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Any fabrication procedure or technique not contained within the Wilsonart® Solid Surface Fabrication Manual will not be recognized by Wilsonart, LLC as an approved method of fabrication. Deviations from these techniques must be approved in writing by a Wilsonart Representative.



General Safety:

Safety is a critical concern for any shop and key to a successful business. The following safety rules should be incorporated into your safety program to help prevent an accident. Safety training, knowledge, product use and environment are the responsibility of the facility owner and the shop employees.

CAUTION: Always follow product, equipment and/or tool manufacturer's recommendations and instructions carefully.

- Read directions carefully before fabricating/installing Wilsonart® Solid Surface.
- Read and follow the instruction manual before operating the different tools.
- Keep all guards in place and in working order.
- Ensure all tools are properly grounded. Never remove the third prong.
- Keep work area clean, uncluttered and well lit.
- Don't use electric power tools in a damp or wet work area.
- Keep visitors at a safe distance from the work area.
- Use the right tools. Don't force a tool or attachment to do a job it was not designed to perform.
- Always use safety glasses or approved eye protection and/or face shield, ear/noise protectors and safety shoes. (FIG. 4A & 4B)
- Wear the proper apparel, no loose clothing or jewelry.
- Secure all work with the proper clamp or vise to a stable work surface.
- Don't overreach. Keep proper footing and balance at all times.
- Maintain tools in top condition. Disconnect tools before servicing and when changing accessories such as blades, bits, cutters, etc.
- Keep and use denatured alcohol, adhesives and materials in a safe, ventilated place.
- Dust collection should be used when cutting, routing and sanding. Tools should be used with dust collection at all times.



Figure 4A



Figure 4B

Wilsonart® Hard Surface Adhesive:

- Wilsonart® Hard Surface Adhesive is for professional use only. Always follow the manufacturer's recommendations and instructions carefully. (FIG. 5A)
- Warning: This seam kit contains the following hazardous ingredients: Methyl Methacrylate, Benzoyl Peroxide, and Dibutyl Pathlate. Avoid prolonged breathing of vapors. Use only in a well ventilated area. Keep out of reach of children. Eye protection is always recommended. Motors and other equipment used in the fabrication and installation process must be UL labeled explosion proof.
- For further information refer to Wilsonart® Hard Surface Adhesive Material Safety Data Sheet available on request. Contact your local distributor or call 1-800-433-3222 for immediate response.



FAB TIP: For Wilsonart Solid Surface hard seam design color chart, refer to www.wilsonart.com

Handling:

Carry Wilsonart® Solid Surface sheets vertically to minimize flexing.

Storage:

- Store Wilsonart® Solid Surface sheet goods flat on pallets or other suitable racks. (FIG. 6A)
- Store Wilsonart® Sinks in their original shipping boxes until ready to install. (FIG. 6B)
- Store Wilsonart® Hard Surface Adhesive in cool, stable refrigeration unit. The optimum temperature should be between 40° F and 60° F.
- The shelf life of the seam kits will be greatly increased by refrigerated storage. (Do Not Freeze)

Inspection:

Every effort has been made to supply high quality materials, free of defects. However, as the fabricator, you must conduct a final (pre-cut) inspection for manufacturing defects or damages to continue the quality control process prior to fabrication.

Sheet Selection Process:

Wilsonart® Solid Surface sheets are color matched by lot numbers only.

Lot number is located on edge of sheet material.



Figure 6A



Figure 6B

The following suggested tool list is only a minimum requirement for professional and successful Wilsonart® Solid Surface fabrication.

Various woodworking and specialized Solid Surface fabrication tools are available in the market today.

Stationary Tools:

- Table or Panel Saw
- Miter (“Chop”) Saw
- Triple Chip Carbide Saw Blades

Hand & Power Tools:

- Routers (FIG. 7A)
 - 3¼ HP with ½” (13mm) collet
 - 3¼ HP Plunge base with ½” (13mm) collet
 - 1½ -2½ HP with ½” (13mm) collet (edge details)
- General Router Bits
 - ½” (13mm) Straight cut
 - ½” (13mm) Bottom bearing flush trim bit
 - 1” (25.4mm) Top bearing flush trim bit
 - Various profile bits
- Random Sanders (FIG. 7B)-Random Orbital
 - Dust collection system (suggested)
 - Sanding Disks
 - Mirka Abralon® pads
- Straight Edges (Phenolic or Aluminum)
- Clamps (FIG. 7C)
- Bowl Bits



Figure 7A



Figure 7B



Figure 7C

Contact 800-433-3222 or Wilsonart Technical Service Department for recommended bits.

Tools Not Recommended:

- Jigsaws - Rout all cutouts. (FIG 8A)
- Auger type drill bits – Use hole saw/router for larger holes. (FIG. 8B)
- Belt Sanders – Do not use belt sanders at seam areas. (FIG. 8C)
- ATB (Alternate Top Bevel) or ripping saw blades. Use only triple chip or Solid Surface cutting blades. (FIG. 8D)



Figure 8A



Figure 8B



Figure 8C



Figure 8D

TOOL MANUFACTURERS

Stationary Tools:

Powermatic 1-800-274-6848 www.powermatic.com

Delta 1-800-223-727
www.deltamachinery.com

Holz-Her 1-704-587-3400
www.holzher.com

Striebig 1-781-585-4364
www.csaw.com

Hand Tools - Routers, Sanders, Bits, etc:

Porter Cable 1-888-848-5175
www.portercable.com

Beaver Tools 1-800-365-6677
www.beavertools.com

Router Bits:

Southeast Tool Inc 877-465-7012
www.southeasttool.com

Velepec 1-800-365-6636
www.velepectools.com

Wesley Tools, Ltd.
1-800-397-6867
www.wesleytools.com

Amana Tool 1-800-445-0077
www.amanatool.com

Routerbitsnow 520-954-1700
www.routerbitsnow.com

Sanding Equipment:

Gem Sander 1-800-447-4436
www.gem-industries.com

Dynabrade 1-716-631-0100
www.dyabrade.com

Master Power 1-866-557-8316
www.masterpneumatictools.com

Festool 1-800-423-3531
www.festoolusa.com

Surcare 1-800-669-5519
www.surcare.com

Sandpaper/Finishing Pads:

3M Scotch-Brite & Trizact
1-800-742-9546
www.3m.com

Mirka 1-800-843-3904
www.mirka-usa.com

Norton 1-800-446-1119
www.nortonabrasives.com

Sia 1-800-459-3534
www.sia-abrasives.com

Pipe and Bar Clamps:

Bessey 1-800-828-1004
www.americanclamping.com



TOOL MANUFACTURERS

Recommended Saw Blades:

Amana Tool 1-800-445-0077
www.amanatool.com

Leitz 1-800-253-6070
www.leitz.com

FS Tool 1-800-387-9723
www.fstoolcorp.com

Guhdo 1-800-544-8436
www.guhdo.com

Forrest 1-800-733-7111
www.forrestsawblades.com

Misc. Tools:

Betterley Industries
1-800-871-7516
www.betterleytools.com

DeWalt 1-800-433-9258
www.dewalt.com

Specialty Tools 1-800-669-5519
www.specialtytools.com

Dustless sanding system

Fein Power Tools 1-800-441-9878
www.feinus.com

Specialized Solid Surfacing tools

The Pinsky Edge 1-800-874-6753
www.pinsky-edge.com

Fabrication tools

Align-Rite Tool Co. 1-888-624-1942
www.alignritetool.com

Straight edge

A.M.P.S. 1-800-669-5519
www.ampsedge.com

Vacuum base seam leveler/clamps

Perfect Seam 1-770-463-8321
www.omnicubed.com

Vacuum base seam clamps

Wood's Power Grip Co. 1-800-548-7341
www.powergrip.com

Dust containment

Zip Wall 1-800-718-2255
www.zipwall.com

Conprotec Inc. 1-603-893-2727
www.mixpac.com

Adhesive dispenser repair parts Sink Setter Brackets/Easy Leveling Shelf and Counter Bracket

Sink Setter at Precision Works 1-714-847-3396
www.sinkset.com

Support Products

Karran 866-452-7726
www.karran.com



FAB Tips

- **Thermoforming: See pages 41-43 for list of colors approved for Thermoforming.**
- Do not use lacquer thinner, acetone or other solvents on Wilsonart® Solid Surface material.
- Colored or printed towels can leave a residue which will contaminate the seam material and cause a weak or stained bond line.
- Refer to the Thermoforming Section when forming or bending Wilsonart Solid Surface. Certain Wilsonart patterns are not recommended for the Thermoforming process. **(See pages 41-43 for listing)**
- Spot heating or cold bending is not approved and will introduce internal stress into the product.
- All edges should be sanded smooth and free of sharp corners and kerf marks which result in stress points.



Wilsonart® Solid Surface Countertop Layout Conventional Seams Locations

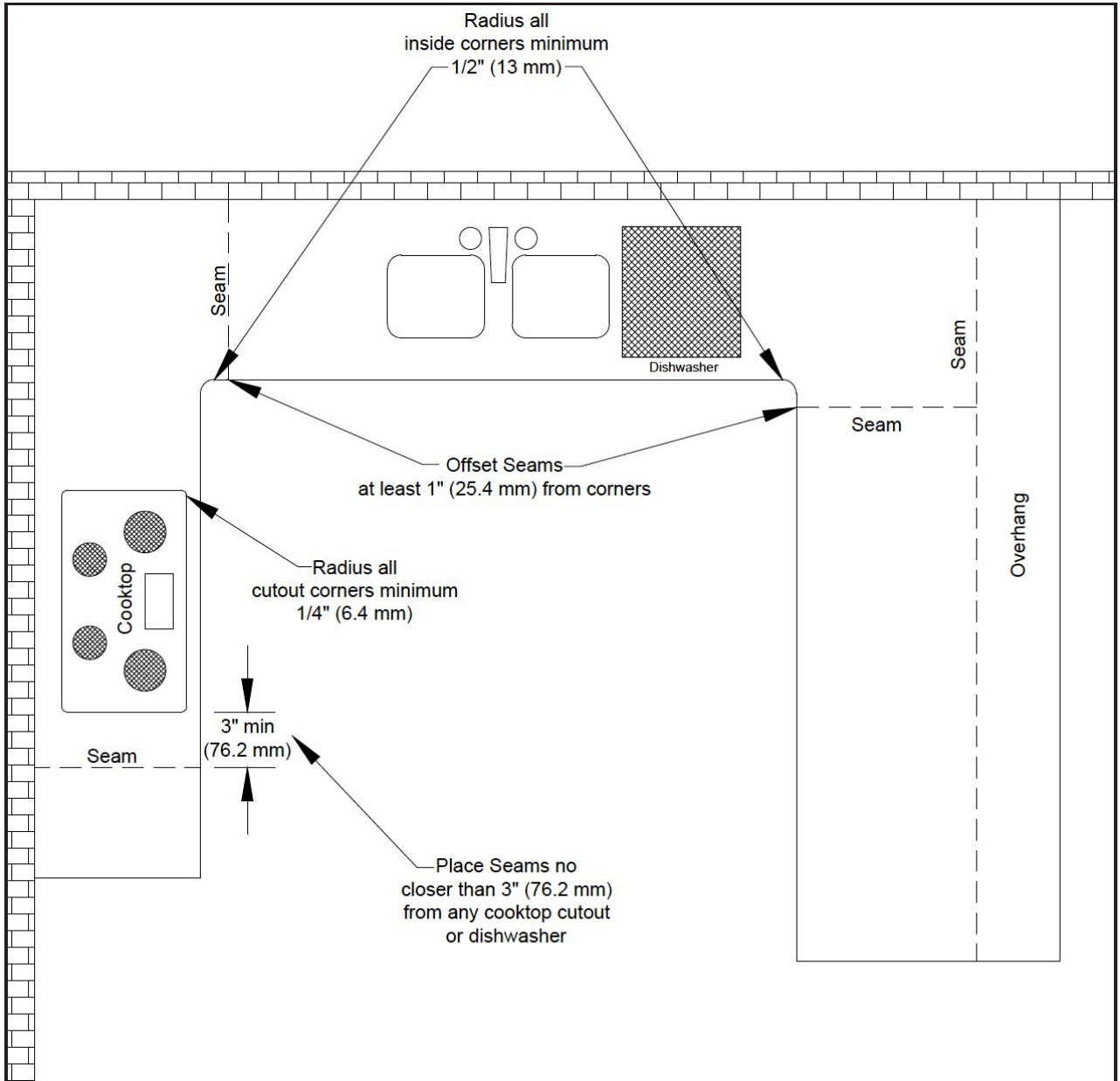


Figure 12A

Wilsonart® Solid Surface Countertop Layout Miter Fold Seams Locations. Ideal for V-Grooving Tops & Movement Patterns

