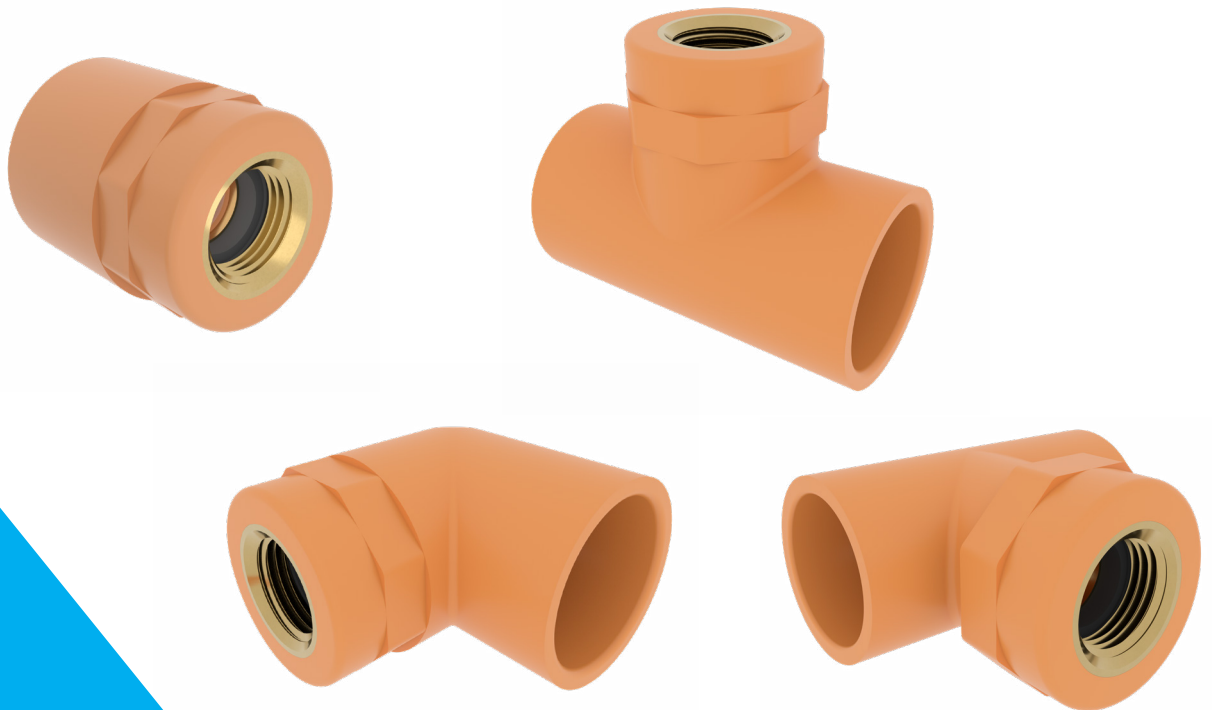




# CPVC BlazeMaster<sup>®</sup> Fire Protection Fittings

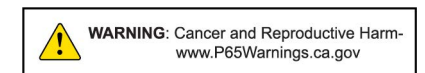


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**Viking Plastics LLC.**  
5150 Beltway Drive SE  
Caledonia, Michigan 49316



## Numerical Index

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## Key to Viking Figure Numbers

### TYPE OF MATERIAL

V50 = CPVC Fire Protection

### TYPE OF FITTING & DESCRIPTION

- 01 = Coupling
- 03 = Female Adapter
- 04 = Male Adapter
- 06 = 45° Elbow
- 07 = 90° Elbow
- 11 = Tee
- 12 = Sprinkler Tee (Thread on Outlet)
- 14 = Sprinkler Tee (Thread on Run)
- 17 = Cap
- 18 = Bushing
- 19 = Blind Flange
- 33 = Unions
- 35 = Cross
- 51 = Solid Flange

### TYPE OF CONNECTIONS

- 2 = Fitting Connection Spigot
- 3 = Female Thread Connection
- 4 = Male Thread Connection
- S = Sprinkler Adapter
- BI = Brass Insert
- R = Reducing

### FITTING TERMS AND ABBREVIATIONS

- FNPT = Female NPT Thread
- MNPT = Male NPT Thread
- S or SLIP = Female Socket
- SPG = Male End (Spigot)
- G = Grooved
- L = Large
- S = Small
- H = Heavy
- IPS = Iron Pipe Size
- CTS = Copper Tube Size
- Q = Quart
- P = Pint

# Specifications and Engineering Data

## Introduction

Viking BlazeMaster® CPVC fire sprinkler products are manufactured from high quality, post-chlorinated polyvinyl chloride (CPVC), a specialty thermoplastic material tested and listed by certifying agencies for use in CPVC fire sprinkler systems. Viking CPVC fire sprinkler products provide unique advantages over traditional metal fire sprinkler systems through superior hydraulics, ease of installation, handling, and quicker assembly using readily available and less expensive tools. These products are also based on technology with a continuous and proven service history of more than forty (40) years.

## Pressure Ratings

Viking BlazeMaster® pipe and fittings are rated by

- » **FM Approvals** for continuous service of 250 psi (1720 kPa) at 120°F (49°C) **ONLY FOR** nominal sizes 3/4" – 1 1/2" (20 – 40 mm) and not for InstaSeal items or unions.
- » **FM Approvals** for continuous service of 175 psi (1210 kPa) at 150°F (65°C) for 2" – 3" (50 – 80 mm)
- » **cULus and LPCB** for continuous service of 175 psi (1210 kPa) at 150°F (65°C) for all sizes.

## Approvals

Viking BlazeMaster® fittings for fire sprinkler systems

- » Listed by Underwriters Laboratories (UL) for the United States and Canada under Chlorinated Polyvinyl Chloride Sprinkler Pipe and Fittings - VIWT and VIWT7.EX15419
- » FM Approved for FM insured properties - Class 1635-Plastic Pipe & Fittings for Automatic Sprinkler Systems
- » Meets approval and listing requirements of NFPA 13, 13D, and 13R
- » Red Book listed by the Loss Prevention Safety Board (LPCB) under Plastic Pipe and Fittings for Use in Automatic Sprinkler Systems - Certificate 1559a to LPS 1260-Issue 3.1
- » CPVC fittings and sprinkler adapters are NSF International listed to NSF/ANSI-61 (health effects) and NSF/ANSI-372 (Lead-Free\*) for use in potable water applications



## Use with other Manufacturers' Pipes, Fittings, & Solvent Cements

Viking BlazeMaster® CPVC fire sprinkler products are listed by UL to standard 1821. They are also approved by FM to standard 1635. These standards require rigorous testing to ensure the products will function as a component of the assembled fire protection system. For fire protection CPVC pipe the current UL standard is 1821 and FM standard 1635. Viking warrants each Viking BlazeMaster® fitting installed in accordance with local code and regulations with UL listed and/or FM approved CPVC pipe and fittings in compliance with the UL & FM standards. A current list of compatible UL and ULC listed CPVC manufacturers are: Viking (pipe), GF Harvel (pipe), IPEX (pipe and fittings), and Spears (pipe & fittings).

