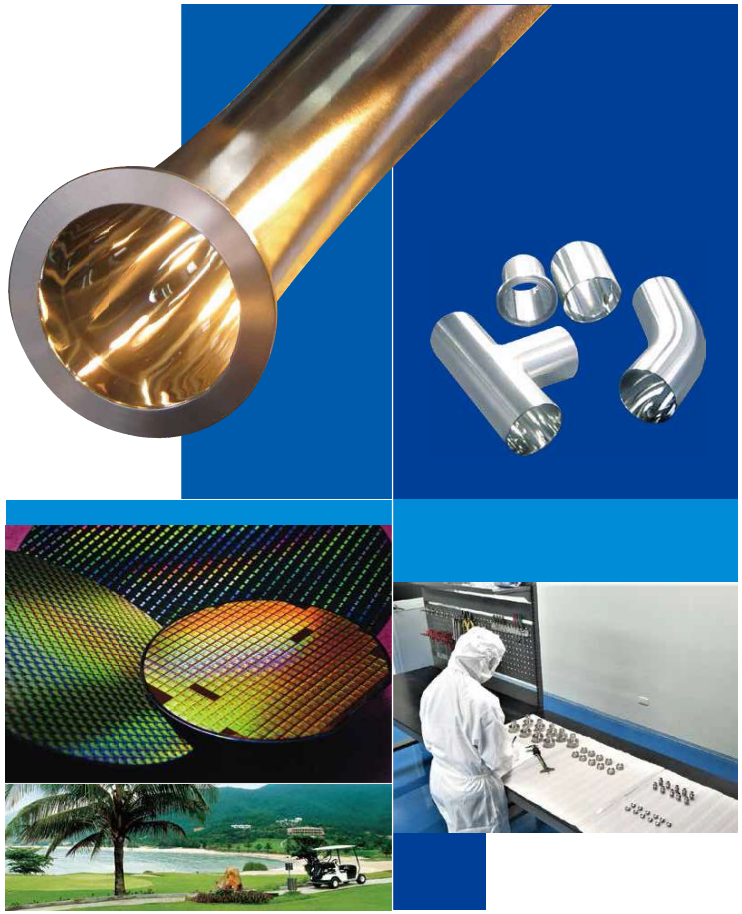
# Semi-conductor Fitty Tube





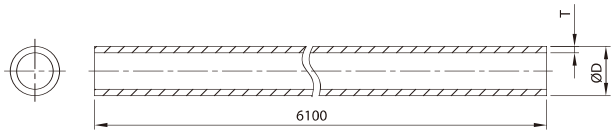


## CSE SEMI-CONDUCTOR/MICRO-ELECTRONICS

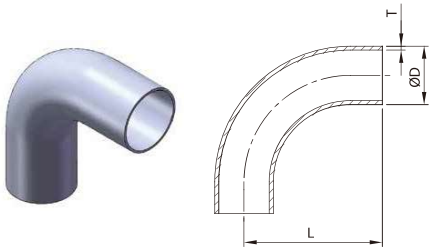
CSE developed our semiconductor, vacuum pipe fitting and components step by step by means of good produce techniques experience of sanitary pipe fitting and valve.

Our Vacuum and semiconductor fitting include:
Clamp-Aluminum and Stainless steel and claw clamp are available. Flange-KF, ISO specification.
Reducer-Blank flange and all of Elbow, Tee, Reducer. Ra≤0.4μm by machine and polished can be provided on requested.
We also can offer Electro-polished and blasted surfaces.
So far our products have been successful promoted to Germany, U.K, Japan and local building projects base on our flexible produce ability and strict control.

