

Schedule 80 CPVC Technical Information

Schedule 80 CPVC Tank Adapters



Tank Adapters (Bulkhead Fittings)

Designed to facilitate connections through tank or bulkhead walls. Available in PVC or CPVC with socket x socket, Socket x thread or SR thread, thread x thread or thread x SR thread, and spigot end connections. Plus, special Self-Aligning style.

New Style Tank Adapters are designed with Spears® patented Special Reinforced (SR) Female Plastic threads for improved adapter connection strength, even when transitioned to metal pipe (Patent No. 5,582,439). In addition, these Tank Adapters in sizes through 4" are designed for use with Nut & Body Spanner Wrench Sets (purchased separately) on the outside connection to aid both installation and in make-up of external threaded connections. Pressure rated to 150 psi @ 73°F (23°C).

Easy Assembly to Tank:

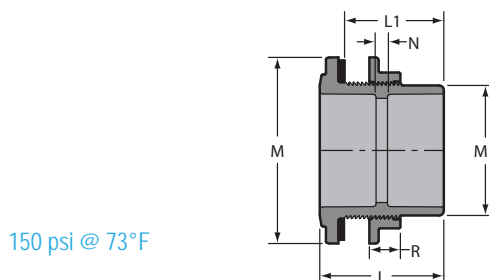
1. Locate and cut designated hole size in tank (see Minimum Hole Size in appropriate chart below).
2. Remove the nut and insert Tank Adapter through hole from inside; leave gasket in place. **Note:** Body and Gasket must be installed on the inside of the tank.
3. Tighten Nut clockwise while holding body from inside tank or on outside with use of spanner wrench.

NOTE: A sound, leak-tight seal can be made on curved surfaces providing the curve on the surface will allow for full and equal 360° pressure contact of the sealing gasket against the tank wall surface (*Refer to Minimum Tank Radius below*).

NEW STYLE - TANK ADAPTER

Socket x Socket

Dimensions Also Applicable to 8170E-XXXC & 8170V-XXXC



Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
8170-002C	1/4	2-1/2	1-13/16	1-1/2	1-1/16	1-3/16	1/2	.11
8170-003C	3/8	2-1/2	1-27/32	1-5/8	31/32	7/8	1/2	.12
8170-005C	1/2	2-15/16	2-3/16	2-1/16	1-15/32	1-1/8	5/8	.23
8170-007C	3/4	2-15/16	2-3/16	2-1/4	1-5/8	15/16	5/8	.27
8170-010C	1	3-5/16	2-9/16	2-5/8	2	1-1/16	5/8	.41
8170-012C	1-1/4	3-7/16	2-5/8	3-1/8	2-5/16	15/16	5/8	.45
8170-015C	1-1/2	3-5/8	2-13/16	3-5/8	2-11/16	13/16	5/8	1.04
8170-020C	2	4-1/8	3-1/4	4-7/8	3-1/4	1-1/16	3/4	1.33
8170-025C	2-1/2	4-27/32	3-7/8	5-1/4	3-9/16	29/32	1	2.60
8170-030C	3	5-1/2	4-1/2	6	4-9/16	1-11/16	1	2.69
8170-040C	4	5	4	7-1/2	5-1/2	7/16	1-1/4	3.40
8170-060C	6	5	4	10-3/32	8	1/8	1-1/4	5.71
8170-080C	8	8-5/8	7	12-15/16	10-1/4	1/2	1-1/2	17.30