**NOTICE: While Viking BlazeMaster® CPVC fire sprinkler products are UL listed for use in combination with other listed manufacturers' products, specific application approvals may not be the same among manufacturers. It is the installer's responsibility to verify suitability of products used in combination according to each manufacturer's installation instructions. Contact Viking if you have questions on any application not addressed in this manual.**

## Engineering Data – Product Specifications

Viking BlazeMaster® CPVC fire sprinkler products are made for use with listed CPVC fire sprinkler pipe produced in SDR 13.5 dimensions, as specified in ASTM F442.

Viking BlazeMaster® CPVC fire sprinkler fittings are produced in schedule 40 dimensions for sizes 3/4 inch (20 mm) through 1-1/4" (32 mm) in accordance with ASTM F438 and schedule 80 dimensions for sizes 1-1/2" (40 mm) through 3" (80 mm) in accordance with ASTM F439. See section "Pressure Ratings" for more information.

## Installation Instructions

CPVC pipe and fittings are for professional use only and are not sold to the general public. For complete installation instructions refer to the Viking "Installation and Design Manual" on [www.vikinggroupinc.com](http://www.vikinggroupinc.com).

## CPVC Standard Fire Protection Fittings

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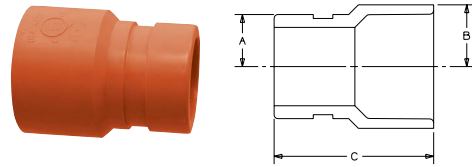
\*Weighted average lead content <0.25%.

# BlazeMaster® Fire Protection Fittings – STANDARD

## ADAPTERS

### Grooved Coupling Adapters (G x S)

V5001-G



Viking Part Number	Nominal Size		Approx. Wght.		Dimensions						Joint
	IN.	mm	lb.	kg	A		B		C		
					IN.	mm	IN.	mm	IN.	mm	
V5001G-010*	1	25	0.16	0.07	0.66	17	0.80	20	2.38	61	GXS
V5001G-012	1-1/4	33	0.17	0.08	0.83	21	1.04	26	2.98	76	GXS
V5001G-015	1-1/2	40	0.2	0.09	0.95	24	1.17	30	3.15	80	GXS
V5001G-020	2	50	0.3	0.14	1.18	30	1.43	36	3.37	86	GXS
V5001G-025	2-1/2	65	0.52	0.24	1.43	36	1.74	44	3.66	93	GXS
V5001G-030	3	75	0.72	0.33	3.5	89	--	--	--	--	GXS

\* V5001G-010 is not approved by LPCB

## BUSHINGS

### Bushings

V5018



Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
	IN.	mm	lb.	kg	L		N		
					IN.	mm	IN.	mm	
V5018-131	1x3/4	25x19	0.04	0.02	1.28	33	0.29	7	SPGXS
V5018-168	1-1/4x1	31x25	0.08	0.04	1.41	36	0.29	7	SPGXS
V5018-167	1-1/4x3/4	31x19	0.10	0.05	1.41	36	0.41	10	SPGXS
V5018-212	1-1/2x1-1/4	40x31	0.07	0.03	1.54	39	0.27	7	SPGXS
V5018-211	1-1/2x1	40x25	0.12	0.05	1.54	39	0.39	10	SPGXS
V5018-210	1-1/2x3/4	40x19	0.16	0.07	1.54	39	0.53	13	SPGXS
V5018-251	2x1-1/2	50x40	0.16	0.07	1.66	42	0.27	7	SPGXS
V5018-250	2x1-1/4	50x31	0.20	0.09	1.66	42	0.4	10	SPGXS
V5018-249	2x1	50x25	0.22	0.10	1.66	42	0.52	13	SPGXS
V5018-248	2x3/4	50x19	0.22	0.10	1.66	42	0.64	16	SPGXS
V5018-292	2-1/2x2	65x50	0.24	0.11	1.94	49	0.44	11	SPGXS
V5018-291	2-1/2x1-1/2	65x40	0.36	0.16	1.94	49	0.57	14	SPGXS
V5018-290	2-1/2x1-1/4	65x31	0.40	0.18	1.94	49	0.68	17	SPGXS
V5018-289	2-1/2x1	65x25	0.47	0.21	1.94	49	0.81	21	SPGXS
V5018-339	3x2-1/2	75x65	0.47	0.21	2.42	61	0.6	15	SPGXS
V5018-338	3x2	75x50	0.66	0.30	2.42	61	0.93	24	SPGXS
V5018-337	3x1-1/2	75x40	0.73	0.33	2.42	61	1.03	26	SPGXS

**WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

# BlazeMaster® Fire Protection Fittings – STANDARD

## CAPS

V5017

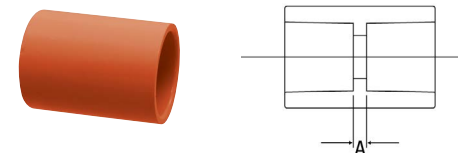


## Caps

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5017-007	3/4"	19	0.04	0.02	0.31	8	S
V5017-010	1"	25	0.06	0.03	0.39	10	S
V5017-012	1-1/4"	31	0.22	0.1	0.56	14	S
V5017-015	1-1/2"	40	0.3	0.14	0.68	17	S
V5017-020	2"	50	0.42	0.19	0.68	17	S
V5017-025	2-1/2"	65	0.62	0.28	1.2	30	S
V5017-030	3"	75	0.96	0.44	1.26	32	S

## COUPLINGS

V5001  
V5001-R

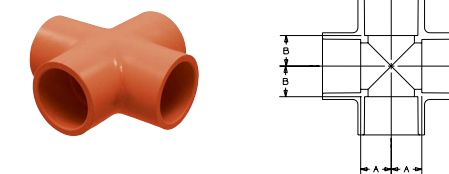


## Couplings

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5001-007	3/4	19	0.06	0.03	0.12	3	SXS
V5001-010	1	25	0.08	0.04	0.09	2	SXS
V5001-012	1-1/4	31	0.12	0.05	0.08	2	SXS
V5001-015	1-1/2	40	0.23	0.1	0.27	7	SXS
V5001-020	2	50	0.44	0.2	0.28	7	SXS
V5001-025	2-1/2	65	0.72	0.33	0.2	5	SXS
V5001-030	3	75	1.1	0.5	0.22	6	SXS
V5001R-131	1x3/4	25x19	0.08	0.04	0.29	7	SXS
V5001R-168	1-1/4x1	31x25	0.12	0.05	0.35	9	SXS
V5001R-212	1-1/2x1-1/4	40x31	0.38	0.17	0.51	13	SXS
V5001R-211	1-1/2x1	40x25	0.36	0.16	0.67	17	SXS
V5001R-210	1-1/2x3/4	40x19	0.34	0.15	0.8	20	SXS
V5001R-251	2x1-1/2	50x40	0.49	0.22	0.51	13	SXS
V5001R-249	2x1	50x25	0.48	0.22	0.75	19	SXS

