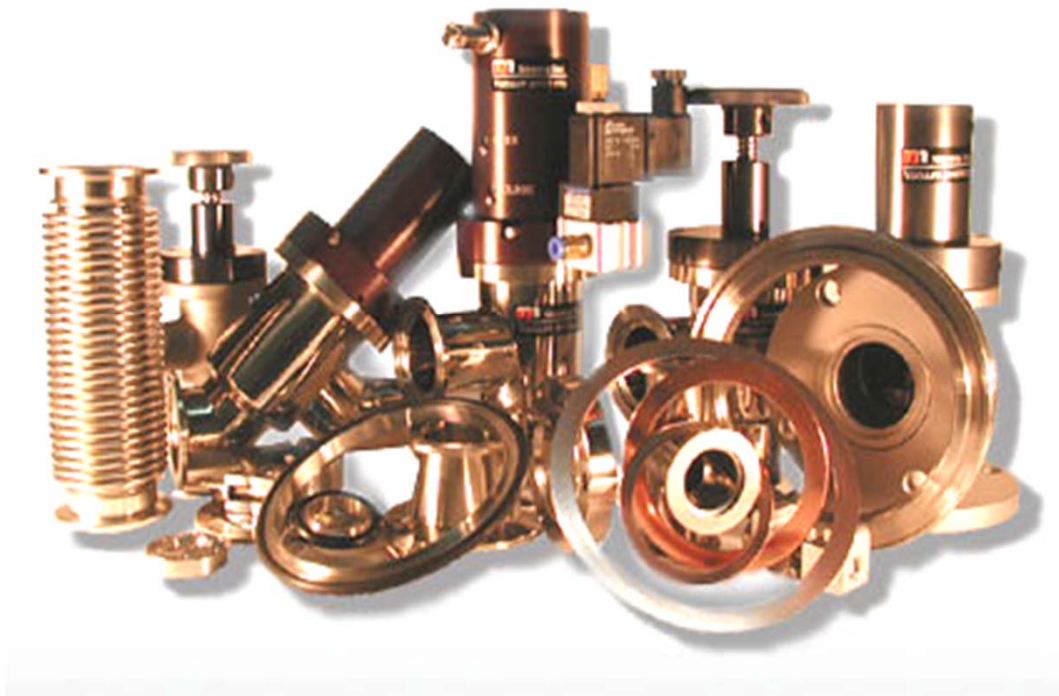
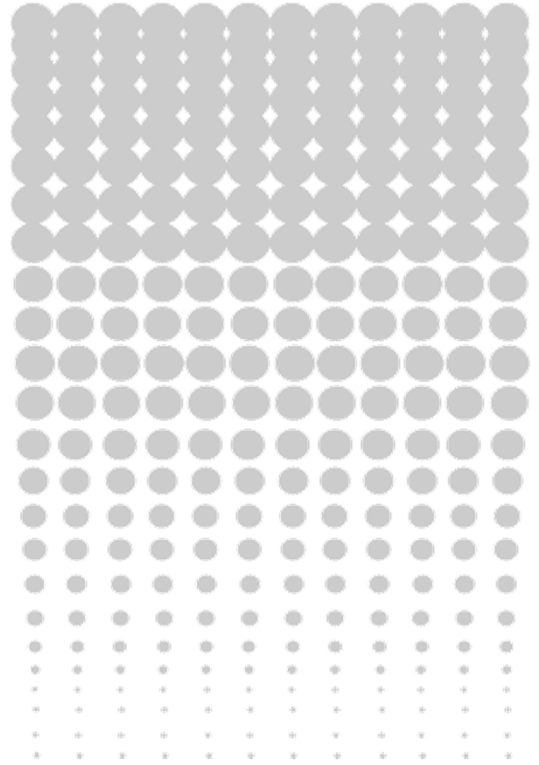


**m** Neoma Inc.  
Vacuum Products Manufacturers



# Vacuum Components

C A T A L O G

# Contents

## 1 Vacuum valves

Angle Valves	- 4
Inline Valves	- 10
Butterfly & Check Valves	- 14

## 2 Flanges & Fittings

Elastomer Seal ISO-KF	- 18
Elastomer Seal ISO-LF	- 34
Metal Seal CF	- 42
Weldable Components	- 62



# 1



## Section 1

### Vacuum Valves

#### Angle Valves

Introduction	- 4
Air open / Spring close	- 6
Air open /Air close	- 7
Manual operation	- 8

#### Inline Valves

Introduction	- 10
Air open / Spring close	- 11
Air open /Air close	- 12
Manual operation	- 13

#### Butterfly & Check Valves

Introduction	- 14
Air open / Spring close	- 15
Manual operation	- 15
Check valve	- 16

# Angle valves

## Section 1.1

### Instruction

Neoma high vacuum angle valves are devices that regulate the flow of gases, fluids or materials through a structure or aperture by opening, closing or obstructing a port or passageway. Angle valve assembly consist of an actuator, a poppet and a valve body. The actuator provides the power to position or transport the valve's poppet which is attached to the valve's body via a circular bonnet flange. The poppet closes or opens one of the valve's body ports. The valve body is a vacuum tight chamber that is screwed, flanged or welded into a larger vacuum vessel or system.

#### Standard Features

- UHV, HV series
- CF, ISO KF, ISO LF flange and tube weld port connections.
- Manual and Electropneumatic actuators
- 220VAC air solenoid valve
- FKM elastomer poppet seal
- Welded bellows actuator seal
- TIG welded internal body joints or precision cast body
- Electropolished or mechanical polished interior and exterior structures.

#### Option Features

- 24VDC air solenoid valve
- Magnet, Position sensor(2ea)



ISO-KF FLANGE

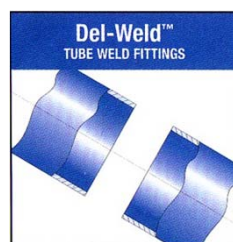


CF FLANGE

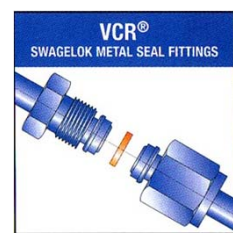


ISO-LF FLANGE

#### Port connection guide



WELDING



VCR

# Angle valves

## Section 1.1

### Specification

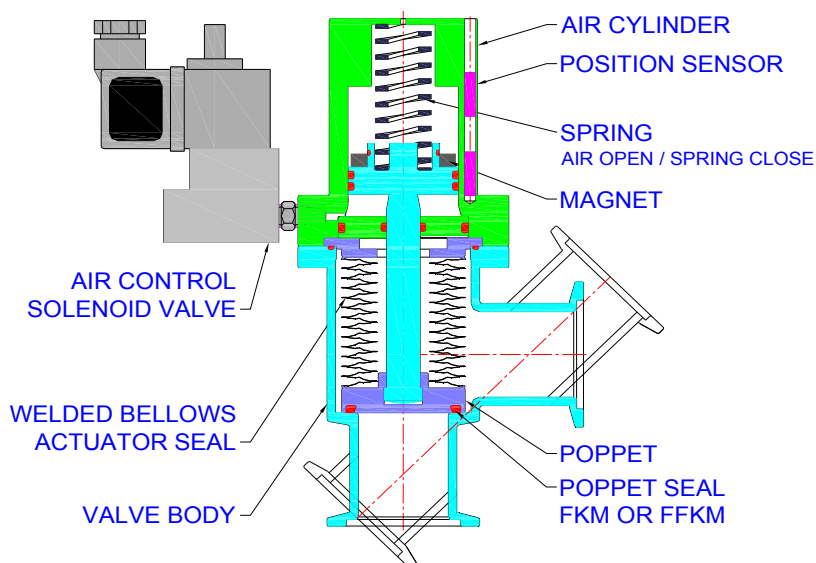
#### Material of construction

Valve Body	Fabricated stainless steel type 304 casting and flange welded using the TIG welding process. Internal welds are inspected for pits, cracks, and another irregularities that may cause virtual leaks.
Shaft Seal	Each valve is tested with a helium mass spectrometer leak detector and is guaranteed vacuum tight at minimum sensitivity of $2 \times 10^{-10}$ std.cc/sec.
Body Seal	FKM O-Ring Optional FFKM O-Ring are available.
Poppet Seals	FKM O-Ring FFKM O-Ring available on request.
Air Piston Seals	NBR O-Ring

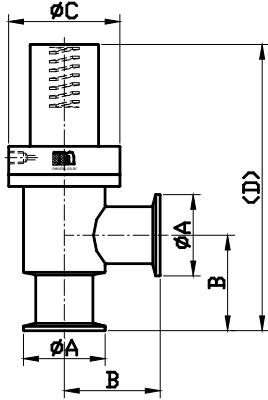
#### General specification

Bakeability	Under vacuum, 200 °C intermittently maximum in the open position. 150 °C sustained contact Neoma for higher temperature requirements.
Leak tightness	Each valve is tested with a helium mass spectrometer leak detector and is guaranteed vacuum tight at minimum sensitivity of $2 \times 10^{-10}$ std.cc/sec.
Electropneumatic actuator	Air Pressure : 70-100 psig. Electrical Power : 220VAC 60Hz, 24VDC Loss of Power : Valves close.
Manual Actuator	Manual models employ a rising acme thread for smooth operation.
Orientation	Valve up to and including 4" ports can be installed in either a vertical or horizontal orientation. Valve with 6" and larger ports must be installed in vertical orientation.
Sealing	2-1/2 inch and smaller valves will seal against 15 psi differential atmospheric pressure in either direction.

#### Valve structure



### Air open / Spring close

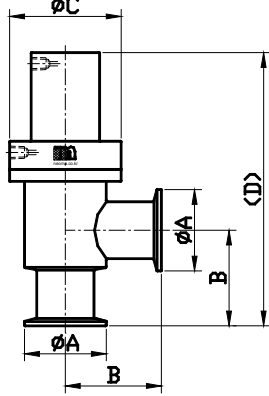


- ◆ Stainless Steel construction
- ◆ Electropneumatic operation



Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks
NW16	3/4"	30	52	58	155		550001	Bellows seal
NW25	1"	40	52	58	155		550002	Bellows seal
NW40	1-1/2"	55	65	75	194		550003	Bellows seal
NW50	2"	75	85	89	227		550004	Bellows seal
NW63	2-1/2"	95	100	105	320		550005	Bellows seal
NW80	3"	110	120	128	380		550006	Bellows seal
NW100	4"	130	130	158	450		550007	Bellows seal
NW16	3/4"	30	52	58	155		550101	O-ring Stem seal
NW25	1"	40	52	58	155		550102	O-ring Stem seal
NW40	1-1/2"	55	65	75	194		550103	O-ring Stem seal
NW50	2"	75	85	89	227		550104	O-ring Stem seal
NW63	2-1/2"	95	100	105	320		550105	O-ring Stem seal
NW80	3"	110	120	128	380		550106	O-ring Stem seal
NW100	4"	130	130	158	450		550107	O-ring Stem seal
<b>Option</b>								
24V DC Solenoid valve								- 01
220V AC Solenoid valve								- 02
Magnet, Position sensor(2ea)								- 03

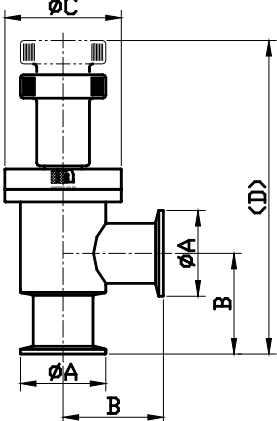

### Air open /Air close



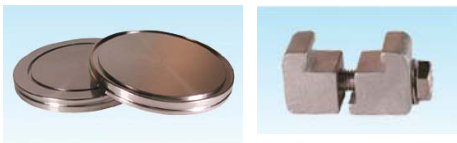
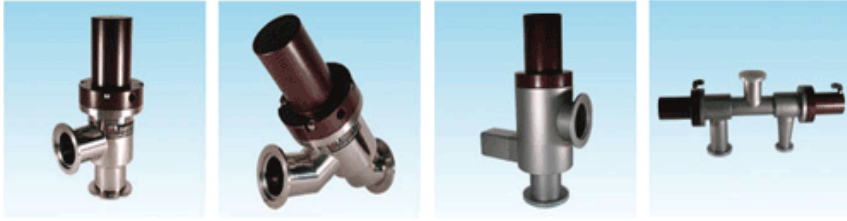
- ◆ Stainless Steel construction
- ◆ Electropneumatic operation

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks
	NW16	3/4"	30	52	58	145		550011	Bellows seal
	NW25	1"	40	52	58	145		550012	Bellows seal
	NW40	1-1/2"	55	65	75	185		550013	Bellows seal
	NW50	2"	75	85	89	218		550014	Bellows seal
	NW63	2-1/2"	95	100	105	270		550015	Bellows seal
	NW80	3"	110	120	128	315		550016	Bellows seal
	NW100	4"	130	130	158	360		550017	Bellows seal
	NW160	6"	180	138	198	418		550018	Bellows seal
	NW200	8"	240	167	255	530		550019	Bellows seal
	NW250	10"	290	200	306	621		550020	Bellows seal
	NW16	3/4"	30	52	58	145		550111	O-ring Stem seal
	NW25	1"	40	52	58	145		550112	O-ring Stem seal
	NW40	1-1/2"	55	65	75	185		550113	O-ring Stem seal
	NW50	2"	75	85	89	218		550114	O-ring Stem seal
	NW63	2-1/2"	95	100	105	270		550115	O-ring Stem seal
	NW80	3"	110	120	128	315		550116	O-ring Stem seal
	NW100	4"	130	130	158	360		550117	O-ring Stem seal
	NW160	6"	180	138	198	418		550118	O-ring Stem seal
	NW200	8"	240	167	255	530		550119	O-ring Stem seal
	NW250	10"	290	200	306	621		550120	O-ring Stem seal
<b>Option</b>									
24V DC Solenoid valve								- 01	
240V AC Solenoid valve								- 02	
Magnet, Position sensor(2ea)								- 03	

## Manual operation

 <p>◆ Stainless Steel construction</p>	Flange Size (ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks
	NW16	3/4"	30	52	58	157		550031	Bellows seal
	NW25	1"	40	52	58	157		550032	Bellows seal
	NW40	1-1/2"	55	65	75	210		550033	Bellows seal
	NW50	2"	75	85	89	245		550034	Bellows seal
	NW63	2-1/2"	95	100	105	312		550035	Bellows seal
	NW80	3"	110	120	128	358		550036	Bellows seal
	NW100	4"	130	130	158	318		550037	Bellows seal
	NW160	6"	180	138	198	500		550038	Bellows seal
	NW200	8"	240	167	255	640		550039	Bellows seal
	NW250	10"	290	200	306	760		550040	Bellows seal
	NW16	3/4"	30	52	58	157		550131	O-ring Stem seal
	NW25	1"	40	52	58	157		550132	O-ring Stem seal
	NW40	1-1/2"	55	65	75	210		550133	O-ring Stem seal
	NW50	2"	75	85	89	245		550134	O-ring Stem seal
	NW63	2-1/2"	95	100	105	312		550135	O-ring Stem seal
	NW80	3"	110	120	128	358		550136	O-ring Stem seal
	NW100	4"	130	130	158	318		550137	O-ring Stem seal
	NW160	6"	180	138	198	500		550138	O-ring Stem seal
	NW200	8"	240	167	255	640		550139	O-ring Stem seal
	NW250	10"	290	200	306	760		550140	O-ring Stem seal





# Inline valves

## Section 1.2

### Instruction

Neoma high vacuum Inline valves are devices that regulate the flow of gases, fluids or materials through a structure or aperture by opening, closing or obstructing a port or passageway. Angle valve assembly consist of an actuator, a poppet and a valve body. The actuator provides the power to position or transport the valve's poppet which is attached to the valve's body via a circular bonnet flange. The poppet closes or opens one of the valve's body ports. The valve body is a vacuum tight chamber that is screwed, flanged or welded into a larger vacuum vessel or system.

#### Standard Features

- UHV, HV series
- CF, ISO KF, ISO LF flange and tube weld port connections.
- Manual and Electroneumatic actuators
- 220VAC air solenoid valve
- FKM elastomer poppet seal
- Welded bellows actuator seal
- TIG welded internal body joints
- Electropolished interior and exterior structures.

