

COMPONENTS • MANUFACTURING
ONE Trusted SOURCE
TESTING • ASSEMBLY



Vacuum

Components



Trusted Vacuum Components for World Changing Technologies

Since 1976, Valex has set the standard for manufacturing ultra-high purity components and systems for the world's most demanding semiconductor gas delivery applications. We're proud that our engineers have led the industry with the most important advances in component design, electro-polishing, precision cleaning and integrated assemblies.

Technological advancements depend on ever-increasing levels of cleanliness, corrosion resistance, leak integrity and surface finish. Today, our advanced line of vacuum products consistently delivers the highest level of precision and reliability throughout the semiconductor realization process, from IDM facility infrastructure to OEM Capital Equipment.

As more industries including semiconductor, space research, material sciences, biology, chemistry and analytical/medical instrumentation rely on corrosion-resistant, clean vacuum technology to drive further development, Valex continues to prove itself as the **One Trusted Source** for the Vacuum components that drive success.



Table of Contents

Tube	
Dimensional Charts	4
Buttweld Fittings	
Dimensional Charts	6
NW / KF Fittings	
Dimensional Charts	18
ISO-K Fittings	
Dimensional Charts	35
ISO-F Fittings	
Dimensional Charts.....	53
CF Fittings	
Dimensional Charts.....	61
Adapters	
Dimensional Charts.....	104
Bellows & Hoses	
Dimensional Charts.....	115
Ordering Information	
For All Valex Vacuum Product Lines.....	125

* Dimensional charts are subject to change. Please visit Valex.com or call your local Valex representative for the latest information.

Tube



Tube O.D. Sizes:

1/2" to NPS 12
(12.7 - 304.8 mm)

Materials:

304, 304L, 316 & 316L

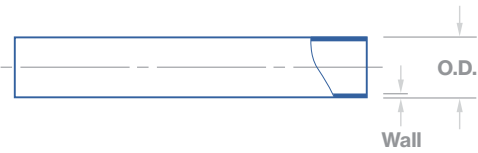
Vacuum Range:

$\geq 1 \times 10^{-13}$ mbar

Temperature Range:

-200° to 450°C

Specifications



Tube

Bright Annealed (BA) / Annealed & Pickled (AP)

Part Number	
316L	304L
CS-1/2X.049-VB	DS-1/2X.049-VB
CW-3/4X.065-VB	DW-3/4X.065-VB
CW-1X.065-VB	DW-1X.065-VB
CW-1-1/2X.065-VB	DW-1-1/2X.065-VB
CW-2X.065-VB	DW-2X.065-VB
CW-2-1/2X.065-VB	DW-2-1/2X.065-VB
CW-3X.065-VB	DW-3X.065-VB
CW-4X.083-VB	DW-4X.083-VB
CW-6X.083-VB	DW-6X.083-VB
CW-8X.120-VB	DW-8X.120-VB
CW-10X.120-VB	DW-10X.120-VB

Dimensions in Inches & Millimeters			
Nominal Size (O.D.)		Wall	
inch	mm	inch	mm
1/2"	12.70	.049	1.24
3/4"	19.05	.065	1.65
1"	25.40	.065	1.65
1-1/2"	38.10	.065	1.65
2"	50.80	.065	1.65
2-1/2"	63.50	.065	1.65
3"	76.20	.065	1.65
4"	101.60	.083	2.11
6"	152.40	.083	2.11
8"	203.20	.120	3.05
10"	254.00	.120	3.05

* VB: Bright Annealed Finish for O.D. sizes 4" and lower. Annealed & Pickled Finish for size 6" and higher.

Mechanically Polished (MP)

Part Number	
316L	304L
CW-3/4X.065-MP	DW-3/4X.065-MP
CW-1X.065-MP	DW-1X.065-MP
CW-1-1/2X.065-*MP	DW-1-1/2X.065-MP
CW-2X.065-MP	DW-2X.065-MP
CW-2-1/2X.065-MP	DW-2-1/2X.065-MP
CW-3X.065-MP	DW-3X.065-MP
CW-4X.083-MP	DW-4X.083-MP
CW-6X.083-MP	DW-6X.083-MP
CW-8X.120-MP	DW-8X.120-MP
CW-10X.120-MP	DW-10X.120-MP

Dimensions in Inches & Millimeters			
Nominal Size (O.D.)		Wall	
inch	mm	inch	mm
3/4"	19.05	.065	1.65
1"	25.40	.065	1.65
1-1/2"	38.10	.065	1.65
2"	50.80	.065	1.65
2-1/2"	63.50	.065	1.65
3"	76.20	.065	1.65
4"	101.60	.083	2.11
6"	152.40	.083	2.11
8"	203.20	.120	3.05
10"	254.00	.120	3.05

Electropolished (EP)

Part Number
316L
T4A-0W-01000-065B0
T4A-0W-01500-065B0
T4A-0W-02000-065B0
T4A-0W-02500-065B0
T4A-0W-03000-065B0
T4A-0W-04000-083B0
T4A-0W-06000-083B0

Dimensions in Inches & Millimeters			
Nominal Size (O.D.)		Wall	
inch	mm	inch	mm
1"	25.40	.065	1.65
1-1/2"	38.10	.065	1.65
2"	50.80	.065	1.65
2-1/2"	63.50	.065	1.65
3"	76.20	.065	1.65
4"	101.60	.083	2.11
6"	152.40	.083	2.11

Buttweld

Fittings



Tube O.D. Sizes:

1/2 to 12 inches
(12.7 - 304.8 mm)

Materials:

304, 304L, 316 & 316L

Vacuum Range:

$\geq 1 \times 10^{-13}$ mbar

Temperature Range:

-200° to 450°C

Specifications

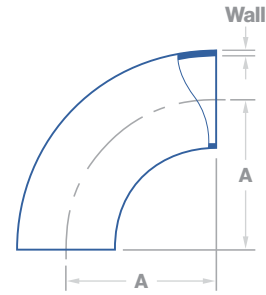


Valex
Vacuum
Components

Buttweld Elbows

CONFIGURATION
2T

90° Elbow No Tangent

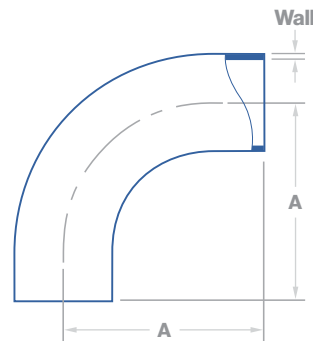


Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-2T-W12	3/4"	19.05	.065	1.65	1.125	28.58
V*-2T-W16	1"	25.40	.065	1.65	1.500	38.10
V*-2T-W24	1-1/2"	38.10	.065	1.65	2.250	57.15
V*-2T-W32	2"	50.80	.065	1.65	3.000	76.20
V*-2T-W40	2-1/2"	63.50	.065	1.65	3.750	95.25
V*-2T-W48	3"	76.20	.065	1.65	4.500	114.30
V*-2T-W64	4"	101.60	.083	2.11	6.000	152.40
V*-2T-W96	6"	152.40	.083	2.11	9.000	228.60

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
2

90° Elbow with Tangent



Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-2-W12	3/4"	19.05	.065	1.65	3.000	76.20
V*-2-W16	1"	25.40	.065	1.65	2.063	52.40
V*-2-W24	1-1/2"	38.10	.065	1.65	2.938	74.63
V*-2-W32	2"	50.80	.065	1.65	4.063	103.20
V*-2-W40	2-1/2"	63.50	.065	1.65	5.188	131.78
V*-2-W48	3"	76.20	.065	1.65	6.313	160.35
V*-2-W64	4"	101.60	.083	2.11	8.313	211.15
V*-2-W96	6"	152.40	.083	2.11	12.46	316.48

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

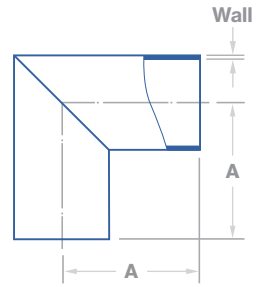


Valex
Vacuum
Components

Buttweld Elbows

CONFIGURATION
2M

90° Elbow Mitered

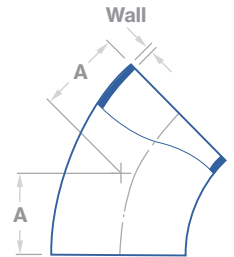


Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-2M-W12	3/4"	19.05	.065	1.65	1.000	25.40
V*-2M-W16	1"	25.40	.065	1.65	1.880	47.75
V*-2M-W24	1-1/2"	38.10	.065	1.65	2.250	57.15
V*-2X-W24	1-1/2"	38.10	.065	1.65	2.410	61.21
V*-2M-W32	2"	50.80	.065	1.65	2.610	66.29
V*-2X-W32	2"	50.80	.065	1.65	3.000	76.20
V*-2M-W40	2-1/2"	63.50	.065	1.65	3.000	76.20
V*-2X-W40	2-1/2"	63.50	.065	1.65	3.750	95.25
V*-2M-W48	3"	76.20	.065	1.65	3.250	82.55
V*-2X-W48	3"	76.20	.065	1.65	3.880	98.55
V*-2M-W64	4"	101.60	.083	2.11	4.250	107.95
V*-2X-W64	4"	101.60	.083	2.11	4.870	123.70
V*-2M-W96	6"	152.40	.083	2.11	5.000	127.00
V*-2X-W96	6"	152.40	.083	2.11	6.060	153.92

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
2N

45° Elbow No Tangent



Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-2N-W12	3/4"	19.05	.065	1.65	.469	11.92
V*-2N-W16	1"	25.40	.065	1.65	.625	15.88
V*-2N-W24	1-1/2"	38.10	.065	1.65	.938	23.83
V*-2N-W32	2"	50.80	.065	1.65	1.250	31.75
V*-2N-W40	2-1/2"	63.50	.065	1.65	1.563	39.70
V*-2N-W48	3"	76.20	.065	1.65	1.875	47.63
V*-2N-W64	4"	101.60	.083	2.11	2.500	63.50
V*-2N-W96	6"	152.40	.083	2.11	3.750	95.25

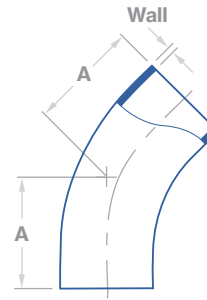
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Valex
Vacuum
Components

CONFIGURATION
2K

45° Elbow with Tangent



Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-2K-W12	3/4"	19.05	.065	1.65	2.250	57.15
V*-2K-W16	1"	25.40	.065	1.65	1.188	30.18
V*-2K-W24	1-1/2"	38.10	.065	1.65	1.625	41.28
V*-2K-W32	2"	50.80	.065	1.65	2.313	58.75
V*-2K-W40	2-1/2"	63.50	.065	1.65	3.000	76.20
V*-2K-W48	3"	76.20	.065	1.65	3.688	93.68
V*-2K-W64	4"	101.60	.083	2.11	4.813	122.25
V*-2K-W96	6"	152.40	.083	2.11	6.250	158.75

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Buttweld Elbows

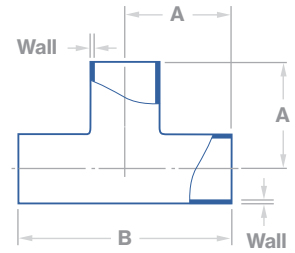


Valex
Vacuum
Components

Buttweld Tees



Equal Tee



Part Number	Dimensions in Inches			
	Nominal Size	Wall	A	B
V*-7-W12	3/4"	.065	1.875	3.750
V*-7-W16	1"	.065	1.875	3.750
V*-7-W24	1-1/2"	.065	2.250	4.500
V*-7-W32	2"	.065	3.000	6.000
V*-7-W40	2-1/2"	.065	3.000	6.000
V*-7-W48	3"	.065	3.250	6.500
V*-7-W64	4"	.083	3.875	7.750
V*-7-W96	6"	.083	5.000	10.000

Part Number	Dimensions in Millimeters			
	Nominal Size	Wall	A	B
V*-7-W12	19.05	1.65	47.63	95.25
V*-7-W16	25.40	1.65	47.63	95.25
V*-7-W24	38.10	1.65	57.15	114.30
V*-7-W32	50.80	1.65	76.20	152.40
V*-7-W40	63.50	1.65	76.20	152.40
V*-7-W48	76.20	1.65	82.55	165.10
V*-7-W64	101.60	2.11	98.43	196.85
V*-7-W96	152.40	2.11	127.00	254.00

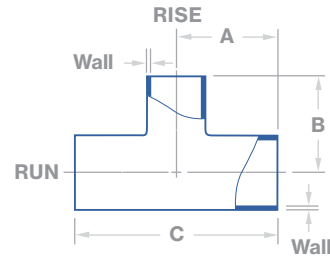
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





CONFIGURATION
7R

Reducing Tee



Part Number	Dimensions in Inches						
	Nominal Size		Wall		A	B	C
	RUN	RISE	RUN	RISE			
V*-7R-W16XW12	1"	3/4"	.065	.065	1.875	2.125	3.750
V*-7R-W24XW12	1-1/2"	3/4"	.065	.065	2.250	2.250	4.500
V*-7R-W24XW16	1-1/2"	1"	.065	.065	2.250	2.375	4.500
V*-7R-W32XW12	2"	3/4"	.065	.065	3.000	2.375	6.000
V*-7R-W32XW16	2"	1"	.065	.065	3.000	2.375	6.000
V*-7R-W32XW24	2"	1-1/2"	.065	.065	3.000	2.500	6.000
V*-7R-W40XW24	2-1/2"	1-1/2"	.065	.065	3.000	2.750	6.000
V*-7R-W40XW32	2-1/2"	2"	.065	.065	3.000	3.250	6.000
V*-7R-W48XW24	3"	1-1/2"	.065	.065	3.250	3.000	6.500
V*-7R-W48XW32	3"	2"	.065	.065	3.250	3.500	6.500
V*-7R-W48XW40	3"	2-1/2"	.065	.065	3.250	3.250	6.500
V*-7R-W64XW32	4"	2"	.083	.065	3.875	4.000	7.750
V*-7R-W64XW40	4"	2-1/2"	.083	.065	3.875	3.750	7.750
V*-7R-W64XW48	4"	3"	.083	.065	3.875	3.750	7.750
V*-7R-W96XW48	6"	3"	.083	.065	5.000	4.750	10.000
V*-7R-W96XW64	6"	4"	.083	.083	5.000	4.875	10.000

Part Number	Dimensions in Millimeters						
	Nominal Size		Wall		A	B	C
	RUN	RISE	RUN	RISE			
V*-7R-W16XW12	25.40	19.05	1.65	1.65	47.63	53.98	95.25
V*-7R-W24XW12	38.10	19.05	1.65	1.65	57.15	57.15	114.30
V*-7R-W24XW16	38.10	25.40	1.65	1.65	57.15	60.33	114.30
V*-7R-W32XW12	50.80	19.05	1.65	1.65	76.20	60.33	152.40
V*-7R-W32XW16	50.80	25.40	1.65	1.65	76.20	60.33	152.40
V*-7R-W32XW24	50.80	38.10	1.65	1.65	76.20	63.50	152.40
V*-7R-W40XW24	63.50	38.10	1.65	1.65	76.20	69.85	152.40
V*-7R-W40XW32	63.50	50.80	1.65	1.65	76.20	82.55	152.40
V*-7R-W48XW24	76.20	38.10	1.65	1.65	82.55	76.20	165.10
V*-7R-W48XW32	76.20	50.80	1.65	1.65	82.55	88.90	165.10
V*-7R-W48XW40	76.20	63.50	1.65	1.65	82.55	82.55	165.10
V*-7R-W64XW32	101.60	50.80	2.11	1.65	98.43	101.60	196.85
V*-7R-W64XW40	101.60	63.50	2.11	1.65	98.43	95.25	196.85
V*-7R-W64XW48	101.60	76.20	2.11	1.65	98.43	95.25	196.85
V*-7R-W96XW48	152.40	76.20	2.11	1.65	127.00	120.65	254.00
V*-7R-W96XW64	152.40	101.60	2.11	2.11	127.00	123.83	254.00

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

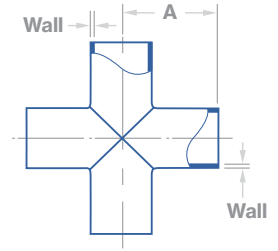


Valex
Vacuum
Components

Buttweld Crosses

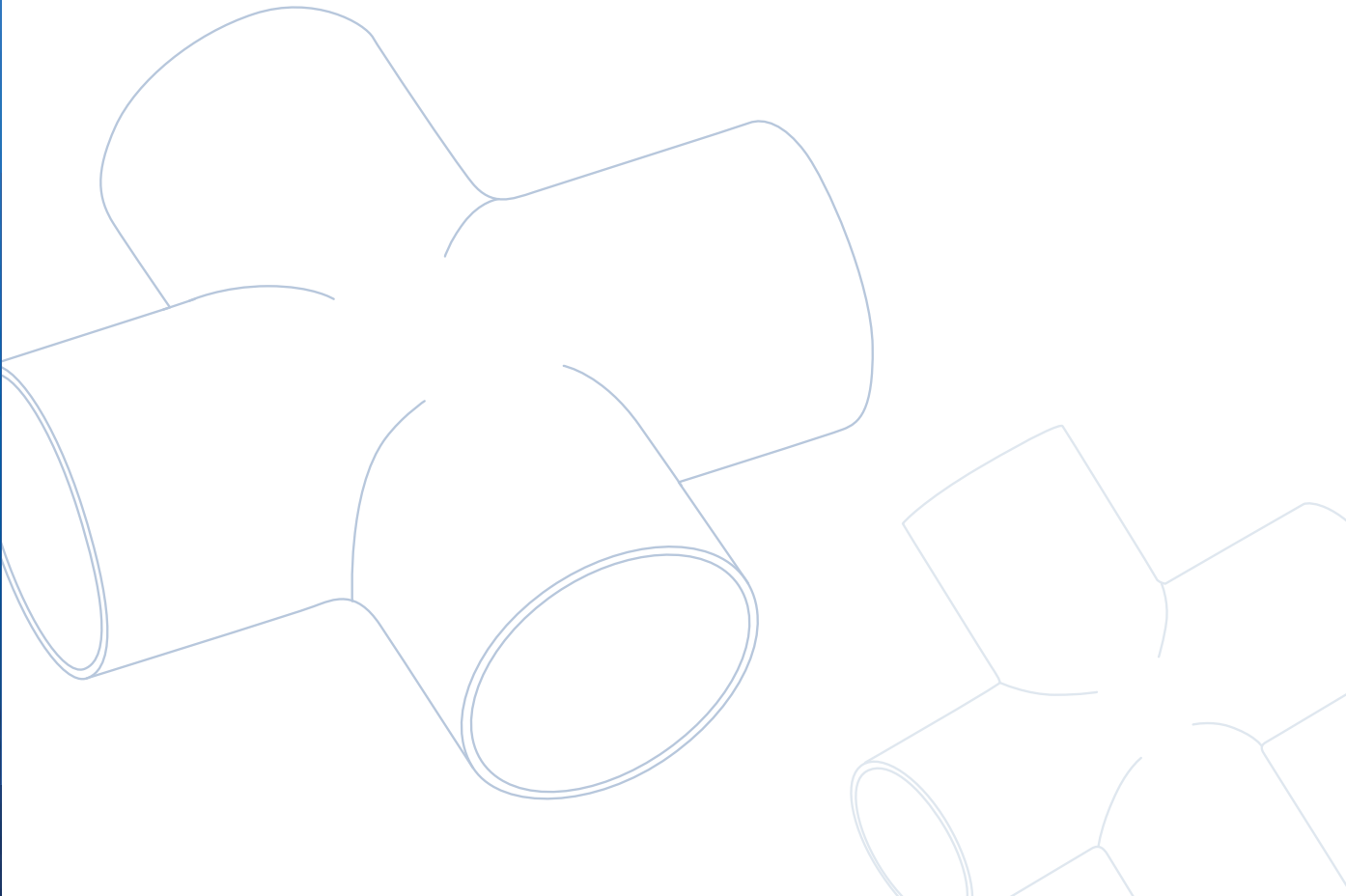


4-Way Cross



Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-9-W12	3/4"	19.05	.065	1.65	1.875	47.63
V*-9-W16	1"	25.40	.065	1.65	1.875	47.63
V*-9-W24	1-1/2"	38.10	.065	1.65	2.250	57.15
V*-9-W32	2"	50.80	.065	1.65	3.000	76.20
V*-9-W40	2-1/2"	63.50	.065	1.65	3.000	76.20
V*-9-W48	3"	76.20	.065	1.65	3.250	82.55
V*-9-W64	4"	101.60	.083	2.11	3.875	98.43
V*-9-W96	6"	152.40	.083	2.11	5.000	127.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



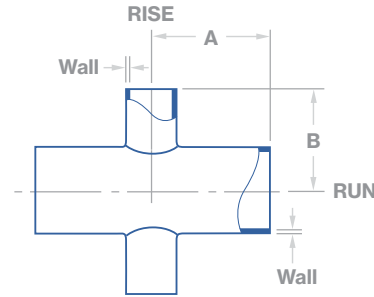


Valex
Vacuum
Components

Buttweld Crosses

CONFIGURATION
9R

4-Way Reducing Cross



Part Number
V*-9R-W16XW12
V*-9R-W24XW12
V*-9R-W24XW16
V*-9R-W32XW12
V*-9R-W32XW24
V*-9R-W40XW24
V*-9R-W40XW32
V*-9R-W48XW24
V*-9R-W64XW24
V*-9R-W64XW32
V*-9R-W64XW40
V*-9R-W64XW48
V*-9R-W96XW08
V*-9R-W96XW24
V*-9R-W96XW32
V*-9R-W96XW40
V*-9R-W96XW48
V*-9R-W96XW64

Dimensions in Inches					
Nominal Size		Wall		A	B
RUN	RISE	RUN	RISE		
1"	3/4"	.065	.065	1.880	1.120
1-1/2"	3/4"	.065	.065	2.250	1.380
1-1/2"	1"	.065	.065	2.250	2.130
2"	3/4"	.065	.065	3.000	1.630
2"	1-1/2"	.065	.065	3.000	2.500
2-1/2"	1-1/2"	.065	.065	3.000	2.750
2-1/2"	2"	.065	.065	3.000	3.250
3"	1-1/2"	.065	.065	3.250	3.000
4"	1-1/2"	.083	.065	3.880	3.500
4"	2"	.083	.065	3.880	4.000
4"	2-1/2"	.083	.065	3.880	3.750
4"	3"	.083	.065	3.880	3.750
6"	1/2"	.083	.065	5.000	5.000
6"	1-1/2"	.083	.065	5.000	4.500
6"	2"	.083	.065	5.000	5.000
6"	2-1/2"	.083	.065	5.000	4.750
6"	3"	.083	.065	5.000	4.750
6"	4"	.083	.083	5.000	4.880

Part Number
V*-9R-W16XW12
V*-9R-W24XW12
V*-9R-W24XW16
V*-9R-W32XW12
V*-9R-W32XW24
V*-9R-W40XW24
V*-9R-W40XW32
V*-9R-W48XW24
V*-9R-W64XW24
V*-9R-W64XW32
V*-9R-W64XW40
V*-9R-W64XW48
V*-9R-W96XW08
V*-9R-W96XW24
V*-9R-W96XW32
V*-9R-W96XW40
V*-9R-W96XW48
V*-9R-W96XW64

Dimensions in Millimeters					
Nominal Size		Wall		A	B
RUN	RISE	RUN	RISE		
25.40	19.05	1.65	1.65	47.75	28.45
38.10	19.05	1.65	1.65	57.15	35.05
38.10	25.40	1.65	1.65	57.15	54.10
50.80	19.05	1.65	1.65	76.20	41.40
50.80	38.10	1.65	1.65	76.20	63.50
63.50	38.10	1.65	1.65	76.20	69.85
63.50	50.80	1.65	1.65	76.20	82.55
76.20	38.10	1.65	1.65	82.55	76.20
101.60	38.10	2.11	1.65	98.55	88.90
101.60	50.80	2.11	1.65	98.55	101.60
101.60	63.50	2.11	1.65	98.55	95.25
101.60	76.20	2.11	1.65	98.55	95.25
152.40	12.70	2.11	1.65	127.00	127.00
152.40	38.10	2.11	1.65	127.00	114.30
152.40	50.80	2.11	1.65	127.00	127.00
152.40	63.50	2.11	1.65	127.00	120.65
152.40	76.20	2.11	1.65	127.00	120.65
152.40	101.60	2.11	2.11	127.00	123.95

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

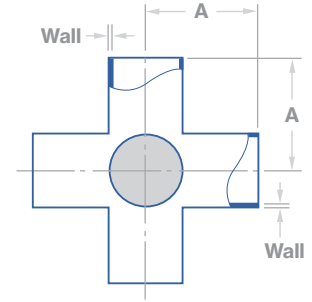


Valex
Vacuum
Components

Buttweld Crosses

CONFIGURATION
9F

5-Way Cross

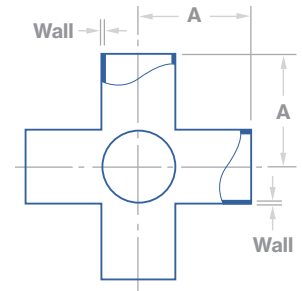


Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-9F-W12	3/4"	19.05	.065	1.65	1.000	25.40
V*-9F-W16	1"	25.40	.065	1.65	1.880	47.75
V*-9F-W24	1-1/2"	38.10	.065	1.65	2.250	57.15
V*-9F-W32	2"	50.80	.065	1.65	3.000	76.20
V*-9F-W40	2-1/2"	63.50	.065	1.65	3.000	76.20
V*-9F-W48	3"	76.20	.065	1.65	3.250	82.55
V*-9F-W64	4"	101.60	.083	2.11	3.880	98.55
V*-9F-W96	6"	152.40	.083	2.11	5.000	127.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
9S

6-Way Cross



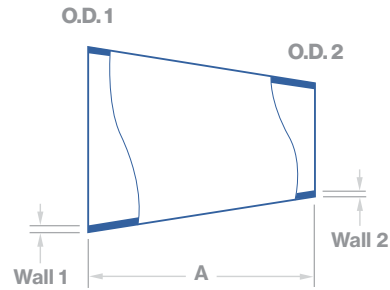
Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall Size		A	
	inch	mm	inch	mm	inch	mm
V*-9S-W12	3/4"	19.05	.065	1.65	1.000	25.40
V*-9S-W16	1"	25.40	.065	1.65	1.880	47.75
V*-9S-W24	1-1/2"	38.10	.065	1.65	2.250	57.15
V*-9S-W32	2"	50.80	.065	1.65	3.000	76.20
V*-9S-W40	2-1/2"	63.50	.065	1.65	3.000	76.20
V*-9S-W48	3"	76.20	.065	1.65	3.250	82.55
V*-9S-W64	4"	101.60	.083	2.11	3.880	98.55
V*-9S-W96	6"	152.40	.083	2.11	5.000	127.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
31

Concentric Reducer



Part Number	Dimensions in Inches				
	O.D.1	O.D.2	Wall 1	Wall 2	A
V*-31-W12XW08	3/4"	1/2"	.065	.049	1.000
V*-31-W16XW08	1"	1/2"	.065	.049	1.500
V*-31-W16XW12	1"	3/4"	.065	.065	1.000
V*-31-W24XW08	1-1/2"	1/2"	.065	.049	3.500
V*-31-W24XW12	1-1/2"	3/4"	.065	.065	3.000
V*-31-W24XW16	1-1/2"	1"	.065	.065	2.000
V*-31-W32XW16	2"	1"	.065	.065	4.000
V*-31-W32XW24	2"	1-1/2"	.065	.065	2.000
V*-31-W40XW24	2-1/2"	1-1/2"	.065	.065	4.000
V*-31-W40XW32	2-1/2"	2"	.065	.065	2.000
V*-31-W48XW24	3"	1-1/2"	.065	.065	6.000
V*-31-W48XW32	3"	2"	.065	.065	4.000
V*-31-W48XW40	3"	2-1/2"	.065	.065	2.000
V*-31-W64XW24	4"	1-1/2"	.083	.065	10.000
V*-31-W64XW32	4"	2"	.083	.065	8.000
V*-31-W64XW40	4"	2-1/2"	.083	.065	6.000
V*-31-W64XW48	4"	3"	.083	.065	4.000
V*-31-W96XW48	6"	3"	.083	.065	6.000
V*-31-W96XW64	6"	4"	.083	.083	4.000

Part Number	Dimensions in Millimeters				
	O.D.1	O.D.2	Wall 1	Wall 2	A
V*-31-W12XW08	19.05	12.70	1.65	1.24	25.40
V*-31-W16XW08	25.40	12.70	1.65	1.24	38.10
V*-31-W16XW12	25.40	19.05	1.65	1.65	25.40
V*-31-W24XW08	38.10	12.70	1.65	1.24	88.90
V*-31-W24XW12	38.10	19.05	1.65	1.65	76.20
V*-31-W24XW16	38.10	25.40	1.65	1.65	50.80
V*-31-W32XW16	50.80	25.40	1.65	1.65	101.60
V*-31-W32XW24	50.80	38.10	1.65	1.65	50.80
V*-31-W40XW24	63.50	38.10	1.65	1.65	101.60
V*-31-W40XW32	63.50	50.80	1.65	1.65	50.80
V*-31-W48XW24	76.20	38.10	1.65	1.65	152.40
V*-31-W48XW32	76.20	50.80	1.65	1.65	101.60
V*-31-W48XW40	76.20	63.50	1.65	1.65	50.80
V*-31-W64XW24	101.60	38.10	2.11	1.65	254.00
V*-31-W64XW32	101.60	50.80	2.11	1.65	203.20
V*-31-W64XW40	101.60	63.50	2.11	1.65	152.40
V*-31-W64XW48	101.60	76.20	2.11	1.65	101.60
V*-31-W96XW48	152.40	76.20	2.11	1.65	152.40
V*-31-W96XW64	152.40	101.60	2.11	2.11	101.60

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

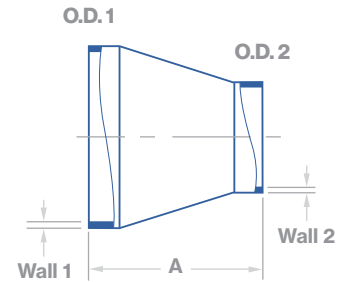


Valex
Vacuum
Components

Buttweld Reducers

Concentric Reducer with Tangents

CONFIGURATION
31T



Part Number	Dimensions in Inches				
	O.D.1	O.D.2	Wall 1	Wall 2	A
V*-31T-W16XW12	1"	3/4"	.065	.065	2.375
V*-31T-W24XW16	1-1/2"	1"	.065	.065	2.375
V*-31T-W32XW16	2"	1"	.065	.065	2.375
V*-31T-W32XW24	2"	1-1/2"	.065	.065	2.375
V*-31T-W40XW24	2-1/2"	1-1/2"	.065	.065	2.375
V*-31T-W40XW32	2-1/2"	2"	.065	.065	2.375
V*-31T-W48XW24	3"	1-1/2"	.065	.065	3.625
V*-31T-W48XW32	3"	2"	.065	.065	3.625
V*-31T-W48XW40	3"	2-1/2"	.065	.065	3.625
V*-31T-W64XW24	4"	1-1/2"	.083	.065	5.500
V*-31T-W64XW32	4"	2"	.083	.065	3.625
V*-31T-W64XW40	4"	2-1/2"	.083	.065	3.625
V*-31T-W64XW48	4"	3"	.083	.065	3.625
V*-31T-W96XW48	6"	3"	.083	.065	5.500
V*-31T-W96XW64	6"	4"	.083	.083	5.500

Part Number	Dimensions in Millimeters				
	O.D.1	O.D.2	Wall 1	Wall 2	A
V*-31T-W16XW12	25.40	19.05	1.65	1.65	60.33
V*-31T-W24XW16	38.10	25.40	1.65	1.65	60.33
V*-31T-W32XW16	50.80	25.40	1.65	1.65	60.33
V*-31T-W32XW24	50.80	38.10	1.65	1.65	60.33
V*-31T-W40XW24	63.50	38.10	1.65	1.65	60.33
V*-31T-W40XW32	63.50	50.80	1.65	1.65	60.33
V*-31T-W48XW24	76.20	38.10	1.65	1.65	92.08
V*-31T-W48XW32	76.20	50.80	1.65	1.65	92.08
V*-31T-W48XW40	76.20	63.50	1.65	1.65	92.08
V*-31T-W64XW24	101.60	38.10	2.11	1.65	139.70
V*-31T-W64XW32	101.60	50.80	2.11	1.65	92.08
V*-31T-W64XW40	101.60	63.50	2.11	1.65	92.08
V*-31T-W64XW48	101.60	76.20	2.11	1.65	92.08
V*-31T-W96XW48	152.40	76.20	2.11	1.65	139.70
V*-31T-W96XW64	152.40	101.60	2.11	2.11	139.70

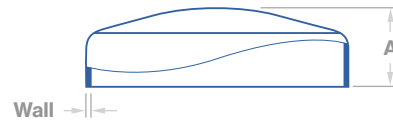
* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION

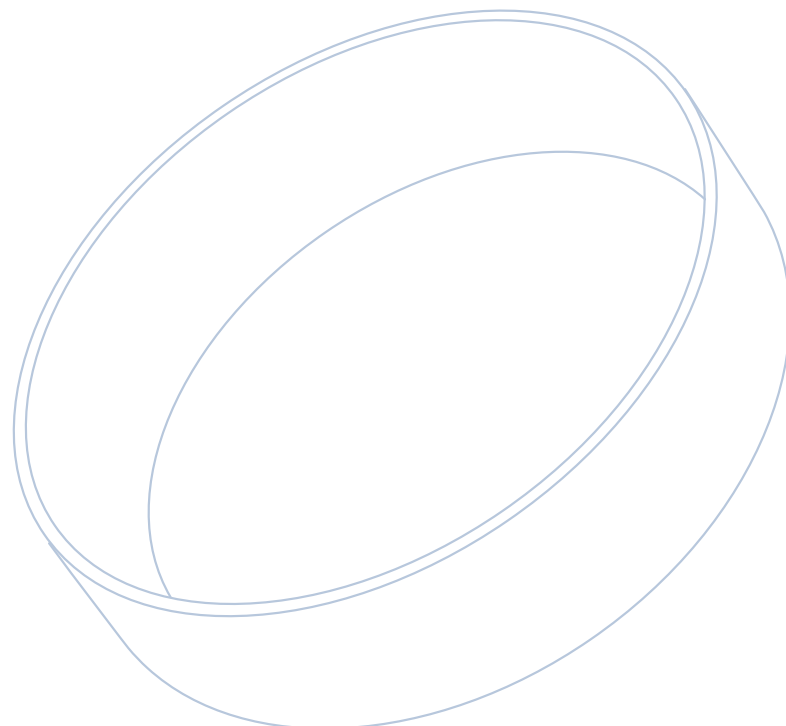
16

Weld Cap



Part Number	Dimensions in Inches & Millimeters					
	Nominal Size		Wall		A	
	inch	mm	inch	mm	inch	mm
V*-16-W12	3/4"	19.05	.065	1.65	.313	7.95
V*-16-W16	1"	25.40	.065	1.65	.469	11.91
V*-16-W24	1-1/2"	38.10	.065	1.65	.594	15.09
V*-16-W32	2"	50.80	.065	1.65	.781	19.84
V*-16-W40	2-1/2"	63.50	.065	1.65	1.063	27.00
V*-16-W48	3"	76.20	.065	1.65	1.094	27.79
V*-16-W64	4"	101.60	.083	2.11	1.281	32.54
V*-16-W96	6"	152.40	.083	2.11	2.125	53.98

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



NMW / KE Fittings



Specifications

Flange Material:

304, 304L, 316 & 316L

O-ring Material:

Viton®, Buena-N®, EPDM or Kalrez

Clamp Styles:

Hinged, Chain & Bulkhead
(10-32 thread)

Torque Clamps:

Finger tight wingnut style,
Bulkhead Bolts: 7-10 lb-ft

Vacuum Range:

1x10⁻⁸ Torr

Temperature Range:

	Minimum	Intermittent	Sustained
Viton®	-20°C	150°C	200°C
Buna-N®	-20°C	80°C	100°C

(Kalrez dependent on the compound)



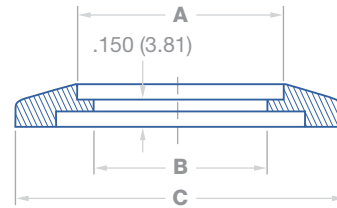
Valex
Vacuum
Components

NW / KF Flanges

NW / KF Bored Flange Diagram A

CONFIGURATION
38B

Diagram A



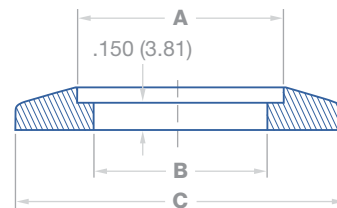
Part Number	Dimensions in Inches & Millimeters								
	Flange Size	Tube O.D.		A		B		C	
		NW	inch	mm	inch	mm	inch	mm	inch
V*-38B-N1AXW08	10	1/2"	12.70	.51	12.95	.451	11.46	1.180	29.97
V*-38B-N1BXW06	16	3/8"	9.53	.38	9.65	.326	8.28	1.180	29.97
V*-38B-N1BXW08	16	1/2"	12.70	.51	12.95	.451	11.46	1.180	29.97
V*-38B-N1CXW06	25	3/8"	9.53	.38	9.65	.326	8.28	1.575	40.01
V*-38B-N1CXW08	25	1/2"	12.70	.51	12.95	.451	11.46	1.575	40.01
V*-38B-N1CXW12	25	3/4"	19.05	.76	19.30	.715	18.16	1.575	40.01
V*-38B-N1CXW16	25	1"	25.40	1.01	25.65	.938	23.83	1.575	40.01
V*-38B-N1DXW06	40	3/8"	9.53	.38	9.65	.326	8.28	2.160	54.86
V*-38B-N1DXW08	40	1/2"	12.70	.51	12.95	.451	11.46	2.160	54.86
V*-38B-N1DXW12	40	3/4"	19.05	.76	19.30	.715	18.16	2.160	54.86
V*-38B-N1DXW16	40	1"	25.40	1.01	25.65	.938	23.83	2.160	54.86
V*-38B-N1DXW24	40	1-1/2"	38.10	1.51	38.35	1.438	36.53	2.160	54.86
V*-38B-N1EXW06	50	3/8"	9.53	.38	9.65	.326	8.28	2.950	74.93
V*-38B-N1EXW08	50	1/2"	12.70	.51	12.95	.451	11.46	2.950	74.93
V*-38B-N1EXW12	50	3/4"	19.05	.76	19.30	.715	18.16	2.950	74.93
V*-38B-N1EXW16	50	1"	25.40	1.01	25.65	.938	23.83	2.950	74.93
V*-38B-N1EXW24	50	1-1/2"	38.10	1.51	38.35	1.438	36.53	2.950	74.93
V*-38B-N1EXW32	50	2"	50.80	2.01	51.05	1.938	49.23	2.950	74.93

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

NW / KF Bored Flange Diagram B

CONFIGURATION
38B

Diagram B



Part Number	Dimensions in Inches & Millimeters								
	Flange Size	Tube O.D.		A		B		C	
		NW	inch	mm	inch	mm	inch	mm	inch
V*-38B-N1BXW12	16	3/4"	19.05	.76	19.30	.680	17.27	1.180	29.97

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



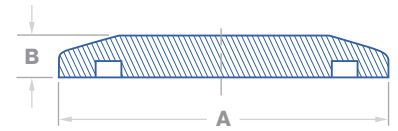
Valex

Vacuum Components

NW / KF Flanges

CONFIGURATION
38

NW / KF Blank Flange

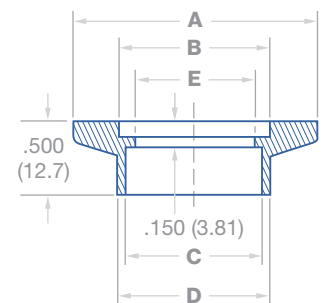


Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		NW	inch	mm	inch
V*-38-N1A	10	1.180	29.97	.200	5.08
V*-38-N1B	16	1.180	29.97	.200	5.08
V*-38-N1C	25	1.575	40.01	.200	5.08
V*-38-N1D	40	2.160	54.86	.200	5.08
V*-38-N1E	50	2.950	74.93	.200	5.08

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
38S

NW / KF Socket Weld Flange



Part Number	Dimensions in Inches						
	Flange Size	Tube O.D.	A	B	C	D	E
V*-38S-N1A	10	1/2"	1.180	.480	.51	.610	N/A
V*-38S-N1B	16	3/4"	1.180	.680	.76	.798	N/A
V*-38S-N1C	25	1"	1.575	1.031	1.01	1.140	.938
V*-38S-N1D	40	1-1/2"	2.160	1.620	1.51	1.640	1.438
V*-38S-N1E	50	2"	2.950	2.060	2.01	2.140	1.938

Part Number	Dimensions in Millimeters						
	Flange Size	Tube O.D.	A	B	C	D	E
V*-38S-N1A	10	12.70	29.97	12.19	12.95	15.49	N/A
V*-38S-N1B	16	19.05	29.97	17.27	19.30	20.27	N/A
V*-38S-N1C	25	25.40	40.01	26.19	25.65	28.96	23.83
V*-38S-N1D	40	38.10	54.86	41.15	38.35	41.66	36.53
V*-38S-N1E	50	50.80	74.93	52.32	51.05	54.36	49.23

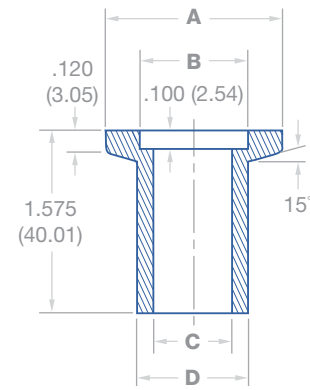
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Valex
Vacuum
Components

NW / KF Weld Neck Bored Flange, Long

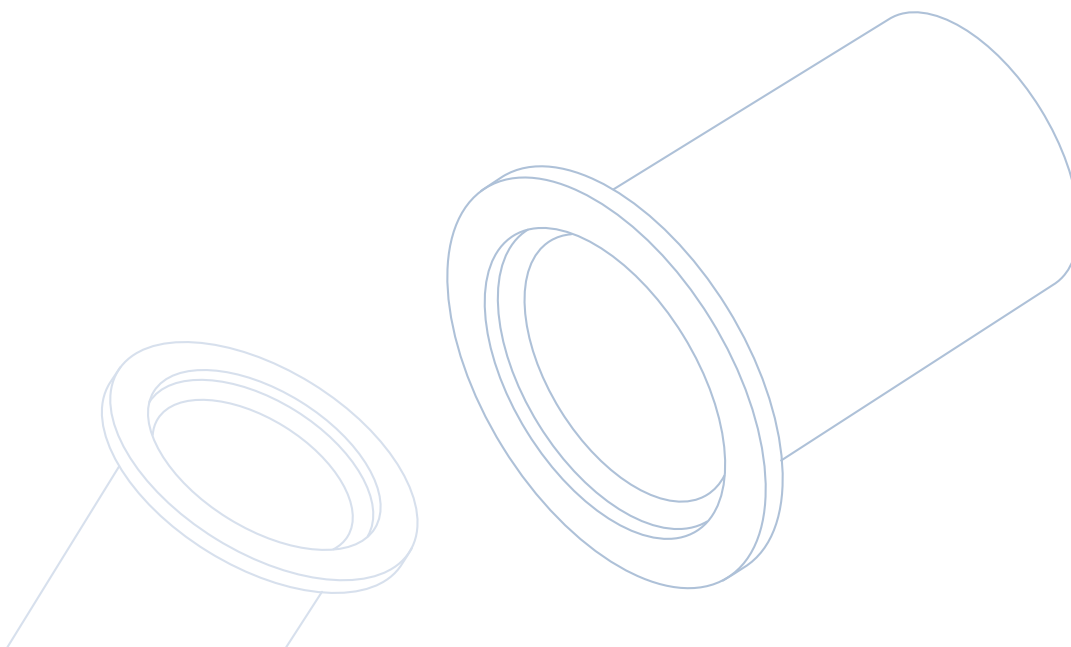
CONFIGURATION
38L



Part Number	Dimensions in Inches				
	Flange Size NW	A	B	C	D
V*-38L-N1A	10	1.180	.480	.380	1/2"
V*-38L-N1B	16	1.180	.680	.625	3/4"
V*-38L-N1C	25	1.575	1.031	.870	1"
V*-38L-N1D	40	2.160	1.620	1.370	1-1/2"
V*-38L-N1E	50	2.950	2.060	1.870	2"

Part Number	Dimensions in Millimeters				
	Flange Size NW	A	B	C	D
V*-38L-N1A	10	29.97	12.19	9.65	12.70
V*-38L-N1B	16	29.97	17.27	15.88	19.05
V*-38L-N1C	25	40.01	26.19	22.10	25.40
V*-38L-N1D	40	54.86	41.15	34.80	38.10
V*-38L-N1E	50	74.93	52.32	47.50	50.80

