

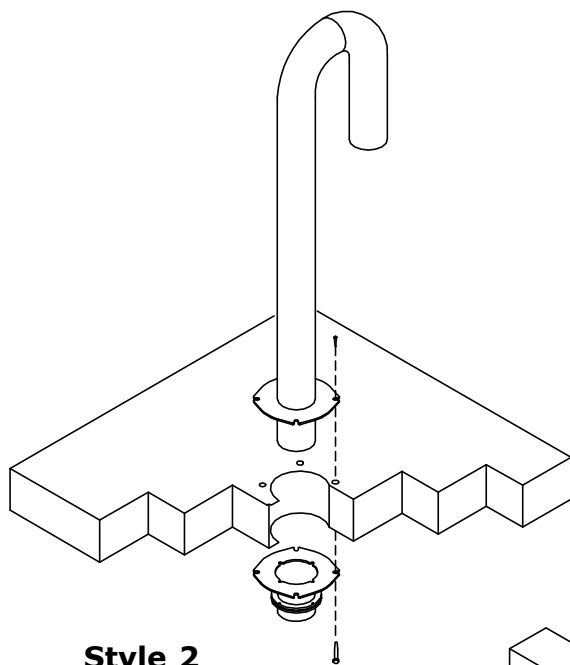
American Safe Room, Inc.

ASR-BRVD

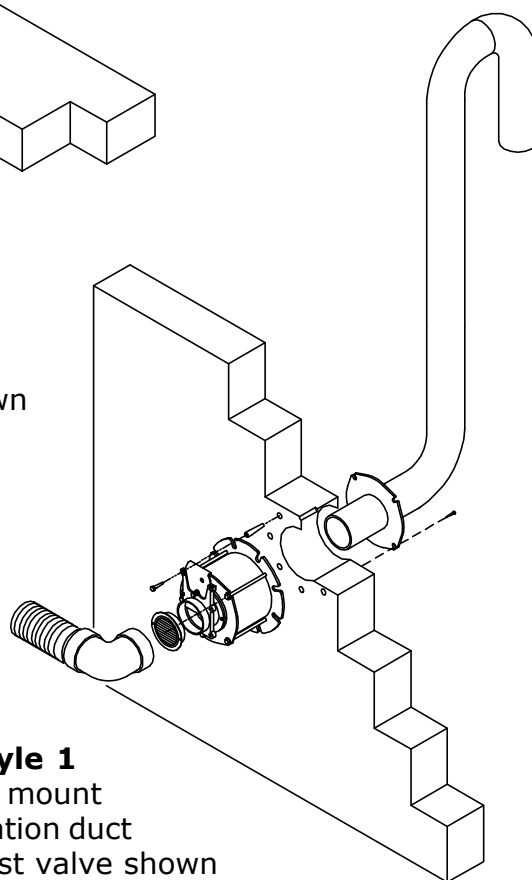
Blast Resistant Ventilation Ducts Installation Manual

for use in

Hardened Underground Blast Shelters



Style 2
Ceiling mount
ventilation duct
Optional overpressure relief valve shown



Style 1
Wall mount
ventilation duct
Optional blast valve shown

Revision (C)
September 4, 2008

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Description

American Safe Room heavy duty blast resistant steel ventilation pipes are designed for use in hardened underground blast shelters—also known as bomb shelters or fallout shelters.

American Safe Room bunker ventilation hardware is constructed from ASTM A500 grade A steel and ASTM A53 grade B 4½-inch OD (outer diameter) / 4-inch ID (inner diameter) steel pipe which has a tensile strength of 45,000 pounds per square inch.

These ventilation pipes are designed and constructed to fit and function with all American Safe Room filtration systems and hardware such as the Safe Cell NBC air filter and the ASR-50-BV Blast Valve.

Ventilation requirements

It is important that every protected space (shelter room) be supplied with a sufficient clean air supply and a metered exhaust to achieve proper overpressure ventilation and carbon dioxide flushing. The ASHRAE standard for above ground bunkers is between 3-5 cubic feet per minute per person.

For below ground shelters the ASHRAE requirement should be increased to double in order dissipate heat buildup, for added information read the ventilation requirements in shelters section in the American Safe Room manual titled *CP primer for NBC filtration*.

Ordering

We recommend that ALL intakes not be closer than 24-inches to the ground. All heavy steel hardware is shipped motor truck freight. Due to the variances in shelter design and construction, these ventilation pipes are built to order. Please provide us with the following dimensions.

Wall mount (style 1, figure 1, page 4)

- A. Thickness of wall.
- B. Distance from installation centerline to intake face of pipe.
- C. Distance from outside wall to inside radius of pipe.

Ceiling mount (style 2, figure 1, page 4)

- A. Thickness of ceiling
- B. Distance from outside top of ceiling to intake face of pipe.

Orientation of above ground intake, style 1 only, figure 3, page 5)

