



Installation Guide

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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.

HEALTH AND SAFETY RECOMMENDATIONS

All normal safety precautions must be followed in working with this material including the use of eye, and face protection ie dust masks and safety glasses.

Recommended Installation Tools

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

- **Hand Held Circular Saw** - use a circular saw with Polycrystalline Diamond tipped blades only 'PCD'. A hand router must be used for the final sizing of exposed edges. Allow at least 5mm oversize for final pass.
- **Hand Router** - a good quality hand router and high quality PCD (Polycrystalline Diamond) tipped cutters.
- **Random Orbital Sander** - to sand Gemstone worksurface use a good quality random orbital sander with an extractor.
For final finish use an ultra fine 600 grit pad.
- **Palm Sander** - ensure a good quality orbital palm sander is used for finishing the front edge.
- **Electric Drill** - use a good quality variable speed drill with 1/2" chuck. Standard high speed drill bits are suitable for Gemstone worksurfaces.
- **10mm Spanner**
- **Mitre Jig** - used for forming mitre joints and position cut-outs for connector bolts.
- **Edge / Profile Trimmer** - to trim the overhanging edges use a 90° bearing guided trimmer with a PCD (Polycrystalline Diamond) blade. For a radius profile use a 3mm PCD (Polycrystalline Diamond) bottom bearing guided profile cutter.
- **Edge Clamps** - 'A' type clamps are used to apply edging, 'G' type to secure jigs to the worksurface. 3 Way clamps for plant on edging.
- **Denatured Alcohol** - for cleaning surfaces thoroughly prior to bonding.
- **Seam Adhesive** - 50ml cartridges with colour matched adhesive used to bond mitre joints and edging. Applicator gun with mixer tips also required.
- **Silicone Sealant** - waterproof and mould resistant sealant for all exposed raw core to protect against moisture.
- **Aluminium Tape** - reflective tape used to reduce the heat transfer between the hob and internal cut-out.
- **Fibre Reinforced Tape** - to temporarily secure the edging to the worksurface if additional edging is required. Tape is removed when adhesive is set.
- **Jointing Bolts and Biscuits** - bolts are used to clamp joints and the biscuit joints help to strengthen joints and produce a level surface.
- **Finishing Sealer and Cloth** - Gemstone surface sealer is recommended for the final surface finish.

All Gemstone Worksurfaces are supplied semi finished to 400 grit. Follow the final finishing instructions on page 18.

Handling

Before handling please ensure adequate manpower is available to safely lift the worksurface.

When carrying manually, we advise that it is held vertically along the width.

Do not carry flat!

Planning Guidelines

Never position joints through any appliances such as sinks or hobs.

No Gemstone worksurface joint should be positioned within 150mm of any appliance edge that generates heat such as hobs or cookers.

A gap of at least 4mm should exist between a range cooker and a Gemstone worksurface edge.

A gap of 15mm should exist between an Aga Cooker and a Gemstone worksurface.

The maximum unsupported overhang for a Gemstone worksurface is 300mm.

If a plant on edge method is being applied to a Gemstone worksurface this will increase the length by 6mm; be sure to allow for this when planning an installation.

Conditioning

Prior to installation ensure Gemstone worksurfaces, splashbacks, upstands and adhesives are brought up to room temperature of around 18°C (64.4°F).

Storage

Gemstone worksurfaces must always be stored in a ventilated, dry, enclosed area within the recommended temperature, face up, flat and supported on batons every 1000mm, starting 100mm in from both ends.

During installation Gemstone worksurfaces can be stored vertically on the back long edge, not the finished edge, for short periods.

If not possible, ensure the edge touching the floor is protected against damage.

Colour Tolerances

Gemstone worksurfaces are factory finished ready for immediate installation. Whilst manufactured to strict colour tolerances it is advisable to check all components prior to commencing installation.

Using a damp cloth clean off any dust and compare colours.

Please Note: Should there be an unacceptable colour variance, please contact your supplier before commencing installation.

Claims for colour variation cannot be made after installation.

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Always

- Use Polycrystalline Diamond tipped blades only (PCD).
- Thoroughly clean with denatured alcohol prior to bonding.
- Dry fit so a clean cut is achieved.
- Insert glue cartridge into gun and exert pressure until both components (accelerator and glue) flow out of the cartridge. The mixer tip should then be attached.
- Ensure squeeze out of adhesive on all attached edges and joints.
- The use of a extraction unit is highly recommended when sanding and routing.

Never

- Use a Belt Sander.
- Over sand in one area.
- Use a Wood Chisel or Power Planer to remove excess adhesive.

Not recommended

- Jigsaw, Auger type Drill Bits, Ripping Saw blades.
- TCT - Tungsten Carbide Cutters.

If you have any doubts we recommend you contact a professionally trained Gemstone Installer for further advice.

