**STUDOR** 

**IPS CORPORATION** 

# Air Admittance Valves







EUROPEAN PATENT EP 1.423.572 - UK PATENT 2.379.459 - US PATENT 7.025,093







# Not all valves are created equal

#### **Studor Technology**

- Several other brands of valves are available on the market today, but there is only one original Studor—"It's Not A Studor® Valve Unless It Says So"
- · Studor has over 50 years of proven quality and technology
- Studor features both inside and outside screens to protect the seal & seat from insects, debris or foreign objects
- Only Studor offers products specifically designed for commercial and industrial applications
- Only Studor offers innovative positive pressure transient protection technology for commercial buildings
- Studor also offers accessories for extra protection against extreme temperature conditions

#### **The Studor Advantage**

- Reduces the number of roof penetrations
- · Reduces the possibility of water leaks around roof flashings
- Reduces structural damage caused by holes drilled through joists & studs used to install open vent piping
- Minimizes floor penetrations and fire stopping devices
- · Helps reduce potential mold issues and liabilities
- Reduces vent pipes interfering with the roof finish and appearance
- · Increases contractor's productivity
- · Eliminates design restrictions
- Studor vents are not recognized as a mechanical vent in the International Plumbing Code.

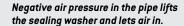
#### **How Does it Work?**

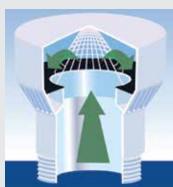
Studor AAVs are designed to open when negative pressure
occurs from plumbing fixtures discharging, allowing air into the
system and preventing siphonage of the trap seal. It is designed
to close by gravity when there is no flow into the system, which
prevents the escape of sewer gas into the building.

#### **Ultimate Function:**

To prevent the fixture trap-seal from siphonage







When negative pressure ceases the washer drops to seal the chamber.

#### Studor Air Admittance Valves - Drain Fixture Units (DFU) Charts

Note: Limited lifetime warranty on all Studor® products

Maxi-Vent®		
Horizontal Branch Size	Maximum DFUs	
3"	20	
4"	160	
Stack Size	Max DFUs	
3"	72	
4"	500	

Mini-Vent®	
Horizontal Branch Size	Maximum DFUs
1-1/2"	3
2"	6
3"	20
4"	160

Tec-Vent®	
Horizontal Branch Size	Maximum DFUs
1-1/2"	3
2"	6
3"	20
4"	160
Stack Size	Max DFUs
1-1/2"	8
2"	24

Redi-Vent®	
Horizontal Branch Size	Maximum DFUs
1-1/2"	3
2"	6
3"	20
4"	20
Stack Size	Max DFUs
1-1/2"	8
2"	24

Chem-Vent®		
Horizontal Branch Size	Maximum DFUs	
1-1/2"	3	
2"	6	

### **Products**



**Product Numbers:** 20299, 20298

#### Redi-Vent®

- Residential and commercial use
- Fits 1½" or 2" pipe size
- · For venting single fixtures, kitchen sinks and bathroom groups including back to back applications up to 20 DFU
- Protective screens inside and out
- Listed to ASSE 1051, ASSE 1050, NSF 14 Standards, ETL, IAPMO, ICC-ES, PMG-1025



**Product Number:** 



**Product Number:** 20297

#### Maxi-Cap®

- · Specially designed to protect the Maxi-Vent from damaging UV rays and temperature extremes
- To be installed for outdoor use

#### Maxi-Filtra™

- Maxi-Filtra is a two-way vent, which filters air in both directions
- Replaceable active carbon filter is designed to eliminate bad odors
- Outdoor use only, particularly for use on septic systems and open vent pipes to eliminate sewer gas odors
- Not an air admittance valve



**Product Numbers:** 20341, 20340

#### Mini-Vent®

- · Residential and commercial use
- Fits 11/2" or 2" pipe size
- · Protective screens inside & outside
- Listed to ASSE 1051, ASSE 1050, NSF 14 Standards, ETL, IAPMO, ICC-ES, PMG-1025



**Product Numbers:** 20342, 20302

#### Maxi-Vent®

- · Residential and commercial use
- Fits 3" or 4" pipe size
- · Protective screens inside & outside
- Listed to ASSE 1051, ASSE 1050, NSF 14 Standards, ETL, IAPMO, ICC-ES, PMG-1025



P.A.P.A.

