

SECTION 07710
MANUFACTURED ROOF SPECIALTIES

PART GENERAL

SECTION INCLUDES

Roof drains for new roofing.

Roof drains for reroofing.

Roof drains for retrofitting into existing roof drains.

Roof vents and breathers.

Soil vent stack flashings.

RELATED SECTIONS

Section 07500 - Membrane Roofing.

Section 07510 - Built-Up Bituminous Roofing.

Section 07530 - Elastomeric Membrane Roofing.

Section 07550 - Modified Bituminous Membrane Roofing.

Section 07590 - Roof Maintenance and Repairs.

Section 15150 - Sanitary Waste and Vent Piping.

Section 15160 - Storm Drainage Piping.

SUBMITTALS

Submit under provisions of Section 01300.

Product Data: Provide manufacturer's standard details and installation instructions.

PROJECT CONDITIONS

Obtain Material Safety Data Sheets (MSDS) from manufacturer if

required.

PART PRODUCTS

MANUFACTURER

Provide prefabricated roof specialties fabricated by Marathon Roofing Products, Inc: 367 Nagel Drive, Buffalo NY 14225-4732; ASD. Tel: (716) 685-3340 or (800) 828-8424; Fax: (716) 685-1108.

Substitutions: Not permitted.

FLANGE/PIPE DRAINS

Marathon Premium Century Series Roof Drains:

Straight profile, solid copper construction.

Straight profile, solid copper construction, with clamping ring.

Funnel profile, solid copper construction.

18-inch (457 mm) diameter flange, 20 ounces per square foot (61 kg/sq m) copper.

Uncoated.

Primed for adhesion to asphaltic membranes.

PVC-coated, for heat welded membrane attachment.

Perforated copper gravel ring.

Strainer: 10-inch (254 mm) diameter, bolted down.

High density polyethylene.

Cast aluminum alloy.

Connections: Pipe size as indicated on the drawings.

Plain, 9-inch (228 mm) depth.

Plain, 15-inch (381 mm) depth.

Expansion coupler (Fernco) with stainless steel compression clamps; vertical or 90 degree outlet to suit project conditions, or as indicated.

PVC hub (Conectite) fitting, vertical outlet only to suit project conditions, or as indicated.

Marathon Economy Century Series Roof Drains:

Straight profile, solid copper construction.

14-inch (355 mm) diameter flange, 16 ounces per square foot (48.8 kg/sq m) copper.

Primed for adhesion to asphaltic membranes.

PVC-coated, for heat welded membrane attachment.

Perforated copper gravel ring.

Strainer: 5-inch (127 mm) diameter.

High density polyethylene.

Cast aluminum alloy.
Connections: Match pipe size O.D. as indicated on the drawings.
Plain, 9-inch (228 mm) depth.
Plain, 15-inch (381 mm) depth.
Expansion coupler (Fernco) with stainless steel compression clamps; vertical or 90 degree outlet to suit project conditions, or as indicated.
PVC hub (Conectite) fitting, vertical outlet to suit project conditions, or as indicated.

FLANGE/INSERT RETROFIT DRAINS

Marathon Diamond (75) Series Roof Drains:

Straight profile, solid copper construction. Flange: 14-inch (355 mm) diameter flange, 16 ounces per square foot (48.8 kg/sq m) copper for 2-inch (50 mm) through 4-inch (101 mm) drain sizes; 18-inch (457 mm) diameter flange, 20 ounces per square foot (61 kg/sq m) copper for 5-inch (127 mm) and 6-inch drain sizes.

Straight profile, solid copper construction, with bolted down clamping ring. Flange: 14-inch (355 mm) diameter flange, 16 ounces per square foot (48.8 kg/sq m) copper for 2-inch (50 mm) through 4-inch (101 mm) drain sizes; 18-inch (457 mm) diameter flange, 20 ounces per square foot (61 kg/sq m) copper for 5-inch (127 mm) and 6-inch (152 mm) drain sizes.

