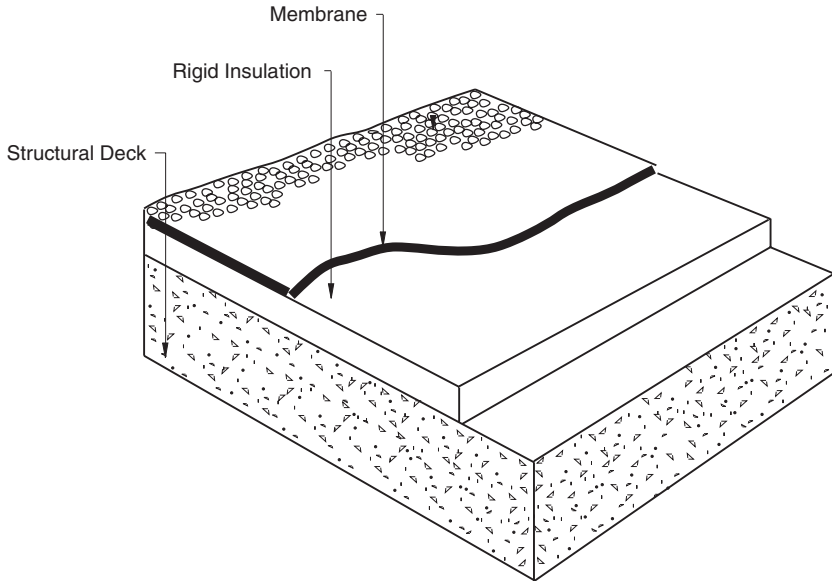
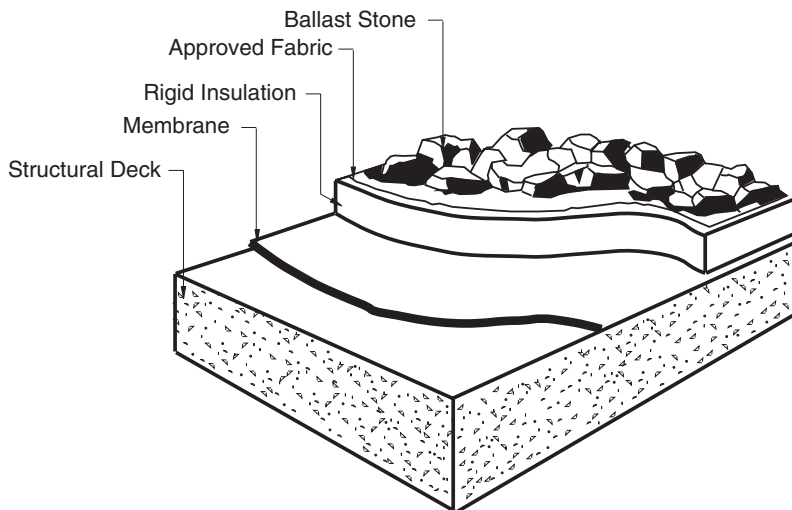