## Vacuum Components (A size)



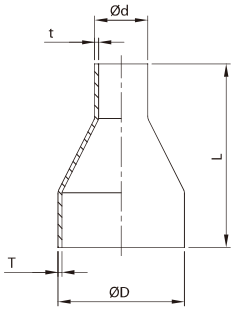

| SIZE | | ØD | T |
|---|---|---|---|
| 6A | 1/8" | 10.5 | 1 |
| 8A | 1/4" | 13.8 | 1.2 |
| 10A | 3/8" | 17.3 | 1.2 |
| 15A | 1/2" | 21.7 | 1.65 |
| 20A | 3/4" | 27.2 | 1.65 |
| 25A | 1.0" | 34 | 1.65 |
| 32A | 1.25" | 42.7 | 1.65 |
| 40A | 1.5" | 48.6 | 1.65 |
| 50A | 2.0" | 60.5 | 1.65 |
| 65A | 2.5" | 76.3 | 2.1 |
| 80A | 3.0" | 89.1 | 2.1 |
| 90A | 3.5" | 101.6 | 2.1 |
| 100A | 4.0" | 114.3 | 2.1 |




### SCF 90° ELBOW

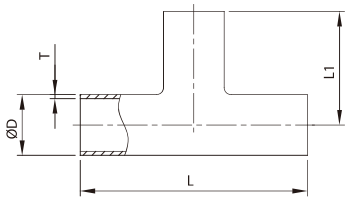
| SIZE | ØD | L | T |
|---|---|---|---|
| 10A | 17.3 | 60 | 1.2 |
| 15A | 21.7 | 65 | 1.65 |
| 20A | 27.2 | 70 | 1.65 |
| 25A | 34 | 75 | 1.65 |
| 32A | 42.7 | 90 | 1.65 |
| 40A | 48.6 | 104 | 1.65 |
| 50A | 60.5 | 123 | 1.65 |
| 65A | 76.3 | 115 | 2.1 |
| 80A | 89.1 | 128 | 2.1 |
| 100A | 114.3 | 153 | 2.1 |

# Vacuum Components (A size)




## SCF CONCENTRIC REDUCER

| SIZE | ØD | Ød | L | T | t |
|---|---|---|---|---|---|
| 20A*15A | 27.2 | 21.7 | 120 | 1.65 | 1.65 |
| 25A*15A | 34 | 21.7 | 125 | 1.65 | 1.65 |
| 25A*20A | 34 | 27.2 | 125 | 1.65 | 1.65 |
| 32A*15A | 42.7 | 21.7 | 139 | 1.65 | 1.65 |
| 32A*20A | 42.7 | 27.2 | 139 | 1.65 | 1.65 |
| 32A*25A | 42.7 | 34 | 139 | 1.65 | 1.65 |
| 40A*20A | 48.6 | 27.2 | 152 | 1.65 | 1.65 |
| 40A*25A | 48.6 | 34 | 152 | 1.65 | 1.65 |
| 40A*32A | 48.6 | 42.7 | 162 | 1.65 | 1.65 |
| 50A*20A | 60.5 | 27.2 | 164 | 1.65 | 1.65 |
| 50A*25A | 60.5 | 34 | 164 | 1.65 | 1.65 |
| 50A*32A | 60.5 | 42.7 | 174 | 1.65 | 1.65 |
| 50A*40A | 60.5 | 48.6 | 174 | 1.65 | 1.65 |
| 65A*32A | 76.3 | 42.7 | 192 | 2.1 | 1.65 |
| 65A*40A | 76.3 | 48.6 | 192 | 2.1 | 1.65 |
| 65A*50A | 76.3 | 60.5 | 192 | 2.1 | 1.65 |
| 80A*32A | 89.1 | 42.7 | 192 | 2.1 | 1.65 |
| 80A*40A | 89.1 | 48.6 | 192 | 2.1 | 1.65 |
| 80A*50A | 89.1 | 60.5 | 192 | 2.1 | 1.65 |
| 80A*65A | 89.1 | 76.3 | 197 | 2.1 | 2.1 |
| 100A*40A | 114.3 | 48.6 | 205 | 2.1 | 1.65 |
| 100A*50A | 114.3 | 60.5 | 205 | 2.1 | 1.65 |
| 100A*65A | 114.3 | 76.3 | 210 | 2.1 | 2.1 |
| 100A*80A | 114.3 | 89.1 | 210 | 2.1 | 2.1 |