#### Option Features

- 24VDC air solenoid valve
- Magnet, Position sensor(2ea)



ISO-KF FLANGE

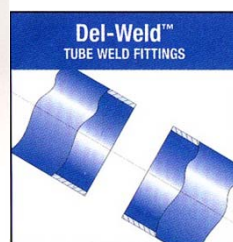


CF FLANGE

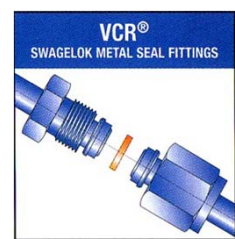


ISO-LF FLANGE

#### Port connection guide

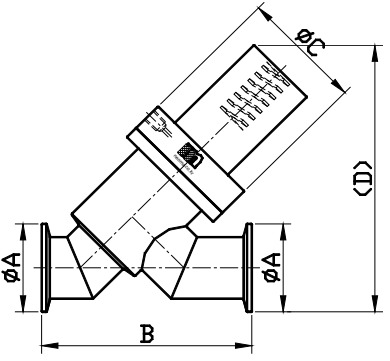



WELDING

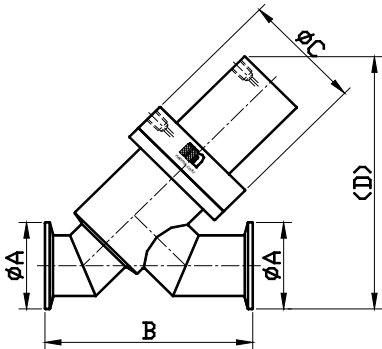


VCR

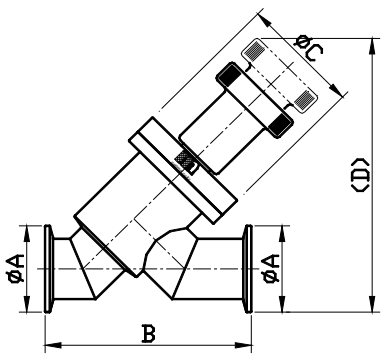

### Air open / Spring close

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks
<ul style="list-style-type: none"> <li>◆ Stainless Steel construction</li> <li>◆ Electropneumatic operation</li> </ul>	NW16	3/4"	30	100	58	123		560001	Bellows seal
	NW25	1"	40	105	58	128		560002	Bellows seal
	NW40	1-1/2"	55	130	75	167		560003	Bellows seal
	NW50	2"	75	177	89	203		560004	Bellows seal
	NW63	2-1/2"	95	200	105	222		560005	Bellows seal
	NW80	3"	110	230	128	260		560006	Bellows seal
	NW100	4"	130	280	158	320		560007	Bellows seal
	NW16	3/4"	30	100	58	123		560101	O-ring Stem seal
	NW25	1"	40	105	58	128		560102	O-ring Stem seal
	NW40	1-1/2"	55	130	75	167		560103	O-ring Stem seal
	NW50	2"	75	177	89	203		560104	O-ring Stem seal
	NW63	2-1/2"	95	200	105	222		560105	O-ring Stem seal
	NW80	3"	110	230	128	260		560106	O-ring Stem seal
	NW100	4"	130	280	158	320		560107	O-ring Stem seal
<p><b>Option</b></p> <p>24V DC Solenoid valve</p> <p>220V AC Solenoid valve</p> <p>Magnet, Position sensor(2ea)</p>								<p>- 01</p> <p>- 02</p> <p>- 03</p>	

### Air open /Air close

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks
	NW16	3/4"	30	100	58	116		560011	Bellows seal
	NW25	1"	40	105	58	121		560012	Bellows seal
	NW40	1-1/2"	55	130	75	160		560013	Bellows seal
	NW50	2"	75	177	89	203		560014	Bellows seal
	NW63	2-1/2"	95	200	105	222		560015	Bellows seal
	NW80	3"	110	230	128	260		560016	Bellows seal
	NW100	4"	130	280	158	320		560017	Bellows seal
	NW160	6"	180	350	198	480		560018	Bellows seal
	NW200	8"	240	430	255	550		560019	Bellows seal
	NW16	3/4"	30	100	58	116		560111	O-ring Stem seal
	NW25	1"	40	105	58	121		560112	O-ring Stem seal
	NW40	1-1/2"	55	130	75	160		560113	O-ring Stem seal
	NW50	2"	75	177	89	192		560114	O-ring Stem seal
	NW63	2-1/2"	95	200	105	222		560115	O-ring Stem seal
	NW80	3"	110	230	128	260		560116	O-ring Stem seal
	NW100	4"	130	280	158	320		560117	O-ring Stem seal
	NW160	6"	180	350	198	480		560118	O-ring Stem seal
	NW200	8"	240	430	255	550		560119	O-ring Stem seal
	<b>Option</b> 24V DC Solenoid valve - 01 220V AC Solenoid valve - 02 Magnet, Position sensor(2ea) - 03								

## Manual operation

 <p>◆ Stainless Steel construction ◆ Manual operation</p>	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks
	NW16	3/4"	30	100	58	127		560031	Bellows seal
	NW25	1"	40	105	58	132		560032	Bellows seal
	NW40	1-1/2"	55	130	75	177		560033	Bellows seal
	NW50	2"	75	177	89	218		560034	Bellows seal
	NW63	2-1/2"	95	200	105	222		560035	Bellows seal
	NW80	3"	110	230	128	260		560036	Bellows seal
	NW100	4"	130	280	158	320		560037	Bellows seal
	NW160	6"	180	350	198	480		560038	Bellows seal
	NW200	8"	240	430	255	550		560039	Bellows seal
	NW16	3/4"	30	100	58	127		560131	O-ring Stem seal
	NW25	1"	40	105	58	132		560132	O-ring Stem seal
	NW40	1-1/2"	55	130	75	177		560133	O-ring Stem seal
	NW50	2"	75	177	89	218		560134	O-ring Stem seal
	NW63	2-1/2"	95	200	105	222		560135	O-ring Stem seal
	NW80	3"	110	230	128	260		560136	O-ring Stem seal
	NW100	4"	130	280	158	320		560137	O-ring Stem seal
	NW160	6"	180	350	198	480		560138	O-ring Stem seal
	NW200	8"	240	430	255	550		560139	O-ring Stem seal

# Butterfly & Check valves

## Section 1.3

### Instruction

Neoma Butterfly valves and check valve require one-quarter turn rotation of the handle and electroneumatic actuator to go from fully open to the fully closed position.

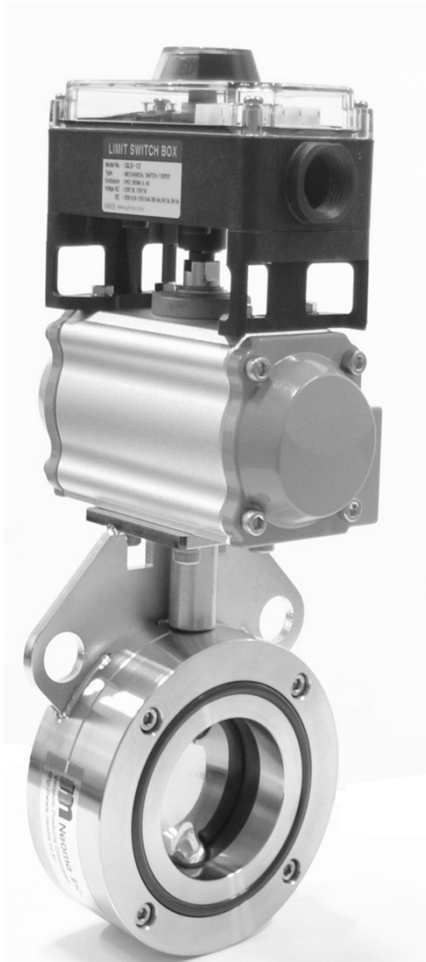
Neoma Butterfly valves and check valve are low outgassing. All material surfaces are machined and electropolished.

#### Standard Features

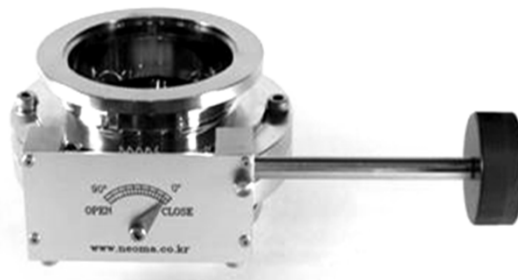
- HV series
- Quick open / Quick close with positive locks
- Manual and Electroneumatic actuators
- 220VAC air solenoid valve
- FKM elastomer seal
- Electropolished interior and exterior structures.

#### Option Features

- 24VDC air solenoid valve
- Limits switch Box



Butterfly Valve / Air open / Air close



Butterfly Valve / Worm gear type

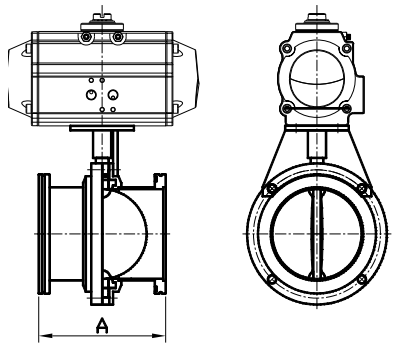


Butterfly Valve / Handle type



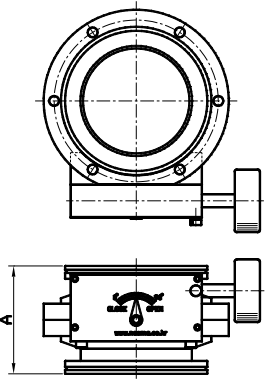
Check Valve

### Butterfly Valve, Air open / Air close

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks	
	NW25	1"	50						570001	
	NW40	1-1/2"	50						570002	
	NW50	2"	60						570003	
	NW63	2-1/2"	80						570004	
	NW80	3"	100						570005	
	NW100	4"	140						570006	
	NW160	6"	200						570007	

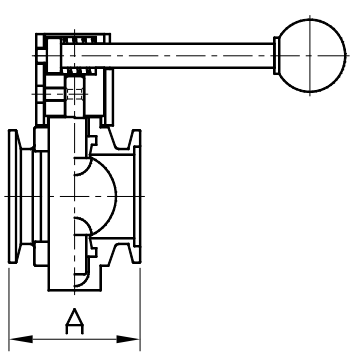
◆ Stainless Steel construction  
 ◆ EPDM seal standard

### Butterfly Valve, Worm gear type

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks	
	NW25	1"	50						570101	
	NW40	1-1/2"	50						570102	
	NW50	2"	60						570103	
	NW63	2-1/2"	80						570104	
	NW80	3"	100						570105	
	NW100	4"	140						570106	
	NW160	6"	200						570107	

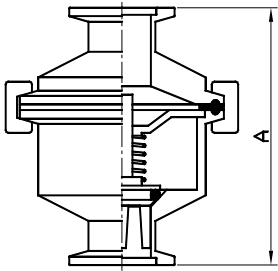
◆ Stainless Steel construction  
 ◆ EPDM seal standard

### Butterfly Valve, Handle type

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks	
	NW25	1"	50						570201	
	NW40	1-1/2"	50						570202	
	NW50	2"	60						570203	
	NW63	2-1/2"	80						570204	
	NW80	3"	100						570205	
	NW100	4"	140						570206	
	NW160	6"	200						570207	

◆ Stainless Steel construction  
 ◆ EPDM seal standard

**Check Valve**

	Flange Size(ISO)	For Tubing O.D.	A	B	C	D	Ref.No.	Part No.	Remarks	
	NW25	1"	94						580001	
	NW40	1-1/2"	95						580002	
	NW50	2"	103						580003	



# 2



## Section 2

### Flanges & Fittings

#### Elastomer Seal ISO

<u>KF Introduction</u>	<u>- 18</u>
<u>KF Flanges &amp; Fittings</u>	<u>- 19</u>
<u>LF Introduction</u>	<u>- 34</u>
<u>LF Flanges &amp; Fittings</u>	<u>- 35</u>

#### Metal Seal CF

<u>Introduction</u>	<u>- 42</u>
<u>CF Flanges &amp; Fittings</u>	<u>- 43</u>

#### Weldable Components

<u>Introduction</u>	<u>- 62</u>
<u>Tubings &amp; Fittings</u>	<u>- 63</u>
<u>Formed bellows</u>	<u>- 69</u>
<u>Welded bellows</u>	<u>- 72</u>

# Elastomer seal ISO

## Section 2.1

### Instruction

#### KF Flange system

Neoma KF flange systems are designed to ISO 2681 specifications for standard "inch" tube sizes from 0.375 to 2.00 inches. They are compatible with other manufactures' ISO-KF style flanges.

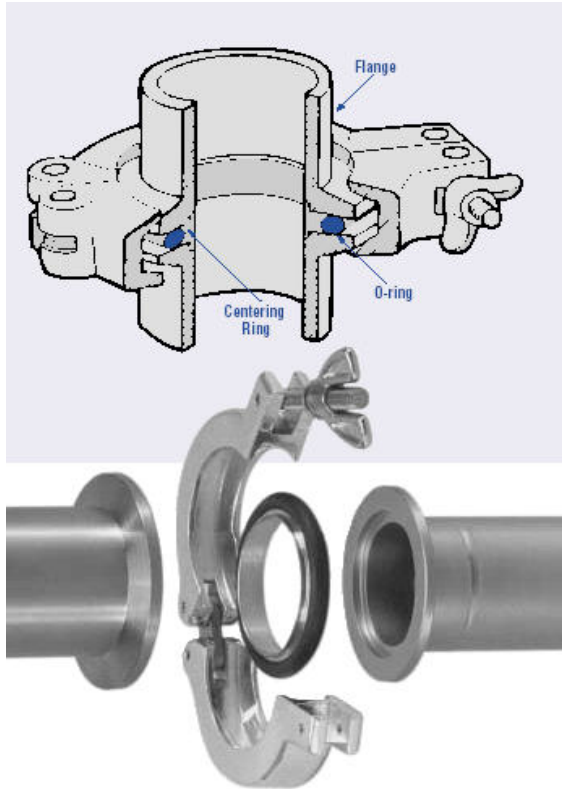
#### Applications

ISO-KF flange systems can be used in a wide variety of applications including;

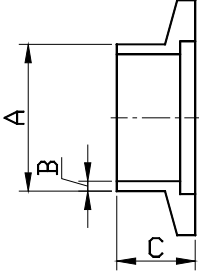
- Roughing and foreline plumbing
- Small systems
- Systems requiring frequent cleaning or modification
- Research and development laboratories

#### Features

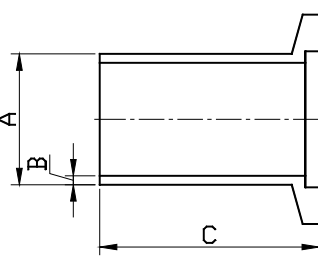
- Vacuum rated to  $1 \times 10^{-8}$  Torr
- Bakeable to 150 °C
- Fast connect and disconnect
- Economical reusable fittings
- Genderless geometry
- Rotatable bolt ring adapter
- Elastomer gasket seal
- Varied fastening methods
- ISO KF and LF compatible
- Speciality fittings available
- Type 304 stainless steel construction



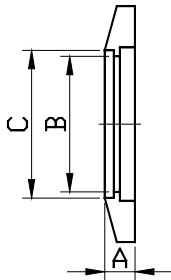
### Flange, Short Weld Stub

	Flange Size(ISO)	For Tubing O.D.	A	B	C	Ref.No.	Part No.
	<ul style="list-style-type: none"> <li>◆ Stainless Steel Type 304</li> <li>◆ Butt Weld</li> <li>◆ Standard Inch Stub Diameters</li> </ul>	NW10	1/2"	0.50 (13)	0.065 (1.7)	0.50 (13)	K050-SWS
NW16	1/2"	0.50 (13)	0.065 (1.7)	0.50 (13)	K075-SWS	715101	
NW16	3/4"	0.75 (19)	0.065 (1.7)	0.50 (13)			K100-SWS
NW25	1"	1.00 (25)	0.065 (1.7)	0.50 (13)	K150-SWS	715103	
NW40	1 1/2"	1.50 (38)	0.065 (1.7)	0.75 (19)			K200-SWS
NW50	2"	2.00 (51)	0.065 (1.7)	0.75 (19)			

### Flange, Long Weld Stub

	Flange Size(ISO)	For Tubing O.D.	A	B	C	Ref.No.	Part No.
	<ul style="list-style-type: none"> <li>◆ Stainless Steel Type 304</li> <li>◆ Butt Weld</li> <li>◆ Standard Inch Stub Diameters</li> </ul>	NW10	1/2"	0.50 (13)	0.065 (1.7)	1.58 (40)	K050-LWS
NW16	1/2"	0.50 (13)	0.065 (1.7)	1.58 (40)	K075-LWS	715106	
NW16	3/4"	0.75 (19)	0.065 (1.7)	1.58 (40)			K100-LWS
NW25	1"	1.00 (25)	0.065 (1.7)	1.58 (40)	K150-LWS	715108	
NW40	1 1/2"	1.50 (38)	0.065 (1.7)	1.58 (40)			K200-LWS
NW50	2"	2.00 (51)	0.065 (1.7)	1.58 (40)			

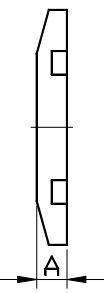
### Flange, Blank with Bore



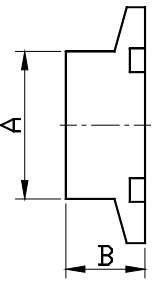
- ◆ Stainless Steel Type 304
- ◆ Standard Inch Tube O.D.'s

Flange Size(ISO)	For Tubing O.D.	A	B	C	Ref.No.	Part No.	
NW10	1/4"	0.20 (5)	0.260 (7)	N/A			
NW10	3/8"	0.20 (5)	0.377 (10)	N/A			
NW10	1/2"	0.20 (5)	0.440 (11)	1.502 (13)			
NW16	3/8"	0.20 (5)	0.377 (10)	N/A	K075W-038	713005	
NW16	1/2"	0.20 (5)	0.502 (13)	N/A	K075W-050	713006	
NW16	3/4"	0.20 (5)	0.680 (17)	0.760 (19)	K075W-075	713007	
NW25	1/4"	0.20 (5)	0.260 (7)	N/A			
NW25	3/8"	0.20 (5)	0.377 (10)	N/A	K100W-038	713008	
NW25	1/2"	0.20 (5)	0.502 (13)	N/A	K100W-050	713009	
NW25	3/4"	0.20 (5)	0.680 (17)	0.760 (19)	K100W-075	713010	
NW25	1"	0.20 (5)	0.875 (22)	1.010 (26)	K100W-100	713011	
NW40	1/4"	0.20 (5)	0.260 (7)	N/A			
NW40	3/8"	0.20 (5)	0.312 (8)	0.377 (10)	K150W-038	713012	
NW40	1/2"	0.20 (5)	0.437 (11)	0.502 (13)	K150W-050	713013	
NW40	3/4"	0.20 (5)	0.680 (17)	0.760 (19)	K150W-075	713014	
NW40	1"	0.20 (5)	0.875 (22)	1.010 (26)	K150W-100	713015	
NW40	1 1/2"	0.20 (5)	1.375 (35)	1.510 (39)	K150W-150	713016	
NW50	1/4"	0.20 (5)	0.260 (7)	N/A			
NW50	3/8"	0.20 (5)	0.312 (8)	0.377 (10)	K200W-038	713017	
NW50	1/2"	0.20 (5)	0.437 (11)	0.502 (13)	K200W-050	713018	
NW50	3/4"	0.20 (5)	0.680 (17)	0.760 (19)	K200W-075	713019	
NW50	1"	0.20 (5)	0.875 (22)	1.010 (26)	K200W-100	713020	
NW50	1 1/2"	0.20 (5)	1.375 (35)	1.510 (39)	K200W-150	713021	
NW50	2"	0.20 (5)	1.875 (48)	2.010 (51)	K200W-200	713022	

