

# STUDOR®

IPS CORPORATION



## CHEM-VENT®

# The CHEM-VENT<sup>®</sup>

Manufactured specifically for Acid Waste systems

- Material is NSF 014 and ASTM D-4101 compliant
- NSF certified to meet all performance standard of ASSE 1051
- Designed and tested to operate in temperature up to 210° F
- High temp/chemical resistance EPDM sealing o-ring



# The CHEM-VENT<sup>®</sup>

Simplify venting of 'island sink' chemical basins installations in Labs while providing proper and instant protection against negative pressure



# MATERIAL

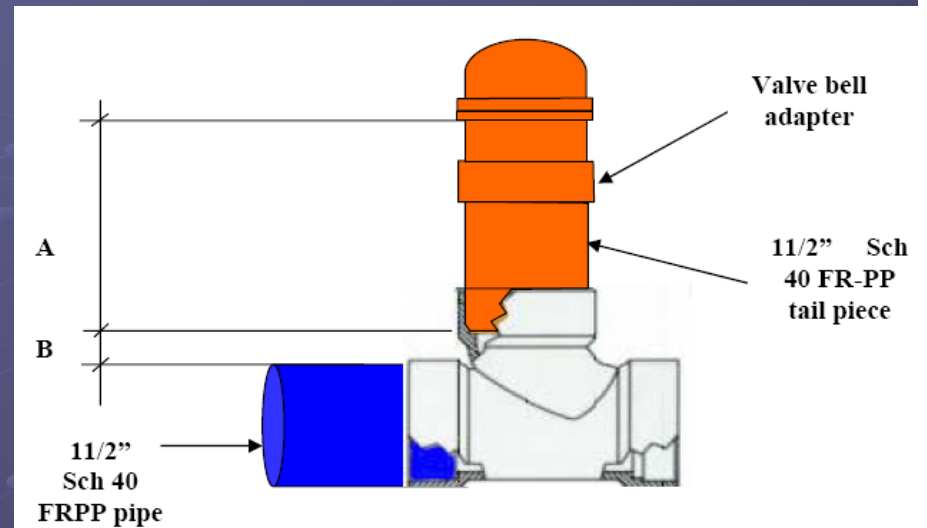
## Flame Retardant Polypropylene (FR-PP)

- The material of choice in Acid Waste for the last 20 years
- Excellent resistance to chemicals and solvents
- Capable of handling exothermic reactions
- Durable & easy to install

Product:	<b>CHEM-VENT</b>		
Material of construction	Flame retardant Polypropylene		
O-ring material	Ethylene Propylene Diene Monomer		
<b>MECHANICAL</b>			
Property	Typical Data	Unit	Method
Tensile Modulus, 2.0 in/mm	4400	psi	ASTM D 638
Flexural Modulus	215,000	psi	ASTM D 790
Hardness, Rockwell R	100		ASTM D 1706
<b>IMPACT</b>			
Property	Typical Data	Unit	Method
Izod Impact, notched,	1.0	ft/lbin	ASTM D 256
<b>PHYSICAL</b>			
Property	Typical Data	Unit	Method
Specific Gravity, solid	0.94		ASTM D 1505
Water Absorption 24 hrs.	0.01	%	ASTM D 570
<b>THERMAL</b>			
Property	Typical Data	Unit	Method
Coefficient of Linear Expansion	6x10-5	in/in/F	ASTM D 696
Heat Deflection Temperature@66psi load	220-240	F	ASTM D 648
Heat Deflection Temperature@264psi load	195	F	ASTM D 648
<b>FLAME CHARACTERISTICS</b>			
Property	Typical Data	Unit	Method
Time of Burning	< 5	sec	ASTM D 635
Extent of Burning	< 5	mm	—
Burning Class	V2		UL 94
Maximum Smoke Density	62.0	—	ASTM D 2843
Smoke Density Rating	40.1	—	
Oxygen Index	28	%	ASTM D 2863