## CROSSES

V5035  
V5035-R



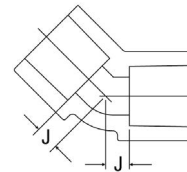
## Crosses

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
	IN.	mm	lb.	kg	A		B		
					IN.	mm	IN.	mm	
V5035-007	3/4	19	0.12	0.05	0.61	15	0.61	15	SXSXSXS
V5035-010	1	25	0.24	0.11	0.75	19	0.75	19	SXSXSXS
V5035-012	1-1/4	31	0.34	0.15	0.9	23	0.9	23	SXSXSXS
V5035-015	1-1/2	40	0.87	0.39	1.23	31	1.23	31	SXSXSXS
V5035-020	2	50	1.43	0.65	1.53	39	1.53	39	SXSXSXS
V5035-025	2-1/2	65	2.17	0.98	1.75	44	1.75	44	SXSXSXS
V5035-030	3	75	3.12	1.42	1.89	48	1.89	48	SXSXSXS
V5035R-131	1x1x3/4x3/4	25x25x19x19	0.18	0.08	0.61	15	0.73	19	SXSXSXS

**WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

## ELBOWS

### V5006

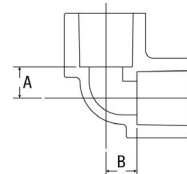


### 45° Elbows

Viking Part Number	Nominal Size		Approx. Wght.		Dimension J		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5006-007	3/4	19	0.06	0.03	0.32	8	SXS
V5006-010	1	25	0.12	0.05	0.39	10	SXS
V5006-012	1-1/4	31	0.18	0.08	0.48	12	SXS
V5006-015	1-1/2	40	0.36	0.16	0.47	12	SXS
V5006-020	2	50	0.54	0.24	0.58	15	SXS
V5006-025	2-1/2	65	1	0.45	0.65	17	SXS
V5006-030	3	75	1.28	0.57	0.76	19	SXS

### V5007

### V5007-R

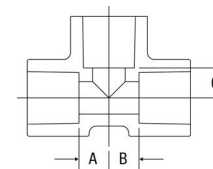


### 90° Elbows

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
	IN.	mm	lb.	kg	A		B		
					IN.	mm	IN.	mm	
V5007-007	3/4	19	0.08	0.04	0.56	14	0.56	14	SXS
V5007-010	1	25	0.14	0.06	0.69	18	0.69	18	SXS
V5007-012	1-1/4	31	0.22	0.10	0.91	23	0.91	23	SXS
V5007-015	1-1/2	40	0.41	0.18	1.06	27	1.06	27	SXS
V5007-020	2	50	0.83	0.37	1.24	31	1.24	31	SXS
V5007-025	2-1/2	65	1.16	0.52	1.5	38	1.5	38	SXS
V5007-030	3	75	1.66	0.74	1.81	46	1.81	46	SXS
V5007R-131	1x3/4	25x19	0.12	0.05	0.61	15	0.75	19	SXS

## TEES

### V5011

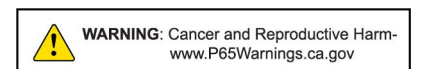
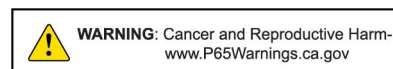
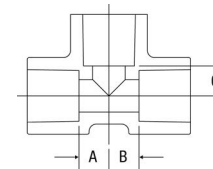


### Tees

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions						Joint
	IN.	mm	lb.	kg	A		B		C		
					IN.	mm	IN.	mm	IN.	mm	
V5011-007	3/4	19	0.1	0.04	0.57	14	0.57	14	0.57	14	SXSXS
V5011-010	1	25	0.17	0.08	0.69	18	0.69	18	0.69	18	SXSXS
V5011-012	1-1/4	33	0.28	0.12	0.89	23	0.89	23	0.89	23	SXSXS
V5011-015	1-1/2	40	0.58	0.26	1.05	27	1.05	27	1.05	27	SXSXS
V5011-020	2	50	0.82	0.37	1.25	32	1.25	32	1.25	32	SXSXS
V5011-025	2-1/2	65	1.4	0.62	1.53	39	1.53	39	1.53	39	SXSXS
V5011-030	3	75	2.14	0.96	1.84	47	1.84	47	1.84	47	SXSXS
V5011R-102	3/4x3/4x1	19x19x25	0.14	0.06	0.7	18	0.7	18	0.73	19	SXSXS
V5011R-131	1x1x3/4	25x25x19	0.16	0.07	0.61	15	0.61	15	0.94	24	SXSXS
V5011R-126	1x3/4x1	25x19x25	0.2	0.09	0.76	19	0.99	25	0.78	20	SXSXS
V5011R-125	1x3/4x3/4	25x19x19	0.16	0.07	0.6	15	0.87	22	0.77	20	SXSXS
V5011R-168	1-1/4x1-1/4x1	33x33x25	0.24	0.11	0.73	19	0.73	19	0.89	23	SXSXS
V5011R-167	1-1/4x1-1/4x3/4	33x33x19	0.2	0.09	0.6	15	0.6	15	0.89	23	SXSXS
V5011R-159	1-1/4x1x1-1/4	33x25x33	0.28	0.12	0.88	22	1.03	26	0.87	22	SXSXS
V5011R-158	1-1/4x1x1	33x25x25	0.24	0.11	0.71	18	0.9	23	0.89	23	SXSXS
V5011R-157	1-1/4x1x3/4	33x25x19	0.2	0.09	0.61	15	0.76	19	0.89	23	SXSXS
V5011R-169	1-1/4x1-1/4x1-1/2	33x33x45	0.44	0.2	1.01	26	1.01	26	0.88	22	SXSXS
V5011R-212	1-1/2x1-1/2x1-1/4	45x45x33	0.46	0.21	0.89	23	0.89	23	1.04	26	SXSXS
V5011R-211	1-1/2x1-1/2x1	40x40x25	0.54	0.24	0.77	20	0.77	20	0.96	24	SXSXS
V5011R-210	1-1/2x1-1/2x3/4	40x40x19	0.5	0.22	0.67	17	0.67	17	1.04	26	SXSXS
V5011R-202	1-1/2x1-1/4x1	40x33x25	0.4	0.18	0.72	18	0.91	23	1.01	26	SXSXS
V5011R-201	1-1/2x1-1/4x3/4	40x33x19	0.36	0.16	0.6	15	0.78	20	1.02	26	SXSXS
V5011R-213	1-1/2x1-1/2x2	40x40x50	0.66	0.29	1.3	33	1.3	33	1.14	29	SXSXS
V5011R-251	2x2x1-1/2	50x50x40	0.86	0.38	1.06	27	1.06	27	1.37	35	SXSXS
V5011R-250	2x2x1-1/4	50x50x33	0.67	0.3	1	25	1	25	1.28	33	SXSXS
V5011R-249	2x2x1	50x50x25	0.72	0.32	0.8	20	0.8	20	1.25	32	SXSXS
V5011R-248	2x2x3/4	50x50x19	0.68	0.3	0.7	18	0.7	18	1.25	32	SXSXS
V5011R-292	2-1/2x2-1/2x2	65x65x50	1.32	0.59	1.26	32	1.26	32	1.53	39	SXSXS
V5011R-291	2-1/2x2-1/2x1-1/2	65x65x40	1.21	0.54	1.06	27	1.06	27	1.53	39	SXSXS
V5011R-290	2-1/2x2-1/2x1-1/4	65x65x33	1.12	0.5	0.91	23	0.91	23	1.53	39	SXSXS
V5011R-289	2-1/2x2-1/2x1	65x65x25	1.05	0.47	0.74	19	0.74	19	1.53	39	SXSXS
V5011R-339	3x3x2-1/2	75x75x65	1.71	0.76	1.53	39	1.53	39	1.84	47	SXSXS
V5011R-338	3x3x2	75x75x50	1.91	0.85	1.26	32	1.26	32	1.84	47	SXSXS
V5011R-337	3x3x1-1/2	75x75x40	1.39	0.62	1.06	27	1.06	27	1.82	46	SXSXS

Note: All Viking reducing tees are molded to size, not fabricated.