Cutting and Jointing

Gemstone worksurfaces are hardwearing and require good quality machinery and clean, sharp cutters to produce a professional finish that ultimately saves time and effort. (See a list of recommended installation tools on page 1)

Please Note: Before cutting or routing always use the appropriate Safety Equipment (Eye Protection and Face Mask).

Cutting Gemstone Worksurfaces

Cutting Gemstone worksurfaces can be carried out using a portable hand-held circular saw. **Extraction is recommended.**

Face up and cutting from the front edge

1. Position the worksurface to begin cutting in from the factory fitted edge.
2. Ensure a good quality PCD (Polycrystalline Diamond) tipped blade is used and make three cutting passes:
 - **1st cut** set saw blade to a depth of 3 - 4mm and plunge the saw in to the edge of the front side. **Never cut out from the edge, always cut in.**
 - **2nd cut** set saw blade depth at 10mm
 - **3rd cut** set saw blade to a depth of 40mm for the final cut.
3. Final trimming should be made with a router. Allow 5mm oversize to trim to the final size with the router.
4. All joint edges and final finished ends must be cut using a hand router with a sharp blade.
5. Ensure the cut is cleaned to allow for a good bond and finish to the joint.

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Top Tip

Never finish the cut through a fitted edge. Always proceed carefully when cutting towards and through the front edge, this will reduce the possibility of chipping or flaking.

Cut-outs - Sinks and Hobs

Cut-outs can be formed using a hand router and plunge saw using high quality PCD (Polycrystalline Diamond) tipped cutters and blades and a suitable jig or template. **Extraction is recommended.**

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Top Tip

Hob cut-outs require a 50mm wide heat reflective tape around all the edges making sure the tape overhangs both the surface and underside of the cut-out.

1. Clamp the jig to the face of the Gemstone worksurface if using a router with a PCD (Polycrystalline Diamond) tipped cutter and follow the stages listed below
 - **1st cut** a depth of 3 - 4mm and plunge.
 - **2nd cut** set router to a depth of 10mm and plunge.
 - **3rd cut** set router to a depth of 20mm.
 - **4th cut** set router to a depth of 40mm for the final plunge.
2. When using a plunge saw with a PCD (Polycrystalline Diamond) tipped blade place the worksurface face up. Mark around the outline of the sink or hob with a soft pencil.

Using a straight edge draw a second line inside the first line or to the Manufacturers guidelines.

Remember to radius the internal corners using a drill with a minimum 10mm Masonry Drill bit.

 - **1st cut** set saw blade to a depth of 3 - 4mm and cut.
 - **2nd cut** set saw blade to a depth of 10mm and cut.
 - **3rd cut** set saw blade to a depth of 40mm for the final.
3. Thoroughly clean the edges of the cut-out and the surface ensuring all dust and shavings have been removed.
4. Completely seal the sink cut-outs using a 2mm thick bead of clear, water resistant silicone.

Refer to page 12 for details on Undermount Sink Installation.

Masons Mitre Joint

A typical masons mitre method with biscuits is recommended for corner joints.

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Top Tip

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

It is recommended to router through the worksurface in three incremental stages with the worksurface positioned as follows:

- **Left hand 90° joint**
 - female joint router face up
 - male joint router face down
 - **Right hand 90° joint**
 - female joint router face down
 - male joint router face up
1. Line up the jig to the worktop and clamp in position following the left to right format above. Cut through in stages as described on page 3 section 1. Repeat on opposite joint (Fig 1).
 2. To ensure a clean square edge use a straight edge guide offset to suit the router for both joints.
 3. Using a biscuit jointing machine form pockets to suit No.20 biscuits. Cut pockets 10mm down from the top face between bolt slots.
 4. Do not cut pockets over bolt slots. Use one biscuit between each connector bolt.
 5. Prepare the worktop bolt connectors.
 6. Cut out worktop jointing bolts (3 for 650mm, 4 for 900mm width) (Fig 2).
 7. Clean the surfaces to be joined using the denatured alcohol (Fig 3). **Avoid applying alcohol to the chipboard.** Allow to evaporate dry and assemble within a short time to prevent recontamination.

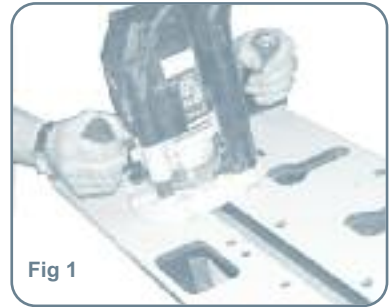


Fig 1



Fig 2



Fig 3

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Working with Gemstone Adhesives

Only Gemstone colour match adhesives should be used for jointing and edging. Other adhesives will expose joints.

The adhesive is a sealant and bonding agent for both the surface material and the chipboard core. It must be applied correctly with an applicator gun to ensure a controlled mix of adhesive and hardener.

When using a new cartridge always purge and dispose of 3 - 5ml of mixed adhesive.

