ICC-ES PMG Listing

PMG-1025

Effective Date: February 1, 2011
Revision Date: December 14, 2011
This listing is subject to re-examination in one year.

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CSI: DIVISION: 22 00 00—PLUMBING
Section: 22 13 19.36—Air Admittance Valve

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Studor Air Admittance Valves: Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent®

Listee: Studor, Inc., Division of IPS Corporation
500 Distribution Parkway
Collierville, Tennessee 38017
www.studor.com

Additional listees:

HD Supply Inc.
Global Support Center
3100 Cumberland Blvd., Suite 1700
Atlanta, GA 30339

Hajoca (Mainline brand)
1942 Airport Road
Monroe, NC 28110

Compliance with the following codes:

2012 and 2009 *International Plumbing Code*® (IPC)
2012 and 2009 *International Residential Code*® (IRC)

Compliance with the following standards:

ASSE 1050 – 2009, Performance Requirements for Stack Air Admittance Valves for Sanitary Drainage Systems
ASSE 1051 – 2009, Performance Requirements for Individual and Branch Type Air Admittance Valves for Sanitary Drainage Systems- Fixture and Branch Devices
NSF Standard 14 – 2010, Plastic Piping System Components and Related Materials

Identification:

The Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® must be identified by molded lettering on the lid, indicating the name of the product, the manufacturer's name, manufacturing location (Ellington, Connecticut), and the ICC-ES PMG listing mark.

Installation:

Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® must be installed in accordance with the manufacturer's installation instructions and the conditions of this listing.

Models:

The Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® are air admittance valves conforming to ASSE 1050, ASSE 1051 and NSF 14. The Mini-Vent® is designed for pipe sizes of $1^1/_2$ inches through 2 inches (38 mm through 51 mm). The Maxi-Vent® is designed for pipe sizes of 3 inches through 4 inches (76 mm through 102 mm). The Redi-Vent ® is designed for pipe sizes of $1^1/_2$ inches through 2 inches (38 mm through 51 mm).

The Studor air admittance valves are used as a vent termination for individual vents, common vents, circuit vents and branch vents. Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® are also permitted to be used as the vent termination for a vent stack or stack vent with six branch intervals or less.

Conditions of listing:

1. The Studor Mini-Vent®, Redi-Vent® and Tec-Vent® are supplied with a connector which enables the valve to be solvent cemented onto $1^1/_2$-inch- or 2-inch-diameter (38 mm or 51 mm) pipes or screwed into $1^1/_2$-inch (38 mm) I.P.S. threads.

2. The Studor Maxi-Vent® is supplied with a synthetic rubber connector which enables the valve to be push fitted into a 4-inch-diameter (102 mm) PVC, cast iron or ABS pipe. It may also be installed on a 3-inch-diameter (76 mm) PVC, cast iron or ABS pipe in accordance with the manufacturer's instructions.

3. The use of Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent®-is limited to systems subject to siphonage conditions and a maximum pressure condition of 1-inch (25 mm) water column.

4. Each Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® must be located a minimum of 4 inches (102 mm) above the weir of the fixture trap when providing trap seal protection for fixtures or branches. When serving as vent terminals for stack vents or vent stacks, they must be a minimum of 6 inches (152 mm) above the flood level rim of the highest fixture served.

5. Each Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® must be accessible for service, repair or replacement.

6. The Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® must be located to allow adequate air to enter the valve. When the products are located in a wall space or attic space, ventilation openings must be provided into the space. When in an attic space, the vents must be located a minimum of 6 inches (152 mm) above any ceiling insulation.

7. The air-admittance valve must be installed in the vertical upright position. The maximum offset from the vertical upright position must not exceed 15 degrees.

8. Each vent must connect to the drain with a vertical connection to maintain an unblocked opening in the piping to the air admittance valves.

9. A minimum of one vent stack or stack vent must extend outdoors to the open air for every building plumbing drainage system unless specifically engineered.

10. The Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® are permitted to be installed as the vent termination for a vent stack or stack vent with six branch intervals or less or as a branch vent terminal for fixtures on the same floor.

11. The air admittance valves must be installed after the drainage system has been pressure tested.

12. When a horizontal branch connects to a stack more than four branch intervals from the top of the stack, a relief vent must be provided. The relief vent must be located between the connection of the branch to the stack and the first fixture connecting to the branch. The relief vent may also serve as a vent for a single fixture. The relief vent must connect to the vent stack or stack vent and extend to the open air outside the building.

13. The Studor Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent® are produced in Ellington, Connecticut, under annual surveillance audits by NSF International (AA-633).