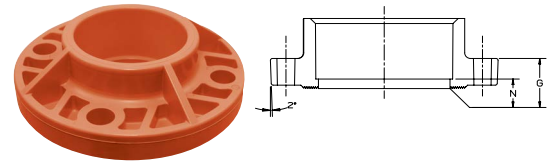
### V5011-R



# BlazeMaster® Fire Protection Fittings – STANDARD

## FLANGES

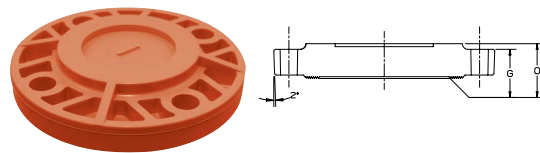
### V5051-H



### Socket Flanges

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
					G		N		
	IN.	mm	lb.	kg	IN.	mm	IN.	mm	
V5051H-030	3	75	1.75	0.78	1.02	26	0.32	8	S

### V5019-H



### Blind Flanges

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
					G		O		
	IN.	mm	lb.	kg	IN.	mm	IN.	mm	
V5019H-030	3	75	2.18	0.97	1.00	25	1.33	34	--

## UNIONS

### V5033-E



### Unions (O-ring Material EPDM)

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
					A		L		
	IN.	mm	lb.	kg	IN.	mm	IN.	mm	
V5033E-007	3/4	19	0.27	0.12	2.46	62	0.43	11	SxS
V5033E-010	1	25	0.40	0.18	2.70	69	0.43	11	SxS

### NOTICE

Unions are an exception to the 250 PSI pressure rating.

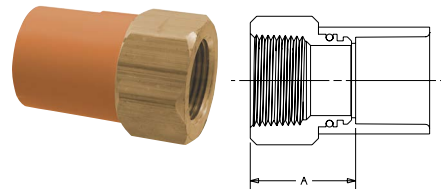
## CPVC Threaded Fire Protection Fittings

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# BlazeMaster® Fire Protection Fittings – THREADED

## ADAPTERS

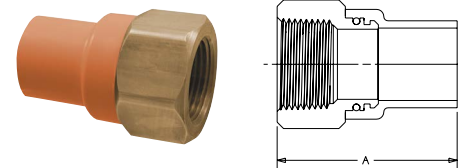
### V5003-BI



### Female Adapters with Metal Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5003BI-007	3/4	19	0.28	0.12	1.19	30	SXFNPT
V5003BI-010	1	25	0.63	0.28	1.59	40	SXFNPT
V5003BI-012	1-1/4	33	1.02	0.46	1.96	50	SXFNPT
V5003BI-015	1-1/2	40	1.26	0.56	1.98	50	SXFNPT
V5003BI-020	2	50	1.98	0.88	1.99	51	SXFNPT

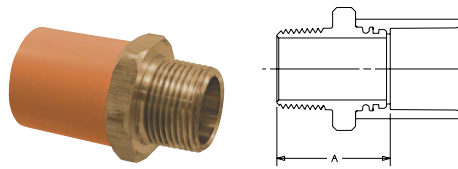
### V5003-2-BI



### Spigot Female Adapters with Metal Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V50032BI-007	3/4	19	0.28	0.12	2	51	SPGXFNPT
V50032BI-010	1	25	0.7	0.31	2.72	69	SPGXFNPT

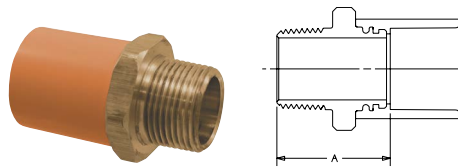
### V5004-BI



### Male Adapters with Metal Thread Insert

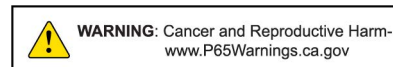
Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5004BI-007	3/4	19	0.22	0.1	1.35	34	SxMNPT
V5004BI-010	1	25	0.46	0.21	1.82	46	SxMNPT
V5004BI-012	1-1/4	33	0.74	0.33	2.05	52	SxMNPT
V5004BI-015	1-1/2	40	1.06	0.47	2.14	54	SxMNPT
V5004BI-020	2	50	1.8	0.8	2.31	59	SxMNPT

### V5004-BI-BSP



### Male Adapters with Metal BSP Thread Insert

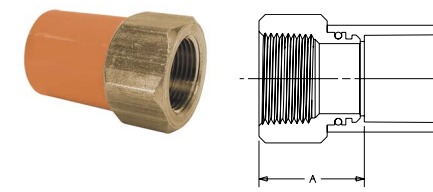
Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5004BI-BSP-007	3/4	19	0.22	0.1	1.35	34	SxMBSPT
V5004BI-BSP-010	1	25	0.46	0.21	1.82	46	SxMBSPT
V5004BI-BSP-012	1-1/4	33	0.74	0.33	2.05	52	SxMBSPT
V5004BI-BSP-015	1-1/2	40	1.06	0.47	2.14	54	SxMBSPT
V5004BI-BSP-020	2	50	1.8	0.8	2.31	59	SxMBSPT



# BlazeMaster® Fire Protection Fittings – THREADED

## ADAPTERS

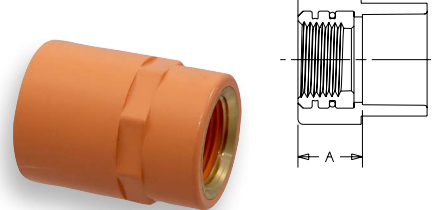
### V5003-BI-BSP



### Female Adapters with Metal BSP Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5003BIBSP-010	1	25	0.63	0.28	1.59	40	SXBSPT
V5003BIBSP-012	1-1/4	33	1.02	0.46	1.96	50	SXBSPT
V5003BIBSP-015	1-1/2	40	1.26	0.56	1.98	50	SXBSPT
V5003BIBSP-020	2	50	1.98	0.88	1.99	51	SXBSPT

