

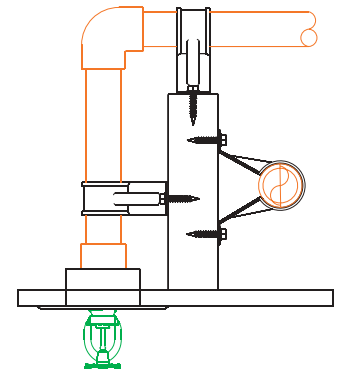
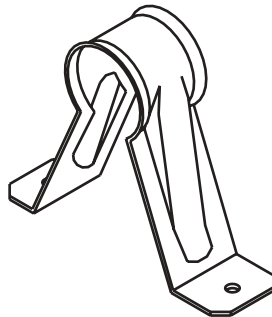
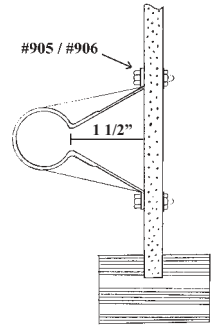
BlazeMaster® TFP-500 One Step Solvent Cement MSDS (Material Safety Data Sheet)

TYCO		MATERIAL SAFETY DATA SHEET		Date Revised: AUG 2007 Supersedes: APR 2007						
Information on this form is furnished solely for the purpose of compliance with the U.S. Occupational Safety and Health Act, the Canadian Hazardous Products Act and Controlled Products Regulations and shall not be used for any other purpose. IPS Corporation urges the customers receiving this Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on this sheet.										
SECTION I - PRODUCT INFORMATION										
MANUFACTURER'S NAME IPS Corporation for Tyco ADDRESS 17109 S. Main St., P.O. Box 379, Gardena, CA. 90248 U.S.A. (310) 898-3300		SUPPLIER'S NAME Tyco Fire and Building Products ADDRESS 451 North Cannon Avenue Lansdale, PA 19446, USA		Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: 3 E COMPANY (24 Hour No.) (800) 451-8346 Business: Tyco (215) 362-0700						
CHEMICAL NAME and FAMILY Mixture of CPVC Resin and Organic Solvents			TRADE NAME: BLAZEMASTER® TFP 500 Low VOC Cement for CPVC Plastic Pipe							
SECTION II - HAZARDOUS INGREDIENTS, EXPOSURE LIMITS, TRANSPORT & WHMIS DATA										
None of the ingredients below are listed as carcinogens by IARC, NTP, OSHA or ACGIH.										
	CAS#	APPROX % BY WEIGHT	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL	LD50	LC50	DUPONT (A) AEL (B) STEL	
Chlorinated Polyvinyl Chloride Resin (CPVC)	68648-82-8	10 - 20	N. AP.		N. AP.		N. AP.	N. AP.		
Tetrahydrofuran (THF), Stabilized	109-99-9	30 - 60	50 PPM Skin	100 PPM Skin	200 PPM	250 PPM	Oral: 2880 mg/kg (rat)	Inhalation 3 hrs. 21,000 PPM (rat)	50 PPM	75 PPM
Methyl Ethyl Ketone (MEK)	78-93-3	3 - 7	200 PPM	300 PPM	200 PPM	300 PPM	Oral: 3.98 g/kg (rat)	Inhalation 4 hrs. 4,000 PPM (rat)		
Cyclohexanone	108-94-1	1 - 5	20 PPM Skin		50 PPM		Oral: 1900 mg/kg (rat)	Inhalation LCLO, 4 hrs: 2000 PPM (rat)		
Acetone	67-64-1	7 - 13	500 PPM	750 PPM	750 PPM	1000 PPM	Oral: 9.75 g/kg (rat)	Inhalation LCLO 4 hrs: 16,000 PPM (rat)		
All of the constituents of IPS adhesive products are listed on the TSCA inventory of chemical substances maintained by the US EPA and/or the Canadian Domestic Substance List (DSL), or are exempt from such listings.										
(A) Dupont and BASF mfg's Acceptable Exposure Limit (AEL) guidelines for 8 hour and 12 hour TWA, (B) Dupont/BASF recommended STEL for 15 minute TWA.										
DOT, IATA, IMO/MDG SHIPPING INFORMATION						SPECIAL HAZARD DESIGNATIONS				
Proper Shipping Name: Adhesives		EXCEPTION: Case quantities of cement in containers of less than one liter may be shipped as LIMITED QUANTITY or CONSUMER COMMODITY, ORM-D								
Hazard Class: 3										
Identification Number: UN 1133						HEALTH: 2				
Packing Group: II						FLAMMABILITY: 3				
Label Required: Flammable Liquid						REACTIVITY: 0				
TDG INFORMATION						PROTECTIVE EQUIPMENT: B - H				
TDG CLASS: FLAMMABLE LIQUID 3						HAZARD RATING				
SHIPPING NAME: ADHESIVES (TETRAHYDROFURAN)						0 - MINIMAL				
UN NUMBER: 1133, PG II						1 - SLIGHT				
WHMIS CLASSIFICATION: CONTROLLED PRODUCT						2 - MODERATE				
CLASS B, DIVISION 2						3 - SERIOUS				
CLASS D, DIVISION 2B						4 - SEVERE				
B = Eye, Hand/Skin (for normal solvent-welding activities)						H = Eye, Hand/Skin, Respiratory Protection and Impermeable Apron (splash/immersion risks)				
SECTION III - PHYSICAL DATA										
APPEARANCE Red, medium syrupy liquid			ODOR Ethereal (Threshold = 2-50 PPM)			BOILING POINT (°F/°C) 133°F (57°C)		FREEZING POINT -139°F (-95°C)		
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) Typical 1.0 ± 0.040			VAPOR PRESSURE (mm Hg.) 190 mm Hg. based on first boiling component, Acetone @ 68°F (20°C)			PERCENT VOLATILE BY VOLUME (%) Approx: 70 - 80 %				
VAPOR DENSITY (Air = 1) 2.49			EVAPORATION RATE (BUAC = 1) > 1.0			SOLUBILITY IN WATER Solvent portion completely soluble in water. Resin portion separates out.				
COEFFICIENT OF WATER/OIL DISTRIBUTION N. AV.				PH INFORMATION N. AP.						
VOC STATEMENT Maximum VOC emissions as applied and tested per SCAQMD Rule 1168, Test Method 316A: 490 grams/liter. After drying and curing there are negligible or no emissions.										



