



## Schedule 80 CPVC Technical CPVC Pipe Flange Dimensions & Information

### Molded Flange Technical Information

#### Application

Molded CLASS 150 Flange fittings are coupling devices designed for joining IPS (Iron Pipe Size) plastic piping systems, where frequent disassembly may be required, and can be used as a transitional fitting for joining plastic to metal piping systems. Suitability of application is at the discretion of the user.

#### Pressure Rating

150 psi, water at 73°F.

#### Flange Types

**One Piece** - Available in socket configuration, sizes 1/2" through 8"; threaded and SR threaded (Special Reinforced) configuration sizes 1/2" through 4".

**Van Stone Style** - Two-piece design with rotating flange ring, available in socket configurations, sizes 1/2" through 18"; threaded configurations, sizes 1/2" through 4" and spigot configurations, sizes 1/2" through 12".

**Blind** - Closed ring design for capping off a mating flange, flanged fitting or flanged valve, available in sizes 1/2" through 12".

#### Materials

All injection molded flanges are produced from CPVC materials approved for potable water use by the NSF International (NSF®).

Glass-filled CPVC materials may be used in certain Van Stone Style flange rings and large diameter Blind flanges where additional reinforcement is deemed necessary.

#### Conformance Standards

**Socket I.D. & Spigot O.D.** - ASTM F 439 (CPVC).

**Threads** - ASTM F 1498.

**Bolt Hole Pattern** - ANSI B16.5; ASTM D 4024.

**Material** - ASTM D 1784 (CPVC Cell Classification 23447-B).

### Weights & Dimensions

Specified minimum bolt lengths are based on the use of two Spears® Flanges, two standard flat washers, standard nut and 1/8" thick elastomer full face gasket. Mating with other brands or accessories may require variation. Bolts and gaskets are not supplied with flanges.

#### Dimension references:

**L** = Overall length of hub,  $\pm 1/16$  inch.

**M** = Outside diameter of socket hub,  $\pm 1/16$  inch.

**N** = (Laying Length) socket/spigot bottom to seal-ring face of flange,  $\pm 1/16$  inch.

**R** = Height (thickness) of flange ring,  $\pm 1/16$  inch.

**Max O.D.** = Outside diameter of ring,  $\pm 1/16$  inch.

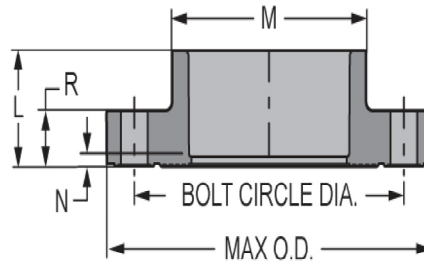
**Bolt Circle Diameter** = ANSI B 16.5 Standard; ASTM D 4024,  $\pm 1/16$  inch.