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



NW / KF Flanges

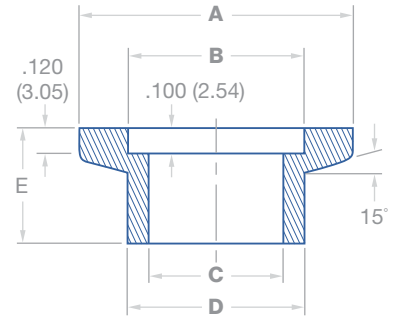


Valex
Vacuum
Components

NW / KF Flanges

CONFIGURATION
38N

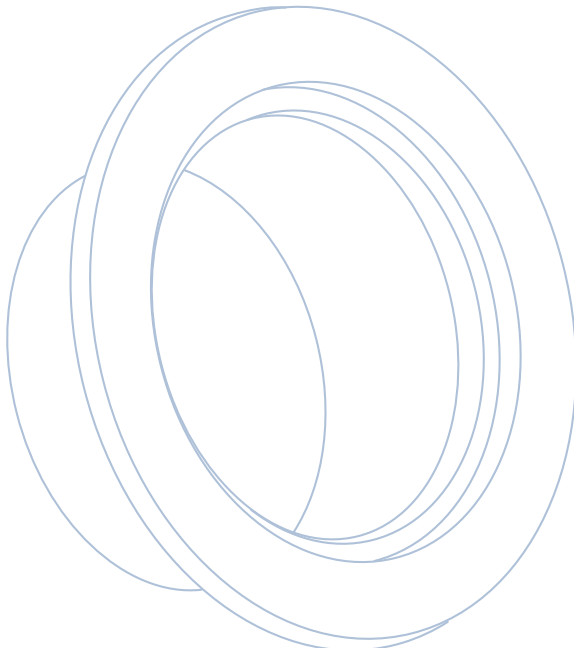
NW / KF Neck Weld Bored Flange, Short



Part Number	Dimensions in Inches						
	Flange Size NW	Tube O.D. inch	A	B	C	D	E
V*-38N-N1A	10	1/2"	1.180	.48	.380	.50	.50
V*-38N-N1B	16	3/4"	1.180	.68	.625	.75	.56
V*-38N-N1C	25	1"	1.575	1.03	.870	1.00	.50
V*-38N-N1D	40	1-1/2"	2.160	1.62	1.370	1.50	.75
V*-38N-N1E	50	2"	2.950	2.06	1.870	2.00	.75

Part Number	Dimensions in Millimeters						
	Flange Size NW	Tube O.D. mm	A	B	C	D	E
V*-38N-N1A	10	12.70	29.97	12.19	9.65	12.70	12.70
V*-38N-N1B	16	19.05	29.97	17.27	15.88	19.05	14.22
V*-38N-N1C	25	25.40	40.01	26.19	22.10	25.40	12.70
V*-38N-N1D	40	38.10	54.86	41.15	34.80	38.10	19.05
V*-38N-N1E	50	50.80	74.93	52.32	47.50	50.80	19.05

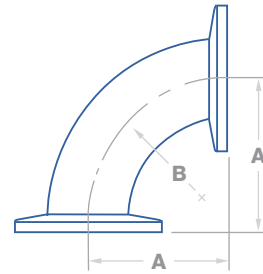
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





CONFIGURATION
**2T
&
2L**

NW / KF 90° Elbow

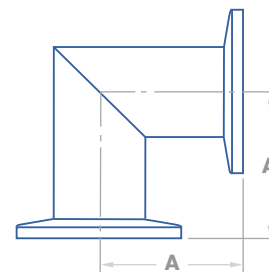


Part Number	Dimensions in Inches & Millimeters						
	Flange Size	Tube O.D.		A		B	
		NW	inch	mm	inch	mm	inch
V*-2T-N1A	10	1/2"	12.70	1.25	31.75	.75	19.05
V*-2T-N1B	16	3/4"	19.05	1.15	29.21	1.00	25.40
V*-2T-N1C	25	1"	25.40	1.65	41.91	1.50	38.10
V*-2T-N1D	40	1-1/2"	38.10	2.40	60.96	2.25	57.15
V*-2-N1D	40	1-1/2"	38.10	2.56	65.02	2.25	57.15
V*-2L-N1D	40	1-1/2"	38.10	5.12	130.05	2.25	57.15
V*-2T-N1E	50	2"	50.80	3.15	80.01	3.00	76.20
V*-2-N1E	50	2"	50.80	5.51	139.95	3.00	76.20

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
**2M
&
2X**

NW / KF 90° Mitered Elbow



Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		NW	inch	mm	inch
V*-2M-N1B	16	3/4"	19.05	1.15	29.21
V*-2M-N1C	25	1"	25.40	2.03	51.56
V*-2M-N1D	40	1-1/2"	38.10	2.40	60.96
V*-2X-N1D	40	1-1/2"	38.10	2.56	65.02
V*-2M-N1E	50	2"	50.80	2.76	70.10
V*-2X-N1E	50	2"	50.80	3.15	80.01

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

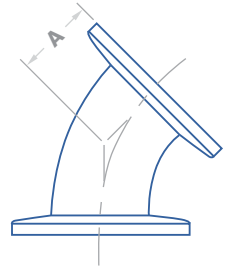


Valex
Vacuum
Components

NW / KF Elbows

NW / KF 45° Elbow No Tangent

CONFIGURATION
2N

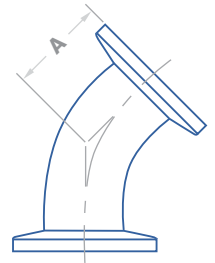


Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
	NW	inch	mm	inch	mm
V*-2N-N1C	25	1"	25.40	.77	19.56
V*-2N-N1D	40	1-1/2"	38.10	1.08	27.43
V*-2N-N1E	50	2"	50.80	1.39	35.31

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

NW / KF 45° Elbow With Tangent

CONFIGURATION
2K



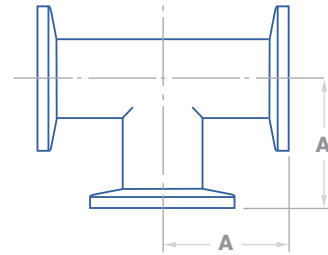
Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
	NW	inch	mm	inch	mm
V*-2K-N1B	16	3/4"	19.05	.91	23.11
V*-2K-N1C	25	1"	25.40	1.12	28.45
V*-2K-N1D	40	1-1/2"	38.10	1.68	42.67
V*-2K-N1E	50	2"	50.80	1.99	50.55

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
7

NW / KF Equal Tee

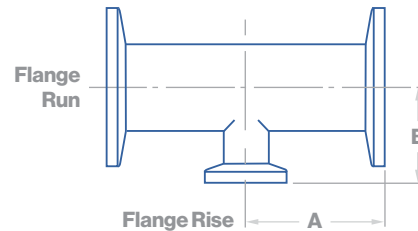


Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		NW	inch	mm	inch
V*-7-N1A	10	1/2"	12.70	1.25	31.75
V*-7-N1B	16	3/4"	19.05	1.15	29.21
V*-7-N1C	25	1"	25.40	2.03	51.56
V*-7-N1D	40	1-1/2"	38.10	2.40	60.96
V*-7L-N1D	40	1-1/2"	38.10	2.56	65.02
V*-7-N1E	50	2"	50.80	2.76	70.10
V*-7L-N1E	50	2"	50.80	3.15	80.01

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
7R

NW / KF Reducing Tee



Part Number	Dimensions in Inches					
	Size Run	Size Rise	Tube Run O.D.	Tube Rise O.D.	A	B
	NW	NW				
V*-7R-N1CXN1B	25	16	1"	3/4"	2.03	1.27
V*-7R-N1DXN1B	40	16	1-1/2"	3/4"	2.40	1.53
V*-7R-N1DXN1C	40	25	1-1/2"	1"	2.40	2.28
V*-7R-N1EXN1B	50	16	2"	3/4"	3.15	1.78
V*-7R-N1EXN1D	50	40	2"	1-1/2"	3.15	2.65

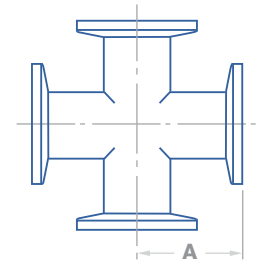
Part Number	Dimensions in Millimeters					
	Size Run	Size Rise	Tube Run O.D.	Tube Rise O.D.	A	B
	NW	NW				
V*-7R-N1CXN1B	25	16	25.40	19.05	51.56	32.26
V*-7R-N1DXN1B	40	16	38.10	19.05	60.96	38.86
V*-7R-N1DXN1C	40	25	38.10	25.40	60.96	57.91
V*-7R-N1EXN1B	50	16	50.80	19.05	80.01	45.21
V*-7R-N1EXN1D	50	40	50.80	38.10	80.01	67.31

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
9

NW / KF 4-Way Cross

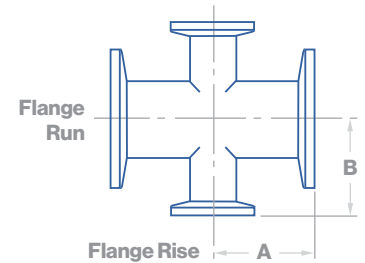


Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
	NW	inch	mm	inch	mm
V*-9-N1A	10	1/2"	12.70	1.25	31.75
V*-9-N1B	16	3/4"	19.05	1.15	29.21
V*-9-N1C	25	1"	25.40	2.03	51.56
V*-9-N1D	40	1-1/2"	38.10	2.40	60.96
V*-9L-N1D	40	1-1/2"	38.10	2.56	65.02
V*-9-N1E	50	2"	50.80	2.76	70.10
V*-9L-N1E	50	2"	50.80	3.15	80.01

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
9R

NW / KF 4-Way Reducing Cross



Part Number	Dimensions in Inches					
	Run Size	Rise Size	Tube Run O.D.	Tube Rise O.D.	A	B
	NW	NW				
V*-9R-N1CXN1B	25	16	1"	3/4"	2.03	1.27
V*-9R-N1DXN1B	40	16	1-1/2"	3/4"	2.40	1.53
V*-9R-N1DXN1C	40	25	1-1/2"	1"	2.40	2.28
V*-9R-N1EXN1B	50	16	2"	3/4"	3.15	1.78
V*-9R-N1EXN1D	50	40	2"	1-1/2"	3.15	2.65

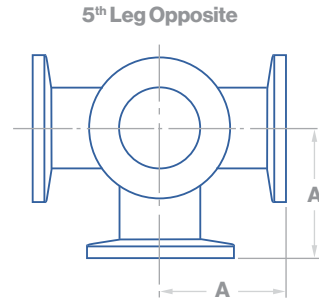
Part Number	Dimensions in Millimeters					
	Run Size	Rise Size	Tube Run O.D.	Tube Rise O.D.	A	B
	NW	NW				
V*-9R-N1CXN1B	25	16	25.40	19.05	51.56	32.26
V*-9R-N1DXN1B	40	16	38.10	19.05	60.96	38.86
V*-9R-N1DXN1C	40	25	38.10	25.40	60.96	57.91
V*-9R-N1EXN1B	50	16	50.80	19.05	80.01	45.21
V*-9R-N1EXN1D	50	40	50.80	38.10	80.01	67.31

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
9F

NW / KF 5-Way Cross

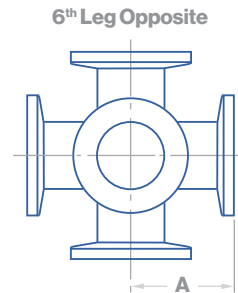


Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		NW	inch	mm	inch
V*-9F-N1B	16	3/4"	19.05	1.50	38.10
V*-9F-N1C	25	1"	25.40	2.03	51.56
V*-9F-N1D	40	1-1/2"	38.10	2.40	60.96
V*-9F-N1E	50	2"	50.80	3.15	80.01

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
9S

NW / KF 6-Way Cross



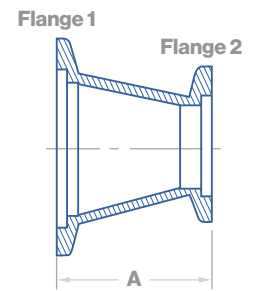
Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		NW	inch	mm	inch
V*-9S-N1B	16	3/4"	19.05	1.50	38.10
V*-9S-N1C	25	1"	25.40	2.03	51.56
V*-9S-N1D	40	1-1/2"	38.10	2.40	60.96
V*-9S-N1E	50	2"	50.80	3.15	80.01

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
31

NW / KF Concentric Reducer

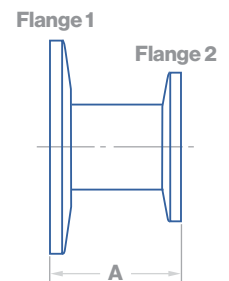


Part Number	Dimensions in Inches & Millimeters							
	Flange 1	Flange 2	Tube O.D. 1		Tube O.D. 2		A	
			inch	mm	inch	mm	inch	mm
V*-31-N1CXN1B	25	16	1"	25.40	3/4"	19.05	1.57	39.88
V*-31-N1DXN1B	40	16	1-1/2"	38.10	3/4"	19.05	1.57	39.88
V*-31-N1DXN1C	40	25	1-1/2"	38.10	1"	25.40	1.57	39.88
V*-31-N1EXN1B	50	16	2"	50.80	3/4"	19.05	1.57	39.88
V*-31-N1EXN1C	50	25	2"	50.80	1"	25.40	1.57	39.88
V*-31-N1EXN1D	50	40	2"	50.80	1-1/2"	38.10	1.57	39.88

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
31L

NW / KF Straight Reducer



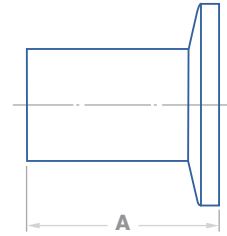
Part Number	Dimensions in Inches & Millimeters					
	Flange 1	Flange 2	Tube O.D.		A	
			NW	NW	inch	mm
V*-31L-N1BXN1A	16	10	1/2"	12.70	1.40	35.56
V*-31L-N1CXN1A	25	10	1/2"	12.70	1.40	35.56
V*-31L-N1CXN1B	25	16	3/4"	19.05	1.30	33.02
V*-31L-N1DXN1A	40	10	1/2"	12.70	1.40	35.56
V*-31L-N1DXN1B	40	16	3/4"	19.05	1.30	33.02
V*-31L-N1DXN1C	40	25	1"	25.40	2.18	55.37
V*-31L-N1EXN1A	50	10	1/2"	12.70	1.40	35.56
V*-31L-N1EXN1B	50	16	3/4"	19.05	1.30	33.02
V*-31L-N1EXN1C	50	25	1"	25.40	2.18	55.37
V*-31L-N1EXN1D	50	40	1-1/2"	38.10	2.55	64.77

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
6H

NW / KF Half Nipple

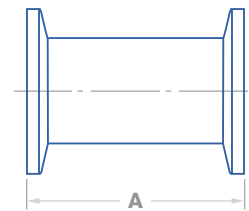


Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		NW	inch	mm	inch
V*-6H-N1A	10	1/2"	12.70	1.25	31.75
V*-6H-N1B	16	3/4"	19.05	1.15	29.21
V*-6H-N1C	25	1"	25.40	2.03	51.56
V*-6H-N1D	40	1-1/2"	38.10	2.40	60.96
V*-6H-N1E	50	2"	50.80	3.15	80.01

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
6F

NW / KF Full Nipple



Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		NW	inch	mm	inch
V*-6F-N1A	10	1/2"	12.70	2.50	63.50
V*-6F-N1B	16	3/4"	19.05	2.30	58.42
V*-6F-N1C	25	1"	25.40	4.06	103.12
V*-6F-N1D	40	1-1/2"	38.10	4.80	121.92
V*-6F-N1E	50	2"	50.80	6.30	160.02

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

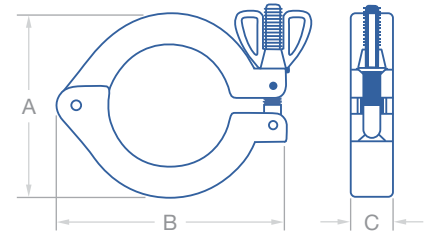


Valex
Vacuum
Components

NW / KF
Clamps

NW / KF Wing Nut Clamp (Aluminum) with Single Wingnut Fastener

CONFIGURATION
13W

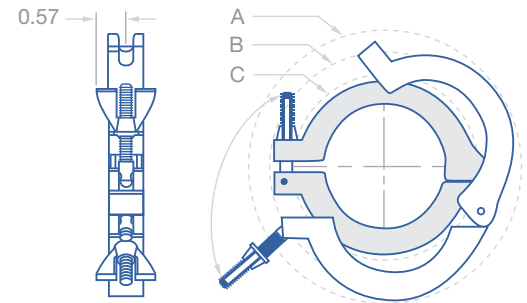


Part Number	Dimensions in Inches & Millimeters						
	Flange Size	A		B		C	
		NW	inch	mm	inch	mm	inch
V0-13W-N1A-C*	10	1.69	42.93	2.392	60.76	.625	15.88
V0-13W-N1B-C*	16	1.69	42.93	2.392	60.76	.625	15.88
V0-13W-N1C-C*	25	2.14	54.36	2.796	71.02	.625	15.88
V0-13W-N1D-C*	40	2.75	69.85	3.437	87.30	.625	15.88
V0-13W-N1E-C*	50	3.50	88.90	4.245	107.82	.710	18.03

* Clamp / Thread Material: CA = Inch Aluminum, CE = Inch 304 SS

CONFIGURATION
38
CONFIGURATION
13W

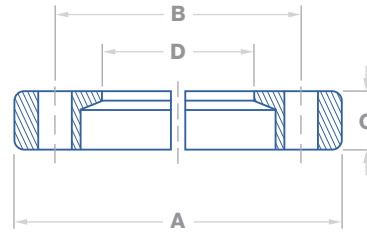
Clearance Details (NW / KF Blank Flange & NW / KF Wing Nut Clamp)



Components		Dimensions in Inches			
Flange	Clamp	Flange & Clamp Size	A (Min. Diameter to Install)	B (Min. Diameter Closed)	C (Min. Diameter Closed)
V*-38-N1A	V0-13W-N1A-CA	NW 10	2.86	2.65	1.75
V*-38-N1B	V0-13W-N1B-CA	NW 16	2.86	2.65	1.75
V*-38-N1C	V0-13W-N1C-CA	NW 25	3.32	3.00	2.24
V*-38-N1D	V0-13W-N1D-CA	NW 40	4.00	3.72	2.90
V*-38-N1E	V0-13W-N1E-CA	NW 50	5.45	4.62	3.69

Components		Dimensions in Millimeters			
Flange	Clamp	Flange & Clamp Size	A (Min. Diameter to Install)	B (Min. Diameter Closed)	C (Min. Diameter Closed)
V*-38-N1A	V0-13W-N1A-CA	NW 10	72.64	67.31	44.45
V*-38-N1B	V0-13W-N1B-CA	NW 16	72.64	67.31	44.45
V*-38-N1C	V0-13W-N1C-CA	NW 25	84.33	76.20	56.90
V*-38-N1D	V0-13W-N1D-CA	NW 40	101.60	94.49	73.66
V*-38-N1E	V0-13W-N1E-CA	NW 50	138.43	117.35	93.73

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
13B

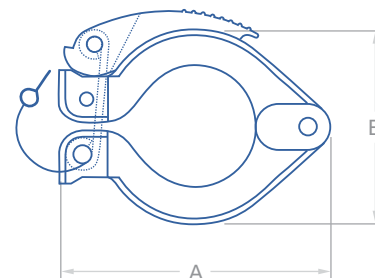
NW / KF Bulkhead Clamp

Part Number	Dimensions in Inches					
	Flange Size	A	B	C	# of Screws	Through Hole D
	NW					
V0-13B-N1B	16	2.00	1.50	.361	6	.90
V0-13B-N1C	25	2.37	1.89	.387	6	1.26
V0-13B-N1D	40	2.94	2.44	.366	6	1.84
V0-13B-N1E	50	3.75	3.25	.404	8	2.35

Part Number	Dimensions in Millimeters					
	Flange Size	A	B	C	# of Screws	Through Hole D
	NW					
V0-13B-N1B	16	50.80	38.10	9.17	6	22.86
V0-13B-N1C	25	60.20	48.01	9.83	6	32.00
V0-13B-N1D	40	74.68	61.98	9.30	6	46.74
V0-13B-N1E	50	95.25	82.55	10.26	8	59.69

CONFIGURATION
13L

NW / KF Lever Clamp



Part Number	Dimensions in Inches & Millimeters					
	Flange Size	A			B	
	KF	Inch	Inch	mm	Inch	mm
V0-13L-N1B	16	1/2" - 3/4"	2.402	61.01	1.772	45.01
V0-13L-N1C	25	1"	2.835	72.01	2.165	54.99
V0-13L-N1D	40	1-1/2"	3.543	89.99	2.756	70.00
V0-13L-N1E	50	2"	4.449	113.00	3.543	89.99

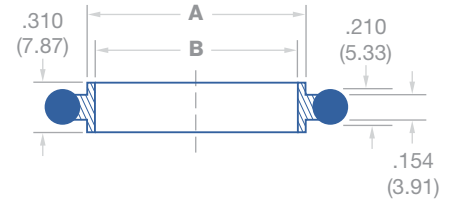


Valex
Vacuum
Components

NW / KF Centering Rings

NW / KF Centering Ring with O-ring

CONFIGURATION
39C



Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		inch	mm	inch	mm
V0-39C-N1A-**-X	10	.478	12.14	.456	11.58
V0-39C-N1B-**-X	16	.669	16.99	.625	15.88
V0-39C-N1C-**-X	25	1.024	26.01	.984	24.99
V0-39C-N1D-**-X	40	1.614	41.00	1.570	39.88
V0-39C-N1E-**-X	50	2.047	51.99	1.967	49.96

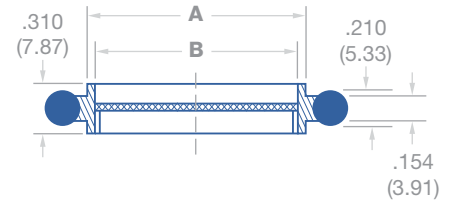
* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

NW / KF Screened Centering Ring with O-ring

CONFIGURATION
39M



Part Number	Dimensions in Inches & Millimeters					
	Flange Size	A		B		Mesh
		inch	mm	inch	mm	
V0-39M-N1C-**-X	25	1.024	26.01	.984	24.99	74
V0-39M-N1D-**-X	40	1.614	41.00	1.570	39.88	74
V0-39M-N1E-**-X	50	2.047	51.99	1.967	49.96	74

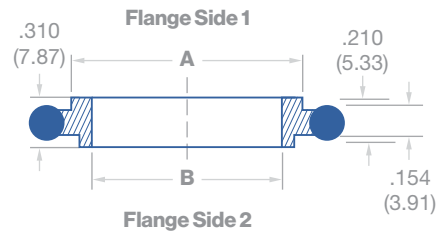
* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500



NW / KF Reducing Centering Ring with O-ring



CONFIGURATION
39L

Part Number	Dimensions in Inches			
	Flange Side 1	Flange Side 2	A	B
	NW	NW		
V0-39L-N1BX1A-**X	16	10	0.67	0.48
V0-39L-N1CX1F-**X	25	20	1.02	0.87
V0-39L-N1DX1G-**X	40	32	1.61	1.34

Part Number	Dimensions in Millimeters			
	Flange Side 1	Flange Side 2	A	B
	NW	NW		
V0-39L-N1BX1A-**X	16	10	17.02	12.19
V0-39L-N1CX1F-**X	25	20	25.91	22.10
V0-39L-N1DX1G-**X	40	32	40.89	34.04

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500



NW / KF Over Pressure Ring

CONFIGURATION
39T

Part Number	Dimensions in Inches & Millimeters						
	Flange Size	A		B		C	
		NW	inch	mm	inch	mm	inch
V0-39T-N1A-***	10	1.25	31.75	1.186	30.12	.346	8.79
V0-39T-N1B-***	16	1.25	31.75	1.186	30.12	.346	8.79
V0-39T-N1C-***	25	1.66	42.16	1.583	40.21	.346	8.79
V0-39T-N1D-***	40	2.25	57.15	2.169	55.09	.346	8.79
V0-39T-N1E-***	50	2.75	69.85	2.620	66.55	.145	3.68

* Pick one of each option.

Over Pressure Ring Material: D = Aluminum, E = 304 SS, F = 316 SS



Valex

Vacuum Components

NW / KF Centering Rings

NW / KF

Centering Ring

with O-ring & Overpressure Ring Assembly

CONFIGURATION
39E



Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		NW	inch	mm	inch
V0-39E-N1B-***	16	1.25	31.75	.625	15.88
V0-39E-N1C-***	25	1.66	42.16	.984	24.99
V0-39E-N1D-***	40	2.25	57.15	1.570	39.88
V0-39E-N1E-***	50	2.75	69.85	1.967	49.96

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

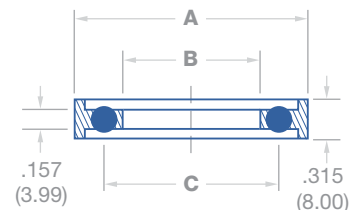
Overpressure Ring Material: D = Aluminum, E = 304 SS, F = 316 SS

NW / KF

Centering Ring

with O-ring & Capture Ring Assembly

CONFIGURATION
39F



Part Number	Dimensions in Inches & Millimeters						
	Flange Size	A		B		C	
		NW	inch	mm	inch	mm	inch
V0-39F-N1A-***	10	1.18	29.97	.63	16.00	.91	23.11
V0-39F-N1B-***	16	1.18	29.97	.63	16.00	.91	23.11
V0-39F-N1C-***	25	1.58	40.13	.95	24.13	1.30	33.02
V0-39F-N1D-***	40	2.17	55.12	1.58	40.13	1.89	48.01
V0-39F-N1E-***	50	2.95	74.93	1.97	50.04	2.32	58.93

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Capture Ring Material: G = Aluminum, H = 304 SS, J = 316 SS

CONFIGURATION
72R

O-ring

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

ISO-K Fittings

Specifications



Flange Material:
304, 304L, 316 & 316L

Rotatable Bolt Ring:
Aluminum

O-ring Material:
Viton®, Buna-N®, EPDM or Kalrez

Clamp Styles:
Single & Double Claw
Aluminum or SS Clamps

Torque Value:
Bolts at 7-10 lbs-ft.

Vacuum Range:
1x10⁻⁸ torr

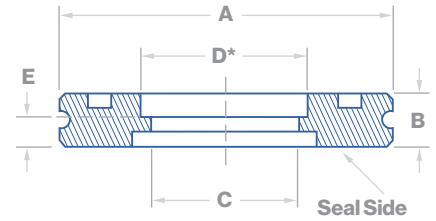
	Temperature Range:		
	Minimum	Intermittent	Sustained
Viton®	-20°C	150°C	200°C
Buna-N®	-20°C	80°C	100°C

(Kalrez dependent on the compound)



CONFIGURATION
38B

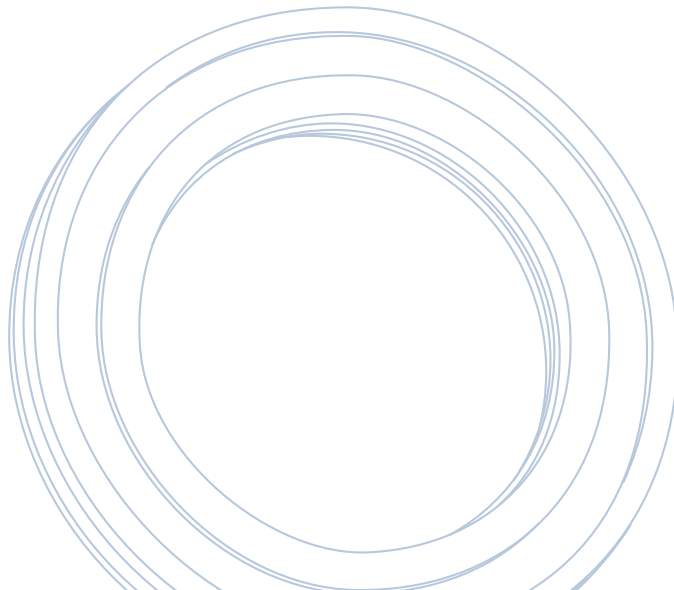
ISO-K Bored Flange

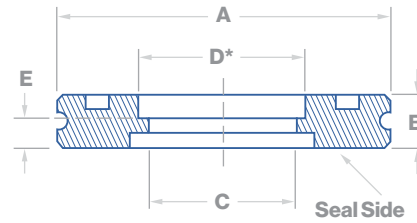


Part Number	Dimensions in Inches						
	Flange Size ISO	Nominal I.D.	A	B	C	D	E
V*-38B-K2AXW40	63	2-1/2"	3.740	.47	2.438	2.510	.25
V*-38B-K2BXW48	80	3"	4.331	.47	2.938	3.010	.25
V*-38B-K2CXW64	100	4"	5.118	.47	3.910	4.010	.25
V*-38B-K2DXW96	160	6"	7.087	.47	5.875	6.020	.375
V*-38B-K2EXW53	200	8"	9.449	.47	7.875	8.020	.375
V*-38B-K2FXW55	250	10"	11.417	.47	9.875	10.020	.375
V*-38B-K2GXW57	320	12"	14.567	.67	11.760	12.020	.375
V*-38B-K2HXW86	400	16"	17.716	.67	15.624	16.020	.375
V*-38B-K2JXW88	500	20"	21.653	.67	19.624	20.020	.375

Part Number	Dimensions in Millimeters						
	Flange Size ISO	Nominal I.D.	A	B	C	D	E
V*-38B-K2AXW40	63	63.50	95.00	11.94	61.93	63.75	6.35
V*-38B-K2BXW48	80	76.20	110.01	11.94	74.63	76.45	6.35
V*-38B-K2CXW64	100	101.60	130.00	11.94	99.31	101.85	6.35
V*-38B-K2DXW96	160	152.40	180.01	11.94	149.23	152.91	9.53
V*-38B-K2EXW53	200	203.20	240.00	11.94	200.03	203.71	9.53
V*-38B-K2FXW55	250	254.00	289.99	11.94	250.83	254.51	9.53
V*-38B-K2GXW57	320	304.80	370.00	17.02	298.70	305.31	9.53
V*-38B-K2HXW86	400	406.40	449.99	17.02	396.85	406.91	9.53
V*-38B-K2JXW88	500	508.00	549.99	17.02	498.45	508.51	9.53

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





CONFIGURATION
38B

ISO-K Reducing Bored Flange

ISO-K Flanges

Part Number	Dimensions in Inches						
	Flange Size ISO	Nominal I.D.	A	B	C	D	E
V*-38B-K2AXW16	63	1"	3.740	.47	.938	1.01	.250
V*-38B-K2AXW24	63	1-1/2"	3.740	.47	1.438	1.51	.250
V*-38B-K2AXW32	63	2"	3.740	.47	1.938	2.01	.250
V*-38B-K2BXW16	80	1"	4.331	.47	.938	1.01	.250
V*-38B-K2BXW24	80	1-1/2"	4.331	.47	1.438	1.51	.250
V*-38B-K2BXW32	80	2"	4.331	.47	1.938	2.01	.250
V*-38B-K2BXW40	80	2-1/2"	4.331	.47	2.438	2.51	.250
V*-38B-K2CXW16	100	1"	5.118	.47	.938	1.01	.250
V*-38B-K2CXW24	100	1-1/2"	5.118	.47	1.438	1.51	.250
V*-38B-K2CXW32	100	2"	5.118	.47	1.938	2.01	.250
V*-38B-K2CXW40	100	2-1/2"	5.118	.47	2.438	2.51	.250
V*-38B-K2CXW48	100	3"	5.118	.47	2.938	3.01	.250
V*-38B-K2DXW32	160	2"	7.087	.47	1.938	2.01	.250
V*-38B-K2DXW40	160	2-1/2"	7.087	.47	2.438	2.51	.250
V*-38B-K2DXW48	160	3"	7.087	.47	2.938	3.01	.250
V*-38B-K2DXW64	160	4"	7.087	.47	3.910	4.01	.250
V*-38B-K2EXW64	200	4"	9.449	.47	3.910	4.01	.250
V*-38B-K2EXW96	200	6"	9.449	.47	5.875	6.02	.375

Part Number	Dimensions in Millimeters						
	Flange Size ISO	Nominal I.D.	A	B	C	D	E
V*-38B-K2AXW16	63	25.40	95.00	11.94	23.83	25.65	6.35
V*-38B-K2AXW24	63	38.10	95.00	11.94	36.53	38.35	6.35
V*-38B-K2AXW32	63	50.80	95.00	11.94	49.23	51.05	6.35
V*-38B-K2BXW16	80	25.40	110.01	11.94	23.83	63.75	6.35
V*-38B-K2BXW24	80	38.10	110.01	11.94	36.53	38.35	6.35
V*-38B-K2BXW32	80	50.80	110.01	11.94	49.23	51.05	6.35
V*-38B-K2BXW40	80	63.50	110.01	11.94	61.93	63.75	6.35
V*-38B-K2CXW16	100	25.40	130.00	11.94	23.83	25.65	6.35
V*-38B-K2CXW24	100	38.10	130.00	11.94	36.53	38.35	6.35
V*-38B-K2CXW32	100	50.80	130.00	11.94	49.23	51.05	6.35
V*-38B-K2CXW40	100	63.50	130.00	11.94	61.93	63.75	6.35
V*-38B-K2CXW48	100	76.20	130.00	11.94	74.63	76.45	6.35
V*-38B-K2DXW32	160	50.80	180.01	11.94	49.23	51.05	6.35
V*-38B-K2DXW40	160	63.50	180.01	11.94	61.93	63.75	6.35
V*-38B-K2DXW48	160	76.20	180.01	11.94	74.63	76.45	6.35
V*-38B-K2DXW64	160	101.60	180.01	11.94	99.31	101.85	6.35
V*-38B-K2EXW64	200	101.60	240.00	11.94	99.31	101.85	6.35
V*-38B-K2EXW96	200	152.40	240.00	11.94	149.23	152.91	9.53

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

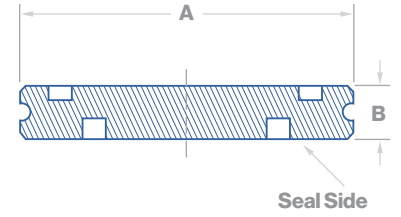


Valex
Vacuum
Components

ISO-K Flanges

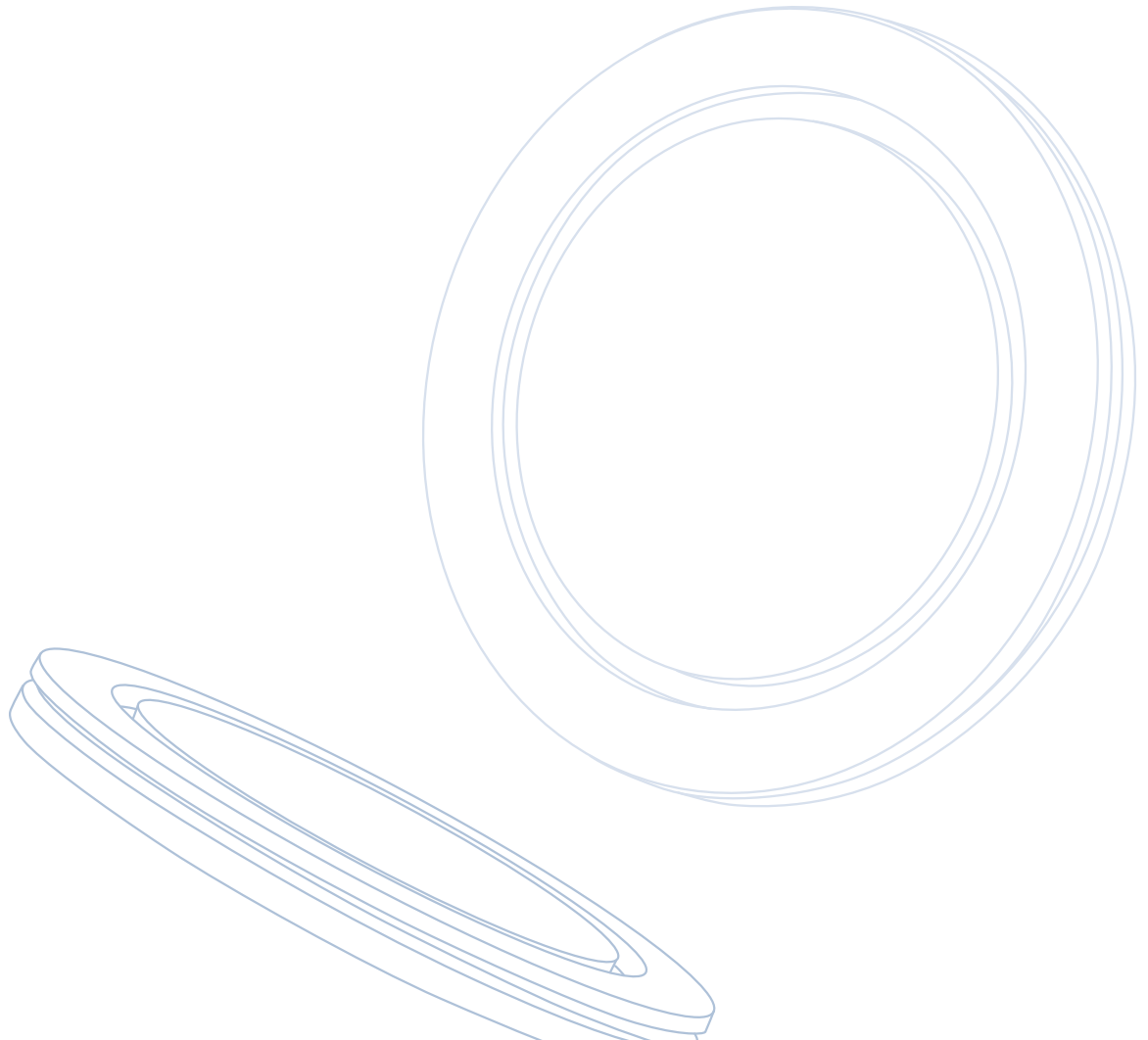
CONFIGURATION
38

ISO-K Blank Flange



Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V*-38-K2A	63	3.740	95.00	.47	11.94
V*-38-K2B	80	4.331	110.01	.47	11.94
V*-38-K2C	100	5.118	130.00	.47	11.94
V*-38-K2D	160	7.087	180.00	.47	11.94
V*-38-K2E	200	9.449	240.00	.47	11.94
V*-38-K2F	250	11.417	289.99	.47	11.94
V*-38-K2G	320	14.567	370.00	.67	17.02
V*-38-K2H	400	17.716	449.99	.67	17.02
V*-38-K2J	500	21.653	549.99	.67	17.02

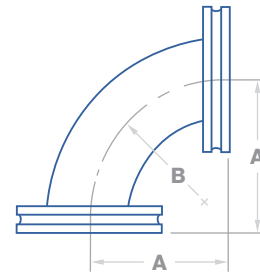
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





CONFIGURATION
2T

ISO-K 90° Elbow No Tangent



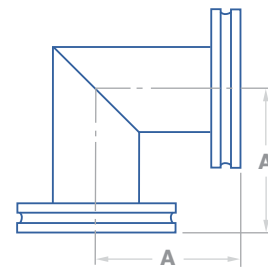
Part Number
V*-2T-K2A
V*-2T-K2B
V*-2T-K2C
V*-2T-K2D
V*-2T-K2E
V*-2T-K2F

Dimensions in Inches & Millimeters							
Size	Tube O.D.		A		B		
	inch	mm	inch	mm	inch	mm	
63	2-1/2"	63.50	4.00	101.60	3.75	95.25	
80	3"	76.20	4.75	120.65	4.50	114.30	
100	4"	101.60	6.25	158.75	6.00	152.40	
160	6"	152.40	9.38	238.25	9.00	228.60	
200	8"	203.20	12.38	314.45	12.00	304.80	
250	10"	254.00	15.38	390.65	15.00	381.00	

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
2M

ISO-K 90° Mitered Elbow No Tangent



Part Number
V*-2M-K2A
V*-2M-K2B
V*-2M-K2C
V*-2M-K2D
V*-2M-K2E
V*-2M-K2F

Dimensions in Inches & Millimeters					
Size	Tube O.D.		A		
	inch	mm	inch	mm	
63	2-1/2"	63.50	3.25	82.55	
80	3"	76.20	3.50	88.90	
100	4"	101.60	4.13	104.90	
160	6"	152.40	5.38	136.65	
200	8"	203.20	7.38	187.45	
250	10"	254.00	9.88	250.95	

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



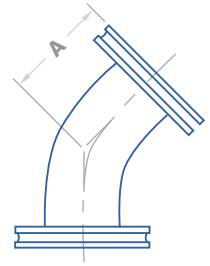
Valex

Vacuum
Components

ISO-K Elbows

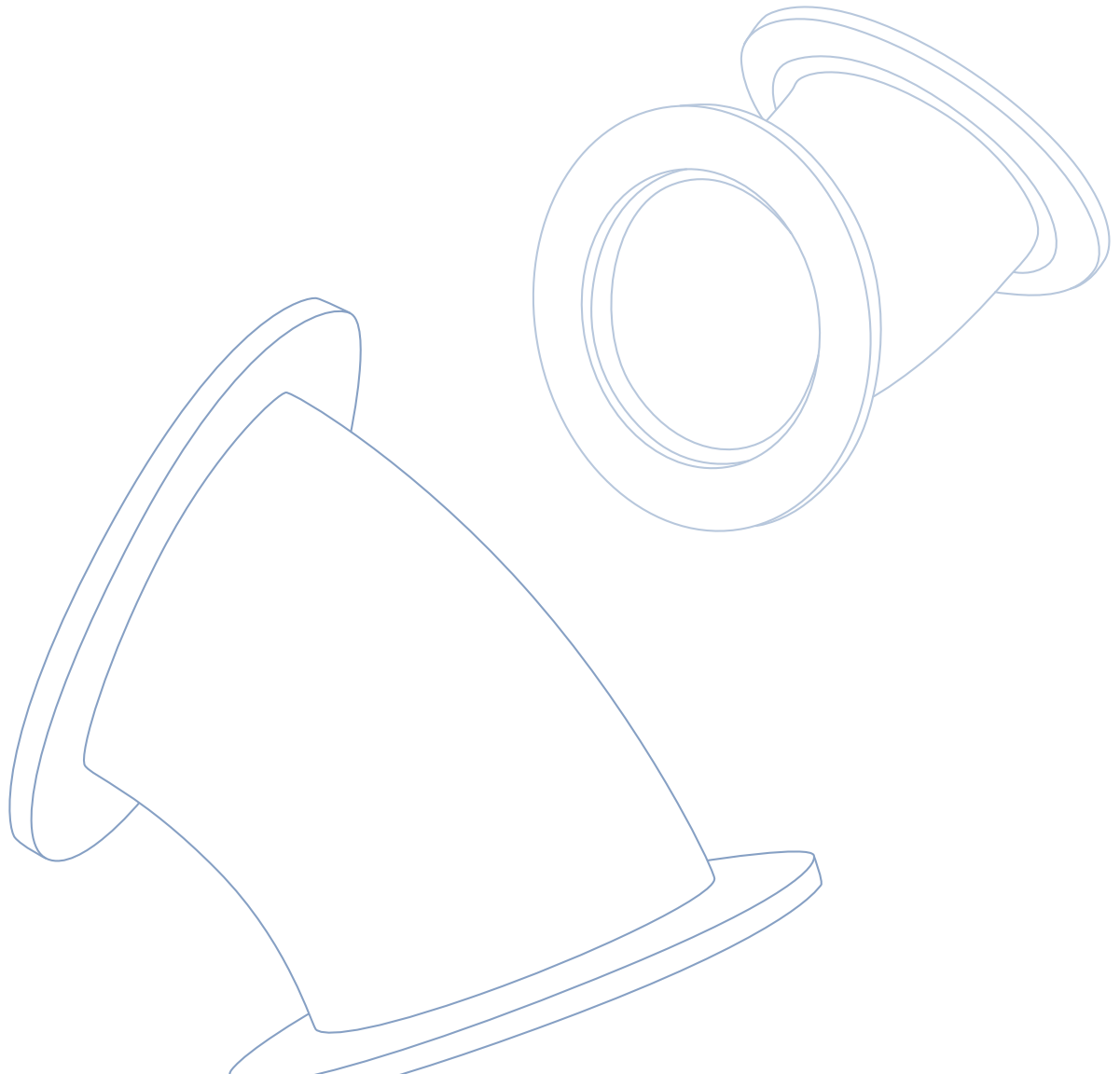


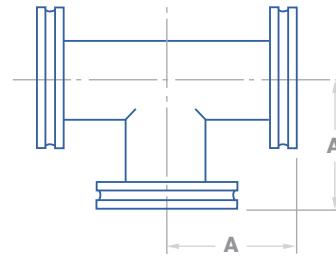
ISO-K 45° Elbow With Tangent



Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		ISO	inch	mm	inch
V*-2K-K2A	63	2-1/2"	63.50	3.25	82.55
V*-2K-K2B	80	3"	76.20	3.93	99.82
V*-2K-K2C	100	4"	101.60	5.03	127.76

