

## Vibra-Lok Fittings

### Advantages

Vibra-Lok provides a positive reliable seal under vibration conditions, mechanical shock or tube movement. The sleeve cushions the tubing permitting the tube to flex back and forth in the fitting. Seal design compensates for tube mis-alignment and tube surface defects during assembly. Special Vibra-Lok sleeves resist deterioration and retain flexibility over a wide temperature range. Positive nut stop bottoms nut on body requiring only visual inspection — no torque measurement is needed. Manufactured from CA 360, CA 345 or CA 377 brass. With SAE straight threads on Vibra-Lok fittings this allows the fitting to adhere to the system design requirements outlined in the Genuine Parker Parts Program making it an approved product under GPP.

### Applications

Use with all seamed or seamless metal tubing: Copper, Aluminum, Steel (Bundy), Stainless Steel and Glass. Sleeves are compatible for gasoline, oil, diesel fuel, lubricants, vacuum, air and water service.

### Threads

SAE J1926 straight threads and NPTF pipe threads are standard. Optional threads include ISO 6149 straight threads and British pipe threads.

### Working Pressures

See table on next page for maximum working pressures.

### Temperature Ranges

Fitting will withstand various temperatures depending on the sleeve used in the assembly.

Viton® sleeves are marked with a red stripe and will provide service from -15°F to +450°F.

Buna N sleeves are marked with a green stripe and will provide service from -30°F to +275°F.

### Vibration

Excellent resistance to vibration, mechanical, shock and tube movement.

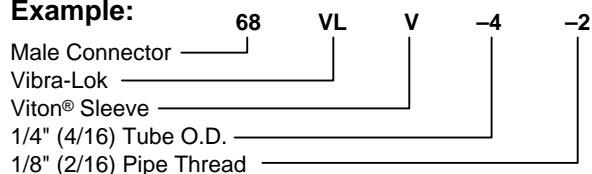
### Order Information

By part number and name. For Viton® seal add "V" to basic part number. Example 68VLV-4-2.

### Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

#### Example:



### Sizes

Tube sizes are determined by the number of sixteenths of an inch in tube O.D.

### Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

### Pricing

Only items priced in current supplementary price list PL3501 are carried in stock. Price and delivery for nonstock items furnished on request for specified quantity.

### Remake Instructions

All Vibra-Lok fittings can be reassembled repeatedly. New sleeves can easily be added to retain original fitting performance.

**Assembly Instructions**

1. Cut the tube cleanly and squarely removing all burrs.
2. Slip tube nut and sleeve over tube.
3. Insert tubing in fitting body as far as it will go and tighten nut until stop is reached. There is no danger of overt-tightening. The elastic sleeve ordinarily will extrude slightly around the tube at the end of the nut. This extrusion further aids in isolating the tube from the nut.

**Assembly Instructions for Higher Pressure Applications**

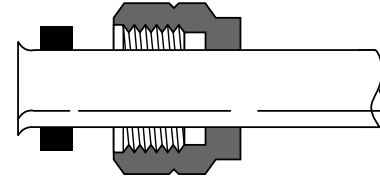
1. Consult pressure chart to determine if tubing should be belled for your particular application.
2. Slip the nut and sleeve over tubing. The sleeve should be positioned near end of tubing just behind the surface to be belled.
3. Bell tubing with standard 45° flaring tool or 90° punch. The size of bell should be approximately that shown.

**Pressure Chart**

In high pressure applications and sizes larger than 1/2" O.D., the tube end should be belled or flared.

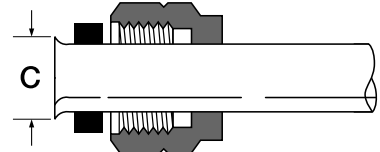
CONDITION	TUBE O.D.	TUBE NOT BELLED	TUBE BELLED OR FLARED
STATIC PRESSURE	3/16"	500	1000
	1/4"	500	1000
	5/16"	450	900
	3/8"	350	700
	1/2"	200	500
MINOR SURGES AND/OR VIBRATIONS	5/8"	400	400
	3/16"	400	800
	1/4"	400	800
	5/16"	325	700
	3/8"	225	500
SEVERE VIBRATIONS OR SHOCK	1/2"	150	375
	5/8"	300	600
	3/16"	300	600
	1/4"	225	500
	5/16"	175	400
	3/8"	100	250
	1/2"		100
	5/8"		

