

# 3

## Fittings & Flanges

---

3.1 KF Series .....	58-65
3.2 ISO Series .....	66-75
3.3 CF Series .....	76-87
3.4 Adapter Fittings .....	88-95
3.5 Bellows & Flexible Hose .....	96-107
3.6 Welded Metal Bellows .....	108-113
3.7 Tube & Butt Weld Fittings .....	114-123

---

[www.magnox.com.cn](http://www.magnox.com.cn)



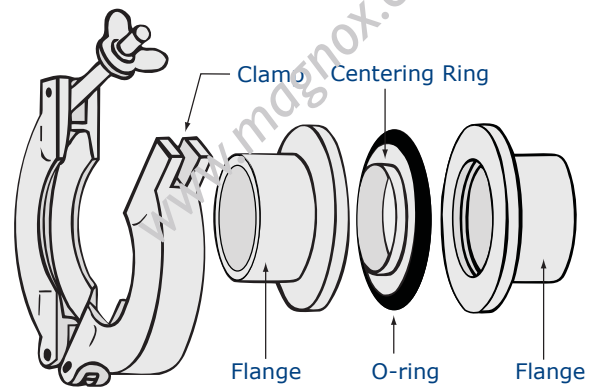
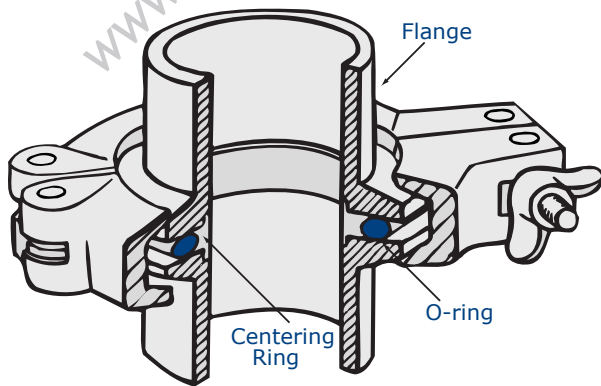
[www.magnox.com.cn](http://www.magnox.com.cn)



[www.magnox.com.cn](http://www.magnox.com.cn)

# Vacuum Fittings-KF Series

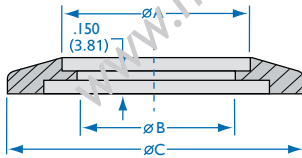
真空配件-KF系列



Specifications	
Blanks	:304(other material available upon request)
Flanges	:304(other material available upon request)
Fittings	:304(other material available upon request)
Clamps	:Aluminium
O Ring material	:Viton or NBR
Temperature Range	:150°(Viton)80°(NBR)
Vacuum Rate	:10 <sup>-8</sup> torr

**Larger or special size available upon request**

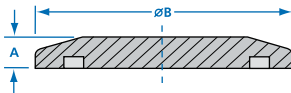
Diagram A



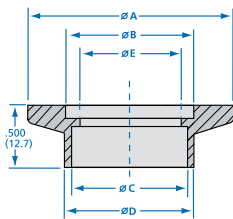
## Bored Blank Flanges

Part Number	Flange Size	Dimensions, mm			
		Tube OD	A	B	C
66601-0050	KF10	12.70	12.95	11.46	29.97
66601-0075	KF16	19.05	19.30	17.27	29.97
66601-0100	KF25	25.40	25.65	23.83	40.01
66601-0150	KF40	38.10	38.35	36.53	54.86
66601-0200	KF50	50.80	51.05	49.23	74.93

## Blank Off Caps

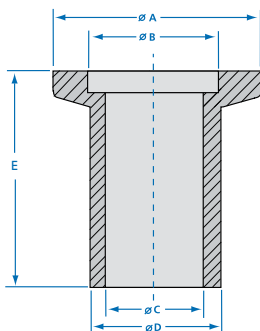


Part Number	Flange Size	Dimensions, mm	
		A	B
66602-0050	KF10	5.08	29.97
66602-0075	KF16	5.08	29.97
66602-0100	KF25	5.08	40.01
66602-0150	KF40	5.08	54.86
66602-0200	KF50	5.08	74.93