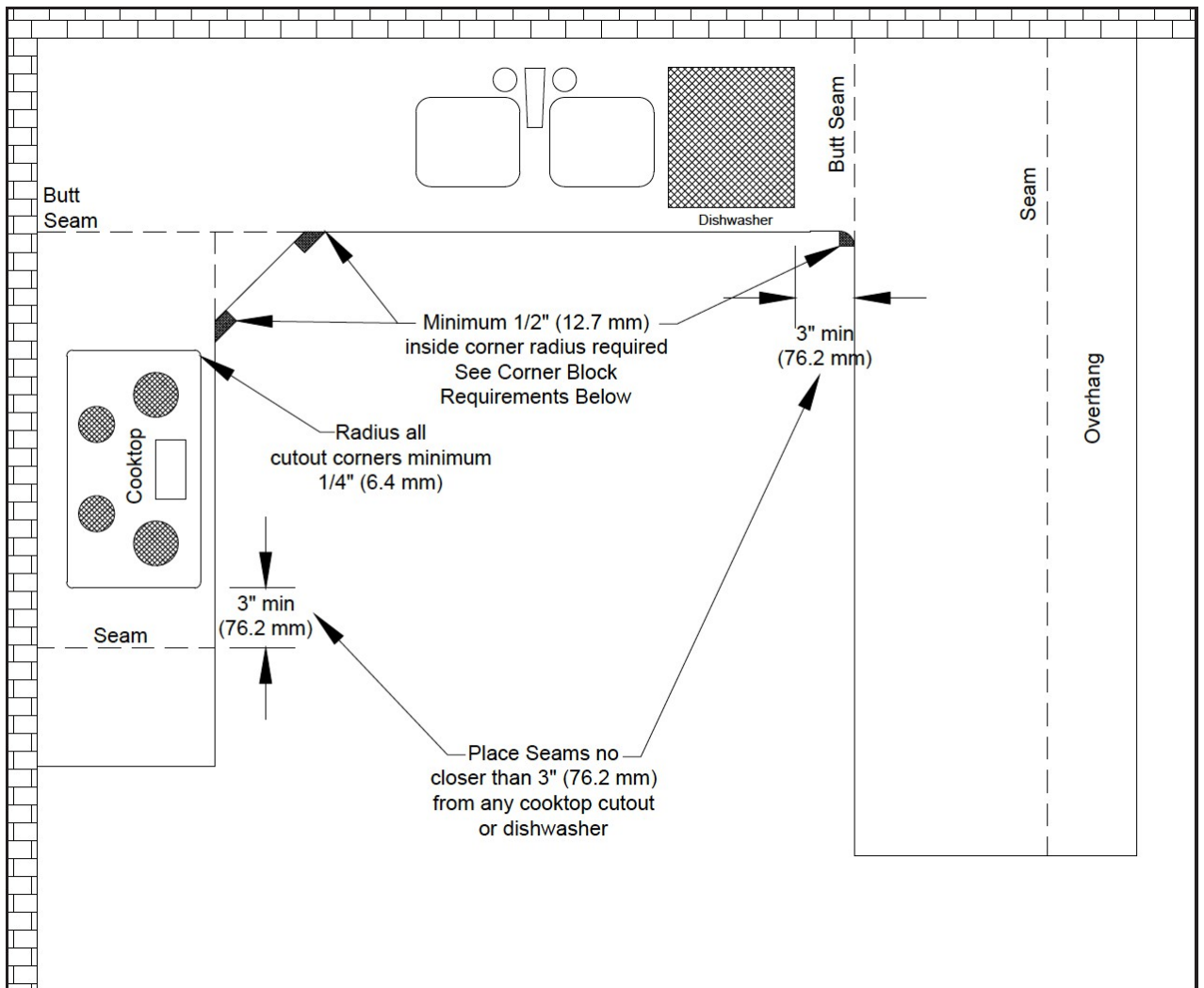


Figure 13A

Wilsonart® Solid Surface Countertop Layout 45° Seams Locations

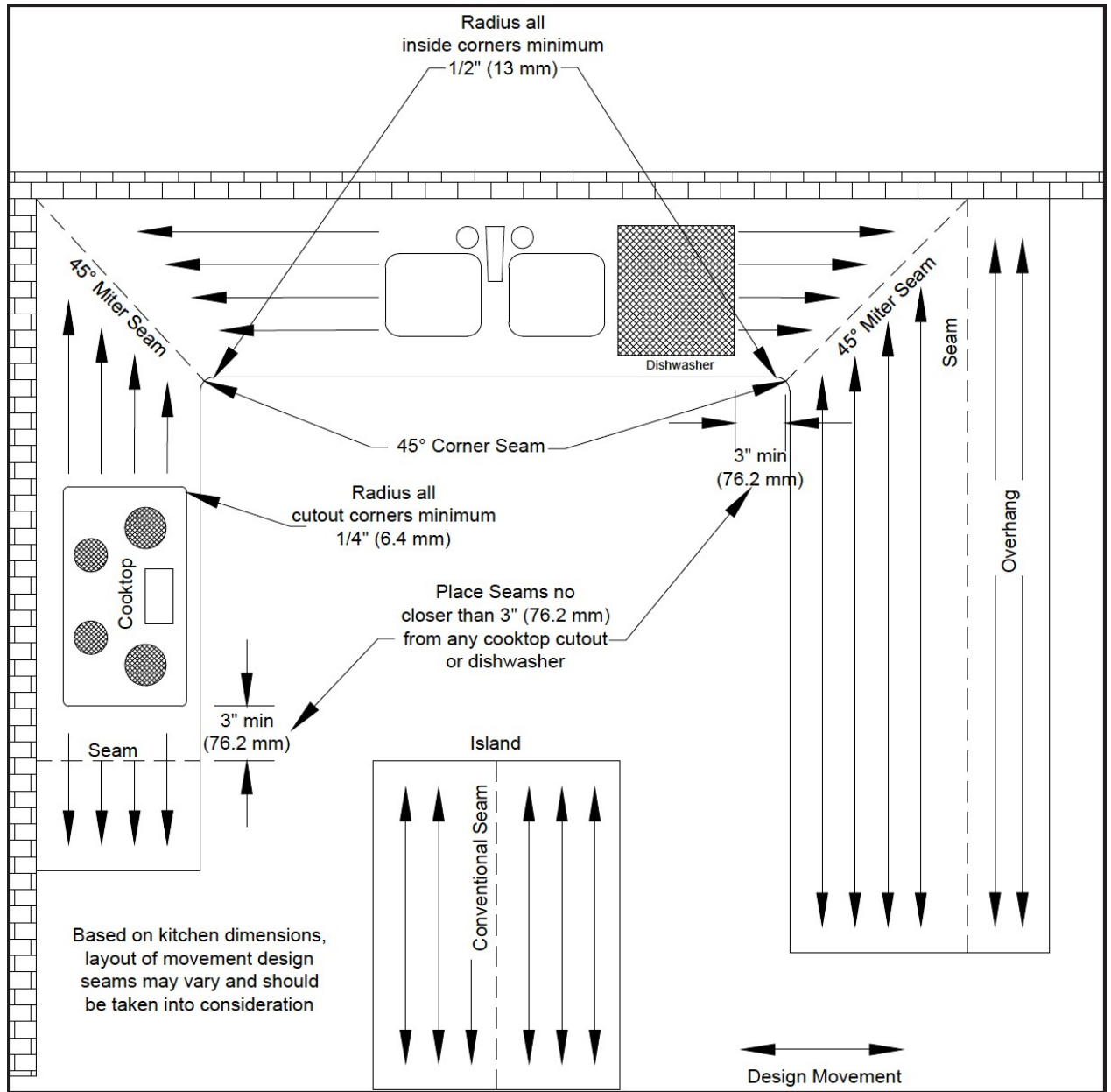


Figure 14A



Wilsonart® Solid Surface Countertop Layout Miter Fold Seams Movement

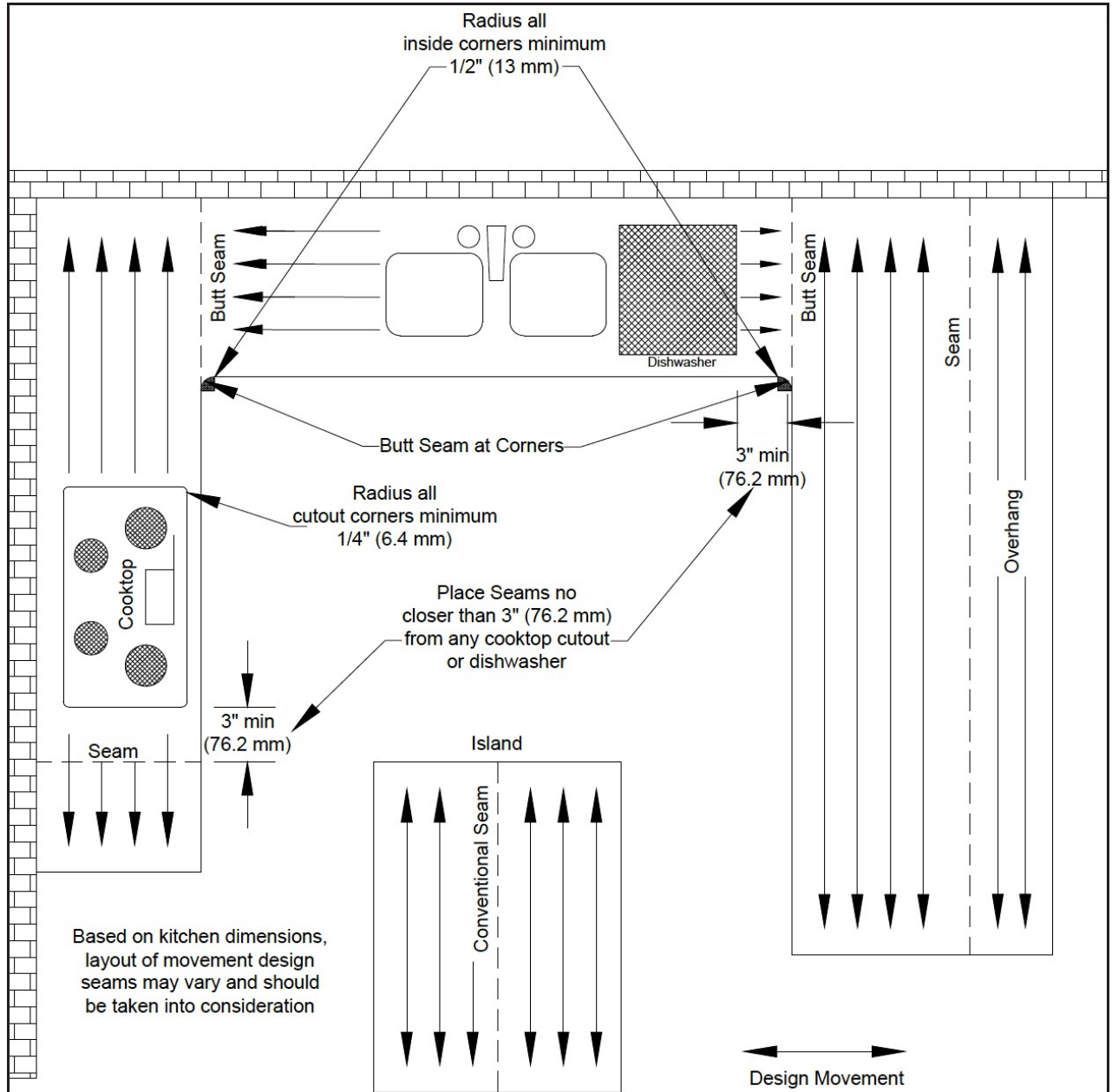


Figure 15A

Wilsonart® Solid Surface Countertop Layout Conventional Seams Movement

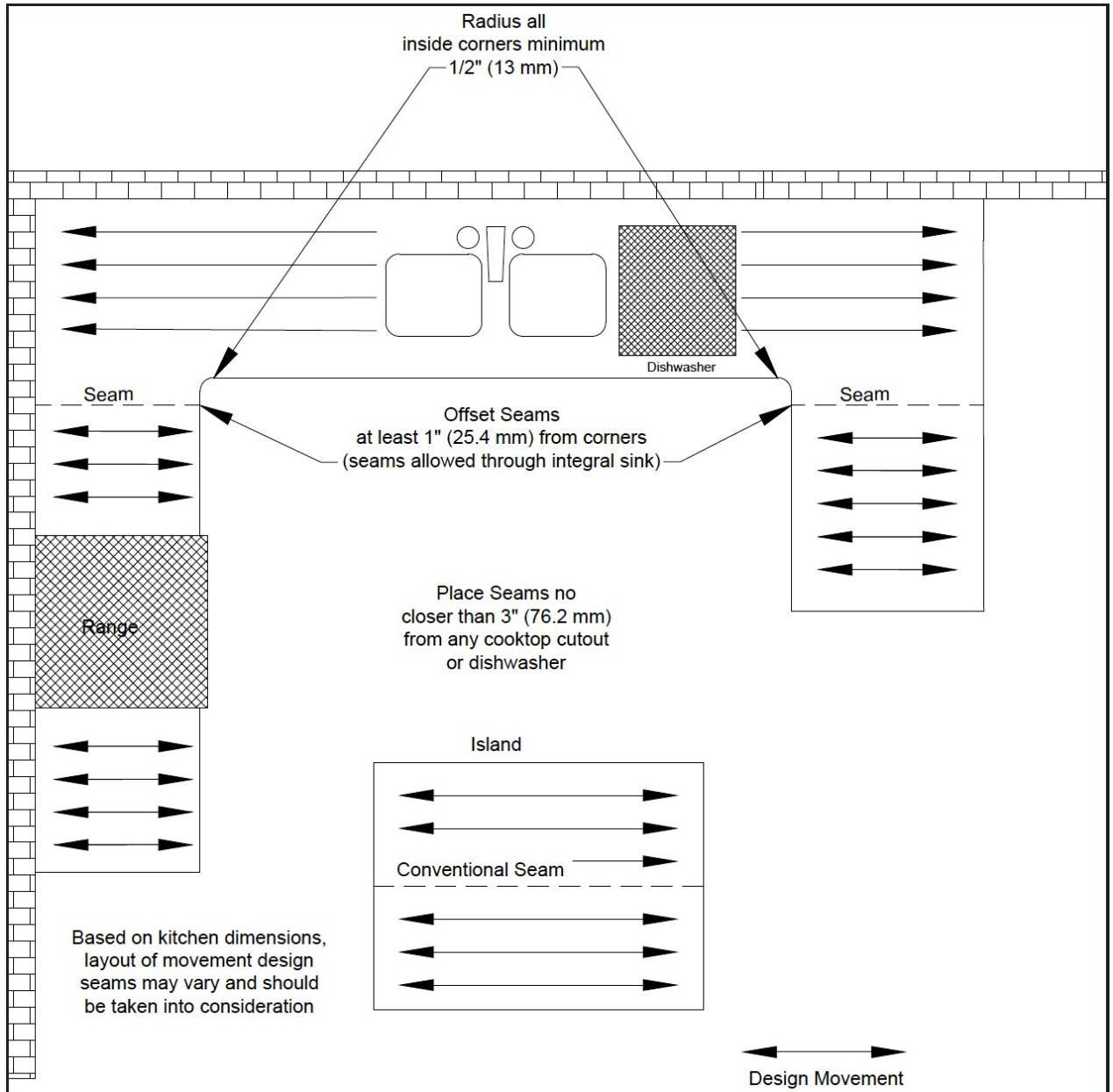


Figure 16A



Technical Bulliten:

Because of the unique design, Wilsonart movement patterns must be fabricated with care and consideration. Because of the slight difference in the fabrication techniques material yield must be considered when bidding a job. Job planning and fabrication should consist of these key points:

- Customer Expectations- Understanding the full scope and the Aesthetics of movement designs. (Provide sample to customer)
- Sheet orientation- direction layout best for the job.
- Edge fabrication selection – Aesthetically pleasing to the customer, specific to each movement patterns. (Drop, Stacked or V-Groove)
- Deck seam selection – Butt, Serpentine or 45°
- Cove – Understanding best fabrication method for cove backsplashes – Conventional or v- groove.



Conventional Seams:

Conventional deck seams may be used when fabricating movement patterns however pattern orientation must be taken into consideration. Refer to the Wilsonart Solid Surface Fabrication Manual for fabrication on conventional deck seam. For conventional deck seam and pattern orientation: see Figure 7A.

**Always review movement design at seams, edge profiles, and integral sinks because pattern may vary.*

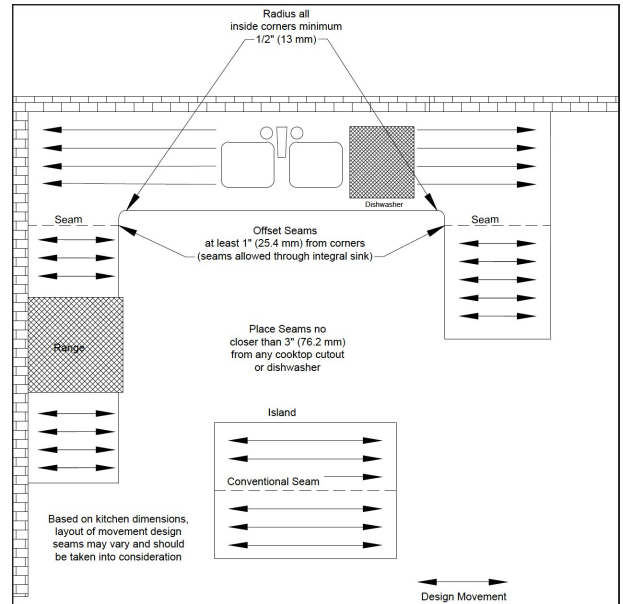


Figure 7A

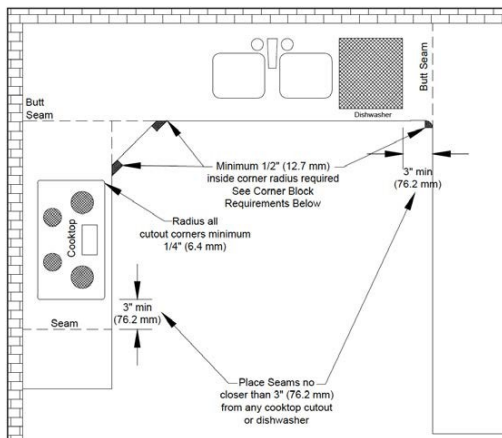


Figure 7B

45° Seam:

The 45° deck seam is a great option because it allows the pattern to flow in the same direction. Refer to the Wilsonart Solid Surface Fabrication Manual for fabrication on the 45° seam. For 45° seam and pattern orientation: See Figure 7C.

**Always review movement design at seams, edge profiles, and integral sinks because pattern may vary.*

Miter-Folding Seams:

Miter Fold seams is a good option when fabricating movement patterns, pattern orientation must be taken into consideration. Refer to the Wilsonart Solid Surface Fabrication Manual for fabrication on PT Butt seam. For PT Butt seam and pattern orientation: see Figure 16A.

**Always review movement design at seams, edge profiles, and integral sinks because pattern may vary.*

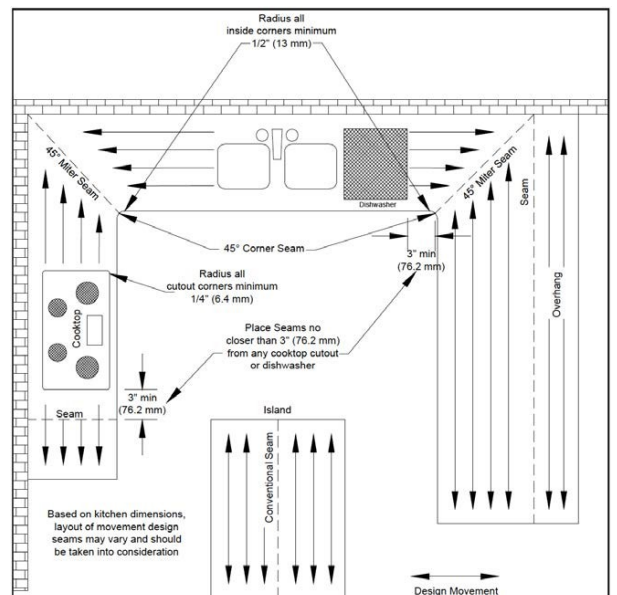


Figure 7C





Figure 8A

V-Grooved edge :

Most desirable, V-groove or miter fold allows the pattern to have a continuous flow from the countertop to edge. And has a more natural and Aesthetically pleasing appearance. See Figure 8A.

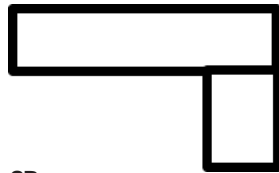


Figure 8B

Drop Edge:

