

Chapter 10

Drains and cleanouts

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Cutting the flooring material up to, or around, a drain, cleanout, trench drain, and other plumbing fixtures, is not a recommended installation method and will void the Altro Warranty. Please refer to the this section of the Altro flooring installation guide for the correct detailing or contact Altro technical services.

10.1 ICC-ES PMG product certification



Altro safety flooring is a resilient vinyl sheet which may be used in showers and other wetted areas.

Altro safety sheet flooring is in compliance with the following codes:

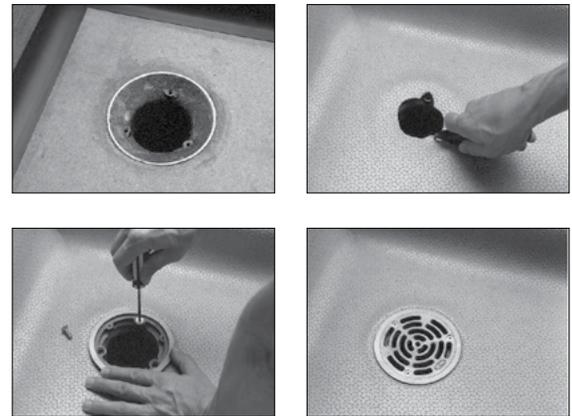
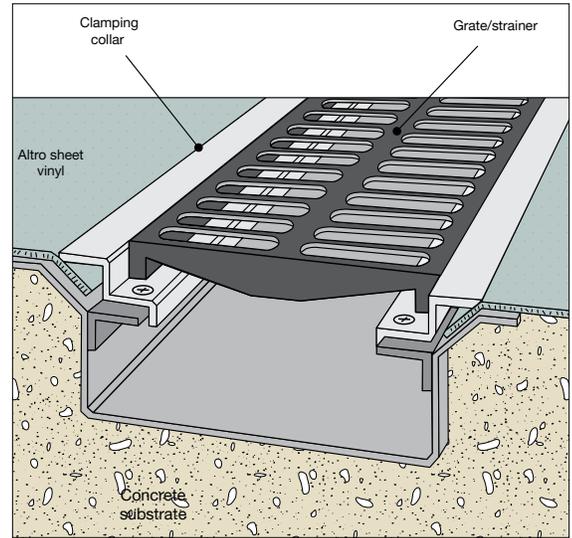
- International Plumbing Code (IPC)
- International Residential Code (IRC)
- Uniform Plumbing Code (UPC)
- Uniform Illustrated Plumbing Code - India (UIPC-I)
- National Plumbing Code of Canada

Additionally in compliance with the following standards:

- ANSI/ICPA SS - 1 2001, Performance standard for Solid Surface Materials.
- IAPMO PS 106-2015e1, Tileable Shower Receptors and Shower Kits.



For more info please scan the QR code.



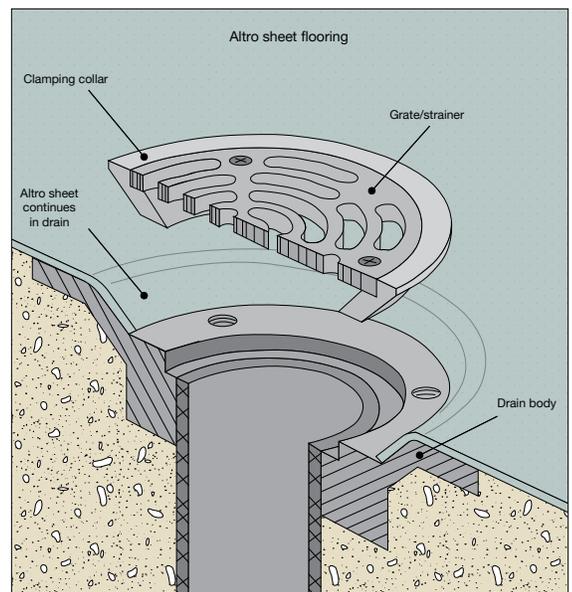
10.2 New round drains, cleanouts, trenches and floor sinks

For Altro sheet flooring to be successfully installed in wet areas (i.e. kitchens, showers, bathrooms, etc) all penetrations must be detailed properly to prevent moisture from leaking under the floor. This is done by mechanically fastening the flooring in place with surface membrane clamping plumbing fixtures. Altro safety sheet flooring shall be installed in accordance with published instructions and the applicable code(s). When provided, the floor drain must have a surface membrane clamp and shall comply with ASME A112.18.2/CSA B125.2 as applicable.