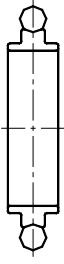

### Flange, Blank-Off

 <p>◆ Stainless Steel Type 304 ◆ Blank Off Unused Ports</p>	Flange Size(ISO)	A	Ref.No.	Part No.		
	NW10	0.20 (5)				
	NW16	0.20 (5)		K075-B	712000	
	NW25	0.20 (5)		K100-B	712001	
	NW40	0.20 (5)		K150-B	712002	
	NW50	0.20 (5)		K200-B	712003	


### Flange, Unbored Stub

 <p>◆ Stainless Steel Type 304 ◆ Wtub may be turned, bored, or tapped to fit</p>	Flange Size(ISO)	A	B	Ref.No.	Part No.		
	NW10	0.75 (19)	0.75 (19)				
	NW16	0.75 (19)	0.75 (19)		K075-US	715000	
	NW25	1.00 (25)	0.75 (19)		K100-US	715001	
	NW40	1.50 (38)	1.00 (25)		K150-US	715002	
	NW50	2.00 (51)	1.00 (25)		K200-US	715003	

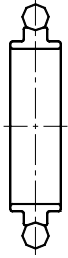
### Seal, Centering Ring Assembly, Viton®

  <ul style="list-style-type: none"> <li>◆ 80°C Max</li> <li>◆ Replaceable O-ring</li> <li>◆ Stainless Steel Type 304</li> </ul> 	Flange Size(ISO)	A	Ref.No.	Part No.		
	NW10					
	NW16			K075-CR	710000	
	NW25			K100-CR	710001	
	NW40			K150-CR	710002	
	NW50			K200-CR	710003	

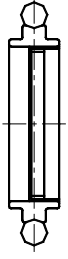
### Seal, Centering Ring Assembly, Buna-N

  <ul style="list-style-type: none"> <li>◆ 80°C Max</li> <li>◆ Replaceable O-ring</li> <li>◆ Stainless Steel Type 304</li> </ul>	Flange Size(ISO)	A	Ref.No.	Part No.		
	NW10					
	NW16			K075-CRB	710004	
	NW25			K100-CRB	710005	
	NW40			K150-CRB	710006	
	NW50			K200-CRB	710007	


### Seal, Centering Ring Assembly, Silicone

 <ul style="list-style-type: none"> <li>◆ 80°C Max</li> <li>◆ NW80/100 include aluminum space ring</li> <li>◆ Stainless Steel Type 304</li> </ul>	Flange Size(ISO)	A	Ref.No.	Part No.	
	NW10				
	NW16			K075-CRS	710021
	NW25			K100-CRS	710022
	NW40			K150-CRS	710023
	NW50			K200-CRS	710024

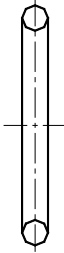
### Seal, Centering Ring Assembly w/ Screen, Viton®

 <ul style="list-style-type: none"> <li>◆ Stainless Steel Centering Ring</li> <li>◆ Replaceable Viton® O-ring</li> <li>◆ 72 Mesh Screen Stainless Steel</li> </ul>	Flange Size(ISO)	A	Ref.No.	Part No.	
	NW16				710000-1
	NW25				710001-1
	NW40				710002-1
	NW50				710003-1

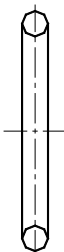
### Seal, Adaptive Centering Ring Assembly, Viton®

 <ul style="list-style-type: none"> <li>◆ Stainless Steel Centering Ring</li> <li>◆ Replaceable Viton® O-ring</li> <li>◆ For obsolete bore sizes</li> </ul>	Flange Size(ISO)	Flange Size(ISO)	Ref.No.	Part No.	
	NW16	NW10		K075050-CR	710010
	NW25	NW20		K100087-CR	710011
	NW40	NW32		K150137-CR	710012

**Seal, O-Ring, Viton®**

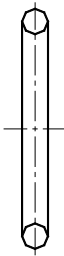
 ♦ Standard inch O-Ring sizes	Flange Size(ISO)	Standard O-Ring Size	A	Ref.No.	Part No.
	NW10	2-312			
	NW16	2-314		K075-O	711000
	NW25	2-320		K100-O	711001
	NW40	2-326		K150-O	711002
	NW50	2-330		K200-O	711003
	NW63	2-336		L250-O	811000
	NW80	2-340		L300-O	811008
	NW100	2-346		L400-O	811001

**Seal, O-Ring, Buna-N**

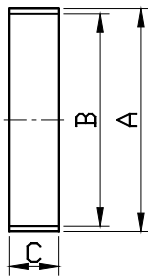
 ♦ Standard inch O-Ring sizes	Flange Size(ISO)	Standard O-Ring Size	A	Ref.No.	Part No.
	NW10	2-312			
	NW16	2-314		K075-OB	711021
	NW25	2-320		K100-OB	711022
	NW40	2-326		K150-OB	711024
	NW50	2-330		K200-OB	711025
	NW63	2-336		L250-OB	811020
	NW80	2-340		L300-OB	811028
	NW100	2-346		L400-OB	811021



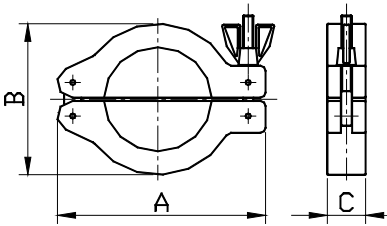
### Seal, O-Ring, Silicone

 <p>◆ Standard inch O-Ring sizes</p>	Flange Size(ISO)	Standard O-Ring Size	A	Ref.No.	Part No.
	NW10	2-312			
	NW16	2-314		K075-OS	711006
	NW25	2-320		K100-OS	711007
	NW40	2-326		K150-OS	711008
	NW50	2-330		K200-OS	711009

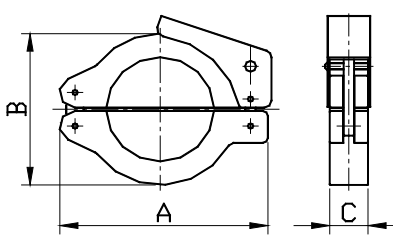
### Seal, Overpressure

 <p>◆ Stainless Steel ◆ Fit over OD of O-Ring ◆ See page 4 for installation ◆ Use to retain O-ring when system is used at internal pressures over atmospheric.</p>	Flange Size(ISO)	Standard O-Ring Size	A	B	C	Ref.No.	Part No.
	NW10	100 PSIG	1.25 (31)	1.09 (28)	0.149 (4)		711004-1
	NW16	100 PSIG	1.31 (33)	1.16 (29)	0.149 (4)		711000-1
	NW25	100 PSIG	1.70 (43)	1.56 (40)	0.149 (4)		711001-1
	NW40	75 PSIG	2.31 (59)	2.16 (55)	0.149 (4)		711002-1
	NW50	100 PSIG	2.75 (70)	2.67 (68)	0.149 (4)		711003-1

### Clamps, Wing Nut

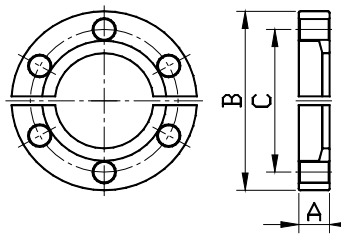
 <p>◆ Aluminum ◆ Dimensions are for reference only</p>	Flange Size(ISO)	Fit Sizes	A	B	C	Ref.No.	Part No.
	NW16	10/16	2.24 (57)	1.69 (43)	0.63 (16)	K075-C	701000
	NW25	25/20	2.76 (70)	2.17 (55)	0.63 (16)	K100-C	701001
	NW40	40/32	3.39 (86)	2.76 (70)	0.63 (16)	K150-C	701002
	NW50	50	4.33 (110)	3.70 (94)	0.79 (20)	K200-C	701003

### Clamps, Toggle

	Flange Size(ISO)	Fit Sizes	A	B	C	Ref.No.	Part No.
	NW16	10/16	2.24 (57)	1.69 (43)	0.75 (19)	K075-T	701000-1
	NW25	25/20	2.76 (70)	2.17 (55)	0.75 (20)	K100-T	701001-1
	NW40	40/32	3.39 (86)	2.76 (70)	0.75 (21)	K150-T	701002-1
	NW50	50	4.33 (110)	3.70 (94)	0.89 (23)	K200-T	701003-1

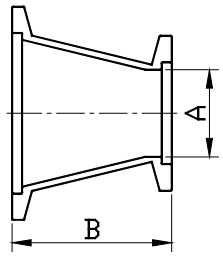
◆ Aluminum  
 ◆ Dimensions are for reference only

### Clamps, Bulkhead

	Flange Size(ISO)	Number of Bolts	A	B	C	Ref.No.	Part No.
	NW16	6	0.36 (9)	2.00 (51)	1.50 (38)	K075-BC	716000
	NW25	6	0.39 (10)	2.37 (60)	1.89 (48)	K100-BC	716001
	NW40	6	0.37 (9)	2.94 (75)	2.44 (62)	K150-BC	716002
	NW50	8	0.40 (10)	3.75 (95)	3.25 (83)	K200-BC	716003

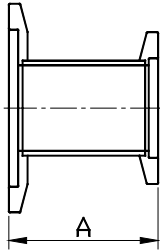
◆ Aluminum  
 ◆ Adapts to a baseplate or fixed flange  
 ◆ Standard KF seal assembly  
 ◆ Stainless Steel bolt and washers included, 10-32x5/8"

### Conical Reducers

	Flange Size(ISO)	A	B	Ref.No.	Part No.	
	NW25 to NW16	0.62 (16)	2.04 (52)			732006
	NW25 to NW16	0.62 (16)	1.57 (40)			732006-1
	NW40 to NW16	0.62 (16)	3.08 (78)			732007
	NW40 to NW25	0.87 (22)	2.75 (70)			732010
	NW40 to NW25	0.87 (22)	1.57 (40)			732010-1
	NW50 to NW25	0.87 (22)	2.75 (70)			732008
	NW50 to NW25	0.87 (22)	1.57 (40)			732008-1
	NW50 to NW40	1.34 (34)	2.80 (71)			732009
	NW50 to NW40	1.34 (34)	1.57 (40)			732009-1

◆ Mates differing ISO-KF size  
 ◆ Stainless Steel Type 304

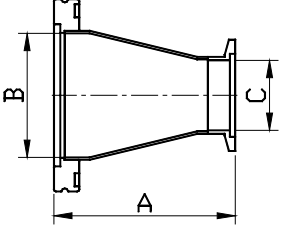
### Nipple Reducers



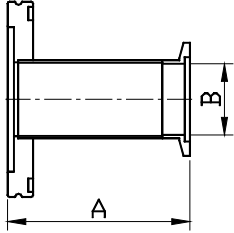
- ◆ Mates differing ISO-KF size
- ◆ Stainless Steel Type 304

	Flange Size(ISO)	A	Ref.No.	Part No.	
	NW25 to NW16	1.57 (40)		732000	
	NW40 to NW16	1.57 (40)		732001	
	NW40 to NW25	1.57 (40)		732003	
	NW50 to NW16	1.57 (40)		732002	
	NW50 to NW25	1.57 (40)		732004	
	NW50 to NW40	1.57 (40)		732005	

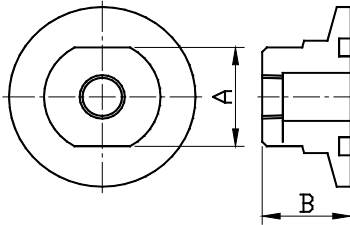
### Conical Reducers

	Flange Size(ISO)	A	B	C	Ref.No.	Part No.
	<ul style="list-style-type: none"> <li>◆ Stainless steel type 304</li> <li>◆ Special adapters available upon request</li> <li>◆ High conductance adapter</li> </ul>	NW63 to NW40	3.39 (86)	2.37 (60)	1.37 (35)	
	NW63 to NW50	3.39 (86)	2.37 (60)	1.87 (47)		840102
	NW80 to NW40	4.64 (118)	2.87 (73)	1.37 (35)		840103
	NW80 to NW50	4.64 (118)	2.87 (73)	1.87 (47)		840104
	NW100 to NW50	4.64 (118)	3.83 (97)	1.87 (47)		840105
	NW63 to NW40	2.83 (72)			L250XK150 FCR	840016
	NW63 to NW50	2.85 (72.4)			L250XK200 FCR	840017
	NW80 to NW40	4.08 (104)			L300XK150 FCR	840018
	NW80 to NW50	4.10 (104)			L300XK200 FCR	840019
	NW100 to NW50	4.10 (104)			L400XK200 FCR	840020

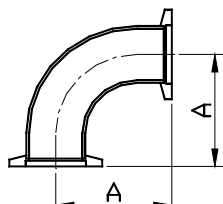
### Step Adapters

	Flange Size(ISO)	A	B	Ref.No.	Part No.
	<ul style="list-style-type: none"> <li>◆ Stainless steel type 304</li> </ul>	NW63 to NW16	1.75 (45)		L250XK075 -LP
	NW63 to NW25	1.75 (45)		L250XK100 -LP	840005
	NW63 to NW40	1.77 (45)	1.37 (35)	L250XK150 -LP	840006
	NW63 to NW50	1.77 (45)	1.87 (47)	L250XK200 -LP	840007
	NW80 to NW40	1.77 (45)	1.37 (35)	L300XK150 -LP	840009
	NW80 to NW50	1.77 (45)	1.87 (47)	L300XK200 -LP	840010
	NW100 to NW50	1.77 (45)	1.87 (47)	L400XK200 -LP	840013
	NW63 to NW40	2.71 (69)	1.37 (35)	L250XK150	840000
	NW63 to NW50	3.46 (88)	1.87 (47)	L250XK200	840001
	NW80 to NW40	2.71 (69)	1.37 (35)	L300XK150	840003
	NW80 to NW50	3.46 (88)	1.87 (47)	L300XK200	840002

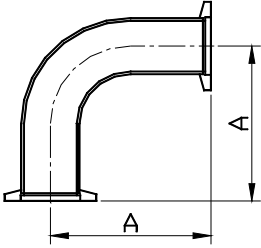
### Adapters, ISO-KF to NPT-F Pipe

 <ul style="list-style-type: none"> <li>◆ Teflon tape recommended to seal</li> <li>◆ Compatible with most TC and Pirani tubes</li> <li>◆ Stainless steel type 304</li> </ul>	Flange Size(ISO)	Flange Size (NPT)	A	B	Ref.No.	Part No.
	NW10	1/8"	0.62 (16)	0.75 (19)		
NW10	1/4"	0.62 (16)	0.75 (19)			
NW16	1/8"	0.62 (16)	0.75 (19)			731000-1
NW16	1/4"	0.62 (16)	0.75 (19)			731004-1
NW25	1/8"	0.88 (22)	0.75 (19)			731001-1
NW25	1/4"	0.88 (22)	0.75 (19)			731005-1
NW40	1/8"	1.25 (32)	1.00 (25)			731002-1
NW40	1/4"	1.25 (32)	1.00 (25)			731008-1
NW50	1/8"	1.75 (44)	1.00 (25)			731034-1
NW50	1/4"	1.75 (44)	1.00 (25)			731003-1

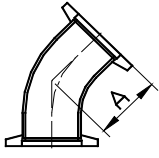
### ISO-KF Elbow 90° Smooth Radius

 <ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Same size flanges both ports</li> <li>◆ Standard modulus</li> </ul>	Flange Size(ISO)	A	Ref.No.	Part No.
	NW16	1.63 (41)		
NW25	1.67 (42)			723017
NW40	2.46 (62)			723002
NW50	3.23 (82)			723003
NW16	1.57 (40)			723000-1
NW25	1.97 (50)			723017-1
NW40	2.56 (65)			723002-1
NW50	2.76 (70)			723003-1

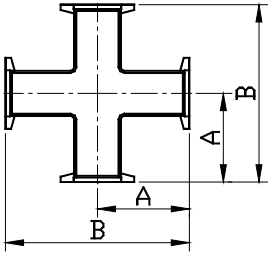
### ISO-KF Elbow 90° with Tangents

 <ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Same size flanges both ports</li> <li>◆ Standard modulus</li> </ul>	Flange Size(ISO)	A	Ref.No.	Part No.
	NW16	1.92 (49)	K075-2LL	723018
NW25	2.23 (57)	K100-2LL	723019	
NW40	3.15 (80)	K150-2LL	723020	
NW40	5.12 (130)		723008	
NW50	4.29 (140)	K200-2LL	723021	
NW50	5.51 (140)		723009	

