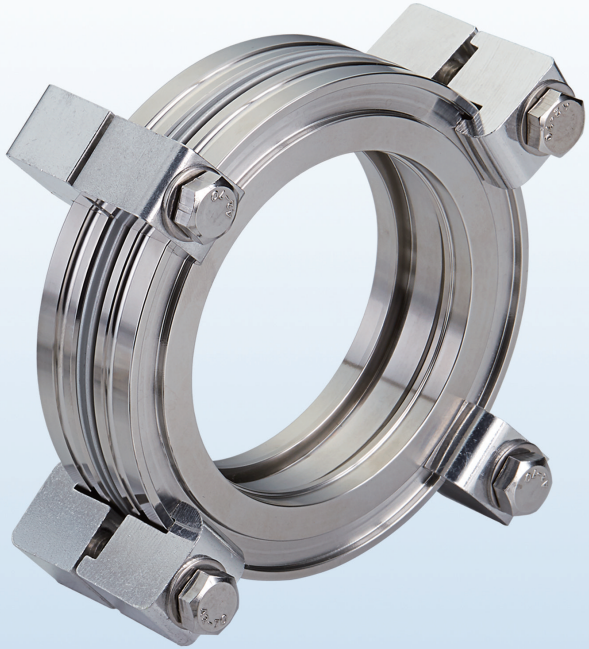
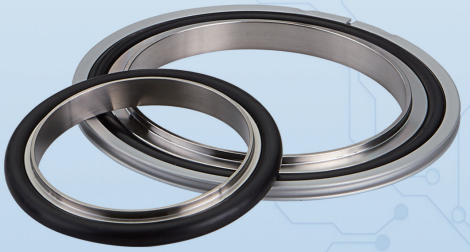
CASTING MACHINING ENGINEERING CO.,LTD

GLOBAL LOCATIONS

CME

A pioneer in stainless steel manufacturing





CME-Taiwan

Add: No.6-1, Lane 71, Lin-Sen Road,
Taoyuan City 330-52, Taiwan, R.O.C.
Tel: +886 3-3615102 / +886 3-3610367
Fax: +886 3-3667377
Email: info@cmevalves.com

CME-China

Add: No. 29, South 2nd Line, Changsha Economic & Technical
Development Zone, Hunan Province, China
Tel: +86 731-84931173 / +86 731-84931174
Fax: +86 731-84931176
Email: info@cmevalves.com

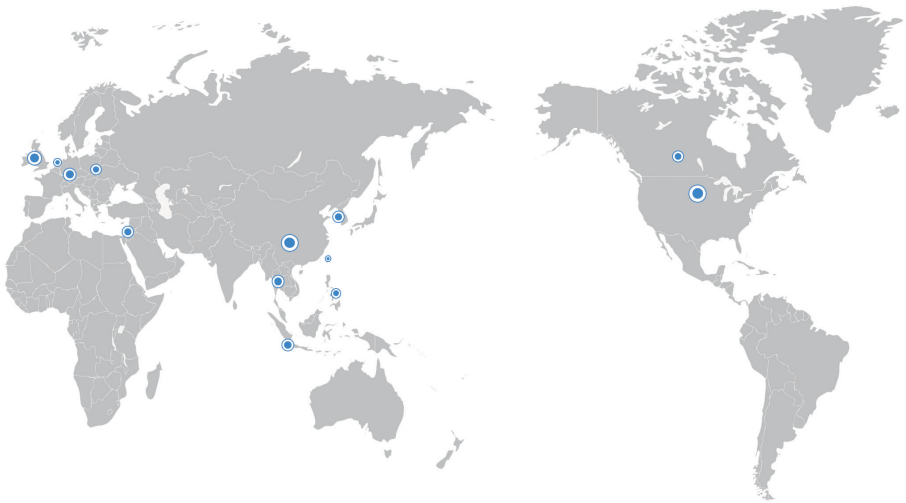
VACUUM COMPONENTS

www.cmevalves.com

CME Group, a leading manufacturer and supplier of stainless steel process fittings, valves, pumps, and specialty products for numerous industries including food and beverage, diary, distillery, pharmaceutical, and semiconductor, was founded in Taiwan since 1986.

With the expansion of the production plant in China, CME brings the advantages from different aspects and serves the markets worldwide with its superior quality and reliable service. CME is ISO 9001: 2015, ISO 14001: 2015, OHSAS 18001: 2007, CE, 3A certified and the products also meet the specification base on different standard requirement.

CME Group is dedicated to the continuation of the principles in which we strongly believe. Our reputation is built on our exceptional quality, advance manufacturing technology, trust and considerate customer service with honesty. For further information, please contact us from the worldwide distribution network.