## NW Socket Weld Flanges

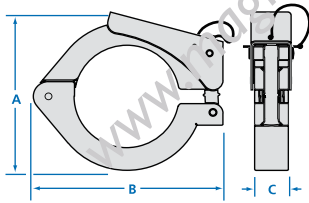
Part Number	Flange Size	Dimensions, mm					
		Tube OD	A	B	C	D	E
66603-0050	KF10	12.70	29.97	12.19	12.95	15.49	-
66603-0075	KF16	19.05	29.97	17.27	19.30	20.27	-
66603-0100	KF25	25.40	40.01	26.19	25.65	28.96	23.83
66603-0150	KF40	38.10	54.86	41.15	38.35	41.66	36.53
66603-0200	KF50	50.80	74.93	52.32	51.05	54.36	49.23



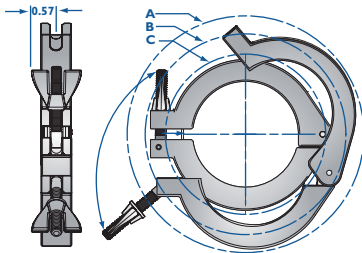
## NW Butt Weld Neck Flanges

Part Number	Flange Size	Dimensions, mm				
		A	B	C	D	E
66604-0050	KF10	29.97	12.19	9.65	12.70	12.7/20/40
66604-0075	KF16	29.97	17.27	15.88	19.05	12.7/20/40
66604-0100	KF25	40.01	26.19	22.10	25.40	12.7/20/40
66604-0150	KF40	54.86	41.15	34.80	38.10	12.7/20/40
66604-0200	KF50	74.93	52.32	47.50	50.80	12.7/20/40

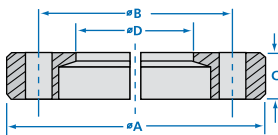
注：根据需求选择不同的长度，12.7mm物料代码为12；20mm物料代码为20，40mm物料代码为40。  
例如若需长度为20mm的接头，物料号则表示为66604-0100-20



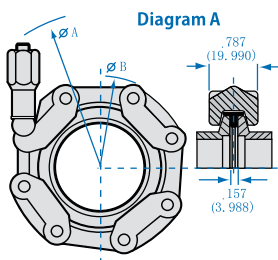
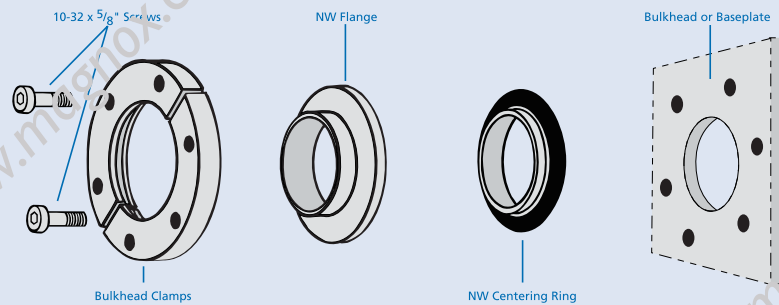
NW Sure Seal Clamps				
Part Number	Flange Size	Dimensions, mm		
		A	B	C
66606-0075	KF16	41.00	62.30	16.50
66606-0100	KF25	54.00	72.34	16.50
66606-0150	KF40	69.00	89.70	16.50
66606-0200	KF50	96.11	107.82	21.23



NW Clamp Clearance Details				
Part Number	Flange Size	Max. dia To Install A	Max. dia Closed B	Min. dia Closed C
66607-0075	KF10/16	72.64	67.31	44.45
66607-0100	KF25	84.33	76.20	56.90
66607-0150	KF40	101.60	94.49	73.66
66607-0200	KF50	138.43	117.35	93.73