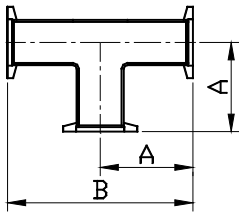
### ISO-KF Elbow 45° with Tangents

 <ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Same size flanges both port</li> </ul>	Flange Size(ISO)	A	Ref.No.	Part No.
	NW16	1.26		
NW25	1.36			723015
NW40	1.83 (46)			723006
NW40	1.68 (43)			723006-1
NW50	2.54 (65)			723016

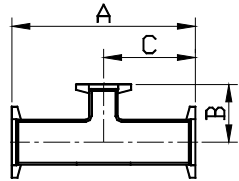
### ISO-KF Cross

 <ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Same size flanges all ports</li> <li>◆ Standard modulus</li> </ul>	Flange Size(ISO)	A	B	Ref.No.	Part No.	
	NW16	1.50 (38)	3.0 (76)			725000
	NW25	2.04 (52)	4.08 (104)			725001
	NW40	2.46 (62)	4.92 (124)			725002
	NW50	3.21 (82)	6.42 (164)			725003

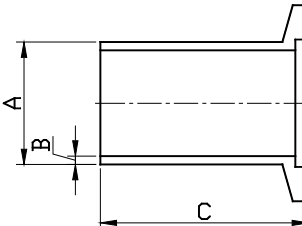
### ISO-KF Tee

 <ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Same size flanges all ports</li> <li>◆ Standard modulus</li> </ul>	Flange Size(ISO)	A	B	Ref.No.	Part No.	
	NW16	1.50 (38)	3.0 (76)			724000
	NW25	2.04 (52)	4.08 (104)			724001
	NW40	2.46 (62)	4.92 (124)			724002
	NW50	3.21 (82)	6.42 (164)			724003

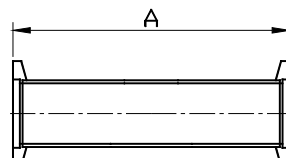
### ISO-KF Tee, Reducing

	Flange Size(ISO)	Flange Size (ISO) Tee	A	B	C	Ref.No.	Part No.	
	<ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Same size flanges thru ports</li> </ul>	NW25	NW16	3.06 (78)	1.53 (39)	2.04 (52)		724010
NW25		NW16	2.16 (54)	1.08 (27)	1.97 (50)		724010-1	
NW40		NW16	5.50 (140)	2.75 (70)	2.46 (62)		724011	
NW40		NW25	4.60 (116)	2.30 (58)	2.46 (62)		724012	
NW50		NW25	3.10 (130)	2.55 (65)	3.23 (82)		724013	
NW50		NW40	5.42 (138)	2.71 (69)	3.23 (82)		724014	

### Flange, Half Nipples

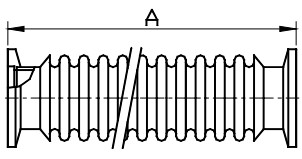
	Flange Size(ISO)	For Tubing O.D.	A	B	C	Ref.No.	Part No.	Price
	<ul style="list-style-type: none"> <li>◆ Stainless Steel Type 304</li> <li>◆ Butt Weld</li> <li>◆ Standard Inch Stub Diameters</li> </ul>	NW16	3/4"	0.75 (19)	0.065 (1.7)	1.57 (40)	K075-1	720000
NW25		1"	1.00 (25)	0.065 (1.7)	1.57 (40)	K100-1	720001	
NW40		1 1/2"	1.00 (25)	0.065 (1.7)	1.57 (40)	K101-1	720002	
NW40		1 1/2"	1.50 (38)	0.065 (1.7)	1.57 (40)	K150-1	720003	
NW50		2"	2.00 (51)	0.065 (1.7)	1.57 (40)	K200-1	720004	

### ISO-KF Straight Nipples

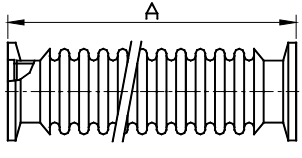
	Flange Size(ISO)	A	Ref.No.	Part No.	
	<ul style="list-style-type: none"> <li>◆ Stainless Steel type 304</li> <li>◆ Special Lengths to order</li> </ul>	NW16	3.15 (80)	K075-2	721000-1
NW16		3.00 (76)		721000	
NW25		3.94 (100)	K100-2	721001-1	
NW25		4.08 (104)		721001	
NW40		5.12 (130)	K150-2	721002-1	
NW40		4.93 (125)		721002	
NW50		5.51 (140)	K200-2	721003-1	
NW50		6.43 (163)		721003	



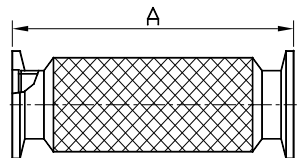
### ISO-KF Flexible Coupling, Thick Wall

 ◆ Stainless Steel	Flange Size(ISO)	Hose Wall	A	B	Spring Rate	Ref.No.	Part No.
	NW16	0.01 (0.25)	-	-			722020
	NW25	0.01 (0.25)	-	-			722021
	NW40	0.016 (0.4)	-	-			722022
	NW50	0.016 (0.4)	-	-			722023

### ISO-KF Flexible Coupling, Thin Wall

 ◆ Stainless Steel	Flange Size(ISO)	Hose Wall	A	B	Spring Rate	Ref.No.	Part No.
	NW16	0.006 (0.15)	-	-			722000-1
	NW25	0.006 (0.15)	-	-			722001-1
	NW40	0.006 (0.15)	-	-			722002-1
	NW50	0.006 (0.15)	-	-			722003-1

### ISO-KF Flexible Hose with braid protection

 ◆ Stainless Steel	Flange Size(ISO)	Hose Wall	A	B	Spring Rate	Ref.No.	Part No.
	NW16	0.006 (0.15)	-	-			722000-2
	NW25	0.006 (0.15)	-	-			722001-2
	NW40	0.006 (0.15)	-	-			722002-2
	NW50	0.006 (0.15)	-	-			722003-2

# Elastomer seal ISO

## Section 2.2

### Instruction

#### LF Flange system

Neoma ISO flange systems are manufactured to the international Standards Organization specification so they can be mated to other manufacturers' ISO flanges.

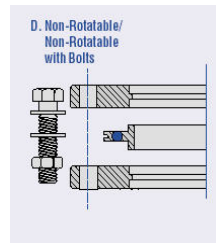
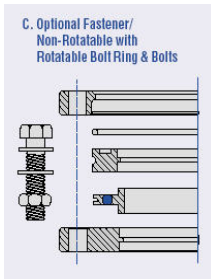
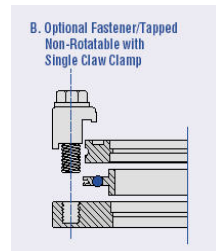
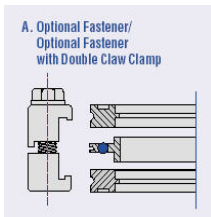
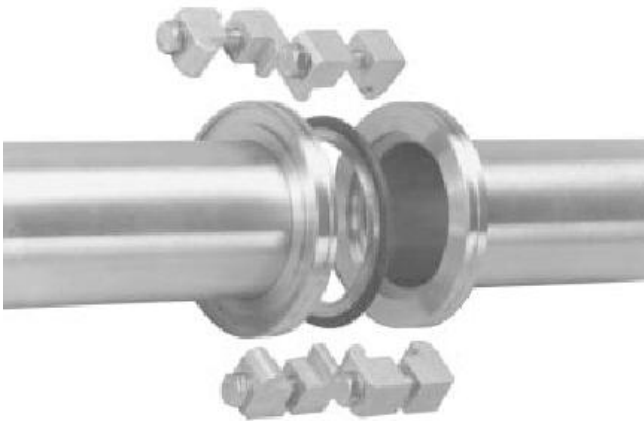
#### Applications

The ISO-Universal component system is used in a variety of industries from process manufacturing to semi-conductor fabrication to thin film deposition. Some uses in vacuum systems are;

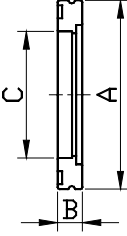
- Roughing and foreline plumbing for large vacuum systems
- High vacuum, high conductance, interconnections
- Modular system which will be modified frequently
- Experimental system in Research laboratories

#### Features

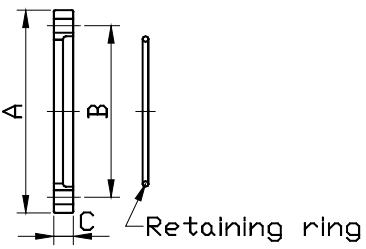
- Vacuum rated to  $1 \times 10^{-8}$  Torr
- Bakeable to 150 °C
- Fast connect and disconnect
- Economical reusable fittings
- Genderless geometry
- Rotatable bolt ring adapter
- Elastomer gasket seal
- Varied fastening methods
- ISO KF and LF compatible
- Speciality fittings available
- Type 304 stainless steel construction



### Large-Flange ISO LF, Claw-Clamp

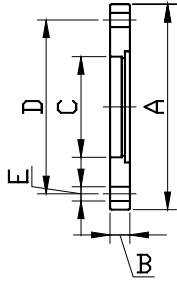
		Flange Size(ISO)	A	B	C	Ref.No.	Part No.
		NW63	BLANK	3.74 (95)	0.47 (12)		L250-B
NW80	BLANK	4.33 (110)	0.47 (12)		L300-B	812008	
NW100	BLANK	5.12 (130)	0.47 (12)		L400-B	812001	
NW160	BLANK	7.09 (180)	0.47 (12)		L600-B	812002	
NW200	BLANK	9.45 (240)	0.47 (12)		L800-B	812003	
NW250	BLANK	11.42 (290)	0.47 (12)		L1000-B	812004	
NW320	BLANK	14.57 (370)	0.67 (17)		L1200-B	812005	
NW400	BLANK	17.72 (450)	0.67 (17)		L1600-B	812006	
NW500	BLANK	21.65 (550)	0.67 (17)		L2000-B	812007	
NW63	WELD	3.74 (95)	0.47 (12)	2.51 (64)	L250-W	813000	
NW80	WELD	4.33 (110)	0.47 (12)	3.01 (76)	L300-W	813008	
NW100	WELD	5.12 (130)	0.47 (12)	4.01 (102)	L400-W	813001	
NW160	WELD	7.09 (180)	0.47 (12)	6.02 (153)	L600-W	813002	
NW200	WELD	9.45 (240)	0.47 (12)	8.02 (204)	L800-W	813003	
NW250	WELD	11.42 (290)	0.47 (12)	10.02 (255)	L1000-W	813004	
NW320	WELD	14.57 (370)	0.67 (17)	12.78 (325)	L1200-W	813005	
NW400	WELD	17.72 (450)	0.67 (17)	16.03 (407)	L1600-W	813006	
NW500	WELD	21.65 (550)	0.67 (17)	20.03 (509)	L2000-W	813007	

◆ Claw Clamp type



Retaining ring

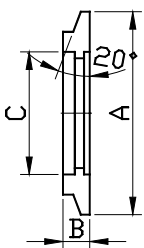
### Large-Flange ISO LF, Bolt



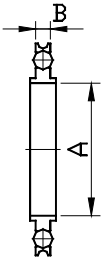
◆ Bolt type

Flange Size(ISO)	A	B	C	D	Ref.No.	Part No.
NW63 BLANK	5.12 (130)	0.47 (12)		4.33 (110)	L250-BB	852000
NW80 BLANK	5.71 (145)	0.47 (12)		4.92 (125)	L300-BB	852008
NW100 BLANK	6.50 (165)	0.47 (12)		5.71 (145)	L400-BB	852001
NW160 BLANK	8.86 (225)	0.63 (16)		7.87 (200)	L600-BB	852002
NW200 BLANK	11.22 (285)	0.63 (16)		10.24 (260)	L800-BB	852003
NW250 BLANK	13.19 (335)	0.63 (16)		12.20 (310)	L1000-BB	852004
NW320 BLANK	16.73 (425)	0.79 (20)		15.55 (395)	L1200-BB	852005
NW400 BLANK	20.08 (510)	0.79 (20)		18.90 (480)	L1600-BB	852006
NW500 BLANK	24.02 (610)	0.79 (20)		22.83 (580)	L2000-BB	852007
NW63 WELD	5.12 (130)	0.47 (12)	2.51 (64)	4.33 (110)	L250-BW	850000
NW80 WELD	5.71 (145)	0.47 (12)	3.01 (76)	4.92 (125)	L300-BW	850008
NW100 WELD	6.50 (165)	0.47 (12)	4.01 (102)	5.71 (145)	L400-BW	850001
NW160 WELD	8.86 (225)	0.63 (16)	6.02 (153)	7.87 (200)	L600-BW	850002
NW200 WELD	11.22 (285)	0.63 (16)	8.02 (204)	10.24 (260)	L800-BW	850003
NW250 WELD	13.19 (335)	0.63 (16)	10.02 (255)	12.20 (310)	L1000-BW	850004
NW320 WELD	16.73 (425)	0.79 (20)	12.78 (325)	15.55 (395)	L1200-BW	850005
NW400 WELD	20.08 (510)	0.79 (20)	16.03 (407)	18.90 (480)	L1600-BW	850006
NW500 WELD	24.02 (610)	0.79 (20)	20.03 (509)	22.83 (580)	L2000-BW	850007

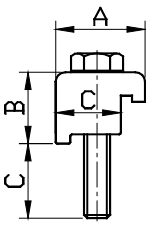
### Large-Flange ISO LF, Band Clamp

 ◆ Banded Clamp	Flange Size(ISO)		A	B	C	Ref.No.	Part No.
	NW63	BLANK	3.74 (95)	0.47 (12)			L250-CFB
NW80	BLANK	4.33 (110)	0.47 (12)			L300-CFB	812015
NW100	BLANK	5.12 (130)	0.47 (12)			L400-CFB	812016
NW160	BLANK	7.09 (180)	0.47 (12)			L600-CFB	812017
NW200	BLANK	9.45 (240)	0.47 (12)			L800-CFB	812018
NW63	WELD	3.74 (95)	0.47 (12)	2.51 (64)		L250-CFW	813014
NW80	WELD	4.33 (110)	0.47 (12)	3.01 (76)		L300-CFW	813015
NW100	WELD	5.12 (130)	0.47 (12)	4.01 (102)		L400-CFW	813016
NW160	WELD	7.09 (180)	0.47 (12)	6.02 (153)		L600-CFW	813017
NW200	WELD	9.45 (240)	0.47 (12)	8.02 (204)		L800-CFW	813018

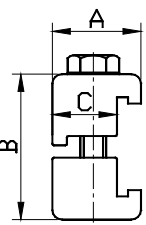
### Seal, Centering Ring Assembly, Viton®

 ◆ Stainless Steel centering ring ◆ Replaceable Viton O-ring ◆ Aluminum spacer ring ◆ Rated 150 °C max	Flange Size(ISO)	A	B	Ref.No.	Part No.
	NW63	2.61 (67)	0.15 (4)		L250-CRSS
NW80	3.14 (80)	0.15 (4)		L300-CRSS	810010
NW100	3.86 (98)	0.15 (4)		L400-CRSS	810011
NW160	5.87 (149)	0.15 (4)		L600-CRSS	810012
NW200	8.23 (209)	0.15 (4)		L800-CRSS	810013
NW250	10.13 (257)	0.15 (4)		L1000-CRSS	810014
NW320	12.25 (311)	0.22 (6)		L1200-CRSS	810015
NW400	15.47 (393)	0.22 (6)		L1600-CRSS	810016
NW500	19.45 (494)	0.22 (6)		L2000-CRSS	810017

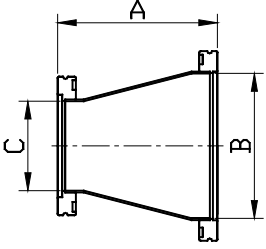
### Clamp, Single Claw

 <ul style="list-style-type: none"> <li>◆ Aluminum clamp</li> <li>◆ Stainless steel bolt</li> <li>◆ Stainless steel washer</li> <li>◆ To join an LF flange to a tapped bolted flange</li> </ul>	Flange Size(ISO)	Bolt Size	A	B	C	Ref.No.	Part No.
	NW63	M 8	1.20 (30)	0.39 (10)	0.62 (16)	SC-8	801000
	NW80	M 8	1.20 (30)	0.39 (10)	0.62 (16)	SC-8	801000
	NW100	M 8	1.20 (30)	0.39 (10)	0.62 (16)	SC-8	801000
	NW160	M 10	1.25 (32)	0.39 (10)	0.80 (20)		801002
	NW200	M 10	1.25 (32)	0.39 (10)	0.80 (20)		801002
	NW250	M 10	1.25 (32)	0.39 (10)	0.80 (20)		801002
	NW320	M 12	1.57 (40)	0.72 (18)	1.04 (26)		801005
	NW400	M 12	1.57 (40)	0.72 (18)	1.04 (26)		801005
	NW500	M 12	1.57 (40)	0.72 (18)	1.04 (26)		801005

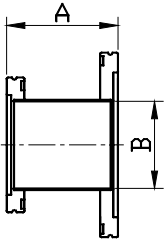
### Clamp, Double Claw

 <ul style="list-style-type: none"> <li>◆ Aluminum clamp</li> <li>◆ Stainless steel bolt</li> <li>◆ Stainless steel washer</li> <li>◆ To join an LF flange to a tapped bolted flange</li> </ul>	Flange Size(ISO)	A	B	C	Ref.No.	Part No.	
	NW63		0.93 (24)	1.98 (50)	0.62 (16)		802000
	NW80		0.93 (24)	1.98 (50)	0.62 (16)		802000
	NW100		0.93 (24)	1.98 (50)	0.62 (16)		802000
	NW160		1.10 (28)	1.98 (50)	0.80 (20)		802002
	NW200		1.10 (28)	1.98 (50)	0.80 (20)		802002
	NW250		1.10 (28)	1.98 (50)	0.80 (20)		802002
	NW320		1.32 (34)	2.60 (66)	1.04 (26)		802005
	NW400		1.32 (34)	2.60 (66)	1.04 (26)		802005
	NW500		1.32 (34)	2.60 (66)	1.04 (26)		802005