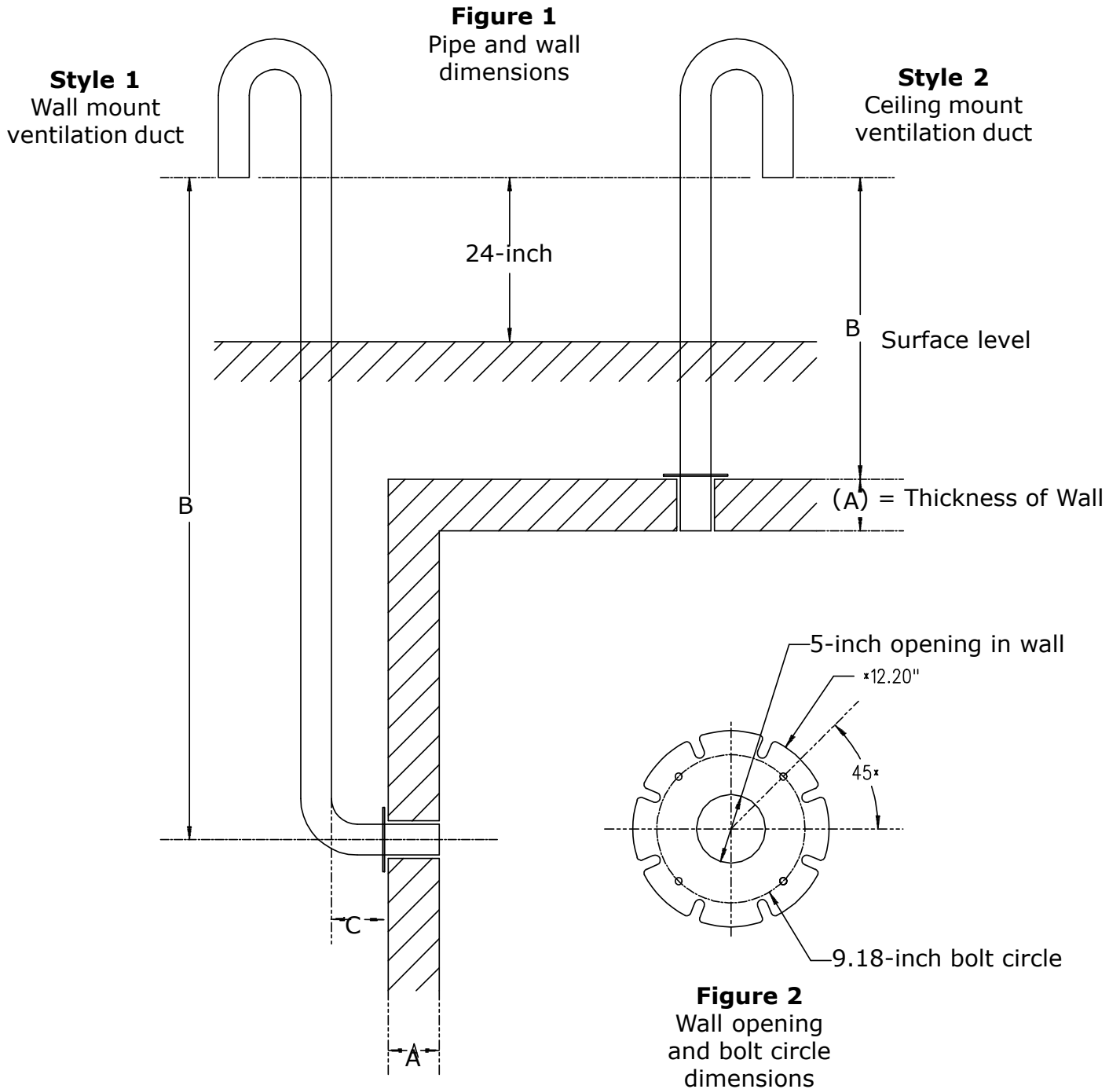
- A. Position of above ground turn down.
- B. Position of below ground wall/ceiling connection.

Please see the order form on page 5. You may e-mail, FAX, or mail it directly to the factory:

American Safe Room, Inc.
PO Box 255
Oakland, OR 97462

Telephone: 541-459-1806
FAX: 503-212-5595

Critical dimensions



Orientation of upper turn down to wall flange

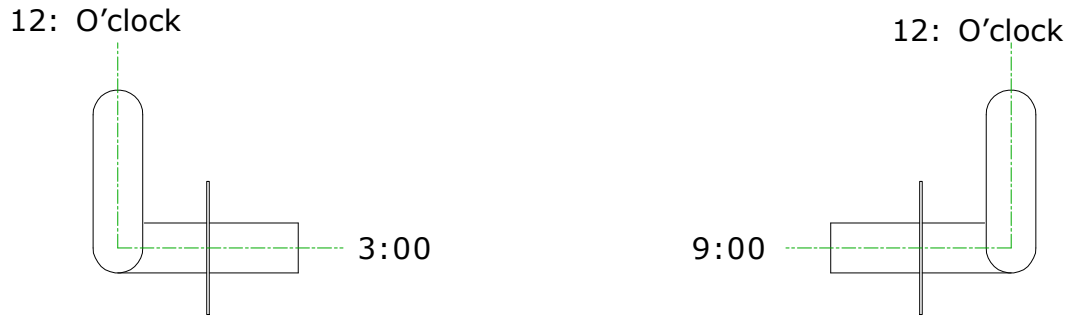


Figure 3

Figure 3 shows two examples of the rotational relationship of the lower wall flange to the upper turn-down also called the (candy cane).

The figure on the left shows the turn down at the default position of 12: O'clock and the wall flange at 3: O'clock.

The figure on the right shows the turn down at the default position of 12: O'clock and the wall flange at 9: O'clock.

Note;

Any relative position of the lower wall flange to the upper turn down are possible, the default position of the upper turn down is always at 12: O'clock.

Blast resistant ventilation duct order form

American Safe Room, Inc.

PO Box 255

Oakland, OR 97462

Telephone: 541-459-1806

FAX: 503-212-6695

Website: www.AmericanBombShelter.com — see this website for our current e-mail address

Name: _____

Telephone: _____ FAX: _____ E-mail: _____

Billing address: _____

Shipping address: _____

Wall ventilation pipe (style 1, figure 1, page 4)

Quantity: _____

A: _____ B: _____ C: _____

Orientation of wall flange _____ O'clock

Ceiling ventilation pipe (style 2, figure 1, page 4)

Quantity: _____

A: _____ B: _____

Notes: _____