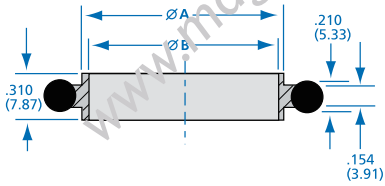


NW Bulkhead Clamps						
Part Number	Flange Size	Dimensions, mm				
		A	B	C	Number Of Screws	Through Hole D
66608-0075	KF16	50.80	38.10	9.17	6	22.86
66608-0100	KF25	60.20	48.01	9.83	6	32.00
66608-0150	KF40	74.68	61.98	9.30	6	46.74
66608-0200	KF50	95.25	82.55	10.26	6	59.69



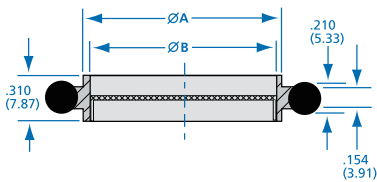
Chain Clamps for NW-16 to 63 Links			
Part Number	Flange Size	Dimensions, mm	
		A	B
66626-0075	KF16	115.06	59.94
66626-0100	KF25	124.97	70.10
66626-0150	KF40	135.13	85.09
66626-0200	KF50	151.89	104.90
66626-0250	KF63	160.02	119.89

注：物料号默认材质为不锈钢304，若需求特氟龙材质，物料号加-PT；若需求铝材质，物料号加-AL。如需订购KF25，特氟龙材质的链卡，物料号表示为66626-0100-PT。



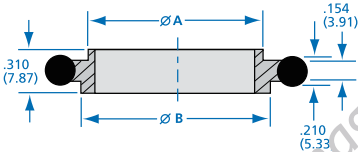
## NW Stainless Steel Centering Rings with Viton O-ring

Part Number	Flange Size	O-ring Material	Dimensions, mm	
			A	B
66609-0050	KF10	Viton	12.14	11.58
66609-0075	KF16	Viton	16.99	15.88
66609-0100	KF25	Viton	26.01	24.99
66609-0150	KF40	Viton	41.00	39.88
66609-0200	KF50	Viton	51.99	49.96



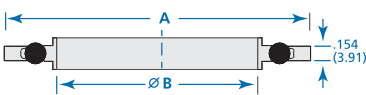
## NW Screened Stainless Steel/Centering Rings with Viton O-ring

Part Number	Flange Size	O-ring Material	Dimensions, mm		Mesh
			A	B	
66610-0075	KF16	Viton	16.99	15.88	30
66610-0100	KF25	Viton	26.01	24.99	
66610-0150	KF40	Viton	41.00	39.88	
66610-0200	KF50	Viton	51.99	49.96	



## NW Screened Stainless Steel/Centering Rings with Viton O-ring

Part Number	Flange Size	O-ring Material	Dimensions, mm	
			A	B
66611-1016	KF10/16	Viton	12.19	17.02
66611-2025	KF20/25	Viton	22.10	25.91
66611-3240	KF32/40	Viton	34.04	40.89



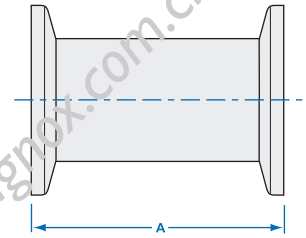
## NW Screened Stainless Steel/Centering Rings with Viton O-ring

Part Number	Flange Size	O-ring Material	Dimensions, mm		Maximum Psig
			A	B	
66612-0050	KF16	Viton	31.75	15.88	100
66612-0100	KF25	Viton	42.16	24.99	100
66612-0150	KF40	Viton	57.15	39.88	75
66612-0200	KF50	Viton	69.85	49.96	50

# KF Flanges & Fittings

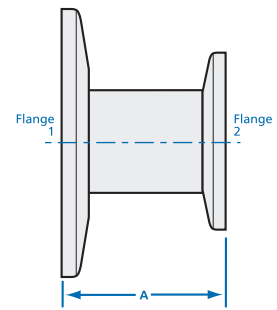
NW Full Nipples			
Part Number	Flange Size	Dimensions, mm	
		A	B
66628-0050	KF10	12.70	100/Option
66628-0075	KF16	19.05	100/Option
66628-0100	KF25	25.40	100/Option
66628-0150	KF40	38.10	100/Option
66628-0200	KF50	50.80	100/Option

