

SECTION 077200

ROOF ACCESSORIES

1.1 Section Includes

- A. Pipe and Duct Penetrations in Roofing

1.2 Related Sections

- A. 077000 Wall Vault, 221010 Plumbing Pipe Enclosure 230531 HVAC Pipe Enclosure, 262716 Electrical Enclosure, and 271116 Communication

1.3 References

- A) ICC-500, FEMA 320/361 – Third Party Tested to +225 mph
- B) ICC 2015 Energy Code – Third Party Tested to ASTM E 2078-13
Standard Test Method for Air Permeance of Building Materials
- C) ASTM E 1980 Solar Reflectance Index (SRI)
- D) FEMA P749 – Seismic Provisions

1.4 Submittals

- A) Submit under provisions of Section 01 30 00 – Administrative Requirements
- B) Product Data: Manufacturer's Data Sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations
 - 2. Installation methods
- C) Shop drawings: physical size, installation and working space required.
- D) Proof of Product Liability Insurance
- E) Third Party Testing Identification for Wind and Air Permeance Levels

1.5 Quality Assurance

- Manufacturer – Product to be manufactured by an ISO 9000 Facility

1.6 Delivery, Storage, and Handling

- A) Deliver and Store Products in Manufacturer's Original Packaging Bearing the Brand Name and Manufacturer's Identification until Ready for Installation.
- B) Handle Materials to Avoid Damage. Protect From Construction Conditions

1.7 Warranty

- A) Product to Carry a 20-Year Limited Insured Warranty

1.8 Acquisition of Material

- A) General Contractor to Purchase the Vault®
Roofing Contractor to Install the Vault®
Electrical or Mechanical Trade to Purchase and Install the Appropriate Exit Seal or Duct Installation fitting. Please Consult Website or Instructions in Packaging for Installation Instructions. General Contractor to Coordinate Installation Between Roofer & MEP Trades.

2.1 Manufacturers

A) Acceptable Manufacturer: Roof Penetration Housings, San Antonio, Texas
1-800-994-0945, TomK@Roofpenetrationhousings.com or
www.Roofpenetrationhousings.com

B) Substitutions – See Section 016000

2.2 The Vault®

A) Product: The Vault® by Roof Penetration Housings

B) Construction:

1. 0.080 inch (2mm) thick aluminum housing and curb
2. UV protected powder coated finish (2 mil (.05 mm) thick)
3. Stainless Steel. V.P. fasteners
4. Gasketed lid to housing and housing to curb connection joints to ensure compliance to ICC 2015 Air Permeance Levels
5. Standard Color: Beige – To meet an initial SRI of 85 (White available for SRI 100)
6. Seismic Available upon request. Seismic calculations, conditions to be furnished to RPH by engineer
7. Constructed to withstand wind to 225+ MPH, third party tested.

C) Style & Sizes TWO MODELS AW SERIES AND THE AWI SERIES

1. Series AW Vault – All Aluminum Construction, Zero Plastic, Wind rated to +225 mph and pre-insulated (R-2 for Condensate) V.P./S.S. Fasteners meets ICC 2015 Energy Code for Air Permeance Levels. The curb is not insulated.
 - a) Mini-Tower Vault®
Model: **AW-121022**
L- 12" W- 10" H-22"
Designed for electrical power switch/disconnects and small satellite dish mounts
 - b) Small Vault®
Model: **AW-161010**
L- 16 ½" W- 9 ¾" H- 10"
Designed to small AC Condensing Units up to 7 ½ tons. Accommodates up to 1.9 OD pipes/conduits/telecommunication cables. Designed for a power conduit, control conduit, liquid line and suction line.
 - c) Medium Vault®
Model: **AW-201412**
L- 20 ½" W- 14 ½" H – 12"
Accommodates multiple pipes/conduit/telecommunication cables to the roof. Designed for 4 condensing units (two on each side) up to 16 Series 5000 Exit Seals
 - d) Mega Vault®

Model: **AW-343424**

L – 34" W – 34" H – 24"

Allows for a wide variety of installation choices, including multiple AC units, larger pipe diameters, large electrical disconnects and ducts up to 30+ Series 5000 Exit Seals

e) Custom – Consult Factory – 1-800-994-0945

NOTES:

Sizes given above for Housing only. To calculate total size, add 11" for total height, (14" for curb less 3" overlap). Exit Seal capacities are dependent on size of seals required. Examples are for 5000 Series Exit Seal.

Products shown may not reflect current design refinements. Dimensions may vary

2) Series AWI – Same as AW Series w/Pre-Insulated curb, 6" Thick, R-40 Factor, to meet ICC – 2015 Energy Code. (The AWI model allows the A/E to comply with new Building Envelope Requirements to ensure that the complete envelope is insulated to Energy Code Regulations for every area in the country with one insulated curb.)

a) Small Vault®

Model: **AWI-161010**

L – 16 ½" W – 9 ¾" H – 10"

b) Medium Vault®

Model: **AWI-201412**

L – 20 ½" W – 14 ½" H – 12"

c) Mega Vault®

Model: **AWI-343424**

L – 34" W – 34" H – 24"

NOTES:

Sizes given above for Housing only. To calculate total size, add 11" for total height, (14" for curb less 3" overlap)

Exit Seal capacities are dependent on size of seals required. Based on Series 5000.

Products shown may not reflect current design refinements. Dimensions may vary

AWI Includes all AW components plus the ICE Pre-Insulated curb extension. Aluminum Extension between housing and curb is 7" wide on each side of Vault® to accommodate 6" Insulation (R-40 Rating) supplied by RPH on the outside of the curb, +1" to accommodate roofing material.

NOTE: Sizes above – housing only – Specifier to choose
14" or 18" curb (18" recommended for AWI Series)
Add curb height to housing height less 3" for overlap

3. Exit Seals

1. Design: Weather tight seal for vertical surface/plane penetrations. Seal construction to be manufactured in all aluminum construction and 100% Sil-X-14 silicone gaskets.
 - a. Series 5000 - .25" to 1.90"
Series 6000 – 2" to 3.125"
Series 7000 – 3.5" Large Diameter Double Gasketed inside and out
 - b. Penetration Pipe Type as Applicable: Copper K and L, copper ACR, steel Schedule 40, PVC Schedule 40 and 80, electrical EMT, electrical rigid, aluminum, liquid light, and A/C or Plumbing Ducts

4. Satellite Dish Support (SDS) Used w/Medium or Mega Vault®. Includes Vault® Plus One 1-1/2" aluminum support for Satellite Dish and One non-Penetrating Roof Support for Dish, unit mechanically fastened inside the Vault® on roof deck.

5. Electrical Disconnect Support (EDS)
Same as above w/2 aluminum support legs and uprights. Can support multiple breaker/disconnect boxes.

All Unistrut, fasteners, and electrical disconnect/breaker box by others

PART 3 EXECUTION

5.1 Examination

- A) Inspect substrate for readiness

5.2 Preparation

- A) Clean surfaces thoroughly prior to installation

5.3 Installation

- A) Install in accordance with manufacturer's instructions
- B) Curb & Unit installed by Roofing Contractor

5.4 Protection

A) Protect installed products until completion of project