CAUTION: In many cases a drain body will have weep holes for use with a mid slab moisture membrane, which is typical for ceramic tile installations. We ask that if the specified drain body has weep holes that they be sealed as to not allow moisture from inside the drain itself from leaking back up and out the weep holes.

The following list of surface membrane clamping fixtures will aid in the design and specification of mechanical and plumbing fixtures. Please be advised that this list is constantly changing due to plumbing manufacturers updating/designing new surface membrane clamping fixtures.

Always consult with plumbing manufacturers for proper plumbing fixture selection.



Notes



Pictured: Easy Drain Vinyl

Examples of surface membrane clamping trench/lineal drains

Trench and lineal drains are commonly used in commercial kitchens and showers. Many plumbing manufacturers are able to make custom size surface membrane clamping trench/lineal drains.

Examples of surface membrane clamping trench/lineal drains:

- [Easy Drain Vinyl](#)
- [Blücher BWS-200](#)
- [IMC/TEDDY - AFT](#)

Ligature-resistant drain:

- [Blücher BWS-300](#)
- [Watts WSC-300-LR](#)



Pictured: Zurn Z1755

Examples of surface membrane clamping flooring sinks

Floor sinks are primarily used in kitchens and laboratories. While porcelain floor sinks are commonly used and specified, these are NOT a surface membrane clamping style that Altro recommends. Altro gulley edge/angle is required to be fit and installed around a porcelain floor sink. Gulley edge/angle cannot be used on wood substrates. See our flooring installation guide for more information on installing Altro gulley edge/angle on altro.com.

Examples of surface membrane clamping floor sinks:

- [Josam 45130](#)
- [Zurn Z1755](#)

10.3 Modifying an existing drain or cleanout

- Remove the drain strainer or cleanout cover plate.
- With a quality moisture tolerant and resistant patching compound, finish the subfloor flush with the drain perimeter.

NOTE: If drain body is higher than the concrete surface, it must be either ground-off or chipped out and lowered. If the drain body is lower than the concrete surface, you must slightly grind the concrete surface to allow for a slight slope-to-drain profile. Follow all applicable local, state, and federal regulations and laws pertaining to saw cutting, grinding, and patching work of concrete; all work is to comply with OSHA 3902 Respirable Crystalline Silica Standard.

- Using a small hand held electric grinder and/or bench grinder to slightly remove the square shoulder on the inside edge of the drain body to create a smoother edge into the drain. (See Diagram A.)
- Similarly, remove the square shoulder from the perimeter of the backside of the drain cover plate creating a 45-degree slope to match the drain body. (See Diagram B.)
- Replace the cover plate screws for the purpose of land marking the screw holes and preventing the adhesive from filling the holes during the gluing process.

Gluing and cutting process

- Apply adhesive on the floor, around, and onto the sloped perimeter of the drain.
- Place the Altro floor covering over the drain, and fit cut only to the inside diameter of the drain plate screws.

Note: Cutting to the outside of the screws will cause the material to be short of the drain plate once it is re-installed.

- Cut small windows in the Altro floor covering at the drain plate screws only.
- After all final fitting is completed, warm material with a hot air blower and secure the drain plate cover in place. This process pinches the Altro floor covering between the drain body and the drain plate cover. (See Diagram C, completed drain.)