可按照需求定制任意长度。例如，需定制KF25 L=750mm，订购号为66828-0100-0750

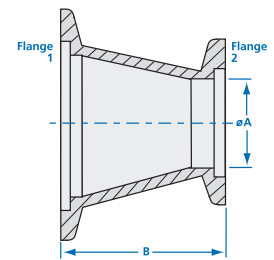


NW Reducer Nipples					
Part Number	Flange Size	Dimensions, mm			
		Flange 1	Flange 2	Tube OD	A
66614-1610	KF16*KF10	NW-16	NW-10	12.70	28
66614-2510	KF25*KF10	NW-25	NW-10	12.70	28
66614-2516	KF25*KF16	NW-25	NW-16	19.05	28
66614-4010	KF40*KF10	NW-40	NW-10	12.70	28
66614-4016	KF40*KF16	NW-40	NW-16	19.05	28
66614-4025	KF40*KF25	NW-40	NW-25	25.40	28
66614-5010	KF50*KF10	NW-50	NW-10	12.70	28
66614-5016	KF50*KF16	NW-50	NW-16	19.05	28
66614-5025	KF50*KF25	NW-50	NW-25	25.40	28
66614-5040	KF50*KF40	NW-50	NW-40	38.10	28

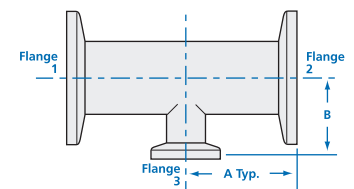
可按照需求定制任意长度。例如，需定制KF25\*KF16 L=750MM，订购号为66614-2516-0750

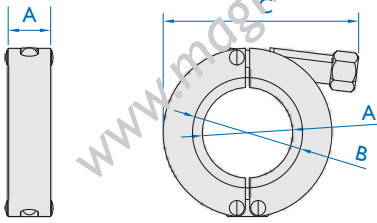


NW Reducer Nipples					
Part Number	Flange Size	Dimensions, mm			
		Flange 1	Flange 2	A	B
66615-2516	KF25*KF16	NW-25	NW-16	50.00	28.0
66615-4016	KF40*KF16	NW-40	NW-16	65.02	28.0
66615-4025	KF40*KF25	NW-40	NW-25	65.02	28.0
66615-5016	KF50*KF16	NW-50	NW-16	70.00	28.0
66615-5025	KF50*KF25	NW-50	NW-25	70.00	28.0
66615-5040	KF50*KF40	NW-50	NW-40	70.00	28.0



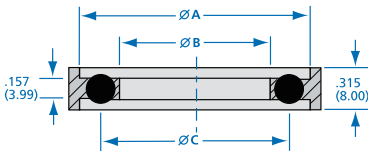
NW Reducer Nipples					
Part Number	Flange Size	Dimensions, mm			
		Tube 1 & 2 Arm OD	Tube 3 Leg OD	A	B
66616-2516	KF25*KF16	25.40	19.05	51.56	32.26
66616-4016	KF40*KF16	38.10	19.05	60.96	38.85
66616-4025	KF40*KF25	38.10	25.40	60.96	37.11
66616-5016	KF50*KF16	50.80	19.05	80.01	45.21
66616-5025	KF50*KF25	50.80	25.40	80.01	62.70
66616-5040	KF50*KF40	50.80	38.10	80.01	67.31