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**Flange One Piece**

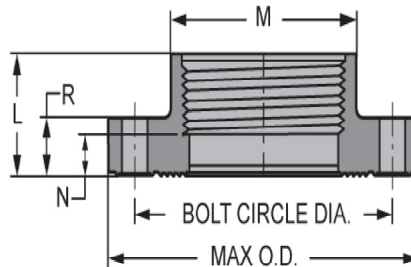
Socket



Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	Min. Bolt Length	No of Bolts	Approx. Wt. (Lbs.)
851-005C	1/2	1- 1/16	1- 9/32	1/8	9/16	2- 3/8	1/2	3- 1/2	2	4	.21
851-007C	3/4	1- 3/16	1- 1/2	1/8	5/8	2- 3/4	1/2	3- 7/8	2	4	.28
851-010C	1	1- 5/16	1-13/16	3/16	3/4	3- 1/8	1/2	4- 1/4	2-1/4	4	.46
851-012C	1-1/4	1-3/8	2-3/16	3/32	21/32	3-1/2	1/2	4-5/8	2-1/4	4	.44
851-015C	1-1/2	1-19/32	2- 1/2	3/16	23/32	3- 7/8	1/2	5- 1/16	2-1/2	4	.60
851-020C	2	1-27/32	3	5/16	27/32	4- 3/4	5/8	6	3	4	.95
851-025C	2-1/2	2- 1/4	3- 1/2	1/2	1	5- 1/2	5/8	7	3-1/4	4	1.54
851-030C	3	2- 5/16	4- 9/32	3/8	1- 1/16	6	5/8	7- 1/2	3-1/4	4	1.83
851-040C	4	2- 7/16	5- 7/32	3/16	1- 5/32	7- 1/2	5/8	9- 1/16	3-1/2	8	2.78
851-050C	5	3- 1/4	6- 3/8	1/4	1	8- 1/2	3/4	10- 1/8	3-1/4	8	3.17
851-060C	6	3- 1/4	7- 9/16	1/4	1- 3/8	9- 1/2	3/4	11	4	8	4.34
851-080C	8	4-17/32	9- 3/4	1/2	1- 7/16	11-11/16	3/4	13- 5/8	4-1/2	8	8.04
851-100C	10	5-3/8	11-25/32	13/32	1-21/32	14-1/4	7/8	16	4	12	13.52
851-120C	12	6-7/16	13-15/16	1/2	1-11/16	17	7/8	19	5	12	20.98

**Flange One Piece**

Fipt



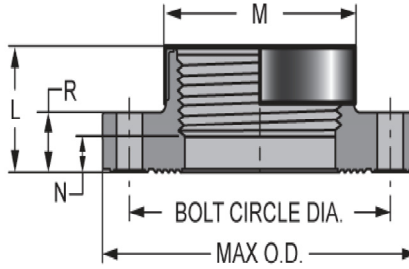
Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
852-005C	1/2	1- 1/16	1- 5/16	9/32	9/16	2- 3/8	1/2	3- 1/2	4	.22
852-007C	3/4	1- 3/16	1-17/32	15/32	5/8	2- 3/4	1/2	3- 7/8	4	.29
852-010C	1	1- 5/16	1-13/16	7/16	3/4	3- 1/8	1/2	4- 1/4	4	.49
852-012C	1-1/4	1- 3/8	2- 7/32	17/32	23/32	3- 1/2	1/2	4- 5/8	4	.45
852-015C	1-1/2	1-11/16	2- 1/2	19/32	23/32	3-27/32	1/2	5- 1/16	4	.63
852-020C	2	1-27/32	3	7/8	7/8	4- 3/4	5/8	6	4	1.01
852-025C	2-1/2	2- 1/4	3- 1/2	15/16	1	5- 1/2	5/8	7	4	1.64
852-030C	3	2- 5/16	4- 9/32	29/32	1- 1/16	6	5/8	7- 1/2	4	1.90
852-040C	4	2- 1/16	5-3/16	5/16	1- 1/4	7- 1/2	5/8	9	8	3.05



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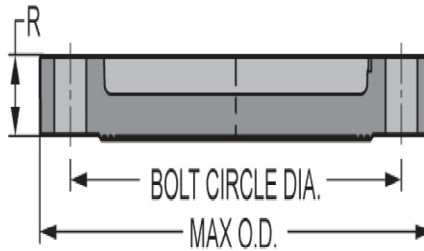
**Flange - Special Reinforced  
 One Piece Threaded**

SR Flt - Stainless Steel Collar



Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
852-005CSR	1/2	1- 3/32	1- 7/32	11/32	9/16	2- 3/8	1/2	3- 1/2	4	.21
852-007CSR	3/4	1- 3/16	1- 3/8	7/16	5/8	2- 3/4	1/2	3- 7/8	4	.29
852-010CSR	1	1- 7/16	1-23/32	17/32	21/32	3- 1/8	1/2	4- 1/4	4	.40
852-012CSR	1-1/4	1- 9/16	2- 1/16	19/32	21/32	3- 1/2	1/2	4- 5/8	4	.51
852-015CSR	1-1/2	1- 3/4	2- 7/16	3/4	3/4	3- 7/8	1/2	5	4	.67
852-020CSR	2	1-13/16	3- 1/32	13/16	13/16	4- 3/4	5/8	5-31/32	4	1.03
852-025CSR	2-1/2	2- 1/8	3-19/32	3/8	1	5- 1/2	5/8	7	4	1.68
852-030CSR	3	2- 5/16	4- 9/32	27/32	1- 1/16	6	5/8	7- 1/2	4	1.97
852-040CSR	4	2- 1/2	5-3/16	1	1- 5/32	7- 1/2	5/8	9	8	3.13