Tank Adapter Referenced Dimension Tolerance = $\pm 1/16"$



Schedule 80 CPVC Technical Information

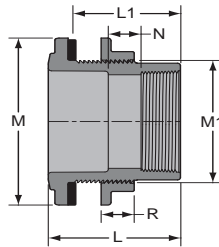
Schedule 80 CPVC Tank Adapters

NEW STYLE - TANK ADAPTER

Socket x Fipt

Dimensions Also Applicable to 8171E-XXXC & 8171V-XXXC

150 psi @ 73°F



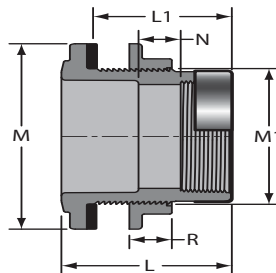
Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
8171-002C	1/4	2-1/2	1-13/16	1-1/2	1-1/16	1-1/4	1/2	.11
8171-003C	3/8	2-1/2	1-13/16	1-5/8	1-3/16	1-3/16	1/2	.12
8171-005C	1/2	2-15/16	2-3/16	2-1/16	1-15/32	1-1/4	5/8	.23
8171-007C	3/4	2-15/16	2-15/32	2-1/4	1-5/8	1-3/16	5/8	.26
8171-010C	1	3-5/16	2-13/16	2-5/8	1-31/32	1-1/4	5/8	.38
8171-012C	1-1/4	3-13/32	2-27/32	3-3/32	2-5/16	1-17/32	5/8	.53
8171-015C	1-1/2	3-5/8	2-13/16	3-5/8	2-11/16	1-1/4	5/8	.71
8171-020C	2	4-1/8	3-1/4	4-7/8	3-1/4	1-5/8	3/4	1.34
8171-025C	2-1/2	4-7/8	7/8	5-1/4	3-13/16	1-13/16	1	1.92
8171-030C	3	5-1/2	4-1/2	6	4-9/16	2-3/16	1	2.80
8171-040C	4	5	4	7-1/2	5-1/2	1-1/4	1-1/4	3.36
8171-060C	6	5	4	10-3/32	7-9/16	1/8	1-1/4	5.71

NEW STYLE - TANK ADAPTER

Socket x SR Fipt

Dimensions Also Applicable to 8171E-XXXCSR & 8171V-XXXCSR

150 psi @ 73°F



Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
8171-002CSR	1/4	2-1/2	1-13/16	1-1/2	1-1/16	1-1/4	1/2	.11
8171-003CSR	3/8	2-1/2	1-13/16	1-5/8	1-3/16	1-3/16	1/2	.13
8171-005CSR	1/2	2-15/16	2-1/4	2-1/16	1-15/32	1-9/32	5/8	.24
8171-007CSR	3/4	2-15/16	2-3/16	2-1/4	1-5/8	1-1/4	5/8	.28
8171-010CSR	1	3-5/16	2-13/16	2-5/8	1-31/32	1-1/4	5/8	.38
8171-012CSR	1-1/4	3-13/32	2-5/8	3-3/32	2-5/16	1-17/32	5/8	.53
8171-015CSR	1-1/2	3-5/8	2-13/16	3-5/8	2-11/16	1-1/4	5/8	.74

Schedule 80 CPVC Technical Information
Schedule 80 CPVC Tank Adapters

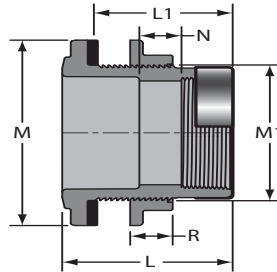


NEW STYLE - TANK ADAPTER (continued)

Socket x SR Fipt

Dimensions Also Applicable to 8171E-XXXCSR & 8171V-XXXCSR

150 psi @ 73°F



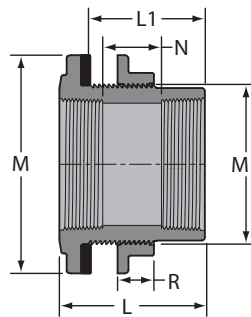
Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
8171-020CSR	2	4-1/8	3-1/4	4-7/8	3-1/4	1-5/8	3/4	1.70
8171-025CSR	2-1/2	4-7/8	3-7/8	5-1/4	3-13/16	1-11/16	1	1.99
8171-030CSR	3	5-1/2	4-1/2	6	4-9/16	2-3/16	1	2.82
8171-040CSR	4	5	4	7-1/2	5-1/2	1-1/4	1-1/4	4.45
8171-060CSR	6	4-31/32	4-1/16	10-1/16	7-11/16	1/16	1-1/4	6.02