KF Flanges and Fittings.....Page 3

ISO Flanges and Fittings.....Page 7

Vacuum Ball Valves.....Page 11

Vacuum Butterfly Valves.....Page 15

Weld Tubes and Fittings.....Page 18

Size:

- KF10 thru KF50

Material:

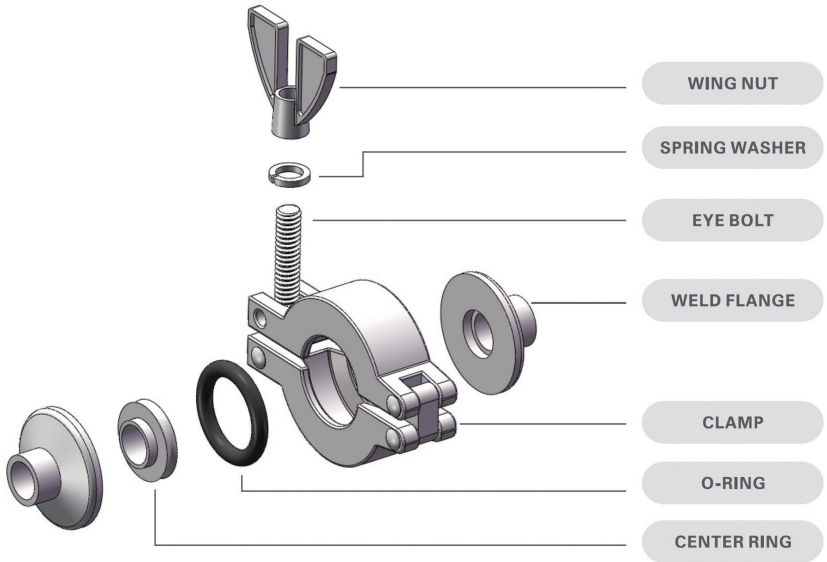
- 304 or 316L stainless steel

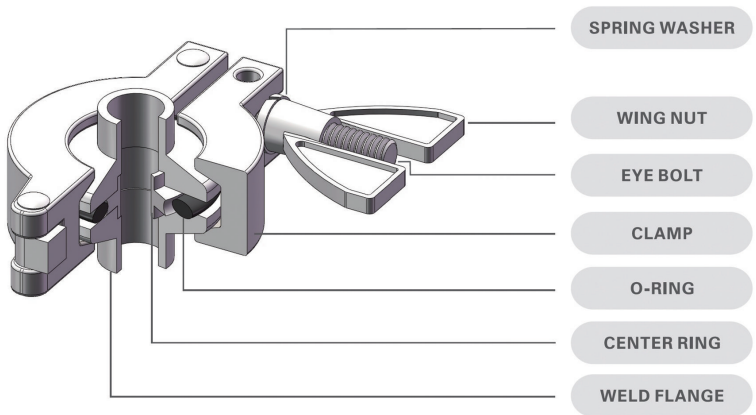
Features:

- Flanges were designed according to ISO2681 specification for standard USA tube sizes.
- Can be used from atmospheric pressure to high vacuum.
- Compatible with other ISO-KF-QF designed flanges.
- Easily assembly and disassembly with no tools.
- Can be heated at 150°C when using FKM O-ring seal.

Specification:

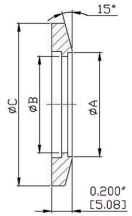
- Vacuum Range : $1x10^{-8}$Torr





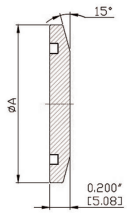
KF Bored Flanges

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]
KF10	1/2″	0.510″ [12.95]	0.451″ [11.46]	1.180″ [29.97]
KF16	3/4″	0.760″ [19.30]	0.680″ [17.27]	1.180″ [29.97]
KF25	1″	1.010″ [25.65]	0.938″ [23.83]	1.575″ [40.00]
KF40	1 1/2″	1.510″ [38.35]	1.438″ [36.53]	2.160″ [54.86]
KF50	2″	2.010″ [51.05]	1.938″ [49.23]	2.950″ [74.93]



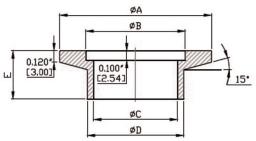
KF Blank Flanges

Size		ΦA Inch [mm]
KF10	1/2″	1.180″ [29.97]
KF16	3/4″	1.180″ [29.97]
KF25	1″	1.575″ [40.00]
KF40	1 1/2″	2.160″ [54.86]
KF50	2″	2.950″ [74.93]



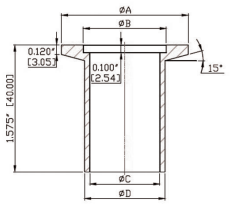
KF Short Butt Weld Fanges

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]	ΦD Inch [mm]	ΦE Inch [mm]
KF10	1/2″	1.180″ [29.97]	0.480″ [12.20]	0.380″ [9.65]	0.500″ [12.70]	0.500″ [12.70]
KF16	3/4″	1.180″ [29.97]	0.680″ [17.27]	0.625″ [15.88]	0.750″ [19.05]	0.500″ [12.70]
KF25	1″	1.575″ [40.00]	1.031″ [26.19]	0.870″ [22.10]	1.000″ [25.40]	0.500″ [12.70]
KF40	1 1/2″	2.160″ [54.86]	1.620″ [41.15]	1.370″ [34.80]	1.500″ [38.10]	0.750″ [19.05]
KF50	2″	2.950″ [74.93]	2.060″ [52.32]	1.870″ [47.50]	2.000″ [50.80]	0.750″ [19.05]



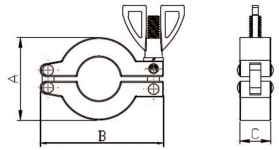
KF Long Butt Weld Flanges

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]	ΦD Inch [mm]
KF10	1/2″	1.180″ [29.97]	0.480″ [12.20]	0.380″ [9.65]	0.500″ [12.70]
KF16	3/4″	1.180″ [29.97]	0.680″ [17.27]	0.625″ [15.88]	0.750″ [19.05]
KF25	1″	1.575″ [40.00]	1.031″ [26.19]	0.870″ [22.10]	1.000″ [25.40]
KF40	1 1/2″	2.160″ [54.86]	1.620″ [41.15]	1.370″ [34.80]	1.500″ [38.10]
KF50	2″	2.950″ [74.93]	2.060″ [52.32]	1.870″ [47.50]	2.000″ [50.80]