Diagram A

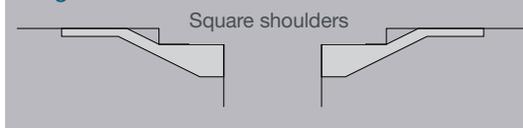
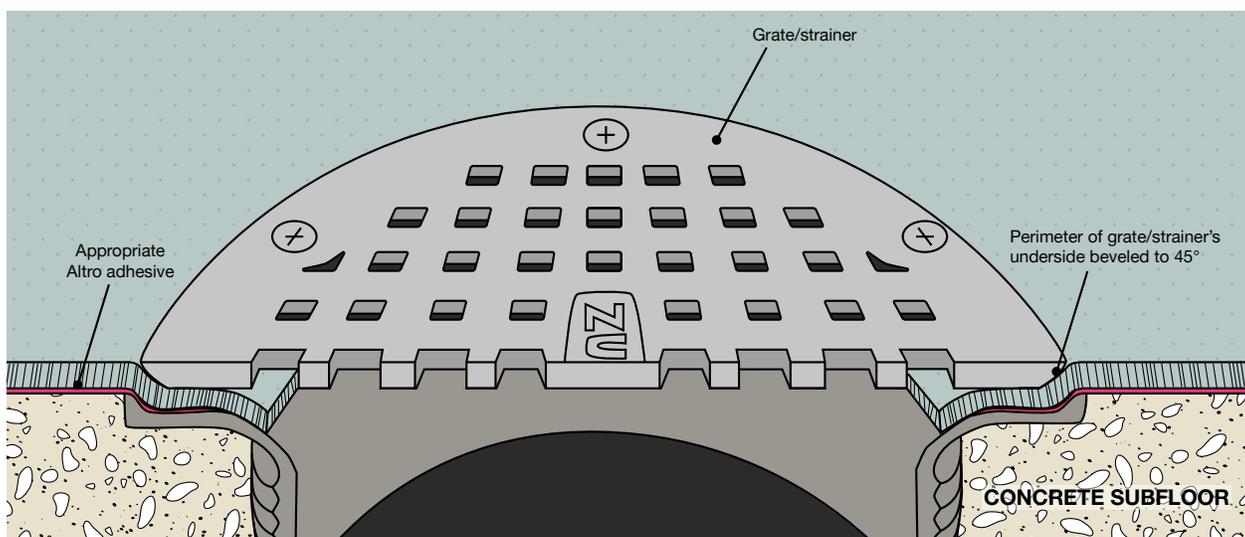
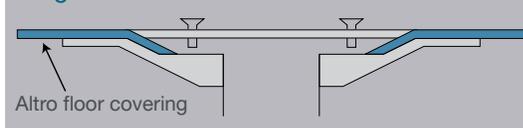


Diagram B



Diagram C



Note: In most cases, it will be necessary to weigh down the drain area to allow the adhesive to set-up.

Caution: Failure to weigh down the drain area during this process may cause a bubble or a pucker in the Altro floor covering, to which there is no remedy.

Approval from the General Contractor/owner must also be obtained before commencing with this procedure.

Altro floor covering must be mechanically fastened to all drain outlets and cleanouts to ensure a permanent watertight installation as outlined in this section.

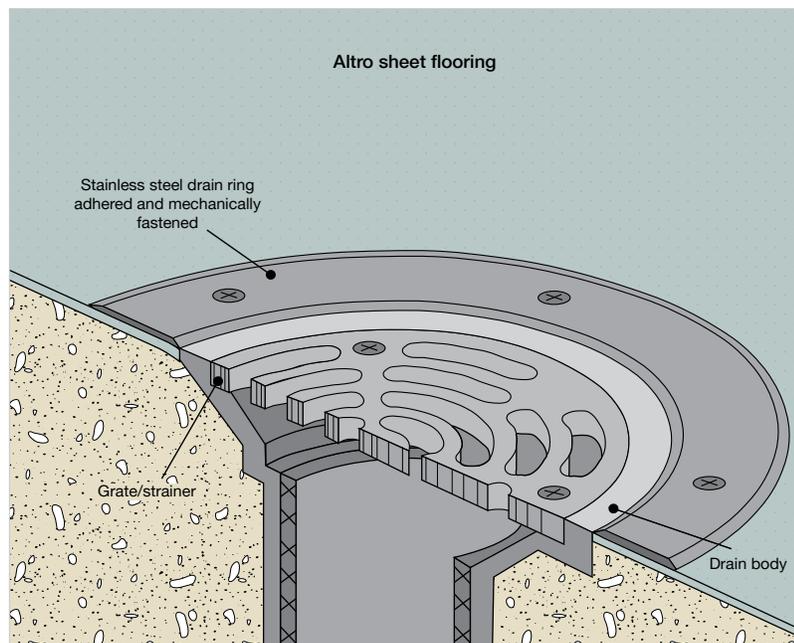
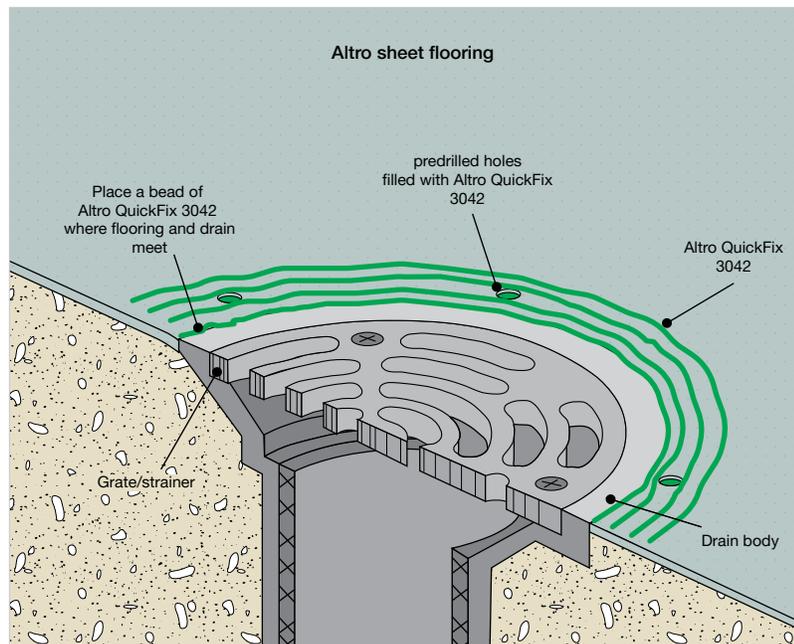
Notes