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



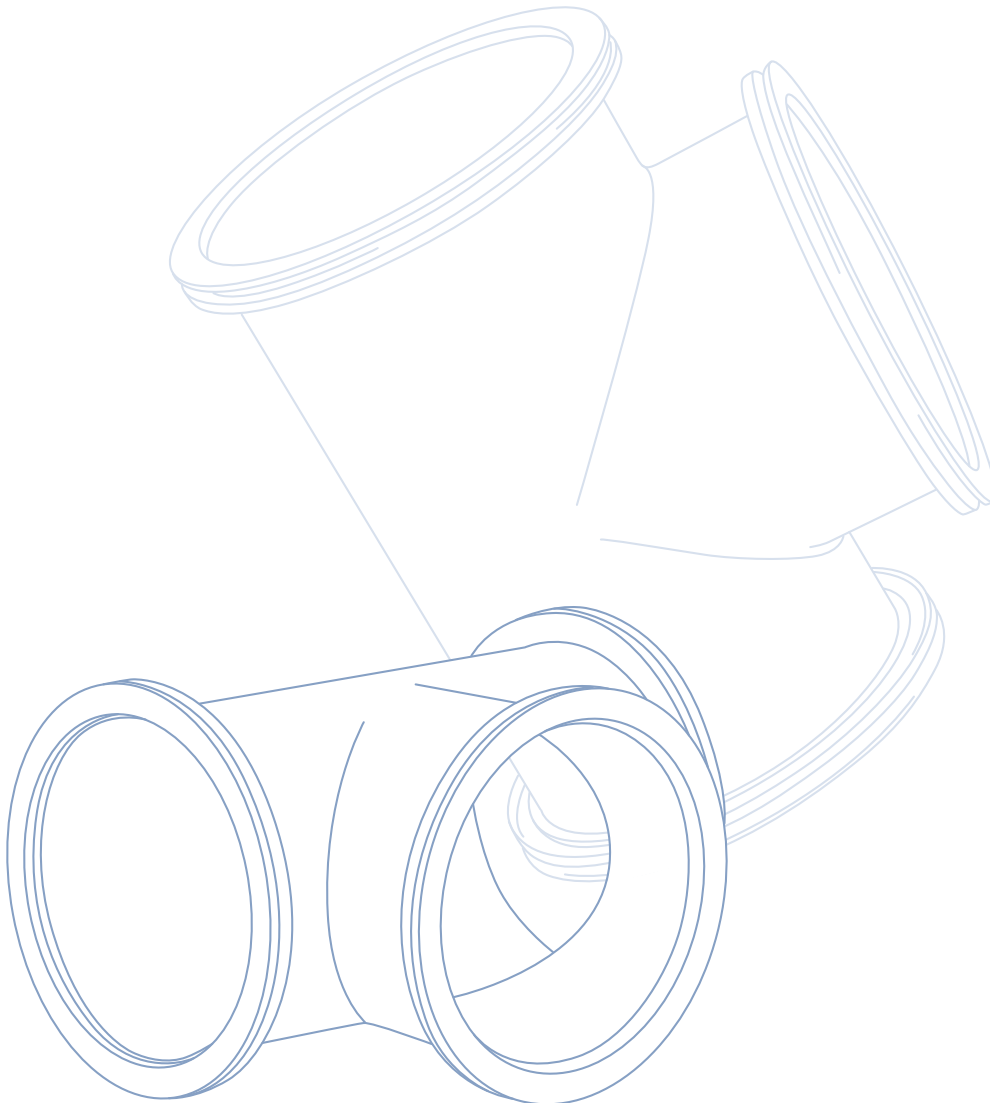


CONFIGURATION
7

ISO-K Equal Tee

Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		ISO	inch	mm	inch
V*-7-K2A	63	2-1/2"	63.50	3.25	82.55
V*-7-K2B	80	3"	76.20	3.50	88.90
V*-7-K2C	100	4"	101.60	4.13	104.90
V*-7-K2D	160	6"	152.40	5.38	136.65
V*-7-K2E	200	8"	203.20	7.38	187.45
V*-7-K2F	250	10"	254.00	9.88	250.95

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



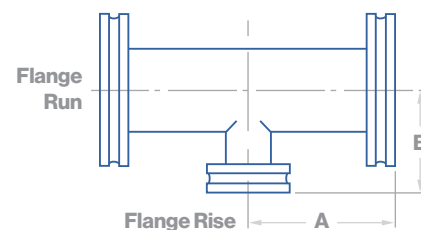


Valex
Vacuum
Components

ISO-K
Tees

CONFIGURATION
7R

ISO-K Reducing Tee



Part Number	Dimensions in Inches					
	Flange Run		Flange Rise		A	B
	ISO	Tube O.D.	ISO	Tube O.D.		
V*-7R-K2BXK2A	80	3"	63	2-1/2"	3.50	3.50
V*-7R-K2CXK2A	100	4"	63	2-1/2"	4.13	4.00
V*-7R-K2CXK2B	100	4"	80	3"	4.13	4.00
V*-7R-K2DXK2A	160	6"	63	2-1/2"	5.38	5.00
V*-7R-K2DXK2B	160	6"	80	3"	5.38	5.00
V*-7R-K2DXK2C	160	6"	100	4"	5.38	5.13
V*-7R-K2EXK2A	200	8"	63	2-1/2"	7.38	6.00
V*-7R-K2EXK2B	200	8"	80	3"	7.38	6.00
V*-7R-K2EXK2C	200	8"	100	4"	7.38	6.13
V*-7R-K2EXK2D	200	8"	160	6"	7.38	6.38

Part Number	Dimensions in Millimeters					
	Flange Run		Flange Rise		A	B
	ISO	Tube O.D.	ISO	Tube O.D.		
V*-7R-K2BXK2A	80	76.20	63	63.50	88.90	88.90
V*-7R-K2CXK2A	100	101.60	63	63.50	104.90	101.60
V*-7R-K2CXK2B	100	101.60	80	76.20	104.90	101.60
V*-7R-K2DXK2A	160	152.40	63	63.50	136.65	127.00
V*-7R-K2DXK2B	160	152.40	80	76.20	136.65	127.00
V*-7R-K2DXK2C	160	152.40	100	101.60	136.65	130.30
V*-7R-K2EXK2A	200	203.20	63	63.50	187.45	152.40
V*-7R-K2EXK2B	200	203.20	80	76.20	187.45	152.40
V*-7R-K2EXK2C	200	203.20	100	101.60	187.45	155.70
V*-7R-K2EXK2D	200	203.20	160	152.40	187.45	162.05

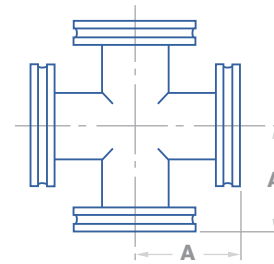
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION

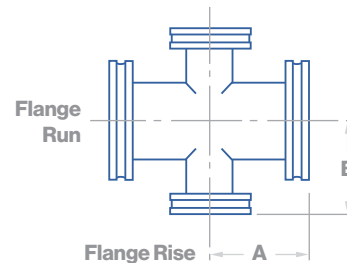
9

ISO-K 4-Way Cross



Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		ISO	inch	mm	inch
316L BA					
V*-9-K2A	63	2-1/2"	63.50	3.25	82.55
V*-9-K2B	80	3"	76.20	3.50	88.90
V*-9-K2C	100	4"	101.60	4.13	104.90
V*-9-K2D	160	6"	152.40	5.38	136.65
V*-9-K2E	200	8"	203.20	7.38	187.45
V*-9-K2F	250	10"	254.00	9.88	250.95

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION

9R

ISO-K 4-Way Reducing Cross

Part Number	Dimensions in Inches					
	Flange Run		Flange Rise		A	B
	ISO	Tube O.D.	ISO	Tube O.D.		
V*-9R-K2BXK2A	80	3"	63	2-1/2"	3.50	3.50
V*-9R-K2CXK2A	100	4"	63	2-1/2"	4.13	4.00
V*-9R-K2CXK2B	100	4"	80	3"	4.13	4.00
V*-9R-K2DXK2A	160	6"	63	2-1/2"	5.38	5.00
V*-9R-K2DXK2B	160	6"	80	3"	5.38	5.00
V*-9R-K2DXK2C	160	6"	100	4"	5.38	5.13
V*-9R-K2EXK2D	200	8"	160	6"	7.38	6.38

Part Number	Dimensions in Millimeters					
	Flange Run		Flange Rise		A	B
	ISO	Tube O.D.	ISO	Tube O.D.		
V*-9R-K2BXK2A	80	76.20	63	63.50	88.90	88.90
V*-9R-K2CXK2A	100	101.60	63	63.50	104.90	101.60
V*-9R-K2CXK2B	100	101.60	80	76.20	104.90	101.60
V*-9R-K2DXK2A	160	152.40	63	63.50	136.65	127.00
V*-9R-K2DXK2B	160	152.40	80	76.20	136.65	127.00
V*-9R-K2DXK2C	160	152.40	100	101.60	136.65	130.30
V*-9R-K2EXK2D	200	203.20	160	152.40	187.45	162.05

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

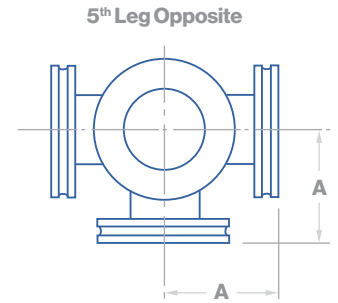


Valex
Vacuum
Components

ISO-K
Crosses

CONFIGURATION
9F

ISO-K 5-Way Cross

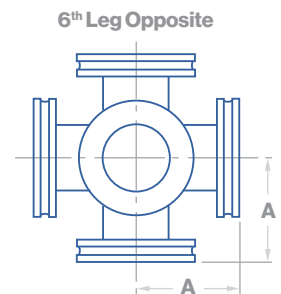


Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		ISO	inch	mm	inch
V*-9F-K2A	63	2-1/2"	63.50	3.25	82.55
V*-9F-K2B	80	3"	76.20	3.50	88.90
V*-9F-K2C	100	4"	101.60	4.13	104.90
V*-9F-K2D	160	6"	152.40	5.38	136.65
V*-9F-K2E	200	8"	203.20	7.38	187.45
V*-9F-K2F	250	10"	254.00	9.88	250.95

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

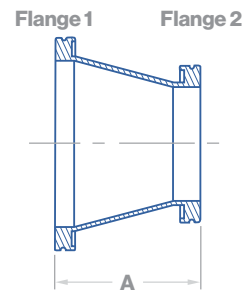
CONFIGURATION
9S

ISO-K 6-Way Cross



Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
		ISO	inch	mm	inch
V*-9S-K2A	63	2-1/2"	63.50	3.25	82.55
V*-9S-K2B	80	3"	76.20	3.50	88.90
V*-9S-K2C	100	4"	101.60	4.13	104.90
V*-9S-K2D	160	6"	152.40	5.38	136.65
V*-9S-K2E	200	8"	203.20	7.38	187.45
V*-9S-K2F	250	10"	254.00	9.88	250.95

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

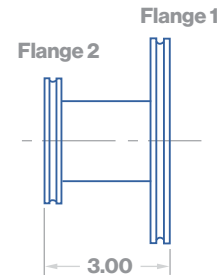


CONFIGURATION
31

ISO-K Concentric Reducer

Part Number	Dimensions in Inches & Millimeters							
	Flange 1	Flange 2	Tube O.D. 1		Tube O.D. 2		A	
	ISO	ISO	inch	mm	inch	mm	inch	mm
V*-31-K2BXK2A	80	63	3"	76.20	2-1/2"	63.50	4.125	104.775
V*-31-K2CXK2A	100	63	4"	101.60	2-1/2"	63.50	4.125	104.775
V*-31-K2CXK2B	100	80	4"	101.60	3"	76.20	4.125	104.775
V*-31-K2DXK2B	160	80	6"	152.40	3"	76.20	6.000	152.400
V*-31-K2DXK2C	160	100	6"	152.40	4"	101.60	6.000	152.400

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
31L

ISO-K Straight Reducer

Part Number	Dimensions in Inches & Millimeters			
	Flange 1	Flange 2	Tube O.D.	
	ISO	ISO	inch	mm
V*-31L-K2BXK2A	80	63	2-1/2"	63.50
V*-31L-K2CXK2A	100	63	2-1/2"	63.50
V*-31L-K2CXK2B	100	80	3"	76.20
V*-31L-K2DXK2A	160	63	2-1/2"	63.50
V*-31L-K2DXK2B	160	80	3"	76.20
V*-31L-K2DXK2C	160	100	4"	101.60
V*-31L-K2EXK2A	200	63	2-1/2"	63.50
V*-31L-K2EXK2B	200	80	3"	76.20
V*-31L-K2EXK2C	200	100	4"	101.60
V*-31L-K2EXK2D	200	160	6"	152.40
V*-31L-K2FXK2A	250	63	2-1/2"	63.50
V*-31L-K2FXK2B	250	80	3"	76.20
V*-31L-K2FXK2C	250	100	4"	101.60
V*-31L-K2FXK2D	250	160	6"	152.40
V*-31L-K2FXK2E	250	200	8"	203.20

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

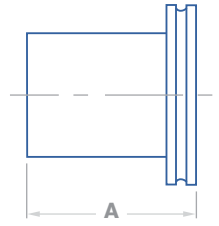


Valex
Vacuum
Components

ISO-K
Nipples

CONFIGURATION
6H

ISO-K Half Nipple



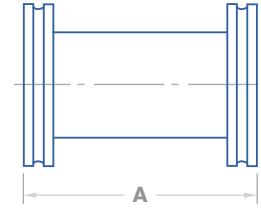
Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
	ISO	inch	mm	inch	mm
V*-6HS-K2A	63	2-1/2"	63.50	3.25	82.55
V*-6H-K2A	63	2-1/2"	63.50	3.94	100.08
V*-6HE-K2A	63	2-1/2"	63.50	4.00	101.60
V*-6HS-K2B	80	3"	76.20	3.50	88.90
V*-6H-K2B	80	3"	76.20	3.94	100.08
V*-6HS-K2C	100	4"	101.60	4.13	104.90
V*-6H-K2C	100	4"	101.60	3.94	130.05
V*-6HE-K2C	100	4"	101.60	5.12	100.08
V*-6HS-K2D	160	6"	152.40	5.38	136.65
V*-6H-K2D	160	6"	152.40	3.94	100.08
V*-6HE-K2D	160	6"	152.40	6.44	163.58
V*-6H-K2E	200	8"	203.20	7.38	187.45
V*-6H-K2F	250	10"	254.00	9.88	250.95
V*-6H-K2G	320	12"	304.80	9.88	250.95
V*-6H-K2H	400	16"	406.40	9.88	250.95
V*-6H-K2J	500	20"	508.00	9.88	250.95

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
6F

ISO-K Full Nipple



Part Number	Dimensions in Inches & Millimeters				
	Size	Tube O.D.		A	
	ISO	inch	mm	inch	mm
V*-6F-K2A	63	2-1/2"	63.50	6.50	165.10
V*-6F-K2B	80	3"	76.20	7.00	177.80
V*-6F-K2C	100	4"	101.60	8.26	209.80
V*-6F-K2D	160	6"	152.40	10.76	273.30
V*-6F-K2E	200	8"	203.20	14.76	374.90
V*-6F-K2F	250	10"	254.00	19.76	501.90
V*-6F-K2G	320	12"	304.80	19.76	501.90
V*-6F-K2H	400	16"	406.40	19.76	501.90
V*-6F-K2J	500	20"	508.00	19.76	501.90

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

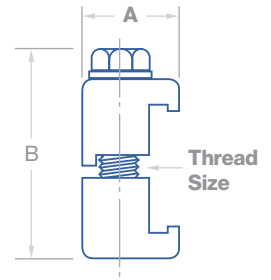


Valex
Vacuum
Components

ISO-K Clamps

ISO-K Double Claw Clamp (Aluminum)

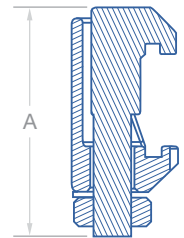
CONFIGURATION
13D



Part Number	Dimensions in Inches & Millimeters						
	Flange Size	A		B		Thread Size	Clamps Required
		ISO	inch	mm	inch		
V0-13D-K4A-CA	63	0.94	23.88	1.96	49.78	$\frac{5}{16}$ - 18	4
V0-13D-K4A-CA	80	0.94	23.88	1.96	49.78	$\frac{5}{16}$ - 18	4
V0-13D-K4A-CA	100	0.94	23.88	1.96	49.78	$\frac{5}{16}$ - 18	4
V0-13D-K4B-CA	160	1.10	27.94	1.96	49.78	$\frac{5}{16}$ - 18	6
V0-13D-K4B-CA	200	1.10	27.94	1.96	49.78	$\frac{5}{16}$ - 18	8
V0-13D-K4B-CA	250	1.10	27.94	1.96	49.78	$\frac{5}{16}$ - 18	10
V0-13D-K4C-CA	320	1.34	34.04	2.50	63.50	$\frac{7}{16}$ - 14	12
V0-13D-K4C-CA	400	1.34	34.04	2.50	63.50	$\frac{7}{16}$ - 14	16
V0-13D-K4C-CA	500	1.34	34.04	2.50	63.50	$\frac{7}{16}$ - 14	20

CONFIGURATION
13D

ISO-K Double Claw Clamp (316 Stainless Steel)

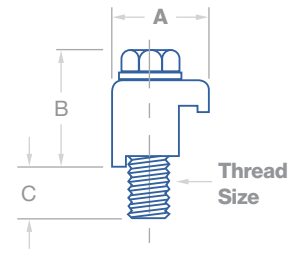


Part Number	Dimensions in Inches & Millimeters					
	Flange Size	A		Bolt	Fits Flange	Clamps Required
		ISO	inch			
V0-13D-K4D-CD	63	2.42	64.5	M10	63	4
V0-13D-K4D-CD	80	2.42	64.5	M10	80	4
V0-13D-K4D-CD	100	2.42	64.5	M10	100	4
V0-13D-K4D-CD	160	2.42	64.5	M10	160	6
V0-13D-K4D-CD	200	2.42	64.5	M10	200	8
V0-13D-K4D-CD	250	2.42	64.5	M10	250	10



CONFIGURATION
13

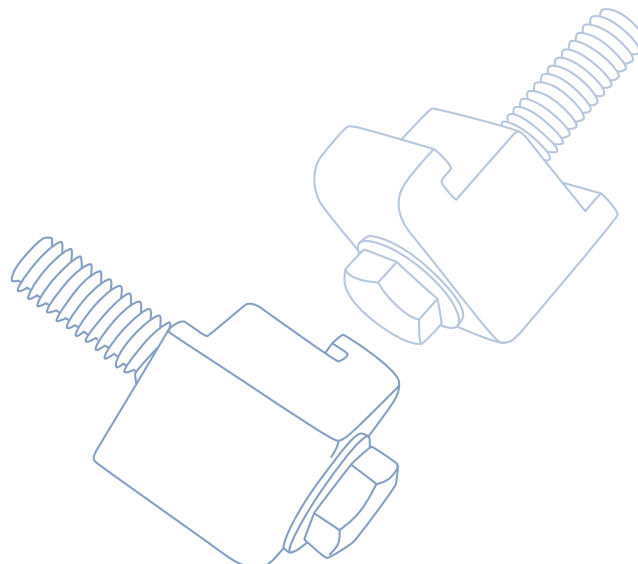
ISO-K Single Claw Clamp



Part Number	Dimensions in Inches					
	Flange Size ISO	A	B	C	Thread Size	Clamps Required
V0-13-K4A-**	63	.94	1.18	.52	5/16 - 18	4
V0-13-K4A-**	80	.94	1.18	.52	5/16 - 18	8
V0-13-K4A-**	100	.94	1.18	.52	5/16 - 18	8
V0-13-K4B-**	160	1.10	1.18	.52	5/16 - 18	8
V0-13-K4B-**	200	1.10	1.18	.52	5/16 - 18	12
V0-13-K4B-**	250	1.10	1.18	.52	5/16 - 18	12
V0-13-K4C-**	320	1.34	1.46	.88	7/16 - 14	12
V0-13-K4C-**	400	1.34	1.46	.88	7/16 - 14	16
V0-13-K4C-**	500	1.34	1.46	.88	7/16 - 14	16

Part Number	Dimensions in Millimeters					
	Flange Size ISO	A	B	C	Thread Size	Clamps Required
V0-13-K4A-**	63	23.88	29.97	13.21	5/16 - 18	4
V0-13-K4A-**	80	23.88	29.97	13.21	5/16 - 18	8
V0-13-K4A-**	100	23.88	29.97	13.21	5/16 - 18	8
V0-13-K4B-**	160	27.94	29.97	13.21	5/16 - 18	8
V0-13-K4B-**	200	27.94	29.97	13.21	5/16 - 18	12
V0-13-K4B-**	250	27.94	29.97	13.21	5/16 - 18	12
V0-13-K4C-**	320	34.04	37.08	22.35	7/16 - 14	12
V0-13-K4C-**	400	34.04	37.08	22.35	7/16 - 14	16
V0-13-K4C-**	500	34.04	37.08	22.35	7/16 - 14	16

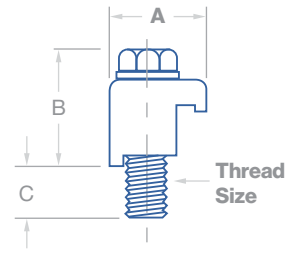
* Clamp Thread / Material: CA = Inch Aluminum, CC = Inch 316 SS, CE = Inch 304 SS





CONFIGURATION
13

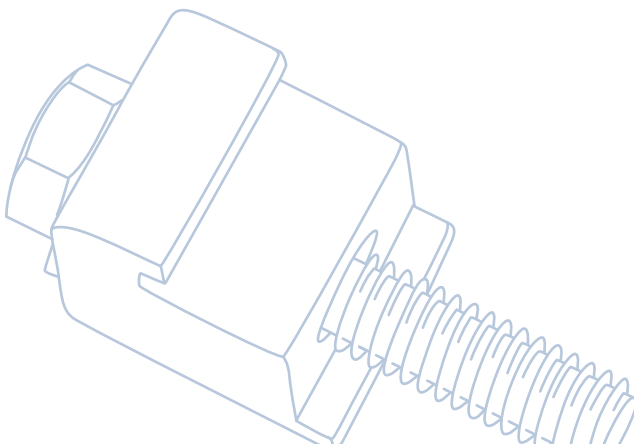
ISO-K Single Claw Clamp, Metric

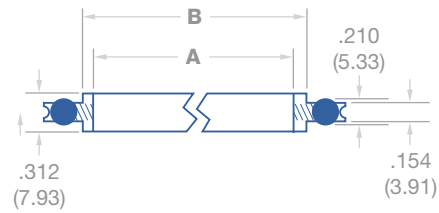


Part Number	Dimensions in Inches					
	Flange Size	A	B	C	Thread Size	Clamps Required
	ISO					
V0-13-K4A-**-	63	.94	1.20	.40	M8 x 1.25	4
V0-13-K4A-**-	80	.94	1.20	.40	M8 x 1.25	8
V0-13-K4A-**-	100	.94	1.20	.40	M8 x 1.25	8
V0-13-K4B-**-	160	1.10	1.20	.40	M10 x 1.50	8
V0-13-K4B-**-	200	1.10	1.20	.40	M10 x 1.50	12
V0-13-K4B-**-	250	1.10	1.20	.40	M10 x 1.50	12
V0-13-K4C-**-	320	1.34	1.48	.79	M12 x 1.75	12
V0-13-K4C-**-	400	1.34	1.48	.79	M12 x 1.75	16
V0-13-K4C-**-	500	1.34	1.48	.79	M12 x 1.75	16

Part Number	Dimensions in Millimeters					
	Flange Size	A	B	C	Thread Size	Clamps Required
	ISO					
V0-13-K4A-**-	63	23.88	30.48	10.16	M8 x 1.25	4
V0-13-K4A-**-	80	23.88	30.48	10.16	M8 x 1.25	8
V0-13-K4A-**-	100	23.88	30.48	10.16	M8 x 1.25	8
V0-13-K4B-**-	160	27.94	30.48	10.16	M10 x 1.50	8
V0-13-K4B-**-	200	27.94	30.48	10.16	M10 x 1.50	12
V0-13-K4B-**-	250	27.94	30.48	10.16	M10 x 1.50	12
V0-13-K4C-**-	320	34.04	37.59	20.07	M12 x 1.75	12
V0-13-K4C-**-	400	34.04	37.59	20.07	M12 x 1.75	16
V0-13-K4C-**-	500	34.04	37.59	20.07	M12 x 1.75	16

* Clamp Thread / Material: CB = Metric Aluminum, CD = Metric 316 SS





CONFIGURATION
39D

ISO Centering Ring with O-ring & Spacer Ring

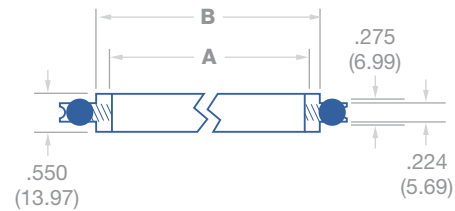
Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V0-39D-S2A-**A	63	2.63	66.80	2.74	69.60
V0-39D-S2B-**A	80	3.14	79.76	3.25	82.55
V0-39D-S2C-**A	100	3.89	98.81	4.00	101.60
V0-39D-S2D-**A	160	5.90	149.86	6.01	152.65
V0-39D-S2E-**A	200	8.26	209.80	8.37	212.60
V0-39D-S2F-**A	250	10.14	257.56	10.25	260.35

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Spacer Ring Material: A = Aluminum



CONFIGURATION
39D

ISO Centering Ring with O-ring & Spacer Ring

Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V0-39D-S2G-**A	320	12.36	313.94	12.52	318.01
V0-39D-S2H-**A	400	15.55	394.97	15.75	400.05

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Spacer Ring Material: A = Aluminum



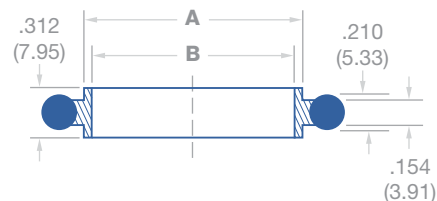
Valex

Vacuum Components

ISO-K Centering Rings

CONFIGURATION
39C

ISO Centering Ring (Stainless Steel) with O-ring



Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V0-39C-S2A-**X	63	2.63	66.80	2.74	69.60
V0-39C-S2B-**X	80	3.14	79.76	3.25	82.55
V0-39C-S2C-**X	100	3.89	98.81	4.00	101.60
V0-39C-S2D-**X	160	5.90	149.86	6.01	152.65
V0-39C-S2E-**X	200	8.26	209.80	8.37	212.60
V0-39C-S2F-**X	250	10.14	257.56	10.25	260.35
V0-39C-S2G-**X	320	12.32	312.93	12.52	318.01
V0-39C-S2H-**X	400	15.55	394.97	15.74	399.80

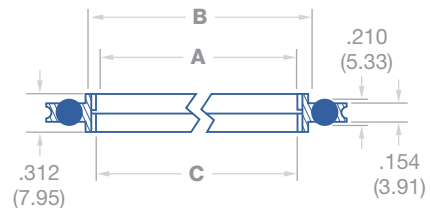
* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

CONFIGURATION
39N

ISO Screened Centering Ring (Stainless Steel) with O-ring & Spacer Ring



Part Number	Dimensions in Inches & Millimeters							
	Flange Size	A		B		C		Mesh (sq/in)
		ISO	inch	mm	inch	mm	inch	
V0-39N-S2A-**A	63	2.63	66.80	2.74	69.60	2.38	60.45	16
V0-39N-S2B-**A	80	3.14	79.76	3.25	82.55	2.87	72.90	16
V0-39N-S2C-**A	100	3.89	98.81	4.00	101.60	3.50	88.90	16
V0-39N-S2D-**A	160	5.90	149.86	6.01	152.65	5.50	139.70	16

* Pick one of each option.

Centering Ring Material: 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Spacer Ring Material: A = Aluminum

CONFIGURATION
72R

O-ring

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

ISO-F Fittings

Specifications



Flange Material:
304, 304L, 316 & 316L

Rotatable Bolt Ring:
Aluminum

O-ring Material:
Viton®, Buena-N®, EPDM or Kalrez

Clamp Styles:
Aluminum Claw or SS Claw Clamps

Torque Value:
Bolts at 7-10 lbs-ft.

Vacuum Range:
1x10⁻⁸ torr

	Temperature Range:		
	Minimum	Intermittent	Sustained
Viton®	-20°C	150°C	200°C
Buna-N®	-20°C	80°C	100°C

(Kalrez dependent on the compound)

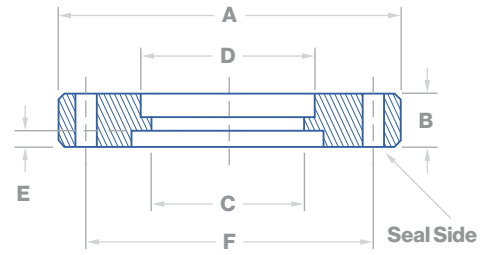


Valex
Vacuum
Components

ISO-F Flanges



ISO-F Bored Flange



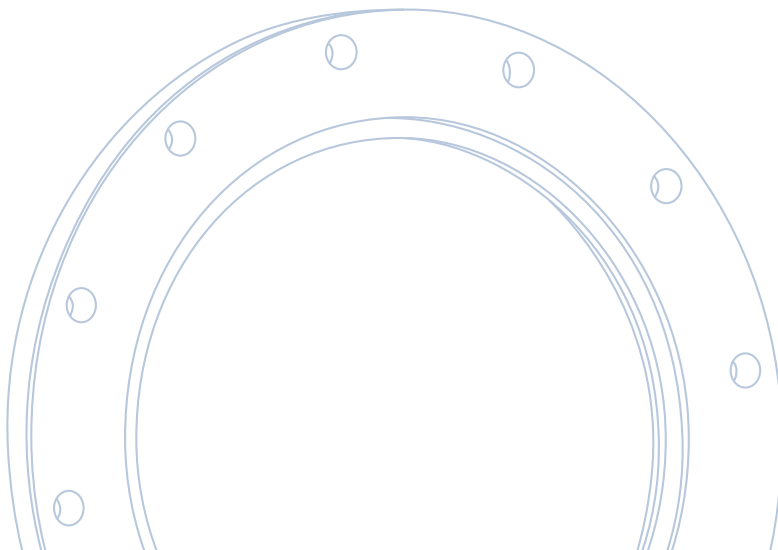
Part Number
V*-38B-F2AXW40-FF
V*-38B-F2BXW48-FF
V*-38B-F2CXW64-FF
V*-38B-F2DXW96-FF
V*-38B-F2EXW53-FF
V*-38B-F2FXW55-FF
V*-38B-F2GXW57-FF
V*-38B-F2HXW86-FF
V*-38B-F2JXW88-FF

Dimensions in Inches									
Flange ISO	Nominal I.D.	A	B	C	D	E	F	Bolt Holes	Bolt Diameter
63	2-1/2"	5.118	.472	2.438	2.510	.220	4.331	4	.359
80	3"	5.709	.472	2.938	3.010	.220	4.921	8	.359
100	4"	6.496	.472	3.910	4.010	.220	5.709	8	.359
160	6"	8.858	.630	5.875	6.020	.220	7.874	8	.438
200	8"	11.220	.630	7.875	8.020	.220	10.236	12	.438
250	10"	13.189	.630	9.875	10.020	.220	12.205	12	.438
320	12"	16.732	.787	11.760	12.020	.300	15.551	12	.551
400	16"	20.079	.787	15.642	16.020	.300	18.898	16	.551
500	20"	24.016	.787	19.642	20.020	.300	22.835	16	.551

Part Number
V*-38B-F2AXW40-FF
V*-38B-F2BXW48-FF
V*-38B-F2CXW64-FF
V*-38B-F2DXW96-FF
V*-38B-F2EXW53-FF
V*-38B-F2FXW55-FF
V*-38B-F2GXW57-FF
V*-38B-F2HXW86-FF
V*-38B-F2JXW88-FF

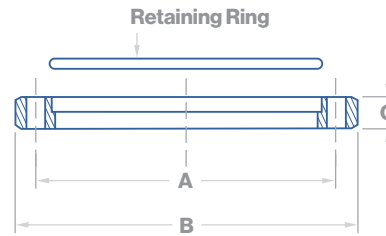
Dimensions in Millimeters									
Flange ISO	Nominal I.D.	A	B	C	D	E	F	Bolt Holes	Bolt Diameter
63	63.50	130.00	11.99	61.93	63.75	5.59	110.01	4	9.12
80	76.20	145.01	11.99	74.63	76.45	5.59	124.99	8	9.12
100	101.06	165.00	11.99	99.32	101.85	5.59	145.01	8	9.12
160	152.40	224.99	11.99	149.23	152.91	5.59	200.00	8	9.12
200	203.20	284.99	16.00	200.03	203.71	5.59	259.99	12	11.13
250	254.00	335.00	16.00	250.83	254.51	5.59	310.01	12	11.13
320	304.80	424.99	16.00	298.70	305.31	7.62	395.00	12	11.13
400	406.80	510.01	19.99	397.31	406.91	7.62	480.01	16	14.00
500	508.00	610.01	19.99	498.91	508.51	7.62	580.01	16	14.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





ISO-F Bored Rotatable Flange & Retainer Ring



CONFIGURATION
38B

Part Number
V*-38B-F2A-FR
V*-38B-F2B-FR
V*-38B-F2C-FR
V*-38B-F2D-FR
V*-38B-F2E-FR
V*-38B-F2F-FR
V*-38B-F2G-FR
V*-38B-F2H-FR
V*-38B-F2J-FR

Dimensions in Inches			
Flange Size	A	B	C
ISO			
63	4.331	5.118	.472
80	4.921	5.709	.472
100	5.709	6.496	.472
160	7.874	8.858	.630
200	10.236	11.220	.630
250	12.205	13.189	.630
320	15.551	16.732	.787
400	18.898	20.079	.787
500	22.835	24.016	.787

Part Number
V*-38B-F2A-FR
V*-38B-F2B-FR
V*-38B-F2C-FR
V*-38B-F2D-FR
V*-38B-F2E-FR
V*-38B-F2F-FR
V*-38B-F2G-FR
V*-38B-F2H-FR
V*-38B-F2J-FR

Dimensions in Millimeters			
Flange Size	A	B	C
ISO			
63	110.01	130.00	11.99
80	124.99	145.01	11.99
100	145.01	165.00	11.99
160	200.00	224.99	16.00
200	259.99	284.99	16.00
250	310.01	335.00	16.00
320	395.00	424.99	19.99
400	480.01	510.01	19.99
500	580.01	610.01	19.99

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



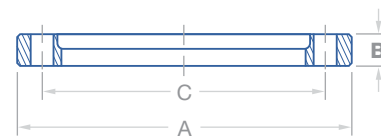
Valex

Vacuum Components

ISO-F Flanges

ISO-F Bored Rotatable Bolted Flange

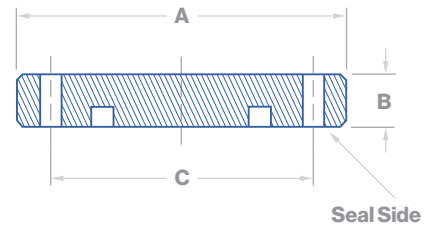
CONFIGURATION
38B



Part Number	Dimensions in Inches						
	Flange Size ISO	Tube Size	A	B	C	# of Bolts	Hole Diameter
V*-38B-F2AXW40-FR	63	2-1/2"	5.170	.470	4.330	4	.359
V*-38B-F2BXW48-FR	80	3"	5.710	.470	4.920	4	.359
V*-38B-F2CXW64-FR	100	4"	6.500	.470	5.710	8	.359
V*-38B-F2DXW96-FR	160	6"	8.860	.630	7.870	8	.438
V*-38B-F2EXW53-FR	200	8"	11.220	.630	10.240	12	.438
V*-38B-F2FXW55-FR	250	10"	13.190	.630	12.200	12	.438
V*-38B-F2GXW57-FR	320	12"	16.730	.790	15.550	12	.516
V*-38B-F2HXW86-FR	400	16"	20.080	.790	18.900	16	.516
V*-38B-F2JXW88-FR	500	20"	24.020	.790	22.830	16	.516

Part Number	Dimensions in Millimeters						
	Flange Size ISO	Tube Size	A	B	C	# of Bolts	Hole Diameter
V*-38B-F2AXW40-FR	63	63.50	131.32	11.94	109.98	4	9.12
V*-38B-F2BXW48-FR	80	76.20	145.03	11.94	124.97	4	9.12
V*-38B-F2CXW64-FR	100	101.60	165.10	11.94	145.03	8	9.12
V*-38B-F2DXW96-FR	160	152.40	225.04	16.00	199.90	8	11.13
V*-38B-F2EXW53-FR	200	203.20	284.99	16.00	260.10	12	11.13
V*-38B-F2FXW55-FR	250	254.00	335.03	16.00	309.88	12	11.13
V*-38B-F2GXW57-FR	320	304.80	424.94	20.07	394.97	12	13.11
V*-38B-F2HXW86-FR	400	406.40	510.03	20.07	480.06	16	13.11
V*-38B-F2JXW88-FR	500	508.00	610.11	20.07	579.88	16	13.11

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



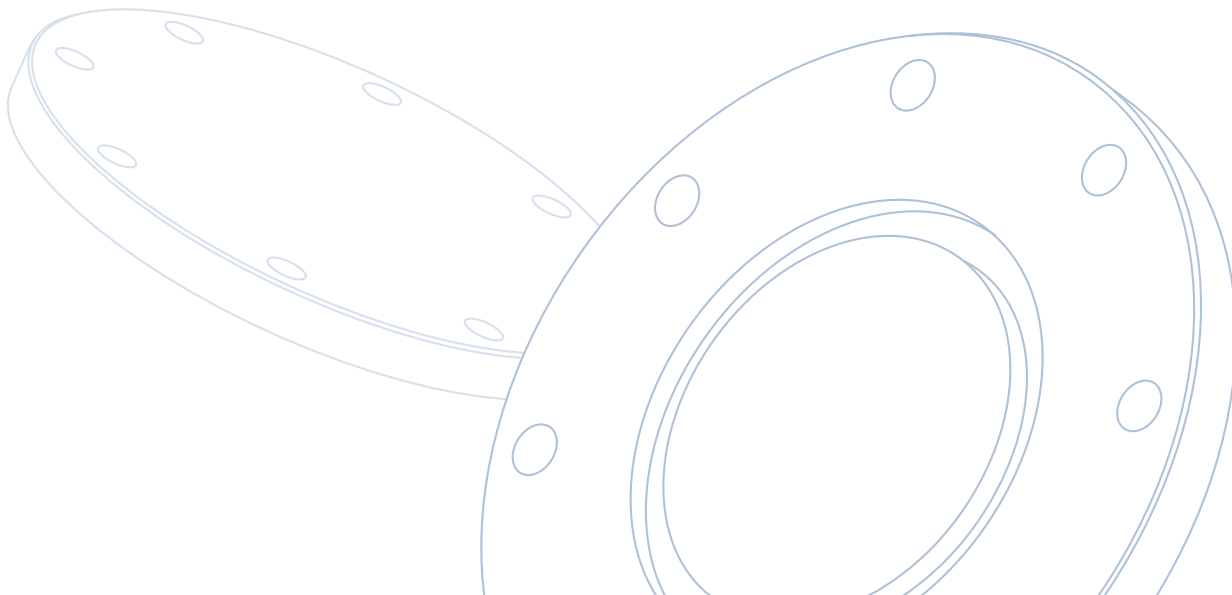
CONFIGURATION
38

ISO-F Blank Flange

Part Number	Dimensions in Inches					
	Flange Size ISO	A	B	C	Bolt Holes	Bolt Diameter
V*-38-F2A	63	5.118	.472	4.331	4	.359
V*-38-F2B	80	5.709	.472	4.921	8	.359
V*-38-F2C	100	6.496	.472	5.709	8	.359
V*-38-F2D	160	8.858	.630	7.874	8	.438
V*-38-F2E	200	11.220	.630	10.236	12	.438
V*-38-F2F	250	13.189	.630	12.205	12	.438
V*-38-F2G	320	16.732	.787	15.551	12	.551
V*-38-F2H	400	20.079	.787	18.898	16	.551
V*-38-F2J	500	24.016	.787	22.835	16	.551

Part Number	Dimensions in Millimeters					
	Flange Size ISO	A	B	C	Bolt Holes	Bolt Diameter
V*-38-F2A	63	130.00	11.99	110.01	4	9.12
V*-38-F2B	80	145.01	11.99	124.99	8	9.12
V*-38-F2C	100	165.00	11.99	145.01	8	9.12
V*-38-F2D	160	224.99	16.00	200.00	8	11.13
V*-38-F2E	200	284.99	16.00	259.99	12	11.13
V*-38-F2F	250	335.00	16.00	310.01	12	11.13
V*-38-F2G	320	424.99	19.99	395.00	12	14.00
V*-38-F2H	400	510.01	19.99	480.01	16	14.00
V*-38-F2J	500	610.01	19.99	580.01	16	14.00

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

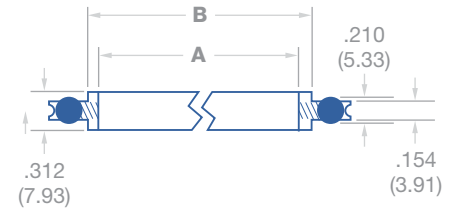




Valex

Vacuum Components

ISO-F Centering Rings



CONFIGURATION
39D

ISO Centering Ring
with O-ring & Spacer Ring

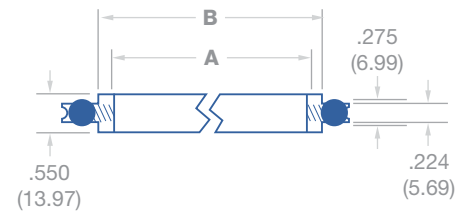
Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V0-39D-S2A-**A	63	2.63	66.80	2.74	69.60
V0-39D-S2B-**A	80	3.14	79.76	3.25	82.55
V0-39D-S2C-**A	100	3.89	98.81	4.00	101.60
V0-39D-S2D-**A	160	5.90	149.86	6.01	152.65
V0-39D-S2E-**A	200	8.26	209.80	8.37	212.60
V0-39D-S2F-**A	250	10.14	257.56	10.25	260.35

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Spacer Ring Material: A = Aluminum



CONFIGURATION
39D

ISO Centering Ring
with O-ring & Spacer Ring

Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V0-39D-S2G-**A	320	12.36	313.94	12.52	318.01
V0-39D-S2H-**A	400	15.55	394.97	15.75	400.05

* Pick one of each option.

Centering Ring Material: 1 = Aluminum, 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

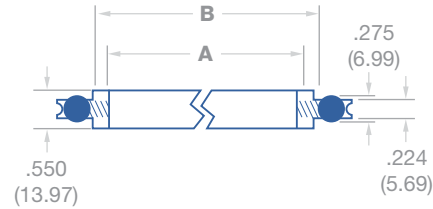
O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Spacer Ring Material: A = Aluminum



CONFIGURATION
39C

ISO Centering Ring (Stainless Steel) with O-ring



Part Number	Dimensions in Inches & Millimeters				
	Flange Size	A		B	
		ISO	inch	mm	inch
V0-39C-S2A-**X	63	2.63	66.80	2.74	69.60
V0-39C-S2B-**X	80	3.14	79.76	3.25	82.55
V0-39C-S2C-**X	100	3.89	98.81	4.00	101.60
V0-39C-S2D-**X	160	5.90	149.86	6.01	152.65
V0-39C-S2E-**X	200	8.26	209.80	8.37	212.60
V0-39C-S2F-**X	250	10.14	257.56	10.25	260.35
V0-39C-S2G-**X	320	12.32	312.93	12.52	318.01
V0-39C-S2H-**X	400	15.55	394.97	15.74	399.80

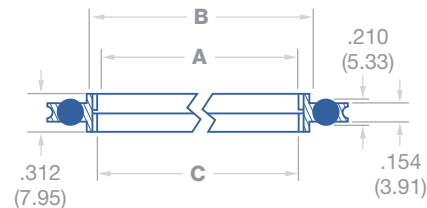
* Pick one of each option.