Straight profile, solid copper construction, with clamping ring. Flange: 14-inch (355 mm) diameter flange, 16 ounces per square foot (48.8 kg/sq m) copper for 2-inch (50 mm) through 4-inch (101 mm) drain sizes; 18-inch (457 mm) diameter flange, 20 ounces per square foot (61 kg/sq m) copper for 5-inch (127 mm) and 6-inch (152 mm) drain sizes.

Funnel profile, solid copper construction. Flange: 18-inch (457 mm) diameter flange, 20 ounces per square foot (61 kg/sq m) copper.

Flange coating:

Uncoated.

Primed for adhesion to asphaltic membranes.

PVC-coated, for heat welded membrane attachment.

Perforated copper gravel ring.

Strainer:

5-inch (127 mm) diameter for straight profile 2-inch (50 mm) through 4-inch (101 mm) drain sizes.

10-inch (254 mm) diameter for straight profile 5-inch (127 mm) and 6-inch (152 mm) drain sizes.

10-inch (254 mm) diameter for funnel profile drains.

High density polyethylene.
Cast aluminum alloy.
Connections: Pipe size as indicated on the drawings;
diameter sized to slip inside of existing drain piping.
Plain, 9-inch (228 mm) depth.
Plain, 15-inch (381 mm) depth.
Plain, 12-inch (304 mm) depth.
Plain, 18-inch (457 mm) depth.

FLANGE/EXPANSION-SLEEVE RETROFIT DRAINS

Marathon PROLINER Series.
Straight profile.
Straight profile, with clamping ring.
Funnel profile.
Flange: 18-inch (457 mm) diameter flange, 20 ounces per
square foot (61 kg/sq m) copper.
Uncoated.
Primed for adhesion to asphaltic membranes.
PVC-coated, for heat welded membrane attachment.
Perforated copper gravel ring.
Strainer: 10-inch (254 mm) diameter.
High density polyethylene.
Cast aluminum alloy.
Outlet: Malleable metal alloy. Pipe size as indicated on the
drawings; diameter sized to slip inside of existing drain piping,
with 1/4-inch (6 mm) maximum difference between existing
pipe I.D. and outlet O.D.

FLANGE/MECHANICAL-SEAL RETROFIT DRAINS

Marathon Copper-Tite Series Roof Drains:
Straight (CTS) profile.
Straight profile with clamping ring.
Funnel (CTF) profile.
Flange: 20 ounces per square foot (61 kg/sq m) copper.
Plain finish
Asphalt primed finish.
PVC-coated finish.
Flange size: 14 inches (356 mm).
Flange size: 18 inches (457 mm).
Strainer: Plastic.
Strainer: Aluminum.
Outlet: Copper outlet with 2-inch (51 mm) wide asphalt-
impregnated high density expanding foam compression seal.
Pipe size as indicated on the drawings; diameter sized to slip

inside of existing drain piping, with 1/4-inch (6 mm) maximum difference between existing pipe I.D. and outlet O.D.

Marathon ProSeal Series Roof Drains:

Straight profile.

Straight profile, with clamping ring.

Funnel profile.

Flange: 18-inch (457 mm) diameter flange, 20 ounces per square foot (61 kg/sq m) copper.

Uncoated.

Primed for adhesion to asphaltic membranes.

PVC-coated, for heat welded membrane attachment.

Perforated copper gravel ring.

Strainer: 10-inch (254 mm) diameter.

High density polyethylene.

Cast aluminum alloy.

Outlet: Copper outlet with elastomeric mechanical compression seal. Pipe size as indicated on the drawings; diameter sized to slip inside of existing drain piping, with 1/4-inch (6 mm) maximum difference between existing pipe I.D. and outlet O.D.

MECHANICAL DRAINS

Marathon ULRD (Utility Large Roof Drain): Injection molded PVC drain body with solvent-weld style outlet.

Marathon ULRD (Utility Large Roof Drain): Injection molded ABS drain body with solvent-weld style outlet.

Marathon RD-1: Epoxy-coated standard size cast iron drain body with no-hub style outlet.

Marathon RD-10: Epoxy-coated large size cast iron drain body with no-hub style outlet.