**Sleeve Position**



**Recommended Size of Bell**

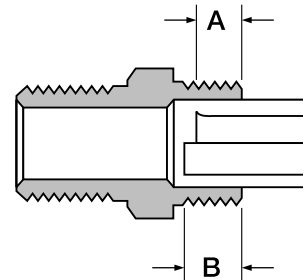
TUBE O.D.	BELL DIA. C
1/8"	.190-.160
3/16"	.255-.225
1/4"	.318-.288
5/16"	.381-.351
3/8"	.444-.414
1/2"	.569-.539
5/8"	.694-.664
3/4"	.819-.789
7/8"	.944-.914



**Tube Length Calculator**

This table shows distance tube extends beyond face of Vibra-Lok fitting body on installation with bell on tubing and without bell on tubing.

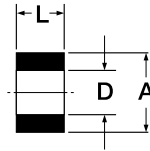
O.D. of TUBE	A	B
	With BELL	Without BELL
1/8"	3/16"	3/16"
3/16"	3/16"	7/32"
1/4"	3/16"	1/4"
5/16"	3/16"	1/4"
3/8"	3/16"	1/4"
1/2"	3/16"	11/32"
5/8"	3/16"	Tubing should be belled
3/4"	3/16"	
7/8"	1/4"	



## Vibra-Lok Fittings

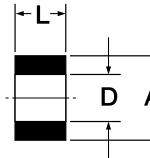
### Sleeve 60VL

PART NO.	TUBE SIZE	A	D	L
60VL-2	1/8	.306	.100	.20
60VL-3	3/16	.359	.156	.20
60VL-4	1/4	.422	.219	.21
60VL-5	5/16	.484	.281	.24
60VL-6	3/8	.547	.344	.25
60VL-8	1/2	.688	.469	.36
60VL-10	5/8	.875	.594	.48
60VL-12	3/4	1.000	.720	.59



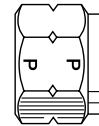
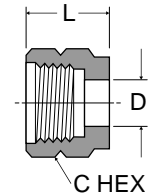
### Sleeve (Viton®) 60VLV

PART NO.	TUBE SIZE	A	D	L
60VLV-3	3/16	.359	.156	.20
60VLV-4	1/4	.422	.219	.21
60VLV-5	5/16	.484	.281	.24
60VLV-6	3/8	.547	.344	.25
60VLV-8	1/2	.688	.469	.36
60VLV-10	5/8	.875	.594	.48



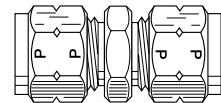
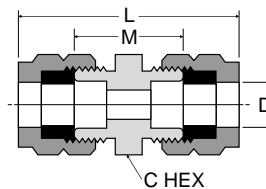
### Nut 61VL

PART NO.	TUBE SIZE	STRAIGHT THREAD	C HEX	D	L
61VL-2	1/8	3/8-24	7/16	.156	.44
61VL-3	3/16	7/16-24	1/2	.218	.47
61VL-4	1/4	1/2-24	9/16	.281	.50
61VL-5	5/16	9/16-24	5/8	.344	.53
61VL-6	3/8	5/8-24	3/4	.406	.53
61VL-8	1/2	13/16-18	15/16	.531	.67
61VL-10	5/8	1-18	1-1/8	.656	.88
61VL-12	3/4	1-1/8-18	1-1/4	.781	.98



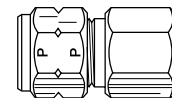
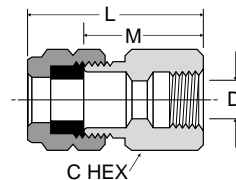
### Union 62VL

PART NO.	TUBE SIZE	C HEX	L	M	FLOW DIA. D
62VL-4	1/4	9/16	1.39	.77	.188
62VL-5	5/16	5/8	1.49	.81	.250
62VL-6	3/8	11/16	1.49	.80	.312
62VL-8	1/2	7/8	1.90	.94	.437



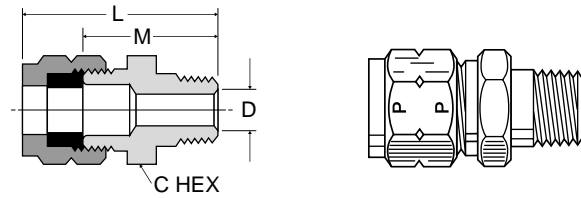
### Female connector 66VL

PART NO.	TUBE SIZE	PIPE THREAD	C HEX	L	M	FLOW DIA. D
66VL-4-2	1/4	1/8	9/16	1.09	.78	.188
66VL-5-4	5/16	1/4	11/16	1.32	.97	.250