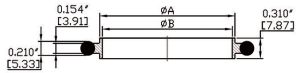
KF Wingnut Clamps

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]
KF10	1/2″	1.690″ [42.93]	2.392″ [60.76]	0.625″ [15.88]
KF16	3/4″	1.690″ [42.93]	2.392″ [60.76]	0.625″ [15.88]
KF25	1″	2.140″ [54.36]	2.796″ [71.01]	0.625″ [15.88]
KF40	1 1/2″	2.750″ [69.85]	3.437″ [87.30]	0.625″ [15.88]
KF50	2″	3.500″ [88.90]	4.245″ [107.82]	0.710″ [18.03]



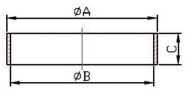
KF Centering Ring with FKM O-ring

Size		O-ring Material	ΦA Inch [mm]	ΦB Inch [mm]
KF10	1/2″	FKM	0.478″ [12.14]	0.439″ [11.14]
KF16	3/4″	FKM	0.669″ [17.00]	0.625″ [15.88]
KF25	1″	FKM	1.024″ [26.00]	0.984″ [25.00]
KF40	1 1/2″	FKM	1.614″ [41.00]	1.570″ [39.88]
KF50	2″	FKM	2.047″ [52.00]	1.967″ [49.96]



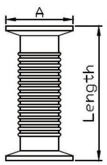
KF Overpressure Rings

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]	Max.PSIG
KF10	1/2″	1.250″ [31.75]	1.186″ [30.12]	0.346″ [8.79]	100
KF16	3/4″	1.250″ [31.75]	1.186″ [30.12]	0.346″ [8.79]	100
KF25	1″	1.660″ [42.16]	1.583″ [40.21]	0.346″ [8.79]	100
KF40	1 1/2″	2.250″ [57.15]	2.169″ [55.09]	0.346″ [8.79]	75
KF50	2″	2.750″ [69.85]	2.620″ [66.55]	0.145″ [3.68]	50



KF Flexible Bellow

Size		A Inch [mm]	Length [mm]
KF10	1/2″	1.180″ [29.97]	3.200″ [81.28]
KF16	3/4″	1.180″ [29.97]	3.200″ [81.28]
KF25	1″	1.575″ [40.00]	4.200″ [106.68]
KF40	1 1/2″	2.160″ [54.86]	4.200″ [106.68]
KF50	2″	2.950″ [74.93]	4.200″ [106.68]



Size:

- ISO63 thru ISO250

Material:

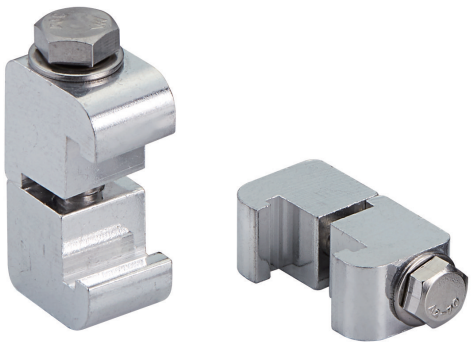
- 304 or 316L stainless steel

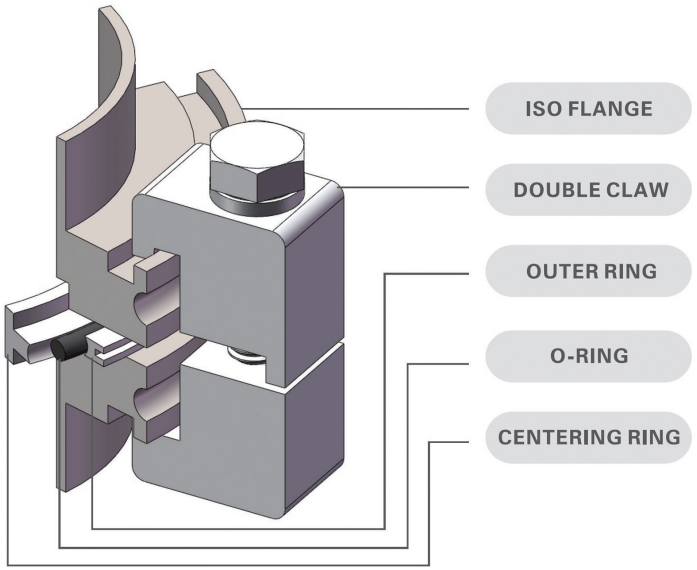
Features:

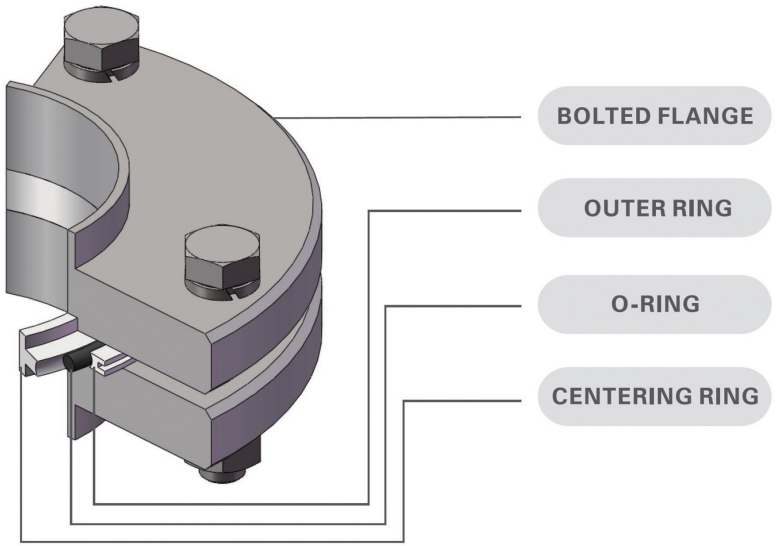
- Flanges were designed according to ISO2681 specification for standard USA tube sizes.
- Can be used from atmospheric pressure to high vacuum.
- Compatible with other ISO-KF-QF designed flanges.
- Easily assembly and disassembly with no tools.
- Can be heated at 150°C when using FKM O-ring seal.

Specification:

- Vacuum Range : $1x10^{-8}$Torr

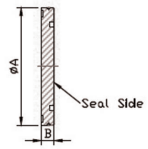






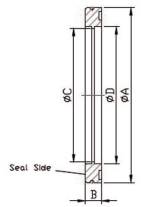
ISO Blank Flanges

Size		ΦA Inch [mm]	ΦB Inch [mm]
ISO63	2 1/2"	3.740" [95.00]	0.470" [11.94]
ISO80	3"	4.331" [110.00]	0.470" [11.94]
ISO100	4"	5.118" [130.00]	0.470" [11.94]
ISO160	6"	7.087" [180.00]	0.470" [11.94]
ISO200	8"	9.449" [240.00]	0.470" [11.94]
ISO250	10"	11.417" [290.00]	0.470" [11.94]



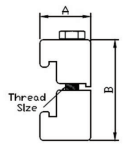
ISO Bored Flanges

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]	ΦD Inch [mm]
ISO63	2 1/2"	3.740" [95.00]	0.470" [11.94]	2.438" [61.93]	2.510" [63.75]
ISO80	3"	4.331" [110.00]	0.470" [11.94]	2.938" [74.63]	3.010" [76.45]
ISO100	4"	5.118" [130.00]	0.470" [11.94]	3.910" [99.31]	4.010" [101.85]
ISO160	6"	7.087" [180.00]	0.470" [11.94]	5.875" [149.23]	6.020" [152.90]
ISO200	8"	9.449" [240.00]	0.470" [11.94]	7.875" [200.00]	8.020" [203.70]
ISO250	10"	11.417" [290.00]	0.470" [11.94]	9.875" [250.83]	10.020" [254.50]



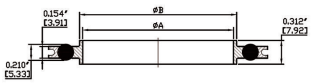
ISO Double Claw Clamps

Size		ΦA Inch [mm]	ΦB Inch [mm]	Thread Size	Clamps Required
ISO63	2 1/2"	0.940" [23.88]	1.960" [49.78]	5/16 - 18	3 - 4
ISO80	3"	0.940" [23.88]	1.960" [49.78]	5/16 - 18	4 - 8
ISO100	4"	0.940" [23.88]	1.960" [49.78]	5/16 - 18	4 - 8
ISO160	6"	1.100" [27.94]	1.960" [49.78]	5/16 - 18	4 - 8
ISO200	8"	1.100" [27.94]	1.960" [49.78]	5/16 - 18	6 - 12
ISO250	10"	1.100" [27.94]	1.960" [49.78]	5/16 - 18	6 - 12



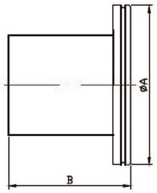
ISO Centering Ring with O-ring and Aluminum Spacer Ring

Size		O-ring Material	ΦA Inch [mm]	ΦB Inch [mm]
ISO63	2 1/2"	FKM	2.630" [66.80]	2.740" [69.59]
ISO80	3"	FKM	3.140" [79.76]	3.250" [82.55]
ISO100	4"	FKM	3.890" [98.80]	4.000" [101.60]
ISO160	6"	FKM	5.900" [149.86]	6.010" [152.65]
ISO200	8"	FKM	8.260" [209.80]	8.370" [212.60]



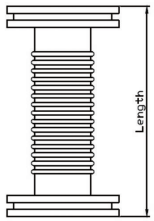
ISO Half Nipples

Size		ΦA Inch [mm]	ΦB Inch [mm]
ISO63	2 1/2"	3.740" [95.00]	3.940" [100.08]
ISO80	3"	4.331" [110.00]	3.940" [100.08]
ISO100	4"	5.118" [130.00]	3.940" [100.08]
ISO160	6"	7.087" [180.00]	3.940" [100.08]
ISO200	8"	9.449" [240.00]	7.380" [187.45]



ISO Flexible Bellow

Size		Length Inch [mm]	Compressed Length Inch [mm]
ISO63	2 1/2"	7.000" [177.80]	6.000" [152.40]
ISO80	3"	7.000" [177.80]	6.000" [152.40]
ISO100	4"	7.000" [177.80]	6.000" [152.40]
ISO160	6"	7.000" [177.80]	6.000" [152.40]
ISO200	8"	7.000" [177.80]	6.000" [152.40]
ISO250	10"	13.500" [342.90]	10.500" [266.70]