(Positive Air Pressure Attenuator)

- · Complete stack protection against positive pressure transients
- Eliminates the need for relief vent piping
- · Greatly simplifies drainage ventilation
- Listed to ASSE 1030
- WMTS463:2015

20345

· Commercial use only

Product Number: 20357



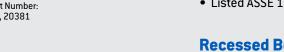
Product Number 20344

#### **Tec-Vent®**

- · Residential and commercial use
- Fits 1½" pipe size
- · Protective screens inside & outside
- UV rated
- Flame Retardant
- · Meets UL standard for "discrete products" used in the supply & return air plenum
- Listed to ASSE 1051, ASSE 1050, NSF 14 Standards, ETL, IAPMO, ICC-ES, PMG-1025



- Commercial use
- For use on chemical waste systems
- High temp FR material (up to 212F)
- Direct mount on any MJ or
- · Direct mount on any acid waste system an adapter
- Listed ASSE 1049 and NSF 14 Standards



#### **Recessed Box & Grill and** Fire Rated ( Recessed Boxes

- The Studor multi-purpose recessed box can be used with a Mini-Vent, Redi-Vent, or Tec-Vent
- Listed to IAPMO and ICC-ES
- I and 2 hour rated box
- FR ETL.







## Installations

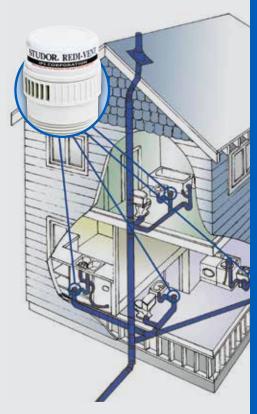
#### **One Vent Required**

Within each plumbing system, a minimum of one stack vent or vent stack shall extend outdoors to the open air.



#### **Valve Accessibility**

admittance valves.



Access shall be provided to all air



#### **Washer Box Installation**

- · Studor valves can be installed in a dual drain washer box.
- The specially designed adaptor assures a leak proof connection.



#### P. A.P.A.™ Installation

The P.A.P.A. valve is connected to a fitting, branching off the vertical stack and can be designed into a plumbing system to absorb positive transients within the system.

Note: All valves must be installed according to the manufacturer's instructions: Listings are subject to change without notice. Please verify specification with manufacturer and local codes officials before installing.

#### Attic installation

When a Studor® valve is installed in an attic, it must be installed a minimum of 6" above insulation.



#### Valve installation

- The Studor valve must be installed a minimum of 4" above the horizontal branch the horizontal branch drain or fixture drain being vented.
- Studor AAVs must be installed within 15 degrees of the vertical position.
- Studor valves can be installed below the flood rim level of the fixture.





## Services & Support



#### **System Design**

- Studor® assists engineers and architects with the design of Studor systems that best fit the project
- Studor assists builders to ensure they are receiving the best Studor designed system
- Studor works with plumbing contractors on design/build projects to ensure properly designed Studor system
- Studor offers these services at no charge



#### **Technical Support**

Studor assists in solving issues with conventional plumbing systems as well as other existing drain waste and vent (DWV) systems throughout the world



#### **Training**

- · Studor trains engineers to ensure properly designed Studor systems
- · Studor trains contractors to ensure properly installed Studor systems
- · Studor trains building officials and plumbing contractors



#### **Approvals**

- International Plumbing Code (IPC) section 917
- International Residential Code (IRC) section T3114
- Uniform Plumbing Code (UPC) section 301.2 Alternative Materials and Methods
- National Standard Plumbing Code (NSPC) Appendix "E"
  - Special Design System
- National Plumbing Code Canada



#### **Performance Standards**

- ASSE 1030
- ASSE 1049
- ASSE 1050 Stack type AAVs
- ASSE 1051 Single fixture and branch type AAVs
- NSF Standard 14 (plastic components)
- WMTS463:2015



#### Listings

- ASSE Seal of Approval
- IAMPO Classified Marking file No. C-3803
- ICC-ES PMG-1025
- NSF International (NSF standard 14)
- ETL
- Underwriters Laboratories (UL) R20814

Note: Not all Studor products carry each Listing. Please refer to the appropriate product's specification sheet for applicable Listing. Listings are subject to change without notice. Please verify specifications with manufacturer and local code officials before installing.



# The Right Valve for the Right Job.



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