Centering Ring Material: 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

CONFIGURATION
39N

ISO Screened Centering Ring (Stainless Steel) with O-ring & Spacer Ring



Part Number	Dimensions in Inches & Millimeters							
	Flange Size	A		B		C		Mesh (sq/in)
		ISO	inch	mm	inch	mm	inch	
V0-39N-S2A-**A	63	2.63	66.80	2.74	69.60	2.38	60.45	16
V0-39N-S2B-**A	80	3.14	79.76	3.25	82.55	2.87	72.90	16
V0-39N-S2C-**A	100	3.89	98.81	4.00	101.60	3.50	88.90	16
V0-39N-S2D-**A	160	5.90	149.86	6.01	152.65	5.50	139.70	16

* Pick one of each option.

Centering Ring Material: 2 = 304 SS, 3 = 316 SS, 4 = 316 SS EP

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500

Spacer Ring Material: A = Aluminum

CONFIGURATION
72R

O-ring O-ring options

O-Ring Material: A = NBR (Buna), B = EPDM, C = FKM (Viton), D = Silicone, E = Kalrez 6375, F = Kalrez 8900, G = Kalrez 9100, H = Kalrez 9500



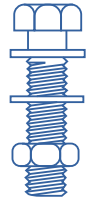
Valex
Vacuum
Components

ISO-F Hardware



ISO-F Bolt Kits, Metric

Bolts, Nuts & Washers



Part Number	Description			
	ISO	Number of Stainless Steel Bolts	Nuts & Washers	Size
V0-70B-F2A-X*A	63	4	X	M8 x 40mm
V0-70B-F2B-X*A	80	8	X	M8 x 40mm
V0-70B-F2C-X*A	100	8	X	M8 x 40mm
V0-70B-F2D-X*A	160	8	X	M10 x 50mm
V0-70B-F2E-X*A	200	12	X	M10 x 50mm
V0-70B-F2F-X*A	250	12	X	M10 x 50mm
V0-70B-F2G-X*A	320	12	X	M12 x 60mm
V0-70B-F2H-X*A	400	16	X	M12 x 60mm
V0-70B-F2J-X*A	500	16	X	M12 x 60mm

* Pick one of each option.

Material and / or Thread: M = Metric, V = Metric 10-8SS (Bolts), W = Metric 10-8SS Silver-plated (Bolts)

CF

Fittings



Specifications

Flange Material:
304, 304L, 316, 316L & 316LN

Gaskets Material:
OFE Copper

Hardware:

Bolt Material:

300 series SS & silver plated

Bolt head type:

Hexagonal or 12-point head

Nut Type:

Hexagonal or two-hole plate nuts

Bolt Torque:

Bolt Size	Fractional Size	Torque
.160-32 UNC	8-32	7 lb-ft
.250-28 UNF	1/4-28	12 lb-ft
.312-24 UNF	5/16-24	15 lb-ft
.375-24 UNF	3/8-24	26 lb-ft

Vacuum Range:

1x10⁻¹³ Torr

Temperature Range:

OFE Copper -200°C to 450°C



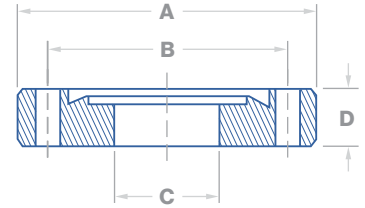
Valex
Vacuum
Components

CF Flanges

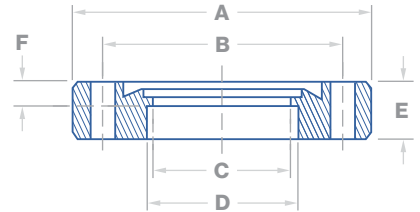


CF Bored Flange

Nonrotatable, Clearance Bolt Holes



Part Number	Dimensions in Inches**						
	Flange Size	A	B	C	D	Bolt Holes	Diameter
V*-38B-C3AXW04-FF	1.33	1.330	1.062	.255	.300	6	.172
V*-38B-C3AXW06-FF	1.33	1.330	1.062	.380	.300	6	.172
V*-38B-C3AXW08-FF	1.33	1.330	1.062	.505	.300	6	.172



Part Number	Dimensions in Inches**								
	Flange Size	A	B	C	D	E	F	Bolt Holes	Diameter
V*-38B-C3BXW04-FF	2.12	2.120	1.625	.255	N/A	.469	N/A	4	.265
V*-38B-C3BXW08-FF	2.12	2.120	1.625	.505	N/A	.469	N/A	4	.265
V*-38B-C3BXW12-FF	2.12	2.120	1.625	.688	.760	.469	.167	4	.265
V*-38B-C3BXW16-FF	2.12	2.120	1.625	.938	1.010	.469	.167	4	.265
V*-38B-C3CXW04-FF	2.75	2.730	2.312	.255	N/A	.500	N/A	6	.265
V*-38B-C3CXW08-FF	2.75	2.730	2.312	.505	N/A	.500	N/A	6	.265
V*-38B-C3CXW12-FF	2.75	2.730	2.312	.688	.760	.500	.209	6	.265
V*-38B-C3CXW16-FF	2.75	2.730	2.312	.938	1.010	.500	.209	6	.265
V*-38B-C3CXW20-FF	2.75	2.730	2.312	1.188	1.260	.500	.209	6	.265
V*-38B-C3CXW24-FF	2.75	2.730	2.312	1.438	1.510	.500	.209	6	.265
V*-38B-C3CXW26-FF	2.75	2.730	2.312	1.560	1.635	.500	.209	6	.265
V*-38B-C3CXW28-FF	2.75	2.730	2.312	1.620	1.760	.500	.209	6	.265
V*-38B-C3DXW24-FF	3.38	3.360	2.850	1.438	1.510	.687	.225	8	.332
V*-38B-C3DXW32-FF	3.38	3.360	2.850	1.938	2.010	.687	.225	8	.332
V*-38B-C3EXW24-FF	4.50	4.470	3.628	1.438	1.510	.687	.375	8	.332
V*-38B-C3EXW32-FF	4.50	4.470	3.628	1.938	2.010	.687	.375	8	.332
V*-38B-C3EXW40-FF	4.50	4.470	3.628	2.438	2.510	.687	.375	8	.332
V*-38B-C3FXW48-FF	4.62	4.610	4.030	2.938	3.010	.812	.281	10	.332
V*-38B-C3GXW64-FF	6.00	5.970	5.128	3.910	4.010	.781	.438	16	.332
V*-38B-C3HXW80-FF	6.75	6.730	5.969	4.875	5.010	.844	.460	18	.332
V*-38B-C3JXW96-FF	8.00	7.970	7.128	5.875	6.020	.937	.500	20	.332
V*-38B-C3KXW53-FF	10.00	9.970	9.128	7.875	8.020	.968	.500	24	.332
V*-38B-C3LXW55-FF	12.00	12.000	11.181	9.875	10.020	1.125	.500	32	.332
V*-38B-C3MXW55-FF	13.25	13.250	12.055	9.875	10.020	1.125	.500	30	.390
V*-38B-C3NXW57-FF	14.00	14.000	12.810	11.875	12.030	1.125	.500	30	.390
V*-38B-C3QXW85-FF	16.50	16.500	15.310	13.750	14.020	1.125	.500	36	.390

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

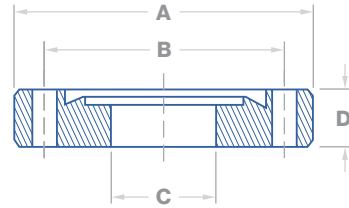
** Millimeter dimensions on the following page



CONFIGURATION
38B
Use With
**70
& 72**

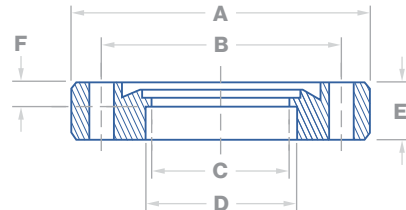
CF Bored Flange

Nonrotatable, Clearance Bolt Holes



Part Number
V*-38B-C3AXW04-FF
V*-38B-C3AXW06-FF
V*-38B-C3AXW08-FF

Dimensions in Millimeters**							
Flange Size	A	B	C	D	Bolt Holes	Diameter	
V*-38B-C3AXW04-FF	33.78	33.78	26.98	6.48	7.62	6	4.37
V*-38B-C3AXW06-FF	33.78	33.78	26.98	9.65	7.62	6	4.37
V*-38B-C3AXW08-FF	33.78	33.78	26.98	12.83	7.62	6	4.37



Part Number
V*-38B-C3BXW04-FF
V*-38B-C3BXW08-FF
V*-38B-C3BXW12-FF
V*-38B-C3BXW16-FF
V*-38B-C3CXW04-FF
V*-38B-C3CXW08-FF
V*-38B-C3CXW12-FF
V*-38B-C3CXW16-FF
V*-38B-C3CXW20-FF
V*-38B-C3CXW24-FF
V*-38B-C3CXW26-FF
V*-38B-C3CXW28-FF
V*-38B-C3DXW24-FF
V*-38B-C3DXW32-FF
V*-38B-C3EXW24-FF
V*-38B-C3EXW32-FF
V*-38B-C3EXW40-FF
V*-38B-C3FXW48-FF
V*-38B-C3GXW64-FF
V*-38B-C3HXW80-FF
V*-38B-C3JXW96-FF
V*-38B-C3KXW53-FF
V*-38B-C3LXW55-FF
V*-38B-C3MXW55-FF
V*-38B-C3NXW57-FF
V*-38B-C3QXW85-FF

Dimensions in Millimeters**									
Flange Size	A	B	C	D	E	F	Bolt Holes	Diameter	
V*-38B-C3BXW04-FF	53.85	53.85	41.28	6.48	N/A	11.91	N/A	4	6.73
V*-38B-C3BXW08-FF	53.85	53.85	41.28	12.83	N/A	11.91	N/A	4	6.73
V*-38B-C3BXW12-FF	53.85	53.85	41.28	17.48	19.30	11.91	4.24	4	6.73
V*-38B-C3BXW16-FF	53.85	53.85	41.28	23.83	25.65	11.91	4.24	4	6.73
V*-38B-C3CXW04-FF	69.85	69.34	58.73	6.48	N/A	12.70	N/A	6	6.73
V*-38B-C3CXW08-FF	69.85	69.34	58.73	12.83	N/A	12.70	N/A	6	6.73
V*-38B-C3CXW12-FF	69.85	69.34	58.73	17.48	19.30	12.70	5.31	6	6.73
V*-38B-C3CXW16-FF	69.85	69.34	58.73	23.83	25.65	12.70	5.31	6	6.73
V*-38B-C3CXW20-FF	69.85	69.34	58.73	30.18	32.00	12.70	5.31	6	6.73
V*-38B-C3CXW24-FF	69.85	69.34	58.73	36.53	38.35	12.70	5.31	6	6.73
V*-38B-C3CXW26-FF	69.85	69.34	58.73	39.62	41.53	12.70	5.31	6	6.73
V*-38B-C3CXW28-FF	69.85	69.34	58.73	41.15	44.70	12.70	5.31	6	6.73
V*-38B-C3DXW24-FF	85.85	85.34	72.39	36.53	38.35	17.45	5.72	8	8.43
V*-38B-C3DXW32-FF	85.85	85.34	72.39	49.23	51.05	17.45	5.72	8	8.43
V*-38B-C3EXW24-FF	114.30	113.54	92.15	36.53	38.35	17.45	9.53	8	8.43
V*-38B-C3EXW32-FF	114.30	113.54	92.15	49.23	51.05	17.45	9.53	8	8.43
V*-38B-C3EXW40-FF	114.30	113.54	92.15	61.93	63.75	17.45	9.53	8	8.43
V*-38B-C3FXW48-FF	117.35	117.09	102.36	74.63	76.45	20.62	7.14	10	8.43
V*-38B-C3GXW64-FF	152.40	151.64	130.25	99.31	101.85	19.84	11.13	16	8.43
V*-38B-C3HXW80-FF	171.45	170.94	151.61	123.83	127.25	21.44	11.68	18	8.43
V*-38B-C3JXW96-FF	203.20	202.44	181.05	149.23	152.91	22.71	12.70	20	8.43
V*-38B-C3KXW53-FF	254.00	253.24	231.85	200.03	203.71	24.59	12.70	24	8.43
V*-38B-C3LXW55-FF	304.80	304.80	284.00	250.83	254.51	28.58	12.70	32	8.43
V*-38B-C3MXW55-FF	336.55	336.55	306.20	250.83	254.51	28.58	12.70	30	9.91
V*-38B-C3NXW57-FF	355.60	355.60	325.37	301.63	305.56	28.58	12.70	30	9.91
V*-38B-C3QXW85-FF	419.10	419.10	388.87	349.25	356.11	28.58	12.70	36	9.91

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the previous page



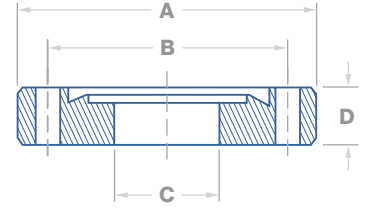
Valex
Vacuum
Components

CF Flanges

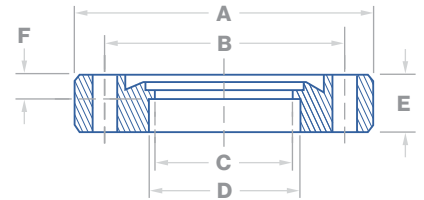


CF Bored Flange

Nonrotatable, Tapped Bolt Holes



Part Number	Dimensions in Inches**						
	Flange Size	A	B	C	D	Bolt Holes	Thread
V*-38B-C3AXW04-FS	1.33	1.330	1.062	.255	.300	6	8-32
V*-38B-C3AXW06-FS	1.33	1.330	1.062	.380	.300	6	8-32
V*-38B-C3AXW08-FS	1.33	1.330	1.062	.505	.300	6	8-32



Part Number	Dimensions in Inches**								
	Flange Size	A	B	C	D	E	F	Bolt Holes	Thread
V*-38B-C3BXW04-FS	2.12	2.120	1.625	.255	N/A	.469	N/A	4	1/4-28
V*-38B-C3BXW08-FS	2.12	2.120	1.625	.505	N/A	.469	N/A	4	1/4-28
V*-38B-C3BXW12-FS	2.12	2.120	1.625	.688	.760	.469	.167	4	1/4-28
V*-38B-C3BXW16-FS	2.12	2.120	1.625	.938	1.010	.469	.167	4	1/4-28
V*-38B-C3CXW04-FS	2.75	2.730	2.312	.255	N/A	.500	N/A	6	1/4-28
V*-38B-C3CXW08-FS	2.75	2.730	2.312	.505	N/A	.500	N/A	6	1/4-28
V*-38B-C3CXW12-FS	2.75	2.730	2.312	.688	.760	.500	.209	6	1/4-28
V*-38B-C3CXW16-FS	2.75	2.730	2.312	.938	1.010	.500	.209	6	1/4-28
V*-38B-C3CXW20-FS	2.75	2.730	2.312	1.188	1.260	.500	.209	6	1/4-28
V*-38B-C3CXW24-FS	2.75	2.730	2.312	1.438	1.510	.500	.209	6	1/4-28
V*-38B-C3CXW26-FS	2.75	2.730	2.312	1.560	1.635	.500	.209	6	1/4-28
V*-38B-C3CXW28-FS	2.75	2.730	2.312	1.620	1.760	.500	.209	6	1/4-28
V*-38B-C3DXW24-FS	3.38	3.360	2.850	1.438	1.510	.687	.225	8	5/16-24
V*-38B-C3DXW32-FS	3.38	3.360	2.850	1.938	2.010	.687	.225	8	5/16-24
V*-38B-C3EXW24-FS	4.50	4.470	3.628	1.438	1.510	.687	.375	8	5/16-24
V*-38B-C3EXW32-FS	4.50	4.470	3.628	1.938	2.010	.687	.375	8	5/16-24
V*-38B-C3EXW40-FS	4.50	4.470	3.628	2.438	2.510	.687	.375	8	5/16-24
V*-38B-C3FXW48-FS	4.62	4.610	4.030	2.938	3.010	.812	.281	10	5/16-24
V*-38B-C3GXW64-FS	6.00	5.970	5.128	3.910	4.010	.781	.438	16	5/16-24
V*-38B-C3HXW80-FS	6.75	6.730	5.969	4.875	5.010	.844	.460	18	5/16-24
V*-38B-C3JXW96-FS	8.00	7.970	7.128	5.875	6.020	.937	.500	20	5/16-24
V*-38B-C3KXW53-FS	10.00	9.970	9.128	7.875	8.020	.968	.500	24	5/16-24
V*-38B-C3LXW55-FS	12.00	12.000	11.181	9.875	10.020	1.125	.500	32	5/16-24
V*-38B-C3MXW55-FS	13.25	13.250	12.055	9.875	10.020	1.125	.500	30	3/8-24
V*-38B-C3NXW57-FS	14.00	14.000	12.810	11.875	12.030	1.125	.500	30	3/8-24
V*-38B-C3QXW85-FS	16.50	16.500	15.310	13.750	14.020	1.125	.500	36	3/8-24

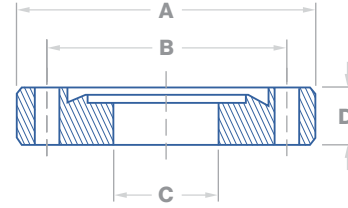
* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP
 ** Millimeter dimensions on the following page



CONFIGURATION
38B
Use With
**70
& 72**

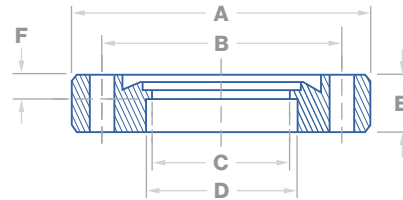
CF Bored Flange

Nonrotatable, Tapped Bolt Holes



Part Number
V*-38B-C3AXW04-FS
V*-38B-C3AXW06-FS
V*-38B-C3AXW08-FS

Dimensions in Millimeters**							
Flange Size	A	B	C	D	Bolt Holes	Thread	
V*-38B-C3AXW04-FS	33.78	33.78	26.98	6.48	7.62	6	8-32
V*-38B-C3AXW06-FS	33.78	33.78	26.98	9.65	7.62	6	8-32
V*-38B-C3AXW08-FS	33.78	33.78	26.98	12.83	7.62	6	8-32



Part Number
V*-38B-C3BXW04-FS
V*-38B-C3BXW08-FS
V*-38B-C3BXW12-FS
V*-38B-C3BXW16-FS
V*-38B-C3CXW04-FS
V*-38B-C3CXW08-FS
V*-38B-C3CXW12-FS
V*-38B-C3CXW16-FS
V*-38B-C3CXW20-FS
V*-38B-C3CXW24-FS
V*-38B-C3CXW26-FS
V*-38B-C3CXW28-FS
V*-38B-C3DXW24-FS
V*-38B-C3DXW32-FS
V*-38B-C3EXW24-FS
V*-38B-C3EXW32-FS
V*-38B-C3EXW40-FS
V*-38B-C3FXW48-FS
V*-38B-C3GXW64-FS
V*-38B-C3HXW80-FS
V*-38B-C3JXW96-FS
V*-38B-C3KXW53-FS
V*-38B-C3LXW55-FS
V*-38B-C3MXW55-FS
V*-38B-C3NXW57-FS
V*-38B-C3QXW85-FS

Dimensions in Millimeters**									
Flange Size	A	B	C	D	E	F	Bolt Holes	Thread	
V*-38B-C3BXW04-FS	53.85	53.85	41.28	6.48	N/A	11.91	N/A	4	1/4-28
V*-38B-C3BXW08-FS	53.85	53.85	41.28	12.83	N/A	11.91	N/A	4	1/4-28
V*-38B-C3BXW12-FS	53.85	53.85	41.28	17.48	19.30	11.91	4.24	4	1/4-28
V*-38B-C3BXW16-FS	53.85	53.85	41.28	23.83	25.65	11.91	4.24	4	1/4-28
V*-38B-C3CXW04-FS	69.85	69.34	58.73	6.48	N/A	12.70	N/A	6	1/4-28
V*-38B-C3CXW08-FS	69.85	69.34	58.73	12.83	N/A	12.70	N/A	6	1/4-28
V*-38B-C3CXW12-FS	69.85	69.34	58.73	17.48	19.30	12.70	5.31	6	1/4-28
V*-38B-C3CXW16-FS	69.85	69.34	58.73	23.83	25.65	12.70	5.31	6	1/4-28
V*-38B-C3CXW20-FS	69.85	69.34	58.73	30.18	32.00	12.70	5.31	6	1/4-28
V*-38B-C3CXW24-FS	69.85	69.34	58.73	36.53	38.35	12.70	5.31	6	1/4-28
V*-38B-C3CXW26-FS	69.85	69.34	58.73	39.62	41.53	12.70	5.31	6	1/4-28
V*-38B-C3CXW28-FS	69.85	69.34	58.73	41.15	44.70	12.70	5.31	6	1/4-28
V*-38B-C3DXW24-FS	85.85	85.34	72.39	36.53	38.35	17.45	5.72	8	5/16-24
V*-38B-C3DXW32-FS	85.85	85.34	72.39	49.23	51.05	17.45	5.72	8	5/16-24
V*-38B-C3EXW24-FS	114.30	113.54	92.15	36.53	38.35	17.45	9.53	8	5/16-24
V*-38B-C3EXW32-FS	114.30	113.54	92.15	49.23	51.05	17.45	9.53	8	5/16-24
V*-38B-C3EXW40-FS	114.30	113.54	92.15	61.93	63.75	17.45	9.53	8	5/16-24
V*-38B-C3FXW48-FS	117.35	117.09	102.36	74.63	76.45	20.62	7.14	10	5/16-24
V*-38B-C3GXW64-FS	152.40	151.64	130.25	99.31	101.85	19.84	11.13	16	5/16-24
V*-38B-C3HXW80-FS	171.45	170.94	151.61	123.83	127.25	21.44	11.68	18	5/16-24
V*-38B-C3JXW96-FS	203.20	202.44	181.05	149.23	152.91	22.71	12.70	20	5/16-24
V*-38B-C3KXW53-FS	254.00	253.24	231.85	200.03	203.71	24.59	12.70	24	5/16-24
V*-38B-C3LXW55-FS	304.80	304.80	284.00	250.83	254.51	28.58	12.70	32	5/16-24
V*-38B-C3MXW55-FS	336.55	336.55	306.20	250.83	254.51	28.58	12.70	30	3/8-24
V*-38B-C3NXW57-FS	355.60	355.60	325.37	301.63	305.56	28.58	12.70	30	3/8-24
V*-38B-C3QXW85-FS	419.10	419.10	388.87	349.25	356.11	28.58	12.70	36	3/8-24

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the previous page



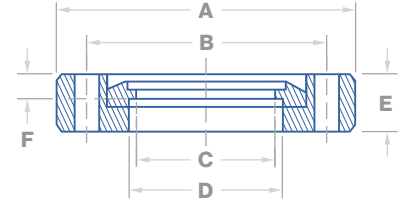
Valex
Vacuum
Components

CF Flanges



CF Bored Flange

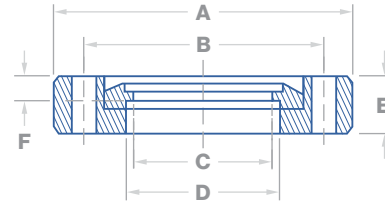
Rotatable, Clearance Bolt Holes



Part Number	Dimensions in Inches**								
	Flange Size	A	B	C	D	E	F	Bolt Holes	Diameter
V*-38B-C3AXW04-FR	1.33	1.330	1.062	.255	N/A	.300	N/A	6	.172
V*-38B-C3AXW06-FR	1.33	1.330	1.062	.380	N/A	.300	N/A	6	.172
V*-38B-C3AXW08-FR	1.33	1.330	1.062	.505	N/A	.300	N/A	6	.172
V*-38B-C3AXW12-FR	1.33	1.330	1.062	.625	N/A	.300	N/A	6	.172
V*-38B-C3BXW04-FR	2.12	2.120	1.625	.255	N/A	.469	N/A	4	.265
V*-38B-C3BXW08-FR	2.12	2.120	1.625	.505	N/A	.469	N/A	4	.265
V*-38B-C3BXW12-FR	2.12	2.120	1.625	.688	.760	.469	.167	4	.265
V*-38B-C3BXW16-FR	2.12	2.120	1.625	.938	1.010	.469	.167	4	.265
V*-38B-C3CXW04-FR	2.75	2.730	2.312	.255	N/A	.500	N/A	6	.265
V*-38B-C3CXW08-FR	2.75	2.730	2.312	.505	N/A	.500	N/A	6	.265
V*-38B-C3CXW12-FR	2.75	2.730	2.312	.688	.760	.500	.209	6	.265
V*-38B-C3CXW16-FR	2.75	2.730	2.312	.938	1.010	.500	.209	6	.265
V*-38B-C3CXW20-FR	2.75	2.730	2.312	1.188	1.260	.500	.209	6	.265
V*-38B-C3CXW24-FR	2.75	2.730	2.312	1.438	1.510	.500	.209	6	.265
V*-38B-C3DXW24-FR	3.38	3.360	2.850	1.438	1.510	.687	.225	8	.332
V*-38B-C3DXW32-FR	3.38	3.360	2.850	1.938	2.010	.687	.225	8	.332
V*-38B-C3EXW24-FR	4.50	4.470	3.628	1.438	1.510	.750	.375	8	.332
V*-38B-C3EXW32-FR	4.50	4.470	3.628	1.938	2.010	.750	.375	8	.332
V*-38B-C3EXW40-FR	4.50	4.470	3.628	2.438	2.510	.750	.375	8	.332
V*-38B-C3FXW48-FR	4.62	4.610	4.030	2.938	3.010	.812	.281	10	.332
V*-38B-C3GXW64-FR	6.00	5.970	5.128	3.910	4.010	.844	.438	16	.332
V*-38B-C3HXW80-FR	6.75	6.730	5.969	4.875	5.010	.844	.460	18	.332
V*-38B-C3JXW96-FR	8.00	7.970	7.128	5.875	6.020	.937	.500	20	.332
V*-38B-C3KXW53-FR	10.00	9.970	9.128	7.875	8.020	.968	.500	24	.332
V*-38B-C3LXW55-FR	12.00	12.000	11.181	9.875	10.020	1.125	.500	32	.332
V*-38B-C3MXW55-FR	13.25	13.250	12.055	9.875	10.020	1.125	.500	30	.390
V*-38B-C3NXW57-FR	14.00	14.000	12.810	11.875	12.030	1.125	.500	30	.390
V*-38B-C3QXW85-FR	16.50	16.500	15.310	13.750	14.020	1.125	.500	36	.390

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Millimeter dimensions on the following page



CONFIGURATION
38B
Use With
**70
& 72**

CF Bored Flange

Rotatable, Clearance Bolt Holes

CF
Flanges

Part Number	Dimensions in Millimeters**								
	Flange Size	A	B	C	D	E	F	Bolt Holes	Diameter
V*-38B-C3AXW04-FR	33.78	33.78	26.98	6.48	N/A	7.62	N/A	6	4.37
V*-38B-C3AXW06-FR	33.78	33.78	26.98	9.65	N/A	7.62	N/A	6	4.37
V*-38B-C3AXW08-FR	33.78	33.78	26.98	12.83	N/A	7.62	N/A	6	4.37
V*-38B-C3AXW12-FR	33.78	33.78	26.98	15.88	N/A	7.62	N/A	6	4.37
V*-38B-C3BXW04-FR	53.85	53.85	41.28	6.48	N/A	11.91	N/A	4	6.73
V*-38B-C3BXW08-FR	53.85	53.85	41.28	12.83	N/A	11.91	N/A	4	6.73
V*-38B-C3BXW12-FR	53.85	53.85	41.28	17.48	19.30	11.91	4.24	4	6.73
V*-38B-C3BXW16-FR	53.85	53.85	41.28	23.83	25.65	11.91	4.24	4	6.73
V*-38B-C3CXW04-FR	69.85	69.34	58.73	6.48	N/A	12.70	N/A	6	6.73
V*-38B-C3CXW08-FR	69.85	69.34	58.73	12.83	N/A	12.70	N/A	6	6.73
V*-38B-C3CXW12-FR	69.85	69.34	58.73	30.18	19.30	12.70	5.31	6	6.73
V*-38B-C3CXW16-FR	69.85	69.34	58.73	23.83	25.65	12.70	5.31	6	6.73
V*-38B-C3CXW20-FR	69.85	69.34	58.73	30.18	32.00	12.70	5.31	6	6.73
V*-38B-C3CXW24-FR	69.85	69.34	58.73	36.53	38.35	12.70	5.31	6	6.73
V*-38B-C3DXW24-FR	85.85	85.34	72.39	36.53	38.35	17.45	5.72	8	8.43
V*-38B-C3DXW32-FR	85.85	85.34	72.39	49.23	51.05	17.45	5.72	8	8.43
V*-38B-C3EXW24-FR	114.30	113.54	92.15	36.53	38.35	19.05	9.53	8	8.43
V*-38B-C3EXW32-FR	114.30	113.54	92.15	49.23	51.05	19.05	9.53	8	8.43
V*-38B-C3EXW40-FR	114.30	113.54	92.15	61.93	63.75	19.05	9.53	8	8.43
V*-38B-C3FXW48-FR	117.35	117.09	102.36	74.63	76.45	20.62	7.14	10	8.43
V*-38B-C3GXW64-FR	152.40	151.64	130.25	99.31	101.85	21.44	11.13	16	8.43
V*-38B-C3HXW80-FR	171.45	170.94	151.61	123.83	127.25	21.44	11.68	18	8.43
V*-38B-C3JXW96-FR	203.20	202.44	181.05	149.23	152.91	22.71	12.70	20	8.43
V*-38B-C3KXW53-FR	254.00	253.24	231.85	200.03	203.71	24.59	12.70	24	8.43
V*-38B-C3LXW55-FR	304.80	304.80	284.00	250.83	254.51	28.58	12.70	32	8.43
V*-38B-C3MXW55-FR	336.55	336.55	306.20	250.83	254.51	28.58	12.70	30	9.91
V*-38B-C3NXW57-FR	355.60	355.60	325.37	301.63	305.56	28.58	12.70	30	9.91
V*-38B-C3QXW85-FR	419.10	419.10	388.87	349.25	356.11	28.58	12.70	36	9.91

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the previous page



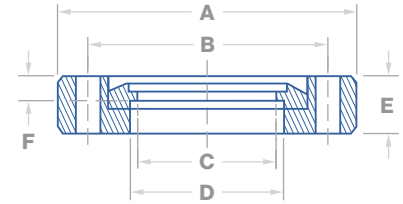
Valex
Vacuum
Components

CF
Flanges



CF Bored Flange

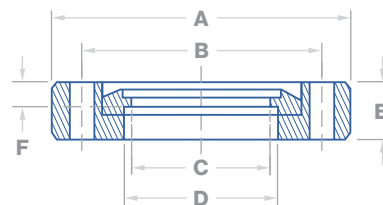
Rotatable, Tapped Bolt Holes



Part Number	Dimensions in Inches**								
	Flange Size	A	B	C	D	E	F	Bolt Holes	Thread
V*-38B-C3AXW04-FT	1.33	1.330	1.062	.255	N/A	.300	N/A	6	8-32
V*-38B-C3AXW06-FT	1.33	1.330	1.062	.380	N/A	.300	N/A	6	8-32
V*-38B-C3AXW08-FT	1.33	1.330	1.062	.505	N/A	.300	N/A	6	8-32
V*-38B-C3AXW12-FT	1.33	1.330	1.062	.625	N/A	.300	N/A	6	8-32
V*-38B-C3BXW04-FT	2.12	2.120	1.625	.255	N/A	.469	N/A	4	1/4-28
V*-38B-C3BXW08-FT	2.12	2.120	1.625	.505	N/A	.469	N/A	4	1/4-28
V*-38B-C3BXW12-FT	2.12	2.120	1.625	.688	.760	.469	.167	4	1/4-28
V*-38B-C3BXW16-FT	2.12	2.120	1.625	.938	1.010	.469	.167	4	1/4-28
V*-38B-C3CXW04-FT	2.75	2.730	2.312	.255	N/A	.500	N/A	6	1/4-28
V*-38B-C3CXW08-FT	2.75	2.730	2.312	.505	N/A	.500	N/A	6	1/4-28
V*-38B-C3CXW12-FT	2.75	2.730	2.312	.688	.760	.500	.209	6	1/4-28
V*-38B-C3CXW16-FT	2.75	2.730	2.312	.938	1.010	.500	.209	6	1/4-28
V*-38B-C3CXW20-FT	2.75	2.730	2.312	1.188	1.260	.500	.209	6	1/4-28
V*-38B-C3CXW24-FT	2.75	2.730	2.312	1.438	1.510	.500	.209	6	1/4-28
V*-38B-C3DXW24-FT	3.38	3.360	2.850	1.438	1.510	.687	.225	8	5/16-24
V*-38B-C3DXW32-FT	3.38	3.360	2.850	1.938	2.010	.687	.225	8	5/16-24
V*-38B-C3EXW24-FT	4.50	4.470	3.628	1.438	1.510	.750	.375	8	5/16-24
V*-38B-C3EXW32-FT	4.50	4.470	3.628	1.938	2.010	.750	.375	8	5/16-24
V*-38B-C3EXW40-FT	4.50	4.470	3.628	2.438	2.510	.750	.375	8	5/16-24
V*-38B-C3FXW48-FT	4.62	4.610	4.030	2.938	3.010	.812	.281	10	5/16-24
V*-38B-C3GXW64-FT	6.00	5.970	5.128	3.910	4.010	.844	.438	16	5/16-24
V*-38B-C3HXW80-FT	6.75	6.730	5.969	4.875	5.010	.844	.460	18	5/16-24
V*-38B-C3JXW96-FT	8.00	7.970	7.128	5.875	6.020	.937	.500	20	5/16-24
V*-38B-C3KXW53-FT	10.00	9.970	9.128	7.875	8.020	.968	.500	24	5/16-24
V*-38B-C3LXW55-FT	12.00	12.000	11.181	9.875	10.020	1.125	.500	32	5/16-24
V*-38B-C3MXW55-FT	13.25	13.250	12.055	9.875	10.020	1.125	.500	30	3/8-24
V*-38B-C3NXW57-FT	14.00	14.000	12.810	11.875	12.030	1.125	.500	30	3/8-24
V*-38B-C3QXW85-FT	16.50	16.500	15.310	13.750	14.020	1.125	.500	36	3/8-24

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Millimeter dimensions on the following page



CONFIGURATION
38B
Use With
**70
& 72**

CF Bored Flange

Rotatable, Tapped Bolt Holes

Part Number	Dimensions in Millimeters**								
	Flange Size	A	B	C	D	E	F	Bolt Holes	Thread
V*-38B-C3AXW04-FT	33.78	33.78	26.98	6.48	N/A	7.62	N/A	6	8-32
V*-38B-C3AXW06-FT	33.78	33.78	26.98	9.65	N/A	7.62	N/A	6	8-32
V*-38B-C3AXW08-FT	33.78	33.78	26.98	12.83	N/A	7.62	N/A	6	8-32
V*-38B-C3AXW12-FT	33.78	33.78	26.98	15.88	N/A	7.62	N/A	6	8-32
V*-38B-C3BXW04-FT	53.85	53.85	41.28	6.48	N/A	11.91	N/A	4	1/4-28
V*-38B-C3BXW08-FT	53.85	53.85	41.28	12.83	N/A	11.91	N/A	4	1/4-28
V*-38B-C3BXW12-FT	53.85	53.85	41.28	17.48	19.30	11.91	4.24	4	1/4-28
V*-38B-C3BXW16-FT	53.85	53.85	41.28	23.83	25.65	11.91	4.24	4	1/4-28
V*-38B-C3CXW04-FT	69.85	69.34	58.73	6.48	N/A	12.70	N/A	6	1/4-28
V*-38B-C3CXW08-FT	69.85	69.34	58.73	12.83	N/A	12.70	N/A	6	1/4-28
V*-38B-C3CXW12-FT	69.85	69.34	58.73	30.18	19.30	12.70	5.31	6	1/4-28
V*-38B-C3CXW16-FT	69.85	69.34	58.73	23.83	25.65	12.70	5.31	6	1/4-28
V*-38B-C3CXW20-FT	69.85	69.34	58.73	30.18	32.00	12.70	5.31	6	1/4-28
V*-38B-C3CXW24-FT	69.85	69.34	58.73	36.53	38.35	12.70	5.31	6	1/4-28
V*-38B-C3DXW24-FT	85.85	85.34	72.39	36.53	38.35	17.45	5.72	8	5/16-24
V*-38B-C3DXW32-FT	85.85	85.34	72.39	49.23	51.05	17.45	5.72	8	5/16-24
V*-38B-C3EXW24-FT	114.30	113.54	92.15	36.53	38.35	19.05	9.53	8	5/16-24
V*-38B-C3EXW32-FT	114.30	113.54	92.15	49.23	51.05	19.05	9.53	8	5/16-24
V*-38B-C3EXW40-FT	114.30	113.54	92.15	61.93	63.75	19.05	9.53	8	5/16-24
V*-38B-C3FXW48-FT	117.35	117.09	102.36	74.63	76.45	20.62	7.14	10	5/16-24
V*-38B-C3GXW64-FT	152.40	151.64	130.25	99.31	101.85	21.44	11.13	16	5/16-24
V*-38B-C3HXW80-FT	171.45	170.94	151.61	123.83	127.25	21.44	11.68	18	5/16-24
V*-38B-C3JXW96-FT	203.20	202.44	181.05	149.23	152.91	22.71	12.70	20	5/16-24
V*-38B-C3KXW53-FT	254.00	253.24	231.85	200.03	203.71	24.59	12.70	24	5/16-24
V*-38B-C3LXW55-FT	304.80	304.80	284.00	250.83	254.51	28.58	12.70	32	5/16-24
V*-38B-C3MXW55-FT	336.55	336.55	306.20	250.83	254.51	28.58	12.70	30	3/8-24
V*-38B-C3NXW57-FT	355.60	355.60	325.37	301.63	305.56	28.58	12.70	30	3/8-24
V*-38B-C3QXW85-FT	419.10	419.10	388.87	349.25	356.11	28.58	12.70	36	3/8-24

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the previous page



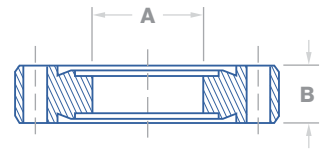
Valex
Vacuum
Components

CF
Flanges



CF Double-Sided Flange

Nonrotatable, Clearance Bolt Holes



Part Number	Dimensions in Inches & Millimeters						
	Nominal O.D.		Made From Flange	A		B	
	inch	mm		inch	mm	inch	mm
V*-38D-C3A-FF	1.33	33.78	V*-38-C3A-FF	N/A	N/A	.300	7.62
V*-38D-C3AXW04-FF	1.33	33.78	V*-38-C3A-FF	.255	6.48	.300	7.62
V*-38D-C3AXW06-FF	1.33	33.78	V*-38-C3A-FF	.380	9.65	.300	7.62
V*-38D-C3AXW08-FF	1.33	33.78	V*-38-C3A-FF	.505	12.83	.300	7.62
V*-38D-C3AXW12-FF	1.33	33.78	V*-38-C3A-FF	.630	16.00	.300	7.62
V*-38D-C3B-FF	2.12	53.85	V*-38-C3B-FF	N/A	N/A	.470	11.94
V*-38D-C3BXW16-FF	2.12	53.85	V*-38-C3B-FF	1.010	25.65	.470	11.94
V*-38D-C3C-FF	2.75	69.85	V*-38-C3C-FF	N/A	N/A	.500	12.70
V*-38D-C3CXW04-FF	2.75	69.85	V*-38-C3C-FF	.255	6.48	.500	12.70
V*-38D-C3CXW08-FF	2.75	69.85	V*-38-C3C-FF	.505	12.83	.500	12.70
V*-38D-C3CXW12-FF	2.75	69.85	V*-38-C3C-FF	.760	19.30	.500	12.70
V*-38D-C3CXW16-FF	2.75	69.85	V*-38-C3C-FF	1.010	25.65	.500	12.70
V*-38D-C3CXW20-FF	2.75	69.85	V*-38-C3C-FF	1.260	32.00	.500	12.70
V*-38D-C3CXW24-FF	2.75	69.85	V*-38-C3C-FF	1.510	38.35	.500	12.70
V*-38D-C3D-FF	3.38	85.85	V*-38-C3D-FF	N/A	N/A	.687	17.45
V*-38D-C3DXW24-FF	3.38	85.85	V*-38-C3D-FF	1.510	38.35	.687	17.45
V*-38D-C3DXW32-FF	3.38	85.85	V*-38-C3D-FF	2.010	51.05	.687	17.45
V*-38D-C3E-FF	4.50	114.30	V*-38-C3E-FF	N/A	N/A	.687	17.45
V*-38D-C3EXW24-FF	4.50	114.30	V*-38-C3E-FF	1.510	38.35	.687	17.45
V*-38D-C3EXW32-FF	4.50	114.30	V*-38-C3E-FF	2.010	51.05	.687	17.45
V*-38D-C3EXW40-FF	4.50	114.30	V*-38-C3E-FF	2.510	63.75	.687	17.45
V*-38D-C3F-FF	4.62	117.35	V*-38-C3F-FF	N/A	N/A	.812	20.62
V*-38D-C3FXW48-FF	4.62	117.35	V*-38-C3F-FF	3.010	76.45	.812	20.62
V*-38D-C3G-FF	6.00	152.40	V*-38-C3G-FF	N/A	N/A	.781	19.84
V*-38D-C3GXW64-FF	6.00	152.40	V*-38-C3G-FF	4.010	101.85	.781	19.84
V*-38D-C3H-FF	6.75	171.45	V*-38-C3H-FF	N/A	N/A	.844	21.44
V*-38D-C3HXW80-FF	6.75	171.45	V*-38-C3H-FF	5.010	127.25	.844	21.44
V*-38D-C3J-FF	8.00	203.20	V*-38-C3J-FF	N/A	N/A	.875	22.23
V*-38D-C3JXW96-FF	8.00	203.20	V*-38-C3J-FF	6.020	152.91	.875	22.23
V*-38D-C3K-FF	10.00	254.00	V*-38-C3K-FF	N/A	N/A	.968	24.59
V*-38D-C3KXW53-FF	10.00	254.00	V*-38-C3K-FF	8.020	203.71	.968	24.59
V*-38D-C3M-FF	13.25	336.55	V*-38-C3M-FF	N/A	N/A	1.125	28.58
V*-38D-C3MXW55-FF	13.25	336.55	V*-38-C3M-FF	10.020	254.51	1.125	28.58
V*-38D-C3N-FF	14.00	355.60	V*-38-C3N-FF	N/A	N/A	1.125	28.58
V*-38D-C3NXW57-FF	14.00	355.60	V*-38-C3N-FF	12.020	305.31	1.125	28.58

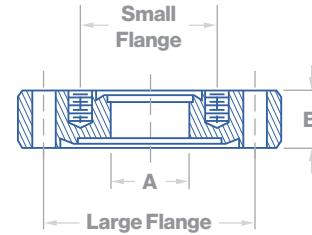
* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Valex
Vacuum
Components

CF Zero Length Reducer Flange

Large Flange: Nonrotatable, Tapped Bolt Holes
Small Flange: Nonrotatable, Tapped Bolt Holes



CONFIGURATION
38Z

Part Number
V*-38Z-C3BXC3A-FS
V*-38Z-C3CXC3B-FS
V*-38Z-C3DXC3B-FS
V*-38Z-C3DXC3C-FS
V*-38Z-C3EXC3D-FS
V*-38Z-C3GXC3F-FS
V*-38Z-C3HXC3G-FS
V*-38Z-C3JXC3H-FS

Dimensions in Inches						
Large Flange Part Number	Small Flange Part Number	Lg. Flange Size	Sm. Flange Size	A	B	
V*-38-C3B-FS	V*-38-C3A-FS	2.12"	1.33"	.625	.470	
V*-38-C3C-FS	V*-38-C3B-FS	2.75"	2.12"	1.000	.500	
V*-38-C3D-FS	V*-38-C3B-FS	3.38"	2.12"	1.000	.687	
V*-38-C3D-FS	V*-38-C3C-FS	3.38"	2.75"	1.500	.687	
V*-38-C3E-FS	V*-38-C3D-FS	4.50"	3.38"	2.000	.687	
V*-38-C3G-FS	V*-38-C3F-FS	6.00"	4.62"	3.000	.781	
V*-38-C3H-FS	V*-38-C3G-FS	6.75"	6.00"	4.000	.844	
V*-38-C3J-FS	V*-38-C3H-FS	8.00"	6.75"	5.000	.875	

Part Number
V*-38Z-C3BXC3A-FS
V*-38Z-C3CXC3B-FS
V*-38Z-C3DXC3B-FS
V*-38Z-C3DXC3C-FS
V*-38Z-C3EXC3D-FS
V*-38Z-C3GXC3F-FS
V*-38Z-C3HXC3G-FS
V*-38Z-C3JXC3H-FS