10.4 Installation of drain rings

Stainless steel drain rings can be used in conjunction with Altro flooring. The best option is to have surface membrane clamping style plumbing fixtures, secondly is to modify existing drains to become clamping style. The third option is to use the stainless steel drain rings which are to be sourced from others, not Altro.

When using stainless steel drain rings, the flooring must be cut net to the outer drain body without any gaps.

Drain ring must be mechanically fastened as well as adhered with Altro QuickFix 3042. Apply approximately 4 - 3/16" beads of Altro QuickFix 3042 continuously around the perimeter of the drain. One bead must be on the outer edge of the drain body and where the Altro floor abuts it. Predrilled holes for the drain ring fasteners must be filled with AltroFix MP600 also. Install the drain ring and firmly press into the adhesive. Tighten down the stainless steel fasteners. Clean and wipe up any excess adhesive that may have gotten on the flooring or the drain.

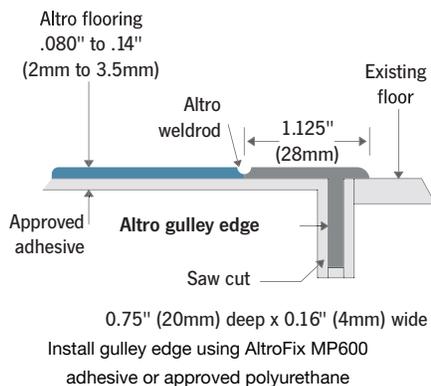


10.5 Installation of gully edge/ angle

Cutting the concrete

Saw cutting and gully edge and angle are not to be used in wood subfloors.

- Using a small hand held electric grinder, tuck point grinder, circular saw or other appropriate saw equipped with a diamond saw blade (wet type preferred), cut a 1" deep x 3/32nd" wide saw cut in the concrete substrate to receive the gully angle/edge. Two (2) passes may be necessary to achieve the correct width of groove unless the saw blade is 3/32nd" wide. Note: The use of wet type saw blade would, if used correctly, reduce the amount of airborne dust created



while cutting concrete. Dry cutting can be done if a dust recovery cutting system is utilized. In some instances using two blades side by side on the angle grinder to achieve the required width of the saw cut may be necessary to do this in one pass. The use of a wet sponge held beside the blade guard along with the use of a HEPA vacuum system must be used. *Follow all applicable local, state, and federal regulations and laws pertaining to saw cutting, grinding, and patching work of concrete; all work is to comply with OSHA 3902 Respirable Crystalline Silica Standard.