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OFFSET C.P.V.C. - STEEL - COPPER HANGER



SIZE - 3/4" thru 2" pipe.
MATERIAL - Carbon Steel.
FINISH - Mil. Galvanized..

LISTINGS -  us EX 4231, EX 2551

PATENT - No. 6,648,278.

FUNCTION - To support horizontal piping - C.P.V.C., Copper or Steel.
Hanger and restrainer in listed mounting positions - Top, Bottom or Side.
Provides stability on vertical piping.

INSTALLATION - Per N.F.P.A 13, 13R and 13D on top, bottom or side of building element. Space by pipe type.
On 3/8" wood web use #906 backing nuts. - see drawing.

Snap over pipe then squeeze strap back allowing pipe to slide freely.

FASTENERS - UL Listed per NFPA 13

in **WOOD**:

- CPVC pipe - #905 screw- no pre-drill.
- Copper pipe - #905 screw- no pre-drill.
- Steel pipe - 1/4"x1 1/2" lag screw - no pre-drill.

in **STEEL**:

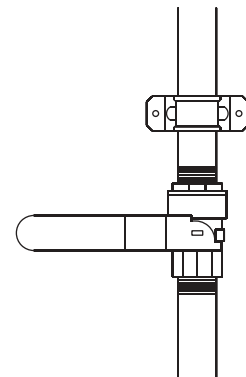
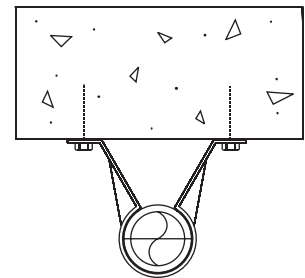
- CPVC pipe - 1/4" or #14 Tek Screw.
- Copper pipe - 1/4" or #14 Tek Screw.
- Steel pipe - 1/4" or #14 Tek Screw.

FEATURES

- * 1 1/2" Offset.
- * 3/4" and 1" pipe size made with common center-line.
- * Leg design produces superior strength.
- * Offset edge eliminates abrasion.
- * Required AFCON #905 screw has 5/16" hex head - included

ORDERING - Part # and pipe size.

AFCON #906 sold separately.

