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Durasein
Cutouts

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Fabrication and Installation
Cutouts

BULLETIN NO.
Cutouts_0525

TECH INFO
Cutouts

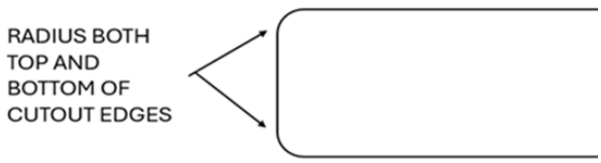
General Cutouts

The use of quality fabrication techniques and state-of-the-art methods and details is critical for worry-free performance of cooktop and range cutouts. Durasein expects that fabricators will be committed to always using the best fabrication practices for cutouts in Durasein® products.

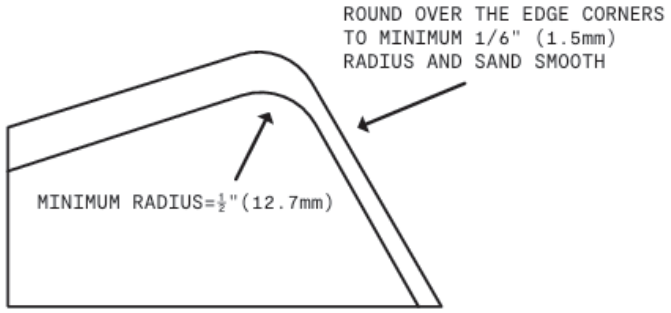
- All cutouts in solid surfacing need to be made with a router.
- The minimum required radius for an inside corner of a cutout in Durasein® Solid Surface is ½" (12.7 mm)

- For consistency and quality control, all cutouts should be made with a template and appropriate router bits and guides.

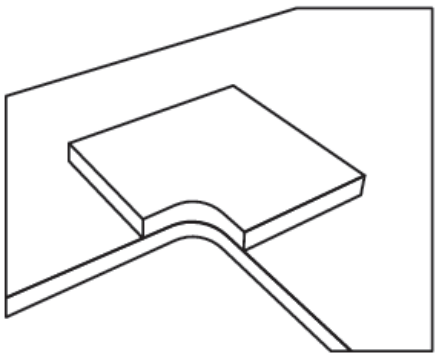
- The top and bottom edges of all cutouts should be smoothed with a router bit and/or sandpaper. This is to remove any stress risers created in the cutting process. The elimination of stress risers is critical to the successful performance of a cutout.



- Always remove stress risers by routing or sanding smooth both the top and bottom of the edge of the cutout with a minimum 1/16" (1.5 mm) radius edge. Follow up by sanding smooth with 150-180 grit sandpaper. This will minimize stress risers and create a stronger cutout.



- Corners of cook top cutouts must be reinforced by bonding a 4" (102 mm) x 4" (102 mm) X ½" (12.7 mm) or larger piece of solid surface to the underside. Durasein® does not require that all sides of the corner blocks should have a 45° bevel. Beveled corner blocks are permissible but not required.



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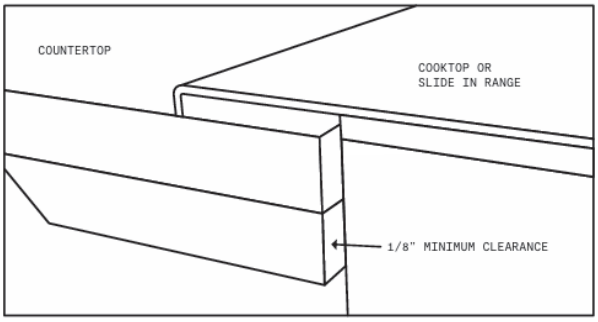
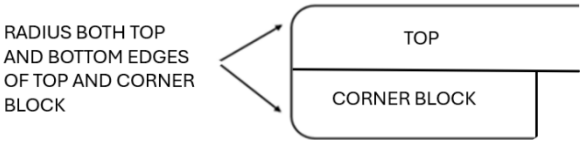
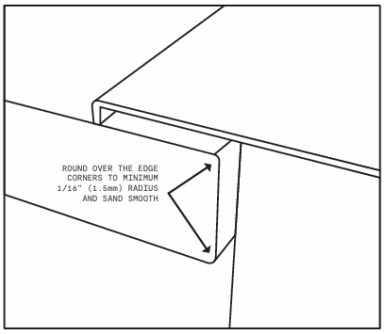
- Always allow room for expansion and contraction of the Durasein® top and the cooktop unit. Ensure that edges have a 1/8” (3mm) minimum clearance on all sides of cook-top or range top to allow for expansion, contraction and an air gap to release heat.