Gemstone colour match adhesive is normally fully cured in 40 minutes, with a joint open time of 6 - 8 minutes. It is best to plan on closing the joint within 5 - 6 minutes.

This could alter slightly depending on the ambient room temperature.

Jointing

- Place masking tape either side of the joint approximately 5mm in from the cut edge and full length of the cut (Fig 4). Apply three layers of tape. This will reduce the final sanding.
- Insert a small bead of Gemstone adhesive in each of the biscuit cut-outs and fit biscuits (Fig 5).
- Apply two beads of adhesive along the entire length of the joint. The first to run just above the line of the biscuits and the second 5mm up from the bottom.
- Apply a final bead of adhesive along the top edge of the surface. This will create an adhesive squeeze out and achieve a discreet and secure joint.
- Without delay bring the two worksurfaces together and align the front inner faces (Fig 7). This will help create adhesive squeeze out and achieve a discreet and secure joint.
- Insert the joining bolts and using a 10mm spanner draw the worktop pieces together. **Do not over tighten.**

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Top Tip

Always make sure the two worktop pieces are level by checking across joint every 150mm to ensure that no step occurs when adhesive squeeze out is seen. If a step has occurred it must be tapped level and fully tighten the joining bolts. The flatter the joint the less sanding is required.

- Scrape off the excess adhesive going along the tape with a spatula or a broad flat edge (Fig 8). Then lift the tape to leave a thin layer of glue to be removed.
- Using a good quality random orbital sander follow the recommended finishing instructions on page 18.

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Top Tip

Do not sand along the joint line only. Feather out across a larger area to avoid trenching.



Butt Joint Assembly

To join two straight lengths a similar method is applied.

1. The worksurface edges to be bonded together have to first be milled at right angles and then straight, ensuring both surfaces are exactly parallel to secure a good discreet joint.
2. Cut out the recesses for the underside joining bolts. Using a biscuit joining machine form pockets to suit No.20 biscuits.
3. Cut pockets 10mm down from the top face between bolt slots. Do not cut pockets over bolt slots. Use one biscuit between each joining bolt.
4. Clean the surfaces to be joined using denatured alcohol. **Avoid applying cleaner to chipboard.** Allow to evaporate dry and assemble within a short time to prevent recontamination.
5. Place masking tape either side of the joint approximately 5mm in from the cut edge and along the full length (Fig 9). Apply three layers of tape, this will reduce the final sanding.
6. Insert a small bead of Gemstone adhesive in each of the biscuit cut-outs and fit biscuits (Fig 5).
7. Apply two beads of adhesive along the entire length of the joint. The first to run just above the line of the biscuits and the second 5mm up from the bottom. Apply adhesive in to the biscuit grooves and onto the front and back edges.
8. Apply a final bead of adhesive along the top edge of the surface. This will create an adhesive squeeze out and achieve a discreet and secure joint.
9. Bring the two worksurfaces together and align the front inner faces (Fig 10).
10. Insert the joining bolts and tighten. **Do not over tighten.**

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Top Tip

Always make sure the two elements are level by checking across joint every 150mm to ensure that no step occurs when adhesive squeeze out is seen. If a step has occurred it must be tapped level and fully tighten the joining bolts. The flatter the joint the less sanding is required.

11. Scrape off the excess adhesive going along the tape with a spatula or a broad flat edge (Fig 8). Then lift the tape to leave a thin layer of glue to be removed.
12. Using a good quality random orbital sander follow the recommended finishing instructions on page 18.

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Top Tip

Do not sand along the joint line only. Feather out across a larger area to avoid trenching.



Fig 8



Fig 9



Fig 10



Fig 11

Edging

Gemstone worksurfaces are supplied with three sides factory edged. If additional edging is required this can be easily fitted prior to installation.

Method 1 - undermount edge

Method 2 - plant on the edge

Please Note: Before edging always use the appropriate Safety Equipment (Eye Protection and Face Mask).

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Top Tip

Generally, it is easier to apply an edge on a workbench before the worksurface is fully installed.

Method 1 - Undermount edge

1. Measure and cut the required length of edging strip.
2. Place the worksurface face down and router back the chipboard. On the final pass set the router to plunge into the surface material by a maximum of 1mm.

Note: Ensure all excess material is removed as this is critical in achieving a discreet joint.

3. Thoroughly clean the rebate, avoiding the chipboard, and the edging strip using denatured alcohol and allow to evaporate dry (Fig 12).
4. Apply a bead of adhesive along the full length of the lip. Then apply beads of adhesive to the top, centre, bottom and two short edges of the edging strip (Fig 13).
5. Firmly apply edging strip and align flush to the overhang material if core is routed back. Ensure that an unbroken bead of adhesive is squeezed out of the joint. This is vital to achieve a clean, discreet joint.
6. Secure the edging using 'A' clamps, one at each end and the others spaced approximately 10 - 15cm apart (Fig 14).
7. Allow 40 minutes for the adhesive to cure before commencing further finishing work.
8. To trim the overhanging edges use a 90° bearing guided trimmer with a PCD (Polycrystalline Diamond) blade. For a radius profile use a 3mm PCD (Polycrystalline Diamond) bottom bearing guided profile cutter (Fig 15). Profiling is not necessary if the edge is to fit against a housing or wall.
9. Using a good quality random orbital sander follow the finishing instructions on page 18.