Drop edge could possibly create a break in pattern flow from countertop to edge and may not have the natural flow appearance. Each Wilsonart movement patterns should be evaluated prior to fabrication since some movement patterns differ. See Figure 8B.



Figure 8C

Stacked Edge:

Because of the subsurface color variation on the edge of the sheet the stacked edge will create a different veining pattern from the surface of the sheet to the edge. Each Wilsonart movement patterns should be evaluated prior to fabrication since some movement patterns differ. See Figure 8C.

Cove Backsplashes:

When fabricating cove backsplashes, there will be a movement shift in the cove area when fabricating using the conventional method. See Figure 9A For best result the V-groove method is the best option to create the most Aesthitically pleasing appearance. See Figure 9B Wilsonart movement patterns should be evaluated prior to fabrication since some movement patterns differ.

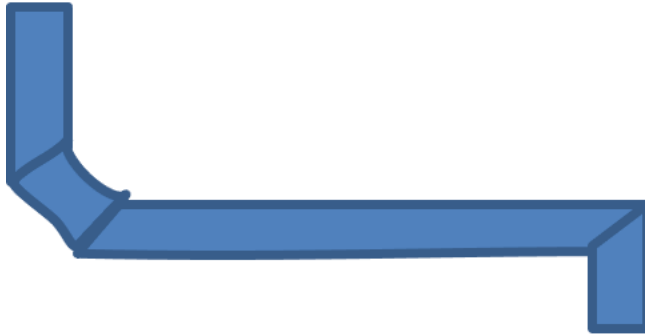


Figure 9A

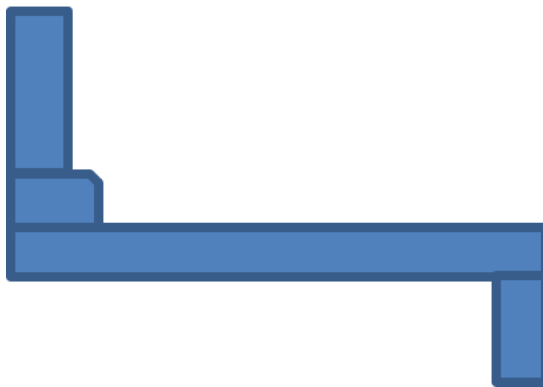


Figure 9B

General Information:

- Wilsonart® Solid Surface material can be formed to create dimensional shapes and curves through the process of thermoforming.
- Thermoforming is the technique used to heat up the entirety of material to temperatures ranging from 285°F - 325°F. This gives the fabricators and designers the ability to create 3D curves and rounded shapes for any project needs.
- Prior to thermoforming, material should be free of chips, scratches, and any fractures for best results.
- Refer to the Thermoforming Section in the Solid Surface Manual when forming or bending Wilsonart Solid Surface. Certain Wilsonart patterns are not recommended for the Thermoforming process.
- To thermoform Wilsonart® Solid Surface material, an oven that will heat the material is needed. (FIG. 6A)
 - Thermoforming Convection Ovens
 - Heat Platen Ovens
 - Benchtop Thermoforming Ovens
 - Vacuum Presses
- The sheet temperatures should be between 280° F to 325° F (137.8° C to 162.7° C) throughout the thickness during bending. Low temperatures can cause the material to widen and cause cracking through the thermoforming process. Material temperatures should be verified for each equipment and use.

FAB TIP: Cold spots in the sheet will lead to cracks and whitening. Hot spots may cause blistering, discoloration, whitening and cracks.

- Wilsonart® Solid Surface material is limited to a bending radius of 3" (76.2mm). It is recommended to cut the material slightly larger than the required size, material will expand with heat and contract during the cooling process.

FAB TIP: Bending sheets to a smaller radius can result in crazing, whitening, cracking, or reduction in impact resistance.

- For the best result, a set of male and female molds should be used to form the sheet into the desired radius shape (this is highly recommended for thermoforming 1/2" (13mm) sheets. (FIG. 6C)
- Heat Guns, Torches and Cal Rods will cause failure with Wilsonart® Solid Surface materials.

