

SECTION G
RELIEF VENTS

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WHAT IT TAKES TO BE THALER OR EQUAL

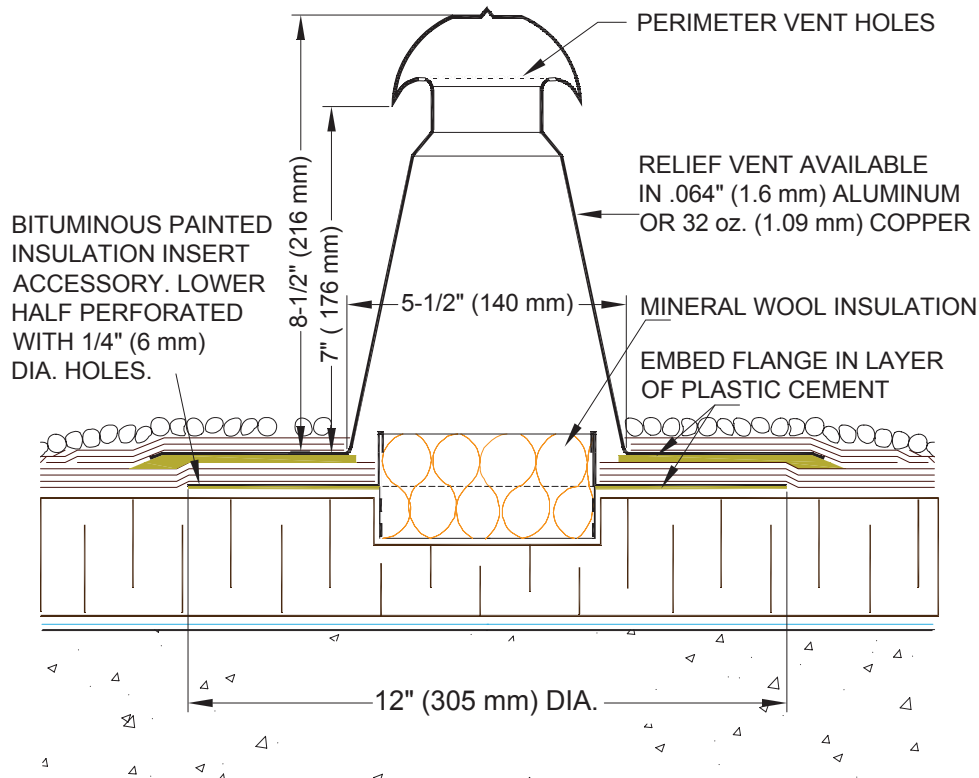
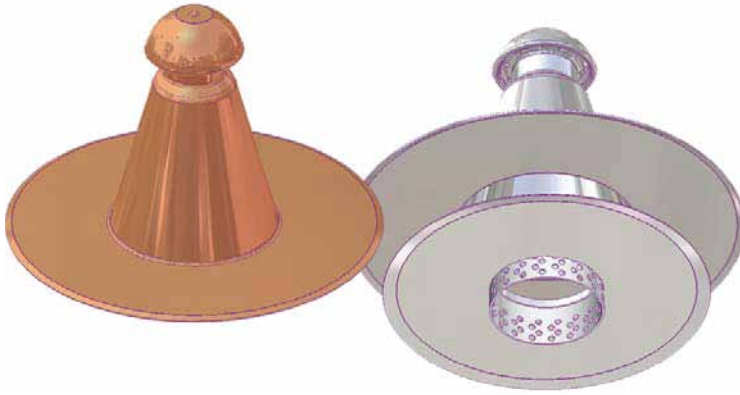
When specifications read Thaler or Equal, it is the responsibility of specifiers and building owners to determine what it means to be “Or Equal”. The following data has been presented to quickly help assess the comparative merits of “competitive” products. Thaler Relief Vents products have a number of Value Added features that should be considered when trying to equate the “Or Equal”.

