouts - Straight, Corner and Peninsula

Spectra Extra-Slim work surfaces are supplied with slightly softened edges on all sides. The joint on a straight run can be manufactured to be a discreet joint or just left to show the factory finished ends, though this will be a more visible joint.

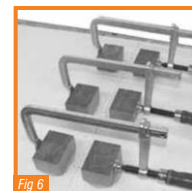
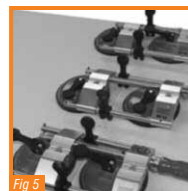
Using a router fitted with either a high quality double flute tungsten carbide tipped cutter or an upward cutting spiral and a straight edge, add 3mm to the length leaving 3mm to trim back for final finish to achieve a good clean square edge.

Jointing Assembly

1. The work surface edges to be bonded together must be milled and straight, ensuring both surfaces are exactly parallel to secure a good discreet joint.
2. Using a biscuit joint, machine form pockets to suit No.20 biscuits. (Fig 3)
3. If the work surface is a dark colour use masking tape to mark out where your slots are going. Cut pockets 4mm down from the top face.
4. Cut slots and make sure your No.20 biscuits fit. (Fig 4)
5. Pull together the two pieces to be joined dry fit only. If gaps or chipping have occurred re skim. Clean the surfaces to be joined using industrial denatured alcohol. Allow to evaporate dry.
6. Apply adhesive to the biscuit grooves. A final bead of adhesive along the edge of the top surface and front and back edge. This will help create squeeze out and achieve an inconspicuous and secure joint.



7. Bring the two work surfaces together and align the front edges and level top surface using either of the two methods below
 - a) **Suction Cup Method**
This is the easiest method to pull both edges together and level the joint. (Fig 5)
 - b) **Hot Melt Blocks**
Wooden blocks can be hot-melted on to the surface and left to cure. Using G-clamps pull the two edges together making sure the ends are level. (Fig 6) Blocks should be lightly tapped to remove and any residue removed with the denatured alcohol.
- PLEASE NOTE:** When joining smaller pieces ensure that the work surfaces remain in a horizontal plane as they have a tendency to 'jack knife'. Speed clamps placed at each end and gently tightened will stop this occurring.



8. Adhesive excess must be removed at this stage from the joint before it hardens. Take care when doing so to ensure the joint remains fully closed. Adhesive overspill elsewhere on the surface may be wiped off using denatured alcohol. Go across the joint with a ruler or similar to feel if a step exists, if a step is found then tap down until both sides are flat and level and re-tighten clamps. Ensure that you clean with denatured alcohol.

Masons Mitre Joint

A typical masons mitre with biscuits is recommended for corner joints by using a work surface jig to create a discreet joint.

1. Using locating pins place and clamp the jig. Then, using a router with a 30mm bush guide fitted with a good quality double fluted tungsten carbide tipped cutter or an upward cutting spiral plunge down in incremental stages of 3-4mm until a full cut has been achieved.

Left Hand 90 Degree Joint

- Female joint router work surface face up
- Male joint router work surface face down

Right Hand 90 Degree Joint

- Female joint router work surface face down
- Male joint router work surface face up

2. Once all cuts have been completed biscuits slots must be done by means of following all instructions on jointing assembly.

DRILLING

1. Holes and inserts can be drilled through part of the thickness or through whole. In the case of stopped holes a minimum thickness of 2-3mm of the material must remain (i.e maximum depth hole of 10mm), otherwise there is a risk of the surface cracking when fitting.
2. If going through the full work surface then place a sacrificial piece of chipboard or MDF on the underside to avoid flaking.
3. Pilot hole for diameters for self-tapping screws or inserts to a maximum of 10mm are: 3mm - No.6 screw; 4mm - No.8 screw; 4.5mm - No.10 screw. For inserts to hold sink clips follow recommended instructions.
4. For sink clips, pilot hole to a radius to the chosen size of insert and to a depth of 8.5mm and insert a brass spreading dowel.

Tap holes should be cut completely through the Spectra Extra-Slim work surfaces allowing the work surface to support the tap.