FAB TIP: Spot heating or localized heating will cause problems due to the temperature difference between the heated area and the unheated area. Overheating will cause blistering and color shifts (dark). Low temperatures can cause the material to widen and cause cracking through the thermoforming process. (FIG. 6D)

Cool Down

- Once the material has reached the recommended temperature range, 280° F to 325° F (137.8° C to 162.7° C), depending on the design, carefully remove from the heating element and form to the mold or shape. Utilize clamping devices if needed, depending on the forming process.
- Allow the thermoformed sheet to cool down in the mold to less than 170° F (76.6° C) before removing from mold. Depending on the surrounding room temperature, cool down will take approximately 20 to 40 minutes.



THERMOFORMING

Seaming

- All seaming must be done after cool down of thermoforming.
 - Squeeze out is required the entire length of all seams.
 - Refer to the Sanding/Finishing steps in the Wilsonart® Solid Surface Manual.



Figure 6A



Figure 6B

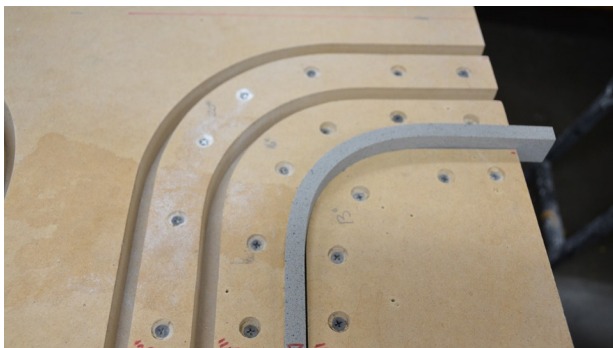


Figure 6C



Figure 6D



Deck Seams—Conventional

- Machine both edges to be seamed. (FIG. 17A)
- Seams should fit tightly when dry fitted.
- Place a release material (such as clear packing tape) under the seam to prevent contamination of deck seam.
- Thoroughly clean areas to be seamed with denatured alcohol using clean white shop rag.
- Position sheets to be seamed 1/8" (3.0mm) to 3/16" (4.8mm) apart.
- Prepare clamping materials.
 - Prepare seam kits.
 - Purge cartridge and tip to ensure proper mixture of adhesive.
- Fill the seam to 1/2 full.
 - Damming the ends will make this easier.
- Slide the sheets together - make sure there is adhesive squeeze-out along entire seam. Clamp the seam together using bar or spring clamps. (FIG. 17B)
- DO NOT OVERTIGHTEN clamps.
 - Over tightening will cause starved, weak seams.
- Remove adhesive squeeze-out with router on "skis," surface leveler, or random orbital sander. (FIG. 17C)
 - Do not scrape, chisel or use belt sander on seam.
- All seams must be reinforced with a 4" (101.6mm) wide Wilsonart® Solid Surface seam support adhered to the back of the panel. (FIG. 17D)
- 45° seams required 5" wide Wilsonart Solid Surface seam support (see page 20)
- Reinforcement strip must cover length of seam.
- Overlap seam support 2" (50.8mm) on each side.
- Ensure complete adhesive coverage.
 - Sand the finished seam to job specifications. (See Finishing Section)



Figure 17A

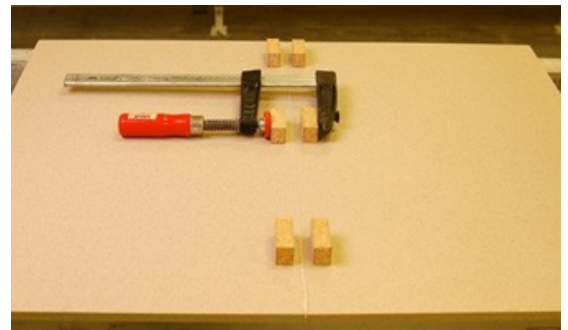


Figure 17B



Figure 17C



Figure 17D

Deck Seams—PT Seam

This method can be used with miter fold, vertical and stacked edges.

- Machine all edges to be seamed. (FIG. 18A)
- Thoroughly clean areas to be seamed with denatured alcohol using clean white shop rag.
- Prepare clamping equipment.
- Prepare seam kit.
 - Purge cartridge and tip to ensure proper mixture of adhesive.
- Apply two 3/16" (4.8mm) beads of adhesive on the edge of one panel to be seamed. (FIG. 18B)
 - Apply sufficient adhesive which will cover entire drop edge and allow squeeze-out along entire seam.
- Clamp the seam together. (FIG. 18C using Paralign Clamp System)
- Optional Seaming packages available (FIG. 18D)
- DO NOT OVERTIGHTEN clamps.
 - Over tightening will cause starved, weak seams.

FAB TIP: 90° seam with the Movement Design Series will create visual inconsistencies.

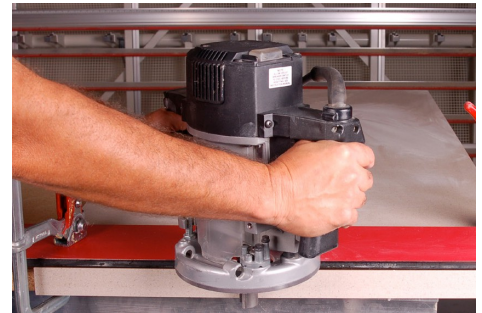


Figure 18A

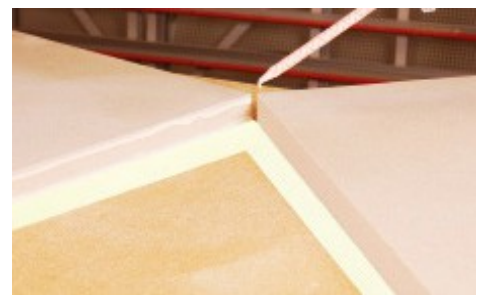


Figure 18B

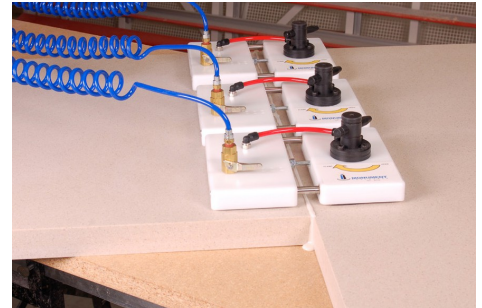


Figure 18C



Figure 18D

DECK SEAMS

- Adhere a Wilsonart® Solid Surface block into the inside corner and clamp in place. Block must cover entire length of seam from top of deck to bottom of drop edge. (FIG. 19A)
 - See page 26 for minimum requirements.
 - Squeeze-out is required on both top and bottom of the seam and all sides of the corner block.
- Remove adhesive squeeze-out with router on “skis,” surface leveler, or random orbital sander. (FIG. 19B)
 - Do not scrape, chisel or use belt sander on seam.
- Rout radius at inside corner. See page 26 for minimum requirements. (FIG. 19C)
- To accommodate face frame installs, a 1” minimum seam thickness is required over cabinet base, thus eliminating notching the cabinet base. (FIG. 19D)
- Sand the finished seam to job specifications. (See Finishing Section)



Figure 19A

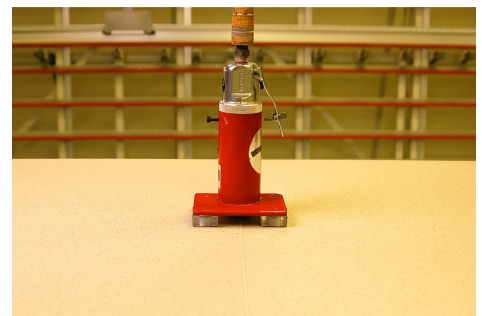


Figure 19B



Figure 19C

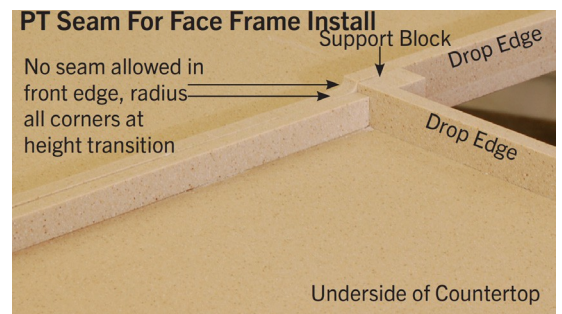


Figure 19D

Deck Seams—45°

This method is recommended to be used for movement or directional designs. Conventional 45° seams are the preferred method for seaming, allowing the pattern movement to continue throughout the application and flow in similar direction through the angle or corner.

- Oversize the width of both sections being seamed by a minimum of 1" (25.4mm) on each section.
 - To be based on finished countertop dimension for a finished standard 25" (635.0mm) countertop depth - i.e. 26" (660.4mm).
 - This will allow for adequate material once corner and profile are machined and allow for edge detail seams distance from the inside corner.
- Machine both edges to be seamed.
- Seams should fit tightly when dry fitted.
- Place a release material (such as packing tape) under the seam to prevent contamination of deck seam.
- Thoroughly clean areas to be seamed with denatured alcohol using clean white shop rag.
- Position sheets to be seamed 1/8" (3.0mm) to 3/16" (4.8mm) apart.
- Prepare clamping materials.
- Prepare Wilsonart® Hard Surface adhesive seam kits.
 - Purge cartridge and tip to ensure proper mixture of adhesive.
 - Fill the seam to ½ full.
 - Damming the ends will make this process easier.
 - Slide the sheets together. Make sure there is adhesive squeeze-out along the entire length of seam.
- Clamp the seam together using selected clamping process; wood blocks or suction cups with spring clamps, bar clamps and/or other seaming system.
- Do not overtighten clamps as it can cause weak and starved seams.
- Remove fully cured hard surface adhesive squeeze-out with surface leveler, orbital sander or router on skis.
- Do not remove hard seam adhesive with scraper, chisel, block planer or belt sander.

Deck Seams—45°

- All 45° seams in the inside corner must be reinforced with a 5" (127.0mm) wide solid surface seam support (scab) adhered with Wilsonart® Hard Surface adhesive. (Fig. 21A)
- The seam support must cover the entire length of seam, front to back.
- Seam support must extend passed the front inside corner and be able to receive the first edge strip stacked on both sides of the inside corner. (Fig. 21B)
- Overlap seam support 2.5" (63.5mm) on each side.
- Ensure complete adhesive coverage.
- Radius all inside corners minimum 1/2" (13mm) (Fig. 21C)
- Sand the finished seam to job qualifications. (See Finishing Section)
- Solid substrate support is required for all 45° seams at inside corner area only.
- Must extend past first cabinet support on both sides of inside corner.

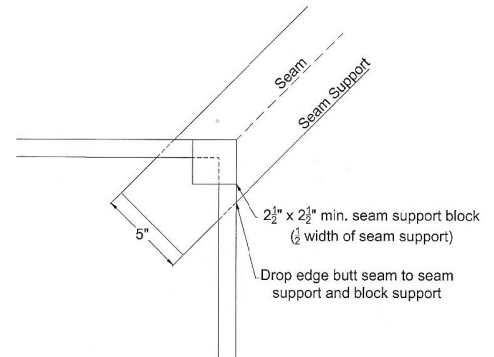


Figure 21A

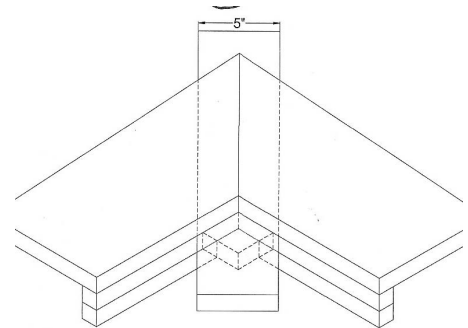


Figure 21B

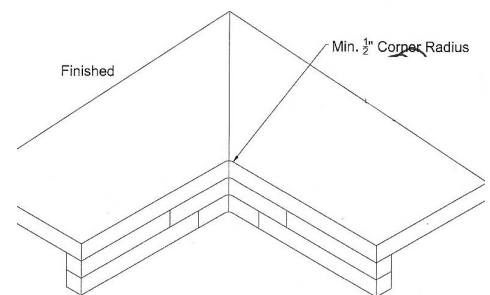


Figure 21C

Drop Edges - Stacked

FAB TIP: Drop edges with the Movement Design Series will create visual inconsistencies. See important note below.

- See pages 41-43 for recommended drop edge patterns
- Dry fit edge strips and fasten hot melt blocks. (FIG. 22A)
- Clean surfaces to be seamed thoroughly with denatured alcohol and clean white shop rag.
- Purge cartridge and tip to ensure proper mixture of adhesive.
- Apply Wilsonart® Hard Surface Adhesive and clamp with spring clamps at 2"-3" (50.8-76.2mm) intervals (FIG. 22B)
- Make sure there is adequate glue squeeze-out along entire seam, checking carefully for voids.
- Do not sandwich other materials (wood, metal, laminate, etc.) between Wilsonart® Solid Surface edges. Use these type of inlays in a routed groove.
- Flush trim drop edge. (FIG. 22C)
- Rout requested edge profile.