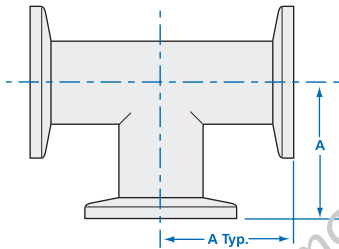
## NW Short Weld Neck Flanges

Part Number	Flange Size	Dimensions, mm			
		A	B	C	D
66629-0075	KF10/16	25.40	30.80	68.00	15.90
66629-0100	KF25	34.12	40.94	80.63	15.90
66629-0150	KF40	49.40	55.70	87.20	15.90
66629-0200	KF50	69.00	75.63	109.30	15.90



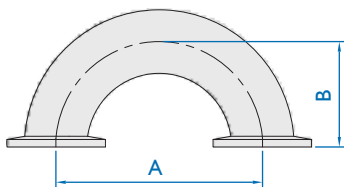
## NW Screened Stainless Steel/Centering Rings with Viton O-ring

Part Number	Flange Size	O-ring Material	Dimensions, mm		
			A	B	C
66613-0050	KF16	Viton	29.97	16.00	23.11
66613-0100	KF25	Viton	40.13	24.13	33.02
66613-0150	KF40	Viton	55.12	40.13	48.01
66613-0200	KF50	Viton	74.93	50.04	58.93



## NW Tees

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66617-0050	KF10	12.70	31.75
66617-0075	KF16	19.05	29.21
66617-H100	KF16	19.05	40.00
66617-0100	KF25	25.40	50.00
66617-H100	KF25	25.40	51.56
66617-0150	KF40	38.10	60.96
66617-H150	KF40	38.10	65.02
66617-0200	KF50	50.80	70.10
66617-H200	KF50	50.80	80.01



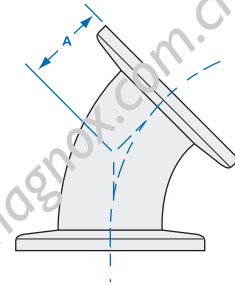
## NW Screened Stainless Steel/Centering Rings with Viton O-ring

Part Number	Flange Size	Dimensions, mm		
		Tube OD	A	B
66630-0075	KF16	19.05	32.40	57.20
66630-0100	KF25	25.40	41.90	76.20
66630-0150	KF40	38.10	61.80	114.40
66630-0200	KF50	50.80	80.00	152.40



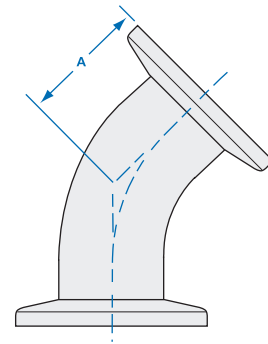
## NW 45° Radius Elbows

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66618-0075	KF16	19.05	15.65
66618-0100	KF25	25.40	19.56
66618-0150	KF40	38.10	27.43
66618-0200	KF50	50.80	35.31



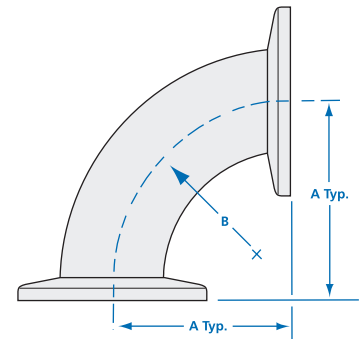
## NW 45° Radius Elbows with Tangents

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66619-0075	KF16	19.05	23.11
66619-0100	KF25	25.40	33.80
66619-0150	KF40	38.10	42.67
66619-0200	KF50	50.80	50.55