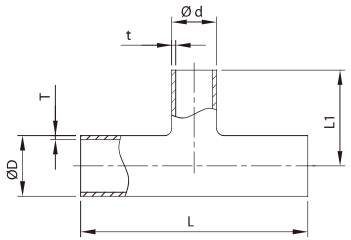
## SCF EQUAL WELD TEE

| SIZE | ØD | L | L1 | T |
|---|---|---|---|---|
| 10A | 17.3 | 100 | 50 | 1.2 |
| 15A | 21.7 | 110 | 55 | 1.65 |
| 20A | 27.2 | 110 | 55 | 1.65 |
| 25A | 34 | 120 | 60 | 1.65 |
| 32A | 42.7 | 150 | 75 | 1.65 |
| 40A | 48.6 | 160 | 80 | 1.65 |
| 50A | 60.5 | 170 | 85 | 1.65 |
| 65A | 76.3 | 200 | 100 | 2.1 |
| 80A | 89.1 | 210 | 105 | 2.1 |
| 100A | 114.3 | 240 | 120 | 2.1 |





# Vacuum Components (A size)

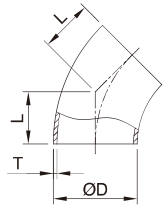


## SCF REDUCING TEE

| SIZE | ØD | Ød | L | L1 | T | t |
|---|---|---|---|---|---|---|
| 20A*15A | 27.2 | 21.7 | 110 | 55 | 1.65 | 1.65 |
| 25A*15A | 34 | 21.7 | 120 | 60 | 1.65 | 1.65 |
| 25A*20A | 34 | 27.2 | 120 | 60 | 1.65 | 1.65 |
| 32A*15A | 42.7 | 21.7 | 140 | 70 | 1.65 | 1.65 |
| 32A*20A | 42.7 | 27.2 | 140 | 70 | 1.65 | 1.65 |
| 32A*25A | 42.7 | 34 | 140 | 70 | 1.65 | 1.65 |
| 40A*15A | 48.6 | 21.7 | 140 | 70 | 1.65 | 1.65 |
| 40A*20A | 48.6 | 27.2 | 140 | 70 | 1.65 | 1.65 |
| 40A*25A | 48.6 | 34 | 140 | 70 | 1.65 | 1.65 |
| 40A*32A | 48.6 | 42.7 | 160 | 80 | 1.65 | 1.65 |
| 50A*15A | 60.5 | 21.7 | 140 | 75 | 1.65 | 1.65 |
| 50A*20A | 60.5 | 27.2 | 140 | 75 | 1.65 | 1.65 |
| 50A*25A | 60.5 | 34 | 140 | 75 | 1.65 | 1.65 |
| 50A*32A | 60.5 | 42.7 | 160 | 85 | 1.65 | 1.65 |
| 50A*40A | 60.5 | 48.6 | 160 | 85 | 1.65 | 1.65 |
| 65A*15A | 76.3 | 21.7 | 150 | 85 | 2.1 | 1.65 |
| 65A*20A | 76.3 | 27.2 | 150 | 85 | 2.1 | 1.65 |
| 65A*25A | 76.3 | 34 | 150 | 85 | 2.1 | 1.65 |
| 65A*32A | 76.3 | 42.7 | 180 | 95 | 2.1 | 1.65 |
| 65A*40A | 76.3 | 48.6 | 180 | 95 | 2.1 | 1.65 |
| 65A*50A | 76.3 | 60.5 | 180 | 95 | 2.1 | 1.65 |
| 80A*15A | 89.1 | 21.7 | 150 | 90 | 2.1 | 1.65 |
| 80A*20A | 89.1 | 27.2 | 150 | 90 | 2.1 | 1.65 |
| 80A*25A | 89.1 | 34 | 150 | 90 | 2.1 | 1.65 |
| 80A*32A | 89.1 | 42.7 | 180 | 100 | 2.1 | 1.65 |
| 80A*40A | 89.1 | 48.6 | 180 | 100 | 2.1 | 1.65 |
| 80A*50A | 89.1 | 60.5 | 180 | 100 | 2.1 | 1.65 |
| 80A*65A | 89.1 | 76.3 | 200 | 105 | 2.1 | 2.1 |
| 100A*15A | 114.3 | 21.7 | 150 | 100 | 2.1 | 1.65 |
| 100A*20A | 114.3 | 27.2 | 150 | 100 | 2.1 | 1.65 |
| 100A*25A | 114.3 | 34 | 150 | 100 | 2.1 | 1.65 |
| 100A*32A | 114.3 | 42.7 | 180 | 110 | 2.1 | 1.65 |
| 100A*40A | 114.3 | 48.6 | 180 | 110 | 2.1 | 1.65 |
| 100A*50A | 114.3 | 60.5 | 180 | 110 | 2.1 | 1.65 |
| 100A*65A | 114.3 | 76.3 | 210 | 120 | 2.1 | 2.1 |
| 100A*80A | 114.3 | 89.1 | 210 | 120 | 2.1 | 2.1 |