IMPORTANT NOTE

When using designs with movement - it is important to understand the visual variances that will occur when using stacked and vertical edges. These variations will create variances throughout the length of the drop edge. These variances are not a product issue but inherent of the product design. When using the stacked or vertical method, be aware of variances from part-to-part. V-groove/miter folding methods are recommended when applicable. Whether the variance is subtle or significant, there will be a variance on the movement designs.



Figure 22A



Figure 22B



Figure 22C

Drop Edges - Vertical

- See pages 41-43 for recommended drop edge colors.
- Wilsonart® Solid Surface Solids - stacked and rebated vertical edge (FIG. 23A-23C)
- Wilsonart® Solid Surface Particulates - vertical drop suggested with a 1/16" rebate. (FIG. 23A-23C)
 - Larger particulates require rebated edge option
- Wilsonart® Solid Surface Movement Designs (FIG. 23A-23C)
- V-groove/miter recommended, other options see important note below.

Vertical Edge Option

- Inspect the edge of the Wilsonart® Solid Surface sheet for chip distribution variation.
- Dry fit edge strips.
- See both edges options below for remaining steps.



Figure 23A

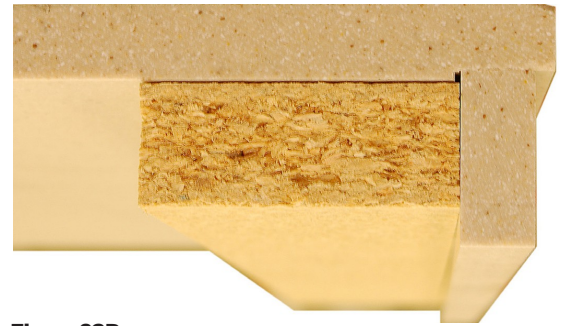


Figure 23B

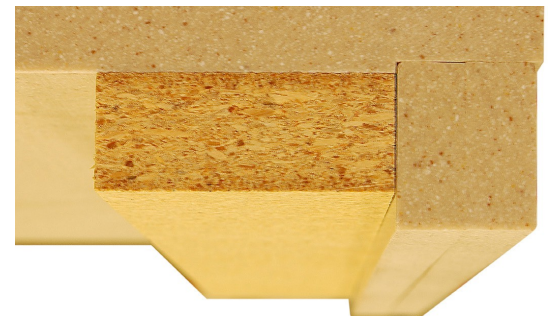


Figure 23C

Rebated Vertical Edge Option

- Using a bottom bearing rabbeting bit or a router with a straight edge, rout a 1/16" deep by 9/16"-5/8" wide rebate into the bottom side of the sheet.
 - Amana, Superabbet™ part number 4936
- For a Bull Nose, route a 1/16" deep by 1" wide rebate to accept a double vertical stack. (FIG. 24A)
 - Pinske Rabbeting Solutions
(See pages 9 & 10 for details)



Figure 24A

All Edge Options

- Thoroughly clean surfaces with clean, white shop rag and denatured alcohol.
- Purge cartridge and tip for proper adhesive mixture.
- Apply Wilsonart® Hard Surface Adhesive and clamp with spring clamps at 2"-3" (50.8-76.2mm) intervals.
- Make sure there is adequate glue squeeze-out along entire seam, checking carefully for voids.

IMPORTANT NOTE

When using designs with movement - it is important to understand the visual variances that will occur when using stacked and vertical edges. These variations will create variances throughout the length of the drop edge. These variances are not a product issue but inherent of the product design. When using the stacked or vertical method, be aware of variances from part-to-part. V-groove/miter folding methods are recommended when applicable. Whether the variance is subtle or significant, there will be a variance on the movement designs.

Drop Edges - Miter Fold

- Wilsonart suggests Miter Fold Drop Edge for Wilsonart movement patterns:
 - See pages 41-43 for recommended miter fold edge colors.
- Place Wilsonart® Solid Surface face down on a solid, flat work surface.
- Remove corner block and trim hinge tape.
- Clean miter area thoroughly with denatured alcohol and clean, white shop rag.
- Apply a 1/8" bead of Wilsonart® Hard Surface Adhesive in the entire length of the miter fold seam. Also apply a 1/8" bead at one corner to be folded. (FIG 25A)
- Fold up drop edge and clamp into one place. Cam action clamps are suggested. (FIG. 25B)
- Clamps should be within 2" (50.8mm) from each corner and located every 12" (304.8mm).
- Place clamps 1/4" (6.4mm) above the face of the panel to ensure proper pressure.

FAB TIP: Once drop edge is folded into place, do not allow the edge to separate from the deck. If this occurs, reapply seam adhesive.

- Fold up the end caps and secure in place with spring clamps or 3 way clamps.
- Clamps should be placed every 2" (50.8mm). (FIG. 25C)
- Place 3 way clamps 1/4" (6.4mm) above the face of the panel.
- Adhesive squeeze-out is required along entire length of seam and at all corners.
- Allow seam adhesive to cure completely before machining.



Figure 25A

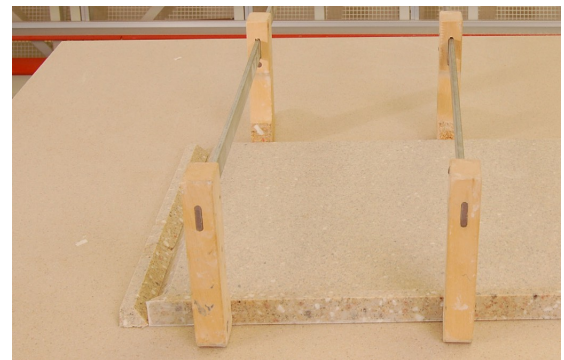


Figure 25B



Figure 25C

Inside Corners

- Inside corners are subject to higher stress and therefore, require special reinforcement.
- One of the following reinforcement procedures must be used:
 - Interlocking Corner Block Method: minimum 3" (76.2mm) x 3" (76.2mm) blocks or greater (FIG. 26A)
 - Interlocking Vertical Strips Method: Corner blocks (FIG. 26B)
- Inside corner on a 45° seam requires seam support interlocking block method (Fig 26B) or corner block method (Fig. 26A). Drop edge seams must be staggered and interlocking.
- The finished inside corner must be routed to a minimum 1/2" (13mm) radius. However, a larger radius is better.

Outside Corners

- This method may be used up to 9" radius, requiring 1–3 strips placed on the angle. (FIG. 26C)
- For a radius larger than 9" refer to the Thermoforming Section on page 34.

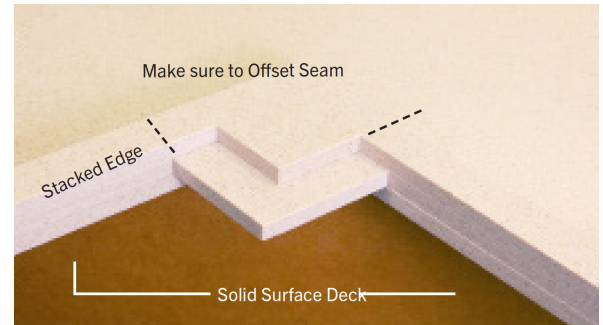


Figure 26A

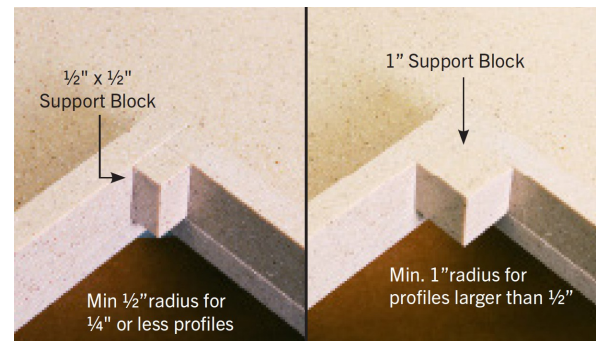


Figure 26B

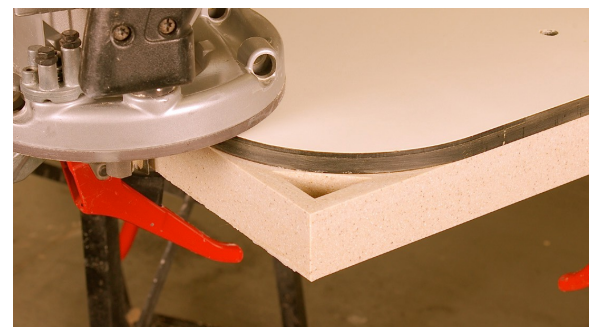


Figure 26C

Drop Edges - V-Groove/Miter Fold

- Wilsonart suggests Miter Fold Drop Edge for Wilsonart movement patterns:
 - **See pages 41-43 for miter fold edge colors.**
- Place Wilsonart® Solid Surface face down on a solid, flat work surface.
- Remove corner block and trim hinge tape.
- Clean miter area thoroughly with denatured alcohol and clean, white shop rag.
- Apply a 1/8" bead of Wilsonart® Hard Surface Adhesive in the entire length of the miter fold seam. Also apply a 1/8" bead at one corner to be folded. (FIG 25A)
- Fold up drop edge and clamp into one place. Cam action clamps are suggested. (FIG. 25B)
- Clamps should be within 2" (50.8mm) from each corner and located every 12" (304.8mm).
- Place clamps 1/4" (6.4mm) above the face of the panel to ensure proper pressure.

FAB TIP: Once drop edge is folded into place, do not allow the edge to separate from the deck. If this occurs, reapply seam adhesive.

- Fold up the end caps and secure in place with spring clamps or 3 way clamps.
- Clamps should be placed every 2" (50.8mm). (FIG. 25C)
- Place 3 way clamps 1/4" (6.4mm) above the face of the panel.
- Adhesive squeeze-out is required along entire length of seam and at all corners.
- Allow seam adhesive to cure completely before machining.

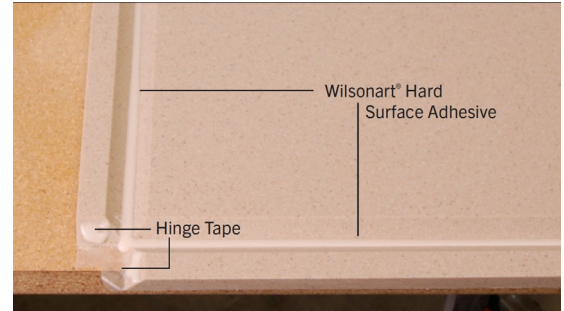


Figure 25A

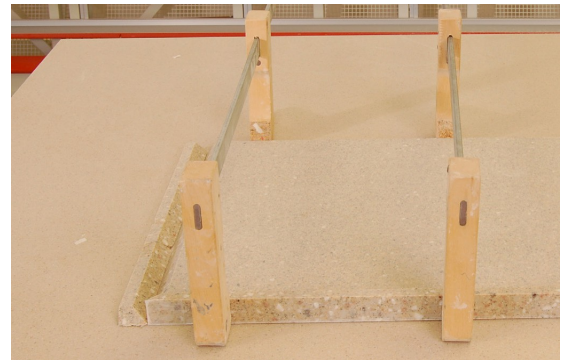


Figure 25B



Figure 25C

Wilsonart® Solid Surface Sink Installation Continued

- Apply ample amount Wilsonart® Hard Surface Adhesive to sink rim. (FIG. 28A)
- Clamp with pipe clamp through the drain hole. (FIG. 28B)

FAB TIP: Use wooden spacers under clamp at sink flange and drain hole to prevent damage.

FAB TIP: Use clamp board (larger than the sink) under countertop to distribute clamping

- Check for seam kit squeeze-out around entire sink area. Remove pipe clamps after seam adhesive hardens.
- Rout sink opening(s) using:
 - Bowl flush trim bit (FIG. 28C)
 - Bowl profile bit (FIG. 28D)
 - See pages 9 & 10 for Tool Manufacturers
- Sand inside of sink for proper finish (See Finishing Section, page 35).

FAB TIP: Wilsonart® Solid Surface Sinks must be sanded to provide consistent finish. Failure to finish sinks often leads to customer dissatisfaction.

- Wilsonart® Solid Surface vanity sinks are equipped with activated overflows. They are also available with non-overflow by special order.