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Top Tip

Should any breakout occur this is easily repaired by applying a spot of adhesive in the void and sand following the finishing instructions on page 18



Fig 12



Fig 13



Fig 14



Fig 15

Method 2 - Plant on

Please Note: If you select the plant on method the new edge will increase the worktop length by 6mm per edge.

1. Measure and cut the required length of edging strip.
2. Remove any excess material using a straight edge and router.

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Top Tip

Always router into the face edge and never router out of the factory fitted front edge as this will reduce the possibility of chipping or flaking.

3. Thoroughly clean the edge of the Gemstone worksurface avoiding the chipboard and the reverse of the edging strip using denatured alcohol and allow to evaporate dry.
4. Apply colour matched adhesive along the length of the worksurface (Fig 16).
5. Apply colour matched adhesive to the top, centre, bottom and both short edges, 5mm from the edge on the edging strip.
6. Apply the edging strip directly to the clean edge ensuring squeeze out of the adhesive (Fig 17). Secure in place with fibre reinforced tape or 3 way clamps leaving a 2 - 3mm overhang at the top and bottom of the edging strip (Fig 18).
7. Place the tape every 50 - 75mm or 3 way clamps 10 - 15cm making sure that an unbroken bead of adhesive has squeezed out along the top of the joint. This is vital to achieve a clean discreet joint.
8. Allow to dry hard for 40 minutes.
9. To trim the overhanging edges use a 90° bearing guided trimmer with a PCD (Polycrystalline Diamond) blade. For a radius profile use a 3mm PCD (Polycrystalline Diamond) bottom bearing guided profile cutter (Fig 19). Profiling is not necessary if the edge is to fit against a housing or wall.
10. To finish follow the recommended sanding and finishing instructions on page 18.

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Top Tip

Should any breakout occur this is easily repaired by applying a spot of adhesive in the void and sand following the finishing instructions on page 18.



Worktop Curve

Gemstone worktops are designed to make installation simple and can be adapted to create curved corners if required. A specially prepared jig provides a perfect rounded end to match the growing trend of curved kitchen doors.

Please Note: Before cutting or routing always use the appropriate Safety Equipment (Eye Protection and Face Mask).

Preparing the worktop curve

The following instructions require the use of a 12.7mm router cutter with a 30mm bush, 3 way clamps and a curved edge jig.

1. Position the jig on top of the worktop surface. Align it with the front edge and 15mm in from the side. Clamp into position (Fig 20).
2. From the front edge drop the router blade the full depth of the worktop and cut directly into the front edge only. This will avoid stepping. Allow the router to stop before pulling back from the edge. This has now gone 6mm into the front edge.
3. Set router to a depth of 2 - 3mm into the surface and follow the full curve and length of the jig all the way to the back edge of the worktop. Then plunge in increments of 12mm following the jig. Repeat until the full cut is complete (Fig 21).
4. The corner of the worktop and 6mm of the front edge has been removed (Fig 22).
Place the supplied pre-curved edge on the cut out to make sure a good clean cut has been achieved (Fig 23).
5. Clean the surfaces of the cut worktop avoiding the chipboard and the 6mm curved edge with denatured alcohol and allow to evaporate dry.
6. Apply a bead of colour matched adhesive along the top, bottom and front cut edges (Fig 23). Position the curved with a 2mm overhang top and bottom.
7. Using 3 way clamps or fibre reinforced tape place every 50 to 70mm. Ensure sufficient adhesive squeeze out along the attached edge is visible from above (Fig 26).

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Top Tip

Attach the tape from the under the worktop and pull over the edging to tighten.



Fig 20



Fig 21



Fig 22



Fig 23

8. Allow to dry hard for 40 minutes
9. Using a hand router with high quality PCD (Polycrystalline Diamond) tipped cutters trim to size top and bottom.
10. To trim the overhanging edges use a 90° bearing guided trimmer with a PCD (Polycrystalline Diamond) blade. For a radius profile use a 3mm PCD (Polycrystalline Diamond) bottom bearing guided profile cutter (Fig 27). Profiling is not necessary if the edge is to fit against a housing or wall.
11. For final sanding and finishing refer to page 18.

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Top Tip

Should any breakout occur this is easily repaired by applying a spot of adhesive in the void and sand using the finishing instructions on page 18.

Breakfast Bar

1. Position the jig onto the worktop. Using a pencil, draw a line on the worktop following the sides of the jig. This gives you a guide when the jig is flipped over so both sides will match.