Dimensions in Millimeters						
Large Flange Part Number	Small Flange Part Number	Lg. Flange Size	Sm. Flange Size	A	B	
V*-38-C3B-FS	V*-38-C3A-FS	53.85	33.78	15.88	11.94	
V*-38-C3C-FS	V*-38-C3B-FS	69.85	53.85	25.40	12.70	
V*-38-C3D-FS	V*-38-C3B-FS	85.85	53.85	25.40	17.45	
V*-38-C3D-FS	V*-38-C3C-FS	85.85	69.85	38.10	17.45	
V*-38-C3E-FS	V*-38-C3D-FS	114.30	85.85	50.80	17.45	
V*-38-C3G-FS	V*-38-C3F-FS	152.40	117.35	76.20	19.84	
V*-38-C3H-FS	V*-38-C3G-FS	171.45	152.40	101.60	21.44	
V*-38-C3J-FS	V*-38-C3H-FS	203.20	171.45	127.00	22.23	

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CF Flanges



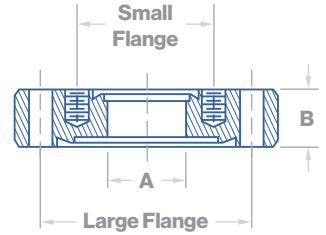
Valex
Vacuum
Components

CF Flanges

CF Zero Length Reducer Flange

CONFIGURATION
38Z

Large Flange: Nonrotatable, Clearance Bolt Holes
Small Flange: Nonrotatable, Tapped Bolt Holes

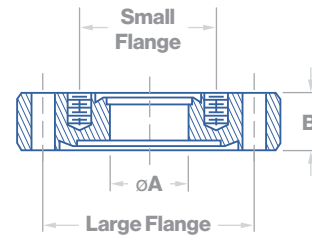


Part Number	Dimensions in Inches**					
	Large Flange Part Number	Small Flange Part Number	Lg. Flange Size	Sm. Flange Size	A	B
V*-38Z-C3XC3A-FF	V*-38-C3C-FF	V*-38-C3A-FS	2.75	1.33	.625	.500
V*-38Z-C3DXC3A-FF	V*-38-C3D-FF	V*-38-C3A-FS	3.38	1.33	.625	.687
V*-38Z-C3EXC3A-FF	V*-38-C3E-FF	V*-38-C3A-FS	4.50	1.33	.625	.687
V*-38Z-C3EXC3B-FF	V*-38-C3E-FF	V*-38-C3B-FS	4.50	2.12	1.000	.687
V*-38Z-C3EXC3C-FF	V*-38-C3E-FF	V*-38-C3C-FS	4.50	2.75	1.500	.687
V*-38Z-C3FXC3A-FF	V*-38-C3F-FF	V*-38-C3A-FS	4.62	1.33	.625	.812
V*-38Z-C3FXC3B-FF	V*-38-C3F-FF	V*-38-C3B-FS	4.62	2.12	1.000	.812
V*-38Z-C3FXC3C-FF	V*-38-C3F-FF	V*-38-C3C-FS	4.62	2.75	1.500	.812
V*-38Z-C3FXC3D-FF	V*-38-C3F-FF	V*-38-C3D-FS	4.62	3.38	2.000	.812
V*-38Z-C3GXC3A-FF	V*-38-C3G-FF	V*-38-C3A-FS	6.00	1.33	.625	.781
V*-38Z-C3GXC3B-FF	V*-38-C3G-FF	V*-38-C3B-FS	6.00	2.12	1.000	.781
V*-38Z-C3GXC3C-FF	V*-38-C3G-FF	V*-38-C3C-FS	6.00	2.75	1.500	.781
V*-38Z-C3GXC3D-FF	V*-38-C3G-FF	V*-38-C3D-FS	6.00	3.38	2.000	.781
V*-38Z-C3GXC3E-FF	V*-38-C3G-FF	V*-38-C3E-FS	6.00	4.50	2.500	.781
V*-38Z-C3HXC3A-FF	V*-38-C3H-FF	V*-38-C3A-FS	6.75	1.33	.625	.844
V*-38Z-C3HXC3B-FF	V*-38-C3H-FF	V*-38-C3B-FS	6.75	2.12	1.000	.844
V*-38Z-C3HXC3C-FF	V*-38-C3H-FF	V*-38-C3C-FS	6.75	2.75	1.500	.844
V*-38Z-C3HXC3D-FF	V*-38-C3H-FF	V*-38-C3D-FS	6.75	3.38	2.000	.844
V*-38Z-C3HXC3E-FF	V*-38-C3H-FF	V*-38-C3E-FS	6.75	4.50	2.500	.844
V*-38Z-C3HXC3F-FF	V*-38-C3H-FF	V*-38-C3F-FS	6.75	4.62	3.000	.844
V*-38Z-C3JXC3A-FF	V*-38-C3J-FF	V*-38-C3A-FS	8.00	1.33	.625	.875
V*-38Z-C3JXC3B-FF	V*-38-C3J-FF	V*-38-C3B-FS	8.00	2.12	1.000	.875
V*-38Z-C3JXC3C-FF	V*-38-C3J-FF	V*-38-C3C-FS	8.00	2.75	1.500	.875
V*-38Z-C3JXC3D-FF	V*-38-C3J-FF	V*-38-C3D-FS	8.00	3.38	2.000	.875
V*-38Z-C3JXC3E-FF	V*-38-C3J-FF	V*-38-C3E-FS	8.00	4.50	2.500	.875
V*-38Z-C3JXC3F-FF	V*-38-C3J-FF	V*-38-C3F-FS	8.00	4.62	3.000	.875
V*-38Z-C3JXC3G-FF	V*-38-C3J-FF	V*-38-C3G-FS	8.00	6.00	4.000	.875
V*-38Z-C3KXC3A-FF	V*-38-C3K-FF	V*-38-C3A-FS	10.00	1.33	.625	.968
V*-38Z-C3KXC3B-FF	V*-38-C3K-FF	V*-38-C3B-FS	10.00	2.12	1.000	.968
V*-38Z-C3KXC3C-FF	V*-38-C3K-FF	V*-38-C3C-FS	10.00	2.75	1.500	.968
V*-38Z-C3KXC3D-FF	V*-38-C3K-FF	V*-38-C3D-FS	10.00	3.38	2.000	.968
V*-38Z-C3KXC3E-FF	V*-38-C3K-FF	V*-38-C3E-FS	10.00	4.50	2.500	.968
V*-38Z-C3KXC3F-FF	V*-38-C3K-FF	V*-38-C3F-FS	10.00	4.62	3.000	.968
V*-38Z-C3KXC3G-FF	V*-38-C3K-FF	V*-38-C3G-FS	10.00	6.00	4.000	.968
V*-38Z-C3KXC3H-FF	V*-38-C3K-FF	V*-38-C3H-FS	10.00	6.75	5.000	.968
V*-38Z-C3KXC3J-FF	V*-38-C3K-FF	V*-38-C3J-FS	10.00	8.00	6.000	.968
V*-38Z-C3MXC3A-FF	V*-38-C3M-FF	V*-38-C3A-FS	13.25	1.33	0.625	1.125
V*-38Z-C3MXC3B-FF	V*-38-C3M-FF	V*-38-C3B-FS	13.25	2.12	1.000	1.125
V*-38Z-C3MXC3C-FF	V*-38-C3M-FF	V*-38-C3C-FS	13.25	2.75	1.500	1.125
V*-38Z-C3MXC3D-FF	V*-38-C3M-FF	V*-38-C3D-FS	13.25	3.38	2.000	1.125
V*-38Z-C3MXC3E-FF	V*-38-C3M-FF	V*-38-C3E-FS	13.25	4.50	2.500	1.125
V*-38Z-C3MXC3F-FF	V*-38-C3M-FF	V*-38-C3F-FS	13.25	4.62	3.000	1.125



CF Zero Length Reducer Flanges

Large Flange: Nonrotatable, Clearance Bolt Holes
Small Flange: Nonrotatable, Tapped Bolt Holes



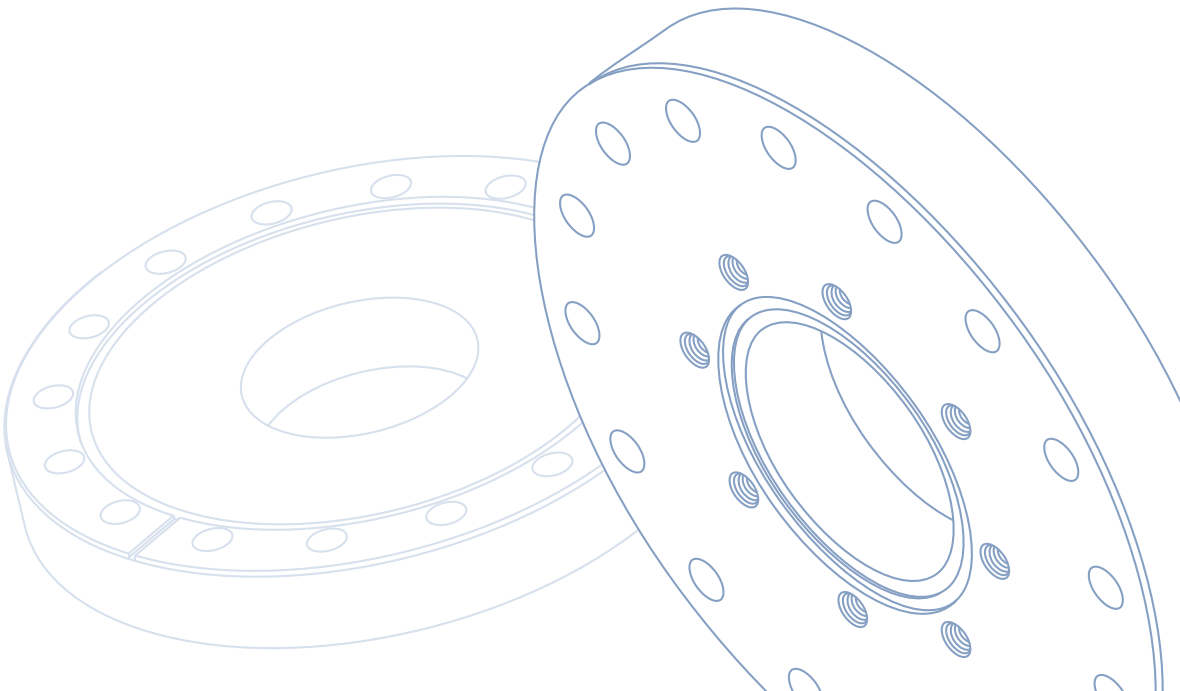
CONFIGURATION
38Z

CONTINUED

Part Number	Dimensions in Inches**					
	Large Flange Part Number	Small Flange Part Number	Lg. Flange Size	Sm. Flange Size	A	B
V*-38Z-C3MXC3G-FF	V*-38-C3M-FF	V*-38-C3G-FS	13.25	6.00	4.000	1.125
V*-38Z-C3MXC3H-FF	V*-38-C3M-FF	V*-38-C3H-FS	13.25	6.75	5.000	1.125
V*-38Z-C3MXC3J-FF	V*-38-C3M-FF	V*-38-C3J-FS	13.25	8.00	6.000	1.125
V*-38Z-C3MXC3K-FF	V*-38-C3M-FF	V*-38-C3K-FS	13.25	10.00	8.000	1.125

- * **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
- Mechanical Polished Finish:** VE = 304, VH = 304L, VG = 316L
- Electropolished Finish:** VK = 304 EP, VN = 304L EP, VM = 316L EP

** Millimeter dimensions on the following page



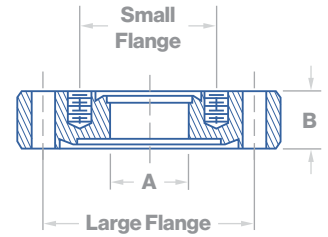


Valex
Vacuum
Components

CF Zero Length Reducer Flange

CONFIGURATION
38Z

Large Flange: Nonrotatable, Clearance Bolt Holes
Small Flange: Nonrotatable, Tapped Bolt Holes



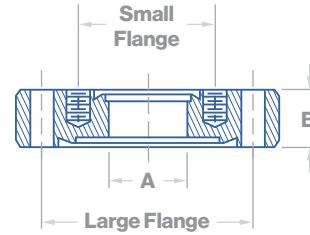
CF Flanges

Part Number	Dimensions in Millimeters**					
	Large Flange Part Number	Small Flange Part Number	Lg. Flange Size	Sm. Flange Size	A	B
V*-38Z-C3XC3A-FF	V*-38-C3C-FF	V*-38-C3A-FS	69.85	33.78	15.88	12.70
V*-38Z-C3DXC3A-FF	V*-38-C3D-FF	V*-38-C3A-FS	85.85	33.78	15.88	17.45
V*-38Z-C3EXC3A-FF	V*-38-C3E-FF	V*-38-C3A-FS	114.30	33.78	15.88	17.45
V*-38Z-C3EXC3B-FF	V*-38-C3E-FF	V*-38-C3B-FS	114.30	53.85	25.40	17.45
V*-38Z-C3EXC3C-FF	V*-38-C3E-FF	V*-38-C3C-FS	114.30	69.85	38.10	17.45
V*-38Z-C3FXC3A-FF	V*-38-C3F-FF	V*-38-C3A-FS	117.35	33.78	15.88	20.62
V*-38Z-C3FXC3B-FF	V*-38-C3F-FF	V*-38-C3B-FS	117.35	53.85	25.40	20.62
V*-38Z-C3FXC3C-FF	V*-38-C3F-FF	V*-38-C3C-FS	117.35	69.85	38.10	20.62
V*-38Z-C3FXC3D-FF	V*-38-C3F-FF	V*-38-C3D-FS	117.35	85.85	50.80	20.62
V*-38Z-C3GXC3A-FF	V*-38-C3G-FF	V*-38-C3A-FS	152.40	33.78	15.88	19.84
V*-38Z-C3GXC3B-FF	V*-38-C3G-FF	V*-38-C3B-FS	152.40	53.85	25.40	19.84
V*-38Z-C3GXC3C-FF	V*-38-C3G-FF	V*-38-C3C-FS	152.40	69.85	38.10	19.84
V*-38Z-C3GXC3D-FF	V*-38-C3G-FF	V*-38-C3D-FS	152.40	85.85	50.80	19.84
V*-38Z-C3GXC3E-FF	V*-38-C3G-FF	V*-38-C3E-FS	152.40	114.30	63.50	19.84
V*-38Z-C3HXC3A-FF	V*-38-C3H-FF	V*-38-C3A-FS	171.45	33.78	15.88	21.44
V*-38Z-C3HXC3B-FF	V*-38-C3H-FF	V*-38-C3B-FS	171.45	53.85	25.40	21.44
V*-38Z-C3HXC3C-FF	V*-38-C3H-FF	V*-38-C3C-FS	171.45	69.85	38.10	21.44
V*-38Z-C3HXC3D-FF	V*-38-C3H-FF	V*-38-C3D-FS	171.45	85.85	50.80	21.44
V*-38Z-C3HXC3E-FF	V*-38-C3H-FF	V*-38-C3E-FS	171.45	114.30	63.50	21.44
V*-38Z-C3HXC3F-FF	V*-38-C3H-FF	V*-38-C3F-FS	171.45	117.35	76.20	21.44
V*-38Z-C3JXC3A-FF	V*-38-C3J-FF	V*-38-C3A-FS	203.20	33.78	15.88	22.23
V*-38Z-C3JXC3B-FF	V*-38-C3J-FF	V*-38-C3B-FS	203.20	53.85	25.40	22.23
V*-38Z-C3JXC3C-FF	V*-38-C3J-FF	V*-38-C3C-FS	203.20	69.85	38.10	22.23
V*-38Z-C3JXC3D-FF	V*-38-C3J-FF	V*-38-C3D-FS	203.20	85.85	50.80	22.23
V*-38Z-C3JXC3E-FF	V*-38-C3J-FF	V*-38-C3E-FS	203.20	114.30	63.50	22.23
V*-38Z-C3JXC3F-FF	V*-38-C3J-FF	V*-38-C3F-FS	203.20	117.35	76.20	22.23
V*-38Z-C3JXC3G-FF	V*-38-C3J-FF	V*-38-C3G-FS	203.20	152.40	101.60	22.23
V*-38Z-C3KXC3A-FF	V*-38-C3K-FF	V*-38-C3A-FS	254.00	85.85	15.88	24.59
V*-38Z-C3KXC3B-FF	V*-38-C3K-FF	V*-38-C3B-FS	254.00	53.85	25.40	24.59
V*-38Z-C3KXC3C-FF	V*-38-C3K-FF	V*-38-C3C-FS	254.00	69.85	38.10	24.59
V*-38Z-C3KXC3D-FF	V*-38-C3K-FF	V*-38-C3D-FS	254.00	85.85	50.80	24.59
V*-38Z-C3KXC3E-FF	V*-38-C3K-FF	V*-38-C3E-FS	254.00	114.30	63.50	24.59
V*-38Z-C3KXC3F-FF	V*-38-C3K-FF	V*-38-C3F-FS	254.00	117.35	76.20	24.59
V*-38Z-C3KXC3G-FF	V*-38-C3K-FF	V*-38-C3G-FS	254.00	152.40	101.60	24.59
V*-38Z-C3KXC3H-FF	V*-38-C3K-FF	V*-38-C3H-FS	254.00	69.85	127.00	24.59
V*-38Z-C3KXC3J-FF	V*-38-C3K-FF	V*-38-C3J-FS	254.00	203.20	152.40	24.59
V*-38Z-C3MXC3A-FF	V*-38-C3M-FF	V*-38-C3A-FS	336.55	85.85	15.88	28.58
V*-38Z-C3MXC3B-FF	V*-38-C3M-FF	V*-38-C3B-FS	336.55	53.85	25.40	28.58
V*-38Z-C3MXC3C-FF	V*-38-C3M-FF	V*-38-C3C-FS	336.55	69.85	38.10	28.58
V*-38Z-C3MXC3D-FF	V*-38-C3M-FF	V*-38-C3D-FS	336.55	85.85	50.80	28.58
V*-38Z-C3MXC3E-FF	V*-38-C3M-FF	V*-38-C3E-FS	336.55	114.30	63.50	28.58
V*-38Z-C3MXC3F-FF	V*-38-C3M-FF	V*-38-C3F-FS	336.55	117.35	76.20	28.58



CF Zero Length Reducer Flanges

Large Flange: Nonrotatable, Clearance Bolt Holes
Small Flange: Nonrotatable, Tapped Bolt Holes



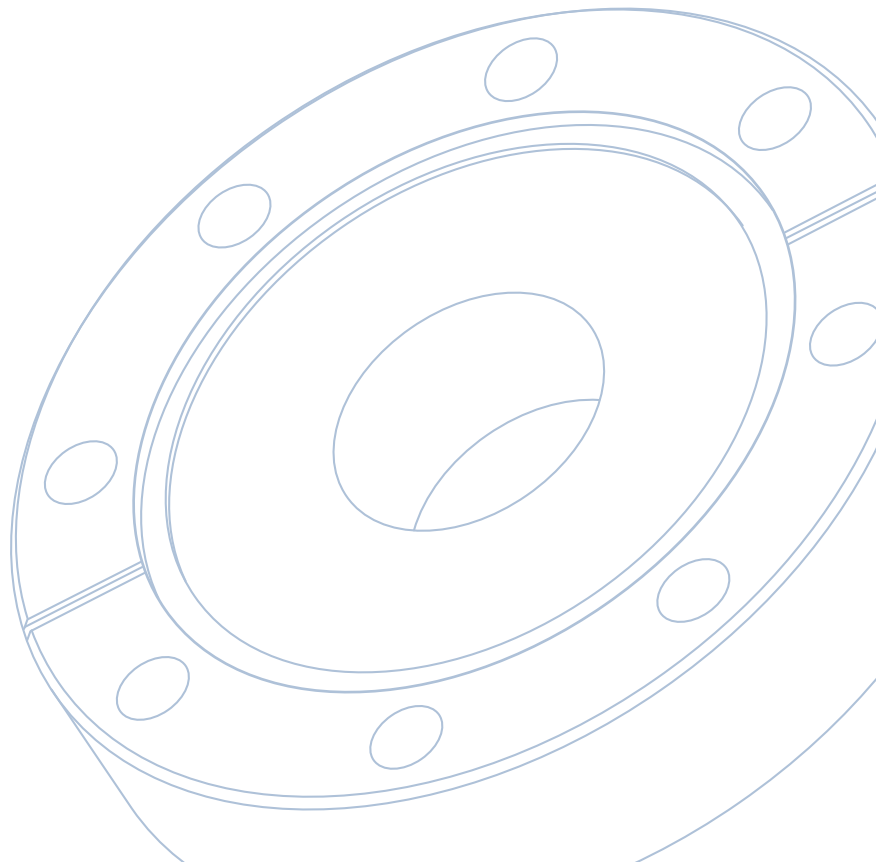
CONFIGURATION
38Z

CONTINUED

Part Number	Dimensions in Millimeters**					
	Large Flange Part Number	Small Flange Part Number	Lg. Flange Size	Sm. Flange Size	A	B
V*-38Z-C3MXC3G-FF	V*-38-C3M-FF	V*-38-C3G-FS	336.55	152.40	101.60	28.58
V*-38Z-C3MXC3H-FF	V*-38-C3M-FF	V*-38-C3H-FS	336.55	171.45	127.00	28.58
V*-38Z-C3MXC3J-FF	V*-38-C3M-FF	V*-38-C3J-FS	336.55	203.20	152.40	28.58
V*-38Z-C3MXC3K-FF	V*-38-C3M-FF	V*-38-C3K-FS	336.55	254.00	203.20	28.58

- * **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
- Mechanical Polished Finish:** VE = 304, VH = 304L, VG = 316L
- Electropolished Finish:** VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the previous pages





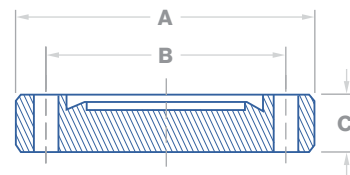
Valex
Vacuum
Components

CF
Flanges



CF Blank Flange

Nonrotatable, Clearance Bolt Holes



Part Number	Dimensions in Inches					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3A-FF	1.33	1.330	1.062	.300	6	.172
V*-38-C3B-FF	2.12	2.120	1.625	.469	4	.265
V*-38-C3C-FF	2.75	2.730	2.312	.500	6	.265
V*-38-C3D-FF	3.38	3.360	2.850	.687	8	.332
V*-38-C3E-FF	4.50	4.470	3.628	.687	8	.332
V*-38-C3F-FF	4.62	4.610	4.030	.812	10	.332
V*-38-C3G-FF	6.00	5.970	5.128	.781	16	.332
V*-38-C3H-FF	6.75	6.730	5.969	.844	18	.332
V*-38-C3J-FF	8.00	7.970	7.128	.937	20	.332
V*-38-C3K-FF	10.00	9.970	9.128	.968	24	.332
V*-38-C3L-FF	12.00	12.000	11.181	1.125	32	.332
V*-38-C3M-FF	13.25	13.250	12.055	1.125	30	.390
V*-38-C3N-FF	14.00	14.000	12.810	1.125	30	.390
V*-38-C3Q-FF	16.50	16.500	15.310	1.125	36	.390

Part Number	Dimensions in Millimeters					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3A-FF	33.78	33.78	26.98	7.62	6	4.37
V*-38-C3B-FF	53.85	53.85	41.28	11.91	4	6.73
V*-38-C3C-FF	69.85	69.34	58.73	12.70	6	6.73
V*-38-C3D-FF	85.85	85.34	72.39	17.45	8	8.43
V*-38-C3E-FF	114.30	113.54	92.15	17.45	8	8.43
V*-38-C3F-FF	117.35	117.09	102.36	20.62	10	8.43
V*-38-C3G-FF	152.40	151.64	130.25	19.84	16	8.43
V*-38-C3H-FF	171.45	170.94	151.61	21.44	18	8.43
V*-38-C3J-FF	203.20	202.44	181.05	22.71	20	8.43
V*-38-C3K-FF	254.00	253.24	231.85	24.59	24	8.43
V*-38-C3L-FF	304.80	304.80	284.00	28.58	32	8.43
V*-38-C3M-FF	336.55	336.55	306.20	28.58	30	9.91
V*-38-C3N-FF	355.60	355.60	325.37	28.58	30	9.91
V*-38-C3Q-FF	419.10	419.10	388.87	28.58	36	9.91

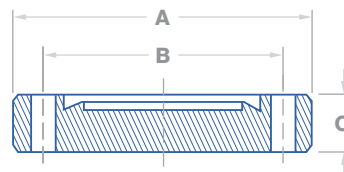
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
38
Use With
70
& **72**

CF Blank Flange

Nonrotatable, Tapped Bolt Holes



CF Flanges

Part Number	Dimensions in Inches					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3A-FS	1.33	1.330	1.062	.300	6	8-32
V*-38-C3B-FS	2.12	2.120	1.625	.469	4	1/4-28
V*-38-C3C-FS	2.75	2.730	2.312	.500	6	1/4-28
V*-38-C3D-FS	3.38	3.360	2.850	.687	8	5/16-24
V*-38-C3E-FS	4.50	4.470	3.628	.687	8	5/16-24
V*-38-C3F-FS	4.62	4.610	4.030	.812	10	5/16-24
V*-38-C3G-FS	6.00	5.970	5.128	.781	16	5/16-24
V*-38-C3H-FS	6.75	6.730	5.969	.844	18	5/16-24
V*-38-C3J-FS	8.00	7.970	7.128	.937	20	5/16-24
V*-38-C3K-FS	10.00	9.970	9.128	.968	24	5/16-24
V*-38-C3L-FS	12.00	12.000	11.181	1.125	32	5/16-24
V*-38-C3M-FS	13.25	13.250	12.055	1.125	30	3/8-24
V*-38-C3N-FS	14.00	14.000	12.810	1.125	30	3/8-24
V*-38-C3Q-FS	16.50	16.500	15.310	1.125	36	3/8-24

Part Number	Dimensions in Millimeters					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3A-FS	33.78	33.78	26.98	7.62	6	8-32
V*-38-C3B-FS	53.85	53.85	41.28	11.91	4	1/4-28
V*-38-C3C-FS	69.85	69.34	58.73	12.70	6	1/4-28
V*-38-C3D-FS	85.85	85.34	72.39	17.45	8	5/16-24
V*-38-C3E-FS	114.30	113.54	92.15	17.45	8	5/16-24
V*-38-C3F-FS	117.35	117.09	102.36	20.62	10	5/16-24
V*-38-C3G-FS	152.40	151.64	130.25	19.84	16	5/16-24
V*-38-C3H-FS	171.45	170.94	151.61	21.44	18	5/16-24
V*-38-C3J-FS	203.20	202.44	181.05	22.71	20	5/16-24
V*-38-C3K-FS	254.00	253.24	231.85	24.59	24	5/16-24
V*-38-C3L-FS	304.80	304.80	284.00	28.58	32	5/16-24
V*-38-C3M-FS	336.55	336.55	306.20	28.58	30	3/8-24
V*-38-C3N-FS	355.60	355.60	325.37	28.58	30	3/8-24
V*-38-C3Q-FS	419.10	419.10	388.87	28.58	36	3/8-24

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



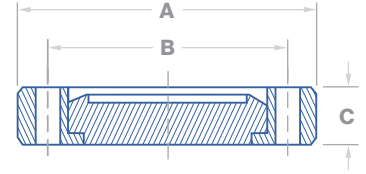
Valex
Vacuum
Components

CF Flanges

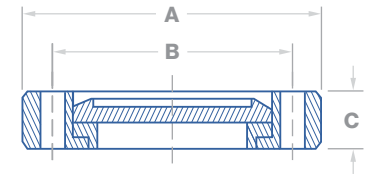


CF Blank Flange

Rotatable, Clearance Bolt Holes



Part Number	Dimensions in Inches**					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3A-FR	1.33	1.330	1.062	.300	6	0.172



Part Number	Dimensions in Inches**					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3B-FR	2.12	2.120	1.625	.469	4	.265
V*-38-C3C-FR	2.75	2.730	2.312	.500	6	.265
V*-38-C3D-FR	3.38	3.360	2.850	.687	8	.332
V*-38-C3E-FR	4.50	4.470	3.628	.750	8	.332
V*-38-C3F-FR	4.62	4.610	4.030	.812	10	.332
V*-38-C3G-FR	6.00	5.970	5.128	.844	16	.332
V*-38-C3H-FR	6.75	6.730	5.969	.844	18	.332
V*-38-C3J-FR	8.00	7.970	7.128	.937	20	.332
V*-38-C3K-FR	10.00	9.970	9.128	.968	24	.332
V*-38-C3L-FR	12.00	12.000	11.181	1.125	32	.332
V*-38-C3M-FR	13.25	13.250	12.055	1.125	30	.390
V*-38-C3N-FR	14.00	14.000	12.810	1.125	30	.390
V*-38-C3Q-FR	16.50	16.500	15.310	1.125	36	.390

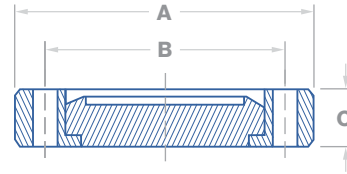
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Millimeter dimensions on the following page

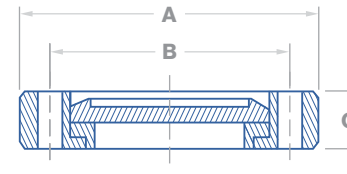


CF Blank Flange

Rotatable, Clearance Bolt Holes



Part Number	Dimensions in Millimeters**					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3A-FR	33.78	33.78	26.98	7.62	6	4.369



Part Number	Dimensions in Millimeters**					
	Flange Size	A	B	C	Bolt Holes	Diameter
V*-38-C3B-FR	53.85	53.85	41.28	11.91	4	6.73
V*-38-C3C-FR	69.85	69.34	58.73	12.70	6	6.73
V*-38-C3D-FR	85.85	85.34	72.39	17.45	8	8.43
V*-38-C3E-FR	114.30	113.54	92.15	19.05	8	8.43
V*-38-C3F-FR	117.35	117.09	102.36	20.62	10	8.43
V*-38-C3G-FR	152.40	151.64	130.25	21.44	16	8.43
V*-38-C3H-FR	171.45	170.94	151.61	21.44	18	8.43
V*-38-C3J-FR	203.20	202.44	181.05	22.71	20	8.43
V*-38-C3K-FR	254.00	253.24	231.85	24.59	24	8.43
V*-38-C3L-FR	304.80	304.80	284.00	28.58	32	8.43
V*-38-C3M-FR	336.55	336.55	306.20	28.58	30	9.91
V*-38-C3N-FR	355.60	355.60	325.37	28.58	30	9.91
V*-38-C3Q-FR	419.10	419.10	388.87	28.58	36	9.91

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the previous page



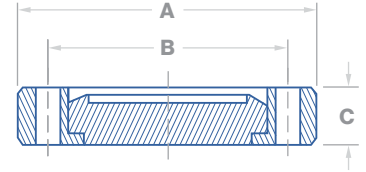
Valex
Vacuum
Components

CF Flanges

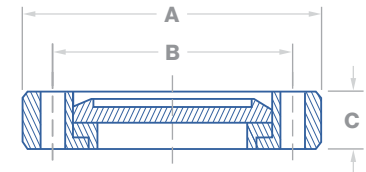


CF Blank Flange

Rotatable, Tapped Bolt Holes



Part Number	Dimensions in Inches**					
	Flange Size	A	B	C	Bolt Holes	Threads
V*-38-C3A-FS	1.33	1.330	1.062	.300	6	8-32



Part Number	Dimensions in Inches**					
	Flange Size	A	B	C	Bolt Holes	Threads
V*-38-C3B-FS	2.12	2.120	1.625	.469	4	1/4-28
V*-38-C3C-FS	2.75	2.730	2.312	.500	6	1/4-28
V*-38-C3D-FS	3.38	3.360	2.850	.687	8	5/16-24
V*-38-C3E-FS	4.50	4.470	3.628	.750	8	5/16-24
V*-38-C3F-FS	4.62	4.610	4.030	.812	10	5/16-24
V*-38-C3G-FS	6.00	5.970	5.128	.844	16	5/16-24
V*-38-C3H-FS	6.75	6.730	5.969	.844	18	5/16-24
V*-38-C3J-FS	8.00	7.970	7.128	.937	20	5/16-24
V*-38-C3K-FS	10.00	9.970	9.128	.968	24	5/16-24
V*-38-C3L-FS	12.00	12.000	11.181	1.125	32	5/16-24
V*-38-C3M-FS	13.25	13.250	12.055	1.125	30	3/8-24
V*-38-C3N-FS	14.00	14.000	12.810	1.125	30	3/8-24
V*-38-C3Q-FS	16.50	16.500	15.310	1.125	36	3/8-24

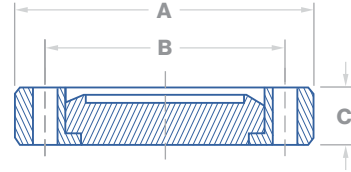
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Millimeter dimensions on the following page

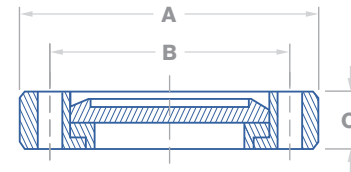


CF Blank Flange

Rotatable, Tapped Bolt Holes



Part Number	Dimensions in Millimeters**					
	Flange Size	A	B	C	Bolt Holes	Threads
V*-38-C3A-FS	33.78	33.78	26.98	7.62	6	8-32



Part Number	Dimensions in Millimeters**					
	Flange Size	A	B	C	Bolt Holes	Threads
V*-38-C3B-FS	53.85	53.85	41.28	11.91	4	1/4-28
V*-38-C3C-FS	69.85	69.34	58.73	12.70	6	1/4-28
V*-38-C3D-FS	85.85	85.34	72.39	17.45	8	5/16-24
V*-38-C3E-FS	114.30	113.54	92.15	19.05	8	5/16-24
V*-38-C3F-FS	117.35	117.09	102.36	20.62	10	5/16-24
V*-38-C3G-FS	152.40	151.64	130.25	21.44	16	5/16-24
V*-38-C3H-FS	171.45	170.94	151.61	21.44	18	5/16-24
V*-38-C3J-FS	203.20	202.44	181.05	22.71	20	5/16-24
V*-38-C3K-FS	254.00	253.24	231.85	24.59	24	5/16-24
V*-38-C3L-FS	304.80	304.80	284.00	28.58	32	5/16-24
V*-38-C3M-FS	336.55	336.55	306.20	28.58	30	3/8-24
V*-38-C3N-FS	355.60	355.60	325.37	28.58	30	3/8-24
V*-38-C3Q-FS	419.10	419.10	388.87	28.58	36	3/8-24

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

** Inch dimensions on the following page



Valex

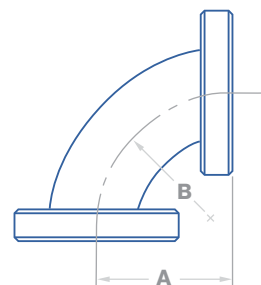
Vacuum
Components

CF Elbows

CONFIGURATION
2T

CF 90° Elbow

No Tangent, Rotatable Flanges



Part Number	Dimensions in Inches			
	Flange Size	Tube O.D.	A	B
V*-2T-C3A-TG	1.33	3/4"	1.50	1.00
V*-2T-C3B-TG	2.12	1"	1.67	1.50
V*-2T-C3C-TG	2.75	1-1/2"	2.46	2.25
V*-2T-C3D-TG	3.38	2"	3.22	3.00
V*-2T-C3E-TG	4.50	2-1/2"	4.12	3.75
V*-2T-C3F-TG	4.62	3"	4.78	4.50
V*-2T-C3G-TG	6.00	4"	6.44	6.00
V*-2T-C3J-TG	8.00	6"	9.50	9.00
V*-2T-C3K-TG	10.00	8"	12.50	12.00
V*-2T-C3M-TG	13.25	10"	15.50	15.00

Part Number	Dimensions in Millimeters			
	Flange Size	Tube O.D.	A	B
V*-2T-C3A-TG	33.78	19.05	38.10	25.40
V*-2T-C3B-TG	52.85	25.40	42.42	38.10
V*-2T-C3C-TG	69.85	38.10	62.48	57.15
V*-2T-C3D-TG	85.85	50.80	81.79	76.20
V*-2T-C3E-TG	114.30	63.50	104.65	95.25
V*-2T-C3F-TG	117.35	76.20	121.41	114.30
V*-2T-C3G-TG	152.40	101.60	163.58	152.40
V*-2T-C3J-TG	203.20	152.40	241.30	228.60
V*-2T-C3K-TG	254.00	203.20	317.50	304.80
V*-2T-C3M-TG	336.55	254.00	393.70	381.00

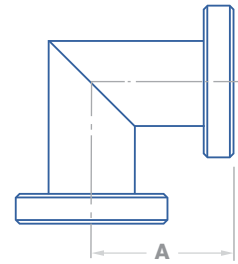
* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Valex
Vacuum
Components

CF 90°

Mitered Elbow
Rotatable Flanges



CONFIGURATION
2M

CF Elbows

Part Number	Dimensions in Inches		
	Flange Size	Tube O.D.	A
V*-2M-C3A-TG	1.33	3/4"	1.50
V*-2M-C3B-TG	2.12	1"	2.05
V*-2M-C3C-TG	2.75	1-1/2"	2.46
V*-2M-C3D-TG	3.38	2"	3.22
V*-2M-C3E-TG	4.50	2-1/2"	3.38
V*-2X-C3E-TG	4.50	2-1/2"	4.12
V*-2M-C3F-TG	4.62	3"	3.53
V*-2M-C3G-TG	6.00	4"	4.32
V*-2X-C3G-TG	6.00	4"	5.31
V*-2M-C3H-TG	6.75	5"	4.71
V*-2M-C3J-TG	8.00	6"	5.50
V*-2X-C3J-TG	8.00	6"	6.56
V*-2M-C3K-TG	10.00	8"	7.50
V*-2M-C3M-TG	13.25	10"	10.00

Part Number	Dimensions in Millimeters		
	Flange Size	Tube O.D.	A
V*-2M-C3A-TG	33.78	19.05	38.10
V*-2M-C3B-TG	53.85	25.40	52.07
V*-2M-C3C-TG	69.85	38.10	62.48
V*-2M-C3D-TG	85.85	50.80	81.79
V*-2M-C3E-TG	114.30	63.50	85.85
V*-2X-C3E-TG	114.30	63.50	104.65
V*-2M-C3F-TG	117.35	76.20	89.66
V*-2M-C3G-TG	152.40	101.60	109.73
V*-2X-C3G-TG	152.40	101.60	134.87
V*-2M-C3H-TG	171.45	127.00	119.63
V*-2M-C3J-TG	203.20	152.40	139.70
V*-2X-C3J-TG	203.20	152.40	166.62
V*-2M-C3K-TG	254.00	203.20	190.50
V*-2M-C3M-TG	336.55	254.00	254.00

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



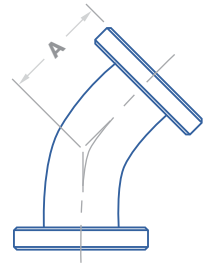
Valex

Vacuum
Components

CF Elbows



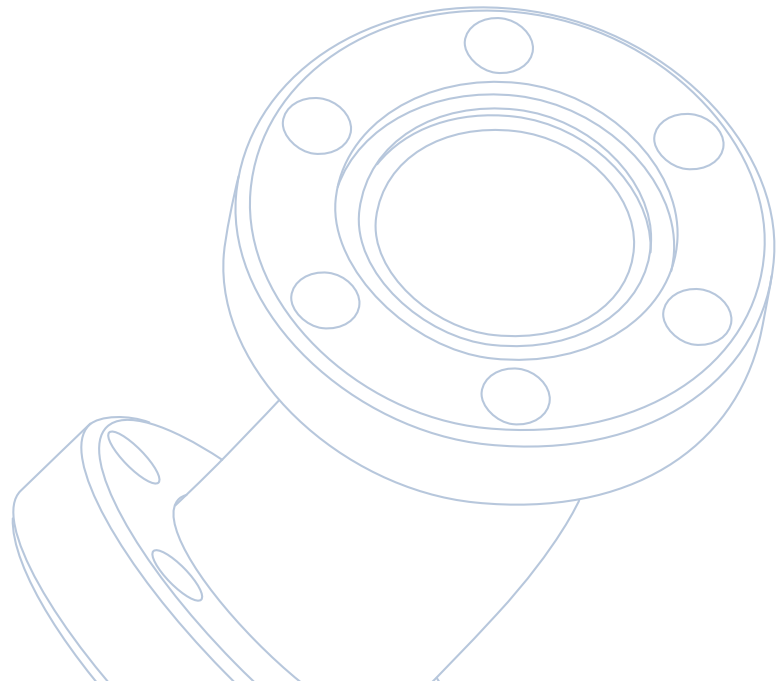
CF 45° Elbow With Tangent, Rotatable Flanges



Part Number	Dimensions in Inches		
	Flange Size	Tube O.D.	A
V*-2K-C3A-TG	1.33	3/4"	.94
V*-2K-C3B-TG	2.12	1"	1.14
V*-2K-C3C-TG	2.75	1-1/2"	1.74
V*-2K-C3D-TG	3.38	2"	2.07
V*-2K-C3E-TG	4.50	2-1/2"	3.37
V*-2K-C3F-TG	4.62	3"	3.96
V*-2K-C3G-TG	6.00	4"	5.22

Part Number	Dimensions in Millimeters		
	Flange Size	Tube O.D.	A
V*-2K-C3A-TG	33.78	19.05	23.88
V*-2K-C3B-TG	53.85	25.40	28.96
V*-2K-C3C-TG	69.85	38.10	44.20
V*-2K-C3D-TG	85.85	50.80	52.58
V*-2K-C3E-TG	114.30	63.50	85.60
V*-2K-C3F-TG	117.35	76.20	100.58
V*-2K-C3G-TG	152.40	101.60	132.59

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

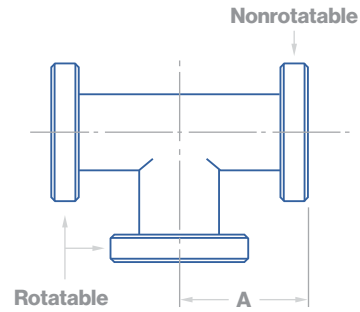




CONFIGURATION
7

CF Equal Tee

Nonrotatable, Rotatable Flanges



Part Number	Dimensions in Inches		
	Flange Size	Tube O.D.	A
V*-7-C3A-TB	1.33	3/4"	1.50
V*-7-C3B-TB	2.12	1"	2.05
V*-7-C3C-TB	2.75	1-1/2"	2.46
V*-7-C3D-TB	3.38	2"	3.22
V*-7-C3E-TB	4.50	2-1/2"	3.38
V*-7L-C3E-TB	4.50	2-1/2"	4.12
V*-7-C3F-TB	4.62	3"	3.53
V*-7-C3G-TB	6.00	4"	4.32
V*-7L-C3G-TB	6.00	4"	5.31
V*-7-C3H-TB	6.75	5"	4.71
V*-7-C3J-TB	8.00	6"	5.50
V*-7L-C3J-TB	8.00	6"	6.56
V*-7-C3K-TB	10.00	8"	7.50
V*-7-C3M-TB	13.25	10"	10.00

Part Number	Dimensions in Millimeters		
	Flange Size	Tube O.D.	A
V*-7-C3A-TB	33.78	19.05	38.10
V*-7-C3B-TB	53.85	25.40	52.07
V*-7-C3C-TB	69.85	38.10	62.48
V*-7-C3D-TB	85.85	50.80	81.79
V*-7-C3E-TB	114.30	63.50	85.85
V*-7L-C3E-TB	114.30	63.50	104.65
V*-7-C3F-TB	117.35	76.20	89.66
V*-7-C3G-TB	152.40	101.60	109.73
V*-7L-C2GTB	152.40	101.60	134.87
V*-7-C3H-TB	171.45	127.00	119.63
V*-7-C3J-TB	203.20	152.40	139.70
V*-7L-C3J-TB	203.20	152.40	166.62
V*-7-C3K-TB	254.00	203.20	190.50
V*-7-C3M-TB	336.55	254.00	254.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Valex