Construction:

Strainer: Molded polyethylene dome.

Strainer: Epoxy-coated metal dome.

Clamping ring: Epoxy-coated aluminum.

Underdeck clamp: Aluminum

Adjustable insulation extension flange: Match insulation thickness.

Bearing pan.

Waterproofing flange.

Flow-control device.

Flexible expansion coupling with stainless steel band clamps.

Pipe size as indicated on the drawings.

PARAPET SCUPPER DRAINS

Marathon RD-27.

Construction:

- Cast aluminum grate, body, and outlet.
- Reversible hub connection for 45 or 90-degree outlet.
- Angled grate.
- Flat grate.
- Red epoxy finish.
- Nickel bronze finish.

ROOF VENTS AND BREATHERS

Solar Powered Roof Vent: Marathon Sol-A-Vent; continuous-operation exhaust fan powered by 4 inch (100 mm) diameter photoelectric cell and battery.

- Battery: Rechargeable NiCad battery charged by cell capable of powering fan for 3 overcast days and nights.

- Minimum capacity: 900 cubic feet (25 cu m) per hour.

- Housing: Aluminum; flanged for flashing into roofing, adjustable pitch to adapt to sloped roofs.

- Cap: Same as housing.

- Cap: Chrome plated.

- Housing diameter: 8-3/4 inches (222 mm).

- Height: 8 inches (203 mm).

- Flange: Asphalt-coated.

Marathon Aluminum Insulvent:

- Heavy gage spun aluminum.

- Secured cap to prevent entry of wind-blown rain or snow.

- 4-inch (101 mm) diameter base opening.

- 10-3/4 inch (273 mm) diameter flange.

- Uncoated.

- Primed for adhesion to asphaltic membranes.

- PVC-coated, for heat welded membrane attachment.

- 8-1/2 inches overall height.

- One-way valve to prevent moisture re-entry.

- Two-way design to allow both exhaust and convective air movement to create equalized pressure.

- Expanded polystyrene foam insulation, to prevent condensation.

Marathon Aluminum MC (Medium Capacity) and LC (Large

Capacity) Vent:

Heavy gage spun aluminum.

Secured cap to prevent entry of wind-blown rain or snow.

MC: 8-inch (203 mm) diameter base opening and 10-inch (254 mm) diameter flange.

LC: 10-inch (254 mm) diameter base opening and 12-inch (304 mm) diameter flange.

Uncoated.

Primed for adhesion to asphaltic membranes.

PVC-coated, for heat welded membrane attachment.

MC: 6-1/2 inches (165 mm) overall height.

LC: 8 inches (203 mm) overall height.

One-way valve to prevent moisture re-entry.

Two-way design to allow both exhaust and convective air movement to create equalized pressure.

Expanded polystyrene foam insulation.

Marathon Aluminum SC Vent (Small Capacity):

Heavy gage spun aluminum.

Secured cap to resist vandals.

2-7/8-inch (73 mm) diameter base opening.

6-inch (152 mm) diameter flange.

Uncoated.

Primed for adhesion to asphaltic membranes.

PVC-coated, for heat welded membrane attachment.

4-1/4 inches (108 mm) overall height.

One-way valve to prevent moisture re-entry.

Two-way design to allow both exhaust and convective air movement to create equalized pressure.

Marathon Ex-Flow Insulation Vent:

High density polyethylene construction.

PVC construction.

Secured cap to prevent entry of wind-blown rain or snow.

5-1/4-inch (133 mm) diameter base opening.

10-1/2-inch (266 mm) diameter flange.

8 inches (203 mm) overall height.

One-way valve to prevent moisture re-entry.

SOIL VENT STACK FLASHINGS

Marathon High Security Vent Stack Flashing:

Lead-free, tamper-resistant construction.

Heavy gage spun aluminum.

7-inch (177 mm) diameter base opening; 4-inch (101 mm)

DWV pipe capacity with hub.

15-1/4-inch (387 mm) diameter flange.
15-1/4 inches (387 mm) overall height.