Figure 28A



Figure 28B

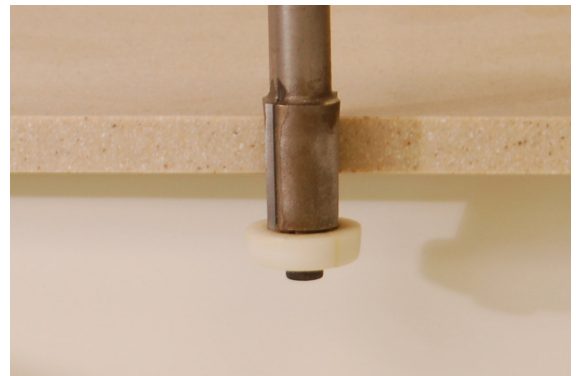


Figure 28C



Figure 28D

Wilsonart® Solid Surface Sink Installation

- Inspect sink for imperfections and verify color.
- Identify location.
- Position sink using center-line dimensions. (FIG. 27A)

FAB TIP: Integral Wilsonart® Sinks may be mounted over a seam using the same techniques listed below. Integral in conventional or PT Seams. (FIG. 27B)

- Multiple bowl configurations are permitted; however, special reinforcement guidelines are required. (See Installation Section, page 37)
- Place wooden blocks with hot melt glue to position sink securely during glue up. (FIG. 27C)
- Rout hole in countertop directly under sink drain hole.

FAB TIP: Make sure hole is large enough for pipe clamp.

- Thoroughly clean areas to be seamed with denatured alcohol using a clean white shop rag.

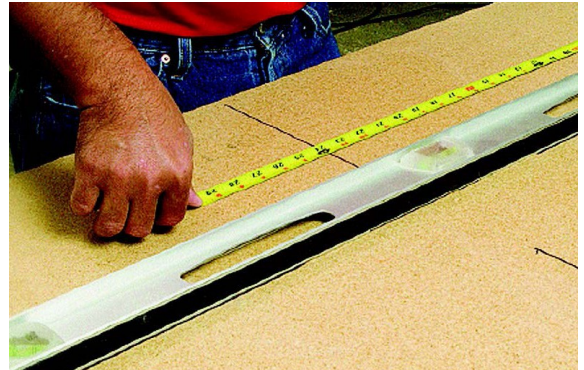


Figure 27A



Figure 27B



Figure 27C

General Cutout Requirements

These procedures are for cutouts that do not involve heat generating/producing appliances or items. See Cooktop Cutout requirements on page 30 for cutouts involving heat generating items installed in or over a cutout.

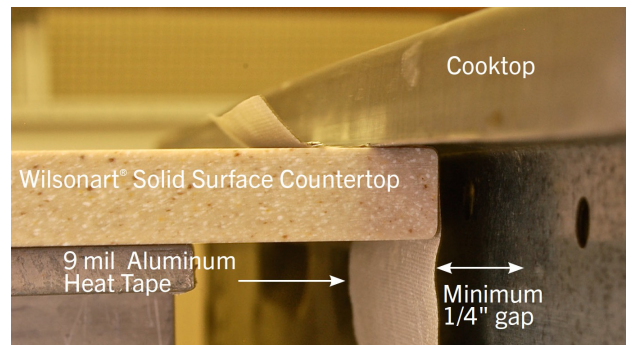
- Cutouts must be performed with a router only.
- 12" x 12" or larger cutouts must be left on job site for color match repair material.
- Secure cutouts to inside of sink base cabinet.
- Inside corners of all cutouts must be radiused.
 - Use 1/2" (9.5mm) or larger diameter bits.
 - See pages 30-35 for Cooktop Cutouts requirements.
- Round over top and bottom edges of cutouts a minimum 1/16" (1.5mm) radius.
- Remove any roughness, nicks and/or router "chatter" with 150-grit (80 micron) or finer sandpaper.
- Allow at least 1/8" (3mm) clearance space on all sides for drop-in sinks.
- Allow at least 1/16" (1.5mm) clearance space on all sides for outlets.
- Web supports required within 3" (76mm), but no closer than 1" (25mm) from the edge of the cutout.

Cooktop Cutouts

- Wrap entire cooktop opening with high temperature aluminum heat reflective tape.
- Place an additional layer of tape at all corners.
- Inform cooktop installer that tape must not be removed.
- Nomex® will assist with heat resistance.
- Do not fold tape under the bottom of the cutout. (FIG. 31A)
- Tape must extend past the edge of cooktop flange. Trim excess (FIG. 30A & 31A)
- Never fasten cooktop to Wilsonart® Solid Surface with mechanical fasteners.
 - Use a wood block between Wilsonart® Solid Surface and cooktop fasteners.
- If minimum cutout dimension listed above cannot be met, follow requirements for cooktop mantle or stainless steel ring.



Figure 31A



Backsplash

- Use 100% silicone to adhere backsplash to countertop and wall.
- Apply continuous bead to bottom of backsplash (FIG. 32A)
- Dots of hot melt adhesive can be used to adhere backsplash to the wall while silicone cures.
- Remove excess silicone squeeze-out, leaving only a small inside corner bead. (FIG. 32B)
- On full height backsplash, apply all Wilsonart® Solid Surface fabrication guidelines. (FIG. 32C)
 - 1/4" (6.4mm) radiused inside corners
 - Space for expansion
 - Offset seams
 - Cutouts must be made with a router (FIG. 32C)
 - Attach backsplash with silicone.
 - Do not hard seam to countertop.



Figure 32A



Figure 32B

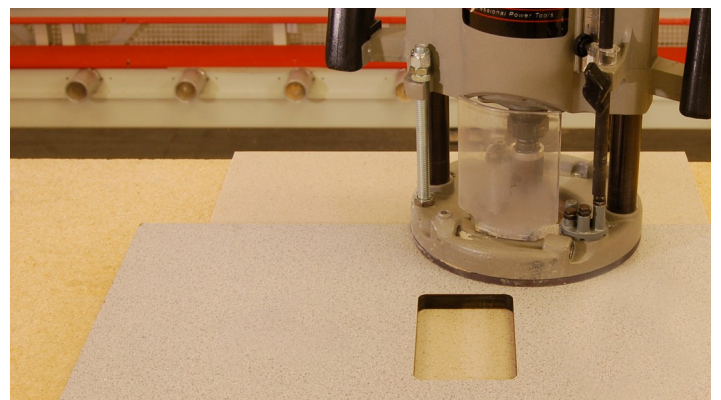


Figure 32C

Cooktop Cutouts

- Cutouts must be performed with a router only.
 - Adhere cutouts to inside of sink base cabinet.
- A minimum 1/4" (6.4mm) gap is required between edge of cutout and cooktop. (FIG. 30A)
- Inside corners of all cutouts must have a minimum radius of 1/4" (6.4mm). (FIG. 30C)
- Corners of cooktop cutouts must be reinforced with 5"x 5" (128.5mm x 128.5mm) 45° beveled Wilsonart® Solid Surface corner blocks. (FIG. 30B & 30C)
- Roundover top and bottom edges of cutout minimum 1/16" radius and ease all edges of reinforcing blocks.
- Sand sides of cooktop cutout to be free of roughness, nicks and router "chatter" with minimum 150-grit or finer sandpaper.

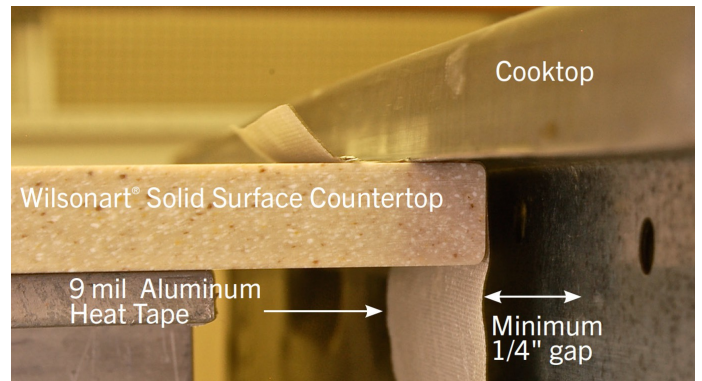


Figure 30A

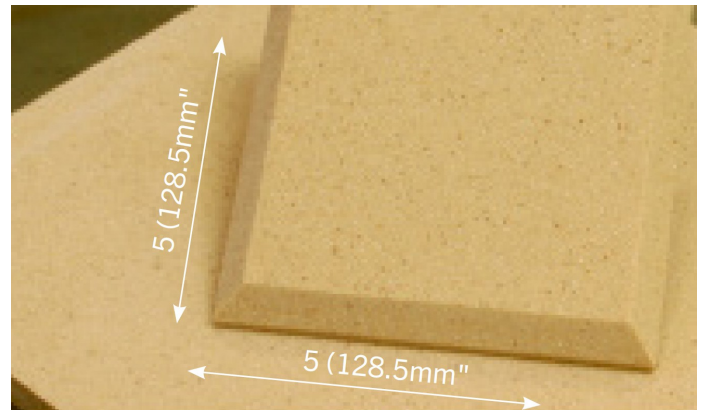


Figure 30B

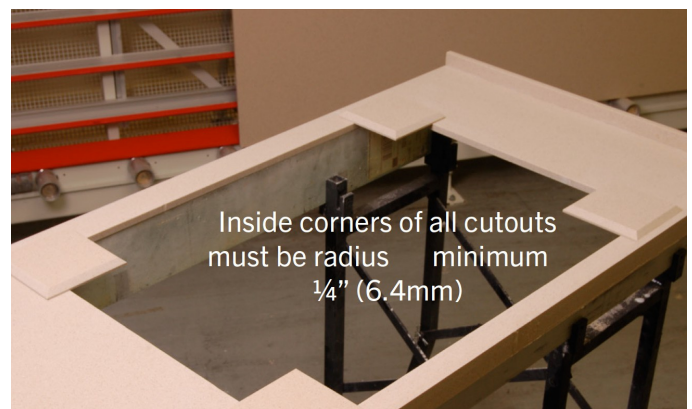


Figure 30B

Cove Backsplash

- Cut Wilsonart® Solid Surface backsplash to desired height. (FIG.33A)
 - Allow 7/8" (11.3mm) for cove strip. (FIG. 33A)
- Cut a 7/8" (22.23mm) strip for coving. (FIG.33A) Bevel 7/8" (22.23mm) cove strip on a 45° angle. This will reduce router chatter.
- Cut 7/8" (22.23mm) x 1/8" (1.6mm) rebate into the Wilsonart® Solid Surface deck to accept cove strip. (FIG. 33A)
- Clean with denatured alcohol and clean white cloth.
- Adhere cove strip and backsplash to countertop with Wilsonart® Hard Surface adhesive.
 - 100% coverage is required.
 - Backsplash squaring block (FIG. 33B)
- Ensure cove strip is tight against front edge of rebate and clamp with spring clamps and bar clamps.
 - Squeeze-out is required the entire length of all seams.
- After adhesive has cured completely, rout over strip. (FIG. 33C)
- Sand to desired finish.

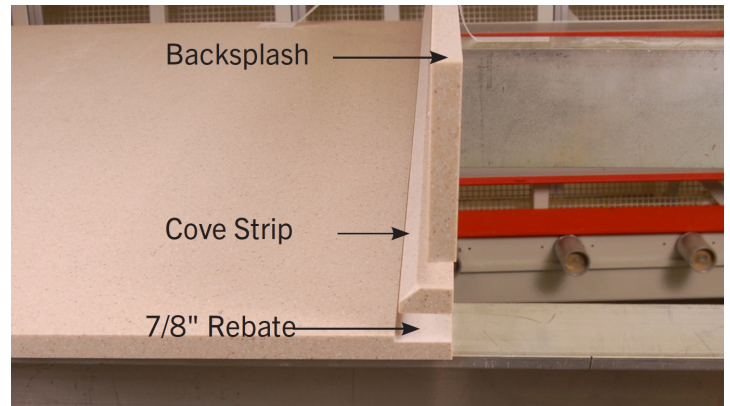


Figure 33A

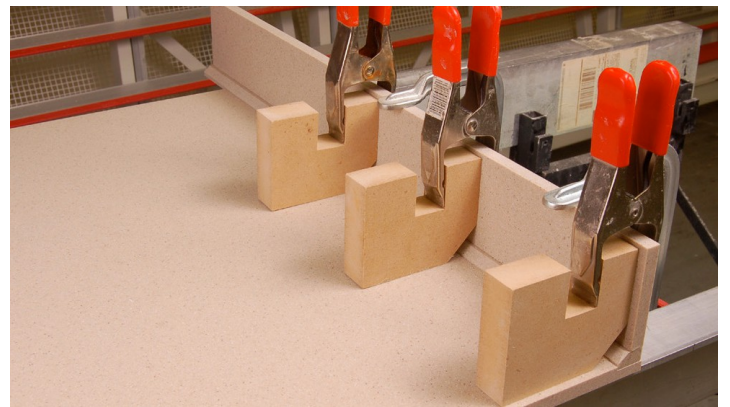


Figure 33B

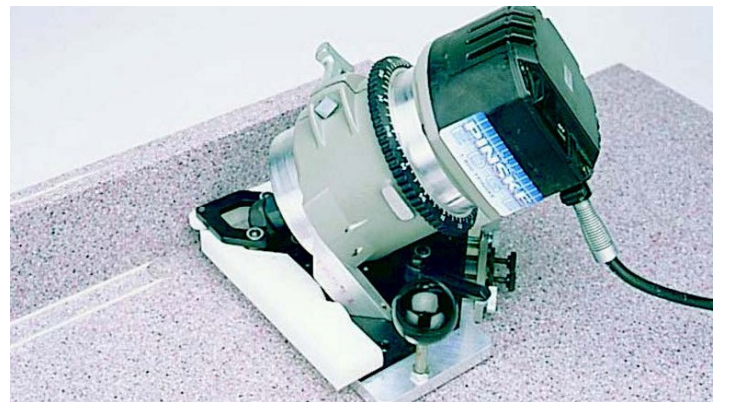


Figure 33C

Procedures

- Wipe all sanding dust from countertop surface between grit changes/finishing steps.
- Darker colors will require more attention to obtain the desired final finish. (Semi-Gloss or Gloss)
- Be careful when selling dark colors and/or semi- gloss or gloss finishes. Inform your customer of the possible extra care necessary to maintain a dark color and/or finishes higher than a standard Matte or Satin finish.
- Use both horizontal and vertical strokes and overlapping your strokes by at least 50%. Inspect finish for consistency after each sanding step to aide in final finish.