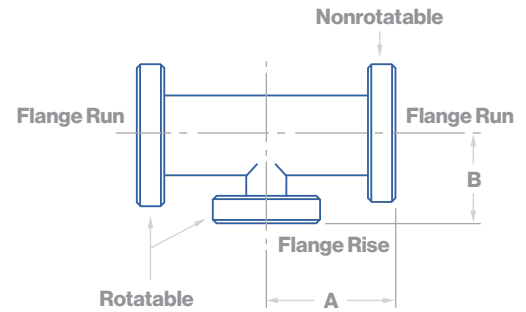
Vacuum Components

CF Tees



CF Reducing Tee

Nonrotatable, Rotatable Flanges



Part Number	Dimensions in Inches					
	Flange Run (Rotatable)		Flange Rise (Nonrotatable)		A	B
	Flange Size	Tube O.D.	Flange O.D.	Tube O.D.		
V*-7R-C3CXC3A-TB	2.75	1-1/2"	1.33	3/4"	2.46	1.87
V*-7R-C3CXC3B-TB	2.75	1-1/2"	2.12	1"	2.46	2.29
V*-7R-C3DXC3A-TB	3.38	2"	1.33	3/4"	3.22	2.13
V*-7R-C3DXC3C-TB	3.38	2"	2.75	1-1/2"	3.22	2.71
V*-7R-C3EXC3C-TB	4.50	2-1/2"	2.75	1-1/2"	3.38	2.96
V*-7R-C3EXC3D-TB	4.50	2-1/2"	3.38	2"	3.38	3.48
V*-7R-C3FXC3D-TB	4.62	3"	3.38	2"	3.53	3.73
V*-7R-C3FXC3E-TB	4.62	3"	4.50	2-1/2"	3.53	3.63
V*-7R-C3GXC3C-TB	6.00	4"	2.75	1-1/2"	4.32	3.71
V*-7R-C3GXC3D-TB	6.00	4"	3.38	2"	4.32	4.23
V*-7R-C3GXC3E-TB	6.00	4"	4.50	2-1/2"	4.32	4.13
V*-7R-C3GXC3F-TB	6.00	4"	4.62	3"	4.32	4.03
V*-7R-C3HXC3G-TB	6.75	5"	6.00	4"	4.71	4.82
V*-7R-C3JXC3C-TB	8.00	6"	2.75	1-1/2"	5.50	4.71
V*-7R-C3JXC3D-TB	8.00	6"	3.38	2"	5.50	5.23
V*-7R-C3JXC3E-TB	8.00	6"	4.50	2-1/2"	5.50	5.13
V*-7R-C3JXC3G-TB	8.00	6"	6.00	4"	5.50	5.32
V*-7R-C3KXC3G-TB	10.00	8"	8.00	6"	7.50	6.50

Part Number	Dimensions in Millimeters					
	Flange 1 & 2 (Rotatable)		Flange 3 (Nonrotatable)		A	B
	Flange Size	Tube O.D.	Flange O.D.	Tube O.D.		
V*-7R-C3CXC3A-TB	69.85	38.10	33.78	19.05	62.48	47.50
V*-7R-C3CXC3B-TB	69.85	38.10	53.85	25.40	62.48	58.17
V*-7R-C3DXC3A-TB	85.85	50.80	33.78	19.05	81.79	54.10
V*-7R-C3DXC3C-TB	85.85	50.80	69.85	38.10	81.79	68.83
V*-7R-C3EXC3C-TB	114.30	63.50	69.85	38.10	85.85	75.18
V*-7R-C3EXC3D-TB	114.30	63.50	85.85	50.80	85.85	88.39
V*-7R-C3FXC3D-TB	117.35	76.20	85.85	50.80	89.66	94.74
V*-7R-C3FXC3E-TB	117.35	76.20	114.30	63.50	89.66	92.20
V*-7R-C3GXC3C-TB	152.40	101.60	69.85	38.10	109.73	94.23
V*-7R-C3GXC3D-TB	152.40	101.60	85.85	50.80	109.73	107.44
V*-7R-C3GXC3E-TB	152.40	101.60	114.30	63.50	109.73	104.90
V*-7R-C3GXC3F-TB	152.40	101.60	117.35	76.20	109.73	102.36
V*-7R-C3HXC3G-TB	171.45	127.00	152.40	101.60	119.63	122.43
V*-7R-C3JXC3C-TB	203.20	152.40	69.85	38.10	139.70	119.63
V*-7R-C3JXC3D-TB	203.20	152.40	85.85	50.80	139.70	132.84
V*-7R-C3JXC3E-TB	203.20	152.40	114.30	63.50	139.70	130.30
V*-7R-C3JXC3G-TB	203.20	152.40	152.40	101.60	139.70	135.13
V*-7R-C3KXC3G-TB	254.00	203.20	203.20	152.40	190.50	165.10

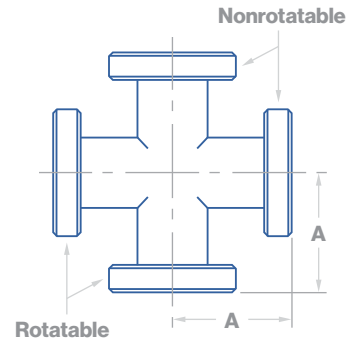
* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
9

CF 4-Way Cross

Nonrotatable, Rotatable Flanges



Part Number	Dimensions in Inches		
	Flange Size	Tube O.D.	A
V*-9-C3A-TC	1.33	3/4"	1.50
V*-9-C3B-TC	2.12	1"	2.05
V*-9-C3C-TC	2.75	1-1/2"	2.46
V*-9-C3D-TC	3.38	2"	3.22
V*-9-C3E-TC	4.50	2-1/2"	3.38
V*-9L-C3E-TC	4.50	2-1/2"	4.12
V*-9-C3F-TC	4.62	3"	3.53
V*-9-C3G-TC	6.00	4"	4.32
V*-9L-C3G-TC	6.00	4"	5.31
V*-9-C3H-TC	6.75	5"	4.71
V*-9-C3J-TC	8.00	6"	5.50
V*-9L-C3J-TC	8.00	6"	6.56
V*-9-C3K-TC	10.00	8"	7.50
V*-9-C3M-TC	13.25	10"	10.00

Part Number	Dimensions in Millimeters		
	Flange Size	Tube O.D.	A
V*-9-C3A-TC	33.78	19.05	38.10
V*-9-C3B-TC	53.85	25.40	52.07
V*-9-C3C-TC	69.85	38.10	62.48
V*-9-C3D-TC	85.85	50.80	81.79
V*-9-C3E-TC	114.30	63.50	85.85
V*-9L-C3E-TC	114.30	63.50	104.65
V*-9-C3F-TC	117.35	76.20	89.66
V*-9-C3G-TC	152.40	101.60	109.73
V*-9L-C3G-TC	152.40	101.60	134.87
V*-9-C3H-TC	171.45	127.00	119.63
V*-9-C3J-TC	203.20	152.40	139.70
V*-9L-C3J-TC	203.20	152.40	166.62
V*-9-C3K-TC	254.00	203.20	190.50
V*-9-C3M-TC	336.55	254.00	254.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



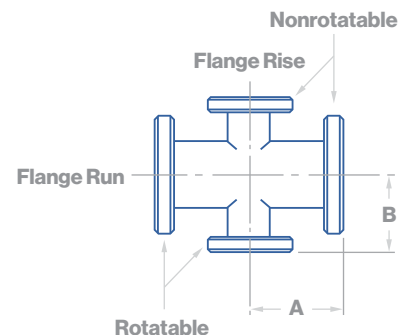
Valex
Vacuum
Components

CF
Crosses

CF 4-Way Reducing Cross

Nonrotatable, Rotatable Flanges

CONFIGURATION
9R



Part Number	Dimensions in Inches					
	Flange Run		Flange Rise		A	B
	Flange Size	Tube O.D.	Flange Size	Tube O.D.		
V*-9R-C3CXC3A-TC	2.75	1-1/2"	1.33	3/4"	2.46	1.87
V*-9R-C3CXC3B-TC	2.75	1-1/2"	2.12	1"	2.46	2.29
V*-9R-C3DXC3A-TC	3.38	2"	1.33	3/4"	3.22	2.13
V*-9R-C3DXC3C-TC	3.38	2"	2.75	1-1/2"	3.22	2.71
V*-9R-C3EXC3C-TC	4.50	2-1/2"	2.75	1-1/2"	3.38	2.96
V*-9R-C3EXC3D-TC	4.50	2-1/2"	3.38	2"	3.38	3.48
V*-9R-C3FXC3D-TC	4.62	3"	3.38	2"	3.53	3.73
V*-9R-C3FXC3E-TC	4.62	3"	4.50	2-1/2"	3.53	3.63
V*-9R-C3GXC3C-TC	6.00	4"	2.75	1-1/2"	4.32	3.71
V*-9R-C3GXC3D-TC	6.00	4"	3.38	2"	4.32	4.23
V*-9R-C3GXC3E-TC	6.00	4"	4.50	2-1/2"	4.32	4.13
V*-9R-C3GXC3F-TC	6.00	4"	4.62	3"	4.32	4.03
V*-9R-C3HXC3G-TC	6.75	5"	6.00	4"	4.71	4.82
V*-9R-C3JXC3C-TC	8.00	6"	2.75	1-1/2"	5.50	4.71
V*-9R-C3JXC3D-TC	8.00	6"	3.38	2"	5.50	5.23
V*-9R-C3JXC3E-TC	8.00	6"	4.50	2-1/2"	5.50	5.13
V*-9R-C3JXC3G-TC	8.00	6"	6.00	4"	5.50	5.32
V*-9R-C3KXC3J-TC	10.00	6"	8.00	6"	7.50	6.50

Part Number	Dimensions in Millimeters					
	Flange Run		Flange Rise		A	B
	Flange Size	Tube O.D.	Flange Size	Tube O.D.		
V*-9R-C3CXC3A-TC	69.85	38.10	33.78	19.05	62.48	47.50
V*-9R-C3CXC3B-TC	69.85	38.10	53.85	25.40	62.48	58.17
V*-9R-C3DXC3A-TC	85.85	50.80	33.78	19.05	81.79	54.10
V*-9R-C3DXC3C-TC	85.85	50.80	69.85	38.10	81.79	68.83
V*-9R-C3EXC3C-TC	114.30	63.50	69.85	38.10	85.85	75.18
V*-9R-C3EXC3D-TC	114.30	63.50	85.85	50.80	85.85	88.39
V*-9R-C3FXC3D-TC	117.35	76.20	85.85	50.80	89.66	94.74
V*-9R-C3FXC3E-TC	117.35	76.20	114.30	63.50	89.66	92.20
V*-9R-C3GXC3C-TC	152.40	101.60	69.85	38.10	109.73	94.23
V*-9R-C3GXC3D-TC	152.40	101.60	85.85	50.80	109.73	107.44
V*-9R-C3GXC3E-TC	152.40	101.60	114.30	63.50	109.73	104.90
V*-9R-C3GXC3F-TC	152.40	101.60	117.35	76.20	109.73	102.36
V*-9R-C3HXC3G-TC	171.45	127.00	152.40	101.60	119.63	122.43
V*-9R-C3JXC3C-TC	203.20	152.40	69.85	38.10	139.70	119.63
V*-9R-C3JXC3D-TC	203.20	152.40	85.85	50.80	139.70	132.84
V*-9R-C3JXC3E-TC	203.20	152.40	114.30	63.50	139.70	130.30
V*-9R-C3JXC3G-TC	203.20	152.40	152.40	101.60	139.70	135.13
V*-9R-C3KXC3J-TC	254.00	152.40	203.20	152.40	190.50	165.10

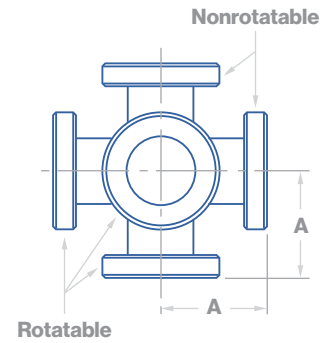
* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
9F

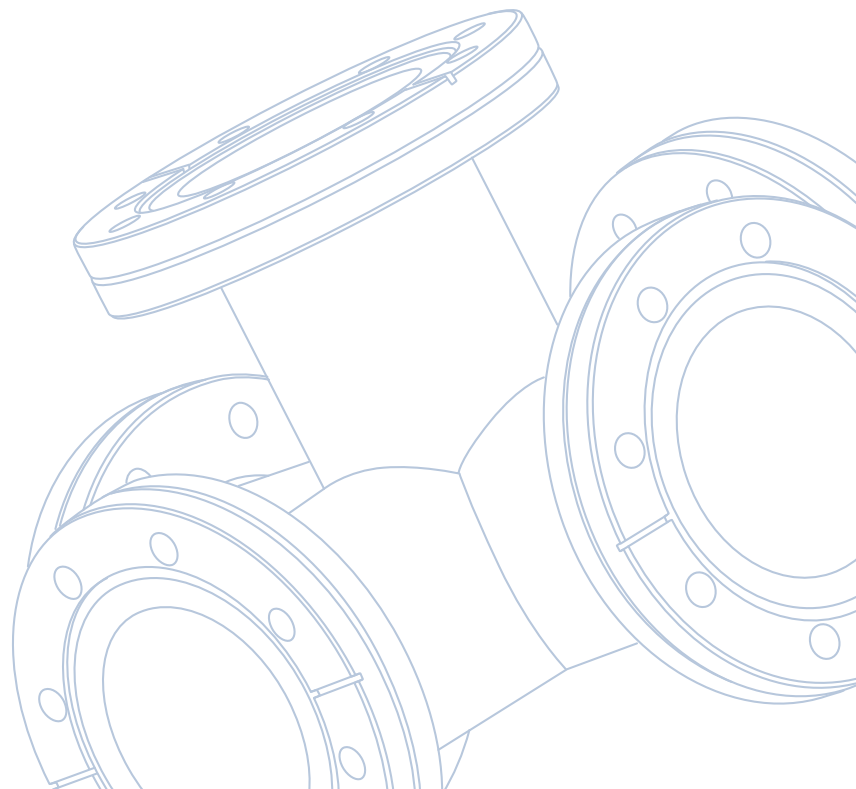
CF 5-Way Cross

Nonrotatable, Rotatable Flanges



Part Number	Dimensions in Inches & Millimeters					
	Flange Size		Tube O.D.		A	
	inch	mm	inch	mm	inch	mm
V*-9F-C3A-TD	1.33	33.78	3/4"	19.05	1.50	38.10
V*-9F-C3B-TD	2.12	53.85	1"	25.40	2.05	52.07
V*-9F-C3C-TD	2.75	69.85	1-1/2"	38.10	2.46	62.48
V*-9F-C3D-TD	3.38	85.85	2"	50.80	3.22	81.79
V*-9F-C3E-TD	4.50	114.30	2-1/2"	63.50	3.38	85.85
V*-9E-C3E-TD	4.50	114.30	2-1/2"	63.50	4.12	104.65
V*-9F-C3F-TD	4.62	117.35	3"	76.20	3.53	89.66
V*-9F-C3G-TD	6.00	152.40	4"	101.60	4.32	109.73
V*-9E-C3G-TD	6.00	152.40	4"	101.60	5.31	134.87
V*-9F-C3H-TD	6.75	171.45	5"	127.00	4.71	119.63
V*-9F-C3J-TD	8.00	203.20	6"	152.40	5.50	139.70
V*-9E-C3J-TD	8.00	203.20	6"	152.40	6.56	166.62
V*-9F-C3K-TD	10.00	254.00	8"	203.20	7.50	190.50
V*-9F-C3M-TD	13.25	336.55	10"	254.00	10.00	254.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





Valex

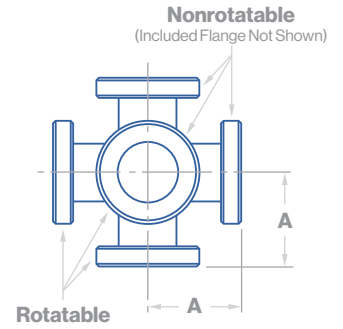
Vacuum
Components

CF
Crosses



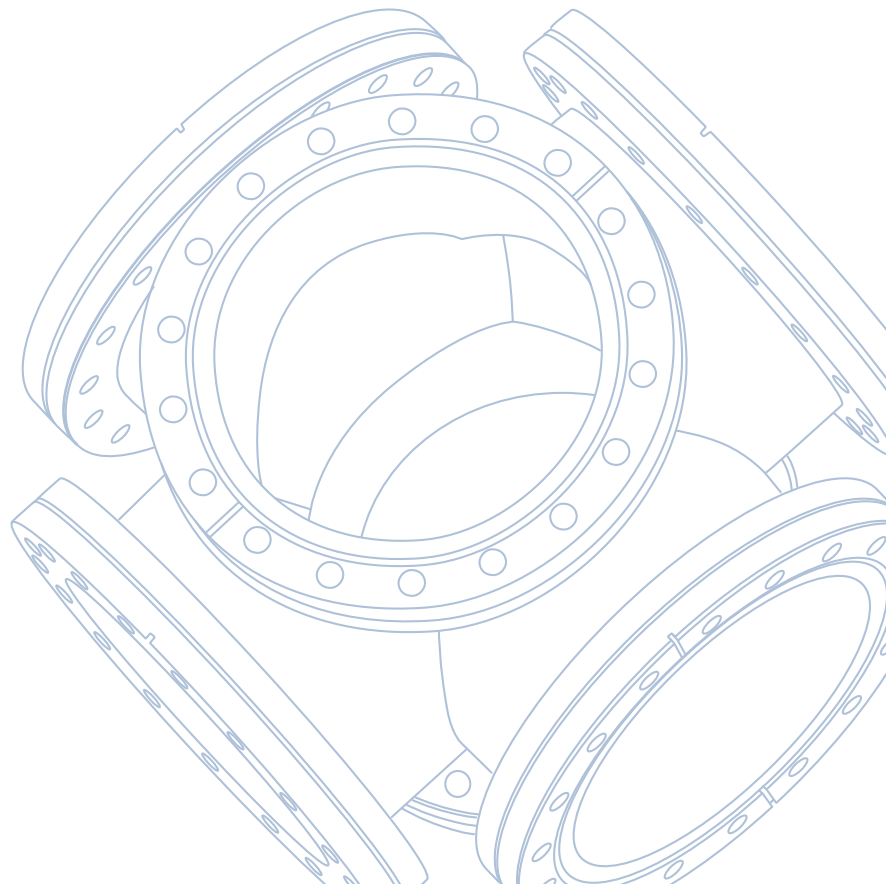
CF 6-Way Cross

Nonrotatable, Rotatable Flanges



Part Number	Dimensions in Inches & Millimeters					
	Flange Size		Tube O.D.		A	
	inch	mm	inch	mm	inch	mm
V*-9S-C3A-TE	1.33	33.78	3/4"	19.05	1.50	38.10
V*-9S-C3B-TE	2.12	53.85	1"	25.40	2.05	52.07
V*-9S-C3C-TE	2.75	69.85	1-1/2"	38.10	2.46	62.48
V*-9S-C3D-TE	3.38	85.85	2"	50.80	3.22	81.79
V*-9S-C3E-TE	4.50	114.30	2-1/2"	63.50	3.38	85.85
V*-9T-C3E-TE	4.50	114.30	2-1/2"	63.50	4.12	104.65
V*-9S-C2F-TE	4.62	117.35	3"	76.20	3.53	89.66
V*-9S-C2G-TE	6.00	152.40	4"	101.60	4.32	109.73
V*-9T-C2G-TE	6.00	152.40	4"	101.60	5.31	134.87
V*-9S-C2H-TE	6.75	171.45	5"	127.00	4.71	119.63
V*-9S-C2J-TE	8.00	203.20	6"	152.40	5.50	139.70
V*-9T-C2J-TE	8.00	203.20	6"	152.40	6.56	116.62
V*-9S-C2K-TE	10.00	254.00	8"	203.20	7.50	109.50
V*-9S-C2M-TE	13.25	336.55	10"	254.00	10.00	254.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

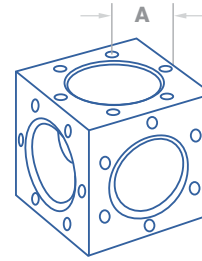




Valex
Vacuum
Components

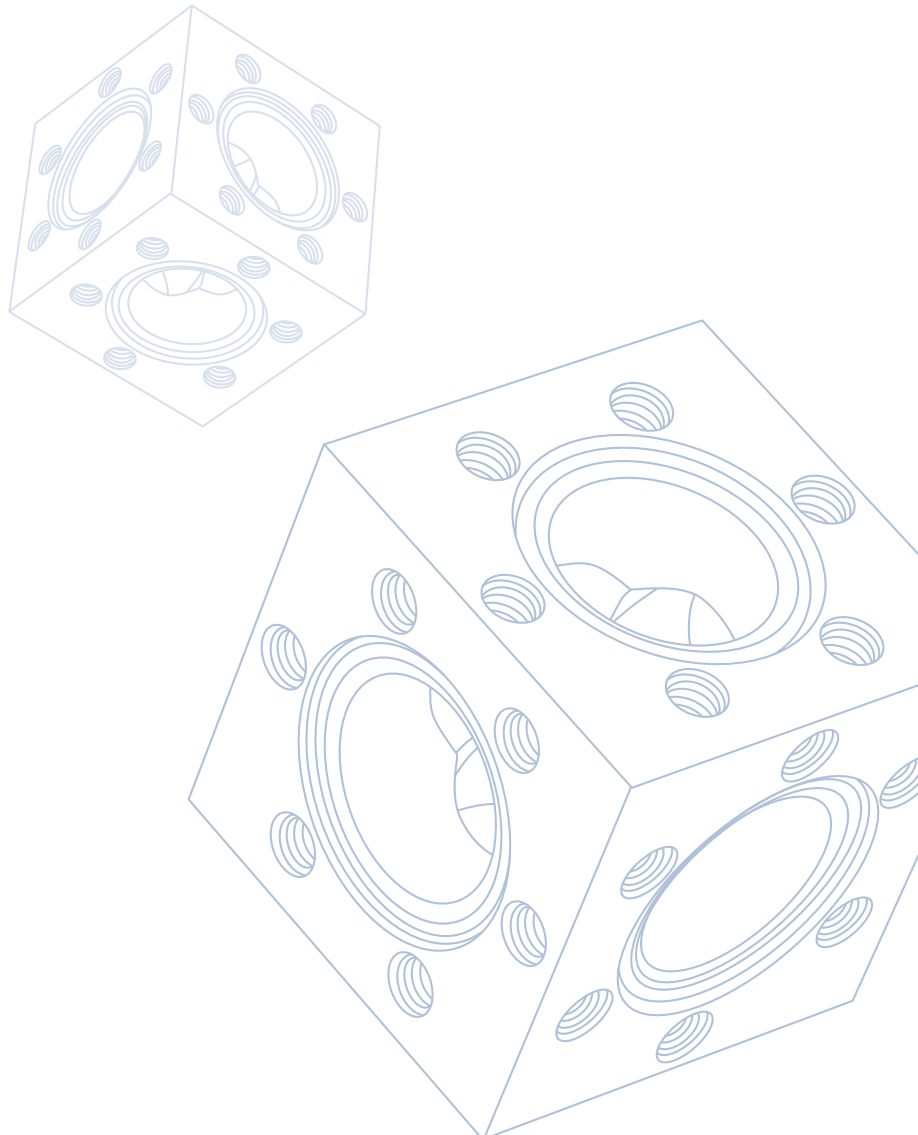
CONFIGURATION
9C

CF 6-Way Cube Cross



Part Number	Dimensions in Inches & Millimeters			
	Nominal Flange Size		A	
	inch	mm	inch	mm
V*-9C-C3A	1.33	33.78	.67	17.02
V*-9C-C3C	2.75	69.85	1.37	34.80
V*-9C-C3E	4.50	114.30	2.24	56.90
V*-9C-C3G	6.00	152.40	2.98	75.69
V*-9C-C3J	8.00	203.20	3.98	101.09

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CF
Cubes



Valex

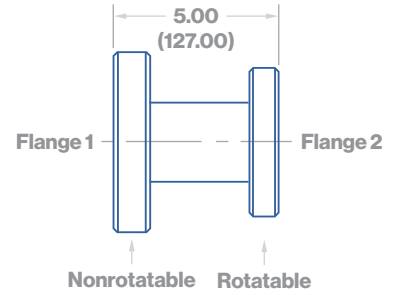
Vacuum Components

CF Reducers

CONFIGURATION
31L

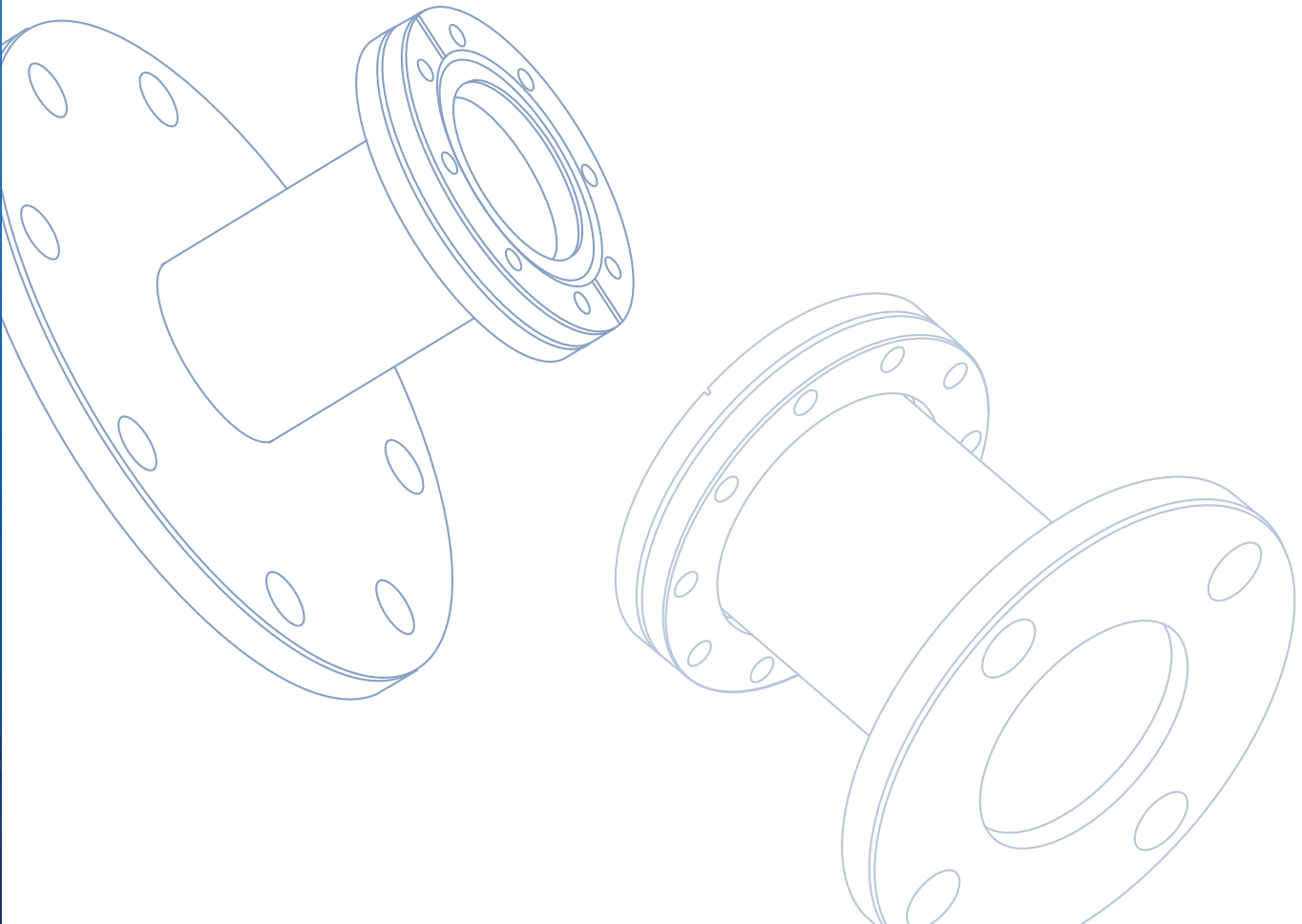
CF Straight Reducer

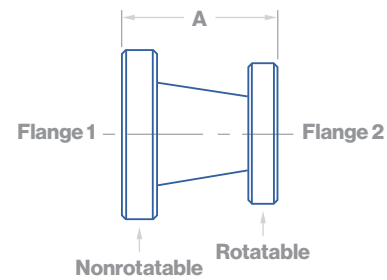
Nonrotatable x Rotatable



Part Number	Dimensions in Millimeters					
	Flange 1		Flange 2		Tube O.D.	
	inch	mm	inch	mm	inch	mm
V*-31L-C3GXC3C-TA	6.00	152.40	2.75	69.85	1.50	38.10
V*31L-C3JXC3C-TA	8.00	203.20	2.75	69.85	1.50	38.10
V*-31L-C3JXC3E-TA	8.00	203.20	4.50	114.30	2.50	63.50
V*-31L-C3JXC3G-TA	8.00	203.20	6.00	152.40	4.00	101.60
V*-31L-C3KXC3C-TA	10.00	254.00	2.75	69.85	1.50	38.10
V*-31L-C3KXC3E-TA	10.00	254.00	4.50	114.30	2.50	63.50
V*-31L-C3KXC3G-TA	10.00	254.00	6.00	152.40	4.00	101.60
V*-31L-C3KXC3J-TA	10.00	254.00	8.00	203.20	6.00	152.40
V*-31L-C3MXC3K-TA	13.25	336.55	10.00	254.00	8.00	203.20
V*-31L-C3NXC3L-TA	14.00	355.60	12.00	304.80	10.00	254.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP





CONFIGURATION
31

CF Conical Reducer

Nonrotatable x Rotatable

Part Number	Dimensions in Inches				
	Flange 1		Flange 2		A
	Flange Size	Tube O.D.	Flange Size	Tube O.D.	
V*-31-C3BXC3A-TA	2.12	1"	1.33	3/4"	2.04
V*-31-C3CXC3A-TA	2.75	1-1/2"	1.33	3/4"	3.08
V*-31-C3CXC3B-TA	2.75	1-1/2"	2.12	1"	2.75
V*-31-C3DXC3B-TA	3.38	2"	2.12	1"	2.77
V*-31-C3DXC3C-TA	3.38	2"	2.75	1-1/2"	2.81
V*-31-C3EXC3C-TA	4.50	2-1/2"	2.75	1-1/2"	2.96
V*-31-C3EXC3D-TA	4.50	2-1/2"	3.38	2"	2.98
V*-31-C3FXC3C-TA	4.62	3"	2.75	1-1/2"	4.12
V*-31-C3FXC3D-TA	4.62	3"	3.38	2"	4.13
V*-31-C3FXC3E-TA	4.62	3"	4.50	2-1/2"	4.28
V*-31-C3GXC3D-TA	6.00	4"	3.38	2"	4.29
V*-31-C3GXC3E-TA	6.00	4"	4.50	2-1/2"	4.44
V*-31-C3GXC3F-TA	6.00	4"	4.62	3"	4.34

Part Number	Dimensions in Millimeters				
	Flange 1		Flange 2		A
	Flange Size	Tube O.D.	Flange Size	Tube O.D.	
V*-31-C3BXC3A-TA	53.85	25.40	33.78	19.05	51.82
V*-31-C3CXC3A-TA	69.85	38.10	33.78	19.05	78.23
V*-31-C3CXC3B-TA	69.85	38.10	53.85	25.40	69.85
V*-31-C3DXC3B-TA	85.85	50.80	53.85	25.40	70.36
V*-31-C3DXC3C-TA	85.85	50.80	69.85	38.10	71.37
V*-31-C3EXC3C-TA	114.30	63.50	69.85	38.10	75.18
V*-31-C3EXC3D-TA	114.30	63.50	85.85	50.80	75.69
V*-31-C3FXC3C-TA	117.35	76.20	69.85	38.10	104.65
V*-31-C3FXC3D-TA	117.35	76.20	85.85	50.80	104.90
V*-31-C3FXC3E-TA	117.35	76.20	114.30	63.50	108.71
V*-31-C3GXC3D-TA	152.40	101.60	85.85	50.80	108.97
V*-31-C3GXC3E-TA	152.40	101.60	114.30	63.50	112.78
V*-31-C3GXC3F-TA	152.40	101.60	117.35	76.20	110.24

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



Valex

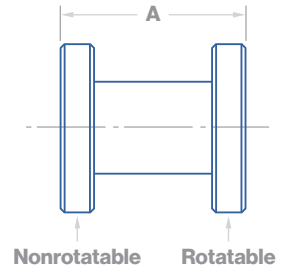
Vacuum
Components

CF
Nipples

CONFIGURATION
6F

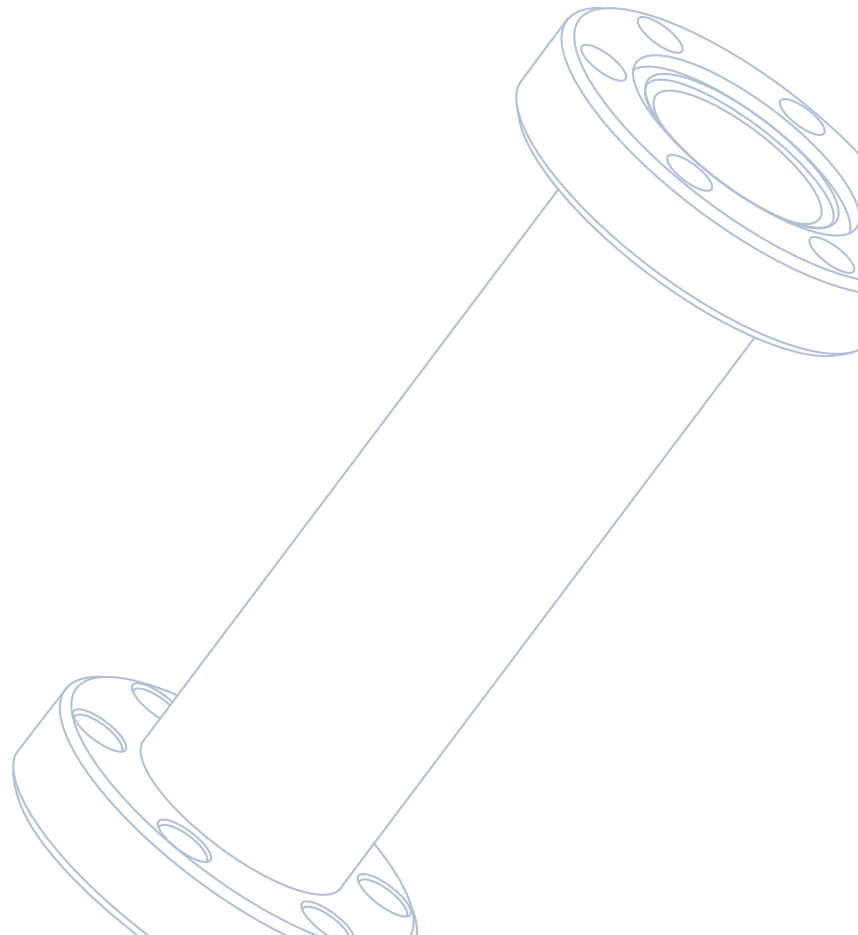
CF Full Nipple

Nonrotatable x Rotatable



Part Number	Dimensions in Inches & Millimeters					
	Flange Size		Tube O.D.		A	
	inch	mm	inch	mm	inch	mm
V*-6F-C3A-TA	1.33	33.78	3/4"	19.05	3.00	76.20
V*-6F-C3B-TA	2.12	53.85	1"	25.40	4.10	104.14
V*-6F-C3C-TA	2.75	69.85	1-1/2"	38.10	4.92	124.97
V*-6F-C3D-TA	3.38	85.85	2"	50.80	6.44	163.58
V*-6F-C3E-TA	4.50	114.30	2-1/2"	63.50	6.76	171.70
V*-6E-C3E-TA	4.50	114.30	2-1/2"	63.50	8.24	209.30
V*-6F-C3F-TA	4.62	117.35	3"	76.20	7.06	179.32
V*-6F-C3G-TA	6.00	152.40	4"	101.60	8.64	219.46
V*-6E-C3G-TA	6.00	152.40	4"	101.60	10.62	269.75
V*-6F-C3J-TA	8.00	203.20	6"	152.40	11.00	279.40
V*-6E-C3J-TA	8.00	203.20	6"	152.40	13.12	333.25
V*-6F-C3K-TA	10.00	254.00	8"	203.20	15.00	381.00
V*-6F-C3M-TA	13.25	336.55	10"	254.00	20.00	508.00
V*-6F-C3N-TA	14.00	355.60	12"	304.80	20.00	508.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

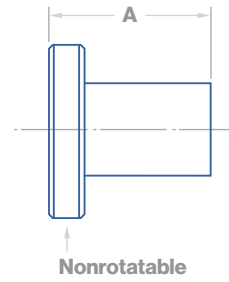




CONFIGURATION
6H

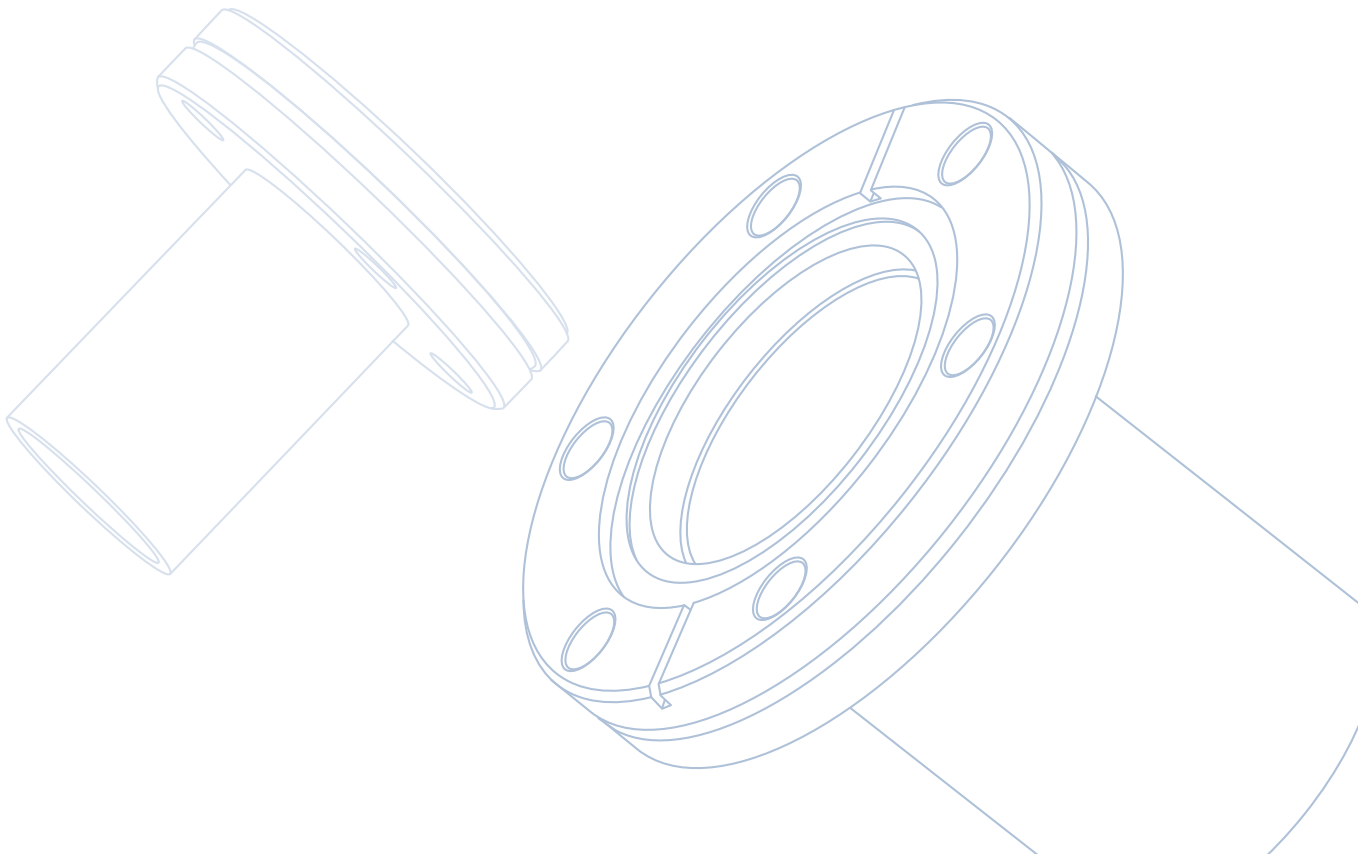
CF Half Nipple

Nonrotatable



Part Number	Dimensions in Inches & Millimeters					
	Flange Size		Tube O.D.		A	
	inch	mm	inch	mm	inch	mm
V*-6H-C3AXW-TF	1.33	33.78	3/4"	19.05	1.50	38.10
V*-6H-C3B-TF	2.12	53.85	1"	25.40	2.05	52.07
V*-6H-C3C-TF	2.75	69.85	1-1/2"	38.10	2.46	62.48
V*-6H-C3D-TF	3.38	85.85	2"	50.80	3.22	81.79
V*-6H-C3E-TF	4.50	114.30	2-1/2"	63.50	3.38	85.85
V*-6HE-C3E-TF	4.50	114.30	2-1/2"	63.50	4.12	104.65
V*-6H-C3F-TF	4.62	117.35	3"	76.20	3.53	89.66
V*-6H-C3G-TF	6.00	152.40	4"	101.60	4.32	109.73
V*-6HE-C3G-TF	6.00	152.40	4"	101.60	5.31	134.87
V*-6H-C3J-TF	8.00	203.20	6"	152.40	5.50	139.70
V*-6HE-C3J-TF	8.00	203.20	6"	152.40	6.56	166.62
V*-6H-C3K-TF	10.00	254.00	8"	203.20	7.50	190.50
V*-6H-C3M-TF	13.25	336.55	10"	254.00	10.00	254.00
V*-6H-C3N-TF	14.00	355.60	12"	304.80	10.00	254.00

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



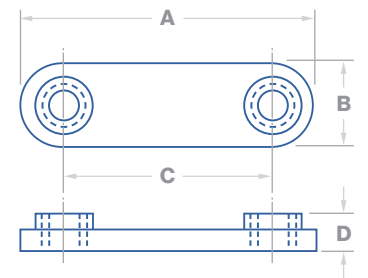
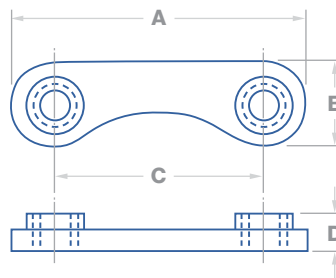


Valex
Vacuum
Components

CF Plate Nuts

Plate nut for 1-1/3" and 2-3/4" flanges

Plate nut for flanges larger than 2-3/4"



CF
Plate Nut

Part Number	Dimensions in Inches					
	Flange Size	Thread Size	A	B	C	D
V0-70P-C3A-PSX	1.33	8-32	.80	.30	.53	.15
V0-70P-C3C-PSX	2.75	1/4-28	1.59	.50	1.15	.18
V0-70P-C3C-PMX	2.75	M6	1.59	.50	1.15	.18
V0-70P-C3D-PSX	3.38	5/16-24	1.75	.50	1.09	.22
V0-70P-C3E-PSX	4.50	5/16-24	2.03	.50	1.39	.22
V0-70P-C3E-PMX	4.50	M8	2.03	.50	1.39	.22
V0-70P-C3F-PSX	4.62	5/16-24	1.75	.50	1.25	.22
V0-70P-C3G-PSX	6	5/16-24	1.75	.50	1.00	.22
V0-70P-C3G-PMX	6	M8	1.75	.50	1.00	.22
V0-70P-C3J-PSX	8	5/16-24	1.75	.50	1.12	.22
V0-70P-C3J-PMX	8	M8	1.75	.50	1.12	.22
V0-70P-C3K-PSX	10	5/16-24	1.75	.50	1.19	.22

Part Number	Dimensions in Millimeters					
	Flange Size	Thread Size	A	B	C	D
V0-70P-C3A-PSX	33.78	8-32	20.32	7.62	13.46	3.81
V0-70P-C3C-PSX	69.85	1/4-28	40.39	12.70	29.21	4.57
V0-70P-C3C-PMX	69.85	M6	40.39	12.70	29.21	4.57
V0-70P-C3D-PSX	85.85	5/16-24	44.45	12.70	27.69	5.59
V0-70P-C3E-PSX	114.30	5/16-24	51.56	12.70	35.31	5.59
V0-70P-C3E-PMX	114.30	M8	51.56	12.70	35.31	5.59
V0-70P-C3F-PSX	117.35	5/16-24	44.45	12.70	31.75	5.59
V0-70P-C3G-PSX	152.40	5/16-24	44.45	12.70	25.40	5.59
V0-70P-C3G-PMX	152.40	M8	44.45	12.70	25.40	5.59
V0-70P-C3J-PSX	203.20	5/16-24	44.45	12.70	28.45	5.59
V0-70P-C3J-PMX	203.20	M8	44.45	12.70	28.45	5.59
V0-70P-C3K-PSX	254.00	5/16-24	44.45	12.70	30.23	5.59

* Use with hardware: 70Q, 70R & 70T



CF Plate Nut Hardware
Plate Nuts & Bolts

Part Number	Description					
	Flange Size		Plate Nuts		Bolts	
	inch	mm	Quantity	Quantity	Length	Size
V0-70Q-C3A-PTA	1.33	33.78	12	24	3/4"	8-32 x 3/4"