CHECK THE COMPETITION

THALER VALUE ADDED FEATURES

- | | | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Injection molded urethane insulation (where applicable); adhered to inner side of sleeve without air pockets. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Treated deck flange; can be PVC coated for proper weld of PVC membrane, contact cement coated for EPDM, or bituminous painted for proper adhesion of BUR or ModBit membrane. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Material options and thicknesses; available in .064" (1.6 mm) mill finish 1100-0T Alloy aluminum, .032" (0.831 mm) 24 oz. copper, or 0.043" (1.09 mm) 32 oz. copper. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 20 year Warranty; guaranteed against leaks and defects in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Specially shaped vent top; hood configuration facilitates draining of any condensation via the perimeter vent holes. Note: condensed or leaking water drops can pose a threat to built-up membranes, or to ceilings. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Effectively reduces blisters, buckles and splits; Thaler relief vents, specified over and over again for 30 years, relieve vapour pressure generated under heated roof surfaces with faulty or improperly installed vapour retarders (and even good retarders) or damp building materials (prevents sealing of moisture in roof). |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Available with one-way vent; RV-3 relief vents are equipped with EPDM diaphragm which prevents exterior air from entering vent - for critical or sensitive environmental applications e.g. refrigerated interiors. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ideal retrofit vent; in "wet" roofs if the source of wetting can be eliminated, and the insulation is not soaked and has not deteriorated, Thaler vents, offering easy installation, can achieve some drying. This is preferable to replacing the roof - and may be the only course of action for some process-type buildings where the owner does not wish to have the roof opened for replacement. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | No moving parts; static-type insert accessory with mineral wool insulation facilitates escape of moisture trapped in roof. Metal upstand on insert holds back any water penetrating the membrane. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Virtually Maintenance-free; RV-1 models do not require any maintenance, however RV-2 models have removable hood for checking vent space condition. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Written "Installation Instructions"; provided with every Thaler product. |

ROOF SPECIALTIES RV-1A/-RV-1C TWO WAY RELIEF VENT



RV-1A ALUMINUM TWO WAY RELIEF VENT RV-1C COPPER TWO WAY RELIEF VENT PATENTED

INSTALLATION:

"Installation Instructions" are provided with every Thaler product. Essentially, Thaler Relief Vents are installed at recommended spacing by first cutting out the insulation to a depth of 1" (25 mm) x 3-1/2" (89 mm) diameter to accommodate the insert accessory. Then place the insert, dry, over an insulation joint (T joint is best). Note: if using a channel vent insulation, cut insulation right through to channel vent.

BUR: Install membrane over insert accessory deck flange. Then set relief vent deck flange in layer of plastic cement over membrane and flash in with 3 overlapping layers of felt flashing.

ModBit: Install membrane over insert accessory deck flange. Torch membrane until bitumen is fluid and set relief vent deck flange into fluid. Flash in flange with two overlapping layers of ModBit and seal with asphalt sealer.

Single Ply: Install membrane over insert accessory deck flange and weld membrane to coated deck flange. Note: for PVC membrane, specify PVC coated deck flanges by adding suffix P to end of model number e.g. RV-1A-P; weld roofing to deck flange using PVC torch. Set relief vent deck flange in layer of membrane adhesive and flash in with single ply as per membrane manufacturer's recommendations. Note: for EPDM, coat deck flanges on site with contact cement before torching membrane to both insert accessory and relief vent deck flanges.

Ordering and Availability: Specify flashing material required by adding appropriate suffix to model number e.g. RV-1A, for aluminum, etc. Available throughout North America. Contact Thaler for list of distributors and current cost information. Most products are readily available from stock.

DESCRIPTION:

Thaler RV-1 Relief Vents consist of a metal vent with integral deck flange, and a specially designed insert accessory (filled with loose mineral wool insulation at factory) that aids in venting any moisture vapour accumulating in the roof assembly. Available in aluminum (RV-1A), and copper (RV-1C),

SPACING:

One vent per 1000 sq.ft. (92.9 m²) of roof is recommended.

PROMINENT FEATURES:

Helps prevent ridging, buckling and blistering of roof membrane by permitting the escape of moisture vapour, other gases and their resultant pressure to the ambient air. Hood configuration facilitates draining of any condensation via the perimeter vent holes. Upstand on insert accessory acts as a "dam" in the event exterior water is able to penetrate membrane/deck flange interface. Helps keep insulation dry.

RECOMMENDED USE:

Suitable for all flat/low slope roofs. Primarily designed for built up roofing (BUR) and modified bitumen roofing, or single ply roofs providing the deck flange has been treated for proper weld with the single ply e.g. PVC coated deck flange for PVC membrane or contact cement coated deck flange for EPDM membrane. Consult Thaler representative for other single plys.

WARRANTY:

20 year warranty against defects in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". Copy of Warranty Certificate available upon request.

