

# CPVC System Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit [www.vikinggroupinc.com](http://www.vikinggroupinc.com) for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.



## Sprinkler Head Adapters

### BRASTIC™ Adapter



#### Straight

Size (inches)	Part Number	Box Qty
3/4 x 1/2	V5003SBT-101	100
1 x 1/2	V5003SBT-130	50
1 x 3/4	V5003SBT-131	50

#### 90° Elbow

3/4 x 1/2	V50073SBT-101	100
1 x 1/2	V50073SBT-130	50
1 x 3/4	V50073SBT-131	50

#### Tee

1 x 1 x 1	V50073SBT-101	50
1 x 1 x 1/2	V50073SBT-130	50
1 x 1 x 3/4	V50073SBT-131	50

\* Brass starter thread molded into plastic, virtually eliminating cross-threading.

### Female Adapter with metal thread insert



3/4 x 1/2	V5003SBI-101	100
1 x 1/2	V5003SBI-130	50
1 x 3/4	V5003SBI-131	10

### Spigot Female Adapter with metal thread insert



3/4 x 1/2	V50032SBI-101	100
1 x 1/2	V50032SBI-130	50

### Sprinkler Head 90 with metal thread insert



3/4 x 1/2	V50073SBI-101	100
1 x 1/2	V50073SBI-130	50
1 x 3/4	V50073SBI-131	10
1-1/4 x 1/2	V50073SBI-166	5

### Tee with metal thread insert



Size (inches)	Part Number	Box Qty
1 x 1 x 1	V5012SBI-010	50
3/4 x 3/4 x 1/2	V5012SBI-101	10
1 x 1 x 1/2	V5012SBI-130	50
1-1/4 x 1-1/4 x 1/2	V5012SBI-166	5
1-1/2 x 1-1/2 x 1/2	V5012SBI-209	5
2 x 2 x 1/2	V5012SBI-247	2
1 x 3/4 x 1/2	V5012RSBI-124	10
1-1/4 x 1 x 1/2	V5012RSBI-156	5
1-1/2 x 1-1/4 x 1/2	V5012RSBI-199	5
2 x 1-1/2 x 1/2	V5012RSBI-237	2

### Back to Back Cross with metal thread insert



1 x 1 x 1/2 x 1/2 (1-1/8)	V50353SBIS-130	20
1 x 1 x 1/2 x 1/2 (1-5/16)	V50353SBIL-130	1

### Back to Back Tee with metal thread insert



1/2 x 1/2 x 1 (1-1/8)	V501133SBIS-075	30
1/2 x 1/2 x 1 (1-5/16)	V501133SBIL-075	30

# CPVC Standard Fittings

## Tee



Size (inches)	Part Number	Box Qty
3/4	V5011-007	250
1	V5011-010	100
1-1/4	V5011-012	25
1-1/2	V5011-015	25
2	V5011-020	2
2-1/2	V5011-025	1
3	V5011-030	1

## Reducing Tee



Size (inches)	Part Number	Box Qty
3/4 x 3/4 x 1	V5011R-102	10
1 x 3/4 x 3/4	V5011R-125	100
1 x 3/4 x 1	V5011R-126	10
1 x 1 x 3/4	V5011R-131	100
1-1/4 x 1 x 3/4	V5011R-157	5
1-1/4 x 1 x 1	V5011R-158	25
1-1/4 x 1 x 1-1/4	V5011R-159	5
1-1/4 x 1-1/4 x 3/4	V5011R-167	25
1-1/4 x 1-1/4 x 1	V5011R-168	25
1-1/4 x 1-1/4 x 1-1/2	V5011R-169	5
1-1/2 x 1-1/4 x 3/4	V5011R-201	5
1-1/2 x 1-1/4 x 1	V5011R-202	5
1-1/2 x 1-1/2 x 3/4	V5011R-210	25
1-1/2 x 1-1/2 x 1	V5011R-211	25
1-1/2 x 1-1/2 x 1-1/4	V5011R-212	5
1-1/2 x 1-1/2 x 2	V5011R-213	5
2 x 2 x 3/4	V5011R-248	2
2 x 2 x 1	V5011R-249	10
2 x 2 x 1-1/4	V5011R-250	2
2 x 2 x 1-1/2	V5011R-251	2
2-1/2 x 2-1/2 x 1	V5011R-289	1
2-1/2 x 2-1/2 x 1-1/4	V5011R-290	1
2-1/2 x 2-1/2 x 1-1/2	V5011R-291	1
2-1/2 x 2-1/2 x 2	V5011R-292	1
3 x 3 x 1-1/2	V5011R-337	1
3 x 2	V5011R-338	1
3 x 2-1/2	V5011R-339	1