CF Plate Nut Hardware

Plate Nuts, Bolts & Washers

Part Number	Dimensions in Inches & Millimeters				
	Flange O.D.		Plate Nut Quantity	Stainless Steel Bolts & Washers	
	inch	mm		Quantity	Size
V0-70R-C3A-P*B	1.33	33.78	12	24	8-32 x 3/4"
V0-70R-C3C-P*B	2.75	69.85	12	24	1/4"-28 X 1-1/4"
V0-70R-C3D-P*B	3.38	85.85	16	32	5/16"-24 X 1-3/4"
V0-70R-C3E-P*B	4.50	114.30	16	32	5/16"-24 X 2"
V0-70R-C3F-P*B	4.62	117.35	20	40	5/16"-24 X 2-1/4"
V0-70R-C3G-P*B	6.00	152.40	16	32	5/16"-24 X 2-1/4"
V0-70R-C3J-P*B	8.00	203.20	20	40	5/16"-24 X 2-1/4"
V0-70R-C3K-P*B	10.00	254.00	24	48	5/16"-24 X 2-1/2"

* Thread: T = Inch, 10-8SS (Bolts), U = Inch, 10-8SS, Silver-Plated (Bolts), V = Metric, 10-8SS (Bolts), W = Metric, 10-8SS, Silver-Plated (Bolts)



CF 12-Point Plate Nut Hardware

Plate Nuts, 12-Point Bolts & Washers

Part Number	Description				
	Flange Size		Plate Nuts	Bolts	
	inch	mm	Quantity	Quantity	Size
V0-70T-C3C-PTA	2.75"	69.85	12	24	1/4"-28 x 1-1/4"
V0-70T-C3D-PTA	3.38"	85.85	16	32	5/16"-24 x 1-3/4"
V0-70T-C3E-PTA	4.50"	114.30	16	32	5/16"-24 x 2"
V0-70T-C3F-PTA	4.62"	117.35	20	40	5/16"-24 x 2-1/4"
V0-70T-C3G-PTA	6.00"	152.40	16	32	5/16"-24 x 2-1/4"
V0-70T-C3J-PTA	8.00"	203.20	20	40	5/16"-24 x 2-1/4"
V0-70T-C3K-PTA	10.00"	254.00	24	48	5/16"-24 x 2-1/4"



CF Bolt & Washer Hardware

Part Number		Description			
Stainless Steel	Silver Plated Stainless Steel	Flange Size		Quantity	Bolt Size
		inch	mm		
V0-70-C3A-XTA	V0-70-C3A-XUA	1.33	33.78	25	8-32 x .56"
V0-70-C3B-XTA		2.12	53.85	25	1/4"-28 x 7/8"
V0-70-C3C-XTA		2.75	69.85	25	1/4"-28 x 1"
V0-70-C3D-XTA		3.38	85.85	25	5/16"-24 x 1-1/4"
V0-70-C3E-XTA		4.50	114.30	25	5/16"-24 x 1-1/4"
V0-70-C3F-XTA		4.62	117.35	25	5/16"-24 x 1-1/4"
V0-70-C3G-XTA		6.00	152.40	25	5/16"-24 x 1-1/4"
V0-70-C3H-XTA		6.75	171.45	25	5/16"-24 x 1-1/2"
V0-70-C3J-XTA		8.00	203.20	25	5/16"-24 x 1-3/4"
V0-70-C3K-XTA		10.00	254.00	25	5/16"-24 x 1-3/4"
V0-70-C3L-XTA		12.00	304.80	32	5/16"-24 x 1-3/4"
V0-70-C3M-XTA		13.25	336.55	30	3/8"-24 x 2"
V0-70-C3N-XTA		14.00	355.60	30	3/8"-24 x 2"
V0-70-C3Q-XTA		16.50	419.10	36	3/8"-24 x 2"



CF 12 Point Bolt & Washer Hardware

Part Number		Description			
Stainless Steel	Silver Plated Stainless Steel	Flange Size		Quantity	Bolt Size
		inch	mm		
V0-70C-C3B-XTA		2.12	53.85	25	1/4"-28 x 7/8"
V0-70C-C3C-XTA		2.75	69.85	25	1/4"-28 x 1"
	V0-70C-C3C-XUB	2.75	69.85	25	1/4"-28 x 7/8"
V0-70C-C3D-XTA	V0-70C-C3D-XUA	3.38	85.85	25	5/16"-24 x 1-1/4"
V0-70C-C3E-XTA	V0-70C-C3E-XUA	4.50	114.3	25	5/16"-24 x 1-1/4"
V0-70C-C3F-XTA		4.62	117.35	25	5/16"-24 x 1-1/4"
V0-70C-C3G-XTA	V0-70C-C3G-XUA	6.00	152.40	25	5/16"-24 x 1-1/4"
V0-70C-C3H-XTA		6.75	171.45	25	5/16"-24 x 1-3/4"
V0-70C-C3J-XTA	V0-70C-C3J-XUA	8.00	203.20	25	5/16"-24 x 1-3/4"
V0-70C-C3K-XTA	V0-70C-C3K-XUA	10.00	254.00	25	5/16"-24 x 1-3/4"



CF Bolt & Washer Hardware (Metric)

Part Number	Description			
	Flange Size		Quantity	Bolt Size
	inch	mm		
Stainless Steel				
V0-70-C3C-XVA	2.75	69.85	25	M6 x 1 x 25mm
V0-70-C3E-XVA	4.50	114.30	25	M8 x 1-1/4 x 35mm
V0-70-C3G-XVA	6.00	152.40	25	M8 x 1-1/4 x 35mm
V0-70-C3J-XVA	8.00	203.20	25	M8 x 1-1/4 x 45mm
V0-70-C3K-XVA	10.00	254.00	25	M8 x 1-1/4 x 45mm



CF Bolt, Nut & Washer Hardware

Part Number		Description			
Stainless Steel	Silver Plated Stainless Steel	Flange Size		Quantity	Bolt Size
		inch	mm		
V0-70B-C3A-XTA	V0-70B-C3A-XUA	1.33	33.78	25	8-32 x .75"
V0-70B-C3B-XTA		2.12	53.85	25	1/4"-28 x 1-1/4"
V0-70B-C3C-XTA		2.75	69.85	25	1/4"-28 x 1-1/4"
V0-70B-C3D-XTA		3.38	85.85	25	5/16"-24 x 1-3/4"
V0-70B-C3E-XTA		4.50	114.30	25	5/16"-24 x 2"
V0-70B-C3F-XTA		4.62	117.35	25	5/16"-24 x 2-1/4"
V0-70B-C3G-XTA		6.00	152.40	25	5/16"-24 x 2-1/4"
V0-70B-C3H-XTA		6.75	171.45	25	5/16"-24 x 2-1/4"
V0-70B-C3J-XTA		8.00	203.20	25	5/16"-24 x 2-1/4"
V0-70B-C3K-XTA		10.00	254.00	25	5/16"-24 x 2-1/2"
V0-70B-C3L-XTA		12.00	304.80	32	5/16"-24 x 3"
V0-70B-C3M-XTA		13.25	336.55	30	3/8"-24 x 3"
V0-70B-C3N-XTA		14.00	355.60	30	3/8"-24 x 3"
V0-70B-C3Q-XTA		16.50	419.10	36	3/8"-24 x 3"



Valex
Vacuum
Components

CF Hardware



CF 12 Point Bolt, Nut & Washer Hardware

Part Number		Description			
Stainless Steel	Silver Plated Stainless Steel	Flange Size		Quantity	Bolt Size
		inch	mm		
V0-70D-C3B-XTA		2.12	53.85	25	1/4"-28 x 1-1/4"
V0-70D-C3C-XTA	V0-70D-C3C-XUA	2.75	69.85	25	1/4"-28 x 1-1/4"
V0-70D-C3D-XTA	V0-70D-C3D-XUA	3.38	85.85	25	5/16"-24 x 1-3/4"
V0-70D-C3E-XTA	V0-70D-C3E-XUA	4.50	114.30	25	5/16"-24 x 2"
V0-70D-C3F-XTA		4.62	117.35	25	5/16"-24 x 2-1/4"
V0-70D-C3G-XTA	V0-70D-C3G-XUA	6.00	152.40	25	5/16"-24 x 2-1/4"
V0-70D-C3H-XTA		6.75	171.45	25	5/16"-24 x 2-1/4"
V0-70D-C3J-XTA	V0-70D-C3J-XUA	8.00	203.20	25	5/16"-24 x 2-1/4"
V0-70D-C3K-XTA	V0-70D-C3K-XUA	10.00	254.00	25	5/16"-24 x 2-1/2"



CF Gasket Hardware

(Copper or Silver Plated Copper)

Part Number		Description		
Copper Gaskets	Silver Plated Copper Gaskets	Flange Size		Quantity
		inch	mm	
V0-72G-C3A-G1	V0-72G-C3A-G2	1.33	33.78	10
V0-72G-C3B-G1		2.12	53.85	10
V0-72G-C3C-G1	V0-72G-C3C-G2	2.75	69.85	10
V0-72G-C3D-G1	V0-72G-C3D-G2	3.38	85.85	10
V0-72G-C3E-G1	V0-72G-C3E-G2	4.50	114.30	10
V0-72G-C3F-G1		4.62	117.35	10
V0-72G-C3G-G1	V0-72G-C3G-G2	6.00	152.40	10
V0-72G-C3H-G1		6.75	171.45	10
V0-72G-C3J-G1	V0-72G-C3J-G2	8.00	203.20	10
V0-72G-C3K-G1	V0-72G-C3K-G2	10.00	254.00	10
V0-72G-C3L-G1		12.00	304.80	1
V0-72G-C3M-G1		13.25	336.55	1
V0-72G-C3N-G1		14.00	355.60	1
V0-72G-C3Q-G1		16.50	419.10	1



CF Gasket Hardware

(PTFE)

Part Number	Description		
Part Number	Flange Size		Quantity
	inch	mm	
V0-72G-C3A-G3	1.33	33.78	5
V0-72G-C3B-G3	2.12	53.85	5
V0-72G-C3C-G3	2.75	69.85	5
V0-72G-C3D-G3	3.38	85.85	1
V0-72G-C3E-G3	4.50	114.30	1
V0-72G-C3F-G3	4.62	117.35	1
V0-72G-C3G-G3	6.00	152.40	1
V0-72G-C3H-G3	6.75	171.45	1
V0-72G-C3J-G3	8.00	203.20	1
V0-72G-C3K-G3	10.00	254.00	1
V0-72G-C3M-G3	13.25	336.55	1
V0-72G-C3N-G3	14.00	355.60	1
V0-72G-C3Q-G3	16.50	419.10	1



CF Gasket Double-Sided Hardware (Copper or Silver Plated Copper)

Part Number		Description		
Copper	Silver Plated Copper	Nominal O.D.		Quantity
		inch	mm	
V0-72G-C3A-G1	V0-72G-C3A-G2	1.33	33.78	10
V0-72G-C3B-G1	V0-72G-C3B-G2	2.12	53.85	10
V0-72G-C3C-G1	V0-72G-C3C-G2	2.75	69.85	10
V0-72G-C3D-G1	V0-72G-C3D-G2	3.38	85.85	10
V0-72G-C3E-G1	V0-72G-C3E-G2	4.50	114.30	10
V0-72G-C3F-G1	V0-72G-C3F-G2	4.62	117.35	10
V0-72G-C3G-G1	V0-72G-C3G-G2	6.00	152.40	10
V0-72G-C3H-G1	V0-72G-C3H-G2	6.75	171.45	10
V0-72G-C3J-G1	V0-72G-C3J-G2	8.00	203.20	10
V0-72G-C3K-G1	V0-72G-C3K-G2	10.00	254.00	10
V0-72G-C3M-G1	V0-72G-C3M-G2	13.25	336.55	1



CF Gasket Double-Sided Hardware (PTFE)

Part Number	Description		
	Nominal O.D.		Quantity
	inch	mm	
V0-72G-C3A-G3	1.33	33.78	5
V0-72G-C3B-G3	2.12	52.85	5
V0-72G-C3C-G3	2.75	69.85	5
V0-72G-C3D-G3	3.38	85.85	1
V0-72G-C3E-G3	4.50	114.30	1
V0-72G-C3F-G3	4.62	117.35	1
V0-72G-C3G-G3	6.00	152.40	1
V0-72G-C3H-G3	6.75	171.45	1
V0-72G-C3J-G3	8.00	203.20	1
V0-72G-C3K-G3	10.00	254.00	1
V0-72G-C3M-G3	13.25	336.55	1



CF Bolt, Nut & Washer Double-Sided Hardware

Part Number		Description			
Stainless Steel	Silver Plated Stainless Steel	Nominal O.D.		Quantity	Bolt Size
		inch	mm		
V0-70B-C3A-XTB	V0-70B-C3A-XUB	1.33	33.78	5	8-32 x 1-1/4"
V0-70B-C3B-XTB	V0-70B-C3B-XUB	2.12	53.85	25	1/4"-28 x 1-3/4"
V0-70B-C3C-XTB	V0-70B-C3C-XUB	2.75	69.85	25	1/4"-28 x 1-3/4"
V0-70B-C3D-XTB	V0-70B-C3D-XUB	3.38	85.85	25	5/16"-24 x 2-1/2"
V0-70B-C3E-XTB	V0-70B-C3E-XUB	4.50	114.30	25	5/16"-24 x 32-3/4"
V0-70B-C3F-XTB	V0-70B-C3F-XUB	4.62	117.35	25	5/16"-24 x 3"
V0-70B-C3G-XTB	V0-70B-C3G-XUB	6.00	152.40	25	5/16"-24 x 3"
V0-70B-C3H-XTB	V0-70B-C3H-XUB	6.75	171.45	25	5/16"-24 x 3"
V0-70B-C3J-XTB	V0-70B-C3J-XUB	8.00	203.20	25	5/16"-24 x 3"
V0-70B-C3K-XTB	V0-70B-C3K-XUB	10.00	254.00	25	5/16"-24 x 3-1/2"



CF Plate Nut Double-Sided Hardware

Plate Nuts, Bolts & Washers

Part Number		Description				
Stainless Steel	Silver Plated Stainless Steel	Nominal O.D.		Plate Nuts		Bolts
		inch	mm	Quantity	Size	Quantity
V0-70R-C3C-PTA	V0-70R-C3C-PUA	2.75"	69.85	6	1/4"-28 x 2"	12

Fittings Adapter

Specifications



Flange Material:
304, 304L, 316 & 316L

Sealing Material:
NW/ISO Flanges: Viton®, Buena-N®, EPDM or Kalrez
CF: OFE Copper
VCR: SS Metal Gasket

Clamp Styles:
NW: Wingnut or SS Clamp
ISO: Aluminim Claw or SS Claw Clamps, M10-1.50 thread & Bolts
CF: OFE Copper
VCR: SS Metal Gasket

Torque Value:
KF/ISO Bolts: 7-10 lbs-ft.

CF Bolts:		
Bolt Size	Fractional Size	Torque
.160-32 UNC	8-32	7 lb-ft
.250-28 UNF	1/4-28	12 lb-ft
.312-24 UNF	5/16-24	15 lb-ft

Vacuum Range:
1x10-13 Torr

	Temperature Range:		
	Minimum	Intermittent	Sustained

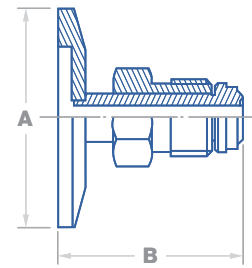
Viton®	-20°C	150°C	200°C
Buna-N®	-20°C	80°C	100°C

(Kalrez dependent on the compound)



CONFIGURATION
34V

NW / KF Face Seal Male Adapter



Part Number	Dimensions in Inches				
	Flange Size		Face Seal Size	A	B
	NW	inch			
V*-34V-N1BXZ04	16	3/4"	1/4"	1.180	1.460
V*-34V-N1BXZ08	16	3/4"	1/2"	1.180	1.650
V*-34V-N1CXZ04	25	1"	1/4"	1.575	1.460
V*-34V-N1CXZ08	25	1"	1/2"	1.575	1.650
V*-34V-N1DXZ04	40	1-1/2"	1/4"	2.160	1.460
V*-34V-N1DXZ08	40	1-1/2"	1/2"	2.160	1.650
V*-34V-N1EXZ04	50	2"	1/4"	2.950	1.460
V*-34V-N1EXZ08	50	2"	1/2"	2.950	1.650

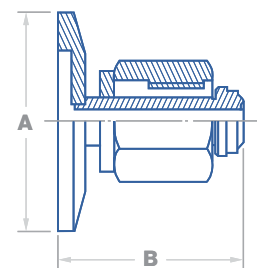
Part Number	Dimensions in Millimeters				
	Flange Size		Face Seal Size	A	B
	NW	mm			
V*-34V-N1BXZ04	16	19.05	6.35	29.97	37.08
V*-34V-N1BXZ08	16	19.05	12.70	29.97	41.91
V*-34V-N1CXZ04	25	25.40	6.35	40.01	37.08
V*-34V-N1CXZ08	25	25.40	12.70	40.01	41.91
V*-34V-N1DXZ04	40	38.10	6.35	54.86	37.08
V*-34V-N1DXZ08	40	38.10	12.70	54.86	41.91
V*-34V-N1EXZ04	50	50.80	6.35	74.93	37.08
V*-34V-N1EXZ08	50	50.80	12.70	74.93	41.91

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34A

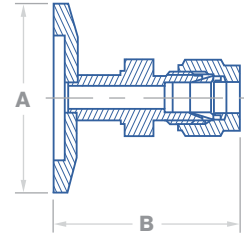
NW / KF Face Seal Female Adapter



Part Number	Dimensions in Inches				
	Flange Size		Face Seal Size	A	B
	NW	inch			
V*-34A-N1BXZ04	16	3/4"	1/4"	1.180	1.460
V*-34A-N1BXZ08	16	3/4"	1/2"	1.180	1.650
V*-34A-N1CXZ04	25	1"	1/4"	1.575	1.460
V*-34A-N1CXZ08	25	1"	1/2"	1.575	1.650
V*-34A-N1DXZ04	40	1-1/2"	1/4"	2.160	1.460
V*-34A-N1DXZ08	40	1-1/2"	1/2"	2.160	1.650
V*-34A-N1EXZ04	50	2"	1/4"	2.950	1.460
V*-34A-N1EXZ08	50	2"	1/2"	2.950	1.650

Part Number	Dimensions in Millimeters				
	Flange Size		Face Seal Size	A	B
	NW	mm			
V*-34A-N1BXZ04	16	19.05	6.35	29.97	37.08
V*-34A-N1BXZ08	16	19.05	12.70	29.97	41.91
V*-34A-N1CXZ04	25	25.40	6.35	40.01	37.08
V*-34A-N1CXZ08	25	25.40	12.70	40.01	41.91
V*-34A-N1DXZ04	40	38.10	6.35	54.86	37.08
V*-34A-N1DXZ08	40	38.10	12.70	54.86	41.91
V*-34A-N1EXZ04	50	50.80	6.35	74.93	37.08
V*-34A-N1EXZ08	50	50.80	12.70	74.93	41.91

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34C

NW / KF Compression Adapter

Part Number	Dimensions in Inches				
	Flange Size		Compression	A	B
	NW	inch			
V*-34C-N1BXZ04	16	3/4"	1/4"	1.180	1.470
V*-34C-N1BXZ08	16	3/4"	1/2"	1.180	1.630
V*-34C-N1CXZ04	25	1"	1/4"	1.575	1.470
V*-34C-N1CXZ08	25	1"	1/2"	1.575	1.630
V*-34C-N1DXZ04	40	1-1/2"	1/4"	2.160	1.470
V*-34C-N1DXZ08	40	1-1/2"	1/2"	2.160	1.630
V*-34C-N1EXZ04	50	2"	1/4"	2.950	1.470
V*-34C-N1EXZ08	50	2"	1/2"	2.950	1.630

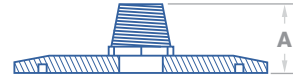
Part Number	Dimensions in Millimeters				
	Flange Size		Compression	A	B
	NW	mm			
V*-34C-N1BXZ04	16	19.05	6.35	29.97	44.20
V*-34C-N1BXZ08	16	19.05	12.70	29.97	41.40
V*-34C-N1CXZ04	25	25.40	6.35	40.01	37.34
V*-34C-N1CXZ08	25	25.40	12.70	40.01	41.40
V*-34C-N1DXZ04	40	38.10	6.35	54.86	37.34
V*-34C-N1DXZ08	40	38.10	12.70	54.86	41.40
V*-34C-N1EXZ04	50	50.80	6.35	74.93	37.34
V*-34C-N1EXZ08	50	50.80	12.70	74.93	41.40

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34M

NW / KF – NPT Male Adapter

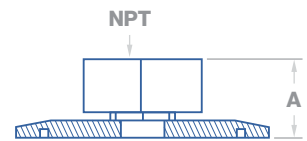


Part Number	Dimensions in Inches & Millimeters						
	Flange Size			NPT		A	
	NW	inch	mm	inch	mm	inch	mm
V*-34M-N1BXZ67	16	3/4"	19.05	1/8"	3.175	.880	22.35
V*-34M-N1BXZ68	16	3/4"	19.05	1/4"	6.35	1.090	27.69
V*-34M-N1CXZ68	25	1"	25.40	1/4"	6.35	1.090	27.69
V*-34M-N1DXZ68	40	1-1/2"	38.10	1/4"	6.35	1.090	27.69
V*-34M-N1DXZ70	40	1-1/2"	38.10	1/2"	12.70	1.340	34.04
V*-34M-N1EXZ68	50	2"	50.80	1/4"	6.35	1.090	27.69
V*-34M-N1EXZ70	50	2"	50.80	1/2"	12.70	1.340	34.04

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
34F

NW / KF – NPT Female Adapter



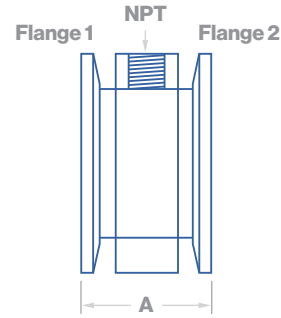
Part Number	Dimensions in Inches & Millimeters						
	Flange Size			NPT		A	
	NW	inch	mm	inch	mm	inch	mm
V*-34F-N1BXZ67	16	3/4"	19.05	1/8"	3.18	.880	22.35
V*-34F-N1BXZ68	16	3/4"	19.05	1/4"	6.35	1.090	27.69
V*-34F-N1CXZ68	25	1"	25.40	1/4"	6.35	1.090	27.69
V*-34F-N1DXZ68	40	1-1/2"	38.10	1/4"	6.35	1.090	27.69
V*-34F-N1DXZ70	40	1-1/2"	38.10	1/2"	12.70	1.340	34.04
V*-34F-N1EXZ68	50	2"	50.80	1/4"	6.35	1.100	27.94
V*-34F-N1EXZ70	50	2"	50.80	1/2"	12.70	1.340	34.04

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34G

NW / KF Gauge Tee Adapter

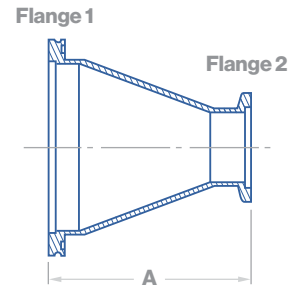


Part Number	Dimensions in Inches & Millimeters				
	Flange 1 & 2 Size	FNPT		A	
		NW	inch	mm	inch
V*-34G-N1BXZ67	16	1/8"	3.175	1.570	39.88
V*-34G-N1BXZ68	16	1/4"	6.35	1.570	39.88
V*-34G-N1CXZ67	25	1/8"	3.175	1.570	39.88
V*-34G-N1CXZ68	25	1/4"	6.35	1.570	39.88
V*-34G-N1DXZ67	40	1/8"	3.175	1.570	39.88
V*-34G-N1DXZ68	40	1/4"	6.35	1.570	39.88
V*-34G-N1EXZ67	50	1/8"	3.175	1.570	39.88
V*-34G-N1EXZ68	50	1/4"	6.35	1.570	39.88

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
34L

ISO-K – NW / KF Concentric Adapter Low Profile



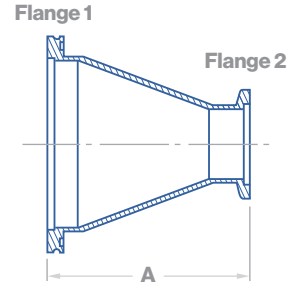
Part Number	Dimensions in Inches & Millimeters							
	Flange 1			Flange 2			A	
	ISO	inch	mm	NW	inch	mm	inch	mm
V*-34L-K2AXN1C	63	2-1/2"	63.50	25	1"	25.40	2.47	62.74
V*-34L-K2AXN1D	63	2-1/2"	63.50	40	1-1/2"	38.10	2.47	62.74
V*-34L-K2AXN1E	63	2-1/2"	63.50	50	2"	50.80	2.47	62.74
V*-34L-K2BXN1D	80	3"	76.20	40	1-1/2"	38.10	2.47	62.74
V*-34L-K2BXN1E	80	3"	76.20	50	2"	50.80	2.47	62.74
V*-34L-K2CXN1D	100	4"	101.60	40	1-1/2"	38.10	2.47	62.74
V*-34L-K2CXN1E	100	4"	101.60	50	2"	50.80	2.47	62.74

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



ISO-K – NW / KF Concentric Adapter Type 4

CONFIGURATION
34

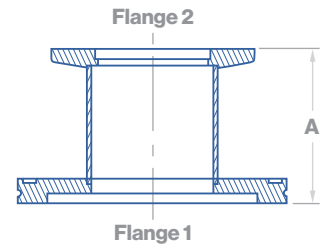


Part Number	Dimensions in Inches & Millimeters							
	Flange 1			Flange 2			A	
	ISO	inch	mm	NW	inch	mm	inch	mm
V*-34-K2AXN1D	63	2-1/2"	63.50	40	1-1/2"	38.10	2.775	70.49
V*-34-K2AXN1E	63	2-1/2"	63.50	50	2"	50.80	4.025	102.24
V*-34-K2BXN1D	80	3"	76.20	40	1-1/2"	38.10	2.775	70.49
V*-34-K2BXN1E	80	3"	76.20	50	2"	50.80	4.025	102.24
V*-34-K2CXN1D	100	4"	101.60	40	1-1/2"	38.10	5.680	144.27
V*-34-K2CXN1E	100	4"	101.60	50	2"	50.80	4.025	102.24

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
34S

ISO-K – NW / KF Straight Adapter



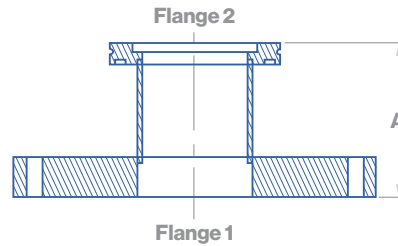
Part Number	Dimensions in Inches & Millimeters							
	Flange 1			Flange 2			A	
	ISO	inch	mm	NW	inch	mm	inch	mm
V*-34S-K2AXN1C	63	2-1/2"	63.50	25	1"	25.40	1.825	46.36
V*-34S-K2AXN1D	63	2-1/2"	63.50	40	1-1/2"	38.10	1.825	46.36
V*-34S-K2AXN1E	63	2-1/2"	63.50	50	2"	50.80	1.825	46.36
V*-34S-K2BXN1C	80	3"	76.20	25	1"	25.40	1.825	46.36
V*-34S-K2BXN1D	80	3"	76.20	40	1-1/2"	38.10	1.825	46.36
V*-34S-K2BXN1E	80	3"	76.20	50	2"	50.80	1.825	46.36
V*-34S-K2CXN1C	100	4"	101.60	25	1"	25.40	1.825	46.36
V*-34S-K2CXN1D	100	4"	101.60	40	1-1/2"	38.10	1.825	46.36
V*-34S-K2CXN1E	100	4"	101.60	50	2"	50.80	1.825	46.36

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34S

ISO-K – CF Straight Adapter

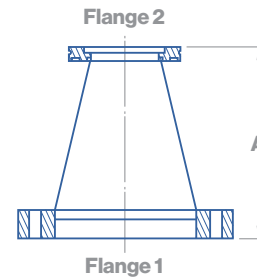


Part Number	Dimensions in Inches & Millimeters						
	Flange 1	Flange 2		Nominal O.D.		A	
		ISO	inch	mm	inch	mm	inch
V*-34S-K2AXC3E	63	4.50	114.30	2.500	63.50	5.000	127.00
V*-34S-K2BXC3F	80	4.62	117.35	3.000	76.20	5.000	127.00
V*-34S-K2CXC3G	100	6.00	152.40	4.000	101.60	5.000	127.00
V*-34S-K2DXC3J	160	8.00	203.20	6.000	152.40	5.000	127.00
V*-34S-K2EXC3K	200	10.00	254.00	8.000	203.20	5.000	127.00

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
34

ISO-K – CF Concentric Adapter



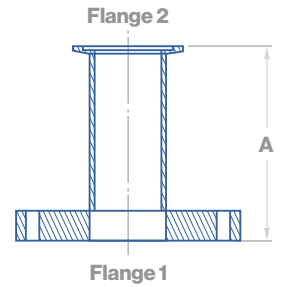
Part Number	Dimensions in Inches & Millimeters				
	Flange 1	Flange 2		A	
		ISO	inch	mm	inch
V*-34-K2AXC3C	63	2.75	69.85	2.83	71.88
V*-34-K2AXC3D	63	3.38	85.85	2.85	72.39
V*-34-K2AXC3F	63	4.62	117.35	4.25	107.95
V*-34-K2AXC3G	63	6.00	152.40	4.31	109.47
V*-34-K2BXC3C	80	2.75	69.85	4.08	103.63
V*-34-K2BXC3D	80	3.38	85.85	4.10	104.14
V*-34-K2BXC3E	80	4.50	114.30	4.25	107.95
V*-34-K2BXC3G	80	6.00	152.40	4.31	109.47
V*-34-K2CXC3D	100	3.38	85.85	4.10	104.14
V*-34-K2CXC3E	100	4.50	114.30	4.25	107.95
V*-34-K2CXC3F	100	4.62	117.35	4.25	107.95

* Standard Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34S

CF – NW / KF Straight Adapter

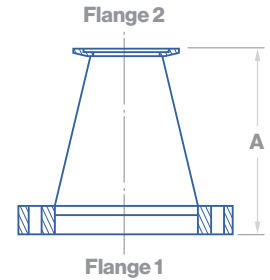


Part Number	Dimensions in Inches & Millimeters				
	Flange 1		Flange 2	A	
	inch	mm	NW	inch	mm
V*-34S-C3AXN1A	1.33	33.78	10	1.750	44.45
V*-34S-C3AXN1B	1.33	33.78	16	1.750	44.45
V*-34S-C3BXN1C	2.12	53.85	25	1.742	44.25
V*-34S-C3CXN1D	2.75	69.85	40	1.784	45.31
V*-34S-C3AXN1E	1.33	33.78	50	1.750	44.45
V*-34S-C3DXN1E	3.38	85.85	50	1.800	45.72

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

CONFIGURATION
34

CF – NW / KF Concentric Adapter



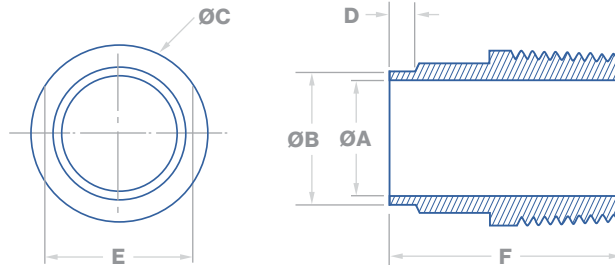
Part Number	Dimensions in Inches & Millimeters				
	Flange 1		Flange 2	A	
	inch	mm	NW	inch	mm
V*-34-C3AXN1C	1.33	33.78	25	2.700	68.58
V*-34-C3AXN1D	1.33	33.78	40	2.700	68.58
V*-34-C3BXN1B	2.12	53.85	16	2.690	68.33
V*-34-C3BXN1D	2.12	53.85	40	2.690	68.33
V*-34-C3BXN1E	2.12	53.85	50	2.690	68.33
V*-34-C3CXN1B	2.75	69.85	16	2.730	69.34
V*-34-C3CXN1C	2.75	69.85	25	2.730	69.34
V*-34-C3CXN1E	2.75	69.85	50	2.730	69.34
V*-34-C3DXN1C	3.38	85.85	25	2.750	69.85
V*-34-C3DXN1D	3.38	85.85	40	2.750	69.85
V*-34-C3EXN1D	4.50	114.30	40	2.900	73.66
V*-34-C3EXN1E	4.50	114.30	50	2.900	73.66
V*-34-C3FXN1D	4.62	117.35	40	4.150	105.41
V*-34-C3FXN1E	4.62	117.35	50	4.150	105.41
V*-34-C3GXN1E	6.00	152.40	50	4.210	106.93

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP



CONFIGURATION
34M

Male NPT – Tube Adapter



Part Number	Dimensions in Inches							
	Tube Nominal O.D.	A ± 0.12	B ± 0.12	C	D	E	F	Thread NPT
V*-34M-Z70XW08	1/2"	.370	.500	.839	.189	.669	1.626	1/2"
V*-34M-Z71XW12	3/4"	.620	.750	1.051	.189	.866	1.626	3/4"
V*-34M-Z72XW16	1"	.870	1.000	1.315	.189	1.110	1.752	1"
V*-34M-Z74XW24	1-1/2"	1.370	1.500	1.902	.189	1.681	1.752	1-1/2"
V*-34M-Z75XW32	2"	1.870	2.000	2.374	.189	2.114	1.811	2"
V*-34M-Z76XW40	2-1/2"	2.370	2.500	2.874	.250	2.598	2.311	2-1/2"
V*-34M-Z77XW48	3"	2.870	3.000	3.500	.250	3.224	2.500	3"
V*-34M-Z79XW64	4"	3.835	4.000	4.500	.250	4.185	2.563	4"
V*-34M-Z81XW96	6"	5.783	6.000	6.626	.250	6.311	3.000	6"

Part Number	Dimensions in Millimeters							
	Tube Nominal O.D.	A ± 0.12	B ± 0.12	C	D	E	F	Thread NPT
V*-34M-Z70XW08	12.70	9.40	12.70	21.30	4.80	17.00	41.30	1/2"
V*-34M-Z71XW12	19.05	15.75	19.05	26.70	4.80	22.00	41.30	3/4"
V*-34M-Z72XW16	25.40	22.10	25.40	33.40	4.80	28.20	44.50	1"
V*-34M-Z74XW24	38.10	34.80	38.10	48.30	4.80	42.70	44.50	1-1/2"
V*-34M-Z75XW32	50.80	47.50	50.80	60.30	4.80	53.70	46.00	2"
V*-34M-Z76XW40	63.50	60.20	63.50	73.00	6.35	66.00	58.70	2-1/2"
V*-34M-Z77XW48	76.20	72.90	76.20	88.90	6.35	81.90	63.50	3"
V*-34M-Z79XW64	101.60	97.40	101.60	114.30	6.35	106.30	65.10	4"
V*-34M-Z81XW96	152.40	146.90	152.40	168.30	6.35	160.30	76.20	6"

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

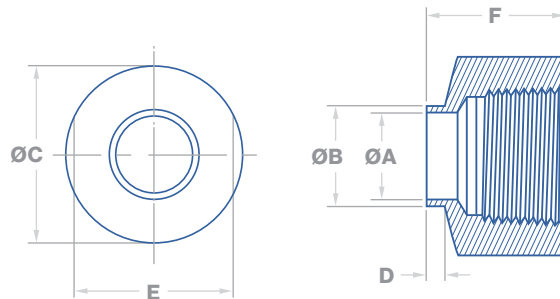


Valex
Vacuum
Components

Adapters

CONFIGURATION
34F

Female NPT – Tube Adapter



Part Number	Dimensions in Inches							
	Tube Nominal O.D.	A ±0.12	B ±0.12	C	D	E	F	Thread NPT
V*-34F-Z70XW08	1/2"	.370	.500	1.181	.189	1.063	1.299	1/2"
V*-34F-Z71XW12	3/4"	.620	.750	1.220	.189	1.142	1.299	3/4"
V*-34F-Z72XW16	1"	.870	1.000	1.988	.189	1.772	1.374	1"
V*-34F-Z74XW24	1-1/2"	1.370	1.500	2.047	.189	1.929	1.315	1-1/2"
V*-34F-Z75XW32	2"	1.870	2.000	2.559	.189	2.441	1.752	2"
V*-34F-Z76XW40	2-1/2"	2.370	2.500	3.150	.250	2.953	1.815	2-1/2"
V*-34F-Z77XW48	3"	2.870	3.000	3.740	.250	3.583	2.252	3"
V*-34F-Z79XW64	4"	3.835	4.000	4.724	.250	4.528	2.374	4"

Part Number	Dimensions in Millimeters							
	Tube Nominal O.D.	A ±0.12	B ±0.12	C	D	E	F	Thread NPT
V*-34F-Z70XW08	12.70	9.40	12.70	30.00	4.80	27.00	33.00	1/2"
V*-34F-Z71XW12	19.05	15.75	19.05	31.00	4.80	29.00	33.00	3/4"
V*-34F-Z72XW16	25.40	22.10	25.40	50.50	4.80	45.00	34.90	1"
V*-34F-Z74XW24	38.10	34.80	38.10	52.00	4.80	49.00	33.40	1-1/2"
V*-34F-Z75XW32	50.80	47.50	50.80	65.00	4.80	62.00	44.50	2"
V*-34F-Z76XW40	63.50	60.20	63.50	80.00	6.35	75.00	46.10	2-1/2"
V*-34F-Z77XW48	76.20	72.90	76.20	95.00	6.35	91.00	57.20	3"
V*-34F-Z79XW64	101.60	97.40	101.60	120.00	6.35	115.00	60.30	4"

* **Standard Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical Polished Finish: VE = 304, VH = 304L, VG = 316L
Electropolished Finish: VK = 304 EP, VN = 304L EP, VM = 316L EP

Bellows & Hoses



End Connection Material:
304, 304L, 316 & 316L

Bellows Body Material:
321, 316 & 316L

Vacuum Range:
1x10⁻⁸ torr

Temperature Range:

	Minimum	Intermittent	Sustained
Viton®	-20°C	150°C	200°C
Buna-N®	-20°C	80°C	100°C

(Kalrez dependent on the compound)

Specifications



Valex

Vacuum
Components

Bellows & Hoses

Flexible Hose

Recommended Installation Practices

For maximum Valex flexible hose service life, follow the below directions. Use standard industry installation methods for face-seal and compression fittings.

Evaluation & Selection

Evaluate your system before purchasing to determine hose requirements for proper installation. Specifically identify the following:

SYSTEM TOLERANCE / HOSE LENGTH

To determine the appropriate hose length required, take into consideration possible length changes due to machine motion. Movement, pressurization, and thermal expansion may affect hose longevity.

VIBRATION

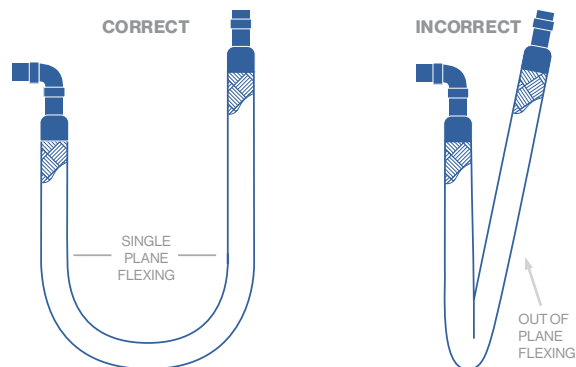
Evaluate system vibration. Plan to install loops as close to a single plane (or centered) as possible and account for any additional elbows, adapters or unions needed for sharp bends or bending planes.

Installation*

To install fit hose in place and take the following instructions into consideration to assure proper set up.

BENDING PLANE

Install bended or flexed hose so that the hose is in alignment with itself. If the hose is spread over multiple planes, install unions to isolate bending to a single plane.

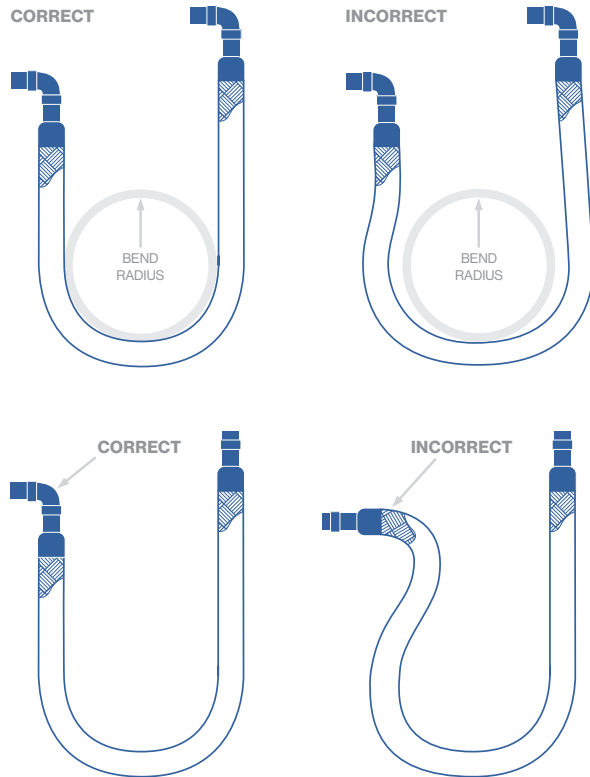


* Contact Valex for operating pressure and bend radius.
Flexible Hose Installation Instructions continued on next page.



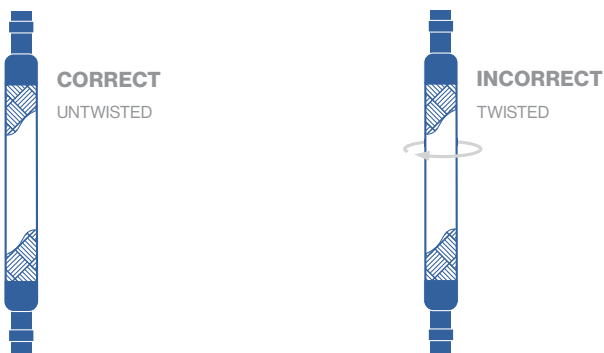
BEND RADIUS

Install any required elbows or adapters to prevent the hose from kinks and over-bending.



TORQUE

Minimize hose tube twisting by using a rotary joint or union when installing hose in place.



Maintenance

Create and maintain an inspection schedule to periodically check for corrosion, damage, or deterioration of the hose.