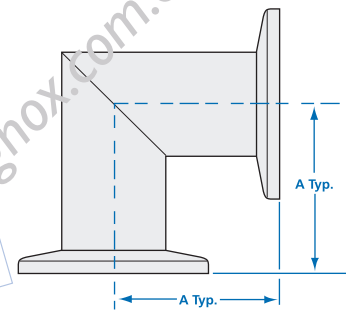
## NW 90° Radius Elbows

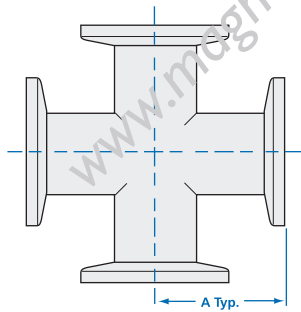
Part Number	Flange Size	Dimensions, mm		
		Tube OD	A	B
66620-0050	KF10	12.70	31.75	19.05
66620-0075	KF16	19.05	29.21	28.60
66620-0100	KF25	25.40	41.91	38.10
66620-0150	KF40	38.10	60.96	57.15
66620-H150	KF40	38.10	65.02	57.15
66620-HL150	KF40	38.10	130.05	57.15
66620-0200	KF50	50.80	80.01	76.20
66620-HL200	KF50	50.80	139.95	76.20



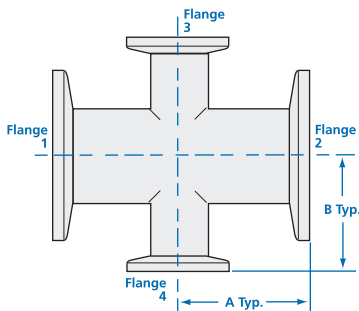
## NW 90° Mitered Elbows

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66621-0075	KF16	19.05	29.21
66621-0100	KF25	25.40	51.56
66621-0150	KF40	38.10	60.96
66621-H150	KF40	38.10	65.02
66621-0200	KF50	50.80	80.01
66621-H200	KF50	50.80	70.10

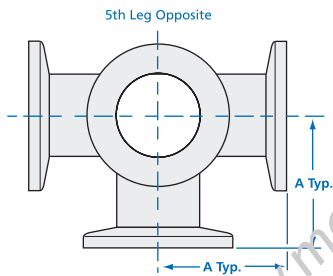




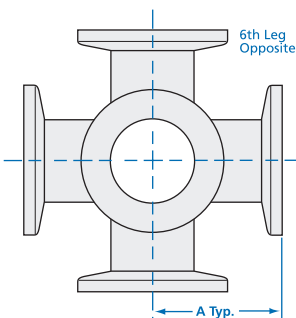
NW 4-Way Crosses			
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66622-0050	KF10	12.70	31.75
66622-0075	KF16	19.05	29.21
66622-0100	KF25	25.40	51.56
66622-0150	KF40	38.10	60.96
66622-H150	KF40	38.10	65.02
66622-0200	KF50	50.80	70.10
66622-H200	KF50	50.80	80.01



NW 4-Way Crosses					
Part Number	Flange Size	Dimensions, mm			
		Tube 1 & 2 OD	Tube 3 & 4 OD	A	B
66623-2516	KF25*KF16	25.40	19.05	50.00	43.20
66623-4016	KF40*KF16	38.10	19.05	65.00	49.50
66623-4025	KF40*KF25	38.10	25.40	65.00	57.91
66623-5016	KF50*KF16	50.80	19.05	80.01	45.21
66623-5025	KF50*KF25	50.80	25.40	70.00	62.70
66623-5040	KF50*KF40	50.80	38.10	80.01	67.31



NW 5-Way Crosses			
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66624-0075	KF16	19.05	38.10
66624-0100	KF25	25.40	51.56
66624-0150	KF40	38.10	60.96
66624-0200	KF50*	50.80	80.01



NW 6-Way Crosses			
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66625-0075	KF16	19.05	38.10
66625-0100	KF25	25.40	51.56
66625-0150	KF40	38.10	60.96
66625-0200	KF50*	50.80	80.01



[www.magnox.com.cn](http://www.magnox.com.cn)

[www.magnox.com.cn](http://www.magnox.com.cn)