# Vacuum Components (USA type)

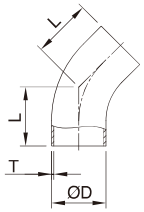
## 45° Short Elbow




## 45° Elbow

| SIZE | ØD | L | T |
|---|---|---|---|
| 1.0" | 25.4 | 15.8 | 1.65 |
| 1.5" | 38.1 | 23.8 | 1.65 |
| 2.0" | 50.8 | 31.75 | 1.65 |
| 2.5" | 63.5 | 39.6 | 1.65 |
| 3.0" | 76.2 | 47.6 | 1.65 |
| 4.0" | 101.6 | 63.5 | 2.1 |

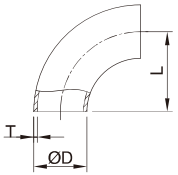
## 45° Long Elbow




## 45° Elbow

| SIZE | ØD | L | T |
|---|---|---|---|
| 1.0" | 25.4 | 30.2 | 1.65 |
| 1.5" | 38.1 | 41.3 | 1.65 |
| 2.0" | 50.8 | 58.7 | 1.65 |
| 2.5" | 63.5 | 76.2 | 1.65 |
| 3.0" | 76.2 | 93.7 | 1.65 |
| 4.0" | 101.6 | 122.2 | 2.1 |

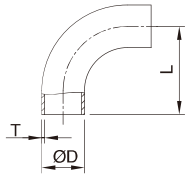
## 90° Short Elbow




## 90° Bend

| SIZE | ØD | L | T |
|---|---|---|---|
| 1.0" | 25.4 | 38.1 | 1.65 |
| 1.5" | 38.1 | 57.2 | 1.65 |
| 2.0" | 50.8 | 76.2 | 1.65 |
| 2.5" | 63.5 | 95.25 | 1.65 |
| 3.0" | 76.2 | 114.3 | 1.65 |
| 4.0" | 101.6 | 152.4 | 2.1 |

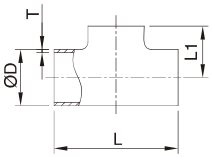
## 90° Long Elbow




## 90° Bend

| SIZE | ØD | L | T |
|---|---|---|---|
| 1.0" | 25.4 | 52.4 | 1.65 |
| 1.5" | 38.1 | 74.6 | 1.65 |
| 2.0" | 50.8 | 103.2 | 1.65 |
| 2.5" | 63.5 | 131.8 | 1.65 |
| 3.0" | 76.2 | 160.3 | 1.65 |
| 4.0" | 101.6 | 211.1 | 2.1 |