1. Position the tap as required ensuring clearance of any fittings.
2. Cut the tap hole using a suitable hole-saw to the correct tap dimension. Using a pencil mark on the surface where tap is opening and centre.
3. Ensure the tap is installed following the manufacturer's instructions to prevent moisture entering the tap hole. It is recommended to seal the tap body to the work surface with an excess of silicone sealant to prevent water from penetrating the tap hole.
4. Place a sacrificial piece of chipboard or MDF on the underside to avoid flaking.

PROFILING EDGES

Use appropriate safety equipment while performing any shaping or profiling. The use of an extraction unit to remove debris is recommended.

To match any exposed cut edges to the manufactured edges, simply use a 240 grit sanding block to lightly soften the edge, the recommended profile is square but this will remove the sharpness of the raw edge.

For a more curved profile appearance, select a pencil round of 1-2mm. Ensure all router blades are sharp and chip free and all bearings in the router and cutters are sound, to prevent router chatter and deep cutting. If a jig is to be used it should be damage free and completely smooth.

Top Tip: Always router into the face, this will reduce the possibility of chipping and flaking.

The use of a bottom bearing cutter is recommended.

1. Check measurements repeatedly to avoid costly errors.
2. Always allow slow or soft start tools to achieve full speed before beginning.
3. Use speed clamps to hold the jig and work surface in place if a bottom bearing cutter is not being used.
4. Always use a router / trimmer fitted with a bottom bearing radius cutter or alternatively use 240 grit sand paper and a hand block to create a pencil round radius. (Fig 7)
5. The smoother the face that the profiler bearing runs on the better they travel and the better the end result.

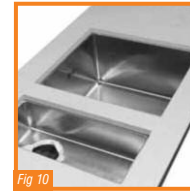
Shaping

1. Place your jig on the work surface, secure it with clamps and then mark its position.
2. Mark the outline of your shape by running an offset scribe around the jig.
3. Use a jigsaw to remove the excess material following pencil lines.
4. Always use a router to create the finished edge. (Fig 8)
5. The smoother the front edge that the radius bearing runs on the better they travel and the better the end result, this can also be achieved by means of softening the edge by using sandpaper and hand block to round off to a pencil round radius.



SINK INSTALLATION

Spectra Extra-Slim work surfaces are ideally suited for inset (Fig 9) and undermount (Fig 10) sinks.



Inset Sinks

Stainless steel and composite inset sinks can be fitted by the following instructions;

1. The distance between the inset sink cut-out and an adjacent seam joint must be a minimum of 150mm and a minimum of 40mm from the front edge of the work surface.
2. Choose the location of the sink. Place the sink upside down on the face of the work surface and mark around the outline with a soft pencil.
3. Using a straight edge draw a second line at least 10-12mm inside the first line of the sink perimeter or to the manufacturers guidelines. This should allow the inset sink to fit cleanly in to the aperture once the inner section is removed. Ensure all work surfaces are adequately supported during all cutting processes.
4. Using a 10mm bit drill each of the 4 corners of the inner line to create a clean radiused corner. This will prevent any potential stress cracking in the corners.
5. Following the inner line plunge with a hand router fitted with a 12mm cutter or a circular saw with a guide rail and TCT triple chip blade. Plunge in three stages of 4mm depth increments. Alternatively use a hand held jigsaw to complete the cut-out into the radiused corners.
6. Once the cut out is complete gently rub the inside of the cut-out with a 240 grit sandpaper to smooth the edges and eliminate any potential micro-fractures.
7. Apply a bead of silicone on the face of the work surface around the cut-out and insert the sink.
8. On the underside secure the sink using the relevant sink clips. Spreading dowels should always be used rather than standard sink clips to avoid screwing through the material unless adding wooden batons to secure to.
9. Remove any silicone squeeze out from around the outer rim of the sink.
10. Allow time for the silicone to cure before carrying out any further surface finishing.

Undermount Sinks

Please note: We do not recommend fitting Butler / Belfast undermount sinks with Spectra Extra-Slim work surfaces. If this is the preferred sink option please refer to the sink manufactures instructions for fitting information.