Please Note: Make sure that the jig is lined up with the pencil mark so no step will occur.

2. Follow the worktop curve instructions 1 - 5 for one side of the breakfast bar ready for the edging to be applied.
3. Using the pencil guide lines flip over the jig, line up and clamp. Alternately turn over the breakfast bar and re-line the jig, clamp and repeat. Prepare to cut backwards into the edging only (see Fig 24: Starting point A).

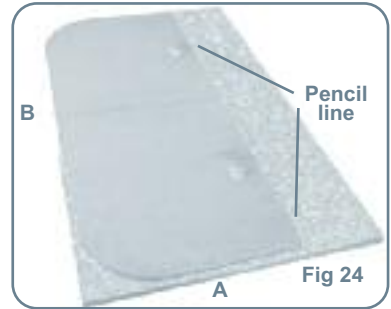
Please Note: A sharp cutter is recommended.

4. To reduce the possibility of chipping or flaking take time backing into the front edge. Move the router to position 'B' and follow the worktop curve instructions 1 - 5. Alternately turn over the breakfast bar and re-line the jig, clamp and repeat.
5. The breakfast bar with two curves is now ready for the curved edging to be applied. Dry fit the first edge and tape into position. Clean and trim the second curved edge ready and fit. Ensure a tight joint, this will help to achieve a discreet seam when butted up together.
6. Apply edging as per the worktop curve instructions 6 - 9.
7. To finish follow the recommended sanding and finishing instructions on page 18.

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Top Tip

Should any breakout occur this is easily repaired by applying a spot of adhesive in the void and sand using the finishing instructions on page 18.



Sink Installation

Inset stainless steel and composite sinks can be fitted as follows:

Please Note: Before cutting or routing always use the appropriate Safety Equipment (Eye Protection and Face Mask).

1. Choose the location of the sink. Place the sink upside down on the face of the worksurface and mark around the outline with a soft pencil (Fig 28).
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 worksurface.
2. Using a straight edge draw a second line at least 10 - 15mm inside the first line of the sink perimeter or to the manufacturers guidelines. This should allow the inset sink to fit cleanly into the aperture once the inner section is removed. Ensure all worksurfaces are adequately supported during all cutting processes.
3. Using a 12mm HSS drill bit, drill each of the four corners of the inner line to create a clean radiused corner. This will prevent any potential stress cracking in the corners (Fig 29).
4. Using a guide rail, follow the inner line with a hand router fitted with a PCD (Polycrystalline Diamond) cutter. Alternatively use a circular saw with a PCD (Polycrystalline Diamond) triple chip blade. Plunge in three stages of 8mm depth increments (Fig 30).
Then use a Jigs Saw to complete into the radiused corners.
5. 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.
6. Apply a bead of silicone on the face of the worksurface around the cut-out and insert the sink.
7. On the underside secure the sink using the relevant sink clips (Fig 31).
8. Remove any silicone squeeze out from around the outer rim of the sink.
9. Allow time for the silicone to cure before carrying out any further surface finishing.

Fig 28



Fig 29



Fig 30



Fig 31



Undermount Sink Installation

Stainless steel undermount sinks

Reusable jigs have been developed by Wilsonart specifically to marry up with individual stainless steel undermount sink models.

Normally each undermount sink requires two jigs designed to form the cut-outs on both the face and the back of the worksurface. The unique jigs can be flipped over to create left or right hand cut outs to match the appropriate sink.

Always refer to the identification label to select the correct jig before commencing.

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.

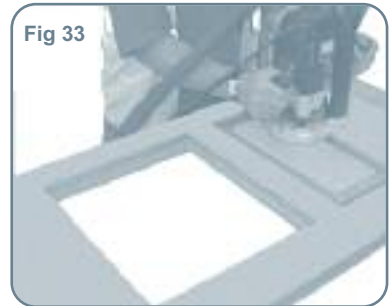
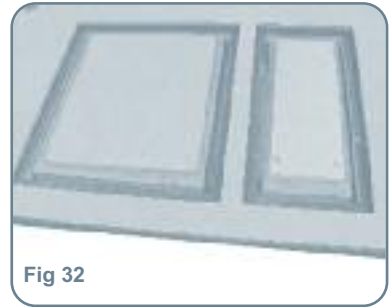
Face cut-out

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Top Tip

Support your Gemstone Worksurfaces as you work through each process particularly at the point of creating the sink cut-outs as this could lead to a temporary weakening of the worktop

1. Position the worktop face up and mark out the sink centre with a pencil.
2. Ensuring the jig handing corresponds with the desired sink handing. Centralise the TOP jig and clamp in place using four clamps, one at each corner.
3. Cut into the face of the worktop with a hand router fitted with a 30mm guide bush and a high quality PCD (Polycrystalline Diamond) tipped cutter and follow instructions given on page 3. Cut-outs - sinks and hobs (Fig 33).
4. Using a hand router fitted with a 3mm PCD (Polycrystalline Diamond) radius profile cutter, profile the inner edge of the cut-out (Fig 34).
5. Finish the cut-out inner edge using a palm sander with a 240 grit, followed by 400 grit and finish with 600 grit. This will remove any cutter lines that may have occurred.
Sand the inner radii by hand following the same stages to a finish of 600 grit (Fig 35).
6. The finished inner edge profile and any draining grooves must be completed before turning the worktop over to work the back side.
7. If drainer grooves are required please refer to section "Installing drainer grooves" on page 16 before continuing.