TABLE 1 — AIR ADMITTANCE VALVE MODELS NUMBERS OF STUDOR/IPS NAME ONLY

STUDOR/IPS MODEL NO.	STUDOR/IPS PART NO.	DESCRIPTION
20305	20305	X-Pack Mini-Vent PVC (40 pack)
20336	20336	X-Pack Minis ABS (40 pack)
20300	20300	MINI VENT - ABS (24 pack)
20301	20301	MINI VENT - PVC (24 pack)
20302	20302	MAXI VENT USA PVC (25 pack)
20353	20353	REDI-VENT PVC (6 Pack)
20362	20362	REDI-VENT ABS (6 Pack)
20346	20346	REDI-VENT PVC (24 Pack)
20349	20349	REDI-VENT ABS (24 Pack)
20386	20386	REDI-VENT PVC (120 Pack)
20389	20389	REDI-VENT ABS (120 Pack)
20344	20344	TEC-VENT (25 Pack)

TABLE 2 — AIR ADMITTANCE VALVE CROSS REFERENCE OF MODEL NUMBERS, STUDOR AND HD SUPPLY

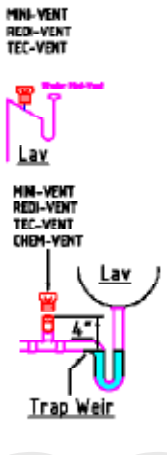
STUDOR/IPS MODEL NO.	STUDOR/IPS PART NO.	DESCRIPTION	HD PART NO.	HD MODEL NO.
20302	20302	MAXI VENT USA (25 pack)	91555	BR10464
20305	20305	X-Pack Mini-Vent PVC (40 pack)	91556	BR10465
20336	20336	X-Pack Mini-Vent ABS (40 pack)	91557	BR10466
20386	20386	REDI-VENT PVC (60 Pack)	91560	BR10469
20389	20389	REDI-VENT ABS (60 Pack)	91561	BR10470

TABLE 3 — AIR ADMITTANCE VALVE CROSS REFERENCE OF MODEL NUMBERS, STUDOR AND HAJOCA

STUDOR/IPS MODEL NO.	STUDOR/IPS PART NO.	DESCRIPTION	HAJOCA (MAINLINE BRAND) MODEL NO.
20302	20302	MAXI VENT USA PVC (25 pack)	ML10464
20305	20305	X-Pack Mini-Vent PVC (40 pack)	ML10465
20336	20336	X-Pack Mini-Vent ABS (40 pack)	ML10466
20386	20386	REDI-VENT PVC (60 Pack)	ML10469
20389	20389	REDI-VENT ABS (60 Pack)	ML10470

The following diagrams are examples of acceptable designs using the Mini-Vent®, Maxi-Vent®, Redi-Vent® and Tec-Vent®

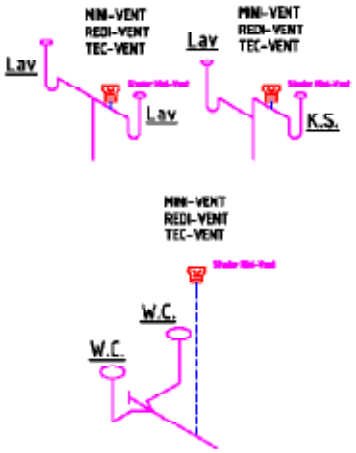
Individual Vent



The air admittance valve must be located a minimum of 4" above the weir of the trap. However, the valve may be located below the flood rim level of the fixture being vented.

Figure 1

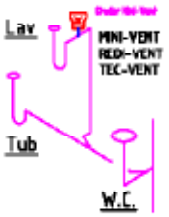
Common Vent



A common vent is similar to an individual vent. The vent serves two(2) fixtures. The Studor Mini-Vent can be located in the proximity to the fixtures being served.

Figure 2

Wet Vent

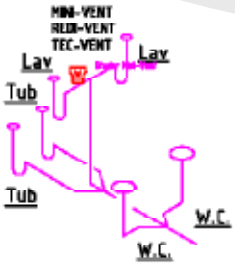


A wet vent is a single vent for one or two bathroom groups. There are different layouts for achieving the venting concept.

A single bathroom group wet vent can terminate to a Studor Mini-Vent.

Figure 3

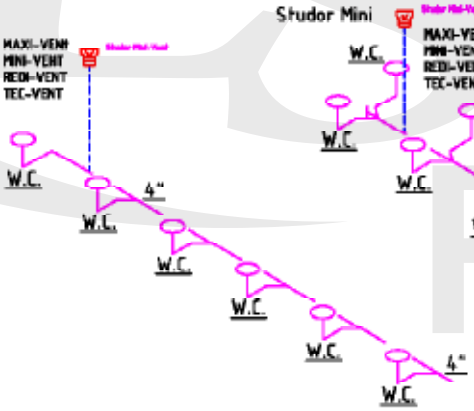
Back to back Wet Vent



A double bathroom group, back to back, can be wet vented with a single Studor Mini connecting as the vent terminal.