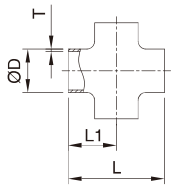
## Welding Tee




## Tee

| SIZE | ØD | L | L1 | T |
|---|---|---|---|---|
| 1.0" | 25.4 | 95.2 | 47.6 | 1.65 |
| 1.5" | 38.1 | 114.4 | 57.2 | 1.65 |
| 2.0" | 50.8 | 152.4 | 76.2 | 1.65 |
| 2.5" | 63.5 | 152.4 | 76.2 | 1.65 |
| 3.0" | 76.2 | 165.2 | 82.6 | 1.65 |
| 4.0" | 101.6 | 196.8 | 98.4 | 2.1 |

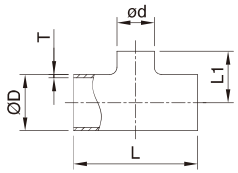
## Cross




## Cross

| SIZE | ØD | L | L1 | T |
|---|---|---|---|---|
| 1.0" | 25.4 | 95.2 | 47.6 | 1.65 |
| 1.5" | 38.1 | 114.4 | 57.2 | 1.65 |
| 2.0" | 50.8 | 152.4 | 76.2 | 1.65 |
| 2.5" | 63.5 | 152.4 | 76.2 | 1.65 |
| 3.0" | 76.2 | 165.2 | 82.6 | 1.65 |
| 4.0" | 101.6 | 196.8 | 98.4 | 2.1 |

## Reducing Tee




## Reducing Tee

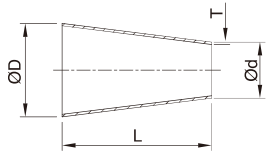
| SIZE | ØD | Ød | L | L1 | T |
|---|---|---|---|---|---|
| 1.5"x1.0" | 38.1 | 25.4 | 114.3 | 53.98 | 1.65 |
| 2.0"x1.0" | 50.8 | 25.4 | 152.4 | 60.3 | 1.65 |
| 2.0"x1.5" | 50.8 | 38.1 | 152.4 | 63.5 | 1.65 |
| 2.5"x1.5" | 63.5 | 38.1 | 152.4 | 69.85 | 1.65 |
| 2.5"x2.0" | 63.5 | 50.8 | 152.4 | 82.55 | 1.65 |
| 3.0"x1.5" | 76.2 | 38.1 | 165.1 | 76.2 | 1.65 |
| 3.0"x2.0" | 76.2 | 50.8 | 165.1 | 88.90 | 1.65 |
| 3.0"x2.5" | 76.2 | 63.5 | 165.1 | 82.55 | 1.65 |
| 4.0"x2.0" | 101.6 | 50.8 | 196.8 | 101.6 | 2.1 |
| 4.0"x2.5" | 101.6 | 63.5 | 196.8 | 95.25 | 2.1 |
| 4.0"x3.0" | 101.6 | 76.2 | 196.8 | 95.25 | 2.1 |





# Vacuum Components (USA type)

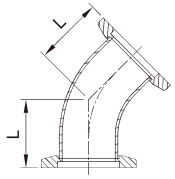
## Concentric Reducer




## Concentric Reducer

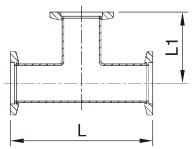
| SIZE | ØD | Ød | L | T |
|---|---|---|---|---|
| 1.5"x1.0" | 38.1 | 25.4 | 50.8 | 1.65 |
| 2.0"x1.5" | 50.8 | 38.1 | 50.8 | 1.65 |
| 2.5"x1.5" | 63.5 | 38.1 | 101.6 | 1.65 |
| 2.5"x2.0" | 63.5 | 50.8 | 50.8 | 1.65 |
| 3.0"x1.5" | 76.2 | 38.1 | 152.4 | 1.65 |
| 3.0"x2.0" | 76.2 | 50.8 | 101.6 | 1.65 |
| 3.0"x2.5" | 76.2 | 63.5 | 50.8 | 1.65 |
| 4.0"x1.5" | 101.6 | 38.1 | 254 | 2.1 |
| 4.0"x2.0" | 101.6 | 50.8 | 203.2 | 2.1 |
| 4.0"x2.5" | 101.6 | 63.5 | 152.4 | 2.1 |
| 4.0"x3.0" | 101.6 | 76.2 | 101.6 | 2.1 |