Size:

- KF25 thru KF50

Material:

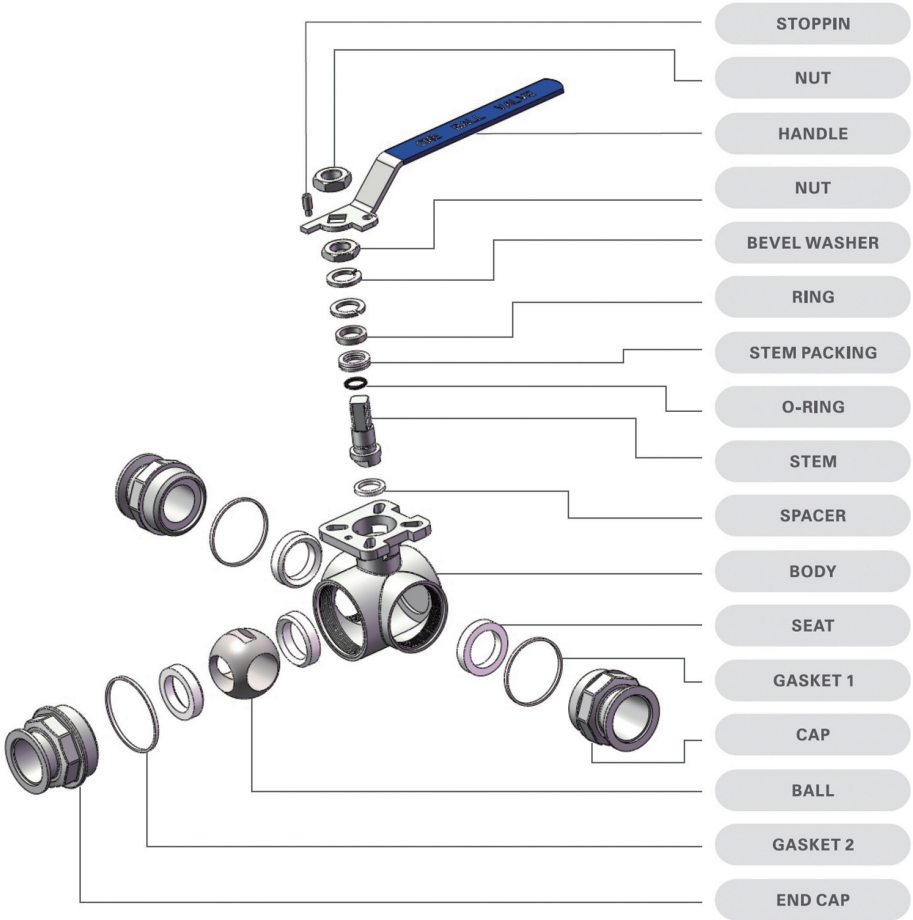
- Body, ends and balls: CF8 stainless steel
- Seal: Virgin PTFE / TFM1600

Features:

- ISO 5211 High mounting pad.
- 4 Piece non-encapsulated seat design.
- T port or L port for option.
- Lockable handle or automation.
- 100% tested before shipping.

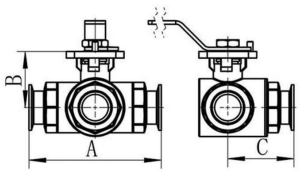
Specification:

- Working Pressure: 1000 PSI WOG
- Vacuum Range : $1x10^{-8}$Torr



KF 3-Way Vacuum Ball Valves

Size		A Inch [mm]	B Inch [mm]	C Inch [mm]	Square Inch [mm]
KF25	1"	4.33" [110.0]	1.97" [50.0]	2.17" [55.0]	0.43" [11.0]
KF40	1 1/2"	6.30" [160.0]	2.68" [68.0]	3.15" [80.0]	0.55" [14.0]
KF50	2"	7.09" [180.0]	2.87" [73.0]	3.54" [90.0]	0.55" [14.0]



Size:

- KF25 thru KF50
- ISO63 thru ISO100

Material:

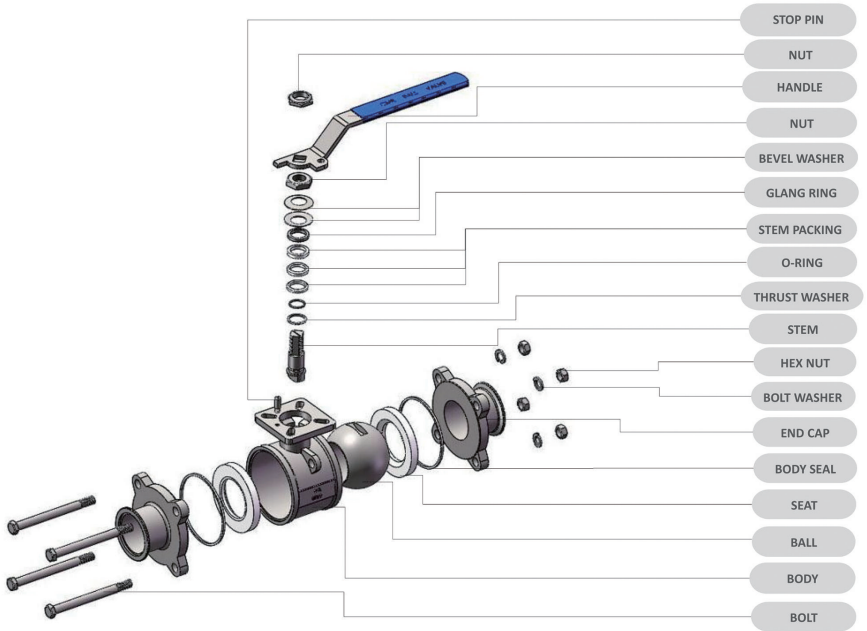
- Body, ends and balls: CF8M stainless steel
- Seal: Virgin PTFE / REFE(15% Glass Fiber) / 25% Carbon PTFE / 50% Stainless Steel PTFE / UHMW