**Flange - Blind**



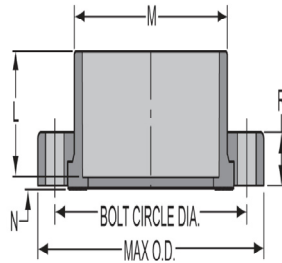
Part Number	Size	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	Min. Bolt Length	No of Bolts	Approx. Wt. (Lbs.)
853-005C	1/2	17/32	2- 3/8	1/2	3-17/32	2	4	.20
853-007C	3/4	5/8	2- 3/4	1/2	3- 7/8	2	4	.29
853-010C	1	3/4	3- 1/8	1/2	4- 1/4	2-1/4	4	.36
853-012C	1-1/4	23/32	3- 1/2	1/2	4- 5/8	2-1/4	4	.39
853-015C	1-1/2	23/32	3-27/32	1/2	5- 1/16	2-1/2	4	.51
853-020C	2	27/32	4- 3/4	5/8	5-31/32	3	4	.87
853-025C	2-1/2	1	5- 1/2	5/8	7	3-1/4	4	1.63
853-030C	3	1- 1/16	6	5/8	7- 1/2	3-1/4	4	1.68
853-040C	4	1- 5/32	7- 1/2	5/8	9- 1/16	3-1/2	8	2.53
853-060C	6	1- 3/8	9- 1/2	3/4	11	4	8	4.44
853-080C	8	1- 7/16	11- 3/4	3/4	13- 1/2	4-1/2	8	7.20
853-100C	10	1-11/16	14- 1/4	7/8	16	5	12	11.79
853-120C	12	1-11/16	17	7/8	19	5	12	17.20

**Schedule 80 CPVC Technical**  
**CPVC Pipe Flange Dimensions & Information**



**Flange Van Stone Style with Plastic Ring**

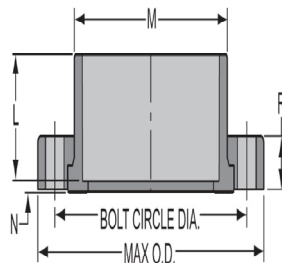
Socket



Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	Min. Bolt Length	No of Bolts	Approx. Wt. (Lbs.)
854-005C	1/2	1- 1/32	1- 7/32	5/32	17/32	2- 3/8	1/2	3- 1/2	2	4	.19
854-007C	3/4	1- 1/8	1- 7/16	5/32	9/16	2- 3/4	1/2	3- 7/8	2	4	.27
854-010C	1	1- 9/32	1- 3/4	5/32	5/8	3- 1/8	1/2	4- 1/4	2-1/4	4	.37
854-012C	1-1/4	1-13/32	2- 5/32	5/32	11/16	3- 1/2	1/2	4- 5/8	2-1/4	4	.45
854-015C	1-1/2	1-17/32	2- 7/16	3/16	3/4	3- 7/8	1/2	5	2-1/2	4	.59
854-020C	2	1-11/16	2-15/16	3/16	13/16	4- 3/4	5/8	6	3	4	.91
854-025C	2-1/2	2	3- 1/2	3/16	31/32	5- 1/2	5/8	7	3-1/4	4	1.45
854-030C	3	2- 1/8	4- 1/4	1/4	1- 1/16	6	5/8	7- 1/2	3-1/4	4	1.75
854-040C	4	2- 1/2	5- 1/4	1/4	1- 1/8	7- 1/2	5/8	9	3-1/2	8	2.84
854-050C	5	3	6- 1/4	3/8	1- 1/8	8- 1/2	3/4	10- 1/8	3-3/4	8	3.39
854-060C	6	3- 3/8	7- 9/16	7/16	1- 9/32	9- 1/2	3/4	11	4	8	4.73
854-080C	8	4- 3/8	9- 5/16	9/32	1-3/8	11- 3/4	3/4	13- 1/2	4-1/2	8	7.00
854-100C	10	5-11/16	11- 3/4	21/32	1- 5/8	14- 1/4	7/8	16	5	12	11.92
854-120C	12	7- 1/4	13- 3/4	5/8	1-5/8	17	7/8	19	5	12	17.73
854-140C	14	7- 1/2	15- 1/2	1/2	2	18- 3/4	1	21	5-1/2	12	27.98
854-160C	16	8- 3/4	17- 3/4	3/4	2- 3/8	21- 1/4	1	23- 1/2	6-1/2	16	40.15
854-180C	18	9	20	1/4	2- 3/8	22- 3/4	1- 1/8	25	6-1/2	16	46.48