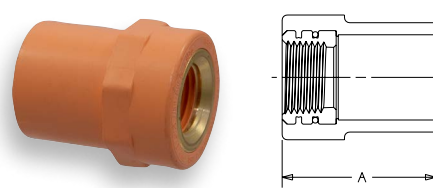
### V5003-S-BI



### Female Sprinkler Adapters with Metal Thread Insert

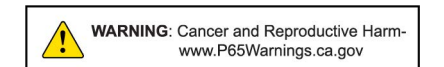
Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5003SBI-101	3/4x1/2	19x13	0.16	0.07	0.72	18	SXFNPT
V5003SBI-130	1x1/2	25x13	0.18	0.08	0.73	19	SXFNPT
V5003SBI-131	1x3/4	25x19	0.18	0.08	0.93	24	SXFNPT

### V5003-2-S-BI



### Spigot Female Sprinkler Adapters with Metal Thread Insert

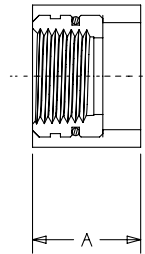
Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V50032SBI-101	3/4x1/2	19x13	0.15	0.07	1.53	39	SPGXFNPT
V50032SBI-130	1X1/2	25x13	0.16	0.07	1.84	47	SPGXFNPT



# BlazeMaster® Fire Protection Fittings – THREADED

## ADAPTERS

V5018-S-BI

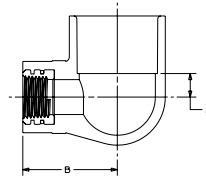


Bushing Sprinkler Adapters with Metal Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5018SBI-130	1 x 1/2	25x13	0.15	0.07	1	25	SPGXFNPT

## ELBOWS

V5007-3-S-BI



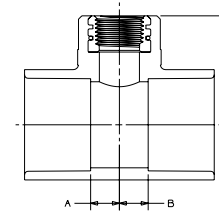
Sprinkler 90 with Metal Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
	IN.	mm	lb.	kg	A		B		
V50073SBI-101	3/4x 1/2	19x13	0.22	0.1	0.56	14	1.62	41	SxFNPT
V50073SBI-130	1x 1/2	25x13	0.27	0.12	0.5	13	1.76	45	SxFNPT
V50073SBI-131	1x 3/4	25x19	0.26	0.12	0.59	15	1.88	48	SxFNPT
V50073SBI-166	1-1/4x 1/2	33x13	0.3	0.13	0.48	12	1.95	50	SxFNPT

# BlazeMaster® Fire Protection Fittings – THREADED

## TEES

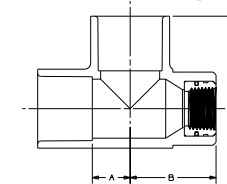
V5012-S-BI  
V5012R-S-BI



Sprinkler Tees with Metal Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions						Joint
	IN.	mm	lb.	kg	A		B		C		
V5012SBI-101	3/4x3/4x1/2	19x19x13	0.22	0.1	0.42	11	0.42	11	1.6	41	SxSxFNPT
V5012SBI-010	1	25	0.44	0.2	0.8	20	0.8	20	1.48	38	SxSxFNPT
V5012SBI-130	1x1x1/2	25x25x13	0.29	0.13	0.41	10	0.41	10	1.76	45	SxSxFNPT
V5012SBI-166	1-1/4x1-1/4x1/2	33x33x13	0.34	0.15	0.52	13	0.52	13	1.95	50	SxSxFNPT
V5012SBI-209	1-1/2x1-1/2x1/2	40x40x13	0.46	0.21	0.45	11	0.45	11	2.13	54	SxSxFNPT
V5012SBI-247	2x2x1/2	50x50x13	0.58	0.26	0.47	12	0.47	12	1.68	43	SxSxFNPT
V5012RSBI-124	1x3/4x1/2	25x19x13	0.28	0.12	0.46	12	0.83	21	1.69	43	SxSxFNPT
V5012RSBI-156	1-1/4x1x1/2	33x25x13	0.34	0.15	0.51	13	0.63	16	1.94	49	SxSxFNPT
V5012RSBI-199	1-1/2x1-1/4x1/2	40x33x13	0.47	0.21	0.46	12	0.67	17	2.13	54	SxSxFNPT
V5012RSBI-237	2x1-1/2x1/2	50x40x13	0.58	0.26	0.48	12	0.78	20	2.38	60	SxSxFNPT

V5014R-S-BI



Sprinkler Tees with Metal Thread Insert

Viking Part Number	Nominal Size		Approx. Wght.		Dimensions						Joint
	IN.	mm	lb.	kg	A		B		C		
V5014RSBI-122	1x1/2x1	25x13x25	0.3	0.13	0.71	18	1.74	44	1.9	48	SxFNPTxS

# BlazeMaster® Fire Protection Fittings – THREADED

## INSTASEAL ADAPTERS

### V5003-S-BG

#### Sprinkler Adapters with Metal Thread Insert and EPDM Rubber Seat



Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V5003SBG-101	3/4 X 1/2	19x13	--	--	1.50	38	S x FNPT
V5003SBG-130	1 X 1/2	25x13	--	--	1.88	48	S x FNPT

### V5003-2-S-BG

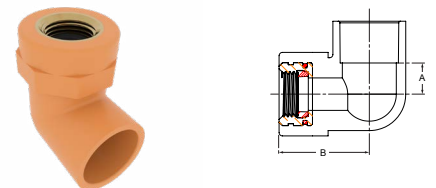
#### Sprinkler Adapters with Metal Thread Insert and EPDM Rubber Seat



Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V50032SBG-101	3/4 X 1/2	19x13	--	--	1.50	38	SPG x FNPT
V50032SBG-130	1 X 1/2	25x13	--	--	1.85	47	SPG x FNPT

### V50073-S-BG

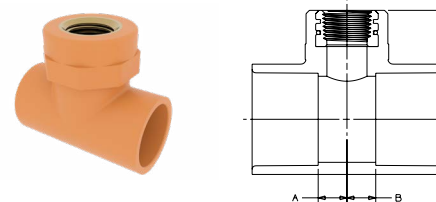
#### Sprinkler Adapter Elbows with Metal Thread Insert and EPDM Rubber Seat



Viking Part Number	Nominal Size		Approx. Wght.		Dimensions				Joint
					A		B		
	IN.	mm	IN.	mm	IN.	mm			
V50073SBG-101	3/4 X 1/2	19x13	0.22	0.1	0.56	14	1.62	41	S x FNPT
V50073SBG-130	1 X 1/2	25x13	0.27	0.12	0.50	13	1.75	45	S x FNPT

### V5012-S-BG

#### Sprinkler Adapter Tees with Metal Thread Insert and EPDM Rubber Seat



Viking Part Number	Nominal Size		Approx. Wght.		Dimensions						Joint
					A		B		C		
	IN.	mm	IN.	mm	IN.	mm	IN.	mm			
V5012SBG-101	3/4 X 3/4 X 1/2	19x19x13	0.22	0.1	0.43	11	0.43	11	1.62	41	S x S x FNPT
V5012SBG-130	1 X 1 X 1/2	25x25x13	0.27	0.12	0.42	11	0.42	11	1.75	45	S x S x FNPT

### NOTICE

Do not use PTFE tape or thread sealants on the threads of the InstaSeal fittings.

