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January 17, 2017

Studor Inc. Div. of IPS Corp.
202 Industrial Park Lane
Collierville, TN 38104

RESEARCH REPORT: RR-5459
EFFECTIVE DATE: 01/17/2017
EXPIRATION DATE: 01/01/2018
Telephone: 901-853-5001

GENERAL APPROVAL - Renewal - "Studor" - Air Admittance Valve, Models Mini, and Maxi, manufactured by IPS / Dymotek.

DETAILS

These products are intended for use as an alternative to a vent pipe that properly extends to the outdoor air at an approved location. The valves are one-way valves designed to allow air to enter the plumbing drainage system when negative pressures develop. The valve closes by gravity and seals the vent terminals when the internal drain line pressure is equal to or exceeds ambient pressure. Mini-vent valve has guide fins and a silicon membrane for sealing valve. The appropriate size of a valve is selected in accordance with the Studor Valve Selection Criteria shown in Table - 1.

The approval is subject to the following conditions:

1. These products shall be installed in drainage and waste and vent systems serving individual single-family dwelling units up to a maximum of two stories only, in accordance with Section 94.701.1.2 of the Los Angeles Plumbing Code, 2017 Edition.
2. These products shall not be located in spaces used as supply or return air plenums.
3. Cement used for making solvent welded joints shall comply with appropriate ASTM Standards.

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4. At least one vent stack shall be installed in a building sanitary waste system located as close as possible to the point where the sewer line enters the building, in accordance with Section 94.906.1 of the Los Angeles Plumbing Code, 2017 Edition.
5. When valves are installed as branch vent terminals, they shall be located on the same floor as the plumbing fixtures.
6. These products shall not be installed for venting sewage ejectors.
7. These valves shall not be installed below the public sewer line level.
8. The following requirements are in accordance with Studor's Installation Instructions for Maxi-Vent and Mini-Vent:
 - (a) These products shall be installed in a vertical position with a vertical offset not to exceed 15 degrees.
 - (b) When installed as branch vents, the bottom of the valves shall be at least 4" above the weir of the fixture traps they serve. When installed as stack vents, the bottom of the valves shall be installed at least 6" above the flood level rims of the highest plumbing fixtures.
 - (c) These valves may be installed where the ambient temperature is between -40° F and 150 °F.
 - (d) Each valve shall be provided a Life Time Warranty as indicated by Studor's Maxi-Vent and Mini-Vent Life Time Warranty which states: "When used in accordance with our recommendations, our products are not subject to deterioration and have a life equivalent to that of the drainage system in which it is installed."
 - (e) These products shall be installed in accessible locations, where free air movement is present.
9. These products shall be permanently identified with the manufacturer's name "Studor, Inc." and appropriate model number, visible for inspection purposes.
10. In attic installations there shall be at least 10 feet distance between Air Admittance Valves and any gas fired appliance.
11. Horizontal branches that connect to the stack more than thirty five feet below the highest branch connection must have a relief vent on the branch. The relief vent must connect between the stack and the first fixture vented with an AAV. The relief vent pipe must be

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of a minimum size equal to half the diameter of the branch or 1-1/2 inch, whichever is larger, and extend to the outdoors. A fixture may be vented by the relief vent.

12. When determining the aggregate area of all of the vents for the plumbing system, each Mini-vent shall equate to 3.1 square inches and each Maxi-vent shall equate to 12.56 square inches.
13. Washing machine horizontal branch lines shall be a minimum of 3" in diameter.

DISCUSSION

These valves have been tested by United States Testing Company, Inc. in compliance with Standards ASSE 1050 and 1051 under test report numbers TS 93-0515.1 and TS 96-024. The current model of Maxi-Vent has been tested by NSF, Inc. under test report numbers FI20100205095133 and FI20100205095134.

This general approval is granted as required by judgement entered September 26, 2006, in the law suit entitled Studor, Inc. vs. City of Los Angeles, Los Angeles Superior Court case no. BS 087876.”

For this General Approval to be valid on any individual construction project in the City of Los Angeles, an engineer or inspector of the Department of Building and Safety must make a determination that all conditions of the General Approval required to provide equivalencies have been met in the case of each construction project under consideration.

This approval is granted under Sections 94.301.1, 301.2 and 94.906.1 of the Los Angeles Plumbing Code, 2017 Edition.

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TABLE - 1

STUDOR AIR ADMITTANCE VALVE SELECTION CRITERIA

Drain, branch or Stack Size	Vent Size	Maximum Drainage Fixture Units on Branch	Maximum Drainage Fixture Units on Stack	Studor Valve Model
1-1/4"	1-1/4"	1	1	Mini
1-1/2"	1-1/4" - 1-1/2"	3	8	Mini
2"	1-1/4" - 2"	6	24	Mini/Maxi
3"	1-1/2" - 3"	20	72	Mini/Maxi
4"	2" - 4"	160	500	Mini/Maxi

Note: Air Admittance Valve Mini-vent is rated up to 2" vent size and Maxi-vent is rated up to 4" vent size.

Approved by:



Manouchehr Shahrestani
Mechanical Testing Laboratory
Permit and Engineering Bureau