Features:

- Live-loaded stem packing.
- Blow out proof stem.
- Full port design.
- ISO 5211 High mounting pad.
- Encapsulated and non-encapsulated seal for option.
- Lockable handle or automation.
- 100% tested before shipping.

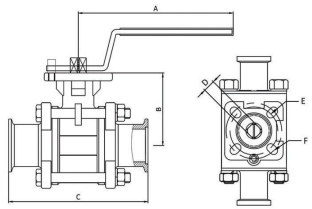
Specification:

- Working Pressure: 1000 PSI WOG
- Vacuum Range : $1x10^{-8}$Torr



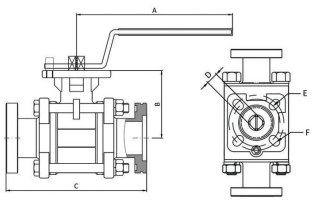
KF 2-Way Vacuum Ball Valves

Size		A Inch [mm]	B Inch [mm]	C Inch [mm]	D Inch [mm]	E	F
KF10	1/2″	4.900" [121.00]	1.535" [39.00]	4.331" [110.00]	0.354" [9.00]	F03	F04
KF16	3/4″	4.764" [121.00]	1.771" [45.00]	4.685" [119.00]	0.354" [9.00]	F03	F04
KF25	1″	5.394" [137.00]	2.087" [53.00]	4.890" [124.20]	0.433" [11.00]	F04	F05
KF40	1 1/2″	7.165" [182.00]	2.717" [69.00]	5.638" [143.20]	0.551" [14.00]	F05	F07
KF50	2″	7.165" [182.00]	3.071" [78.00]	6.397" [162.50]	0.551" [14.00]	F05	F07



ISO 2-Way Vacuum Ball Valves

Size		A Inch [mm]	B Inch [mm]	C Inch [mm]	D Inch [mm]	E	F
ISO63	2 1/2″	14.567" [370.00]	3.800" [96.52]	7.800" [198.12]	0.669" [17.00]	F07	F10
ISO80	3″	14.567" [370.00]	4.200" [106.68]	9.000" [228.60]	0.669" [17.00]	F10	F12
ISO100	4″	15.748" [400.00]	5.300" [134.62]	9.500" [241.30]	0.866" [22.00]	F10	F12



Size:

- ½” thru 8”

Material:

- Body and disc: 316L stainless steel
- Seat: FKM, Silicon, and EPDM.

Features:

- Forged body and disc.
- Various handles and automatic operators for option.
- Polyacetal bushings for reducing friction and increase cycle life.
- 100% tested before shipping.

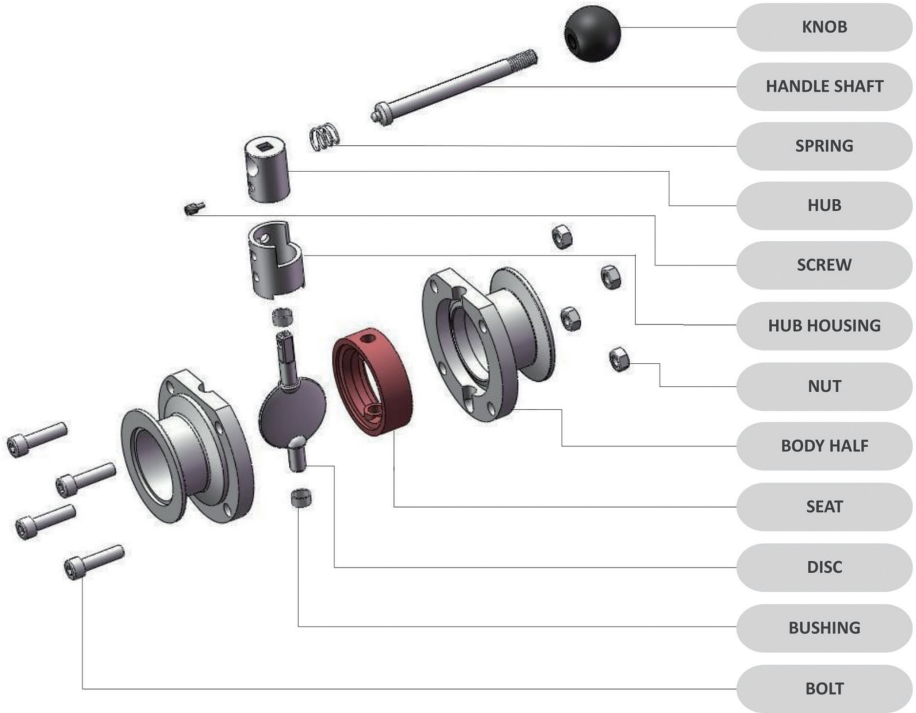
Specification:

- Vacuum Range : $1x10^{-8}$ Torr
- Seat Temperature Range:

  FKM: -20°C~200 °C (-4°F~392 °F)

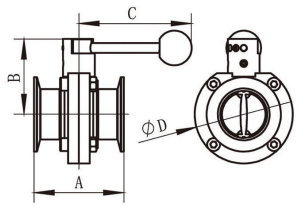
  Silicon : -55 °C ~225 °C (-67 °F ~437 °F)

  EPDM : -55 °C ~150 °C (-67 °F ~302 °F)



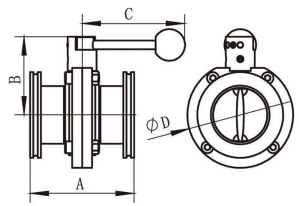
KF Butterfly Valve with Pull Handle

Size		A Inch [mm]	B Inch [mm]	C Inch [mm]	D Inch [mm]
KF10	1/2”	2.87" [73.0]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
KF16	3/4”	2.87" [73.0]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
KF25	1”	2.87" [73.0]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
KF40	1 1/2”	3.38" [85.8]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
KF50	2”	3.57" [90.6]	2.98" [75.8]	4.61" [117.0]	3.90" [99.0]



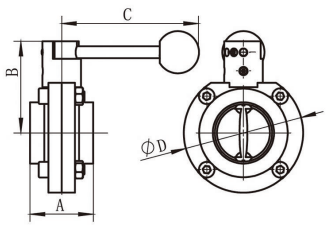
ISO Butterfly Valve with Pull Handle

Size		ΦA Inch [mm]	ΦB Inch [mm]	ΦC Inch [mm]	ΦD Inch [mm]
ISO63	2 1/2”	3.83" [97.2]	3.40" [86.4]	4.61" [117.0]	4.61" [117.0]
ISO80	3”	4.13" [105.0]	3.59" [91.1]	6.54" [166.0]	5.20" [132.0]
ISO100	4”	4.82" [122.4]	4.37" [111.0]	6.54" [166.0]	6.66" [169.1]
ISO160	6”	5.51" [140.0]	5.57" [141.5]	11.53" [292.8]	8.53" [216.6]



Weld Ends Butterfly Valve with Pull Handle

Size	A Inch [mm]	B Inch [mm]	C Inch [mm]	D Inch [mm]
1/2”	1.87" [47.6]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
3/4”	1.87" [47.6]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
1”	1.87" [47.6]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
1 1/2”	1.87" [47.6]	2.65" [67.3]	4.61" [117.0]	3.07" [78.0]
2”	2.06" [52.4]	2.98" [75.8]	4.61" [117.0]	3.90" [99.0]
2 1/2”	2.12" [53.8]	3.40" [86.4]	4.61" [117.0]	4.61" [117.0]
3”	2.50" [63.5]	3.59" [91.1]	6.54" [166.0]	5.20" [132.0]
4”	3.18" [80.7]	4.37" [111.0]	6.54" [166.0]	6.66" [169.1]
6”	3.83" [97.2]	5.57" [141.5]	11.53" [292.8]	8.53" [216.6]
8”	4.97" [126.2]	7.00" [117.9]	18.00" [457.2]	11.20" [284.5]



Size:

- ½” thru 6”

Material:

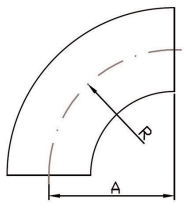
- 304 or 316L stainless steel

Features:

- Butt-Weld fittings include elbows, tees, and reducers.
- Leak free and cleaned for high vacuum use.
- Suitable for high temperature working environment.

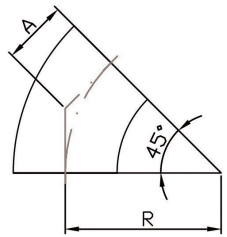
90° Radius Elbows

Size	A Inch [mm]	R Inch [mm]
1/2"	0.750" [19.05]	0.750" [19.05]
3/4"	1.000" [25.40]	1.000" [25.40]
1"	1.500" [38.10]	1.500" [38.10]
1 1/2"	2.250" [57.15]	2.250" [57.15]
2"	3.000" [76.20]	3.000" [76.20]
2 1/2"	3.750" [95.25]	3.750" [95.25]
3"	4.500" [114.30]	4.500" [114.30]
4"	6.000" [152.40]	6.000" [152.40]
6"	9.000" [228.60]	9.000" [228.60]



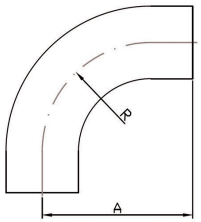
45° Radius Elbows

Size	A Inch [mm]	R Inch [mm]
1/2"	0.310" [7.87]	0.750" [19.05]
3/4"	0.414" [10.52]	1.000" [25.40]
1"	0.621" [15.78]	1.500" [38.10]
1 1/2"	0.932" [23.67]	2.250" [57.15]
2"	1.243" [31.56]	3.000" [76.20]
2 1/2"	1.553" [39.45]	3.750" [95.25]
3"	1.864" [47.34]	4.500" [114.30]
4"	2.485" [63.13]	6.000" [152.40]
6"	3.728" [94.69]	9.000" [228.60]