**Flange Van Stone Style with Plastic Solid Ring**

Socket



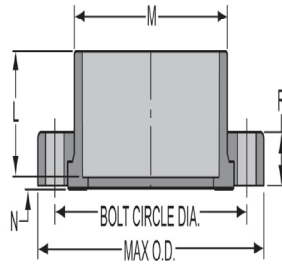
Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
S854-030C	3	2- 1/8	4- 1/4	1/4	1- 1/16	6	5/8	7- 1/2	4	1.96
S854-040C	4	2- 1/2	5- 1/4	1/4	1- 1/8	7- 1/2	5/8	9	8	3.13
S854-060C	6	3- 3/8	7- 9/16	7/16	1- 9/32	9- 1/2	3/4	11	8	4.94
S854-080C	8	4- 3/8	9- 5/16	3/8	1- 3/8	11- 3/4	3/4	13- 1/2	8	7.48
S854-100C	10	5-11/16	11- 3/4	11/16	1- 5/8	14- 1/4	7/8	16	12	12.80
S854-120C	12	7- 1/4	13- 3/4	5/8	1- 3/4	17	7/8	19	12	18.37



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**Flange Van Stone Style with Plastic Ring ASTM**

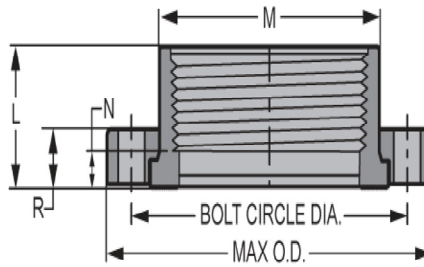
Socket x Multi-bolt Pattern Ring



Part Number	Size	L	M	N	R	Bolt Circle Dia Max	Bolt Circle Dia Min	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
M854-020C	2	1-11/16	2-15/16	3/16	13/16	4-15/16	4- 1/2	5/8	6	4	.86
M854-060C	6	3- 3/8	7- 9/16	7/16	1- 9/32	9-1/2	9-7/32	3/4	11	8	4.78
M854-080C	8	4- 3/8	9- 5/16	3/8	1- 3/8	11-3/4	11- 1/2	3/4	13- 1/2	8	7.14