FAB TIP: TAKE EXTRA CARE WHEN FABRICATING AND HANDLING THE MATERIAL TO AVOID SCRATCHES, THIS WILL REDUCE UNNECESSARY SANDING.



Recommended Finishes:

- **Light Colors** - Matte finish provides easy/low maintenance and is suitable in most cases.
 - *Satin Finish* - provides medium maintenance and is suitable in most cases. Will provide a higher sheen and more vibrant colors than matte.
 - *Semi-Gloss* - Slightly Higher maintenance needed and is not necessary in most cases. Avoid high traffic areas if possible. Care and Maintenance - Requires special customer instructions.
 - *Gloss Finish* - Recommended for vertical surfaces only. Care and Maintenance - Requires a professional to refinish.
- **Dark Colors** - Matte Finish – Although a matte finish may be used on dark colors it is NOT recommended.
 - *Satin Finish* - Provides medium maintenance and is suitable in most cases but will need more care and maintenance from the customer.
 - *Semi-Gloss* - Requires special customer instructions. Care and Maintenance- Requires a professional to refinish. Avoid high traffic areas if possible.
 - *Gloss Finish* - Recommended for vertical surfaces only. Care and Maintenance - Requires a professional to refinish.

Products

3M® Surfacing Abrasives – 1- 800-364-3577 There are 13 micron grades available. Micron grade 100 is the most coarse, is approximately equal to a grade 150, U.S. standard system. The .3 micron grade, one of the finest grades, is equivalent to a 10,000 grit.

Scotch-Brite® by 3M® – 1- 800-364-3577

3M's Scotch-Brite® Pad order of coarseness: 7447 Maroon (Fine), 7448 Grey (Very Fine) and 7445 White (Ultra Fine).

3M® Trizact™ Abrasives – 1-800-742-9546 or 1-800-364-3577 in the U.S.A. 651-737-6501 outside the U.S.A.

- The Trizact™ system, there is no need to finish the top with 3M® Scotch-Brite® pads and may decrease the amount of sanding steps.

Mirka Abralon Pads – 1-800-843-3904 Recommended for dark colors.

Sia -1-800-459-3534

www.sia-abrasives.com

Standards

U.S. standard system: 16 grit (coarsest) to 2,000 grit (finest).

- Trizact™: 60mx (coarsest) to 20,000mx (finest)
- Micron system: 100 micron (coarsest) to .3 micron (finest)
- Abralon: Medium (coarsest) to mirror fine (finest)



FAB TIPS: FOR BEST RESULTS USE LARGE SANDER (EX: GEM 11") IN DECK AREAS TO ACHIEVE MORE CONSISTENT FINISH AND TO MINIMIZE VISIBLE SANDING PATTERN. USE SMALLER SANDER (EX: 5" ORBITAL) ON EDGE DETAIL AND AROUND SINK AREAS.

Abrasives Sanding Steps “Quick Steps” to Final “Finish”

For final finishing use the following steps located in the Abrasive Cross Reference Chart below:

Finish Type	Grit Scotch Brite™	3M™ Micron Scotch Brite™	Trizact Film™	Mirka Abralon	Sia	Notes
Matte	180 220 7447	80u 60u 7447	268XA Green A35 268XA Blue A10/7447	N/A	1950 Siaspeed Grit: P180 1950 Siaspeed Grit: P280 6120 Siavlies Very Fine	Standard Finish Easy/Low Maintenance
Satin	180 220 280 7448	80u 60u 40u 7448	N/A	80u 60u Medium 360	1950 Siaspeed Grit: P180 1950 Siaspeed Grit: P360 * Additional step only used on dark surfaces 1950 Siaspeed Grit: P600 7940 Siaair Grit: K1000 (dry)	Slightly More Difficult Medium Maintenance
Semi Gloss	180 220 280 7445 7448	80u 60u 40u 7445 7448	268XA Green A35 268XA Blue A10 268XA Orange A5	80u 60u 40u Medium 360 Super Fine 1000	1950 Siaspeed Grit: P180 1950 Siaspeed Grit: P280 1950 Siaspeed Grit: P360 * Additional step only used on dark surfaces 1950 Siaspeed Grit: P600 7940 Siaair Grit: K1000 (dry) 7940 Siaair Grit: K3000 (dry) 7940 Siaair Grit: K4000 (dry) 7940 Siaair Grit: K1500 (wet) 6120 Siavlies Microfine Dry (wet)	Requires special customer instructions Requires Fabricator to refinish
Gloss	180 220 280 7448 7445 Buffer with Polishing Compound	80u 60u 40u 7445 7448 Buffer with Polishing Compound	268XA Green A35 268XA Blue A10 268XA Orange A5 568XA White CeO or Buffer with Polishing Compound	80u 60u 40u Medium 360 Super Fine 1000 Mirror Fine 4000		Recommended for vertical surfaces only Requires fabricator to refinish

The gloss finish is not recommended for high traffic areas. It requires a trained fabricator to maintain its finish.

** Use with Microhook Interface Pad



Jobsite Preparation

- Install web supports as required.
 - 1/2" or 3/4" MDF or particle board recommended.
 - Place around perimeter of countertop and at each cabinet support.
- Webbing must be straight, flat and level after installation. If shims are used, they must be installed between the cabinet and the web frames, not directly under the countertop. (FIG. 37A)
- Do not install Wilsonart® Solid Surface over a solid substrate, except at overhangs and 45° seams. (See pages 20 & 38)

Solid substrate support is required for all 45° seams at inside corner area only, and must extend past the first cabinet support on both sides of inside corner.

- Supports required every 24".
 - 100% coverage is required.
 - Backsplash squaring block (FIG. 37B)
- Certain unsupported areas are in need of stronger frame material. These include inside corner cabinets, especially lazy susan, dishwasher openings, sink base fronts, desks and anywhere else that the cabinet is weaker than others. (FIG. 37B)
 - Squeeze-out is required the entire length of all seams.
- Place web supports at both sides of all cutouts. Place supports no closer than 1" (25.4mm) and no further than 3" (76.2mm) from sides of cutout.
 - See pages 39 & 40 for additional web support requirements.
- Multiple bowl installations require special reinforcement to provide adequate support..
 - Place web support along both sides of the bowl installation.
 - Place sink setters, solid wood, MDF or plywood supports between each bowl.
 - Supports must rest on cabinet base or be attached to cabinet base to alleviate flexing
- Free standing stoves must be set to a minimum of 1/16" higher than surface of countertop.

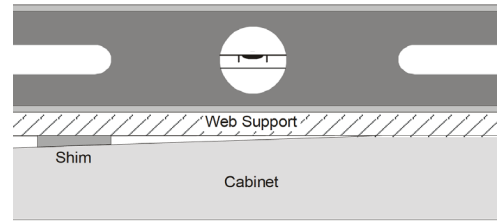


Figure 37A

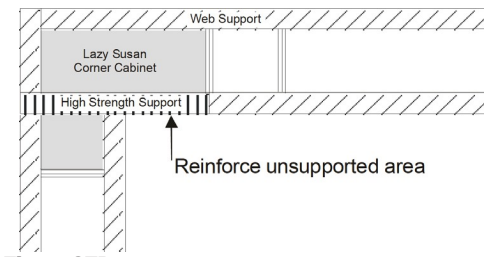


Figure 37B

INSTALLATION

Overhangs

- Additional support is required when the countertop overhangs the cabinet. (FIG. 38A) Refer to the following chart to determine support required:

Overhang	Support Required
0 - 6" (0-152.4mm)	None
6 - 12" (152.4mm-304.8mm) (FIG. 27A)	Brackets (corbels) (Under web frame support) <u>or</u> 3/4" plywood underlayment
12 - 18" (304.8mm-457.2mm) (FIG. 27B)	Brackets (corbels) (Under web frame support) <u>and</u> 3/4" plywood underlayment
18 - 24" (457.2mm-609.6mm)	Brackets (corbels) <u>and</u> 3/4" plywood underlayment <u>and</u> supporting legs

- When brackets (corbels) are used, place them no more than 24" (609.6mm) apart. In addition, place brackets 12" (304.8mm) from open ends and against wall ends. (FIG. 38B & 38C)