# DESIGN FEATURE

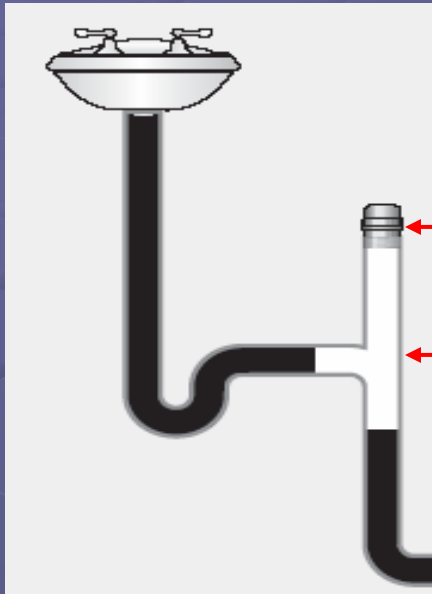
## The CHEM-VENT®



- Purposely designed for Acid Waste systems installation
- Direct mount on any molded FR-PP sanitary Tee
- Usable with either Mechanical Joint or Electrofusion FR-PP fittings
- Easily adaptable to CPVC, glass, PVDF or Duriron® systems

# DESIGN FEATURE

Must be located a minimum of 4" above the arm of the trap



4" min



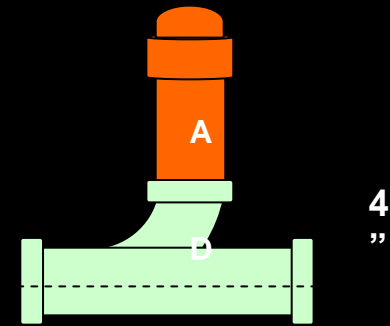
Extended tailpiece assures the 4" minimum requirement

- Patented Studor screen keeps 'business end' of the valve clean



- High chemical resistant EPDM O-ring is used

# CONNECTING TO THE SYSTEM



## FR-PP & PP systems

Will directly mount to molded sanitary Tees  
manufactured by: IPEX-GF/SLOANE-ORION-ZURN

### Electrofusion

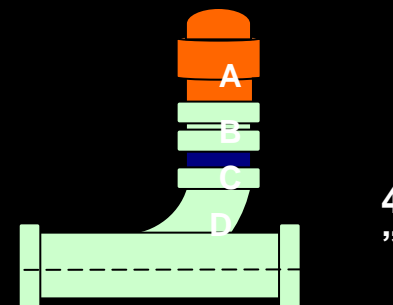
Preparation, assembly, clamping and machine programming shall strictly follow the fitting manufacturer instructions for a single (or multiple if other fittings are simultaneously welded) 1 1/2" pipe to fitting weld.

### Mechanical Joints

Preparation (e.g. grooving) and assembly shall strictly follow the fitting manufacturer instructions for an 1 1/2" MJ pipe to fitting connection.

In both cases no special equipment other than what supplied by the fitting manufacturer is required.

# CONNECTING TO THE SYSTEM

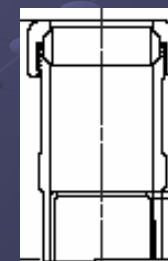


## CPVC systems

The CHEM-VENT® can be easily installed on molded sanitary Tees manufactured by: SPEARS – CHARLOTTE PIPE

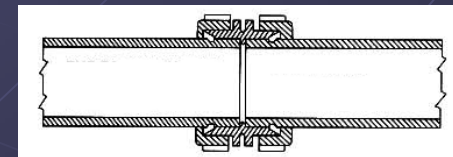
### SPEARS (LabWaste™)

Using the special PP pipe adapter offered by this manufacturer.



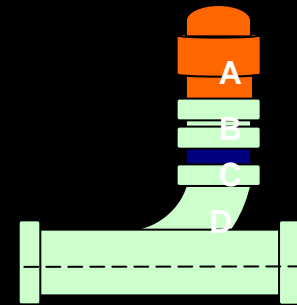
### CHARLOTTE (ChemDrain™)

Solvent/cementing a small CPVC pup piece into the side socket of the Tee and then connecting that spigot to the valve's tail piece with a no-hub coupling or special MJ adapter.