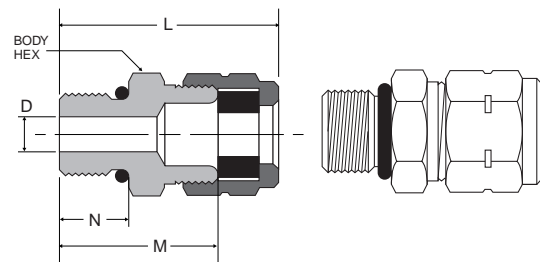
**Male connector 68VL**

PART NO.	TUBE SIZE	PIPE THREAD	C HEX	L	M	FLOW DIA.D
68VL-2-2	1/8	1/8	7/16	1.12	.81	.093
68VL-3-2	3/16	1/8	1/2	1.10	.81	.125
68VL-4-2	1/4	1/8	9/16	1.15	.84	.188
68VL-4-4	1/4	1/4	9/16	1.34	1.03	.188
68VL-5-4	5/16	1/4	5/8	1.41	1.06	.250
68VL-6-2	3/8	1/8	11/16	1.22	.87	.235
68VL-6-4	3/8	1/4	11/16	1.41	1.06	.312
68VL-6-6	3/8	3/8	11/16	1.41	1.06	.312
68VL-8-6	1/2	3/8	7/8	1.64	1.16	.406
68VL-10-8	5/8	1/2	1-1/16	2.10	1.44	.560
68VL-12-12	3/4	3/4	1-3/16	2.26	1.50	.688



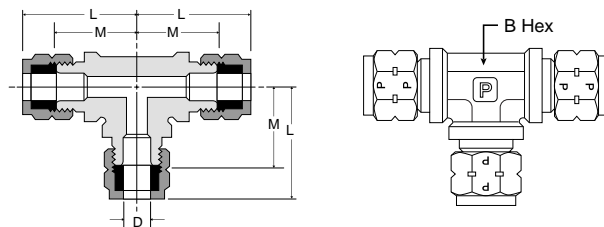
**Male Connector 685VLV**

PART NO.	TUBE SIZE	STRAIGHT THREAD	BODY HEX	L	M	N	D
685VLV-4-4	1/4	7/16-20	9/16	1.14	.83	.36	.18
685VLV-5-4	5/16	7/16-20	5/8	1.18	.83	.36	.18
685VLV-6-4	3/8	7/16-20	11/16	1.18	.83	.36	.18
685VLV-6-6	3/8	9/16-18	11/16	1.25	.90	.39	.30
685VLV-8-8	1/2	3/4-16	7/8	1.52	1.04	.44	.39
685VLV-10-10	5/8	7/8-14	1 1/16	1.84	1.20	.50	.50
685VLV-12-12	3/4	1 1/16-12	1 1/4	2.10	1.34	.59	.62



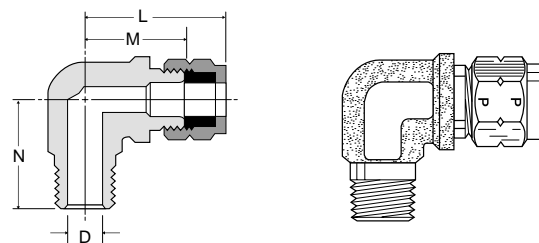
**Union Tee 164VL**

PART NO.	TUBE SIZE	B HEX	L	M	FLOW DIA. D
164VL-3	3/16	3/8	.98	.69	.160
164VL-4	1/4	1/2	1.06	.75	.190
164VL-5	5/16	15/32	1.22	.88	.250
164VL-8	1/2	13/16	1.64	1.16	.440



**Male elbow 169VL**

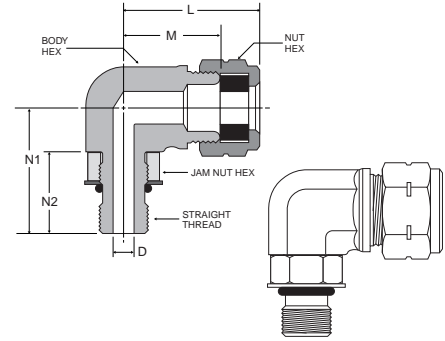
PART NO.	TUBE SIZE	PIPE THREAD	L	M	N	FLOW DIA.D
169VL-3-2	3/16	1/8	.98	.69	.75	.156
169VL-4-2	1/4	1/8	1.00	.69	.78	.188
169VL-4-4	1/4	1/4	1.16	.84	1.00	.188
169VL-5-4	5/16	1/4	1.16	.81	1.00	.252
169VL-6-2	3/8	1/8	1.19	.84	.91	.235
169VL-6-4	3/8	1/4	1.19	.84	1.06	.312
169VL-6-6	3/8	3/8	1.29	.94	1.13	.312
169VL-8-6	1/2	3/8	1.48	1.00	1.06	.406
169VL-8-8	1/2	1/2	1.54	1.06	1.44	.439
169VL-10-8	5/8	1/2	1.92	1.28	1.47	.565