## 45° Elbow Flange



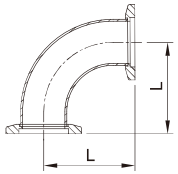

| SIZE | O.D | L |
|---|---|---|
| KF25 | 1.0" | 28.44 |
| KF40 | 1.5" | 42.67 |
| KF50 | 2.0" | 50.54 |

## Tee Flange



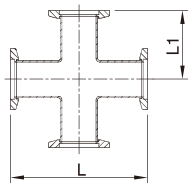

| SIZE | O.D | L | L1 |
|---|---|---|---|
| KF25 | 1.0" | 100.07 | 50.03 |
| KF40 | 1.5" | 130.04 | 65.02 |
| KF50 | 2.0" | 139.95 | 70.01 |

## 90° Elbow Flange



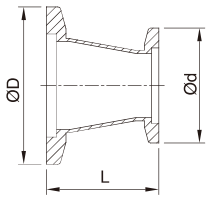

| SIZE | O.D | L |
|---|---|---|
| KF25 | 1.0" | 51.6 |
| KF40 | 1.5" | 61.0 |
| KF50 | 2.0" | 80.0 |

## 4-Way Cross Flange



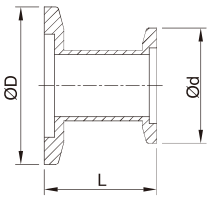

| SIZE | O.D | L | L1 |
|---|---|---|---|
| KF25 | 1.0" | 103.2 | 51.6 |
| KF40 | 1.5" | 122.0 | 61.0 |
| KF50 | 2.0" | 160.0 | 80.0 |

## Conical Reducer




| ØD | Ød | L |
|---|---|---|
| KF25 | KF16 | 39.9 |
| KF40 | KF16 | 39.9 |
| KF40 | KF25 | 39.9 |
| KF50 | KF16 | 39.9 |
| KF50 | KF25 | 39.9 |
| KF50 | KF40 | 39.9 |

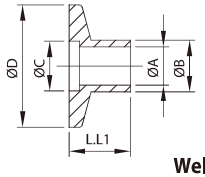
## Straight Reducer




| ØD | Ød | L |
|---|---|---|
| KF25 | KF16 | 39.9 |
| KF40 | KF16 | 39.9 |
| KF40 | KF25 | 39.9 |
| KF50 | KF16 | 39.9 |
| KF50 | KF25 | 39.9 |
| KF50 | KF40 | 39.9 |

# Vacuum Components (USA type)

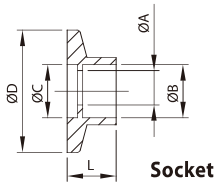
## Weld Flange




### Weld Flange

| SIZE | ØA | ØB | ØC | ØD | L | L1 |
|---|---|---|---|---|---|---|
| KF-10 | 9.4 | 12.7 | 12.19 | 30 | 12.7 | 40 |
| KF-16 | 15.75 | 19.05 | 17.27 | 30 | 12.7 | 40 |
| KF-25 | 22.1 | 25.4 | 26.19 | 40 | 12.7 | 40 |
| KF-40 | 34.8 | 38.1 | 41.15 | 55 | 19.05 | 40 |
| KF-50 | 47.5 | 50.8 | 52.32 | 75 | 19.05 | 40 |