Jig templates should be used in the following way: position the undermount sink by taking all measurements from the sink centre as opposed to the bowl centre. Sink centres line up with the jig centres. Cut-outs can be formed using a hand router.

Face Cut-Out

Top Tip: Support your Spectra Extra-Slim work surface as you work through each process particularly at the point of creating the sink cut-out as this could lead to a temporary weakening of the work surface.

1. Position the work surface "face up" and mark out the sink centre with a pencil.
2. Ensuring the jig handing corresponds with the desired sink handing, centralise the jig and clamp in place using four clamps, one at each corner. Place and fix the inner template with hot melt and push down to act as a support for the router to stop any potential tipping.
3. Cut into the face of the work surface with a hand router fitted with a 30mm bush guide let and standard 1/2 inch router cutter, cutting round in 3 stages of 4mm depth increments, taking care to keep the router cut vertical during each cut.

Top Tip: Support the cut-out section with a sacrificial piece of MDF or chipboard to aid support and debris control.

4. Using a hand router, profile the inner edge using a radius or chamfer cutter with a bottom bearing.
5. Finish the cut-out inner edge using a palm sander with 240 grit paper, followed by an ultra-fine 400 grit paper. Sand the internal radii by hand and finish with the same 400 grit paper.

Fitting The Sink

1. First check the sink fits by assembling a dry fit. Place the inverted sink on the underside of the cut-out to confirm it centres when viewed from the face of the work surface.

Top Tip: At this point ensure the sink lip is completely flat as this will affect the bond between stainless steel the Spectra Extra-Slim surface. Replace the sink if in any doubt.

2. Place and mark where the sink clips are to be secured. Using selected drill bit pilot hole to a depth of 9mm and with the recommended diameter place the spreading dowel insert into the hole and tap flush. Remember to avoid obstructing any tap holes or overflows. Spreading dowels should always be used rather than standard sink clips to avoid screwing through the material unless adding wooden batons to secure to.

Top Tip: It is recommended to trial fit any overflows required to assure clearance from the surrounding work surface . It may be necessary to cut clearance around the overflow.

3. Once satisfied with the final fit and clip location, remove all clips and the sink in preparation for the final installation.

Final Installation

To simplify the installation it is best to fit the sink face down making sure the sink is centered in the cut-out when viewed face up.

1. Using denatured alcohol, thoroughly clean the two joining faces of the sink lip and on the underside of the work surface around the cut area allowing each face to evaporate dry.
2. Using clear silicon apply to the work surface . Position the sink applying gentle pressure all round ensuring the silicone squeezes out on both the back and face edges of the cut out creating a solid, waterproof bond. Centralise the sink and then tighten the sink clips using a screwdriver or allen key.
3. Turn over the work surface , centralise sink and re-tighten, then scrape off any excess silicone and clean up with denatured alcohol.
4. It is recommended to allow 24 hours before using the sink.

Top Tip: Always follow manufacturer's guidelines when fitting sinks or appliances.

Drainer Grooves (undermount sink installation only)

Top Tip: Before starting ensure you use good quality cutters and work smoothly when processing the grooves. This will reduce the final finishing time and provide an excellent finish.

IMPORTANT: Always process the drainer grooves after a radius profile has been applied to the inner edge. This is so the bearing follows a flat edge and not the drainer grooves.

1. Apply masking tape to the surface to help position the grooves. Mark out the groove centre lines with a pencil ensuring they are parallel to the front edge of the work surface .
2. Centralise the required groove in the jig over the marked out centre line and firmly clamp the jig in place.
3. Use a hand router fitted with a 30mm bush guide and a radius cutter. Accurately set the plunge depth to 6mm. Please note: Never cut deeper than 6mm.
4. Starting from the farthest point from the sink cut-out, plunge the router and run smoothly along the jig to create the groove. Smooth use of the router will minimise hand sanding when finishing.
5. Repeat the steps above to complete the remaining grooves.

Finishing Drainer Grooves

1. Carefully hand sand the drainer grooves with 240 grit paper then finish with 400 grit ultra-fine paper.
2. Finally apply oil or wax to the finished grooves with a cloth taking care not to over spill on to the surface of the work surface .