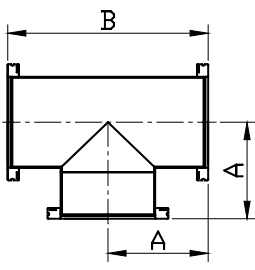
### Conical Reducers

 <ul style="list-style-type: none"> <li>◆ Stainless steel type 304</li> <li>◆ Unlisted combinations available upon request</li> <li>◆ High conductance adapter</li> </ul>	Flange Size(ISO)	A	B	C	Ref.No.	Part No.	
	NW63 to NW80	4.12 (105)	2.87 (73)	2.37 (60)			832006
	NW63 to NW100	4.12 (105)	3.83 (97)	2.37 (60)			832007
	NW80 to NW100	4.12 (105)	3.83 (97)	2.87 (73)			832008
	NW80 to NW160	9.50 (241)	5.78 (147)	2.87 (73)			832009
	NW100 to NW160	9.50 (241)	5.78 (147)	3.83 (97)			832010

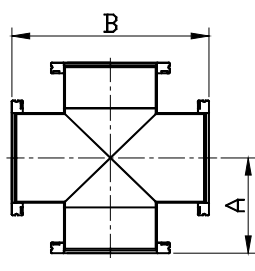
### Step Reducers

 <ul style="list-style-type: none"> <li>◆ Stainless steel type 304</li> <li>◆ Short overall length</li> </ul>	Flange Size(ISO)	A	B	Ref.No.	Part No.	
	NW63 to NW80	4.00 (102)	2.37 (60)			832005
	NW63 to NW100	4.00 (102)	2.37 (60)			832000
	NW63 to NW160	4.00 (102)	2.37 (60)			832001
	NW100 to NW160	4.00 (102)	3.83 (97)			832002
	NW63 to NW80	2.95 (75)	2.31 (59)			832005-1
	NW63 to NW100	2.95 (75)	2.31 (59)			832000-1
	NW63 to NW160	2.95 (75)	2.31 (59)			832001-1
	NW100 to NW160	2.95 (75)	3.83 (97)			832002-1

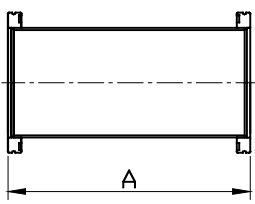
### Tees

 <ul style="list-style-type: none"> <li>◆ ISO-MF flanges same size all ports</li> <li>◆ Stainless steel type 304</li> <li>◆ Standard flange face to centerline dimension</li> <li>◆ Larger sizes available on request</li> </ul>	Flange Size(ISO)	A	B	Ref.No.	Part No.
	NW63	3.25 (83)			824036
	NW80	3.50 (89)			824037
	NW100	4.12 (105)			824038
	NW160	5.87 (149)			824039
	NW200	7.25 (184)			824040
	NW250	9.75 (248)			824004
	NW320	10.87 (276)			824005

### Crosses

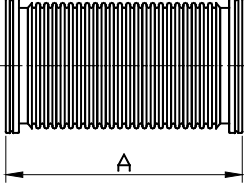
 <ul style="list-style-type: none"> <li>◆ ISOLF flanges same size all ports</li> <li>◆ Stainless steel type 304</li> <li>◆ Standard flange face to centerline dimensions</li> <li>◆ Larger sizes available on request</li> </ul>	Flange Size(ISO)	A	B	Ref.No.	Part No.
	NW63	3.25 (83)	6.92 (176)		825036
	NW80	3.50 (89)	7.72 (196)		825037
	NW100	4.12 (105)	8.50 (216)		825038
	NW160	5.87 (149)	10.86 (276)		825039
	NW200	7.25 (184)	13.22 (336)		825040

### Straight Section Nipple

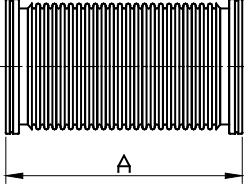
 <ul style="list-style-type: none"> <li>◆ Stainless steel type 304</li> <li>◆ Special lengths to order</li> <li>◆ LF type flanges</li> </ul>	Flange Size(ISO)	A	B	Ref.No.	Part No.
	NW63	8.00 (203)			821000
	NW80	6.81 (173)			821008
	NW100	10.25 (260)			821001
	NW160	12.62 (321)			821002
	NW200	15.50 (394)			821003



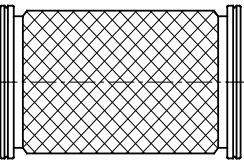
### ISO-LF Flexible Coupling

 <ul style="list-style-type: none"> <li>◆ Stainless steel</li> <li>◆ Formed bellows</li> <li>◆ Bellows butt welded</li> <li>◆ Thin wall</li> </ul>	Flange Size(ISO)	Spring Rate	A	B	Thick	Ref.No.	Part No.		
	NW63							822001	
	NW80							822002	
	NW100							822003	
	NW160							822004	
	NW200							822005	

### ISO-LF Medium Wall Flexible Hose

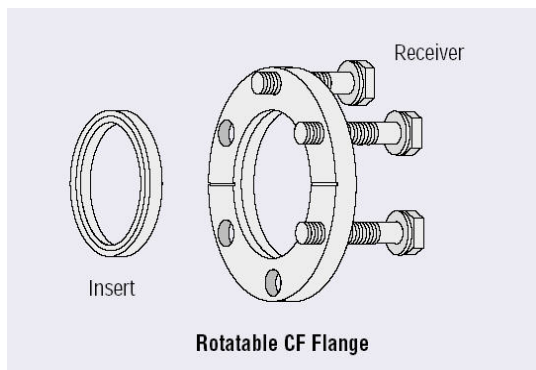
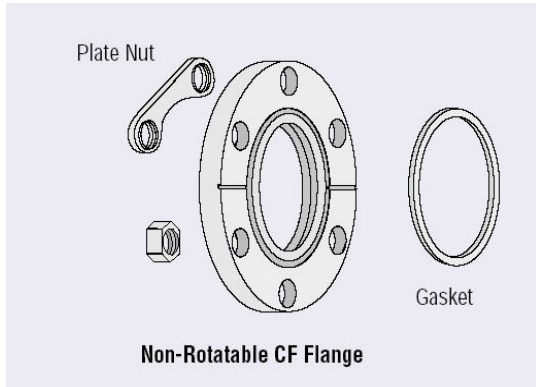
 <ul style="list-style-type: none"> <li>◆ Stainless steel</li> <li>◆ Formed bellows</li> <li>◆ Bellows butt welded</li> <li>◆ Medium wall</li> </ul>	Flange Size(ISO)	Spring Rate	A	B	Thick	Ref.No.	Part No.		
	NW63							822101	
	NW80							822102	
	NW100							822103	
	NW160							822104	
	NW200							822105	

### ISO-LF Flexible Hose with braid Protection

 <ul style="list-style-type: none"> <li>◆ Stainless steel</li> <li>◆ Formed bellows</li> <li>◆ Bellows butt welded</li> <li>◆ Medium wall</li> </ul>	Flange Size(ISO)	Spring Rate	A	B	Thick	Ref.No.	Part No.		
	NW63							822201	
	NW80							822202	
	NW100							822203	
	NW160							822204	
	NW200							822205	

# Metal seal CF

## Section 2.3



## Instruction

### CF Flange system

Neoma CF flange systems are compatible with other Conflat style flanges and are available in size from 1-1/3 to 10 inches OD for 1/4 to 8 inch tube. Special specification could be available upon request.

### Applications

Neoma CF flanges are requiring a very clean environment, ultrahigh vacuum conditions, high temperature, or where critical or dangerous materials must be excluded.

These include :

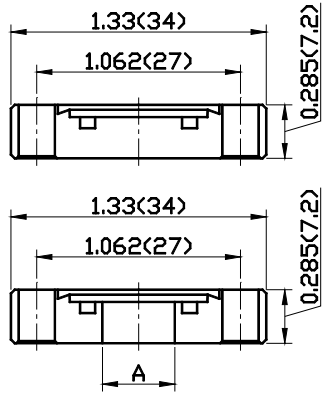
- Difficult applications with corrosive, radioactive, toxic or air sensitive materials.
- Materials creation and processing units
- Analytical instrumentation including electron spectrometers, mass spectrometers, and electron microscopes.
- High energy physics installation such as accelerators and fusion devices.

### Features

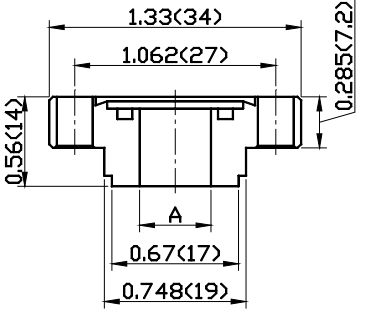
- Neoma CF metal seal flange
- Conflat compatible
- Genderless mating
- Rotatable and non-rotatable
- Tapped or clearance bolt holes
- Wire seal flanges used for tubes larger than 14 inches diameter
- Double Sided flanges
- Reducing flanges
- Hybrid Adapters interconnect dissimilar flange systems



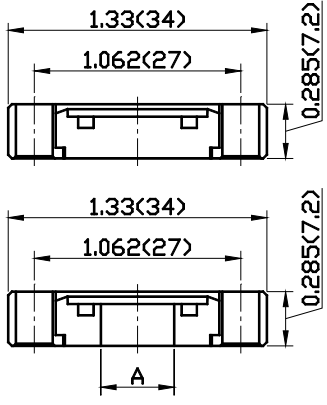
### 1 1/3" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	Ref.No.	Part No.	
	1 1/3	Non	Tapped	Blank	F133000T	130000	
1 1/3	Non	Tapped	0.252 (6.4)	F133025T	130001		
1 1/3	Non	Tapped	0.377 (9.58)	F133038T	130002		
1 1/3	Non	Tapped	0.502 (13)	F133050T	130003		
1 1/3	Non	Tapped	0.75 (19)		130003-1		
1 1/3	Non	Thru	Blank	F133000	110000		
1 1/3	Non	Thru	0.252 (6.4)	F133025	110001		
1 1/3	Non	Thru	0.377 (9.58)	F133038	110002		
1 1/3	Non	Thru	0.502 (13)	F133050	110003		
1 1/3	Non	Thru	0.75 (19)		110003-1		

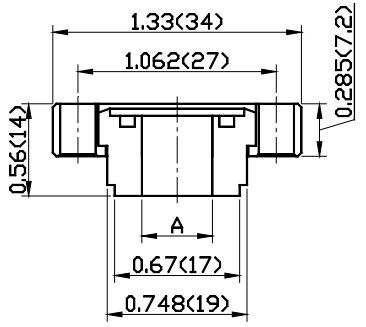
### 1 1/3" CF Weld Stubs Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	Ref.No.	Part No.	
	1 1/3	Non	Thru	0.625 (16)	F133075	110004	
1 1/3	Non	Tapped	0.625 (16)	F133075T	130004		

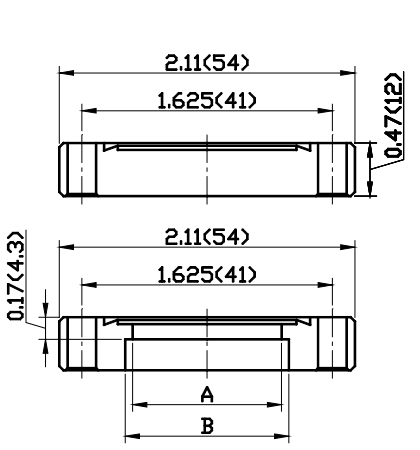
### 1 1/3" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	Ref.No.	Part No.	
	1 1/3	Rotatable	Tapped	Blank		F133000RT	120000
1 1/3	Rotatable	Tapped	0.252 (6.4)		F133025RT	120001	
1 1/3	Rotatable	Tapped	0.377 (9.58)		F133038RT	120002	
1 1/3	Rotatable	Tapped	0.502 (13)		F133050RT	120003	
1 1/3	Rotatable	Tapped	0.75 (19)			120003-1	
1 1/3	Rotatable	Thru	Blank		F133000R	100000	
1 1/3	Rotatable	Thru	0.252 (6.4)		F133025R	100001	
1 1/3	Rotatable	Thru	0.377 (9.58)		F133038R	100002	
1 1/3	Rotatable	Thru	0.502 (13)		F133050R	100003	
1 1/3	Rotatable	Thru	0.75 (19)			100003-1	

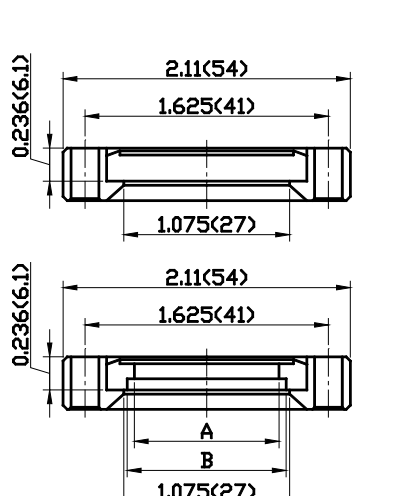
### 1 1/3" CF Weld Stubs Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	Ref.No.	Part No.	
	1 1/3	Rotatable	Thru	0.625 (16)		F133075R	100004
1 1/3	Rotatable	Tapped	0.625 (16)		F133075RT	120004	

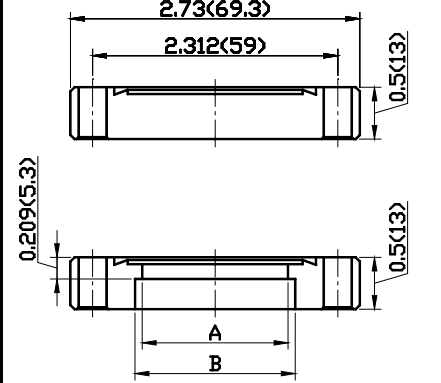
### 2 1/8" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
		2 1/8	Non	Tapped		Blank	F218000T
	2 1/8	Non	Tapped		0.25 (6)		
	2 1/8	Non	Tapped		0.50 (13)		
	2 1/8	Non	Tapped	0.690	0.760 (19)	F218075T	130006
	2 1/8	Non	Tapped	0.875	1.010 (25)	F218100T	130007
	2 1/8	Non	Thru		Blank	F218000	110005
	2 1/8	Non	Thru		0.25 (6)		
	2 1/8	Non	Thru		0.50 (13)		
	2 1/8	Non	Thru	0.690	0.760 (19)	F218075	110006
	2 1/8	Non	Thru	0.875	1.010 (25)	F218100	110007

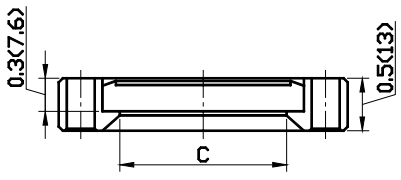
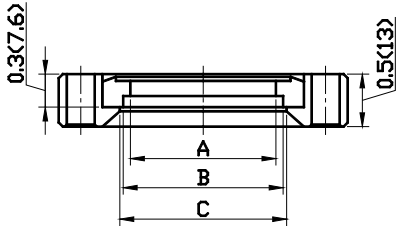
### 2 1/8" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
		2 1/8	Rotatable	Tapped		Blank	F218000RT
	2 1/8	Rotatable	Tapped		0.25 (6)		
	2 1/8	Rotatable	Tapped		0.50 (13)		
	2 1/8	Rotatable	Tapped	0.690	0.760 (19)	F218075RT	120006
	2 1/8	Rotatable	Tapped	0.875	1.010 (25)	F218100RT	120007
	2 1/8	Rotatable	Thru		Blank	F218000R	100005
	2 1/8	Rotatable	Thru		0.25 (6)		
	2 1/8	Rotatable	Thru		0.50 (13)		
	2 1/8	Rotatable	Thru	0.690	0.760 (19)	F218075R	100006
	2 1/8	Rotatable	Thru	0.875	1.010 (25)	F218100R	100007

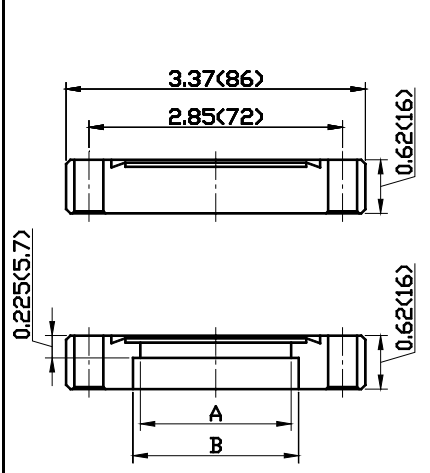
**2 3/4" CF Flange Non-rotatable**

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
	2 3/4	Non	Tapped		Blank	F275000T	130008
	2 3/4	Non	Tapped		0.252 (6)	F275025T	130009
	2 3/4	Non	Tapped		0.502 (13)	F275050T	130010
	2 3/4	Non	Tapped	0.690	0.760 (19)	F275075T	130011
	2 3/4	Non	Tapped	0.875	1.010 (25)	F275100T	130012
	2 3/4	Non	Tapped	1.125	1.255 (32)	F275125T	130013
	2 3/4	Non	Tapped	1.375	1.510 (38)	F275150T	130014
	2 3/4	Non	Tapped	1.625	1.75 (45)	F275175T	130094
	2 3/4	Non	Thru		Blank	F275000	110008
	2 3/4	Non	Thru		0.252 (6)	F275025	110009
	2 3/4	Non	Thru		0.502 (13)	F275050	110010
	2 3/4	Non	Thru	0.690	0.760 (19)	F275075	110011
	2 3/4	Non	Thru	0.875	1.010 (25)	F275100	110012
	2 3/4	Non	Thru	1.125	1.255 (32)	F275125	110013
	2 3/4	Non	Thru	1.375	1.510 (38)	F275150	110014
	2 3/4	Non	Thru	1.625	1.75 (45)	F275175	110052