Undermount Sink Installation

8. If no drainer grooves are required, continue with the normal surface sanding process around the entire sink area. Using a random orbital sander buff the whole surface with an ultrafine 600 grit pad, this will reduce the final installation work.
9. Support the entire worktop when turning it over "face down" to continue working on the back side.

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Top Tip

Do not apply Gemstone sealer until the entire installation is complete



Fig 36

Back cut-out

1. Accurately position the BACK jig to the cut-out on the back of the worksurface, ensuring the jig handing corresponds with the cut-out. Clamp the jig in place, one at each corner, taking care to protect the face material from the clamps.
2. Using a hand router carefully remove the excess chipboard. This requires accurate setting of the router depth to the exact stop position to ensure not cutting into the 6mm surface (Fig 36).
3. Accurately measure the total thickness of the worksurface and the jig and set the router cutter depth to the total thickness as measured less 5.5mm. Set and lock the depth stop, therefore trimming 0.5mm off the Gemstone to give a clean bonding surface.
4. Use a 30mm bush and ½ inch PCD (Polycrystalline Diamond) router cutter to cut back the chipboard to the final depth (Fig 37).



Fig 37

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Top Tip

Best results are achieved cutting in three depth stages, taking care to keep the router cut vertical during each cut.

5. Thoroughly remove all loose dust or debris.

Undermount Sink Installation

Fitting the sink

1. First check the sink fits by assembling a dry fit. Place the inverted sink into the cut-out to confirm it centres when viewed from the face and clears the surrounding chipboard from the back (Fig 38).

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Top Tip

Ensure the sink lip is completely flat as this will affect the bond between the stainless steel and the Gemstone surface. This cannot be remedied at a later stage. Replace the sink if in any doubt.

2. Using the appropriate sink clips position one at each corner, using ten clips for a 1.5 bowl stainless steel sink. Assemble the sink clips, position the securing plate and drill pilot holes into the back of the worktop to take the screws (Fig 39). Remember to avoid obstructing any tap holes or overflows.

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Top Tip

It is recommended to trial fit any overflows required to assure clearance from the surrounding worktop. 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 centred in the cut-out when viewed face up.

1. Using denatured alcohol, thoroughly clean the two joining faces of the sink lip and allowing each face to evaporate dry.
2. Apply a bead of clear silicone sealant to the overhanging face of the Gemstone surface. Scrape off any excess silicone and wipe clean with denatured alcohol.
3. 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. Screw the sink brackets in place and tighten.
4. Centralise the sink and then hand tighten the sink clip bolts. Do not use a spanner to tighten the bolts as over-tightening will cause damage to the sink and the worksurface.
5. Finally, secure the locking nuts with a spanner.

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Top Tip

Any exposed raw chipboard should be completely sealed using a waterproof silicone sealant.

6. Any excess silicone should be removed immediately.
7. It is recommended to wait 24 hours before using the sink.
8. Complete the final sanding process as instructed on page 18 before drilling a tap hole (Fig 40).



Fig 38



Fig 39

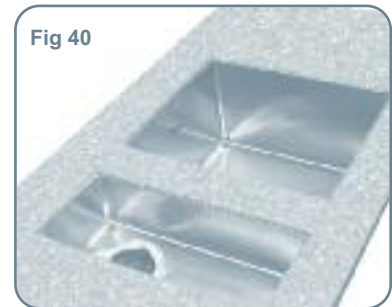


Fig 40

Drainer Grooves

The Gemstone worktop surface is manufactured to withstand all the wear and tear of today's kitchen, with the added benefit of being easily maintained.

Drainer grooves can be created for an even more spectacular look.

Please Note: Before cutting or routing always use the appropriate Safety Equipment (Eye Protection and Face Mask).

DIY gemstone

Top Tip

Before starting ensure you use good quality PCD cutters and work smoothly when processing the grooves to reduce the final finishing time and provide an excellent finish.

IMPORTANT: Always process the drainer grooves after the 3mm profile has been applied to the inner edge of the cut-out but before the back face has been machined to remove the waste chipboard.

Marking and cutting out drainer grooves

Two alternative jigs provide different design effects, one for straight grooves the other offers a left and right dog-leg design.