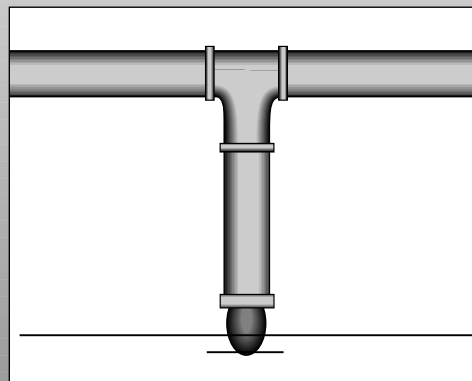


BlazeMaster[®]

FIRE SPRINKLER PIPE & FITTINGS SUBMITTAL SHEET

TYCO FIRE PRODUCTS
451 North Cannon Avenue
Lansdale, Pennsylvania 19446
www.tyco-fire.com

TECHNICAL SERVICES
TEL: (800) 381-9312 · FAX: (800) 791-5500
E-MAIL: techserv@tycofp.com



Introduction

Tyco Fire Products (TFP) BlazeMaster® CPVC pipe and fittings are designed exclusively for use in wet pipe automatic fire sprinkler systems. They are made from a specially developed thermoplastic compound composed of post chlorinated polyvinyl chloride (CPVC) resin and state of the art additives. TFP BlazeMaster® CPVC products are easier to install than traditional steel pipe systems, and at

the same time, they provide superior heat resistance and strength as compared to traditional CPVC and PVC piping materials used in the plumbing trade. Various adapters are available to connect CPVC pipe to metallic piping. All female pipe thread adapters have brass inserts for durability. Grooved adapters connect directly to grooved end valves and metallic pipe, with flexible grooved end couplings.

Technical Data

Sizes: 3/4" – 3"

Maximum Working Pressure: 175 psi

Approvals: UL, FM, CUL, NSF, Dade County, LPCB, MEA, and the City of Los Angeles

Note: See current TFP BlazeMaster Installation Instructions and Technical Manual, for exact listing/approval information

Manufacture Source: U.S.A.

Material:

Pipe: ASTM F442, SDR 13.5

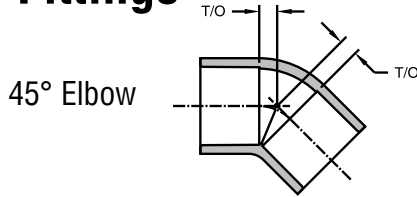
Fittings: ASTM F438 (Sch. 40) and ASTM F439 (Sch. 80)

Color: Orange

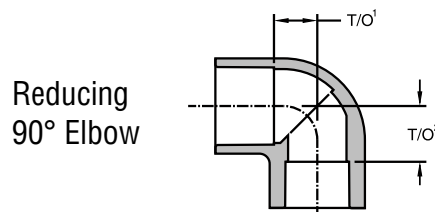
Pipe

Nom. Pipe Size	Avg. O.D. Inches	Avg. I.D. Inches	Wt. Lbs./Ft.	Wt. H ₂ O filled Pipe Lbs./Ft.	Ft. of Pipe per Lift	Wt. per Lift Lbs.
3/4"	1.050	0.874	0.17	0.43	7875	1413
1"	1.315	1.101	0.26	0.67	5040	1320
1 1/4"	1.660	1.394	0.42	1.07	2835	1191
1 1/2"	1.900	1.598	0.55	1.40	2205	1136
2"	2.375	2.003	0.86	2.20	1260	1063
2 1/2"	2.875	2.423	1.26	3.22	1215	1531
3"	3.500	2.952	1.87	4.79	720	1344

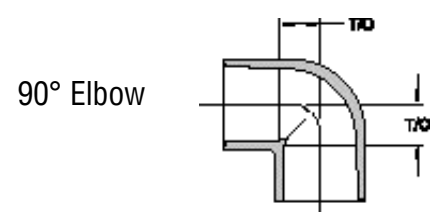
Fittings



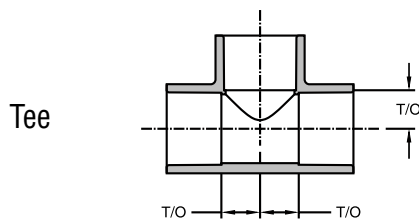
Part No.	Size	Sch.	T/O	Wt.
80050	3/4"	40	3/8"	0.08 lb.
80051	1"	40	3/8"	0.11 lb.
80052	1 1/4"	40	3/4"	0.20 lb.
80053	1 1/2"	80	7/16"	0.31 lb.
80054	2"	80	3/4"	0.56 lb.
80055	2 1/2"	80	3/4"	0.89 lb.
80056	3"	80	1"	1.19 lb.