NEW STYLE - TANK ADAPTER

Fipt x Fipt

Dimensions Also Applicable to 8172E-XXXC & 8172V-XXXC

150 psi @ 73°F



Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
8172-002C	1/4	2-1/2	1-13/16	1-1/2	1-1/16	1-5/16	1/2	.11
8172-003C	3/8	2-1/2	1-13/16	1-5/8	1-3/16	1-3/8	1/2	.14
8172-005C	1/2	2-15/16	2-3/16	2-1/16	1-15/32	1-13/32	5/8	.24
8172-007C	3/4	2-15/16	2-15/32	2-1/4	1-5/8	1-1/2	5/8	.26
8172-010C	1	3-5/16	2-13/16	2-5/8	1-31/32	1-1/4	5/8	.38
8172-012C	1-1/4	3-13/32	2-27/32	3-3/32	2-5/16	1-17/32	5/8	.53
8172-015C	1-1/2	3-19/32	3-1/16	3-19/32	2-21/32	1-11/16	5/8	.72
8172-020C	2	4-1/8	3-1/4	4-7/8	3-1/4	2-3/16	3/4	1.42
8172-025C	2-1/2	4-7/8	3-7/8	5-1/4	3-13/16	2-1/4	1	2.06
8172-030C	3	5-1/2	4-1/2	6	4-9/16	2-11/16	1	2.95
8172-040C	4	5	4	7-1/2	5-1/2	2	1-1/4	3.70
8172-060C	6	5	4-3/16	9-7/8	7-31/32	1-5/32	1-1/4	6.21



Schedule 80 CPVC Technical Information

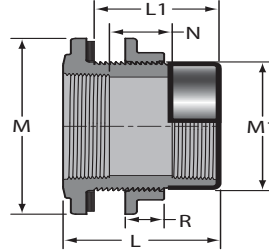
Schedule 80 CPVC Tank Adapters

NEW STYLE - TANK ADAPTER

Fipt x SR Fipt

Dimensions Also Applicable to 8172E-XXXCSR & 8172V-XXXCSR

150 psi @ 73°F



Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
8172-002CSR	1/4	2-1/2	1-7/8	1-9/16	1-1/16	1-5/16	1/2	.13
8172-003CSR	3/8	2-1/2	1-13/16	1-5/8	1-3/16	1-3/8	1/2	.15
8172-005CSR	1/2	2-15/16	2-3/16	2-1/16	1-15/32	1-13/32	5/8	.25
8172-007CSR	3/4	2-15/16	2-15/32	2-1/4	1-5/8	1-3/16	5/8	.25
8172-010CSR	1	3-15/16	2-19/32	2-5/8	1-31/32	1-1/4	5/8	.36
8172-012CSR	1-1/4	3-13/32	2-27/32	3-3/32	2-5/16	1-17/32	5/8	.53
8172-015CSR	1-1/2	3-5/8	2-13/16	3-5/8	2-11/16	1-3/4	5/8	.77
8172-020CSR	2	4-1/8	3-1/4	4-27/32	3-1/32	2-1/8	3/4	1.41
8172-025CSR	2-1/2	4-7/8	3-7/8	5-1/4	3-13/16	2-1/4	1	2.11
8172-030CSR	3	5-15/32	4-17/32	5-31/32	4-17/32	2-21/32	1	3.02
8172-040CSR	4	5	4	7-1/2	5-1/2	2	1-1/4	3.80

TANK ADAPTER GASKET SECTION	SIZE	O.D.*	I.D.*	T
	1/4	1.49	0.99	1/4
	3/8	1.62	1.12	1/4
	1/2	1.98	1.41	1/4
	3/4	2.20	1.57	1/4
	1	2.60	1.90	1/4
	1-1/4	3.04	2.23	1/4
	1-1/2	3.54	2.57	1/4
	2	4.76	3.15	1/4
	2-1/2	5.13	3.70	1/4
	3	5.86	4.39	1/4
	4	7.34	5.31	1/4
	6	9.85	7.95	3/16
	8	12.70	9.94	3/8

New Style Tank Adapter Gasket & Hole Size Requirements			
Tank Adapter Size	Recommended Minimum Hole Size	Minimum Inside Curvature Radius (inches)	Maximum Tank Wall Thickness (inches)
1/4	1-1/16	2.50	.50
3/8	1-3/16	3.00	.50
1/2	1-1/2	4.00	.75
3/4	1-3/4	5.00	.75
1	2	7.00	.86
1-1/4	2-3/8	9.50	.86
1-1/2	2-3/4	12.00	.86
2	3-3/8	18.50	1.19
2-1/2	3-7/8	23.50	1.50
3	4-5/8	32.50	2.00
4	5-1/2	43.50	1.25
6	8	79.50	2.06
8	10-3/8	98.00	4.25

