



PLATINUM ROOFING PRODUCTS LTD.

RETROFIT ROOF DRAINS

1. Preparation Work

Remove existing Ballast Guard (if present), drain screen, control flow weir (if present). If mechanical drain has studs, cut them off so the new retro-fit drain will be flush to the new roof membrane. Ensure drain is free of debris.

Examine existing rain water leader to verify if any elbows will interfere with the new insert drain. If so, cut retrofit drain stem to suit existing rain water leader configuration. Verify that retrofit drain size is suited to the existing rain water leader size.

Insert Platinum Drain seal into stem of new retrofit drain. Tighten slightly to hold in place.

2. Built-up Roofing Membranes

Coat the top and bottom of the drain flange with asphalt primer. Allow to dry. Apply a continuous bed coat of asphalt mastic on the bottom side of the drain flange. Install the drain. Apply sufficient pressure to ensure a good seal with the roof membrane. Plug the drain with a rag or plumbers plug so roofing debris does not block the plumbing lines.

Apply a minimum of two (2) plies of No. 15 asphalt perforated felts in Type 2 asphalt followed by a single-ply of glass-fibre ply sheet. Cut opening in the roofing felt/ ply sheet for the drain throat size prior to installation. The first ply is to extend a minimum of 6" (152 mm) beyond outside flange of drain. Each additional ply shall extend a further 4" (102mm) beyond underlying flashing ply. Glaze coat with roofing asphalt.

Remove rag or plumbers plug from drain throat. Connect new drain stem to existing plumbing lines with a Drain Seal. Tighten screws uniformly to ensure a tight fit.

Install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

Ensure roof drains are clear of debris and free draining at project completion.

3. Modified Bitumen Membranes

If the base sheet membrane has a poly top film, burn off film with a roofing torch prior to installation of the roof drain.

Coat the top and bottom of the drain flange with modified asphalt primer. Allow to dry. Apply a continuous bed coat of asphalt mastic on the bottom side of the drain flange. Install the drain. Apply sufficient pressure to ensure a good seal with the roof membrane. Plug the drain with a rag or plumbers plug so roofing debris does not block the plumbing lines.

Install one ply of base sheet membrane over the drain flange. Cut opening in the base sheet 2' (52 mm) wider than the drain throat size prior to installation. Cut holes for the drain bolts. The base sheet is to extend a minimum of 6" (152 mm) beyond outside flange of drain. Install base sheet to manufacturer's recommendations (self-adhering, torch applied or hot applied). Apply sufficient pressure with a hand broom to ensure an adequate bond the drain flange and base sheet membrane.

Remove rag or plumbers plug from drain throat. Connect new drain stem to existing plumbing lines with a Drain Seal. Tighten screws uniformly to ensure a tight fit.

.Install cap sheet membrane over the drain flange. Cut opening in the cap sheet 2' (52 mm) wider than the drain throat size prior to installation. Cut holes for the drain bolts. Install cap sheet to manufacturer's recommendations. Apply a bead of modified mastic around each drain bolt.

After the installation of the modified cap sheet membrane, install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

Ensure roof drains are clear of debris and free draining at project completion.

Roof drains on PRMA roofs require the installation of the ballast guard.

4. Thermoplastic Polyolefin Single-Ply (TPO)

Cut hole in the membrane large enough to accommodate the drain stem. Ensure the top and bottom surface of drain flange are clean and not contaminated. Apply a continuous bed coat of water cut-off mastic / water stop on the bottom side of the drain flange. Install the drain. Apply sufficient pressure to ensure a good seal with the roof membrane. Plug the drain with a rag or plumbers plug so roofing debris does not block the plumbing lines.

.Cut at least a 3 foot x 3 foot piece of TPO membrane to be installed as a target patch over the drain flange with rounded corners. Cut a hole for roof drain opening to allow 0.5" (13mm) to 0.75" (19mm) of membrane to extend inside clamping ring past the drain bolts. Make holes in target patch to align with clamping bolts. DO NOT CUT MEMBRANE BACK TO BOLTS.

Install the target patch with no wrinkles or buckles. Mark outline of drain flange. Remove target patch and apply bonding adhesive to drain flange. Clean underside of TPO where drain imprint is noted. Apply Bonding adhesive to this area of the target patch. Apply water-cut off mastic / water stop to top flange of drain bowl where clamping ring seats.

Re-install target patch with no wrinkles or buckles over drain flange. Apply sufficient pressure to bond patch to drain flange. Clean membrane with membrane cleaner if required, to remove contamination at outside

perimeter of target patch. Heat weld target patch to field sheet membrane being careful not to overheat the membranes. Apply cut edge sealant to outside leading edges of patch.

Alternatively, if approved by membrane manufacturer, install field sheet TPO membrane directly over drain flange. Cut a hole for roof drain opening to allow 0.5" (13mm) to 0.75" (19mm) of membrane to extend inside clamping ring past the drain bolts. Make holes in field sheet to align with clamping bolts. DO NOT CUT MEMBRANE BACK TO BOLTS. Apply bonding adhesive to the drain flange and underside of TPO field sheet.