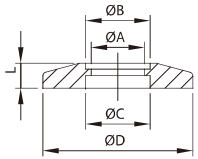
## Socket Weld Flange




### Socket Weld Flange

| SIZE | ØA | ØB | ØC | ØD | L |
|---|---|---|---|---|---|
| KF-10 | 12.2 | 13.0 | 12.19 | 30 | 12.7 |
| KF-16 | 17.2 | 19.3 | 17.27 | 30 | 12.7 |
| KF-25 | 26.2 | 25.7 | 26.19 | 40 | 12.7 |
| KF-40 | 41.2 | 38.4 | 41.15 | 55 | 12.7 |
| KF-50 | 52.2 | 51.1 | 52.32 | 75 | 12.7 |

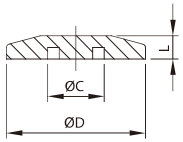
## Bored Flange




### Bored Flange

| SIZE | ØA | ØB | ØC | ØD | L |
|---|---|---|---|---|---|
| KF-25 | 22.86 | 25.7 | 26.2 | 40 | 5 |
| KF-40 | 35.56 | 38.4 | 41.2 | 55 | 5 |
| KF-50 | 48.26 | 51 | 52.2 | 75 | 5 |

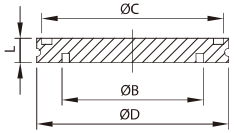
## Blank Flange




### Blank Flange

| SIZE | ØC | ØD | L |
|---|---|---|---|
| KF-10 | 12.2 | 30 | 5 |
| KF-16 | 17.2 | 30 | 5 |
| KF-25 | 26.2 | 40 | 5 |
| KF-40 | 41.2 | 55 | 5 |
| KF-50 | 52.5 | 75 | 5 |

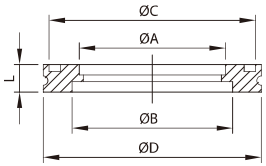
## ISO-Blank Flange




### Blank Flange

| SIZE | ØB | ØC | ØD | L |
|---|---|---|---|---|
| ISO-63 | 70 | 90 | 95 | 12 |
| ISO-80 | 83 | 105 | 110 | 12 |
| ISO-100 | 102 | 125 | 130 | 12 |
| ISO-160 | 153 | 175 | 180 | 12 |
| ISO-200 | 213 | 235 | 240 | 12 |
| ISO-250 | 261 | 285 | 290 | 12 |
| ISO-320 | 318 | 365 | 370 | 17 |
| ISO-400 | 400 | 445 | 450 | 17 |
| ISO-500 | 501 | 545 | 550 | 17 |

## ISO-Bored Flange



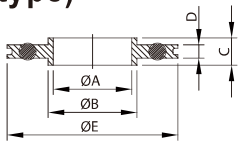

### Weld Flange

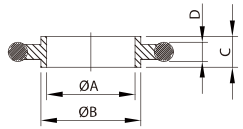
| SIZE | ØA | ØB | ØC | ØD | L |
|---|---|---|---|---|---|
| ISO-63 | 63.7 | 70 | 90 | 95 | 12 |
| ISO-80 | 76.4 | 83 | 105 | 110 | 12 |
| ISO-100 | 101.8 | 102 | 125 | 130 | 12 |
| ISO-160 | 152.9 | 153 | 175 | 180 | 12 |
| ISO-200 | 203.7 | 213 | 235 | 240 | 12 |
| ISO-250 | 254.5 | 261 | 285 | 290 | 12 |
| ISO-320 | 305.3 | 318 | 365 | 370 | 17 |
| ISO-400 | 406.9 | 400 | 445 | 450 | 17 |
| ISO-500 | 508.8 | 501 | 545 | 550 | 17 |