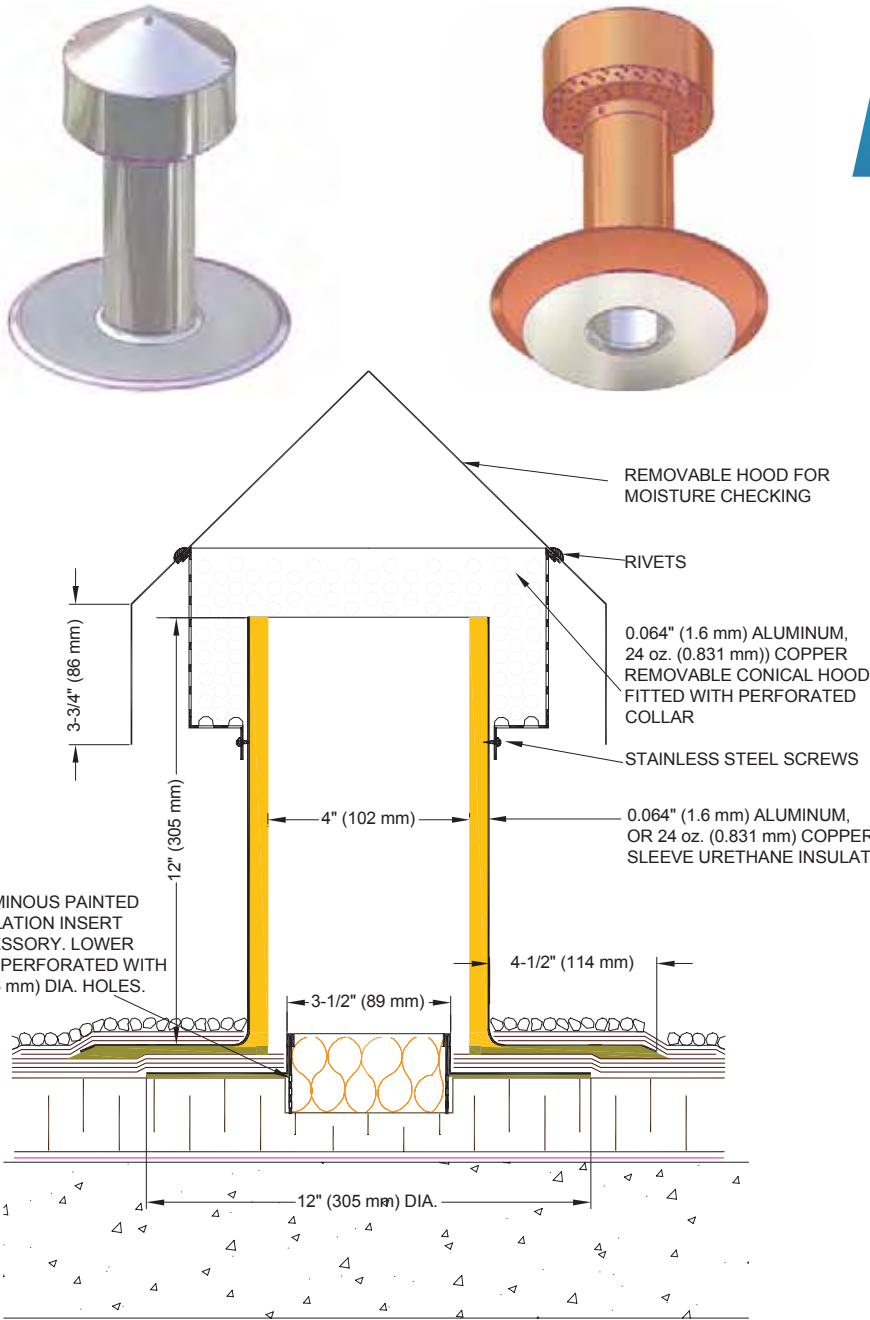
MAINTENANCE:

No maintenance required (maintenance free).

SPECIFICATION (SHORT FORM):

Relief vents: Thaler [RV-1A] [RV-1C] relief vent consisting of [.064" (1.6 mm) mill finish 1100-OT alloy aluminum] [.043" (1.09 mm) 32 oz. copper] with perimeter vent holes and .064 (1.6 mm) aluminum insulation insert accessory having loose mineral wool filler and lower half perforated with 1/4" (6 mm) dia. holes; 8-1/2" (216 mm) high; [bituminous painted deck flanges] [PVC coated deck flanges] [plain deck flanges]; manufactured by Thaler Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (New Braunfels, TX), installed as per manufacturer's written instructions. Provide 20 year warranty against defects in materials and/or manufacture.