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 worktop.
2. Centralise the required groove in the jig over the marked out centre line and firmly clamp the jig in place (Fig 41).
3. Use a hand router fitted with a 30mm bush guide and a radius cutter. Accurately set the plunge depth to 3mm. Never cut deeper than 3mm.
4. Starting from the farthest point from the sink cut-out, plunge the router to the pre-set depth and run smoothly along the jig to create the groove this may have to be repeated twice so the groove is smooth (Fig 42).

NOTE Do not run your fingers along this groove. The edges are sharp.

5. Repeat the steps above to complete the remaining grooves (Fig 43).

Finishing drainer grooves

1. Fold 150 grit sand paper and run up and down the groove to take the sharp edge off and follow the sanding process 180 grit, 240 grit, 400 grit and 600 grit. Now the grooves will match the Gemstone surface.
2. Finally sand the entire worksurface with a 600 grit sand paper to achieve an even matt finish.
3. Sealer should be applied when the entire installation is complete (Fig 44).

Fig 41

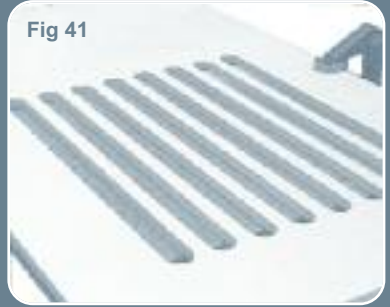


Fig 42



Fig 43

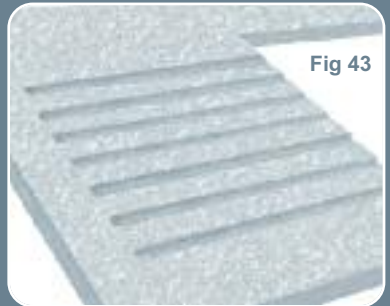


Fig 44



Installing Tap Holes

Tap holes should be cut completely through the Gemstone worksurface allowing the chipboard substrate 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. (Fig 45)
3. Completely seal the exposed chipboard within the tap hole with a waterproof and silicone sealant.
4. Ensure the tap is installed following the manufacturers instructions to prevent moisture entering the tap hole (Fig 46).

It is recommended to seal the tap body to the worksurface with an excess of silicone sealant to prevent water from penetrating the tap hole.

Please Note: Adequate prevention from moisture entering the tap hole is the responsibility of the installer.

Fig 45



Fig 46



Hob Cut Out

Hob Cut Out

Please Note: Before cutting or routing always use the appropriate Safety Equipment (Eye Protection and Face Mask).

Ensure all worksurfaces are adequately supported during all cutting processes. A hob can be fitted as follows:

1. The distance between the hob cut-out and an adjacent seam joint must be a minimum of 150mm and a minimum of 40mm from the front edge of the worksurface.
2. Choose the location of the hob and place it upside down on the face of the worksurface and mark around the outline with a soft pencil.
3. From the first line measure 10mm inside the line or to manufacturers guidelines. This will allow the hob to fit cleanly in to the aperture once the inner section is removed.
4. Using a 12mm HSS cutter 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 (Fig 47).
5. Using a guide rail follow the inner line with a hand router fitted with a 12mm PCD (Polycrystalline Diamond) cutter. Alternatively, use a hand held circular saw fitted with a PCD (Polycrystalline Diamond) blade to cut through the guide lines working towards the radiused corners (Fig 48). Use a hand saw to complete the cut into the radiused corner..
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 (Fig 49).
7. Line the cut out with a heat reflective aluminium tape around all the cut edges making sure the tape overlaps slightly on to the face and underside of the worksurface (Fig 50).
8. Apply a bead of silicone on the face of the worksurface around the cut-out and insert the hob.
9. On the underside secure the hob using the relevant hob clips.
10. Remove any silicone squeeze out from around the outer rim of the hob.
11. Allow time for the silicone to cure before carrying out any further surface finishing.



Fig 47



Fig 48



Fig 49

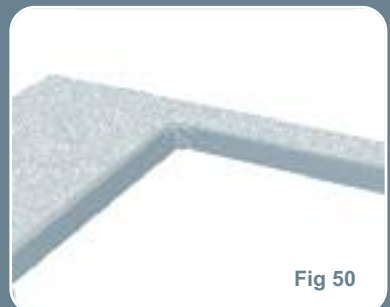


Fig 50

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Top Tip

Always follow the hob manufacturer's instructions regarding weight as some heavier hobs may require further support.

Sanding

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Top Tip

The use of a good quality random orbital sander is vital to produce a professional finish. For edging a palm sander should be used on the front edge keeping this flush and flat.

Do not sand along the joint line only, feather out over a larger area to avoid trenching.

Joists and edges

1. To provide a consistent finish use a random orbital sander and follow the specified grit sequence and sanding pattern to obtain a perfect finish.

Grit sequence

150grit > 180grit > 240grit > 400grit

Sanding pattern

2. Ensure the sander is moved constantly over the joint or edges. Follow the sanding pattern in Fig 51. Repeat the process this time in reverse pattern.