Remove rag or plumbers plug from drain throat. Connect new drain stem to existing plumbing lines with Drain Seal. Tighten screws uniformly to ensure a tight fit. Apply sufficient pressure to bond membrane to drain flange. Install a bead of water cut-off mastic / water stop at open leading edge of TPO membrane at drain throat.

Install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

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5. Ethylene Propylene Diene Monomer Single-ply (EPDM)

Install roof drain directly onto roof insulation. Apply primer to drain flange and roof insulation around perimeter of flange. Allow to dry to touch. Install a 6 inch wide strip of self-adhesive EPDM membrane centred over the outside edge of the drain flange. Apply sufficient pressure to adhere EPDM to drain flange and roof insulation.

Install field sheet EPDM membrane directly over drain flange. Cut a hole for roof drain opening to allow 0.5" (13mm) to 0.75" (19mm) of membrane to extend inside clamping ring past the drain bolts. Make holes in field sheet to align with clamping bolts. DO NOT CUT MEMBRANE BACK TO BOLTS. Apply bonding adhesive to the drain flange and underside of EPDM field sheet. Apply sufficient pressure to bond membrane to drain flange.

Remove rag or plumbers plug from drain throat. Connect new drain stem to existing plumbing lines with Drain Seal. Tighten screws uniformly to ensure a tight fit. Install a bead of water cut-off mastic / water stop at open leading edge of EPDM membrane at drain throat

Install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

Ensure roof drains are clear of debris and free draining at project completion.

Roof drains on PRMA roofs require the installation of the ballast guard.

NOTE: Control flow weirs are installed on roof drains if required by local, municipal, county or regional requirements. Structural analysis maybe required to ensure ponding water dead load does not exceed structural limitations.



PLATINUM ROOFING PRODUCTS LTD.

NEW CONSTRUCTION ROOF DRAINS

1. Built-up Roofing Membranes

Coat the top and bottom of the drain flange with asphalt primer. Allow to dry. Apply a continuous bed coat of asphalt mastic on the bottom side of the drain flange. Install the drain. Apply sufficient pressure to ensure a good seal with the roof membrane. Plug the drain with a rag or plumbers plug so roofing debris does not block the plumbing lines.

Apply a minimum of two (2) plies of No. 15 asphalt perforated felts in Type 2 asphalt followed by a single-ply of glass-fibre ply sheet. Cut opening in the roofing felt/ ply sheet for the drain throat size prior to installation. The first ply is to extend a minimum of 6" (152 mm) beyond outside flange of drain. Each additional ply shall extend a further 4" (102mm) beyond underlying flashing ply. Glaze coat with roofing asphalt.

Remove rag or plumbers plug from drain throat.

Install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

Ensure roof drains are clear of debris and free draining at project completion.

Roof drains on PRMA roofs require the installation of the ballast guard.

Plumber to install under deck drain clamp and M-J coupling to plumbing lines.

2. Modified Bitumen Membranes

If the base sheet membrane has a poly top film, burn off film with a roofing torch prior to installation of the roof drain.

Coat the top and bottom of the drain flange with modified asphalt primer. Allow to dry. Apply a continuous bed coat of asphalt mastic on the bottom side of the drain flange. Install the drain. Apply sufficient pressure to ensure a good seal with the roof membrane. Plug the drain with a rag or plumbers plug so roofing debris does not block the plumbing lines.

Install one ply of base sheet membrane over the drain flange. Cut opening in the base sheet 2' (52 mm) wider than the drain throat size prior to installation. Cut holes for the drain bolts. The base sheet is to extend a minimum of 6" (152 mm) beyond outside flange of drain. Install base sheet to manufacturer's recommendations (self-adhering, torch applied or hot applied). Apply sufficient pressure with a hand broom to ensure an adequate bond the drain flange and base sheet membrane.

Remove rag or plumbers plug from drain throat.

.Install cap sheet membrane over the drain flange. Cut opening in the cap sheet 2' (52 mm) wider than the drain throat size prior to installation. Cut holes for the drain bolts. Install cap sheet to manufacturer's recommendations. Apply a bead of modified mastic around each drain bolt.

After the installation of the modified cap sheet membrane, install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

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3. Thermoplastic Polyolefin Single-Ply (TPO)

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Install the target patch with no wrinkles or buckles. Mark outline of drain flange. Remove target patch and apply bonding adhesive to drain flange. Clean underside of TPO where drain imprint is noted. Apply Bonding adhesive to this area of the target patch. Apply water-cut off mastic / water stop to top flange of drain bowl where clamping ring seats.

Re-install target patch with no wrinkles or buckles over drain flange. Apply sufficient pressure to bond patch to drain flange. Clean membrane with membrane cleaner if required, to remove contamination at outside perimeter of target patch. Heat weld target patch to field sheet membrane being careful not to overheat the membranes. Apply cut edge sealant to outside leading edges of patch.

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Remove rag or plumbers plug from drain throat. Apply sufficient pressure to bond membrane to drain flange. Install a bead of water cut-off mastic / water stop at open leading edge of TPO membrane at drain throat.

Install clamping ring and tighten nuts to achieve constant compression. Install [control flow and] drain screen. Secure in place. [Close and tighten screw on Flip-top.]

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