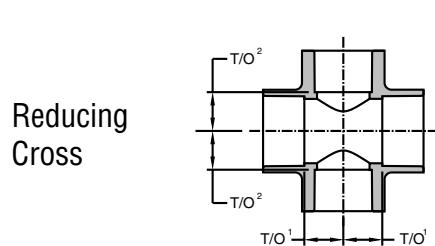
Part No.	Size	Sch.	T/O		Wt. lb.
			1	2	
80032	1" x 3/4"	40	11/16"	13/16"	0.16



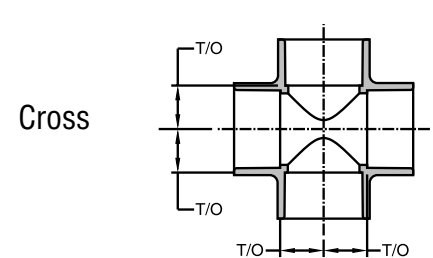
Part No.	Size	Sch.	T/O	Wt.
80025	3/4"	40	9/16"	0.09 lb.
80026	1"	40	3/4"	0.14 lb.
80027	1 1/4"	40	7/8"	0.21 lb.
80028	1 1/2"	80	1 1/16"	0.40 lb.
80029	2"	80	1 1/4"	0.79 lb.
80030	2 1/2"	80	1 1/2"	1.14 lb.
80031	3"	80	1 13/16"	1.82 lb.



Part No.	Size	Sch.	T/O	Wt.
80000	3/4"	40	5/8"	0.11 lb.
80001	1"	40	3/4"	0.19 lb.
80002	1 1/4"	40	7/8"	0.26 lb.
80003	1 1/2"	80	1"	0.51 lb.
80004	2"	80	1 3/8"	0.90 lb.
80005	2 1/2"	80	1 9/16"	1.59 lb.
80006	3"	80	1 11/16"	2.41 lb.



Part No.	Size	Sch.	T/O		Wt. lb.
			1	2	
80015	1" x 3/4"	40	11/16"	11/16"	0.28



Part No.	Size	Sch.	T/O	Wt.
80009	3/4"	40	9/16"	0.13 lb.
80010	1"	40	15/16"	0.23 lb.
80011	1 1/4"	40	15/16"	0.34 lb.
80012	1 1/2"	80	1 1/16"	0.67 lb.
80013	2"	80	1 3/8"	1.00 lb.
80014	2 1/2"	80	1 9/16"	1.91 lb.
80008	3"	80	1 13/16"	2.89 lb.



Specifications subject to change without notice.

Stock Number: 1144460

Optional: Cover Tamper Switch Kit, stock no. 0090148

Replaceable Components: Retard/Switch Assembly, stock no. 1029030

UL, CUL and CSFM Listed

Service Pressure: Up to 175 PSI (12,07 BAR)

Flow Sensitivity Range for Signal: 4-10 GPM (15-38 LPM) - UL

Maximum Surge: 18 FPS (5.5 m/s)

Contact Ratings: Two sets of SPDT (Form C)
10.0 Amps at 125/250VAC
2.0 Amps at 30VDC Resistive
10 mAmps min. at 24VDC

Conduit Entrances: Two openings provided for 1/2" conduit.
Individual switch compartments suitable for dissimilar voltages.

Environmental Specifications:

- NEMA 4/IP54 Rated Enclosure suitable for indoor or outdoor use with factory installed gasket and die-cast housing when used with appropriate conduit fitting.
- Temperature Range: 40°F - 120°F, (4.5°C - 49°C) - UL

Service Use:

Automatic Sprinkler	NFPA-13
One or two family dwelling	NFPA-13D
Residential occupancy up to four stories	NFPA-13R
National Fire Alarm Code	NFPA-72

⚠ WARNING

- Installation must be performed by qualified personnel and in accordance with all national and local codes and ordinances.
- Shock hazard. Disconnect power source before servicing. Serious injury or death could result.
- Risk of explosion. Not for use in hazardous locations. Serious injury or death could result.

CAUTION

Waterflow switches that are monitoring wet pipe sprinkler systems shall not be used as the sole initiating device to discharge AFFF, deluge, or chemical suppression systems. Waterflow switches used for this application may result in unintended discharges caused by surges, trapped air, or short retard times.

General Information

The Model VSR-SG is a vane type waterflow switch for use on wet sprinkler systems using CPVC plastic fittings (manufactured by Tyco, Nibco, Victaulic, Ipex, and Spears Manufacturing Company) that use 1", 1 ¼", 1 ½", or 2" pipe sizes. It is equipped with a union to accommodate installation in confined spaces.

The VSR-SG contains two single pole, double throw, snap action switches and an adjustable, instantly recycling pneumatic retard. The switches are actuated when a flow of 10 GPM (38 LPM) or more occurs downstream of the device. The flow condition must exist for a period of time necessary to overcome the selected retard period.

Enclosure

The VSR-SG switches and retard device are enclosed in a general purpose, die-cast housing. The cover is held in place with two tamper resistant screws which require a special key for removal. A field installable cover tamper switch is available as an option which may be used to indicate unauthorized removal of the cover. See bulletin number 5401103 for installation instructions of this switch.