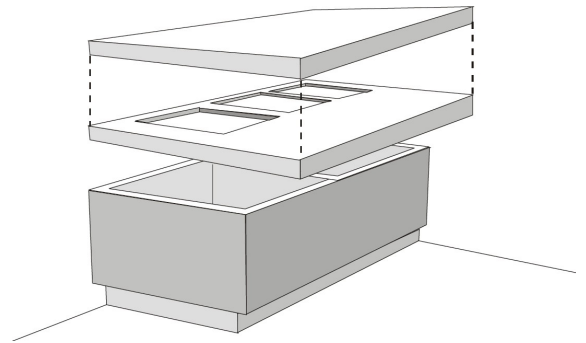


Figure 38A

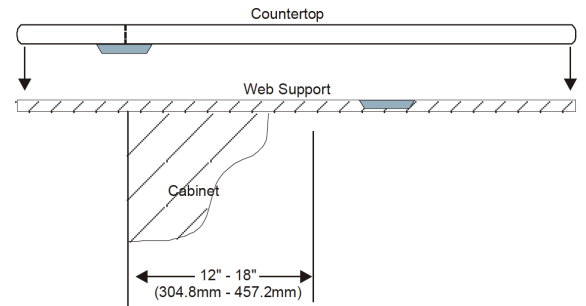


Figure 38B

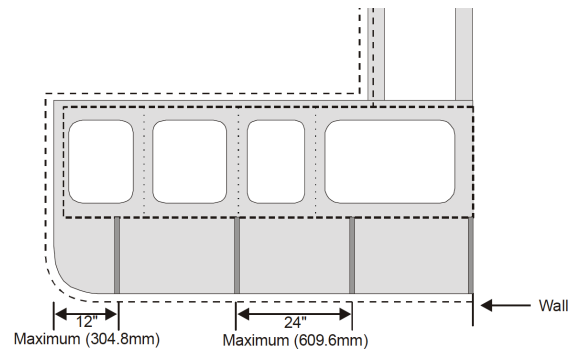
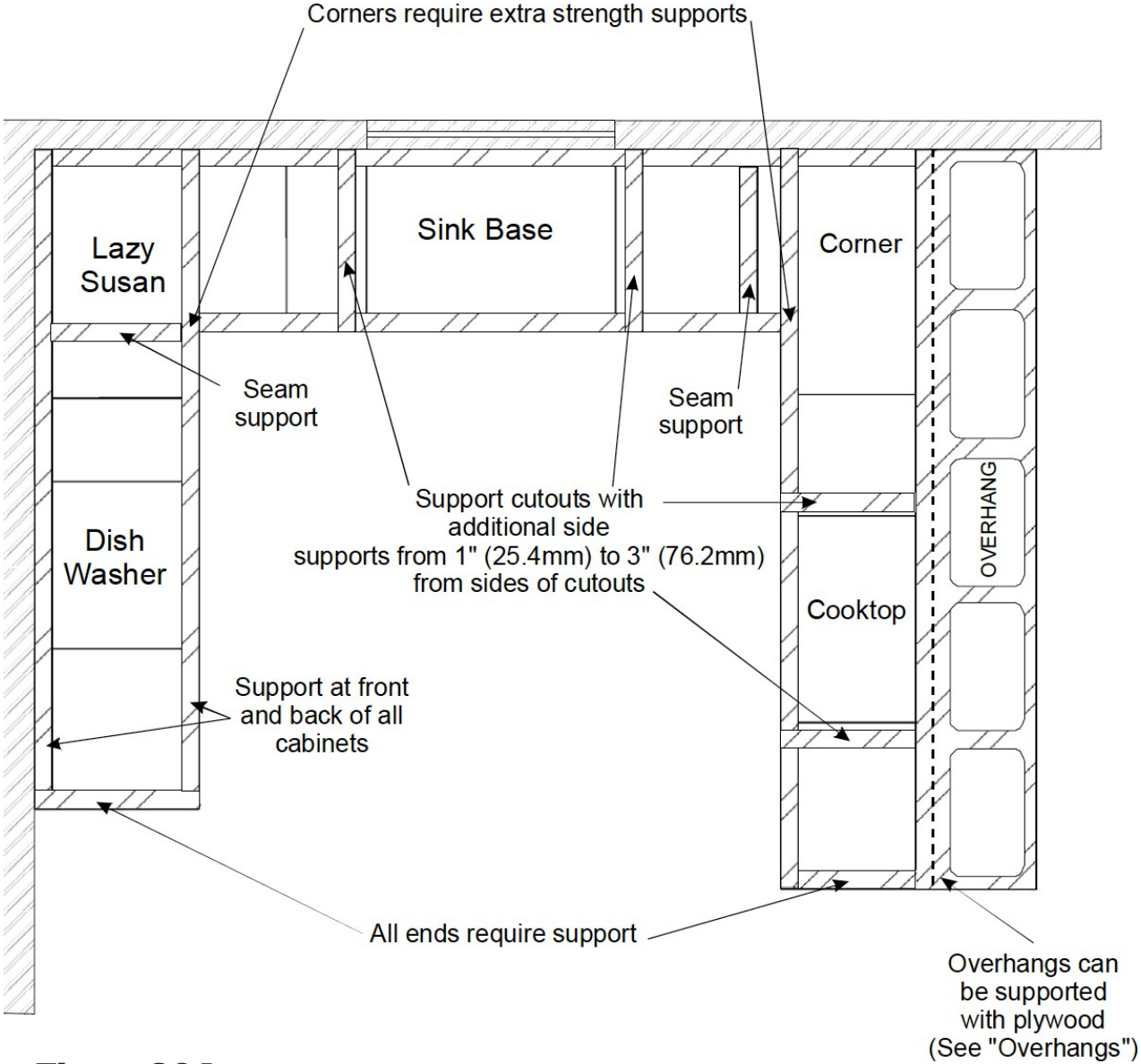


Figure 38C

Web Support Layout

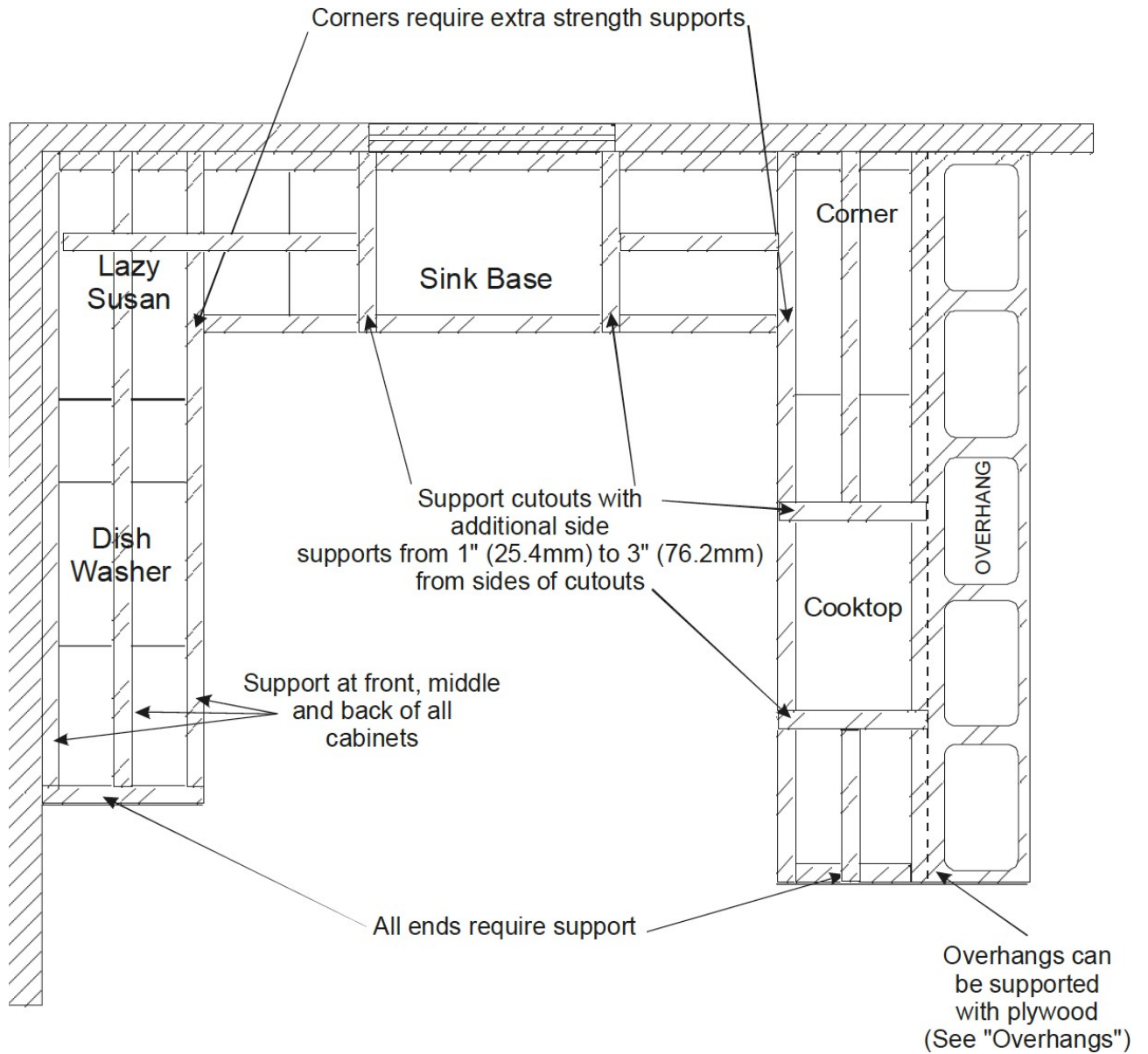
Recommended web support material includes: Medium Density Fiberboard (MDF), plywood, hardboard etc.



**Figure 39A
(Option 1)**



Web Support Layout Continued



**Figure 40A
(Option 2)**

RECOMMENDED FABRICATION TECHNIQUES

Pattern	Combined Name	Stacked	Vertical w/ Rebate	Miter-Fold/ V-Groove	Thermo- formable
1530TM	Beige Tempest	✓	✓	✓	✓
1572SL	Antique White	✓	✓	✓	✓
1573MG	Frosty White Mirage	✓	✓	✓	✓
1573SL	Frosty White	✓	✓	✓	✓
9024ML	French Blue Melange	✓	✓	✓	✓
9027ML	Indigo Melange	✓	✓	✓	✓
9030ML	Baja Melange	✓	✓	✓	✓
9033ML	Caramel Melange	✓	✓	✓	✓
9036EA	Pebble		✓	✓	✓
9040MG	Burnt Amber Mirage	✓	✓	✓	✓
9041ML	Quarry Melange	✓	✓	✓	✓
9043RS	Bluff Riverstone		✓	✓	✓
9047ML	Chicory Cream Melange	✓	✓	✓	✓
9070ML	Arctic Melange	✓	✓	✓	✓
9074EA	Bluestone	✓	✓	✓	✓
9077ST	Milk Glass Spectra	✓	✓	✓	✓
9091ML	Midnight Melange	✓	✓	✓	✓
9092MG	Black Onyx Mirage	✓	✓	✓	✓
9100GS	Coconut Oil	✓	✓	✓	✓
9101GS	Oatmeal	✓	✓	✓	✓
9104CS	Chipped Chocolate	✓	✓	✓	
9105CS	Night Stars	✓	✓	✓	
9106CS	Maple Harvest	✓	✓	✓	
9107CS	Clouded	✓	✓	✓	
9108CS	Gold Glitz	✓	✓	✓	
9109CS	Garnet Glitz	✓	✓	✓	
9110CS	Paris Fog	✓	✓	✓	
9111MG	Chai Cream Mirage			✓	
9115GS	Zen Grey			✓	
9116GS	Soothing Grey			✓	
9130MG	Marzipan Mirage			✓	

✓ = Indicates that this color is recommended by Wilsonart

RECOMMENDED FABRICATION TECHNIQUES

Pattern	Combined Name	Stacked	Vertical w/ Rebate	Miter-Fold/ V-Groove	Thermo-formable
9135MG	Cashmere Mirage	✓	✓	✓	✓
9137RS	Blanco Riverstone	✓	✓	✓	✓
9138RS	San Gabriel Riverstone		✓	✓	✓
9144SN	Sonata Chocolate	✓	✓	✓	✓
9175ML	Avalanche Melange	✓	✓	✓	✓
9194TM	Steel Grey Tempest	✓	✓	✓	✓
9195ML	Northern Melange	✓	✓	✓	✓
9196RS	Yukon Riverstone	✓	✓	✓	✓
9198EA	Whitewater		✓	✓	✓
9199MG	Pearl Mirage	✓	✓	✓	✓
9200CS	Mystique	✓	✓	✓	✓
9201GS	Hot Stone	✓	✓	✓	✓
9202CS	Sea Stone		✓	✓	
9203CE	Dusk Ice	✓	✓	✓	
9204CE	Morning Ice	✓	✓	✓	
9205CE	Champagne Ice	✓	✓	✓	
9206CE	Desert Ice	✓	✓	✓	
9207CS	Flint Rock	✓	✓	✓	
9208CS	White Stone		✓	✓	
9209CM	Moon Geyser		✓	✓	
9210CM	Europa		✓	✓	
9211CM	Jovian		✓	✓	
9214CM	Asteroid		✓	✓	
D354SL	Designer White	✓	✓	✓	✓
D426MG	Raven Mirage	✓	✓	✓	✓
D50TM	Khaki Brown Tempest	✓	✓	✓	✓
9253CM	Arctic Dune		✓	✓	
9215CE	Kimberlite	✓	✓	✓	
9218CM	Grey Beola		✓	✓	
9219GS	Brooklyn Concrete	✓	✓	✓	✓

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RECOMMENDED FABRICATION TECHNIQUES

Pattern	Combined Name	Stacked	Vertical w/ Rebate	Miter-Fold/ V-Groove	Thermo- formable
9220CE	Tumbled Stone		✓	✓	
9221SP	Luminous White	✓	✓	✓	✓
9222SS	Titanium Grey	✓	✓	✓	✓
9223SS	Angel Falls			✓	✓
9224SS	Grey Lace			✓	✓
9245SS	Aspen Quartzite	✓	✓	✓	✓
9246SS	Arctic Drift			✓	✓
9247SS	Relaxed White	✓	✓	✓	✓
9248SS	Mink Concrete	✓	✓	✓	✓
9249SS	Metro Concrete	✓	✓	✓	✓
9225SS	Saharan Night			✓	✓
9226SS	Silver Smoke			✓	✓
9227SS	Hidden Space	✓	✓	✓	✓
9228SS	Chilled Earth	✓	✓	✓	✓
9138RS	San Gabriel Riverstone	✓	✓	✓	✓
9144SN	Sonata Chocolate	✓	✓	✓	✓
9175ML	Avalanche Melange	✓	✓	✓	✓
9194TM	Steel Grey Tempest	✓	✓	✓	✓
9195ML	Northern Melange	✓	✓	✓	✓
9196RS	Yukon Riverstone	✓	✓	✓	✓
9198EA	Whitewater	✓	✓	✓	✓
9250SS	Cannon Beach	✓	✓	✓	
9251SS	Cool Basalt	✓	✓	✓	
9252SS	Mansoned Concrete			✓	
9254SS	Basalt Concrete			✓	
9909SS	Carrara Emporio			✓	✓
9911SS	Monte Amiata			✓	✓
9912SS	Ice Statuario			✓	✓
9913SS	Calcatta Perlato		✓	✓	✓
9914SS	Carbone Marmo			✓	✓
9915SS	Carrara Royale			✓	✓
9916SS	Monte Paradiso			✓	✓

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