# SPECIFICATION ROOF DRAINS FOR CONVENTIONAL AND IRMA ROOFS FOR NEW CONSTRUCTION AND RE-ROOFING PROJECTS



❧ CONVENTIONAL ROOF ❧

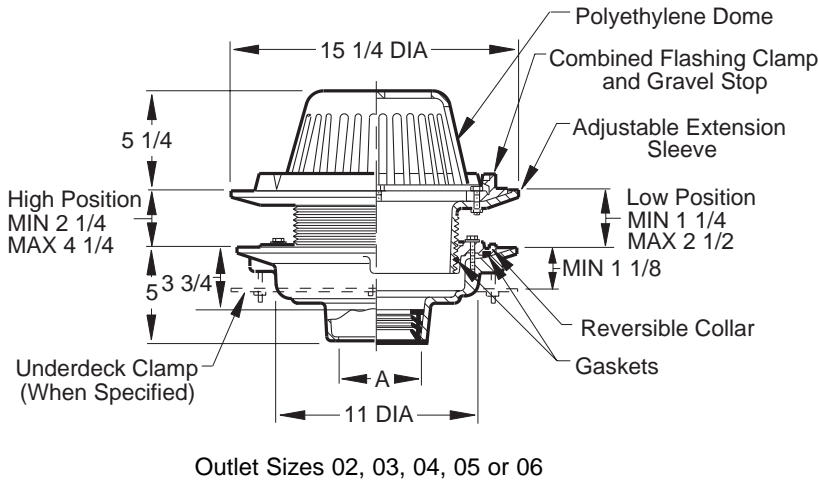


❧ IRMA ROOF ❧

 <b>SMITH</b> <sup>®</sup> <small>CUSTOMER DRIVEN</small>	<p><b>JAY R. SMITH MFG. CO.</b><sup>®</sup>          DIVISION OF SMITH INDUSTRIES, INC.          POST OFFICE BOX 3237          MONTGOMERY, ALABAMA 36109-0237 (USA)          TEL: 334-277-8520 FAX: 334-272-7396 <a href="http://www.jrsmith.com">www.jrsmith.com</a></p>	 <b>ASPE</b> <sup>®</sup>	 <b>FPI</b> <sup>®</sup> <small>FLUOROPOLYMER INSTITUTE</small>	 <b>IBR</b> <sup>®</sup> <small>INTERNATIONAL BUILDING REPAIR</small>
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# CONVENTIONAL ROOF SYSTEM INSULATED DECK WITH B.U.R. OR SINGLE PLY MEMBRANE

**Fig. 1015-R-C**



## ROOF DESCRIPTION

**Structural Deck:** Corrugated metal deck, gypsum or pre-cast concrete.

**Insulation:** Rigid sheet. Thickness as specified.

**Membrane:** Built-up roofing (B.U.R.) or single ply (E.P.D.M.) membrane

Flashing around drain as specified.

## REGULARLY FURNISHED:

Duco cast iron body, lower collar, adjustable extension and clamping collar; polyethylene dome; galvanized steel sump receiver -R and aluminum split ring type underdeck clamp -C.

## OPTIONS:

T Thread

Y NO-HUB

L Speedi-Set Service Weight (02, 03 & 04" sizes only)

LXH Speedi-Set Extra Heavy (02, 03 & 04" sizes only)

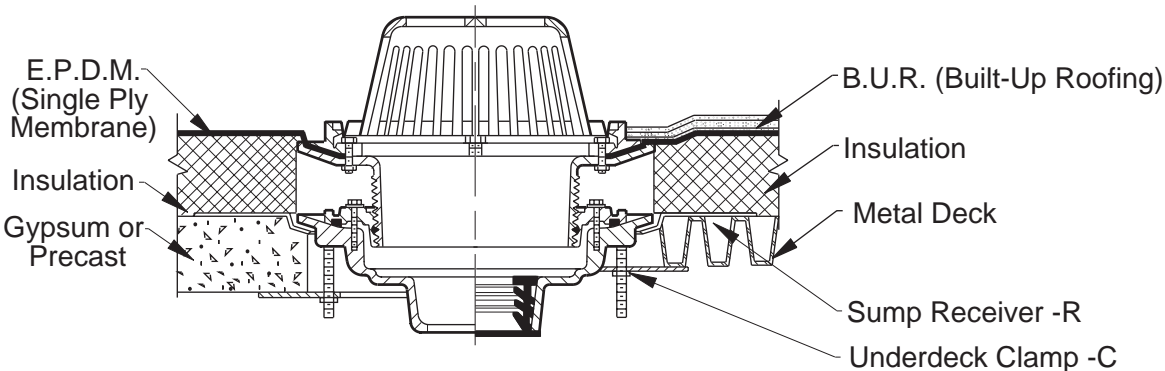
"L" Shaped Underdeck Clamp (for deck less than 1" thick)

Vandal Proof Dome

**NOTE:** Sump receiver -R and underdeck clamp -C are essential accessories which insure proper installation. Use on all installations except for poured in-place decks. Poured in-place insulated use 1015, uninsulated use 1010.

## TYPICAL INSTALLATION

**FIG. 1015-R-C**



## INSTALLATION INSTRUCTION (1015-R-C)

- (1) Cut 17" dia. hole in deck. Always locate roof drain at low point in area served.
- (2) Set sump receiver plate over hole. Plate is 24" x 24" and will cover over-sized or irregular hole.
- (3) Drop roof drain body in recess of sump receiver. Screw the 4-5/16 x 6 studs into bosses under flange of drain body before dropping into receiver.
- (4) Attach underdeck clamp as shown at underside of deck. **NOTE:** Underdeck clamp is split-ring design and may be installed after conductor pipe is connected to drain, if required.
- (5) Bolt lower collar to drain body. Use gasket provided. Collar is reversible, low position for insulation 1 1/4" to 2 1/2" or high position for insulation 2 1/4" to 4 1/4".
- (6) Insert 1/4" dia. "O" ring in groove at inside diameter of lower collar.
- (7) Thread adjustable extension into lower collar. Adjust to height required. (Flange on extension should be flush or slightly lower than insulation).
- (8) If lead or other flashing material is specified, set on upper flange before membrane course is installed.
- (9) Membrane should be run onto flange of extension to inside diameter of drain body.
- (10) Clamp membrane with the combined flashing clamp and gravel guard.
- (11) Install dome and lock in place.