* Both outside and inside dimensions are +/- .01 to .03 shore hardness 50-60

Schedule 80 CPVC Technical Information
Schedule 80 CPVC Tank Adapters

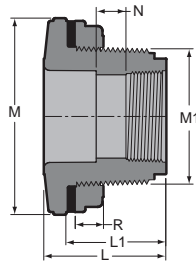


OLD STYLE - TANK ADAPTER

Socket x Fipt

Dimensions Also Applicable to 871E-XXXX

150 psi @ 73°F



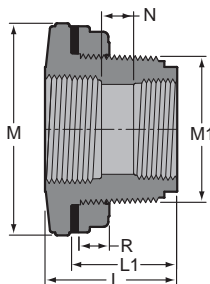
Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
871-005C	1/2	2-27/32	2-11/32	2-9/32	1-9/32	1-3/8	5/8	.26
871-007C	3/4	2-23/32	2-7/32	2-1/2	1-5/8	29/32	5/8	.32
871-010C	1	2-25/32	2-1/8	2-13/16	1-7/8	25/32	21/32	.34
871-012C	1-1/4	3-1/8	2-7/16	3-29/32	2-11/32	27/32	5/8	.63
871-015C	1-1/2	3-5/32	2-21/32	3-29/32	2-11/32	3/4	5/8	.59
871-020C	2	3-3/16	2-17/32	4-31/32	3-15/32	13/16	3/4	1.43
871-030C	3	4-19/32	3-13/16	6-7/16	4-15/32	31/32	1-3/16	2.63
871-040C	4	4-7/16	3-23/32	7-7/16	5-1/2	1/2	1-1/4	3.37

OLD STYLE - TANK ADAPTER

Fipt x Fipt

Dimensions Also Applicable to 872E-XXXX

150 psi @ 73°F




Part Number	Size	L	L1	M	M1	N	R	Approx. Wt. (Lbs.)
872-005C	1/2	2-27/32	2-11/32	2-9/32	1-9/32	1-13/32	5/8	.26
872-007C	3/4	2-23/32	2-1/4	2-1/2	1-5/8	1-5/32	5/8	.32
872-010C	1	2-25/32	2-5/16	2-13/16	1-7/8	25/32	5/8	.38
872-012C	1-1/4	3-1/8	2-5/8	3-27/32	2-11/32	1-1/8	5/8	.65
872-015C	1-1/2	3-1/8	2-5/8	3-29/32	2-11/32	1-1/16	5/8	.61
872-020C	2	3-5/32	2-3/8	5-1/16	3-7/16	1-5/32	3/4	1.42
872-030C	3	4-19/32	3-13/16	6-7/16	4-15/32	1-11/32	1-3/16	2.61
872-040C	4	4-7/16	3-1/2	7-1/2	5-1/2	15/16	1-1/4	3.47



Schedule 80 CPVC Technical Information

Schedule 80 CPVC Tank Adapters

TANK ADAPTER GASKET SECTION	SIZE	O.D.*	I.D.*	T	Old Style Tank Adapter Gasket & Hole Size Requirements			
					Tank Adapter Size	Recommended Minimum Hole Size	Minimum Inside Curvature Radius (inches)	Maximum Tank Wall Thickness (inches)
	1/2	2.25	1.33	3/16	1/2	1-3/8	3.88	1.06
	3/4	2.49	1.69	3/16	3/4	1-3/4	5.00	1.06
	1	2.79	1.94	3/16	1	2	6.12	1.06
	1-1/4	3.81	2.39	3/16	1-1/4	2-7/16	10.75	1.34
	1-1/2	3.81	2.39	3/16	1-1/2	2-7/16	10.75	1.34
	2	4.89	3.51	3/16	2	3-9/16	18.50	1.16
	3	6.30	4.49	3/16	3	4-9/16	31.00	1.75
	4	7.33	5.50	3/16	4	5-9/16	42.75	1.81

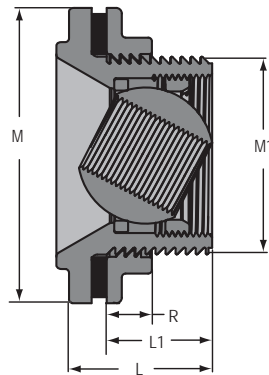
* Both outside and inside dimensions are +/- .03 shore hardness 65-70

SELF ALIGNING TANK ADAPTER

Fipt

Dimensions Also Applicable to 8172ESA-XXXC & 8172VSA-XXXC

75 psi @ 73°F



Part Number	Size	L	L1	M	M1	R	Approx. Wt. (Lbs.)
8172SA-010C	1	2-9/16	1-3/4	4-7/8	3-1/4	3/4	1.23
8172SA-020C	2	2-11/16	1-3/4	6	4-9/16	1	2.09
8172SA-030C	3	3-1/4	2-1/4	7-1/2	5-1/2	1-1/4	2.97