## 90° Elbow



3/4	V5007-007	250
1	V5007-010	100
1-1/4	V5007-012	25
1-1/2	V5007-015	25
2	V5007-020	2
2-1/2	V5007-025	1
3	V5007-030	1
1 x 3/4	V5007R-131	100

## 45° Elbow



3/4	V5006-007	250
1	V5006-010	100
1-1/4	V5006-012	5
1-1/2	V5006-015	5
2	V5006-020	2
2-1/2	V5006-025	1
3	V5006-030	1

## Cross



3/4	V5035-007	10
1	V5035-010	100
1-1/4	V5035-012	5
1-1/2	V5035-015	20
2	V5035-020	1
2-1/2	V5035-025	1
1 x 1 x 3/4 x 3/4	V5035R-131	10

## Coupling



3/4	V5001-007	250
1	V5001-010	100
1-1/4	V5001-012	25
1-1/2	V5001-015	25
2	V5001-020	10
2-1/2	V5001-025	1
3	V5001-030	1

## Reduced Coupling



1 x 3/4	V5001R-131	10
1-1/4 x 1	V5001R-168	5
1-1/2 x 3/4	V5001R-210	5
1-1/2 x 1	V5001R-211	5
1-1/2 x 1-1/4	V5001R-212	5
2 x 1	V5001R-249	2
2 x 1-1/2	V5001R-251	2

## Bushing



1 x 3/4	V5018-131	100
1-1/4 x 3/4	V5018-167	25
1-1/4 x 1	V5018-168	25
1-1/2 x 3/4	V5018-210	5
1-1/2 x 1	V5018-211	25
1-1/2 x 1-1/4	V5018-212	25
2 x 3/4	V5018-248	2
2 x 1	V5018-249	2
2 x 1-1/4	V5018-250	2
2 x 1-1/2	V5018-251	2
2-1/2 x 1	V5018-289	15
2-1/2 x 1-1/4	V5018-290	1
2-1/2 x 1-1/2	V5018-291	1
2-1/2 x 2	V5018-292	1
3 x 1-1/2	V5018-337	15
3 x 2	V5018-338	1
3 x 2-1/2	V5018-339	1

## Cap



3/4	V5017-007	250
1	V5017-010	100
1-1/4	V5017-012	5
1-1/2	V5017-015	5
2	V5017-020	2
2-1/2	V5017-025	1
3	V5017-030	1

## CPVC Pipe



Size (inches)	Part Number	Box Qty
3/4	34PIPE	240
1	1PIPE	180
1-1/4	114PIPE	105
1-1/2	112PIPE	75
2	2PIPE	60
2-1/2	212PIPE	30
3	3PIPE	15

## CPVC Transition Fittings

Female Adapter  
with metal thread insert



Size (inches)	Part Number	Box Qty
3/4	V5003BI-007	10
1	V5003BI-010	50
1-1/4	V5003BI-012	5
1-1/2	V5003BI-015	5
2	V5003BI-020	2

Grooved Coupling  
Adapter



Size (inches)	Part Number	Box Qty
1-1/4	V5001G-012	30
1-1/2	V5001G-015	25
2	V5001G-020	15
2-1/2	V5001G-025	4
3	V5001G-030	2