# Centreing Ring (SS304 & Alu Material) with O-Ring (VITON (FKM)) (USA type)



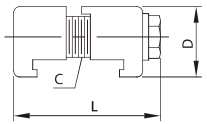

## ISO-Type

| SIZE | ØA | ØB | C | D | ØE |
|---|---|---|---|---|---|
| ISO-63-V-U | 66.8 | 69.6 | 8 | 3.81 | 91 |
| ISO-80-V-U | 79.75 | 82.6 | 8 | 3.81 | 104 |
| ISO-100-V-U | 98.8 | 101.6 | 8 | 3.81 | 123 |
| ISO-160-V-U | 149.86 | 152.6 | 8 | 3.81 | 170 |
| ISO-200-V-U | 207.8 | 212.6 | 8 | 3.81 | 234 |
| ISO-250-V-U | 257.5 | 260.4 | 8 | 3.81 | 285 |
| ISO-320-V-U | 312 | 317.3 | 12 | 5.58 | 340 |
| ISO-400-V-U | 394 | 399.2 | 12 | 5.58 | 416 |
| ISO-500-V-U | 494 | 500.2 | 12 | 5.6 | 555 |

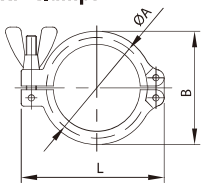
## KF-Type

| SIZE | ØA | ØB | C | D |
|---|---|---|---|---|
| KF-10 | 10 | 12 | 8 | 3.9 |
| KF-16 | 16 | 17 | 8 | 3.9 |
| KF-25 | 25 | 26 | 8 | 3.9 |
| KF-40 | 40 | 41 | 8 | 3.9 |
| KF-50 | 50 | 52 | 8 | 3.9 |

## ISO-Double Claw Clamp




## KF-Clamps

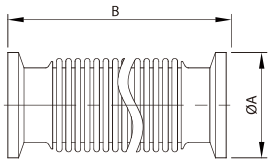


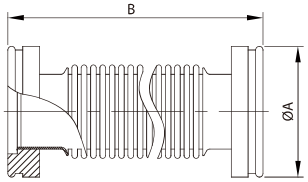

### Double Claw Clamp

| SIZE | C | D | L |
|---|---|---|---|
| ISO-63 | M8 | 24.1 | 50.3 |
| ISO-80 | M8 | 24.1 | 50.3 |
| ISO-100 | M8 | 24.1 | 50.3 |
| ISO-160 | M10 | 27.9 | 50 |

### KF-Clamps

| SIZE | ØA | ØB | L |
|---|---|---|---|
| 10/16 | 35 | 45 | 62 |
| 20/25 | 45 | 55 | 73 |
| 32/40 | 60 | 70 | 86.1 |
| 50 | 80 | 96 | 123 |




## NW FLEXIBLE HOSES

| SIZE | ØA | B |
|---|---|---|
| KF-16-250 | 30 | 250 |
| KF-16-500 | 30 | 500 |
| KF-16-750 | 30 | 750 |
| KF-16-1000 | 30 | 1000 |
| KF-25-250 | 40 | 250 |
| KF-25-500 | 40 | 500 |
| KF-25-750 | 40 | 750 |
| KF-25-1000 | 40 | 1000 |

| SIZE | ØA | ØB |
|---|---|---|
| KF-40-250 | 55 | 250 |
| KF-40-500 | 55 | 500 |
| KF-40-750 | 55 | 750 |
| KF-40-1000 | 55 | 1000 |
| KF-50-250 | 75 | 250 |
| KF-50-500 | 75 | 500 |
| KF-50-750 | 75 | 750 |
| KF-50-1000 | 75 | 1000 |

## ISO FLEXIBLE HOSES

| SIZE | ØA | ØB |
|---|---|---|
| ISO-63-250 | 95 | 250 |
| ISO-63-500 | 95 | 500 |
| ISO-63-750 | 95 | 750 |
| ISO-63-1000 | 95 | 1000 |
| ISO-80-250 | 110 | 250 |
| ISO-80-500 | 110 | 500 |

| SIZE | ØA | ØB |
|---|---|---|
| ISO-80-750 | 110 | 750 |
| ISO-80-1000 | 110 | 1000 |
| ISO-100-250 | 130 | 250 |
| ISO-100-500 | 130 | 500 |
| ISO-100-750 | 130 | 750 |
| ISO-100-1000 | 130 | 1000 |