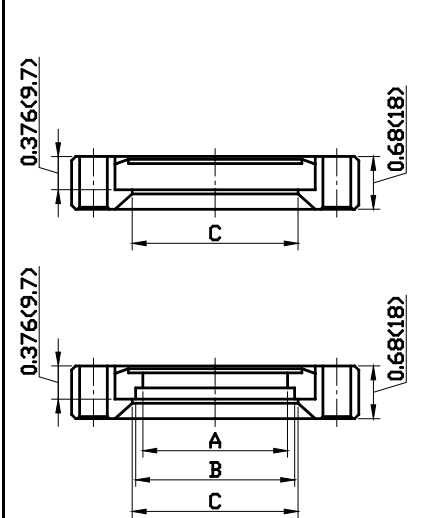
### 2 3/4" CF Flange Rotatable

		Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.
		2 3/4	Rotatable	Tapped		Blank		F275000RT	120008
		2 3/4	Rotatable	Tapped		0.252 (6)	1.56	F275025RT	120009
		2 3/4	Rotatable	Tapped		0.502 (13)	1.56	F275050RT	120010
		2 3/4	Rotatable	Tapped	0.690	0.760 (19)	1.56	F275075RT	120011
		2 3/4	Rotatable	Tapped	0.875	1.010 (25)	1.56	F275100RT	120012
		2 3/4	Rotatable	Tapped	1.125	1.255 (32)	1.56	F275125RT	120013
		2 3/4	Rotatable	Tapped	1.375	1.510 (38)	1.56	F275150RT	120014
		2 3/4	Rotatable	Tapped	1.625	1.75 (45)	1.90	F275175RT	120093
		2 3/4	Rotatable	Thru		Blank		F275000R	100008
		2 3/4	Rotatable	Thru		0.252 (6)	1.56	F275025R	100009
		2 3/4	Rotatable	Thru		0.502 (13)	1.56	F275050R	100010
		2 3/4	Rotatable	Thru	0.690	0.760 (19)	1.56	F275075R	100011
		2 3/4	Rotatable	Thru	0.875	1.010 (25)	1.56	F275100R	100012
		2 3/4	Rotatable	Thru	1.125	1.255 (32)	1.56	F275125R	100013
		2 3/4	Rotatable	Thru	1.375	1.510 (38)	1.56	F275150R	100014
		2 3/4	Rotatable	Thru	1.625	1.75 (45)	1.90	F275175R	100043

### 3 3/8" CF Flange Non-rotatable

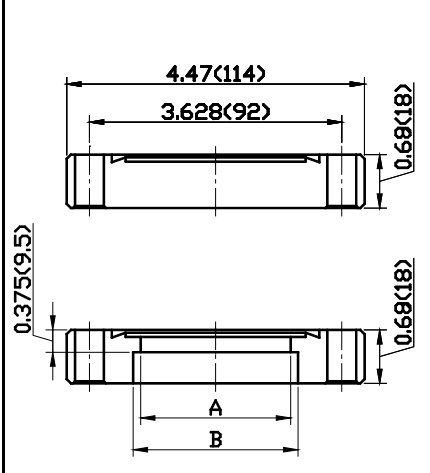
	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
	3 3/8	Non	Tapped			Blank	F338000T
3 3/8	Non	Tapped	1.375 (35)	1.510 (38)	F338150T	130016	
3 3/8	Non	Tapped	1.875 (48)	2.010 (51)	F338200T	130017	
3 3/8	Non	Thru			Blank	F338000	110015
3 3/8	Non	Thru	1.375 (35)	1.510 (38)	F338150	110016	
3 3/8	Non	Thru	1.875 (48)	2.010 (51)	F338200	110017	

### 3 3/8" CF Flange Rotatable

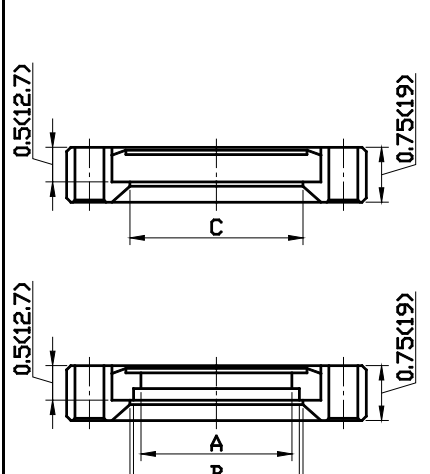
	Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.
	3 3/8	Rotatable	Tapped			Blank	2.03 (52)	F338000RT
3 3/8	Rotatable	Tapped	1.375 (35)	1.510 (38)	2.03 (52)	F338150RT	120016	
3 3/8	Rotatable	Tapped	1.875 (48)	2.010 (51)	2.03 (52)	F338200RT	120017	
3 3/8	Rotatable	Thru			Blank	2.03 (52)	F338000R	100015
3 3/8	Rotatable	Thru	1.375 (35)	1.510 (38)	2.03 (52)	F338150R	100016	
3 3/8	Rotatable	Thru	1.875 (48)	2.010 (51)	2.03 (52)	F338200R	100017	



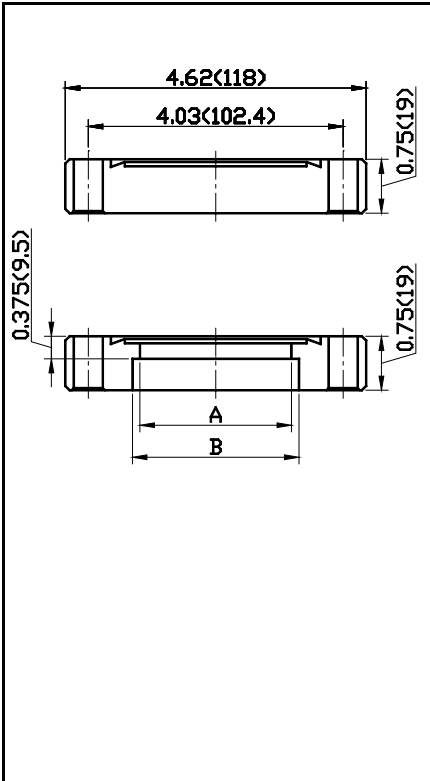
### 4 1/2" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
	4 1/2	Non	Tapped			Blank	F450000T
4 1/2	Non	Tapped	1.375 (35)	1.510 (38)		F450150T	130019
4 1/2	Non	Tapped	1.875 (48)	2.010 (51)		F450200T	130020
4 1/2	Non	Tapped	2.375 (60)	2.510 (64)		F450250T	130021
4 1/2	Non	Thru			Blank	F450000	110018
4 1/2	Non	Thru	1.375 (35)	1.510 (38)		F450150	110019
4 1/2	Non	Thru	1.875 (48)	2.010 (51)		F450200	110020
4 1/2	Non	Thru	2.375 (60)	2.510 (64)		F450250	110021

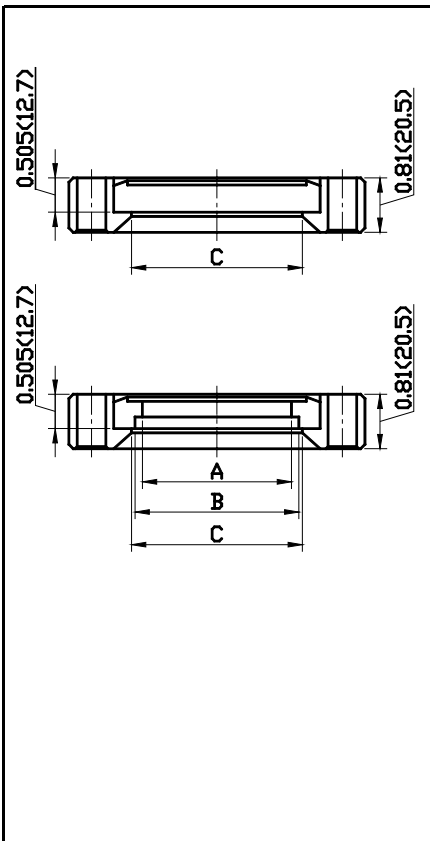
### 4 1/2" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.
	4 1/2	Rotatable	Tapped			Blank	2.625	F450000RT
4 1/2	Rotatable	Tapped	1.375 (35)	1.510 (38)	2.625		F450150RT	120019
4 1/2	Rotatable	Tapped	1.875 (48)	2.010 (51)	2.625		F450200RT	120020
4 1/2	Rotatable	Tapped	2.375 (60)	2.510 (64)	2.625		F450250RT	120021
4 1/2	Rotatable	Thru			Blank	2.625	F450000R	100018
4 1/2	Rotatable	Thru	1.375 (35)	1.510 (38)	2.625		F450150R	100019
4 1/2	Rotatable	Thru	1.875 (48)	2.010 (51)	2.625		F450200R	100020
4 1/2	Rotatable	Thru	2.375 (60)	2.510 (64)	2.625		F450250R	100021

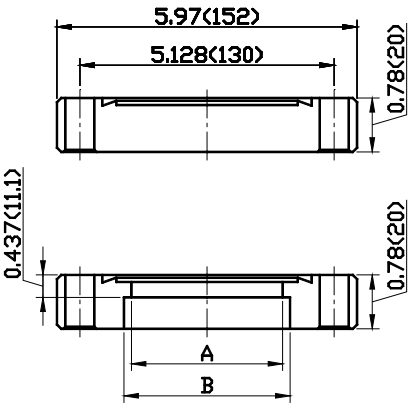
### 4 5/8" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
	4 5/8	Nonrotatable	Tapped			Blank	F458000T
4 5/8	Nonrotatable	Tapped		2.375 (60)	2.510 (64)	F458250T	130023
4 5/8	Nonrotatable	Tapped		2.875 (73)	3.010 (76)	F458300T	130024
4 5/8	Nonrotatable	Thru			Blank	F458000	110022
4 5/8	Nonrotatable	Thru		2.375 (60)	2.510 (64)	F458250	110023
4 5/8	Nonrotatable	Thru		2.875 (73)	3.010 (76)	F458300	110024

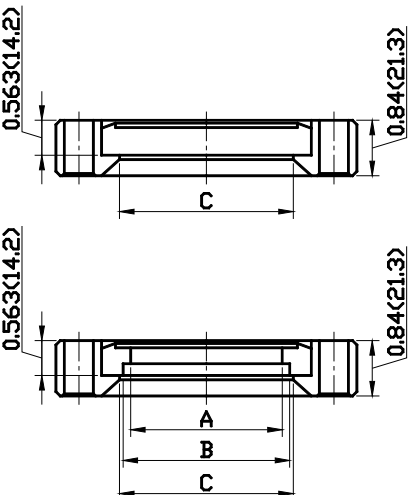
### 4 5/8" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.
	4 5/8	Rotatable	Tapped			Blank	3.100	F458000RT
4 5/8	Rotatable	Tapped		2.375 (60)	2.510 (64)	3.100	F458250RT	120023
4 5/8	Rotatable	Tapped		2.875 (73)	3.010 (76)	3.100	F458300RT	120024
4 5/8	Rotatable	Thru			Blank	3.100	F458000R	100022
4 5/8	Rotatable	Thru		2.375 (60)	2.510 (64)	3.100	F458250R	100023
4 5/8	Rotatable	Thru		2.875 (73)	3.010 (76)	3.100	F458300R	100024

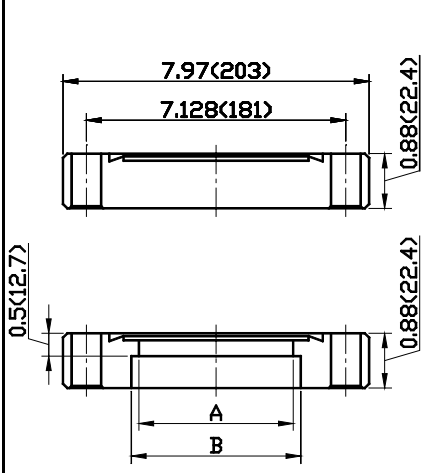
### 6" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
	6	Non	Tapped			Blank	F600000T
6	Non	Tapped		3.81 (97)	4.010 (102)	F600400T	130026
6	Non	Thru			Blank	F600000	110025
6	Non	Thru		3.81 (97)	4.010 (102)	F600400	110026

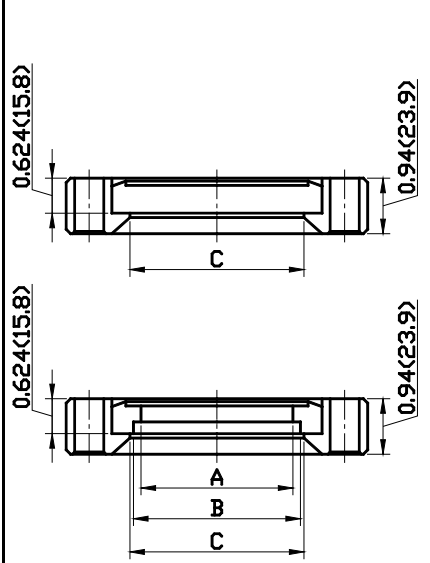
### 6" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.
	6	Rotatable	Tapped			Blank	4.125	F600000RT
6	Rotatable	Tapped		3.81 (97)	4.010 (102)	4.125	F600400RT	120026
6	Rotatable	Thru			Blank	4.125	F600000R	100025
6	Rotatable	Thru		3.81 (97)	4.010 (102)	4.125	F600400R	100026

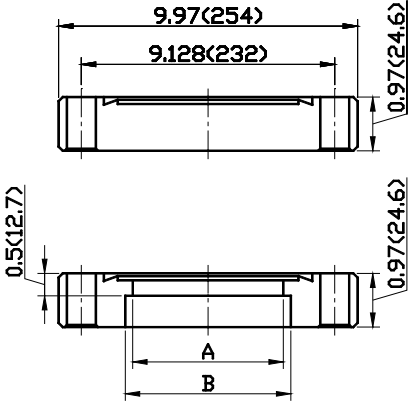
### 8" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.	
	8	Non	Tapped			Blank	F800000T	130030
8	Non	Tapped		5.812 (148)	6.020 (152)	F800600T	130031	
8	Non	Thru			Blank	F800000	110030	
8	Non	Thru		5.812 (148)	6.020 (152)	F800600	110031	

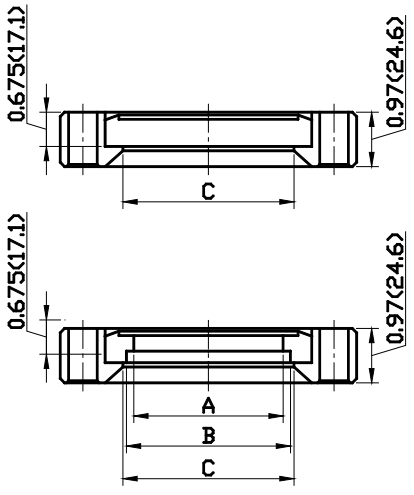
### 8" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.	
	8	Rotatable	Tapped			Blank	6.125	F800000RT	120030
8	Rotatable	Tapped		5.812 (148)	6.020 (152)	6.125	F800600RT	120031	
8	Rotatable	Thru			Blank	6.125	F800000R	100030	
8	Rotatable	Thru		5.812 (148)	6.020 (152)	6.125	F800600R	100031	

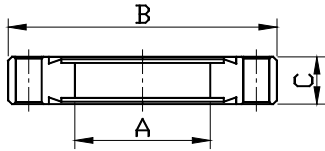
### 10" CF Flange Non-rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	Ref.No.	Part No.
		10	Non	Tapped		Blank	F100000T
	10	Non	Tapped	7.812 (198)	8.020 (203)	F1000800T	130033
	10	Non	Thru		Blank	F1000000	110032
	10	Non	Thru	7.812 (198)	8.020 (203)	F1000800	110033

### 10" CF Flange Rotatable

	Flange Size	Rotatable	Bolt Hoes	A	B	C	Ref.No.	Part No.
		10	Rotatable	Tapped		Blank	8.125	F1000000RT
	10	Rotatable	Tapped	7.812 (198)	8.020 (203)	8.125	F1000800RT	120033
	10	Rotatable	Thru		Blank	8.125	F1000000R	100032
	10	Rotatable	Thru	7.812 (198)	8.020 (203)	8.125	F1000800R	100033

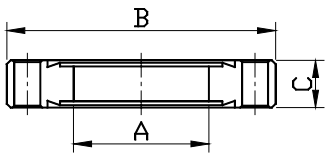
### CF Double-Sided Flanges



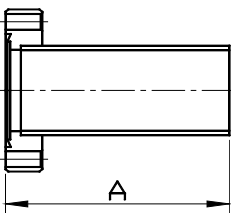
- ◆ Designed to be inserted between two flanges of the same size
- ◆ Requires double-sided flange hardware
- ◆ Can be easily modified to accommodate side ports for such things as gas inlets, gauges, valves, etc.