3. Wipe the surface clean with a damp cloth between each pass to remove any surface contamination.
4. Ensure that you avoid just sanding up and down the joint or edge as this may cause a groove or trenching.

Final sanding

5. To provide a consistent matt finish over the entire worksurface use a random orbital sander with an ultrafine 600 grit sanding pad.
6. Ensure the sander is moved constantly over the entire worksurface following the same sanding pattern as point 2 above. Repeat the process this time in reverse pattern.
7. Wipe the surface clean with a damp cloth between each pass to remove any surface contamination.
8. Make sure the surface is completely dry before moving onto the Finishing stage.

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Top Tip

We recommend finishing to a matt surface which is most suitable for darker colours and offers maximum economy in regards to the amount of care required.

Finishing

To achieve a rich, high quality finish use Gemstone sealer, a unique treatment agent.

1. Clean the whole surface with denatured alcohol as supplied in the installation kit.
2. Allow to dry completely.
3. Generously apply Gemstone sealer directly on to the dry surface and spread the cleaner across the entire surface in circular motions with the white cloth supplied in the installation kit.
4. Allow to dry completely. This may take up to 30 minutes depending on the room temperature.
5. Add a second coat simply repeating steps 3 and 4.
6. Finally, when the surface is completely dry, buff the entire surface with the microfibre cloth supplied in the installation kit.
7. For best results it is best to keep the surface free from liquids for 24 hours.

Maintenance - Scuffs & Scratches

1. Slight scuff or scratches can be easily removed with a moist 400 grit pad, applying pressure in uniform circular motion. To finish, apply two coats of Gemstone sealer treatment as described in the polishing instructions.

When the mark is still visible move on to step 2.

Please Note: Depending on your skill and ability the following procedures may have to be performed by a professional tradesman.

2. Use a random orbital sander with 400 grit pad and feather out the damaged area, wipe clean with a damp cloth then repeat the process replacing the 400 grit paper with a ultrafine 600 grit pad, sanding over the entire worksurface. When the mark has gone wipe down the whole surface with a damp cloth and apply two coats of Gemstone sealer treatment as described in the Polishing Instructions.

If the mark is still visible, continue to step 3.

3. Use a random orbital sander with a 150 grit pad and feather out the damaged area. Wipe clean with a damp cloth then repeat the process replacing the 150 grit paper with 180 grit then 240 grit and follow step 2 above.

Care and Maintenance

Cleaning and Care



Gemstone worksurfaces are easily maintained and simply require a regular wipe down with a mild detergent and water. With very little maintenance the surface can be returned to its original condition and look new longer than any other kitchen surface.

Never cut anything directly on the worksurface and always use a heat protective pad for any hot items taken directly from the oven or cooker.

Clean Gemstone worksurfaces regularly with a mild detergent and water, followed by rinsing with warm water and a gentle buff to dry the surface.

Once a year after cleaning reapply a coat of Gemstone sealer following the Finishing instructions points 3. to 6.

Staining



When finished to the correct level Gemstone worksurfaces are resistant to most household 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 or marks caused by cigarette burns the following procedure should be followed.

Please Note: Depending on the nature of the stain the treatment may become more intense. Ensure you test the respective method before it is extensively applied.

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 600 grit pad in warm, soapy water and reseal the area with Gemstone sealer.

Scuffs and Scratches



One of the main benefits of your Gemstone worksurface is that it is repairable. Slight scuffs and scratches can be easily removed with a moist 600 grit pad, applying pressure in uniform circular motions, wipe dry and repeat if necessary.

To finish, follow the weekly clean regime, ensuring the whole worksurface is polished. Severe scratches and deep dents can be removed by a simple sanding process (see page 18).

Please Note: Never cut anything directly on the worksurface. Depending on your skill and ability this procedure may have to be performed by a professional tradesman. The darker colours will show excessive marking, scratches and wear and tear more noticeably than the lighter colours.

Resistance to Chemicals



Gemstone worksurfaces are basically resistant to the effect of chemicals although aggressive substances may leave marks in the case of lengthy exposure. Such damaged finishes can easily be restored.

However please always make sure that finishes do not come into constant contact with aggressive chemical substances such as paint thinner, turpentine, nail varnish remover (acetone) or oven or drain cleaners for lengthy periods.

Resistance to Heat



Never place any hot items directly from the heat source directly on to the worksurface.

Gemstone worksurfaces 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 worksurface. We also recommend that pans match the size of the hotplate and do not extend beyond the heat source around the hob.

Should any accidental damage of the surface occur this can be repaired by following the instructions.

Slight discolouring can be easily removed with a moist 600 grit pad, applying pressure in a uniform circular motion.

More severe marks can be removed by a simple sanding process using a 600 grit sandpaper, applying pressure in a wide circular motion.

Please Note: Depending on the severity of the mark it may be necessary to request professional assistance from your installer.

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