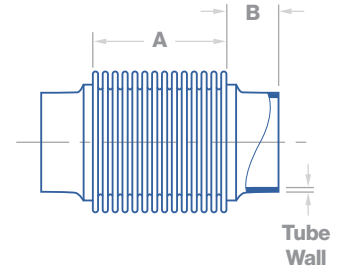


Valex
Vacuum
Components

Bellows & Hoses



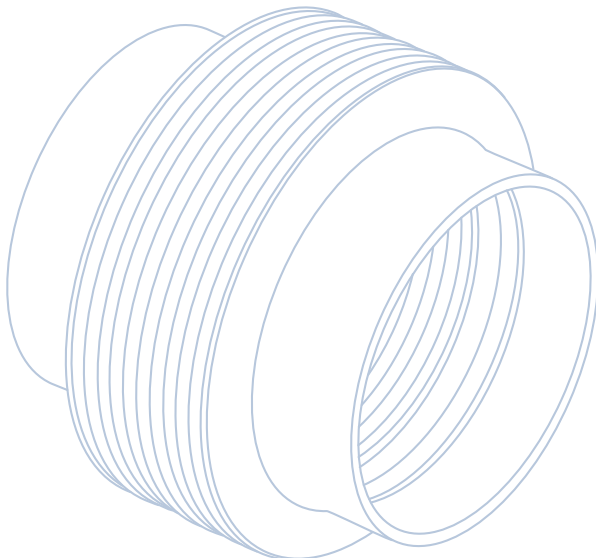
Bellows, (Tube Ends)



Part Number	Dimensions in Inches						
	Nominal Size	Tube Wall	A	B	Free Length	Convolutions	Bellows Wall
V*-42B-W12XW12-2.5	3/4"	.065	1.500	.500	2.500	11	.005
V*-42B-W16XW16-3.5	1"	.065	2.000	.750	3.500	11	.005
V*-42B-W24XW24-3.5	1-1/2"	.065	2.000	.750	3.500	11	.006
V*-42B-W32XW32-3.5	2"	.065	2.000	.750	3.500	10	.006
V*-42B-W48XW48-5.0	3"	.065	3.000	1.000	5.000	11	.008
V*-42B-W64XW64-6.0	4"	.083	4.000	1.000	6.000	12	.008

Part Number	Dimensions in Millimeters						
	Nominal Size	Tube Wall	A	B	Free Length	Convolutions	Bellows Wall
V*-42B-W12XW12-2.5	19.05	1.65	38.10	12.70	63.50	11	.13
V*-42B-W16XW16-3.5	25.40	1.65	50.80	19.05	88.90	11	.13
V*-42B-W24XW24-3.5	38.10	1.65	50.80	19.05	88.90	11	.15
V*-42B-W32XW32-3.5	50.80	1.65	50.80	19.05	88.90	10	.15
V*-42B-W48XW48-5.0	76.20	1.65	76.20	25.40	127.00	11	.20
V*-42B-W64XW64-6.0	101.60	2.11	101.60	25.40	152.40	12	.20

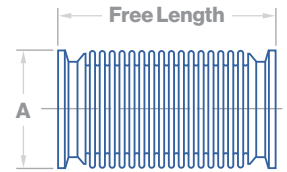
* Standard End Connection Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP





CONFIGURATION
42B
Alt. Material
42T

NW / KF Bellows, Formed



Part Number	Dimensions in Inches & Millimeters						
	Flange Size	Tube O.D.		A		Free Length	
		NW	inch	mm	inch	mm	inch
V*-42B-N1AXN1A-3.2	10	1/2"	12.70	1.180	29.97	3.200	81.28
V*-42B-N1BXN1B-3.2	16	3/4"	19.05	1.180	29.97	3.200	81.28
V*-42B-N1CXN1C-4.2	25	1"	25.40	1.575	40.01	4.200	106.68
V*-42B-N1DXN1D-4.2	40	1-1/2"	38.10	2.160	54.86	4.200	106.68
V*-42B-N1EXN1E-4.2	50	2"	50.80	2.950	74.93	4.200	106.68

* Standard End Connection Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP

CONFIGURATION
42H

NW / KF Hose, Formed



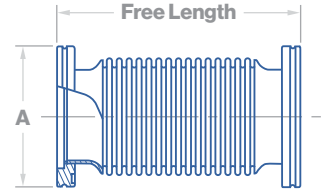
Part Number	Dimensions in Inches & Millimeters						
	Flange Size	Tube O.D.		A		Free Length**	
		NW	inch	mm	inch	mm	inch
V*-42H-N1BXN1B-12	16	3/4"	19.05	1.180	29.97	12.000	304.80
V*-42H-N1BXN1B-18	16	3/4"	19.05	1.180	29.97	18.000	457.20
V*-42H-N1BXN1B-24	16	3/4"	19.05	1.180	29.97	24.000	609.60
V*-42H-N1BXN1B-36	16	3/4"	19.05	1.180	29.97	36.000	914.40
V*-42H-N1CXN1C-12	25	1"	25.40	1.575	40.01	12.000	304.80
V*-42H-N1CXN1C-18	25	1"	25.40	1.575	40.01	18.000	457.20
V*-42H-N1CXN1C-24	25	1"	25.40	1.575	40.01	24.000	609.60
V*-42H-N1CXN1C-36	25	1"	25.40	1.575	40.01	36.000	914.40
V*-42H-N1DXN1D-12	40	1-1/2"	38.10	2.160	54.86	12.000	304.80
V*-42H-N1DXN1D-18	40	1-1/2"	38.10	2.160	54.86	18.000	457.20
V*-42H-N1DXN1D-24	40	1-1/2"	38.10	2.160	54.86	24.000	609.60
V*-42H-N1DXN1D-36	40	1-1/2"	38.10	2.160	54.86	36.000	914.40
V*-42H-N1EXN1E-12	50	2"	50.80	2.950	74.93	12.000	304.80
V*-42H-N1EXN1E-18	50	2"	50.80	2.950	74.93	18.000	457.20
V*-42H-N1EXN1E-24	50	2"	50.80	2.950	74.93	24.000	609.60
V*-42H-N1EXN1E-36	50	2"	50.80	2.950	74.93	36.000	914.40

* Standard End Connection Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP

** For lengths not shown above, please consult factory for availability.



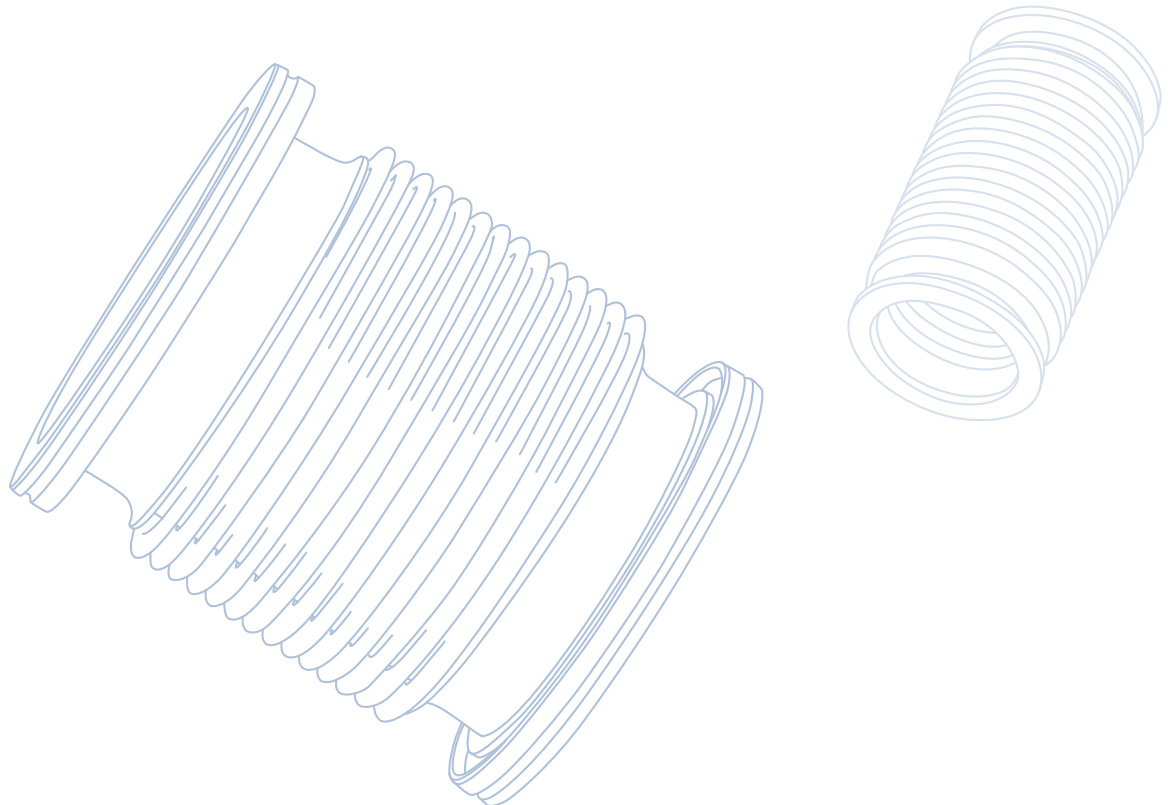
ISO-K Flexible Bellows



Part Number	Dimensions in Inches				
	Flange Size	Tube O.D.	A	Free Length	Compressed
	ISO	inch			
V*-42B-K2AXK2A-6.0	63	2-1/2"	3.740	6.000	5.000
V*-42B-K2BXK2B-6.0	80	3"	4.331	6.000	5.000
V*-42B-K2CXK2C-6.0	100	4"	5.118	6.000	5.000
V*-42B-K2DXK2D-6.0	160	6"	7.087	6.000	5.000
V*-42B-K2EXK2E-8.0	200	8"	9.449	8.000	7.000

Part Number	Dimensions in Millimeters				
	Flange Size	Tube O.D.	A	Free Length	Compressed
	ISO	mm			
V*-42B-K2AXK2A-6.0	63	63.50	95.00	152.40	127.00
V*-42B-K2BXK2B-6.0	80	76.20	110.01	152.40	127.00
V*-42B-K2CXK2C-6.0	100	101.60	130.00	152.40	127.00
V*-42B-K2DXK2D-6.0	160	152.40	180.01	152.40	127.00
V*-42B-K2EXK2E-8.0	200	203.20	240.00	203.20	177.80

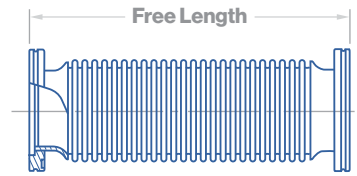
* Standard End Connection Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP





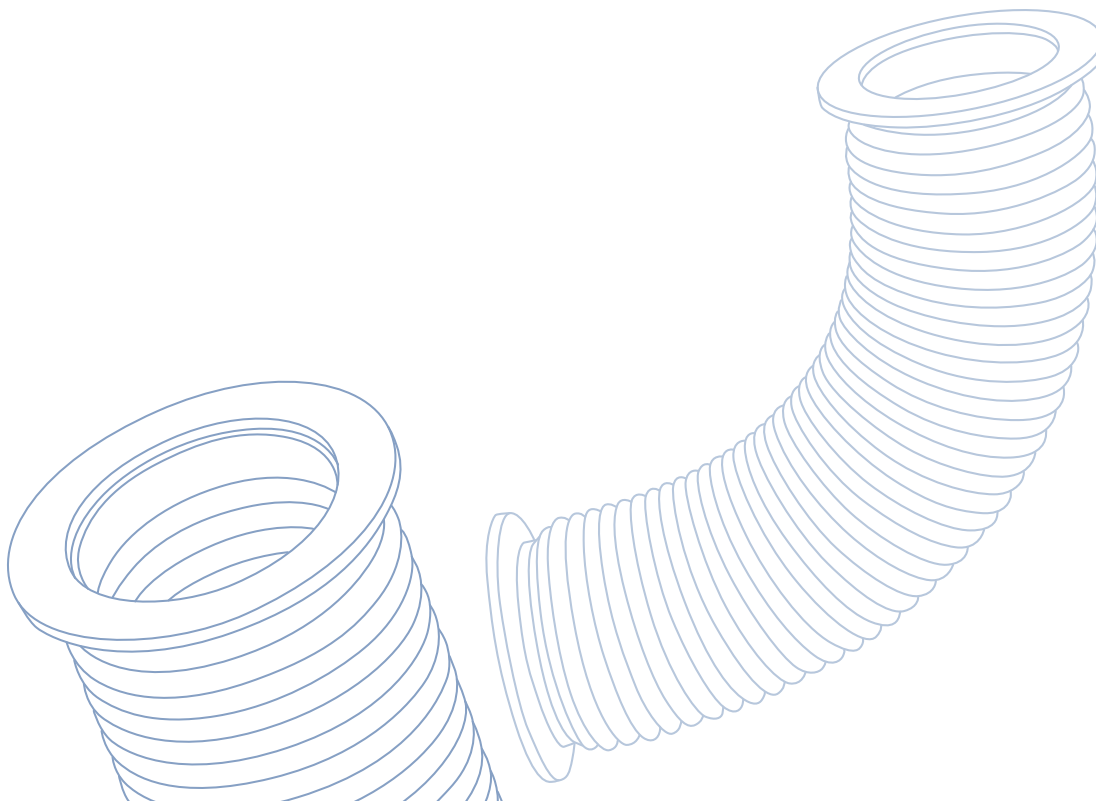
CONFIGURATION
42H

ISO-K Flexible Hose



Part Number	Dimensions in Inches & Millimeters				
	Flange Size	Tube O.D.		Free Length	
		ISO	inch	mm	inch
V*-42H-K2AXK2A-12	63	2-1/2"	63.50	12.000	304.80
V*-42H-K2AXK2A-18	63	2-1/2"	63.50	18.000	457.20
V*-42H-K2AXK2A-24	63	2-1/2"	63.50	24.000	609.60
V*-42H-K2AXK2A-36	63	2-1/2"	63.50	36.000	914.40
V*-42H-K2AXK2A-40	63	2-1/2"	63.50	40.000	1016.00
V*-42H-K2BXK2B-12	80	3"	76.20	12.000	304.80
V*-42H-K2BXK2B-18	80	3"	76.20	18.000	457.20
V*-42H-K2BXK2B-24	80	3"	76.20	24.000	609.60
V*-42H-K2BXK2B-36	80	3"	76.20	36.000	914.40
V*-42H-K2BXK2B-40	80	3"	76.20	40.000	1016.00
V*-42H-K2CXK2C-12	100	4"	101.60	12.000	304.80
V*-42H-K2CXK2C-18	100	4"	101.60	18.000	457.20
V*-42H-K2CXK2C-24	100	4"	101.60	24.000	609.60
V*-42H-K2CXK2C-36	100	4"	101.60	36.000	914.40
V*-42H-K2CXK2C-40	100	4"	101.60	40.000	1016.00

* **Standard End Connection Finish:** VA = 304, VD = 304L, VC = 316L, VQ = 316LN
Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP
 ** For lengths not shown above, please consult factory for availability.



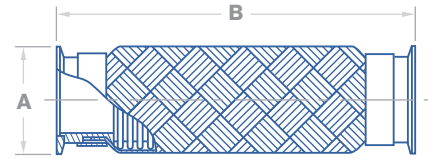


Valex
Vacuum
Components

Bellows & Hoses

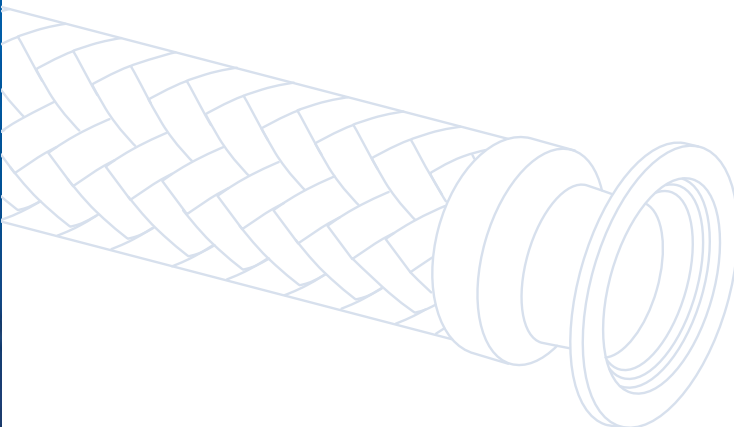
CONFIGURATION
42R

NW / KF Braided Flexible Hose



Part Number	Dimensions in Inches & Millimeters						
	Flange Size	Tube O.D.		A		B	
		NW	inch	mm	inch	mm	inch
V*-42R-N1BXN1B-12	16	3/4"	19.05	1.180	29.97	12.00	304.80
V*-42R-N1BXN1B-18	16	3/4"	19.05	1.180	29.97	18.00	457.20
V*-42R-N1BXN1B-24	16	3/4"	19.05	1.180	29.97	24.00	609.60
V*-42R-N1BXN1B-36	16	3/4"	19.05	1.180	29.97	36.00	914.40
V*-42R-N1CXN1C-12	25	1"	25.40	1.575	40.01	12.00	304.80
V*-42R-N1CXN1C-18	25	1"	25.40	1.575	40.01	18.00	457.20
V*-42R-N1CXN1C-24	25	1"	25.40	1.575	40.01	24.00	609.60
V*-42R-N1CXN1C-36	25	1"	25.40	1.575	40.01	36.00	914.40
V*-42R-N1DXN1D-12	40	1-1/2"	38.10	2.160	54.86	12.00	304.80
V*-42R-N1DXN1D-18	40	1-1/2"	38.10	2.160	54.86	18.00	457.20
V*-42R-N1DXN1D-24	40	1-1/2"	38.10	2.160	54.86	24.00	609.60
V*-42R-N1DXN1D-36	40	1-1/2"	38.10	2.160	54.86	36.00	914.40
V*-42R-N1EXN1E-12	50	2"	50.80	2.950	74.93	12.00	304.80
V*-42R-N1EXN1E-18	50	2"	50.80	2.950	74.93	18.00	457.20
V*-42R-N1EXN1E-24	50	2"	50.80	2.950	74.93	24.00	609.60
V*-42R-N1EXN1E-36	50	2"	50.80	2.950	74.93	36.00	914.40

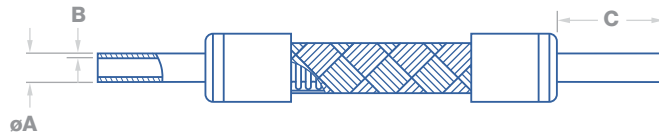
* Standard End Connection Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP





CONFIGURATION
42R

Braided Hose Tube Ends



Part Number	Dimensions in Inches				
	Tube Size Nominal O.D.	A	B	C	Max Length Inches
V*-42R-W04XW04-***	1/4"	.250	.035	1.181	984
V*-42R-W06XW06-***	3/8"	.375	.035	1.181	984
V*-42R-W08XW08-***	1/2"	.500	.049	1.181	984
V*-42R-W12XW12-***	3/4"	.750	.065	1.500	984
V*-42R-W16XW16-***	1"	1.000	.065	1.500	472
V*-42R-W24XW24-***	1-1/2"	1.500	.065	1.500	472
V*-42R-W32XW32-***	2"	2.000	.065	1.500	472
V*-42R-W40XW40-***	2-1/2"	2.500	.065	1.500	236
V*-42R-W48XW48-***	3"	3.000	.065	1.500	236
V*-42R-W64XW64-***	4"	4.000	.065	1.500	236

Part Number	Dimensions in Millimeters				
	Tube Size Nominal O.D.	A	B	C	Max Length Meters
V*-42R-W04XW04-***	1/4"	6.35	.90	30.00	25
V*-42R-W06XW06-***	3/8"	9.53	.90	30.00	25
V*-42R-W08XW08-***	1/2"	12.70	1.24	30.00	25
V*-42R-W12XW12-***	3/4"	19.05	1.65	38.10	25
V*-42R-W16XW16-***	1"	25.40	1.65	38.10	12
V*-42R-W24XW24-***	1-1/2"	38.10	1.65	38.10	12
V*-42R-W32XW32-***	2"	50.80	1.65	38.10	12
V*-42R-W40XW40-***	2-1/2"	63.50	1.65	38.10	6
V*-42R-W48XW48-***	3"	76.20	1.65	38.10	6
V*-42R-W64XW64-***	4"	101.60	1.65	38.10	6

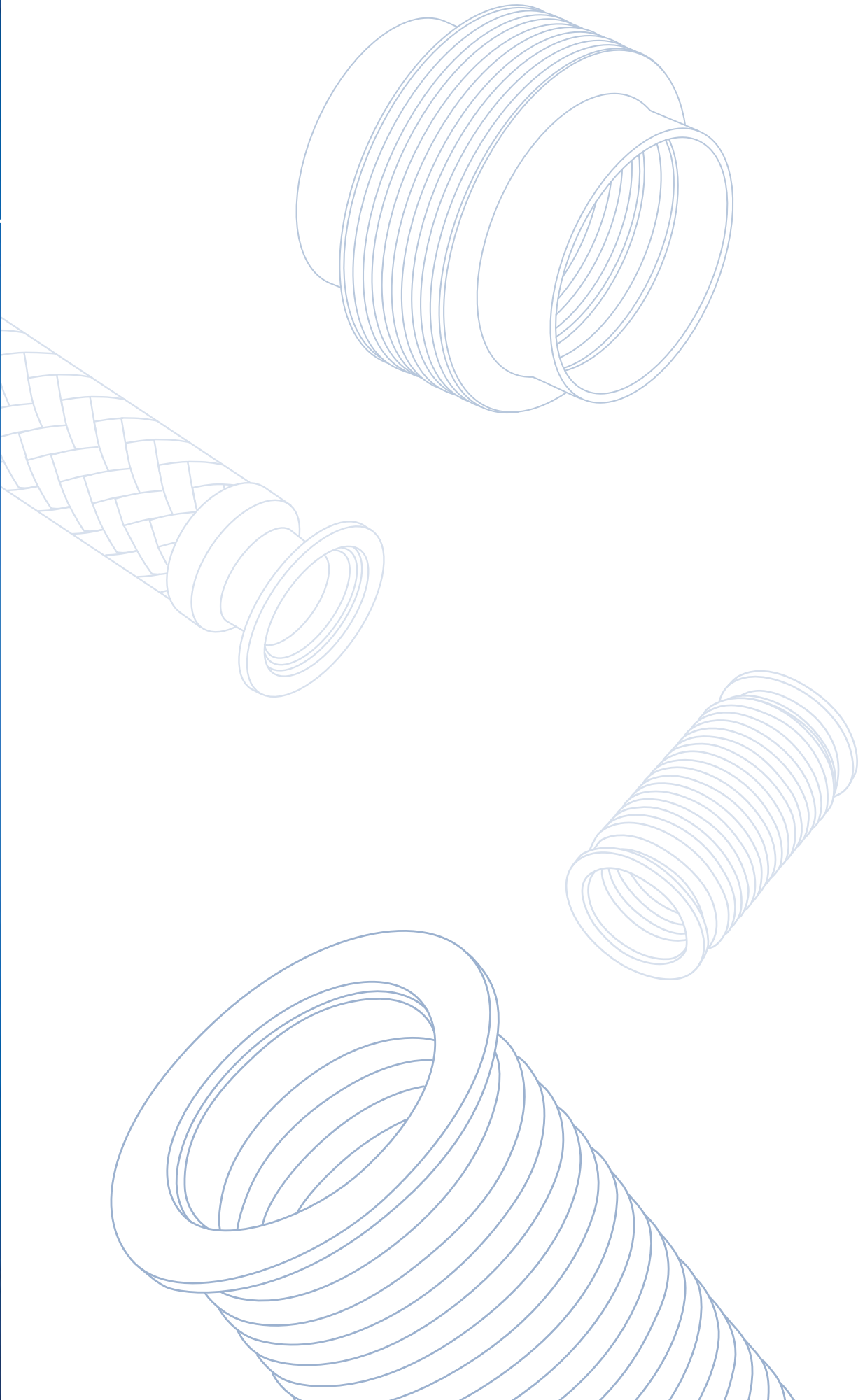
* Standard End Connection Finish: VA = 304, VD = 304L, VC = 316L, VQ = 316LN
 Mechanical End Connection Finish: VE = 304, VH = 304L, VG = 316L
 Electropolished End Connection Finish: VK = 304 EP, VN = 304L EP, VM = 316 EP

*** Required length



Valex
Vacuum
Components

Bellows & Hoses



Ordering Info.

Part Number Matrix

- Vacuum Fittings
- Vacuum Accessories

To place an order, please submit your order request to inquire@valex.com.
To find your nearest distributor go to Valex.com



Valex

Vacuum
Components

Vacuum Tube & Pipe
Part Number Matrix

Page:
1 of 2

XX
Process / Alloy^{1&2}

- XXXXX
Size Code

X
End Type Code

CW = 316L Welded
DW = 304L Welded

ASTM Tube O.D.

1/4 = .25"
3/8 = .375"
1/2 = .5"
3/4 = .75"
1 = 1"
1-1/2 = 1.5"
2 = 2"
2-1/2 = 2.5"
3 = 3"
4 = 4"
6 = 6"
8 = 8"
10 = 10"

NPS Pipe O.D.

300 = DN 300
(NPS 12 / JIS 300A)

ASTM Tube
Blank = Square

NPS Pipe
L = Square

Notes:

1. Per Vallex Specification SP-7201.
2. Process codes are not available for all size and finish codes. Please contact Vallex for item number availability.
3. VB finish code:
BA for sizes < 6"
AP for sizes ≥ 6"
4. For EP grade, refer to Vallex 401 Product Line.



x XXXX
Wall Code

- XXXX
Finish Code^{3 & 4}

Tube Wall Thickness

- .035 = .035"
- .039 = .039"
- .049 = .049"
- .065 = .065"
- .083 = .083"
- .120 = .120"

Pipe Schedule

- 10S = Schedule 10

- MP = O.D. = 150-grit MP
I.D. = 180-grit MP
- VB = O.D. = BA/AP
I.D. = BA/AP



Valex

Vacuum Components

Vacuum Fittings
Part Number Matrix

XX
Material / Finish

Standard Finish SS¹
VA = 304
VD = 304L
VC = 316L
VQ = 316LN

Mechanical Polished SS²
VE = 304
VH = 304L
VG = 316L

Electropolished SS
VK = 304 EP
VN = 304L EP
VM = 316L EP

- XXX
Configuration Code

- 2 = 90° Elbow, with Tangent
- 2T = 90° Elbow, No Tangent
- 2L = 90° Elbow, Extended Tangent
- 2M = 90° Elbow, Mitered No Tangent
- 2X = 90° Elbow, Mitered Extended
- 2K = 45° Elbow, with Tangent
- 2N = 45° Elbow, No Tangent
- 3Y = Y Branch
- 6HS = Nipple, Half, Short
- 6H = Nipple, Half
- 6HE = Nipple, Half, Extended
- 6F = Nipple, Full
- 6FE = Nipple, Full, Extended
- 7 = Tee, Equal
- 7L = Tee, Equal, Extended
- 7R = Tee, Reducing
- 9 = Cross, 4-Way
- 9R = Cross, 4-Way Reducing
- 9L = Cross, 4-Way, Extended
- 9F = Cross, 5-Way
- 9E = Cross, 5-Way, Extended
- 9S = Cross, 6-Way
- 9T = Cross, 6-Way, Extended
- 9C = Cross, 6-Way Cube
- 16 = Cap, Weld
- 31 = Reducer, Concentric / Conical
- 31T = Reducer, Concentric with Tangent
- 31L = Reducer, Straight

- 34 = Adapter, Concentric / Conical
- 34L = Adapter, Concentric Low Profile
- 34T = Adapter, Concentric with Tangent
- 34S = Adapter, Straight
- 34V = Adapter, Face Seal Male
- 34A = Adapter, Face Seal Female
- 34C = Adapter, Compression
- 34M = Adapter, NPT Male
- 34F = Adapter, NPT Female
- 34H = Adapter, Hose
- 34G = Adapter, Gauge Tee
- 38 = Flange, Blank
- 38W = Flange, Blank, Neck Weld
- 38Q = Flange, Blank, Neck Weld w/ Weld Prep
- 38D = Flange, Blank, Double Sided
- 38B = Flange, Bored
- 38S = Flange, Bored, Socket Weld
- 38N = Flange, Bored, Short Neck Weld
- 38L = Flange, Bored, Long Neck Weld
- 38K = Flange, Bored, Neck Weld
- 38V = Flange, Bored, Neck Weld w/ Weld Prep
- 38M = Flange, Bored, Double Sided
- 38Z = Flange, Bored, Zero Length Reducer

- X
Type Code

- Connection Type**
W = Weld (Buttweld/Socket)
Z = Fitting Size (NPT, Hose, Face-Seal, Compression)
- Flange Type**
N = NW / KF
K = ISO-K
F = ISO-F (Bolted)
C = CF



XX
Size Code

x X XX
TYPE SIZE

- XX
Attribute Code

Tube, Fitting O.D.

- 02 = 1/8"
- 04 = 1/4"
- 06 = 3/8"
- 08 = 1/2"
- 10 = 5/8"
- 12 = 3/4"
- 14 = 7/8"
- 16 = 1"
- 20 = 1-1/4"
- 24 = 1-1/2"
- 26 = 1-5/8"
- 28 = 1-3/4"
- 32 = 2"
- 40 = 2-1/2"
- 48 = 3"
- 64 = 4"
- 80 = 5"
- 96 = 6"
- 53 = 8"
- 55 = 10"
- 57 = 12"

Pipe, Fitting O.D.

- 67 = 1/8 NPS / NPT
- 68 = 1/4 NPS / NPT
- 69 = 3/8 NPS / NPT
- 70 = 1/2 NPS / NPT
- 71 = 3/4 NPS / NPT
- 72 = 1 NPS / NPT
- 74 = 1-1/2 NPS / NPT
- 75 = 2 NPS / NPT
- 76 = 2-1/2 NPS / NPT
- 77 = 3 NPS / NPT
- 79 = 4 NPS / NPT
- 81 = 6 NPS / NPT
- 84 = 12 NPS (12.75")

NW / KF Flange³

- 1A = NW10 (1.18", 30mm O.D.)
- 1B = NW16 (1.18", 30mm O.D.)
- 1C = NW25 (1.58", 40mm O.D.)
- 1D = NW40 (2.16", 55mm O.D.)
- 1E = NW50 (2.95", 75mm O.D.)
- 1F = NW20 (1.58", 40mm O.D.)
- 1G = NW32 (2.16", 55mm O.D.)
- 1H = NW80 (4.33", 110mm O.D.)
- 1J = NW100 (5.12", 130mm O.D.)
- 1K = NW160 (7.09", 180mm O.D.)

ISO Flange

- 2A = ISO63 (3.74", 95mm O.D.)
- 2B = ISO80 (4.33", 110mm O.D.)
- 2C = ISO100 (5.12", 130mm O.D.)
- 2D = ISO160 (7.09", 180mm O.D.)
- 2E = ISO200 (9.45", 240mm O.D.)
- 2F = ISO250 (11.42", 290mm O.D.)
- 2G = ISO320 (14.75", 370mm O.D.)
- 2H = ISO400 (17.72", 450mm O.D.)
- 2J = ISO500 (21.65", 550mm O.D.)

CF Flange

- 3A = 1.33" (1.33", 33.8mm O.D.)
- 3B = 2.12" (2.12", 53.8mm O.D.)
- 3C = 2.75" (2.73", 69.3mm O.D.)
- 3D = 3.38" (3.36", 85.3mm O.D.)
- 3E = 4.50" (4.47", 113.5mm O.D.)
- 3F = 4.62" (4.61", 117.1mm O.D.)
- 3G = 6.00" (5.97", 151.6mm O.D.)
- 3H = 6.75" (6.73", 170.9mm O.D.)
- 3J = 8.00" (7.97", 202.4mm O.D.)
- 3K = 10.00" (9.97", 253.2mm O.D.)
- 3L = 12.00" (11.97", 304.0mm O.D.)
- 3M = 13.25" (13.25", 336.6mm O.D.)
- 3N = 14.00" (14.00", 355.6mm O.D.)
- 3P = 14.50" (14.50", 368.3mm O.D.)
- 3Q = 16.50" (16.50", 419.1mm O.D.)

NW / KF Flange
(Chain Clamp)⁴

- 5H = NW80 (4.33", 110mm O.D.)
- 5J = NW100 (5.12", 130mm O.D.)
- 5K = NW160 (7.09", 180mm O.D.)

**Used for 2nd Size:
Flange, Butt weld /
Socket Weld,
or Fitting**

*If required, build
second size by using
two previous columns
(type and size code)*

Other

Blank = Configurations not listed below
(Note: for BLANK code, do not include
-XX in part number)

Only use for

CF & ISO-F Flanges

- FF = Non-rotatable
- FS = Non-rotatable, Tapped, Inch
- FM = Non-rotatable, Tapped, Metric
- FR = Rotatable
- FT = Rotatable, Tapped, Inch
- FN = Rotatable, Tapped, Metric

*Only use for: CF Flanged Tees,
Crosses, CF Reducers, CF Half
& CF Full Nipples*

- TA = Non-rotatable, Rotatable
- TB = Non-rotatable, 2 Rotatable
- TC = 2 Non-rotatable, 2 Rotatable
- TD = 2 Non-rotatable, 3 Rotatable
- TE = 3 Non-rotatable, 3 Rotatable
- TF = Non-rotatable
- TG = Rotatable

Notes:

1. Standard finish is tumble for butt weld fittings.
2. Standard finish is machined for flanges.
3. Flange sizes 1H, 1J & 1K use with band clamp.
4. Flange sizes 5H, 5J & 5K use with chain clamp.



Valex

Vacuum Components

Vacuum Accessories
Part Number Matrix

XX
Material / Finish

- XXX
Configuration Code

- X
Type Code

Other Materials

V0 = Use for:
Clamps,
Caps,
Rings,
Gaskets,
O-rings
& Hardware

- 13 = Clamp, Single Claw
 - 13D = Clamp, Double Claw
 - 13W = Clamp, Wing Nut
 - 13L = Clamp, Lever / Quick
 - 13C = Clamp, Chain
 - 13B = Clamp, Bulkhead
 - 13T = Clamp, Toggle
-
- 16D = Cap, Plastic Cap
-
- 39 = Ring, Centering
 - 39C = Ring, Centering w/out O-ring Assembly
 - 39M = Ring, Centering, Screen w/ O-ring Assembly
 - 39N = Ring, Centering, Screen w/ O-ring & Spacer Ring Assembly
 - 39S = Ring, Spacer
 - 39D = Ring, Centering w/ O-ring & Spacer Ring Assembly
 - 39R = Ring, Rotatable Flange Retaining
 - 39T = Ring, Overpressure
 - 39E = Ring, Centering w/ O-ring & Overpressure Ring Assembly
 - 39P = Ring, Capture
 - 39F = Ring, Centering w/ O-ring & Capture Ring Assembly
 - 39L = Ring, Reducing Centering w/ O-ring Assembly
-
- 70 = Hardware, Bolts & Washers
 - 70B = Hardware, Bolts, Nuts & Washers
 - 70C = Hardware, 12-pt Bolts & Washers
 - 70D = Hardware, 12-pt Bolts, Nuts & Washers
 - 70P = Hardware, Plate Nuts
 - 70Q = Hardware, Plate Nuts & Bolts
 - 70R = Hardware, Plate Nuts, Bolts & Washers
 - 70S = Hardware, Plate Nuts, & 12-pt Bolts
 - 70T = Hardware, Plate Nuts, 12-pt Bolts & Washers
-
- 72R = O-ring
 - 72G = Gasket

Flange Type¹

- N = NW / KF
- K = ISO-K
- F = ISO-F (Bolted)
- C = CF

Centering Ring Type²

- N = NW / KF
- S = ISO-K / ISO-F

Notes:

1. NW/KF use ISO Flange Type for flange size ISO 80 & above.
2. NW/KF Centering Rings ISO 80 & above use the "S" Type Code designator in P/N.
3. NW/KF use ISO Centering Ring Size Codes for flange size 80 & above.
4. Choose the following material for ISO Claw Clamp sizes:
4A, 4B & 4C: Aluminum
4C & 4D: Stainless Steel



XX
Size Code

x XX
SIZE

- XX (XX)
Attribute Code

NW / KF³

- 1A = NW10 (1.18", 30mm O.D.)
- 1B = NW16 (1.18", 30mm O.D.)
- 1C = NW25 (1.58", 40mm O.D.)
- 1D = NW40 (2.16", 55mm O.D.)
- 1E = NW50 (2.95", 75mm O.D.)
- 1F = NW20 (1.58", 40mm O.D.)
- 1G = NW32 (2.16", 55mm O.D.)

ISO-K / ISO-F

- 2A = ISO63 (3.74", 95mm O.D.)
- 2B = ISO80 (4.33", 110mm O.D.)
- 2C = ISO100 (5.12", 130mm O.D.)
- 2D = ISO160 (7.09", 180mm O.D.)
- 2E = ISO200 (9.45", 240mm O.D.)
- 2F = ISO250 (11.42", 290mm O.D.)
- 2G = ISO320 (14.75", 370mm O.D.)
- 2H = ISO400 (17.72", 450mm O.D.)
- 2J = ISO500 (21.65", 550mm O.D.)

CF

- 3A = 1.33" (1.33", 33.8mm O.D.)
- 3B = 2.12" (2.12", 53.8mm O.D.)
- 3C = 2.75" (2.73", 69.3mm O.D.)
- 3D = 3.38" (3.36", 85.3mm O.D.)
- 3E = 4.50" (4.47", 113.5mm O.D.)
- 3F = 4.62" (4.61", 117.1mm O.D.)
- 3G = 6.00" (5.97", 151.6mm O.D.)
- 3H = 6.75" (6.73", 170.9mm O.D.)
- 3J = 8.00" (7.97", 202.4mm O.D.)
- 3K = 10.00" (9.97", 253.2mm O.D.)
- 3L = 12.00" (11.97", 304.0mm O.D.)
- 3M = 13.25" (13.25", 336.6mm O.D.)
- 3N = 14.00" (14.00", 355.6mm O.D.)
- 3P = 14.50" (14.50", 368.3mm O.D.)
- 3Q = 16.50" (16.50", 419.1mm O.D.)

ISO-K Claw Clamp

- 4A = ISO63 – ISO100
- 4B = ISO160 – ISO250
- 4C = ISO320 – ISO500
- 4D = ISO63 – ISO250

**Used for Reducing
Centering Ring**

*If required, build
second size by using
previous column
(size code)*

**Clamp
Thread / Material⁴**

- CA = Inch, Aluminum
- CB = Metric, Aluminum
- CC = Inch, 316 SS
- CD = Metric, 316 SS
- CE = Inch, 304 SS

Gasket Material

- G1 = Copper
- G2 = Silver Plated Copper
- G3 = PTFE

For the Following Configurations Select One from Each Option:

Rings & O-ring Material

Option 1 – Centering Rings

- X = No Centering Ring
- 1 = Centering Ring, Aluminum
- 2 = Centering Ring, 304 SS
- 3 = Centering Ring, 316L SS
- 4 = Centering Ring, 316L SS, EP
- 5 = Centering Ring, 316 SS
- 6 = Centering Ring, 316 SS, EP

Option 2 – O-rings

- X = No O-ring
- A = NBR (Buna)
- B = EPDM
- C = FKM (Viton)
- D = Silicone
- E = Kalrez 6375
- F = Kalrez 8900
- G = Kalrez 9100
- H = Kalrez 9500
- J = Kalrez 8575
- K = Kalrez 4079

Option 3 – Outer Rings

- X = No Ring
- A = Spacer, Aluminum
- D = Overpressure, Aluminum
- E = Overpressure, 304 SS
- F = Overpressure, 316 SS
- G = Capture, Aluminum
- H = Capture, 304 SS
- J = Capture, 316 SS
- K = Retaining, 304 SS

Option 4 – O-Ring Color

- Blank = Black
- B = Brown
- G = Green

Hardware Material / Thread

Option 1 – Plate Nut

- X = No Plate Nut
- P = Plate Nut, 304 SS

**Option 2 –
Material &/or Thread**

- X = No Bolts & Washers
- S = Inch
- M = Metric
- T = Inch, 10-8SS (Bolts)
- U = Inch, 10-8SS,
Silver-Plated (Bolts)
- V = Metric, 10-8SS
(Bolts)
- W = Metric, 10-8SS,
Silver-Plated (Bolts)

**Option 3 – Bolt Length
(See catalog for lengths)**

- X = No Bolt
- A = Standard Length A
- B = Standard Length B
- C = Standard Length C

Not all possible part number combinations are available. Part number options may be subject to change. For part availability or to place an order, please submit your order request to inquire@valex.com. Or to find your nearest distributor go to Valex.com.



Valex

Vacuum
Components

Vacuum Bellows & Flexible Hose
Part Number Matrix

XX
Material / Finish¹

Standard Finish
Stainless Steel
VA = 304
VD = 304L
VC = 316L
VQ = 316LN
VT = V22[®] Alloy (UNS N06022)*
VW = Alloy 276 (UNS N10276)

Mechanical Polished
Stainless Steel
VE = 304
VH = 304L
VG = 316L
VU = V22[®] Alloy (UNS N06022)*
VY = Alloy 276 (UNS N10276)

Electropolished
Stainless Steel
VK = 304 EP
VN = 304L EP
VM = 316L EP
VV = V22[®] Alloy (UNS N06022)*
VZ = Alloy 276 (UNS N10276)

- XXX
Configuration Code²

42B = Bellows, Formed, 316L³
42E = Bellows, Edge Welded
42H = Hose, Formed
42R = Hose, Braided Flexible
42T = Bellows, Formed, 321³

- X
Type Code

Connection Type
W = Weld (Buttweld / Socket Weld)
T = Compression Fitting
V = Face Seal, Male
U = Face Seal, Female

Flange Type
N = NW / KF
K = ISO-K
F = ISO-F (Bolted)
C = CF

Notes:

- 1. Finish options are for end connections only.
- 2. All braided hoses are 304/304L.
- 3. Bellows body material only.

* Material: Haynes Hastelloy[®] C-22[®] is available upon request. Hastelloy and C-22 are registered trademarks of Haynes International Inc.

Not all possible part number combinations are available. Part number options may be subject to change.
For part availability or to place an order, please submit your order request to inquire@valex.com. Or to find your nearest distributor go to Valex.com.



XX Size Code	X – X XX by Type Code / Size Code	– XXX Attribute Code
<p>Tube, Fitting O.D.</p> <p>02 = 1/8" 04 = 1/4" 06 = 3/8" 08 = 1/2" 10 = 5/8" 12 = 3/4" 14 = 7/8" 16 = 1" 20 = 1-1/4" 24 = 1-1/2" 26 = 1-5/8" 28 = 1-3/4" 32 = 2" 40 = 2-1/2" 48 = 3" 64 = 4" 80 = 5" 96 = 6" 53 = 8" 55 = 10" 57 = 12"</p> <p>Pipe, Fitting O.D.</p> <p>67 = 1/8 NPS / NPT 68 = 1/4 NPS / NPT 69 = 3/8 NPS / NPT 70 = 1/2 NPS / NPT 71 = 3/4 NPS / NPT 72 = 1 NPS / NPT 74 = 1-1/2 NPS / NPT 84 = 12 NPS (12.75")</p>	<p>NW / KF Flange</p> <p>1A = NW10 (1.18", 30mm O.D.) 1B = NW16 (1.18", 30mm O.D.) 1C = NW25 (1.58", 40mm O.D.) 1D = NW40 (2.16", 55mm O.D.) 1E = NW50 (2.95", 75mm O.D.) 1F = NW20 (1.58", 40mm O.D.) 1G = NW32 (2.16", 55mm O.D.) 1H = NW80 (4.33", 110mm O.D.) 1J = NW100 (5.12", 130mm O.D.) 1K = NW160 (7.09", 180mm O.D.)</p> <p>ISO-K / ISO-F Flange</p> <p>2A = ISO63 (3.74", 95mm O.D.) 2B = ISO80 (4.33", 110mm O.D.) 2C = ISO100 (5.12", 130mm O.D.) 2D = ISO160 (7.09", 180mm O.D.) 2E = ISO200 (9.45", 240mm O.D.) 2F = ISO250 (1.42", 290mm O.D.) 2G = ISO320 (14.75", 370mm O.D.) 2H = ISO400 (17.72", 450mm O.D.) 2J = ISO500 (21.65", 550mm O.D.)</p> <p>CF Flange</p> <p>3A = 1.33" (1.33", 33.8mm O.D.) 3B = 2.12" (2.12", 53.8mm O.D.) 3C = 2.75" (2.73", 69.3mm O.D.) 3D = 3.38" (3.36", 85.3mm O.D.) 3E = 4.50" (4.47", 113.5mm O.D.) 3F = 4.62" (4.61", 117.1mm O.D.) 3G = 6.00" (5.97", 151.6mm O.D.) 3H = 6.75" (6.73", 170.9mm O.D.) 3J = 8.00" (7.97", 202.4mm O.D.) 3K = 10.00" (9.97", 253.2mm O.D.) 3L = 12.00" (11.97", 304.0mm O.D.) 3M = 13.25" (13.25", 336.6mm O.D.) 3N = 14.00" (14.00", 355.6mm O.D.) 3P = 14.50" (14.50", 368.3mm O.D.) 3Q = 16.50" (16.50", 419.1mm O.D.)</p>	<p>See previous column's "Type" & "Size" codes for options.</p> <p>Bellows Length</p> <p>2.5 = 2.5" 3.0 = 3.0" 3.2 = 3.2" 3.5 = 3.5" 4.0 = 4.0" 4.2 = 4.2" 5.0 = 5.0" 5.2 = 5.2" 6.0 = 6.0" 7.0 = 7.0" 8.0 = 8.0" 8.2 = 8.2" 9.0 = 9.0"</p> <p>Hose Length</p> <p>10 = 10.0" 12 = 12.0" 18 = 18.0" 24 = 24.0" 30 = 30.0" 36 = 36.0" 42 = 42.0" 48 = 48.0" 54 = 54.0" 60 = 60.0" 72 = 72.0" 84 = 84.0" 96 = 96.0" 108 = 108.0" 120 = 120.0" 984 = 984.0"</p>

Not all possible part number combinations are available. Part number options may be subject to change.

For part availability or to place an order, please submit your order request to inquire@valex.com. Or to find your nearest distributor go to Valex.com.





Benefit From World Leadership

World class components from Valex don't just end at tube, pipe and fittings. Our product offerings extend to ball valves, instrumentation valves, headers, manifolds, and more. For more information, please visit our website at www.valex.com, or contact your Valex representative for details. Benefit from world leadership, and benefit from Valex.



Valex Corporate Offices & Manufacturing

Valex USA
Corporate Headquarters

6080 Leland Street
Ventura, CA 93003
United States of America
Phone: 805-658-0944



Valex USA
Round Rock, TX

120 E. Old Settlers Blvd.
Round Rock, TX 78664
United States of America
Phone: 512-212-8100



Valex USA
Georgetown, TX

1805 Titan Dr.
Georgetown, Texas 78628
United States of America
Phone: 737-340-4600



Valex Korea

32 Hansan-gil, Cheongbuk-eup
Pyeongtaek-si, Gyeonggi-do
Republic of Korea
Phone: 82-31-683-0119



Valex China

358 Zhonggang Road
Haiyan Economic Dev. Zone,
Jiaxing, Zhejiang 314305
People's Republic of China
Phone: 86-573-86868221