The CHEM-VENT® will meet or exceed operational temperature & chem. resistance parameters of CPVC systems

# CONNECTING TO THE SYSTEM



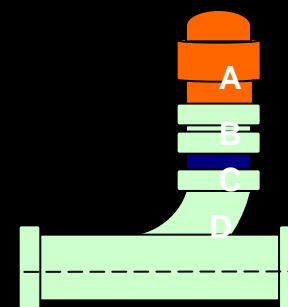
## GLASS systems

The CHEM-VENT® can be easily installed on borosilicate glass sanitary Tee manufactured by Schott or ChemFlowtronics

All that is needed to install The CHEM-VENT® on a Kimax™ (Schott) or Borodrain™ (ChemFlowtronics) Tee is a glass/PP adapter offered by all FR-PP acid waste system manufacturers.

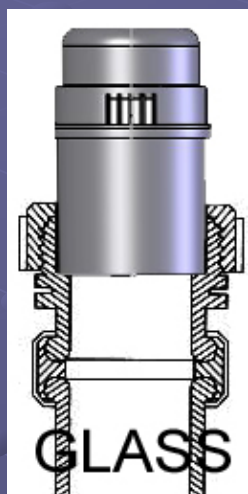
Although the CHEM-VENT® will easily meet most operational temperature & chem. resistance parameters of applications using glass, this may not always be the case. Studor should be consulted before a CHEM-VENT® is installed on a glass system.

# CONNECTING TO THE SYSTEM

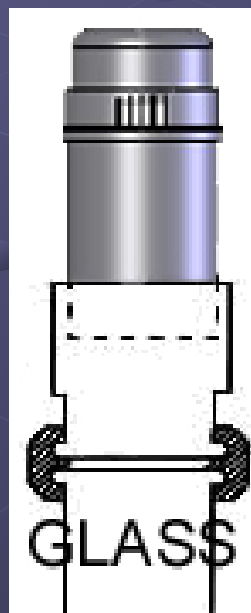


## GLASS systems

The CHEM-VENT® can be easily installed on borosilicate glass systems

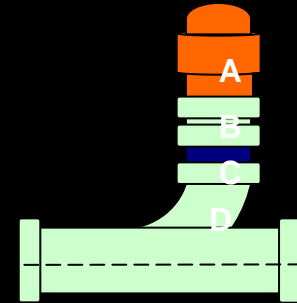


MJ glass adapter



Electrofusion glass adapter

# CONNECTING TO THE SYSTEM



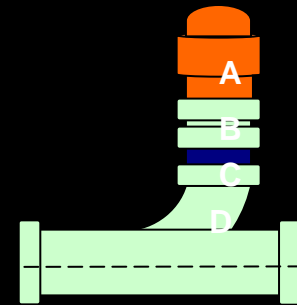
## FR-PVDF systems

Will directly mount to molded MJ sanitary Tees  
manufactured by: IPEX-GF/SLOANE-ORION-ZURN

Although the CHEM-VENT® will easily meet most operational temperature & chem. resistance parameters of applications using FR-PVDF, this may not always be the case. Studor should be consulted before a CHEM-VENT® is installed on a FR- PVDF system.