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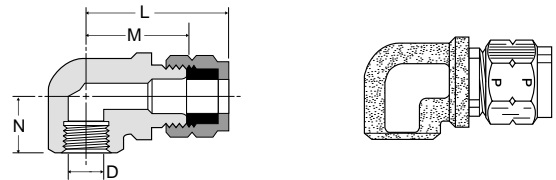
### Male Elbow 1695VLV

PART NO.	TUBE SIZE	STRAIGHT THREAD	NUT HEX	BODY HEX	JAM NUT HEX	L	M	N1	N2	D
1695VLV-4-4	1/4	7/16-20	9/16	9/16	9/16	1.15	.84	1.07	.71	.18
1695VLV-5-4	5/16	7/16-20	5/8	9/16	9/16	1.16	.81	1.07	.71	.18
1695VLV-6-4	3/8	7/16-20	3/4	5/8	9/16	1.19	.84	1.10	.71	.18
1695VLV-6-6	3/8	9/16-18	3/4	5/8	11/16	1.29	.94	1.17	.78	.30
1695VLV-8-8	1/2	3/4-16	15/16	3/4	7/8	1.54	1.06	1.44	.89	.39
1695VLV-10-10	5/8	7/8-14	1 1/8	1.00	1.00	1.92	1.28	1.68	1.03	.50
1695VLV-12-12	3/4	1 1/16-12	1 1/4	1.00	1 1/4	2.04	1.28	1.82	1.17	.62



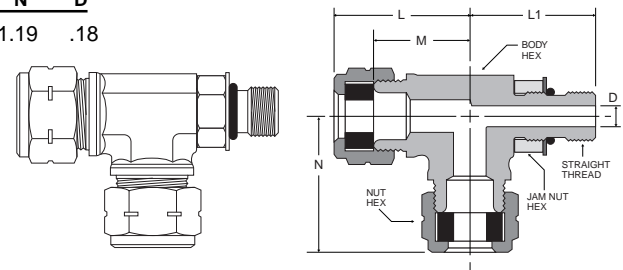
### Female elbow 170VL

PART NO.	TUBE SIZE	PIPE THREAD	L	M	N	FLOW DIA.D
170VL-4-2	1/4	1/8	.96	.65	.50	.188
170VL-5-4	5/16	1/4	1.16	.81	.70	.560



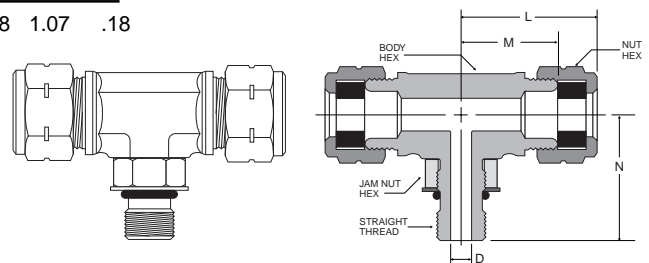
### Male Run Tee 1715VLV

PART NO.	TUBE SIZE	STRAIGHT THREAD	NUT HEX	BODY HEX	JAM NUT HEX	L	M	N	D
1715VLV-4-4	1/4	7/16-20	9/16	1/2	9/16	2.30	.88	1.19	.18



### Male Branch Tee 1725VLV

PART NO.	TUBE SIZE	STRAIGHT THREAD	NUT HEX	BODY HEX	JAM NUT HEX	L	M	N	D
1725VLV-4-4	1/4	7/16-20	9/16	1/2	9/16	2.39	.88	1.07	.18



### 45° elbow 179VL

PART NO.	TUBE SIZE	PIPE THREAD	L	M	N	FLOW DIA.D
179VL-4-2	1/4	1/8	1.06	.75	.69	.188
179VL-6-4	3/8	1/4	1.07	.72	.84	.315