ROOF SPECIALTIES RV-2A/-RV-2C RELIEF VENT



DESCRIPTION:

Thaler RV-2 Relief Vents consist of a metal vent with integral deck flange, removable conical hood fitted with perforated collar, thick premolded urethane insulation, T-8 bitumen protection sleeve, mineral wool insulation that aids in venting any moisture vapour accumulating in the roof assembly. Available in aluminum (RV-2A), and copper (RV-2C).

SPACING:

One vent per 1000 sq.ft. (92.9 m²) of roof is recommended.

PROMINENT FEATURES:

Helps prevent ridging, buckling and blistering of roof membrane by permitting the escape of moisture vapour, other gases and their resultant pressure to the ambient air. Hood configuration facilitates draining of any condensation via the perimeter vent holes (note: insulated sleeve is superior to RV-1 vents with regard to preventing condensation). Upstand on insert accessory acts as a "dam" in the event exterior water is able to penetrate membrane/deck flange interface. Helps keep insulation dry. Hood is removable for checking vent space condition e.g. dryness of roof or presence of moisture. Perforated collar prevents the entry or nesting of birds etc.

RECOMMENDED USE:

Suitable for all flat/low slope roofs. Primarily designed for built up roofing (BUR) and modified bitumen roofing, or single ply roofs providing the deck flange has been treated for proper weld with the single ply. e.g. PVC coated deck flange for PVC membrane or contact cement coated deck flange for EPDM membrane. Consult Thaler representative for other single plys.

WARRANTY:

20 year warranty against defects in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". Copy of Warranty Certificate available upon request.

MAINTENANCE:

No maintenance required (maintenance free).

SPECIFICATION (SHORT FORM):

Relief vents: Thaler [RV-2A] [RV-2C] standard 12" (305 mm) high, 4" (102 mm) I.D., relief vent consisting of [.064" (1.6 mm) mill finish 1100-OT alloy aluminum][24 oz. 0.032" (0.831 mm) copper] integral deck flange, removable conical hood fitted with perforated collar, thick premolded urethane insulation and .064 (1.6 mm) aluminum T-8 bitumen protection sleeve accessory; [bituminous painted deck flanges][PVC coated deck flanges][plain deck flanges]; manufactured by Thaler Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (New Braunfels, TX), installed as per manufacturer's written instructions. Provide 20 year warranty against defects in materials and/or manufacture.

RV-2A ALUMINUM, RV-2C COPPER RELIEF VENT PATENTED

INSTALLATION:

"Installation Instructions" are provided with every Thaler product. Essentially, Thaler Relief Vents are installed at recommended spacing by first cutting out the insulation to a depth of vapour barrier x 3-1/2" (89 mm) diameter to accommodate the T-8 bitumen protection sleeve. Then place the T-8 bitumen protection sleeve, dry, over an insulation joint (T joint is best) and mineral wool insulation

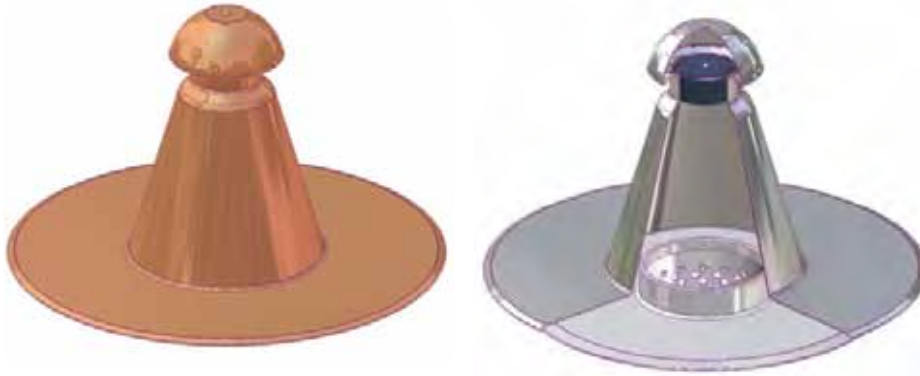
BUR: Install membrane over T-8 bitumen protection deck flange. Set relief vent deck flange in layer of plastic cement over membrane and flash in with 3 overlapping layers of felt flashing.