HOB INSTALLATION

Most work surfaces have a gap between the bottom of the hob and item immediately below it. This gap has decreased due to Spectra Extra-Slim work surfaces being only 12.5mm thick. Hobs will also vary in depth and width, therefore in order to fit, some alternations may need to be made to the running bar at the top of the unit. It can be trimmed to 25mm wide and re-fixed (white edge facing out) with one screw to each side. The off-cut of 50mm can be re-fixed to the back of the unit (if no running bar currently in place) and attached with two screws each side to give the unit additional stability.

Spectra Extra-Slim work surfaces are compatible with most hobs and fitting clips but should an additional packer be required to secure the clips, simply utilise the material cut out for the hob.

There are no issues if a cupboard is used directly below the hob, however if intending to position an oven or drawers please refer to the following recommendations.

Oven

Recommended for single oven installation only. The shelf at the bottom of the unit can be lowered by 20mm - 25mm by undoing the locating pins and replacing them further down the panels. The front panel will then need to be trimmed by the same amount from the top and a fillet added to the space between the oven and work surface . Use the fitting clips provided to secure the oven.

Drawers

Pan drawers should be used rather than standard height drawers as the additional height maintains the closing capability of the drawer without interfering with the hob fitting. Alternatively, if standard drawers are preferred, a false top drawer (thereby a non-functioning drawer frontal) should be used.

PLEASE NOTE: These are recommendations only and may vary slightly depending on specifics of the cabinetry being used.

FINISHING

Spectra Extra-Slim work surfaces are supplied finished with no polishing or oiling required to the surface.

Top Tip: The use of a quality random orbital sander or palm sander should be used on all cut ends that are going to be seen, going through the recommended grits and then applying oil or laminate polish to the exposed edges. Always follow the correct grits of 180 grit > 240 grit > 400 grit ultrafine paper.

1. Ensure the sander is moved constantly over the exposed front edge keeping it flat on the edge and avoid tipping as this will cause a rounding effect to be seen during the complete sanding operation. Wipe the edge surface clean with a damp cloth between each pass to remove surface contamination.
2. Ensure you avoid just sanding up and down the edges as this could cause a groove or trenching.
3. This process will remove any saw or router striations and provide a smooth appearance to the edges. A final edge treatment with linseed oil or wax will further enhance the edge aesthetics. **PLEASE NOTE:** Only apply this to the edge.

CARE AND MAINTENANCE

Cleaning and Care

Spectra Extra-Slim work surfaces are easily maintained and simply require a regular wipe down with a mild detergent and water. Rinse with warm water and gently buff to dry the surface.

Staining

Spectra Extra-Slim work surfaces have a solid, non-porous surface resistant to stains, mould, mildew and bacteria growth. We recommend normal everyday spills be wiped away without delay using a damp cloth to avoid any potential staining. If any discolouration appears due to coffee, tea or fruit juices, the first stage is to clean the surface using a mild detergent and water. If the stain remains try an even mix of domestic bleach and warm water making sure you protect your hands with gloves. For more stubborn stains apply a non-abrasive cream cleaner to a non-abrasive nylon brush and rub gently over the stain. Finally, if the previous methods fail, try rubbing the area in a circular motion with a Scotchbrite™ pad in warm, soapy water. At the end of each stage rinse with warm water and gently buff dry the surface.

PLEASE NOTE: DO NOT use acidic or abrasive cleaners, expose the laminate to household bleach for prolonged periods of time, or apply excessive scrubbing.

Scuffs and Scratches

Darker colours will show excessive marking, scratching and wear and tear more noticeably than lighter colours. Never cut anything directly on the work surface .

Resistance to Heat

PLEASE NOTE: Never place any hot items directly from the heat source directly on to the work surface .

Spectra Extra-Slim work surfaces can become damaged if hot pans, earthenware or dishes are placed directly from the oven or hob. To prevent surface damage from hot objects it is recommended to use a heat-resistant mat or stainless steel grating on the work surface .



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