Flange Size	A	B	C	Ref.No.	Part No.	
1 1/3	Blank	1.33	0.30 (8)	FD-133000	140000	
1 1/3	Blank	1.33	0.50 (13)			
1 1/3	0.26 (7)	1.33	0.30 (8)	FD-133025	140001	
1 1/3	0.38 (10)	1.33	0.30 (8)	FD-133037	140002	
1 1/3	0.51 (13)	1.33	0.30 (8)	FD-133050	140003	
1 1/3	0.63 (16)	1.33	0.30 (8)			
1 1/3	0.63 (16)	1.33	0.50 (13)			
2 1/8	Blank	2.11	0.50 (13)	FD-218000	140004	
2 1/8	0.76 (19)	2.11	0.50 (13)	FD-218075	140005	
2 1/8	1.01 (26)	2.11	0.50 (13)	FD-218100	140006	
2 3/4	Blank	2.73	0.50 (13)			
2 3/4	Blank	2.73	0.75 (19)	FD-275000	140007	
2 3/4	Blank	2.73	1.00 (19)	FD-275000-1	140043	
2 3/4	0.26 (7)	2.73	0.50 (13)			
2 3/4	0.26 (7)	2.73	0.75 (19)	FD-275025	140008	
2 3/4	0.51 (13)	2.73	0.50 (13)			
2 3/4	0.51 (13)	2.73	0.75 (19)	FD-275050	140009	
2 3/4	0.76 (19)	2.73	0.50 (13)			
2 3/4	0.76 (19)	2.73	0.75 (19)	FD-275075	140010	
2 3/4	1.01 (26)	2.73	0.50 (13)			
2 3/4	1.01 (26)	2.73	0.75 (19)	FD-275100	140011	
2 3/4	1.26 (32)	2.73	0.50 (13)			
2 3/4	1.26 (32)	2.73	0.75 (19)	FD-275125	140012	
2 3/4	1.51 (38)	2.73	0.50 (13)			
2 3/4	1.51 (38)	2.73	1.00 (25)	FD-275150-1	140014	
2 3/4	1.51 (38)	2.73	0.75 (19)	FD-275150-1	140013	
3 3/8	Blank	3.37	0.69 (18)	FD-338000	140015	
3 3/8	1.51 (38)	3.37	0.69 (18)	FD-338150	140016	

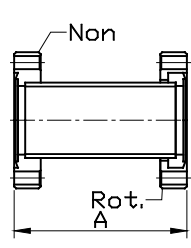
### CF Double-Sided Flanges

	Flange Size	A	B	C	Ref.No.	Part No.
	<ul style="list-style-type: none"> <li>◆ Designed to be inserted between two flanges of the same size</li> <li>◆ Requires double-sided flange hardware</li> <li>◆ Can be easily modified to accommodate side ports for such things as gas inlets, gauges, valves, etc.</li> </ul>	3 3/8	2.01 (51)	3.37	0.69 (18)	FD-338200
4 1/2		Blank	4.47	0.69 (18)	FD-450000	140018
4 1/2		1.51 (38)	4.47	0.69 (18)	FD-450150	140019
4 1/2		2.01 (51)	4.47	0.69 (18)	FD-450200	140020
4 1/2		2.51 (64)	4.47	0.69 (18)	FD-450250	140021
4 5/8		Blank	4.62	0.81 (21)	FD-458000	140022
4 5/8		2.51 (64)	4.62	0.81 (21)	FD-458250	140023
4 5/8		3.00 (76)	4.62	0.81 (21)	FD-458300	140024
6		Blank	5.97	0.78 (20)	FD-600000	140025
6		4.10 (102)	5.97	0.78 (20)	FD-600400	140026
8		Blank	7.97	0.88 (22)	FD-800000	140030
8		6.02 (153)	7.97	0.88 (22)	FD-800600	140031
10		Blank	9.97	0.97 (25)	FD-1000000	140032
10		8.02 (204)	9.97	0.97 (25)	FD-1000800	140033

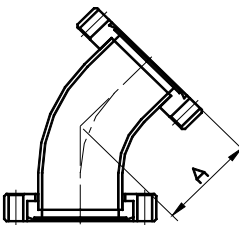
### CF Half Nipple

	Flange Size	For Tubing Size (O.D.)	A	Ref.No.	Part No.
	<p>Non-Rotatable</p> <ul style="list-style-type: none"> <li>◆ Butt weld</li> <li>◆ For use with orbital welders</li> <li>◆ Thru holes</li> </ul>	1 1/3	0.75 (19)	1.50 (38)	075-1
2 1/8		1.00 (25)	2.05 (52)	100-1	401001
2 3/4		1.50 (38)	2.46 (62)	150-1	401002
3 3/8		2.00 (51)	3.21 (82)	200-1	401003
4 1/2		2.50 (64)	4.13 (105)	250-1	401004
4 5/8		3.00 (76)	3.53	300-1	401005
6		4.00 (102)	5.31 (135)	400-1	401006
8		6.00 (152)	6.56 (167)	600-1	401008
10		8.00 (203)	8.00 (203)	800-1	401009

### CF Full Nipple

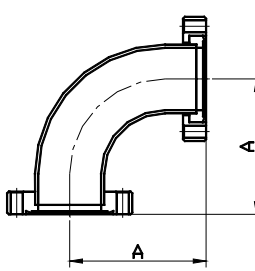
	Flange Size	For Tubing Size (O.D.)	A	Ref.No.	Part No.
	<ul style="list-style-type: none"> <li>◆ Special lengths to order</li> <li>◆ Thru holes</li> </ul>	1 1/3	0.75 (19)	3.00 (76)	075-2
	2 1/8	1.00 (25)	4.08 (104)	100-2	402001
	2 3/4	1.50 (38)	4.92 (125)	250-2	402002
	3 3/8	2.00 (51)	6.42 (163)	200-2	402003
	4 1/2	2.50 (64)	8.26 (210)	250-2	402004
	4 5/8	3.00 (76)	7.06	300-2	402005
	6	4.00 (102)	10.62 (270)	400-2	402006
	8	6.00 (152)	13.12 (333)	600-2	402008
	10	8.00 (203)	16.00 (406)	800-2	402009

### CF Elbow 45° with Tangents

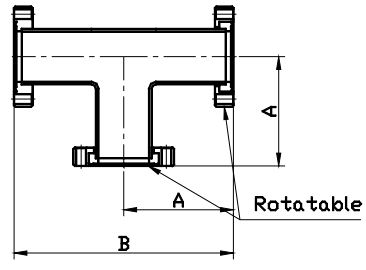
	Flange Size	For Tubing Size (O.D.)	A	Ref.No.	Part No.
	Both flanges rotatable	1 1/3	0.75 (19)	0.81 (21)	
<ul style="list-style-type: none"> <li>◆ Special length to order</li> <li>◆ Thru holes</li> </ul>	1 1/3	0.75 (19)	1.26	075-45L	403029
	2 1/8	1.00 (25)	1.36 (34)	100-45L	403030
	2 3/4	1.50 (38)	1.83 (46)	150-45L	403031
	3 3/8	2.00 (51)	2.54 (64)	200-45L	403032
	4 1/2	2.50 (64)	3.38 (86)	250-45L	403033
	4 5/8	3.00 (76)	4.06 (103)	300-45L	403034
	6	4.00 (102)	5.25 (133)	400-45L	403035
	8	6.00 (152)	5.76 (146)		
	10	8.00 (203)	6.95 (177)		



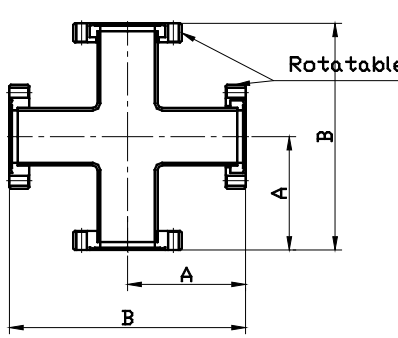
### CF Elbow 90° Smooth Radius

 <p>Both flanges rotatable</p> <p>◆ Special length to order</p> <p>◆ Thru holes</p>	Flange Size	For Tubing Size (O.D.)	A	Ref.No.	Part No.
	1 1/3	0.75 (19)	1.50 (38)		
1 1/3	0.75 (19)	1.63		075-2L	403000
2 1/8	1.00 (25)	1.67		100-2L	403036
2 1/8	1.00 (25)	2.22 (56)			403036-1
2 3/4	1.50 (38)	2.46 (63)		150-2L	403002
3 3/8	2.00 (51)	3.23 (82)		200-2L	403003
4 1/2	2.50 (64)	4.13 (105)		250-2L	403004
4 5/8	3.00 (76)	4.88 (123)		300-2LR	403037
6	4.00 (102)	6.44 (163)		400-2LR	403038
8	6.00 (152)	9.50 (241)		600-2LR	403039
10	8.00 (203)	12.49 (317)			

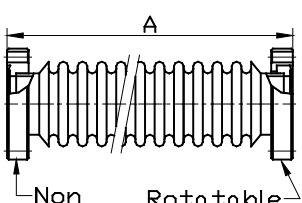
### CF Tee

 <p>◆ CF Flanges same size on all sides</p>	Flange Size	For Tubing Size (O.D.)	A	B	Ref.No.	Part No.
	1 1/3	0.75 (19)	1.50 (38)	3.00 (76)		075-3
2 1/8	1.00 (25)	2.06 (52)	4.12 (105)		100-3	404001
2 3/4	1.50 (38)	2.46 (63)	4.92 (125)		150-3	404002
3 3/8	2.00 (51)	3.21 (82)	6.42 (166)		200-3	404003
4 1/2	2.50 (64)	3.38	6.76		250-3	404038
4 1/2	2.50 (64)	4.13 (105)	8.26 (210)			404038-1
4 5/8	3.00 (76)	3.63	7.26		300-3	404039
4 5/8	3.00 (76)	4.94 (126)	9.88 (251)			404039-1
6	4.00 (102)	4.31	8.62		400-3	404040
6	4.00 (102)	5.31 (135)	10.62 (270)			404040-1
8	6.00 (152)	6.12	12.24		600-3	404041
8	6.00 (152)	6.56 (167)	13.12 (333)			404041-1
10	8.00 (203)	8.00 (203)	16.00 (406)		800-3	404042

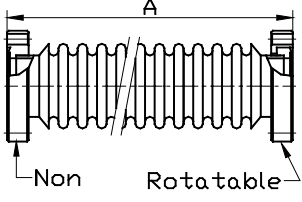
### CF Cross

	Flange Size	For Tubing Size (O.D.)	A	B	Ref.No.	Part No.
	◆ CF Flanges same size on all sides	1 1/3	0.75 (19)	1.50 (38)	3.00 (76)	075-4
2 1/8		1.00 (25)	2.06 (52)	4.12 (105)	100-4	405001
2 3/4		1.50 (38)	2.46 (63)	4.92 (125)	150-4	405002
3 3/8		2.00 (51)	3.21 (82)	6.42 (166)	200-4	405003
4 1/2		2.50 (64)	3.38	6.76	250-4	405031
4 1/2		2.50 (64)	4.13 (105)	8.26 (210)		
4 5/8		3.00 (76)	3.63	7.26	300-4	405032
4 5/8		3.00 (76)	4.94 (126)	9.88 (251)		
6		4.00 (102)	4.31	8.62	400-4T	405033
6		4.00 (102)	5.31 (135)	10.62 (270)		
8		6.00 (152)	6.12	12.24	600-4T	405034
8		6.00 (152)	6.56 (167)	13.12 (333)		
10		8.00 (203)	7.50	15.00	800-4T	405035
10		8.00 (203)	8.00 (203)	16.00 (406)		

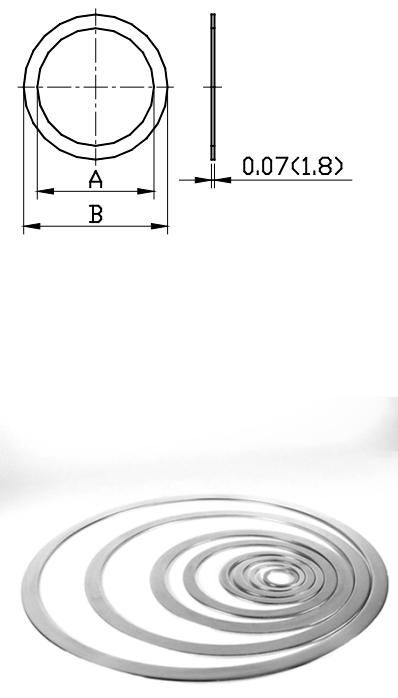
### CF Flange, Flexible Coupling

	Flange Size	Bellows I.D.	A	B	Ref.No.	Part No.
	◆ Stainless Steel ◆ Flexible coupling for vibrations and alignment ◆ Thru holes	1 1/3	0.50			
2 1/8		0.75				400002
2 3/4		1.25				400003
3 3/8		1.62				400004
4 1/2		2.00				400005
4 5/8		2.50				400006
6		3.50				400007
6 3/4		4.00				400008
8		5.50				400009
10		7.50				400010

**CF Flange Medium Wall Flexible Hose**

 <p>◆ Stainless Steel</p>	Flange Size	Static Bend Radius	Wall Thickness	A	B	Ref.No.	Part No.	
	1 1/3	2	0.008				441006	
	1 1/3	2	0.008				441014	
	2 1/8	4	0.009				441076	
	2 1/8	4	0.009				441088	
	2 3/4	5	0.011				441024	
	2 3/4	5	0.011				441030	
	3 3/8	7.75	0.012				441042	
	3 3/8	7.75	0.012				441050	
	4 1/2	8.25	0.012				441153	
	4 1/2	8.25	0.012				441155	
	4 5/8	9	0.014				441061	
	4 5/8	9	0.014				441067	
	6	11	0.014				441097	
	6	11	0.014				441099	

**CF Hardware, Copper Gasket**

	Flange Size	Type	Description	Q'ties	Ref.No.	Part No.
	1 1/3	0.64ID	Copper gasket, etched individually sealed	10	GK-075	191000
	2 1/8	1.00ID	Copper gasket, etched individually sealed	10	GK-100	191002
	2 3/4	1.45ID	Copper gasket, etched individually sealed	10	GK-150	191004
	2 3/4	1.53ID	Copper gasket, etched individually sealed	10	GK-175	191147
	2 3/4	BLANK	Copper gasket, etched individually sealed	10	GK-150S	191006
	3 3/8	2.01ID	Copper gasket, etched individually sealed	10	GK-200	191007
	4 1/2	2.51ID	Copper gasket, etched individually sealed	10	GK-250	191009
	4 5/8	3.01ID	Copper gasket, etched individually sealed	10	GK-300	191011
	6	4.01ID	Copper gasket, etched individually sealed	10	GK-400	191013
	6 3/4	5.01ID	Copper gasket, etched individually sealed	10	GK-500	191015
	8	6.01ID	Copper gasket, etched individually sealed	10	GK-600	191017
	10	8.00ID	Copper gasket, etched individually sealed	10	GK-800	191019
	12	10ID	Copper gasket, etched individually sealed	10	GK-1200	191094
	13 1/4	10.87ID	Copper gasket, etched individually sealed	10	GK-1325	191021
	14	11.52ID	Copper gasket, etched individually sealed	10	GK-1400	191024
	16 1/2	14.11ID	Copper gasket, etched individually sealed	10	GK-1650	191027

**CF Hardware, Hex Head Sets**

Flange Size	Type	Description	Q'ties	Ref.No.	Part No.	
1 1/3	Tapped	Bolt set, 8/32x.62 (socket head cap bolt)	25			
1 1/3	Tapped	Bolt set, 8-32x.50 (socket head cap bolt)	25		190000	
1 1/3	Tapped	Bolt set, 8-32x.56 (socket head cap bolt)	25			
1 1/3	Tapped	Bolt set, 8-32x.75 (socket head cap bolt)	25			
2 1/8	Tapped	Bolt set, 1/4-28x1.00	25			
2 3/4	Tapped	Bolt set 1/4-28x1.00	25			
3 3/8	Tapped	Bolt set 5/16-24x1.25	25		190003	
4 1/2	Tapped	Bolt set 5/16-24x1.25	25		190003	
4 5/8	Tapped	Bolt set 5/16-24x1.25	25		190003	
6	Tapped	Bolt set 5/16-24x1.25	25		190003	
8	Tapped	Bolt set 5/16-24x1.75	25		190010	
10	Tapped	Bolt set 5/16-24x1.75	25		190010	
1 1/3	Thru	Bolt/nut set, 8-32x.75 (socket head cap bolt)	25		190001	
1 1/3	Thru	Bolt/nut set, 8-32x.75 Ag(socket head cap bolt)	25			
1 1/3	Thru	Bolt/nut set, 8-32x.87 (socket head cap bolt)	25			
1 1/3	Thru	Bolt/nut set, 8-32x.87 Ag(socket head cap bolt)	25			
2 1/8	Thru	Bolt set, 1/4-28x1.25	25		190004	
2 1/8	Thru	Bolt set, 1/4-28x1.38	25			
2 3/4	Thru	Bolt set 1/4-28x1.25	25		190004	
2 3/4	Thru	Bolt set 1/4-28x1.38	25			
3 3/8	Thru	Bolt set 5/16-24x1.75	25		190006	
4 1/2	Thru	Bolt set 5/16-24x2.00	25		190007	
4 5/8	Thru	Bolt set 5/16-24x2.25	25		190008	
6	Thru	Bolt set 5/16-24x2.25	25		190008	
8	Thru	Bolt set 5/16-24x2.25	25		190008	
10	Thru	Bolt set 5/16-24x2.50	25		190011	

# Weldable Components

## Section 2.4

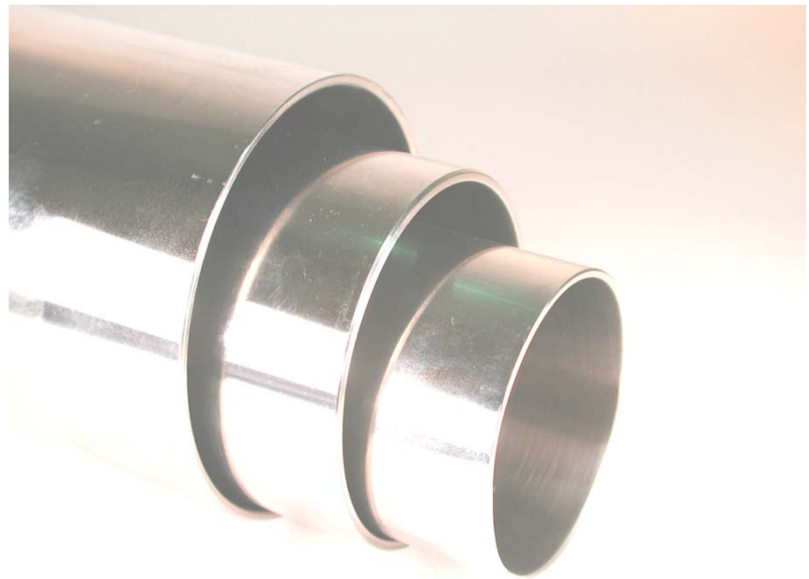
### Instruction

#### Weldable Components

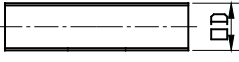
Neoma tube fittings are convenient "building-block" components offering great flexibility in the design and construction of vacuum systems. All fittings are fabricated from type 304 stainless steel tubing.