Tightening torque from touch of sprinkler to seat for proper installation of sprinkler		
REFER TO INSTALLATION INSTRUCTIONS		
1/2 turn CW	14-19 IN-LBS	Minimum
3/4 turn CW	24-30 IN-LBS	Recommended
1 1/4 turns CW	50-60 IN-LBS	Maximum

NOTE: Torque values are shown as "Inch-pounds" and not "foot-pounds".

## INSTASEAL ADAPTER INSTALLATION INSTRUCTIONS

### NOTICE

InstaSeal adapters can only be used with sprinklers having a K-factor less than or equal to 5.8 (83.6 metric).

- Follow the BlazeMaster one-step solvent cement instructions for socket or spigot fittings. Never complete a solvent cement joint with the sprinkler installed into the InstaSeal fitting per NFPA 13 requirements. DO NOT EXCESSIVELY APPLY CEMENT WHERE IT COULD SPILL OVER TO RUBBER SEAT. Installer must be properly trained and certified for construction and assembly of BlazeMaster® CPVC piping systems.
- IMPORTANT - Seating the Sprinkler:**  
After proper cement cure time, make sure sealing surface of rubber is clean and free of any nicks or scratches on sprinkler seal end surface. Use only the thumb and forefinger (finger strength) to start the sprinkler in the lead thread of the InstaSeal sprinkler adapter continuing until sprinkler contacts rubber seat. The rubber seat should not be compressed during this step. (Note: also include accessories as supplied by sprinkler manufacturer, such as adjustable cups and escutcheons, on to sprinkler prior to installing sprinkler into adapter fitting.)

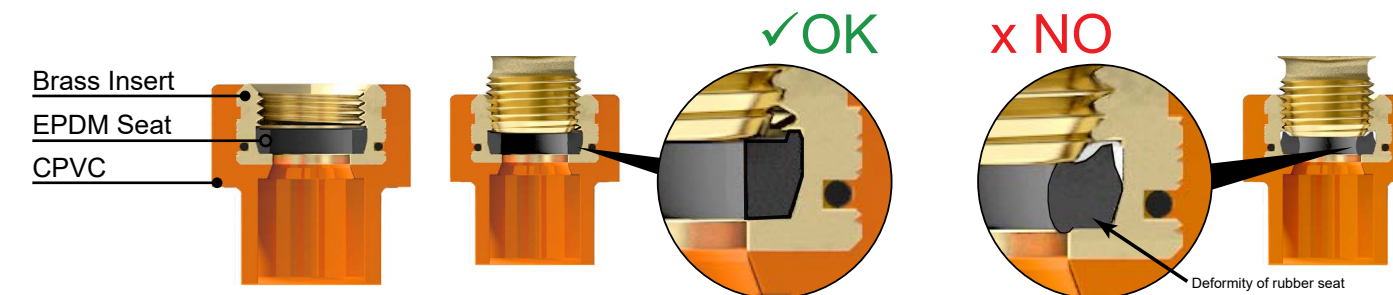


Figure 1: Sprinkler Contact on Rubber Seat

### 3. A. Pendent and Upright Sprinklers:

After seating the sprinkler, use the sprinkler manufacturer's recommended wrench to turn the sprinkler clockwise (CW) a minimum of one half (1/2) turn for seal. If sprinkler frame arms require alignment with pipe, continue to rotate CW to align, up to the maximum of 1 1/4 turns from initial seat to sprinkler contact as stated and as shown in Figure 1.

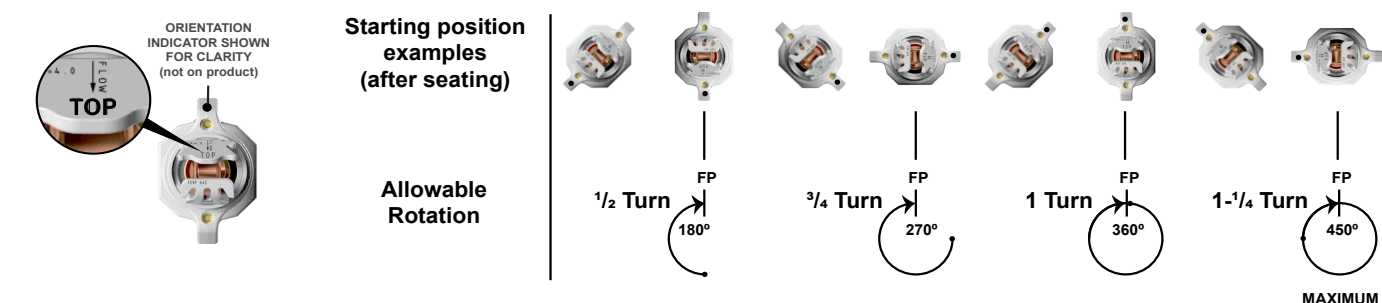
### NOTICE

Do not tighten more than 1 1/4 turns from initial sprinkler touch to rubber seat. Over-tightening will cause the rubber seat to protrude into the waterway and reduce the K-factor which impedes flow. Additionally, permanent damage to the rubber seat will occur leading to failure and leakage. Refer to Figure 1.

### B. Horizontal Sidewall Sprinklers:

After seating the sprinkler, use the sprinkler manufacturer's recommended wrench to turn the sprinkler clockwise to the required final position as shown below. **Note:** It may be necessary to re-seat the sprinkler to the EPDM seal (back out and restart threads) in a different position in order to achieve the required Final Position.

**Required Final Position (FP)**  
See the manufacturer's installation instructions for proper location and distance from ceiling.



# BlazeMaster® Fire Protection Fittings – ACCESSORIES

## CEMENT AND ACCESSORIES



### Solvent Cement

Viking Part Number	Size	Description	Weight per Case	
			Lbs.	Kg
V5097Q	Quart	One Step Cement	27	12.05
V5097P	Pint	One Step Cement	14	6.25
V5097PCAN	Pint	One Step Cement (for Canada)	14	6.25
V5097QCAN	Quart	One Step Cement (for Canada)	27	12.05



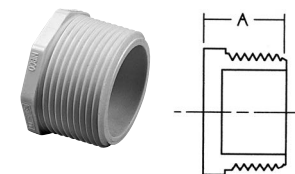
### Brush

Viking Part Number	Size	Description	Weight per Case	
			Lbs.	Kg
V5096	NA	Brush	11	4.91



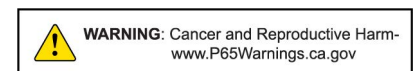
### Dauber

Viking Part Number	Size	Description	Weight per Case	
			Lbs.	Kg
V5093-S	Small	Dauber	2	0.89
V5093-L	Large	Dauber	2	0.89



### Test Plug

Viking Part Number	Nominal Size		Approx. Wght.		Dimension A		Joint
	IN.	mm	lb.	kg	IN.	mm	
V450-005	1/2	15	0.03	0.01	1.06	27	MPT