PART EXECUTION

EXAMINATION

Verify that dimensions are correct and substrate is in proper condition for installation. Correct unsatisfactory conditions before proceeding with installation.

Verify elevation of drain to provide positive drainage.

PREPARATION

Remove bitumen, gravel, debris, adhesives, etc., from existing drain and pipe inlet. Ensure that surface of drain and pipe inlet is clean and dry; employ hot air gun if necessary to remove moisture. Verify that I.D. of existing drain does not exceed O.D. of new outlet by more than 1/4 inch (6 mm).

Verify that deck opening is sufficient to accommodate the O.D. of connector. Where large existing drain bowl is encountered use funnel profile. If using new straight profile drain, provide support for the flange by installing 1/2 inch (12 mm) pressure-preservative-treated plywood, rigid high compressive strength insulation, or by filling bowl with spray polyurethane foam.

ROOF DRAIN INSTALLATION

Flange Drains:

Set flange in a full bed of mastic or adhesive, and mechanically fasten flange through roofing assembly to the deck.

Strip in drain flange in accordance with membrane manufacturer's instructions.

Do not allow flame of torch used to apply modified bitumen to come in contact with flange.

Hand tighten clamping ring with 7/16-inch (11 mm) hand wrench.

ROOF DRAIN OUTLET CONNECTIONS

Flange/Pipe Roof Drains:

Connect to piping in accordance with provisions specified in

Division 15.

Expansion connections: Hand tighten compression bands with torque wrench calibrated to 60 inch-pounds (759,600 N m).

Adjust if required to make water tight.

PVC hub fittings: Solvent weld using compatible solvent cement in accordance with manufacturer's instructions to achieve a water tight connection.

Flange/Sleeve Drains:

Set drain outlet inside of existing drain, using rubber type sealant and O-rings to ensure a water-tight connection between drain and existing pipe.

Flange/Expansion-Sleeve Drains:

Apply sealant to outlet and existing drain leader. Apply an additional amount to top inside of existing drain pipe. Spread sealant evenly around whole outlet, extending at least 5 inches (127 mm) up lower portion.

Set drain outlet inside of existing drain.

Expand malleable metal outlet at beginning at top of drain pipe and leaving 1 inch (25 mm) distance between expansions.

Use Proliner Expander Tool Kit with properly sized accessories.

Use 12 half-turns for 3-inch (76 mm) and 4-inch (101 mm) diameter drains, and 9 half-turns for 5-inch (127 mm) and 6-inch (152 mm) diameter drains. Verify that outlet has been sufficiently expanded to ensure a water-tight connection between drain and existing pipe. Adjust if necessary.

Flange/Mechanical-Seal Retrofit Drains:

Set drain outlet inside of existing drain.

Uniformly tighten the 3 seal screws until quite snug to ensure a water-tight connection between drain and existing pipe.

Mechanical Drains:

Connect to piping in accordance with provisions specified in Division 15.

Expansion connections: Hand tighten compression bands with torque wrench calibrated to 60 inch-pounds (759,600 N m).

Adjust if required to make water tight.

PVC hub fittings: Solvent weld using compatible solvent cement in accordance with manufacturer's instructions to achieve a water tight connection.

Parapet/Scupper Drains: Connect to piping in accordance with provisions specified in Division 15.

Install strainer domes.

ROOF VENT INSTALLATION

Existing Membranes: Remove bitumen, gravel, debris, adhesives, etc., from area to receive vent.

Core through membrane and insulation to deck.

Do not disturb vapor barrier, if any.

Set flange in a full bed of mastic or adhesive.

Strip in vent flange in accordance with membrane manufacturer's instructions.

Do not allow flame of torch used to apply modified bitumen to come in contact with flange.

SOIL VENT STACK FLASHING INSTALLATION

Set flange in a full bed of mastic or adhesive.

Strip in stack flange in accordance with membrane manufacturer's instructions.

Do not allow flame of torch used to apply modified bitumen to come in contact with flange.

CLEANING AND PROTECTION

Clean work area of debris associated with roofing specialties.

Protect finished work.

END OF SECTION