**Flange Van Stone Style with Plastic Ring**

Fipt



Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
855-005C	1/2	1- 1/32	1- 7/32	9/32	17/32	2- 3/8	1/2	3- 1/2	4	.20
855-007C	3/4	1- 5/32	1- 3/8	13/32	9/16	2- 3/4	1/2	3- 7/8	4	.28
855-010C	1	1- 1/4	1- 3/4	5/16	5/8	3- 1/8	1/2	4- 1/4	4	.38
855-012C	1-1/4	1- 3/8	2- 1/8	13/32	11/16	3- 1/2	1/2	4- 5/8	4	.47
855-015C	1-1/2	1-15/32	2- 7/16	13/32	3/4	3- 7/8	1/2	5	4	.61
855-020C	2	1- 9/16	2-31/32	1/2	13/16	4- 3/4	5/8	6	4	.93
855-025C	2-1/2	2	3- 9/16	7/16	1	5- 1/2	5/8	7	4	1.53
855-030C	3	2- 1/8	4- 1/4	1/2	1- 1/16	6	5/8	7- 1/2	4	1.82
855-040C	4	2- 1/16	5- 1/4	3/8	1- 1/4	7- 1/2	5/8	9	8	2.78
855-060CF <sup>1</sup>	6	6-13/16	7-3/16	5-5/16	1-1/4	9-1/2	3/4	11	8	7.90
855-080CF <sup>1</sup>	8	8- 1/8	9- 5/16	6- 7/16	1- 1/2	11- 3/4	3/4	13- 1/2	8	13.83
855-100CF <sup>1</sup>	10	10- 3/8	11- 9/16	8- 9/16	1-11/16	14- 1/4	7/8	16	12	23.11
855-120CF <sup>1</sup>	12	11-13/16	13- 3/4	9- 3/4	1- 5/8	17	7/8	19	12	34.55

<sup>1</sup> Flange assembled with molded Female Adapter

\* Fabricated

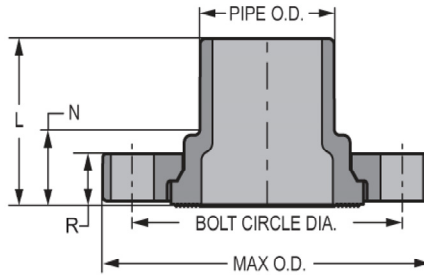


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**CPVC Pipe Flange Dimensions & Information**



**Flange Van Stone Style with Plastic Ring**

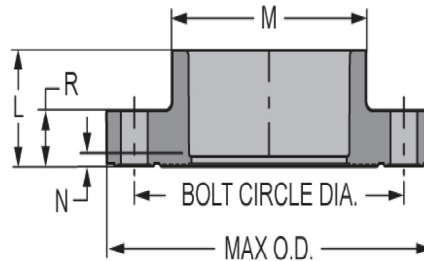
Spigot



Part Number	Size	L	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
856-005C	1/2	1- 3/4	29/32	17/32	2- 3/8	1/2	3- 1/2	4	.21
856-007C	3/4	1-15/16	31/32	9/16	2- 3/4	1/2	3- 7/8	4	.29
856-010C	1	2- 3/16	1- 1/32	5/8	3- 1/8	1/2	4- 1/4	4	.41
856-012C	1-1/4	2-11/32	1- 3/32	11/16	3- 1/2	1/2	4- 5/8	4	.50
856-015C	1-1/2	2- 5/8	1- 9/32	3/4	3- 7/8	1/2	5	4	.67
856-020C	2	2- 7/8	1-11/32	13/16	4- 3/4	5/8	6	4	1.00
856-025C	2-1/2	3- 1/16	1- 9/32	1	5- 1/2	5/8	7	4	1.57
856-030C	3	3- 3/8	1- 7/16	1- 1/16	6	5/8	7- 1/2	4	1.92
856-040C	4	3- 7/8	1- 5/8	1- 1/4	7- 1/2	5/8	9	8	3.12
856-060C	6	4- 3/4	1-25/32	1- 9/32	9- 1/2	3/4	11	8	4.74
856-080C	8	5- 7/8	1-15/16	1- 3/8	11- 3/4	3/4	13- 1/2	8	8.16
856-100C	10	8	2- 1/4	1- 5/8	14- 1/4	7/8	16	12	16.25
856-120C	12	8- 1/2	2- 3/16	1- 5/8	17	7/8	19	12	23.09

**Flange One Piece Multi-Bolt Pattern\***

ASTM Socket x Multi-Bolt Pattern Ring



Part Number	Size	L	M	N	R	Bolt Circle Dia.	Bolt Size	Max. O.D.	No of Bolts	Approx. Wt. (Lbs.)
M851-100C	10	5-3/8	11-25/32	13/32	1-21/32	13-25/32	7/8	16	12	13.52
M851-120C	12	6-7/16	13-15/16	1/2	1-11/16	15-3/4	7/8	19	12	20.98