## Review – Do's & Don'ts

### Do's

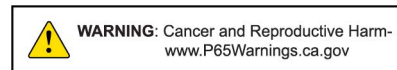
- » Installation should be made only by a qualified installer or contractor in accordance with all applicable codes and requirements.
- » Read and follow the installation instructions.
- » Follow recommended safe work practices.
- » Make certain thread sealants, gasket lubricants, and firestop materials are compatible with CPVC.
- » Keep pipe and fittings in original packaging until needed.
- » Cover pipe and fittings with an opaque tarp if stored outdoors.
- » Follow proper handling procedures.
- » Use tools specifically designed for use with plastic pipe and fittings.
- » Use the proper solvent cement and follow application instructions.
- » Use a drop cloth to protect interior finishes.
- » Cut the pipe ends square.
- » Deburr and bevel the pipe end with a chamfering tool.
- » Rotate the pipe 1/4 turn when bottoming pipe in fitting socket.
- » Make certain no solvent cement is on sprinkler and adapter threads.
- » Make certain that solvent cement does not run and plug the sprinkler orifice.
- » Follow the manufacturer's recommended cure times prior to pressure testing.
- » Fill lines slowly and only at a proper pressure.
- » Bleed the air from the system prior to pressure testing.
- » Support sprinkler properly to prevent lift up of the through the ceiling when activated.
- » For threaded rod hangar supports keep within 1/16" near pipe or use surge arrestor.
- » Install Viking BlazeMaster® CPVC fire sprinkler products in wet or dry system applications.
- » Use only insulation and/or glycerin and water solutions for freeze protection.
- » Allow for movement due to expansion and contraction.
- » Ensure installers have been properly trained per the Viking BlazeMaster® CPVC Fire Sprinkler System Installation and Design Manual and renew training every two years at a minimum.

### Don'ts

- » Do not use edible oils as a gasket lubricant.
- » Do not use petroleum or solvent-based sealants, lubricants, or fire stop materials.
- » Do not use any glycol-based solutions as anti-freeze.
- » Do not contaminate the CPVC system with cutting oils or compressor oils.
- » Do not mix glycerin and water solutions in contaminated containers.
- » Do not use solvent cement that exceeds its shelf life or has become discolored or jellied.
- » Do not allow solvent cement to plug the sprinkler orifice.
- » Do not connect rigid metal couplers to CPVC grooved adapters.
- » Do not thread or groove CPVC pipe.
- » Do not use solvent cement near sources of heat, open flame, or when smoking.
- » Do not pressure test with air.
- » Do not pressure test until recommended cure times are met.
- » Do not exceed proper pressure for testing.
- » Do not use ratchet cutters below 50°F.
- » Do not use CPVC pipe that has been stored outdoors, unprotected and is faded in color.
- » Do not allow threaded rod to come in contact with the pipe.
- » Do not install Viking BlazeMaster® CPVC fire sprinkler products in cold weather without allowing for expansion.
- » Do not allow puddling of cement in fittings and pipe.
- » Do not use dull or broken cutting tool blades when cutting pipe.

Cat.	Viking Part Number	Size	Nibco Figure No.	Spears Figure no.	
GROOVED ADAPTERS	V5001G-010	1"	5001-G	--	
	V5001G-012	1-1/4"	5001-G	4233-012	
	V5001G-015	1-1/2"	5001-G	4233-015	
	V5001G-020	2"	5001-G	4233-020	
	V5001G-025	2-1/2"	5001-G	4233-025	
	V5001G-065	65 mm	5001-G	--	
	V5001G-030	3"	5001-G	4233-030	
	V5018-131	1"x3/4"	5018	4237-131	
	V5018-168	1-1/4"x1"	5018	4237-168	
BUSHINGS	V5018-167	1-1/4"x3/4"	5018	4237-167	
	V5018-212	1-1/2"x1-1/4"	5018	4237-212	
	V5018-211	1-1/2"x1"	5018	4237-211	
	V5018-210	1-1/2"x3/4"	5018	4237-210	
	V5018-251	2"x1-1/2"	5018	4237-251	
	V5018-250	2"x1-1/4"	5018	4237-250	
	V5018-249	2"x1"	5018	4237-249	
	V5018-248	2"x3/4"	5018	4237-248	
	V5018-292	2-1/2"x2"	5018	4237-292	
	V5018-291	2-1/2"x1-1/2"	5018	4237-291	
	V5018-290	2-1/2"x1-1/4"	5018	4237-290	
	V5018-289	2-1/2"x1"	5018	N/A	
	V5018-339	3"x2-1/2"	5018	4237-339	
	V5018-338	3"x2"	5018	4237-338	
	V5018-337	3"x1-1/2"	5018	N/A	
	CAPS	V5017-007	3/4"	5017	4247-007
		V5017-010	1"	5017	4247-010
		V5017-012	1-1/4"	5017	4247-012
V5017-015		1-1/2"	5017	4247-015	
V5017-020		2"	5017	4247-020	
V5017-025		2-1/2"	5017	4247-025	
COUPLINGS	V5001-030	3"	5001	4229-030	
	V5001-007	3/4"	5001	4229-007	
	V5001-010	1"	5001	4229-010	
	V5001-012	1-1/4"	5001	4229-012	
	V5001-015	1-1/2"	5001	4229-015	
	V5001-020	2"	5001	4229-020	
	V5001-025	2-1/2"	5001	4229-025	
	V5001R-131	1"x3/4"	5001-R	4229-131	
	V5001R-168	1-1/4"x1"	5001-R	4229-168	
	V5001R-210	1-1/2"x3/4"	5001-R	4229-210	
	V5001R-211	1-1/2"x1"	5001-R	4229-211	
	V5001R-212	1-1/2"x1-1/4"	5001-R	4229-212	
	V5001R-249	2"x1"	5001-R	4229-249	
	V5001R-251	2"x1-1/2"	5001-R	4229-251	