NOTE: Heat tape is not shown for clarity

- Always remove stress risers by routing or sanding smooth both the top and bottom of the cutout edge with a minimum 1/16" (1.5 mm) radius edge. Follow by sanding smooth with 150-180 grit sandpaper. This minimizes stress risers and creates a stronger cutout.

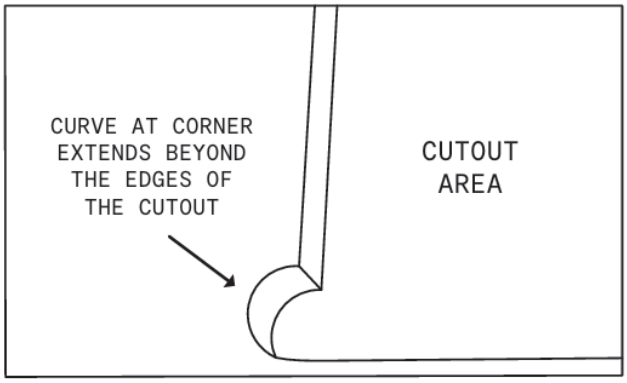




Special Cooktop Radius Condition

With the objective of making the inside corner radius as large as possible, an offset corner detail may be used.

Always provide the largest possible radius in the corners of cooktop cutouts. A ½" (12.7 mm) radius is the recommended minimum cutout radius. If the cooktop flange size and other dimensional requirements allow, stronger corners can be achieved with a corner cutout shape as shown here.



The objective is to get the largest possible radius without extending beyond the flange of the cooktop. The corner blocks also need to be the same shape.

By using this shape, the radius of the corner can be made as large as the overhang of the cooktop flange will allow.

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Cutout Tips:

- Always make cutouts with a router
- Leave 1/8" clearance around cutouts for cooktops.
- Provide the largest radius at corners of cooktop cutouts.
- Always round over the edges of cutouts.
- Allow for complete support around the perimeter of a cutout.
- Use high-strength corners for cooktops
- Corner blocks must be at least

Potential Problems with Cook-top and Range

Cutouts:

1. Excessive Heat
2. Stress points in the cut-out
3. Not enough space between the cook-top appliance and the countertop
4. Insufficient support
5. High-strength blocks are not large enough or thick enough

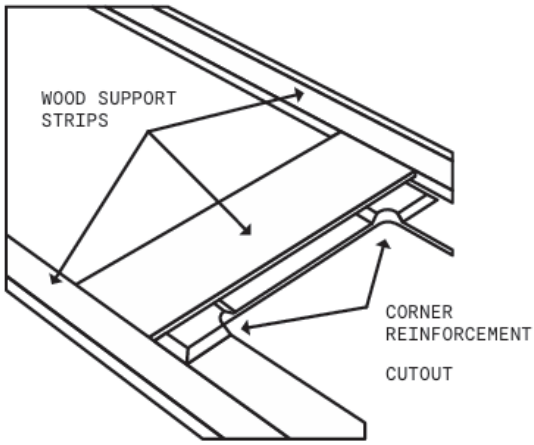
Prevention:

1. Make the cut-out as big as possible to provide space between the cooktop appliance and Durasein®.
2. Apply a heat barrier tape that will deflect heat away from the Durasein® surface and provide a protective barrier against heat.
3. Always use a router for the cut-out and smooth edges to release heat and avoid stress risers (“crack starters”).
4. Always sand smooth all edges of the cutout and corner blocks.
5. Use solid surface reinforcing blocks at the corners of cooktop cutouts.
6. Make the radius at the corners of the cutout as large as possible with a minimum of ½" radius.
7. Completely support the perimeter of the cutout area. No full underlayment

Supporting Cutouts

Cutouts need support, particularly when weight, vibration, and heat are factors. It is best to have good support within 2”-3” of all the edges of the cutout.

When corner reinforcement blocks are encountered, special care needs to be taken to be sure that both the countertop deck and the corner blocks are supported.



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