ModBit: Install membrane over T-8 bitumen protection deck flange. Torch membrane until bitumen is fluid and set relief vent deck flange into fluid. Flash in flange with two overlapping layers of ModBit and seal with asphalt sealer.

Single Ply: Install membrane over T-8 bitumen protection deck flange and weld membrane to coated deck flange. Note: for PVC membrane, specify PVC coated deck flanges by adding suffix P to end of model number e.g. RV-2A-P; weld roofing to deck flange using PVC torch. Set relief vent deck flange in layer of membrane adhesive and flash in with single ply as per membrane manufacturer's recommendations. Note: for EPDM, coat deck flanges on site with contact cement before torching membrane to both T-8 bitumen protection and relief vent deck flanges.

Ordering and Availability: Specify flashing material required by adding appropriate suffix to model number e.g. RV-2A, for aluminum, etc. Available throughout North America. Contact Thaler for list of distributors and current cost information. Most products are readily available from stock.

ROOF SPECIALTIES RV-3A/-RV-3C ONE WAY RELIEF VENT



DESCRIPTION:

Thaler RV-3 Relief Vents consist of a metal vent with integral deck flange, PVC holder with EPDM diaphragm, and a specially designed insert accessory (filled with loose mineral wool insulation) that aids in venting any moisture vapour accumulating in the roof assembly. Available in aluminum (RV-3A), and copper (RV-3C),

SPACING:

One vent per 1000 sq.ft. (92.9 m²) of roof is recommended.

PROMINENT FEATURES:

Helps prevent ridging, buckling and blistering of roof membrane by permitting the escape of moisture vapour, other gases and their resultant pressure to the ambient air. Hood configuration facilitates draining of any condensation via the perimeter vent holes. Upstand on insert accessory acts as a "dam" in the event exterior water is able to penetrate membrane/deck flange interface. Helps keep insulation dry.

RECOMMENDED USE:

Suitable for all flat/low slope roofs. Primarily designed for built up roofing (BUR) and modified bitumen roofing, or single ply roofs providing the deck flange has been treated for proper weld with the single ply e.g. PVC coated deck flange for PVC membrane or contact cement coated deck flange for EPDM membrane. Consult Thaler representative for other single plys.

WARRANTY:

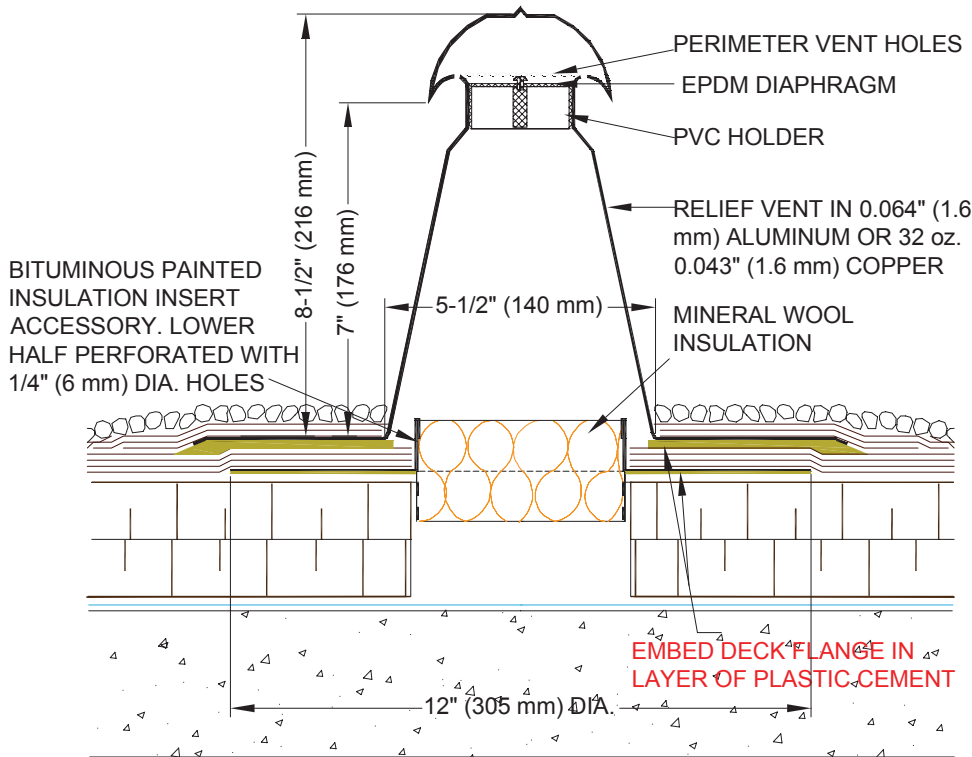
20 year warranty against defects in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". Copy of Warranty Certificate available upon request.