Cat.	Viking Part Number	Size	Nibco Figure No.	Spears Figure no.	
CROSSES	V5035-007	3/4"	5035	4220-007	
	V5035-010	1"	5035	4220-010	
	V5035-012	1-1/4"	5035	4220-012	
	V5035-015	1-1/2"	5035	4220-015	
	V5035-020	2"	5035	4220-020	
	V5035-025	2-1/2"	5035	4220-025	
	V5035-030	3"	5035	4220-030	
	V5035R-131	1"x3/4"x1"x3/4"	5035-R	4220-131	
	ELBOWS	V5006-007	3/4"	5006	4217-007
V5006-010		1"	5006	4217-010	
V5006-012		1-1/4"	5006	4217-012	
V5006-015		1-1/2"	5006	4217-015	
V5006-020		2"	5006	4217-020	
V5006-025		2-1/2"	5006	4217-025	
V5006-030		3"	5006	4217-030	
V5007-007		3/4"	5007	4206-007	
V5007-010		1"	5007	4206-010	
V5007-012		1-1/4"	5007	4206-012	
V5007-015		1-1/2"	5007	4206-015	
V5007-020		2"	5007	4206-020	
V5007-025		2-1/2"	5007	4206-025	
V5007-030		3"	5007	4206-030	
V5007R-131		1"x3/4"	5007-R	4206-131	
FLANGES		V5019H-030	3"	5019-H	4253-030
		V5051H-030	3"	5051-H	N/A
TEES		V5011-007	3/4"	5011	4201-007
	V5011-010	1"	5011	4201-010	
	V5011-012	1-1/4"	5011	4201-012	
	V5011-015	1-1/2"	5011	4201-015	
	V5011-020	2"	5011	4201-020	
	V5011-025	2-1/2"	5011	4201-025	
	V5011-030	3"	5011	4201-030	
	V5011R-102	3/4"x3/4"x1"	5011-R	4201-102	
	V5011R-131	1"x1"x3/4"	5011-R	4201-131	
	V5011R-126	1"x3/4"x1"	5011-R	4201-126	
	V5011R-125	1"x3/4"x3/4"	5011-R	4201-125	
	V5011R-168	1-1/4"x1-1/4"x1"	5011-R	4201-168	
	V5011R-167	1-1/4"x1-1/4"x3/4"	5011-R	4201-167	
	V5011R-159	1-1/4"x1"x1-1/4"	5011-R	4201-159	
	V5011R-158	1-1/4"x1"x1"	5011-R	4201-158	
	V5011R-157	1-1/4"x1"x3/4"	5011-R	4201-157	
	V5011R-169	1-1/4"x1-1/4"x1-1/2"	5011-R	4201-169	
	V5011R-212	1-1/2"x1-1/2"x1-1/4"	5011-R	4201-212	
	V5011R-211	1-1/2"x1-1/2"x1"	5011-R	4201-211	
	V5011R-210	1-1/2"x1-1/2"x3/4"	5011-R	4201-210	
	V5011R-202	1-1/2"x1-1/4"x1"	5011-R	4201-202	
	V5011R-201	1-1/2"x1-1/4"x3/4"	5011-R	4201-201	
	V5011R-213	1-1/2"x1-1/2"x2"	5011-R	4201-213	
	V5011R-251	2"x2"x1-1/2"	5011-R	4201-251	



Cat.	Viking Part Number	Size	Nibco Figure No.	Spears Figure no.
TEES	V5011R-250	2"x2"x1-1/4"	5011-R	4201-250
	V5011R-249	2"x2"x1"	5011-R	4201-249
	V5011R-248	2"x2"x3/4"	5011-R	4201-248
	V5011R-291	2-1/2"x2-1/2"x2"	5011-R	4201-292
	V5011R-251	2-1/2"x2-1/2"x1-1/2"	5011-R	4201-291
	V5011R-290	2-1/2"x2-1/2"x1-1/4"	5011-R	4201-290
	V5011R-289	2-1/2"x2-1/2"x1"	5011-R	4201-289
	V5011R-339	3"x3"x2-1/2"	5011-R	4201-339
	V5011R-338	3"x3"x2"	5011-R	4201-338
	V5011R-337	3"x3"x1-1/2"	5011-R	4201-337
UNIONS	V5033E-007	3/4"	5033-E	4257-007
	V5033E-010	1"	5033-E	4257-010

## THREADED FITTINGS

Cat.	Viking Part Number	Size	Nibco Figure No.	Spears Figure no.	
ADAPTERS	V5003BI-007	3/4"	5003-BI	4235-007	
	V5003BI-010	1"	5003-BI	4235-010	
	V5003BI-012	1-1/4"	5003-BI	4235-012	
	V5003BI-015	1-1/2"	5003-BI	4235-015	
	V5003BI-020	2"	5003-BI	4235-020	
	V50032BI-007	3/4"	5003-2-BI	4278-007	
	V50032BI-010	1"	5003-2-BI	4278-010	
	V5003SBI-101	3/4"x1/2"	5003-S-BI or 80175W	4235-101	
	V5003SBI-130	1"x1/2"	5003-S-BI or V80176W	4235-130	
	V5003SBI-131	1"x3/4"	5003-S-BI	4235-131	
	V50032SBI-101	3/4"x1/2"	5003-2-S-BI	4238-101	
	V50032SBI-130	1"x1/2"	5003-2-S-BI	4238-130	
	V5003BIBSP-010	1"	5003-BI-BSP	N/A	
	V5003BIBSP-012	1-1/4"	5003-BI-BSP	N/A	
	V5003BIBSP-015	1-1/2"	5003-BI-BSP	N/A	
	V5003BIBSP-020	2"	5003-BI-BSP	N/A	
	V5004BI-007	3/4"	5004-BI	4236-007	
	V5004BI-010	1"	5004-BI	4236-010	
	V5004BI-012	1-1/4"	5004-BI	4236-012	
	V5004BI-015	1-1/2"	5004-BI	4236-015	
	V5004BI-020	2"	5004-BI	4236-020	
	V5004BI-BSP-007	3/4"	5004-BI-BSP	N/A	
	V5004BI-BSP-010	1"	5004-BI-BSP	N/A	
	V5004BI-BSP-012	1-1/4"	5004-BI-BSP	N/A	
	V5004BI-BSP-015	1-1/2"	5004-BI-BSP	N/A	
	V5004BI-BSP-020	2"	5004-BI-BSP	N/A	
	V5018SBI-130	1"x1/2"	5018-S-BI	4238-130BR	
	ELBOWS	V50073SBI-101	3/4"x1/2"	5007-3-S-BI	4207-101
		V50073SBI-130	1"x1/2"	5007-3-S-BI	4207-130
		V50073SBI-131	1"x3/4"	5007-3-S-BI	4207-131
		V50073SBI-166	1-1/4"x1/2"	5007-3-S-BI	4207-166



Cat.	Viking Part Number	Size	Nibco Figure No.	Spears Figure no.
InstaSeal	V5003SBG-101	3/4 X 1/2	N/A	4135-101BRG
	V5003SBG-130	1 X 1/2	N/A	4135-130BRG
	V50032SBG-101	3/4 X 1/2	N/A	N/A
	V50032SBG-130	1 X 1/2	N/A	N/A
	V50073SBG-101	3/4 X 1/2	N/A	N/A
	V50073SBG-130	1 X 1/2	N/A	N/A
	V5012SBG-101	3/4"x3/4"x1"	N/A	N/A
	V5012SBG-130	1"x1"x3/4"	N/A	N/A
	TEES	V5012SBI-010	1"	5012-S-BI
V5012SBI-101		3/4"x3/4"x1/2"	5012-S-BI	4202-101
V5012RSBI-124		1"x3/4"x1/2"	5012-R-S-BI	4202-124
V5012SBI-130		1"x1"x1/2"	5012-S-BI	4202-130
V5012RSBI-122		1"x1/2"x1"	5012-R-S-BI	4203-122
V5012RSBI-156		1-1/4"x1"x1/2"	5012-R-S-BI	4202-156
V5012SBI-166		1-1/4"x1-1/4"x1/2"	5012-S-BI	4202-166
V5012RSBI-199		1-1/2"x1-1/4"x1/2"	5012-R-S-BI	4202-199
V5012SBI-209		1-1/2"x1-1/2"x1/2"	5012-S-BI	4202-209
V5012SBI-247		2"x2"x1/2"	5012-S-BI	4202-247
V5012RSBI-237	2"x1-1/2"x1/2"	5012-R-S-BI	4202-237	
TEST PLUG	V450-005	1/2"	450-005	4250-005