# IRMA ROOF SYSTEMS

## (INSULATED ROOF MEMBRANE ASSEMBLY)

### USING B.U.R. OR E.P.D.M. MEMBRANE

**Fig. 1017-R-C**

#### ROOF DESCRIPTION

**Structural Deck:** \*Corrugated metal, gypsum or pre-cast concrete. \*NOTE: On corrugated metal decks, hardboard or similar sheet is installed under membrane layer.

**Insulation:** Rigid Insulation

**Membrane:** Built-up roofing or single ply membrane. Set on top of deck.

**Ballast:** Crushed stone or gravel or ballast pavers.

#### REGULARLY FURNISHED:

Duco cast iron body, perforated stainless steel extension with cast iron flange, cast iron clamping collar and polyethylene dome, galvanized steel sump receiver -R and aluminum split ring type underdeck clamp -C.

#### OPTIONS:

T Thread

Y NO-HUB

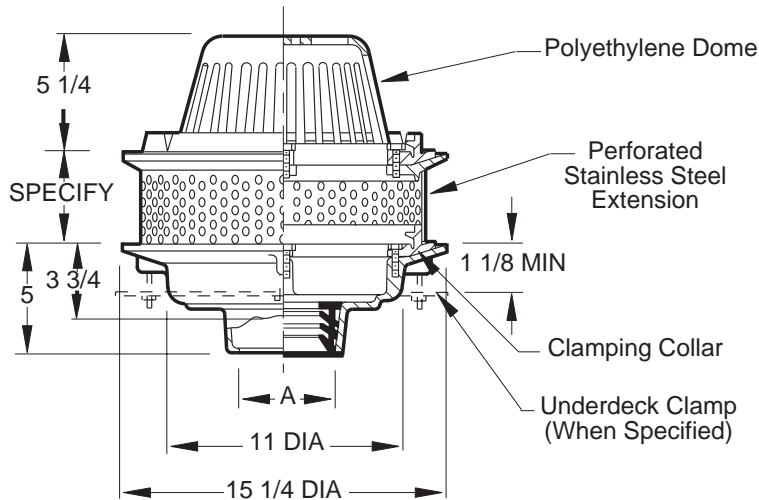
L Speedi-Set Service Weight (02, 03 & 04" sizes only)

LXH Speedi-Set Extra Heavy (02, 03 & 04" sizes only)

Vandal Proof Dome

Higher Gravel Guard

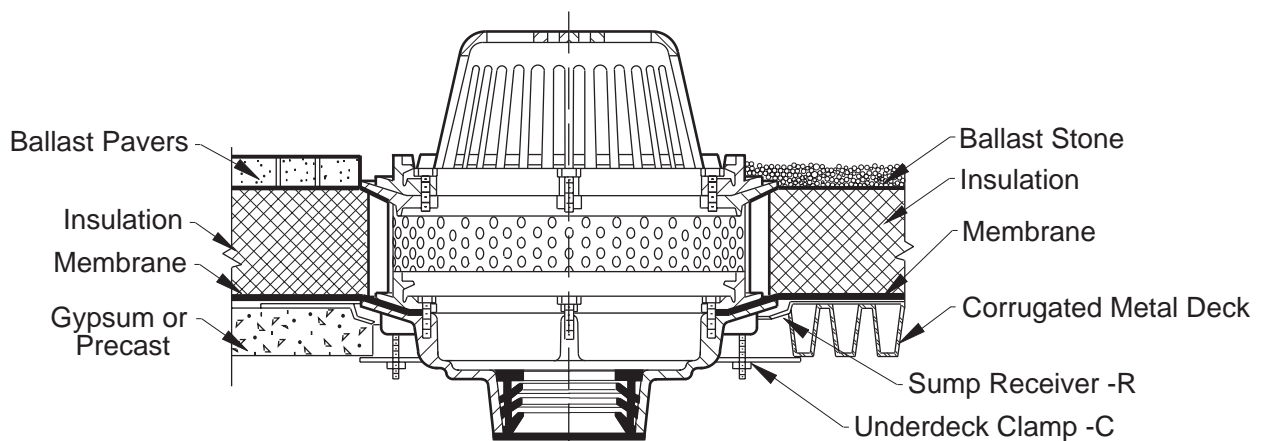
**NOTE:** The 1017-R-C roof drain is furnished with a perforated stainless steel fixed height extension. Extension height required must be verified and included on order.