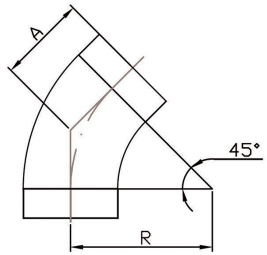
90° Radius Elbows with Tangents

Size	A Inch [mm]	R Inch [mm]
1/2"	0.750" [19.05]	0.750" [19.05]
3/4"	1.420" [36.07]	1.000" [25.40]
1"	1.820" [49.23]	1.500" [38.10]
1 1/2"	2.940" [74.68]	2.250" [57.15]
2"	4.060" [103.12]	3.000" [76.20]
2 1/2"	5.190" [131.83]	3.750" [95.25]
3"	6.310" [160.28]	4.500" [114.30]
4"	8.310" [211.07]	6.000" [152.40]
6"	11.500" [292.10]	9.000" [228.60]



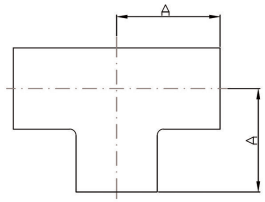
45° Radius Elbows with Tangents

Size	A Inch [mm]	R Inch [mm]
1/2"	0.310" [7.87]	0.750" [19.05]
3/4"	0.760" [19.30]	1.000" [25.40]
1"	1.190" [30.23]	1.500" [38.10]
1 1/2"	1.630" [41.40]	2.250" [57.15]
2"	2.310" [58.67]	3.000" [76.20]
2 1/2"	3.000" [76.20]	3.750" [95.25]
3"	3.680" [93.47]	4.500" [114.30]
4"	4.810" [122.17]	6.000" [152.40]
6"	7.330" [186.18]	9.000" [228.60]



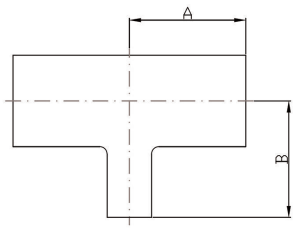
Tees

Size	A Inch [mm]
1/2"	0.750" [19.05]
3/4"	1.000" [25.40]
1"	1.880" [47.75]
1 1/2"	2.250" [57.15]
2"	3.000" [76.20]
2 1/2"	3.000" [76.20]
3"	3.250" [82.55]
4"	3.880" [98.55]
6"	5.000" [127.00]



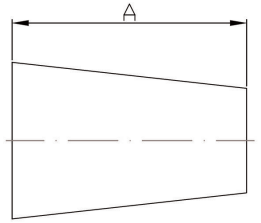
Reducer Tees

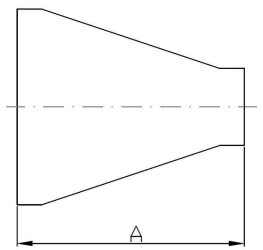
Size	A Inch [mm]	B Inch [mm]
1" x 3/4"	1.880'' [47.75]	2.130'' [54.10]
1 1/2" x 3/4"	2.250'' [57.15]	2.250'' [57.15]
1 1/2" x 1"	2.250'' [57.15]	2.380'' [60.45]
2" x 1"	3.000'' [76.20]	2.380'' [60.45]
2" x 1 1/2"	3.000'' [76.20]	2.380'' [60.45]
2 1/2" x 1 1/2"	3.000'' [76.20]	2.500'' [63.50]
2 1/2" x 2"	3.000'' [76.20]	2.750'' [69.85]
3" x 1 1/2"	3.250'' [82.55]	3.250'' [82.55]
3" x 2"	3.250'' [82.55]	3.000'' [76.20]
3" x 2 1/2"	3.250'' [82.55]	3.250'' [82.55]
4" x 1 1/2"	3.880'' [98.55]	3.500'' [88.90]
4" x 2"	3.880'' [98.55]	4.000'' [101.60]
4" x 2 1/2"	3.880'' [98.55]	3.750'' [95.25]
4" x 3"	3.880'' [98.55]	3.750'' [95.25]
6" x 3"	5.000'' [127.00]	4.750'' [120.65]
6" x 4"	5.000'' [127.00]	4.880'' [123.95]



Conical Reducers

Size	A Inch [mm]
1" x 3/4"	1.000" [25.40]
1 1/2" x 3/4"	3.000" [76.20]
1 1/2" x 1"	2.000" [50.80]
2" x 1"	4.000" [101.60]
2" x 1 1/2"	2.000" [50.80]
2 1/2" x 1 1/2"	4.000" [101.60]
2 1/2" x 2"	2.000" [50.80]
3" x 2"	4.000" [101.60]
3" x 2 1/2"	2.000" [50.80]
4" x 1 1/2"	10.000" [254.00]
4" x 2"	8.000" [203.20]
4" x 2 1/2"	6.000" [152.40]
4" x 3"	4.000" [101.60]
6" x 4"	4.000" [101.60]



Conical Reducers with Tangents

Size	A Inch [mm]
1'' × 3/4''	1.375'' [34.93]
1 1/2'' × 3/4''	2.375'' [60.33]
1 1/2'' × 1''	2.375'' [60.33]
2'' × 1''	2.375'' [60.33]
2'' × 1 1/2''	2.375'' [60.33]
2 1/2'' × 1 1/2''	2.375'' [60.33]
2 1/2'' × 2''	2.375'' [60.33]
3'' × 1 1/2''	3.625'' [92.08]
3'' × 2''	3.625'' [92.08]
3'' × 2 1/2''	3.625'' [92.08]
4'' × 2''	3.625'' [92.08]
4'' × 2 1/2''	3.625'' [92.08]
4'' × 3''	3.625'' [92.08]