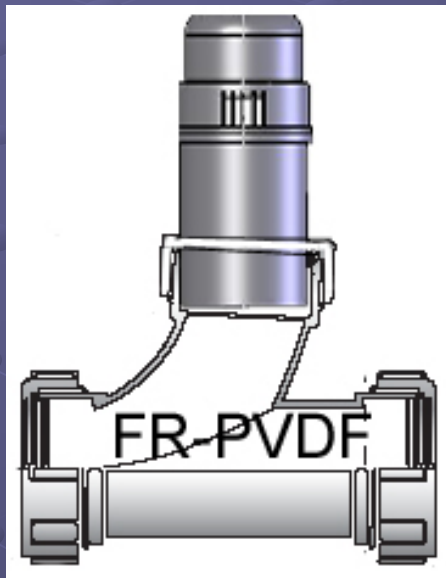
**The CHEM-VENT® CANNOT BE USED IN PLENUM DESIGNATED AREAS**

# CONNECTING TO THE SYSTEM



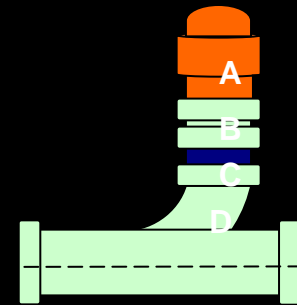
## FR-PVDF systems

The CHEM-VENT® can be easily installed on FR- PVDF systems



MJ FR-PVDF Sanitary Tee

# CONNECTING TO THE SYSTEM



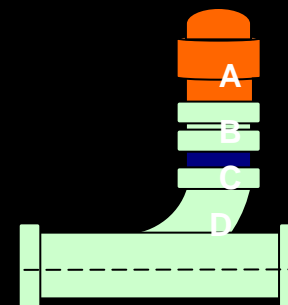
## **DURIRON systems**

The CHEM-VENT® can be easily installed on silicon/iron cast alloy systems

All that is needed to install The CHEM-VENT® on a Duriron MJ or bell & spigot Tee is one of two adapters commercially available either through Duriron itself or all FR-PP acid waste system manufacturers.

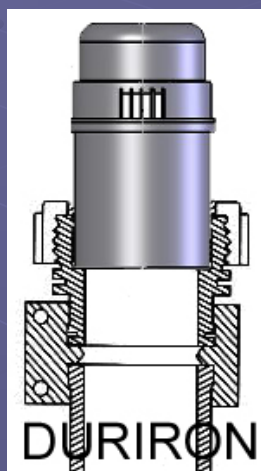
The CHEM-VENT® will meet or exceed operational requirements (especially chem. resistance) of most systems using Duriron pipe & fittings.

# CONNECTING TO THE SYSTEM

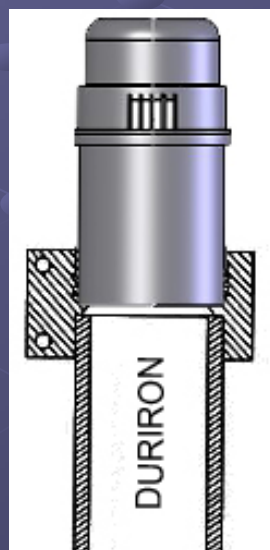


## DURIRON systems

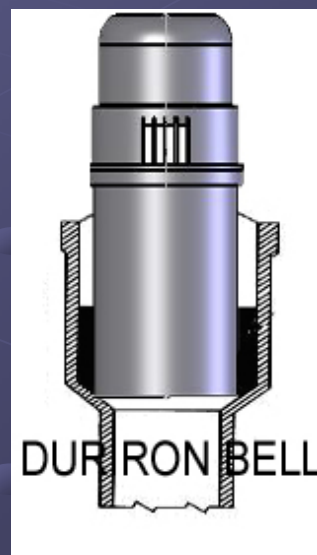
The CHEM-VENT® can be easily installed on silicon/iron cast alloy systems



MJ PP adapter +  
No-hub coupling



MJ glass adapter



Score pipe; use  
asbestos rope or  
acid resistant  
oakum; caulk with  
hot led, led wool or  
caulking cement

# SELECTION PARAMETERS

**The use of the CHEM-VENT® is:**

Recommended: in Acid Waste systems when: FR-PP, PP, CPVC or DURIRON pipe & fittings are installed

Conditionally recommended: in Acid Waste systems when: Glass or FR- PVDF pipe & fittings are installed If FR-PP is deemed resistant to the chemical waste in a glass system, the Chem-Vent can be used on glass systems unless the system is installed in a return air plenum.

Not recommended: In Plenum rated areas or on systems which couldn't be otherwise vented to open air without the use of filtration in order to retain organic or inorganic compounds which, if inhaled in the concentrations and proportions found inside the piping system, would be harmful to humans or animals.

# STUDOR®

IPS CORPORATION



[www.studor.com](http://www.studor.com)