- If the area to be saw cut is in a doorway or abutting a wall, the saw/grinder will be unable to cut all the way to the door casing or wall. In this case a series of 1" deep holes may be drilled in the concrete substrate using a 3/32nd" masonry drill bit and then chiseled out to allow gully angle/edge to seat flush with the subfloor. You may also cut back the leg of the angle/edge to be inserted within 1" of the ends.
- If the area to be saw cut is at floor drains or trenches, the cut must be directly up against the drain or trench.
- On all types of cuts, it's helpful to use some form of straight edge or guide to create a straight saw cut allowing for a professional fit and finish.
- All water and concrete silt must be removed/vacuumed from the saw cut. The area in and around the saw cut must be allowed to dry completely before gluing can take place

Gluing process

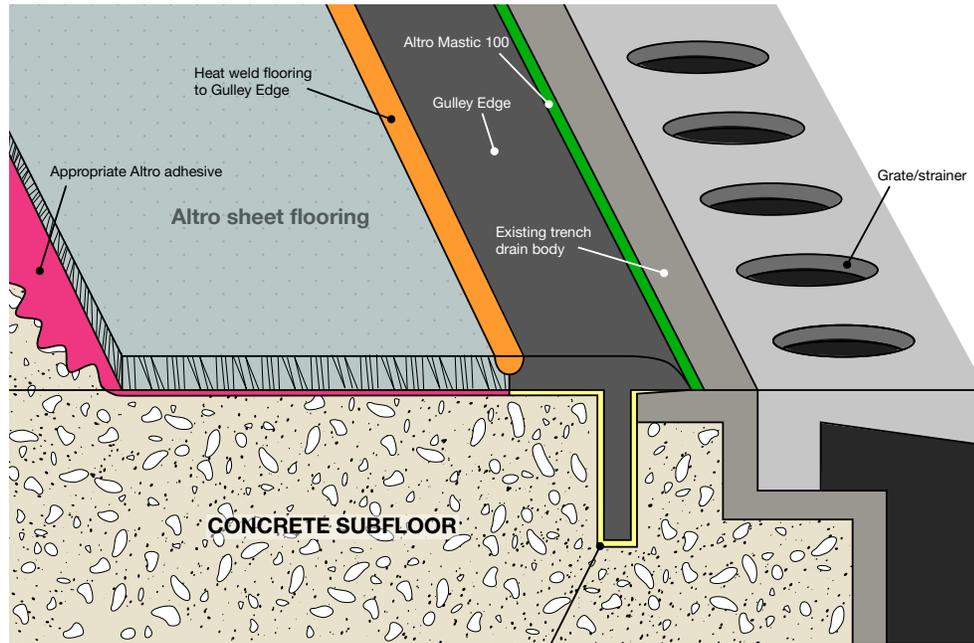
- Using masking tape, outline the outside of perimeters of where the Gully edge/angle will be installed, this will aid with the cleanup of excess adhesive after installing the gully edge.
- Apply Altro QuickFix 3042 on the floor and in the saw cut.
- Place the gully angle/edge into the saw cut making certain that the strip is completely embedded into the adhesive.
- Using a small scraper or putty knife, remove excess adhesive. If adhesive is on the surface of the gully edge, remove using a small amount of Isopropyl alcohol on a clean white rag. Note: Do not allow adhesive to dry on the gully edge. Once dry, the 2-part adhesive cannot be removed.
- It may also be necessary to weight down the gully edge until the adhesive has a chance to set-up. This will ensure that the strip is fully seated and without voids.
- Always allow the gully edge to set up in the adhesive prior to cutting and fitting the Altro safety flooring to the newly installed strip. The flooring material should be scribe fit to ensure a neat net fit seam for heat welding.

Welding process

- Heat-welding the new flooring to the edging must not be attempted until adhesive has cured.
- Groove gully edge and flooring as if it were a seam in the flooring material, gully edges are made of vinyl and weld just like the flooring material. Note: When hand grooving, always use a straight edge as a guide to achieve a straight groove.
- Clean all dirt and debris from grooved seam and weld as you would the Altro flooring material. If applicable, always weld mitered corners with a black rod. Note: Traditionally a black rod is used to weld the flooring to the gully edge. However, a rod color that matches the flooring material can also be used.
- Once the welding rod is allowed to cool (typically 30 minutes) trim with a sharp trimming knife using a trim plate for the initial cut followed by the trimming spatula for the final flush cut.
- Touch-up can be done using a hot tip repair tool or bullet tip repair tool.

Note: gully edge must be fully adhered both inside the saw cut groove and onto the substrate. All joints, flooring to gully edge as well as corners of the gully edge must be welded. Failure to do so may allow water to encroach compromising the integrity of the flooring and gully edge.

Notes



Altro Quickfix 3042 adhesive to be applied to concrete substrate and into saw cut to properly adhere Gully Edge