Outlet Sizes 02, 03, 04, 05 or 06

## TYPICAL INSTALLATION

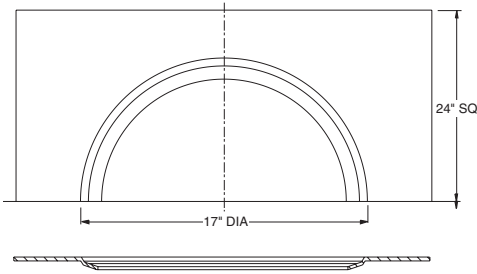
**Fig. 1017-R-C**



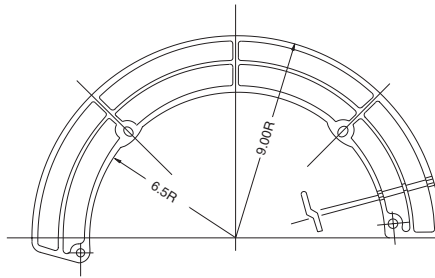
#### INSTALLATION INSTRUCTION (1017-R-C)

- (1) Cut 17" dia. hole in deck.
- (2) Set sump receiver plate over hole.
- (3) Drop roof drain body in recess of sump receiver. Screw the 4-5/16 x 6 studs into bosses under flange of drain body before dropping into receiver.
- (4) Attach underdeck clamp -C as shown on underside of deck. **NOTE:** Underdeck clamp is split-ring design and may be installed after conductor pipe is in place.
- (5) Membrane should be run into body flange.
- (6) Clamp membrane using the combination perforated extension and clamp ring.
- (7) Install dome in upper collar. Lock in place.

# ROOF DRAIN ACCESSORIES



**Sump Receiver**  
Suffix "R"  
Material - Galvanized Steel



**Underdeck Clamp**  
Suffix "C"  
Material - Aluminum

## Roof Drain Accessories

**NOTE:** A sump receiver -R and underdeck clamp -C should always be installed, except in poured in-place decks.

Sump receiver has formed recess that receives the drain body flange. When properly installed, the drain body is set level and at low point. Weight of drain and piping is evenly distributed in receiver recess.

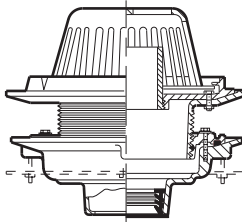
The underdeck clamp, installed with the sump receiver make drain become part of the structural deck. Thus drain will not move or pull away due to expansion or contraction of deck.

# OVERFLOW DRAINS

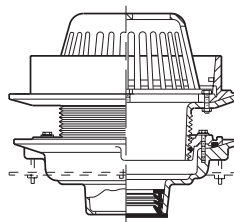
## Overflow Protection

Building codes mandate that roofs enclosed by parapet wall must have overflow protection to guard against stoppage of the primary drains. Many buildings use scuppers in parapet wall for overflow protection. When scuppers are architecturally undesirable or physically not practical, Smith offers overflow roof drains which will satisfy this emergency function. Installation is the same as the primary drains. Building and plumbing codes must be checked to determine where overflow drains are located and how overflow discharge is piped into drainage system.

### CONVENTIONAL ROOF SYSTEM

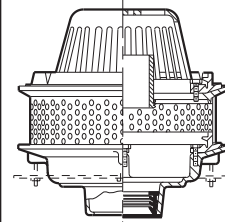


**Fig. 1074**

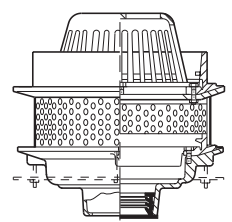


**Fig. 1045**

### IRMA ROOF SYSTEM



**Fig. 1070**  
w/Perforated  
C2 Extension



**Fig. 1080**  
w/Perforated  
C2 Extension

# RE-ROOFING SUGGESTIONS

- (1) Many re-roofing specifications call for stripping all roof material and insulation down to top of structural deck. When this is done, it is wise to consider installing new roof drains that are compatible with the new roofing system specified. (See 1015-R-C and 1017-R-C pgs. 2 & 3).
- (2) Always check to determine:
  - Are additional drains needed?
  - Are all low spots being adequately drained?
  - Is proper overflow protection in place?
- (3) Follow roof membrane manufacturers instructions and recommendations regarding:
  - Type of flashing required (if any).
  - Recommended sealers or other material used with membrane at roof drain.
- (4) Liquid Membrane - Consult Smith Engineering for recommendations. Wide flanged roof drains are available for bonding liquid membranes.
- (5) Traffic and Recreational Roof Decks - Smith has a wide selection of roof deck drains with flat grates for use with all types of roof deck construction. Consult Smith sales engineering department for regular and unusual applications. List exact sequence of deck construction layers, including thickness of layers and location of membrane(s), or submit a drawing of roof cross section.

**CONSULT SMITH SALES ENGINEERING DEPARTMENT FOR UNUSUAL, NEW OR RE-ROOFING APPLICATIONS**



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