MAINTENANCE:

No maintenance required (maintenance free).

SPECIFICATION (SHORT FORM):

Relief vents: Thaler [RV-3A] [RV-3C] relief vent consisting of [.064" (1.6 mm) mill finish 1100-OT alloy aluminum] [32 oz. 0.043" (1.09 mm) copper] with perimeter vent holes, EPDM diaphragm with PVC holder, and .064 (1.6 mm) aluminum insulation insert accessory having loose mineral wool filler and lower half perforated with 1/4" (6 mm) dia. holes; 8-1/2" (216 mm) high; [bituminous painted deck flanges] [PVC coated deck flanges] [plain deck flanges]; manufactured by Thaler Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (New Braunfels, TX), installed as per manufacturer's written instructions. Provide 20 year warranty against defects in materials and/or manufacture.



RV-3A ALUMINUM ONE WAY RELIEF VENT RV-3C COPPER ONE WAY RELIEF VENT PATENTED

INSTALLATION:

"Installation Instructions" are provided with every Thaler product. Essentially, Thaler Relief Vents are installed at recommended spacing by first cutting out the insulation to a depth of vapour barrier x 3-1/2" (89 mm) diameter to accommodate the insert accessory. Then place the insert, dry, over an insulation joint (T joint is best). Cut insulation center right through to channel vent.

BUR: Install membrane over insert accessory deck flange. Then set relief vent deck flange in layer of plastic cement over membrane and flash in with 3 overlapping layers of felt flashing.

ModBit: Install membrane over insert accessory deck flange. Torch membrane until bitumen is fluid and set relief vent deck flange into fluid. Flash in flange with two overlapping layers of ModBit and seal with asphalt sealer.

Single Ply: Install membrane over insert accessory deck flange and weld membrane to coated deck flange. Note: for PVC membrane, specify PVC coated deck flanges by adding suffix P to end of model number e.g. RV-3A-P; weld roofing to deck flange using PVC torch. Set relief vent deck flange in layer of membrane adhesive and flash in with single ply as per membrane manufacturer's recommendations. Note: for EPDM, coat deck flanges on site with contact cement before torching membrane to both insert accessory and relief vent deck flanges.

Ordering and Availability: Specify flashing material required by adding appropriate suffix to model number e.g. RV-1A, for aluminum, etc. Available throughout North America. Contact Thaler for list of distributors and current cost information. Most products are readily available from stock.

Note: This relief vents specification, with minor editing, has been written as a separate section of work. Alternatively, the appropriate clauses may be incorporated as part of a roofing specification.

PART 1: GENERAL

1.01 SECTION INCLUDES

- A. Supply and installation of roof accessories, including:
 - 1. Relief vents.

1.02 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry
- B. Section 07200 - Thermal Protection
- C. Section 07500 - Membrane Roofing
- D. Section 07900 - Joint Sealers

1.03 REFERENCES

- [A. CRCA (Canadian Roofing Contractor's Association)]
- [B. NRCA (National Roofing Contractor's Association)]
- [C. SPRI (Single Ply Roofing Institute)]

Note: Paragraph 1.03.D is applicable to RV-2 vents only.

[D. CUFCA (Canadian Urethane Foam Contractor's Association) and CGSB-51-GP 46MP Manual for "Installers of Spray Polyurethane Foam Thermal Insulation" and ASTM C1029-90 "Spray Applied Rigid Cellular Polyurethane Thermal Insulation"]

1.04 SUBMITTALS

- A. Manufacturer's descriptive literature for each product, including section or other type details.
- B. Manufacturer's written installation instructions.
- C. Shop drawings and samples, when required, in accordance with Section [01300].

1.05 QUALITY ASSURANCE

- A. Roof accessories manufactures to have minimum 5 years documented experience in the design and fabrication of roofing specialties and accessories.