#### Features

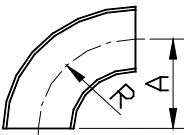
- Mating CF, ISO, ASA flanges available
- UHV rated to  $1 \times 10^{-10}$  Torr
- High temperature rated to 450 °C
- Standard matte finish



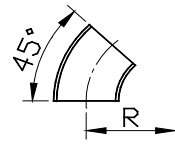
### Tubing

	OD	Thickness	Ref.No.	Part No.	
	0.75 (19)	0.065 (1.7)			480003-1
1.00 (25)	0.065 (1.7)		ST-100	480004	
1.50 (38)	0.065 (1.7)		ST-150	480006	
2.00 (51)	0.065 (1.7)		ST-200	480007	
2.50 (64)	0.065 (1.7)		ST-250	480008	
3.00 (76)	0.065 (1.7)		ST-300	480009	
4.00 (102)	0.065 (1.7)			480010-1	
4.00 (102)	0.083 (2.1)		ST-400	480010	

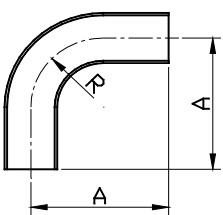
### 90° Elbow

	OD	Thickness	A	Ref.No.	Part No.	
	0.75	0.065	1.13			403500-1
1.00	0.065	1.50		100-2L-NF	403511	
1.50	0.065	2.25		150-2L-NF	403502	
2.00	0.065	3.00		200-2L-NF	403503	
2.50	0.065	3.75		250-2L-NF	403504	
3.00	0.065	4.50		300-2LR-NF	403512	
4.00	0.083	6.00		400-2LR-NF	403513	

### 45° Elbow

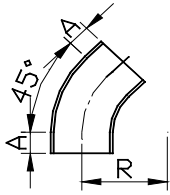
	OD	Thickness	M	R	Ref.No.	Part No.
	0.75	0.035			1.00	075-45LSNF
1.00	0.065			1.50	100-45LSNF	
1.50	0.065			2.25	150-45LSNF	
2.00	0.065			3.00	200-45LSNF	
2.50	0.065			3.75	250-45LSNF	
3.00	0.065			4.50	300-45LSNF	
4.00	0.083			6.00	400-45LSNF	

### 90° Elbow with Tangents

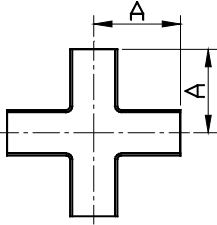
	OD	Thickness	A	R	Ref.No.	Part No.
	0.75	0.035	1.42			075-2LL-NF
1.00	0.065	2.06			100-2LL-NF	403541
1.50	0.065	2.94			150-2LL-NF	403542
2.00	0.065	4.06			200-2LL-NF	403543
2.50	0.065	5.19			250-2LL-NF	403544
3.00	0.065	6.31			300-2LL-NF	403545
4.00	0.065	8.31				403546-1
4.00	0.083	8.31			400-2LL-NF	403546

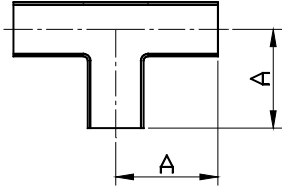


### 45° Elbow with Tangents

	OD	Thickness	A	R	M	Ref.No.	Part No.
	0.75	0.035	0.30			0.76	075-45L-NF
1.00	0.065	0.56			1.19	100-45L-NF	403516
1.50	0.065	0.69			1.62	150-45L-NF	403521
2.00	0.065	1.07			2.31	200-45L-NF	403517
2.50	0.065	1.44			3.00	250-45L-NF	403523
3.00	0.065	1.82			3.68	300-45L-NF	403524
4.00	0.065	2.33			4.81		403525-1
4.00	0.083	2.33			4.81	400-45L-NF	403525

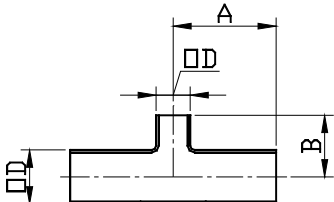
### 4-Way Cross

	OD	Thickness	A	Ref.No.	Part No.
	0.50	0.065	0.75		
0.75	0.035	1.00		075-4-NF	405500
0.75	0.065	1.88			
1.00	0.065	1.88		100-4-NF	405501
1.50	0.065	2.25		150-4-NF	405502
2.00	0.065	3.00		200-4-NF	405503
2.50	0.065	3.00		250-4-NF	405539
3.00	0.065	3.25		300-4-NF	405540
4.00	0.065	3.88		400-4T-NF	405541
6.00	0.083	5.00			
6.00	0.109	5.62		600-4T-NF	405542

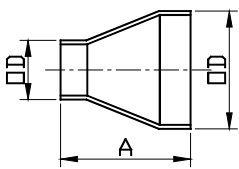
**Tee**


	OD	Thickness	A	Ref.No.	Part No.	
	0.50	0.065	0.75			
	0.75	0.0035	1.00	075-3-NF	404500	
	0.75	0.065	1.88			
	1.00	0.065	1.88	100-3-NF	404501	
	1.50	0.065	2.25	150-3-NF	404502	
	2.00	0.065	3.00	200-3-NF	404503	
	2.50	0.065	3.00	250-3-NF	404539	
	3.00	0.065	3.25	300-3-NF	404540	
	4.00	0.065	3.88	40-3-NF	404541	
	6.00	0.083	5.00			
	6.00	0.109	5.62	600-3-NF	404542	

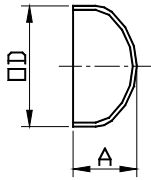
### Reducing Tee

	OD	Thickness	A	B	Ref.No.	Part No.	
	1.00X0.50	0.065	1.88				
1.00X0.75	0.065	1.88					
1.50X0.50	0.065	2.25					
1.50X0.75	0.035	2.25			150-3-075NF	404545	
1.50X0.75	0.065	2.25					
1.50X1.00	0.065	2.25			150-3-100NF	404546	
2.00X0.50	0.065	3.00					
2.00X0.75	0.065	3.00					
2.00X1.00	0.065	3.00			200-3-100NF	404547	
2.00X1.50	0.065	3.00			200-3-150NF	404548	
2.50X0.75	0.065	3.00					
2.50X1.50	0.065	3.00					
2.50X2.00	0.065	3.00					
3.00X0.75	0.065	3.25					
3.00X1.50	0.065	3.25			300-3-150NF	404551	
3.00X2.00	0.065	3.25			300-3-200NF	404552	
3.00X2.50	0.065	3.25			30-3-250NF	404553	
4.00X0.75	0.065	3.88					
4.00X1.50	0.065	3.88					
4.00X2.00	0.065	3.88					
6.00X0.75	0.083	5.00					
6.00X1.50	0.083	5.00					
6.00X4.00	0.083	5.00			600-3-400NF	404558	

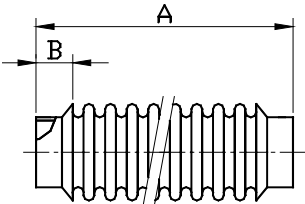
### Concentric Reducer

	OD	Thickness	A	Ref.No.	Part No.
	1.00X0.75	0.065	1.375		
1.50X0.75	0.065	2.375			402501
1.50X1.00	0.065	2.375			402502
2.00X1.00	0.065	2.375			402503
2.00X1.50	0.065	2.375			402504
2.50X1.50	0.065	2.375			402505
2.50X2.00	0.065	2.375			402506
3.00X1.50	0.065	3.625			402507
3.00X2.00	0.065	3.625			402508
3.00X2.50	0.065	3.625			402509
4.00X2.00	0.065	3.625			402510
4.00X2.50	0.065	3.625			402511
4.00X3.00	0.065	3.625			402512
6.00X3.00	0.065	8.850			402513
6.00X4.00	0.083	8.850			402514

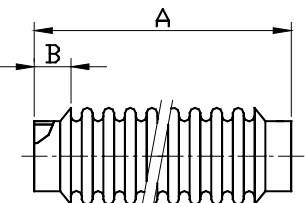
### End Cap

	OD	Thickness	A	Ref.No.	Part No.
	0.50	0.065	0.25		
0.75	0.065	0.31			
1.00	0.065	0.38			
1.50	0.065	0.50			
2.00	0.065	0.75			
2.50	0.065	1.00			
3.00	0.065	1.25			
4.00	0.065	1.50			

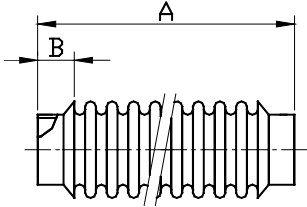
### Flexible Coupling, Weld Cuff, Thin Wall

 ◆ Stainless Steel	Normal Size	Wall	A	B	Ref.No.	Part No.
	0.50	0.005	2.50	0.50		
0.75	0.005	2.50	0.50			470502
1.00	0.005	3.50	0.75			470503
1.50	0.006	3.50	0.75			470505
2.00	0.006	4.00	0.75			470506
2.50	0.006	4.00	0.75			470507
3.00	0.008	5.00	1.00			470508
4.00	0.008	6.00	1.00			470510

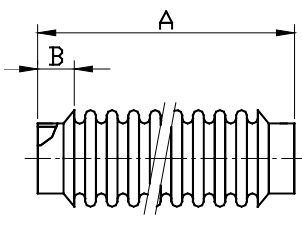
### Flexible Coupling, Standard Cuff, Thin Wall

 ◆ Stainless Steel	Flange Size(ISO)	Hose Wall	A	B	Ref.No.	Part No.
	0.50	0.006	2.50	0.50		
0.75	0.006	2.50	0.50			470005
1.00	0.006	3.50	0.75			470007
1.50	0.006	3.50	0.75			470011
2.00	0.006	4.00	0.75			470014
2.50	0.006	4.00	0.75			470016
3.00	0.008	5.00	1.00			470017
4.00	0.008	6.00	1.00			470019

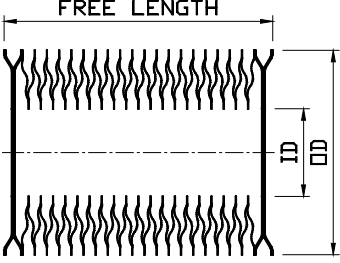
**Weldable Flexible Hose, Medium Wall**

	Flange Size(ISO)	Static Bend Radius	Hose Wall	A	Spring Rate	Ref.No.	Part No.	
	0.75	2	0.008	24	17		441004	
	1	4	0.009	18	34		441068	
	1	4	0.009	24	25		441074	
	1	4	0.009	36	16		441080	
	1	4	0.009	48	15		441086	
	<ul style="list-style-type: none"> <li>◆ Stainless Steel</li> <li>◆ Unsheathed</li> <li>◆ Butt Welded</li> <li>◆ Special lengths to order</li> <li>◆ Thick wall hose static bend radius is to point of permanent deformation</li> </ul>	1.5	5	0.011	18	51		441016
		1.5	5	0.011	24	37		441022
		1.5	5	0.011	36	24		441028
		1.5	5	0.011	48	22		441034
		2	7.75	0.012	18	78		441040
2		7.75	0.012	36	37		441048	
2.5		8.25	0.012	18	109		441160	
2.5		8.25	0.012	36	61		441162	
3		9	0.014	18	186		441056	
3		9	0.014	36	93		441062	
4	11"	0.014	18	131		441092		
4	11"	0.014	36	65		441096		

**Weldable Flexible Hose, Thin Wall**

 <ul style="list-style-type: none"> <li>◆ Stainless Steel</li> <li>◆ Unsheathed</li> <li>◆ Butt Welded</li> <li>◆ Special lengths to order</li> </ul>	Flange Size(ISO)	Static Bend Radius	Hose Wall	A	Spring Rate	Ref.No.	Part No.	
	0.75	1	0.005	18	7		441532	
	1	1.4	0.005	18	5		441536	
	1	1.4	0.005	24	3		441537	
	1	1.4	0.005	36	2		441538	
	1	1.4	0.005	48	2		441539	
	1.5	2.36	0.006	18	8		441540	
	1.5	2.36	0.006	24	6		441541	
	1.5	2.36	0.006	36	4		441542	
	1.5	2.36	0.006	48	4		441543	
2	2.5	0.006	18	9		441544		
2	2.5	0.006	36	4		441546		

**Welded bellows(Metric dimension)**

	Outer Dia(mm)	Inner Dia(mm)	Outer Dia(mm)	Inner Dia(mm)	Outer Dia(mm)	Inner Dia(mm)			
	12.6	5	52.4	39.6	95.3	79.3			
	16.2	8.6	53.8	41.2	98.4	82.4			
	17.2	10.2	55	35	100	75			
	19	6.2	56	36.8	104.8	88.8			
	20.5	7.7	57.15	47.625	108	92			
	22.2	11.1	58.8	46	111.1	95.1			
	23	12	60	40	114.3	98.3			
	25.4	9.4	61.9	49.1	120	90			
	26	14	63.5	44.3	123.8	107.8			
	29.2	16.4	65.1	52.3	126.2	101.8			
	31.5	16.9	68.3	55.5	136	120			
	31.8	19.4	70	50	146	130			
	33.4	20.6	71.3	45.7	150	102			
	34	17	74.6	61.8	152.4	133.4			
	36.3	23.8	75	50	152.4	133.2			
	37	17.8	76.2	50.6	158	112			
	38	26	80	55	170	140			
	41	19	81	65	174.6	155.4			
	42.8	30	82.5	56.9	208	180			
	44	19	84.2	71.4					
	45	25	85	59.4					
	46	33	87.3	71.3					
	47.6	22	89.1	63.5					
	48	35.2	90	60					
	49.2	39.2	91.5	77					
	50	30	92.1	76.1					
	50.8	31.75	93.2	81					
	51	31	94.7	71.1					

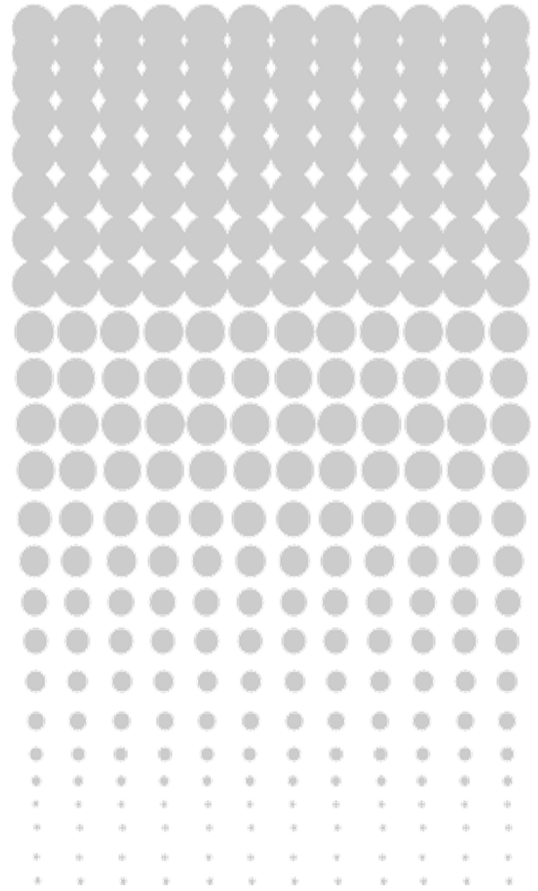
- ◆ Pressure : High vacuum ~0.1MPa
- ◆ Temperature : -250~350 °C
- ◆ Fluid : not to damage the material
- ◆ Compressic : 10mm/Seg. x No. of Seg.
- ◆ Life cycle : 1 x 100,000 cycle
- ◆ Standard material : SUS304 stainless steel
- ◆ Refer to the other welded bellows catalogue, if need more detail information.





Visit [www.neoma.co.kr](http://www.neoma.co.kr)





# Neoma Inc.

Factory No.113 151B-6L Namdong Industrial Complex  
722 Kojan-Dong Namdong-Gu Incheon, Korea. 405-821  
Tel. 82-32-817-8760 Fax.82-32-817-8761  
[www.neoma.co.kr](http://www.neoma.co.kr)