Spigot Female Adapter  
with metal thread insert



3/4	V50032BI-007	250
1	V50032BI-010	100

Standard Union



3/4	V5033E-007	1
1	V5033E-010	1

Male Adapter  
with metal thread insert



3/4	V5004BI-007	10
1	V5004BI-010	10
1-1/4	V5004BI-012	5
1-1/2	V5004BI-015	5
2	V5004BI-020	2

## Accessories

Solvent Cement



Size (inches)	Part Number	Box Qty
Quart	V5097Q	12
Pint	V5097P	12

Dauber



Size (inches)	Part Number	Box Qty
Small	V5093-S	100
Large	V5093-L	100

Test Plug



1/2	V450-005	50
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Roller



N/A	V5097	24
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Brush



N/A	V5096	12
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# Recommended Installation Practices and Precautions for Freedom® CPVC Systems

Dos	Don'ts
<ul style="list-style-type: none"> <li>• Install product according to the manufacturer's instructions.</li> <li>• Follow recommended safe work practices.</li> <li>• Make certain that thread sealants, gasket lubricants, or fire stop materials are compatible with BlazeMaster® CPVC.</li> <li>• Use only latex-based paints if painting is desired.</li> <li>• Keep pipe and fittings in original packaging until needed.</li> <li>• Cover pipe and fittings with an opaque tarp if stored outdoors.</li> <li>• Follow proper handling procedures.</li> <li>• Use tools designed for use with plastic pipe and fittings.</li> <li>• Use proper solvent cement and follow application instructions.</li> <li>• Use a drop cloth to protect interior finishes.</li> <li>• Cut the pipe ends square.</li> <li>• Deburr and bevel the pipe end before solvent cementing.</li> <li>• When solvent cementing, rotate the pipe 1/4 turn when bottoming pipe in fitting socket.</li> <li>• Always apply solvent cement to the pipe first then fitting.</li> <li>• Avoid puddling of solvent cement in fittings and pipe.</li> <li>• Make certain that solvent cement does not run and plug the sprinkler head orifice.</li> <li>• Follow the manufacturer's recommended cure times prior to pressure testing.</li> <li>• Fill lines slowly and bleed the air from the system prior to pressure testing.</li> <li>• Support sprinkler head properly to prevent lift up of the head through the ceiling when activated.</li> <li>• Keep threaded rod within 1/16" of the pipe.</li> <li>• Install BlazeMaster CPVC pipe and fittings in wet systems only or specially listed dry systems.</li> <li>• Follow manufacturer's recommendations for freeze protection.</li> <li>• Allow for movement due to expansion and contraction.</li> <li>• Renew your BlazeMaster CPVC pipe and fittings installation training every two years.</li> <li>• Follow manufacturer's recommendations on pressure testing.</li> <li>• Follow current NFPA standards for use of antifreeze solutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use petroleum or solvent-based paints, sealants, lubricants or fire stop materials.</li> <li>• Do not use any glycol-based solutions as an anti-freeze.</li> <li>• Do not use both Teflon® tape and thread sealants simultaneously.</li> <li>• Do not use solvent cement that exceeds its shelf life or has become discolored or gelled.</li> <li>• Do not allow solvent cement to plug the sprinkler head orifice.</li> <li>• Do not connect rigid metal couplers to BlazeMaster® CPVC grooved adapters.</li> <li>• Do not thread BlazeMaster CPVC pipe.</li> <li>• Do not use solvent cement near sources of heat, open flame, or when smoking.</li> <li>• Do not pressure test until recommended cure times are met.</li> <li>• Do not use dull or broken cutting tool blades when cutting pipe.</li> <li>• Do not use BlazeMaster CPVC pipe that has been stored outdoors unprotected and is faded in color.</li> <li>• Do not allow threaded rod to come in contact with the pipe.</li> <li>• Do not install BlazeMaster CPVC pipe in cold weather without allowing for expansion.</li> <li>• Do not install BlazeMaster CPVC pipe and fittings in dry systems, unless specifically Listed for such use.</li> <li>• Do not use ratchet cutters below 50°F.</li> <li>• Do not use edible oils such as Crisco® as a gasket lubricant.</li> <li>• Do not install tape, insulated wire, or cable in direct contact with BlazeMaster CPVC pipe.</li> </ul> <p><b>Note: This list does not constitute as a complete installation guide.</b></p>

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