1.06 SPECIAL WARRANTY

Note: [and condensation] below is applicable to RV-2 vents only.

- A. Warrant products installed under this section of work to be free of defects in materials and/or manufacture [and condensation] for a period of 20 years when installed in accordance with the manufacturer's written instructions.

PART 2: PRODUCTS

2.01 MANUFACTURER

- A. Provide products as manufactured by Thaler Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (Buffalo, NY) or provide equal products by another manufacturer approved in advance by the [Architect], based upon:
1. 20 year warranty against defects in materials and/or manufacture, as applicable;
 2. maintenance free design;
 3. materials and sizes options, and thicknesses;
 4. injection molded urethane insulation to CGSB-51-GP 46MP and ASTM C1029-90, as applicable;
 5. treated deck flange, as applicable;
 6. written installation instructions.

2.02 MANUFACTURED UNITS

RV-1 Relief Vent

A. Relief vents: Thaler [RV-1A] [RV-1C] relief vent consisting of [.064" (1.6 mm) mill finish alloy aluminum] [32 oz. (1.09 mm) copper] with perimeter vent holes and .051" (1.4 mm) aluminum insulation insert accessory having loose mineral wool filler and lower half perforated with 1/4" (6 mm) dia. holes; 8-1/2" (216 mm) high; [bituminous painted deck flanges][PVC coated deck flanges][plain deck flanges].

RV-2 Relief Vents (Removable Hood)

B. Relief vents: Thaler [RV-2A] [RV-2C] standard 12" (305 mm) high, 4" (102 mm) I.D. relief vent consisting of [.064" (1.6 mm) mill finish 1100-OT alloy aluminum] [24 oz. (0.831 mm) copper] with integral deck flange, removable conical hood fitted with perforated collar, thick premolded urethane insulation and .051" (1.4 mm) aluminum insulation insert accessory having loose mineral wool filler and lower half perforated with 1/4" (6 mm) dia. holes; [bituminous painted deck flanges][PVC coated deck flanges] [plain deck flanges].

RV-3 Relief Vents

C. Relief vents: Thaler [RV-3A] [RV-3C] standard 12" (305 mm) high, 4" (102 mm) I.D. relief vent consisting of [.064" (1.6 mm) mill finish 1100-OT alloy aluminum] [32 oz. 0.043" (1.09 mm) copper] integral deck flange with perimeter vent holes, EPDM diaphragm with PVC holder and .051" (1.4 mm) aluminum insulation insert accessory having loose mineral wool filler and lower half perforated with 1/4" (6 mm) dia. holes; [bituminous painted deck flanges][PVC coated deck flanges][plain deck flanges].

PART 3: EXECUTION

3.01 EXAMINATION

- A. Report to the Contractor in writing, defects of work prepared by other trades and other unsatisfactory site conditions. Verify site dimensions. Commencement of work will imply acceptance of prepared work.

3.02 INSTALLATION

A. Install relief vents in accordance with manufacturer's printed instructions.

B. Install vents at the rate of one vent per 1000 sq.ft. (92.9 m²) of roof.

BUR

C. Set flashing deck flange in layer of plastic cement and flash in with 3 overlapping layers of felt flashing.

Modified Bitumen

D. Torch membrane until bitumen is fluid and set flange into fluid. Flash in flange with two overlapping layers of ModBit and seal with asphalt sealer.

Single Ply

E. Set deck flange in layer of membrane adhesive and extend single ply up sleeve to highest elevation possible and clamp membrane to relief vent.

Note: For PVC membrane, specify PVC coated deck flange by adding suffix P to end of Thaler model number, e.g. RV-1A-P; weld roofing to deck flange using PVC torch.

PVC Single Ply

F. Set deck flange in layer of membrane adhesive and extend single ply up sleeve to highest elevation possible and clamp membrane to vent. Weld roofing to deck flange using PVC torch.

3.03 FIELD QUALITY CONTROL

A. Comply with the requirements of Section [01400 - Quality Control].

3.04 ADJUSTING

A. Verify that all manufactured units have been installed in accordance with specifications and details, and will function as intended. Adjust any items where necessary to ensure proper operation.

3.05 CLEANING

A. Clean manufactured units using materials and methods approved by manufacturer. Do not use cleaners or techniques which could impair performance of the roofing system.

End Of Section