Figure 4

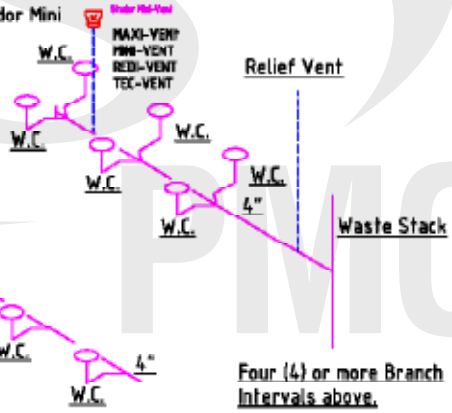
Circuit Vent



A single vent serves as the vent for three to eight fixtures. The Studor Mini or Maxi Vent serves as the vent terminal for the circuit vent. See Figure 6 for the relief vent requirement.

Figure 5

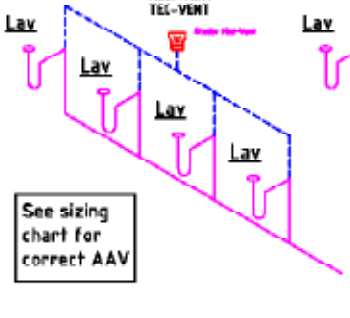
Circuit with Relief Vent



When the horizontal drainage branch connects to a stack having more than four branch intervals located above the branch, a relief vent is required. A relief vent is also required for branches receiving discharge from 4 or more water closets. The relief vent must connect to the vent stack or stack vent and extend to the outdoor air.

Figure 6

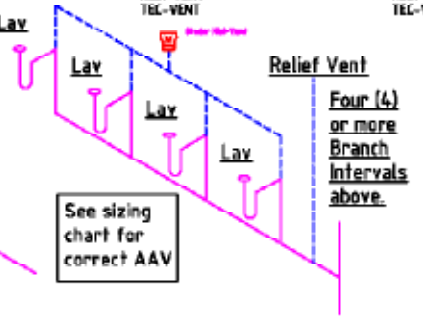
Branch Vent



When various vents connects to a branch vent, a single Studor MINI-VENT, REDI-VENT, TEC-VENT or MAXI-VENT can serve as the vent terminal for the branch vent.

Figure 7

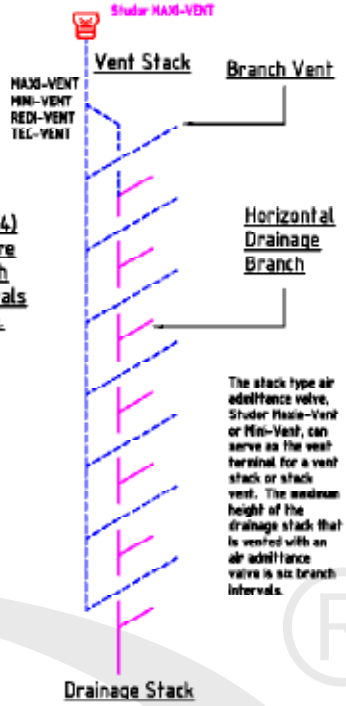
Branch Vent



More than one Studor MAXI-VENT, MINI-VENT, REDI-VENT, TEC-VENT can be installed within a horizontal branch to vent various fixtures. A relief vent is required when more than four (4) branch intervals are located above the branch connection.

Figure 8

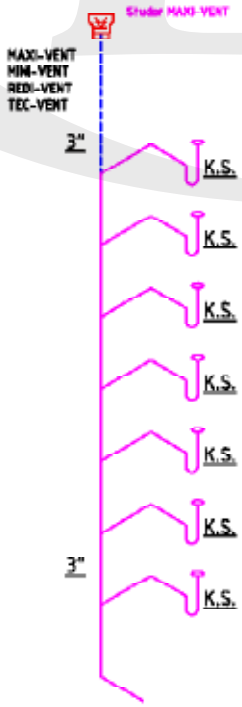
Vent Stack–Stack Vent



The stack type air admittance valve, Studor Maxie-Vent or Mini-Vent, can serve as the vent terminal for a vent stack or stack vent. The maximum height of the drainage stack that is vented with an air admittance valve is six branch intervals.

Figure 9

Waste Vent Stack



The Studor MAXI-VENT, MINI-VENT, REDI-VENT or TEC-VENT, can serve as the vent terminal for a waste stack. The maximum height of the waste stack that is vented with an air admittance valve is six branch intervals.

Figure 10