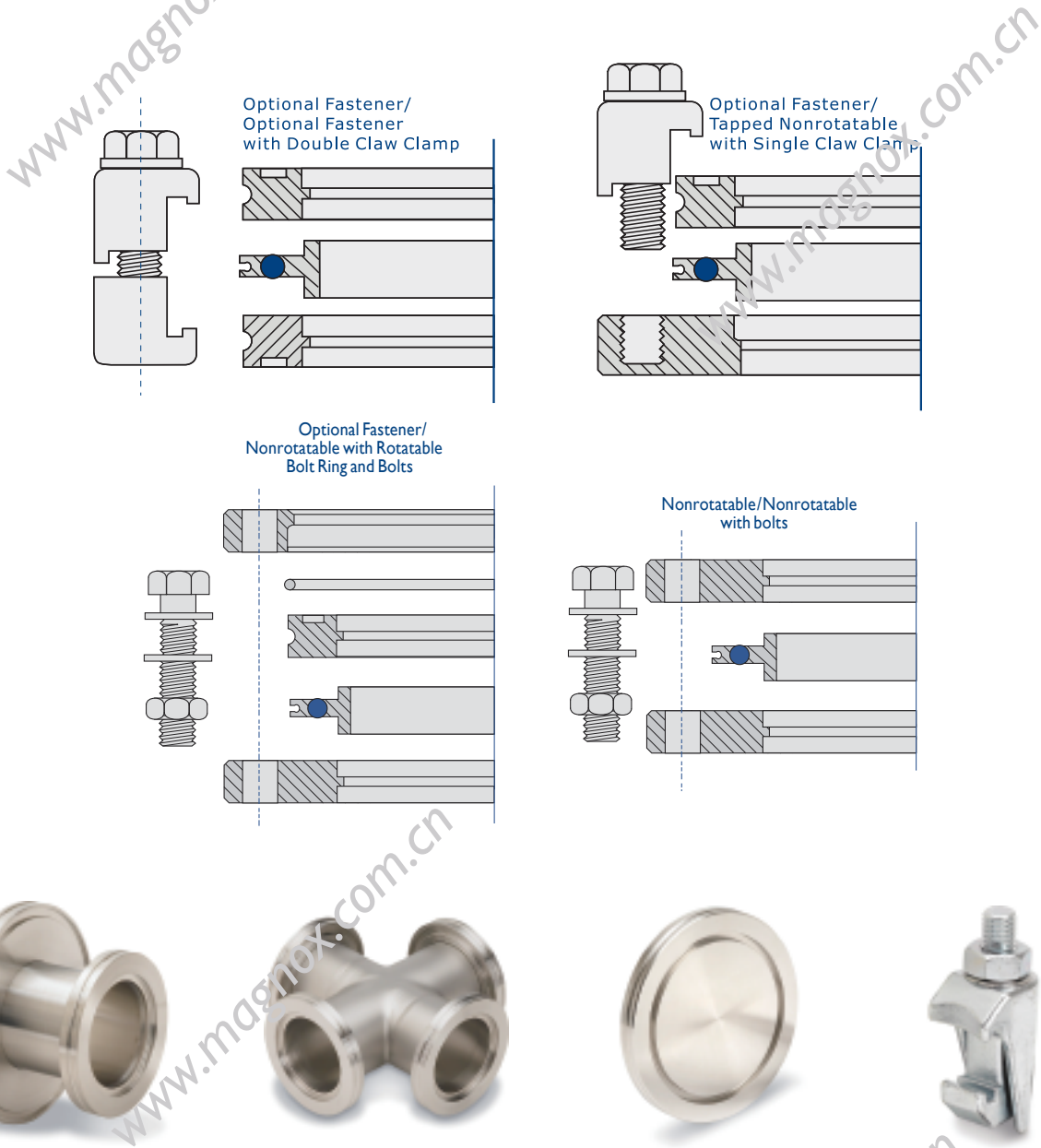


[www.magnox.com.cn](http://www.magnox.com.cn)

[www.magnox.com.cn](http://www.magnox.com.cn)

# Vacuum Fittings-ISO Series

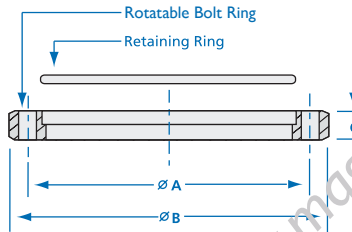
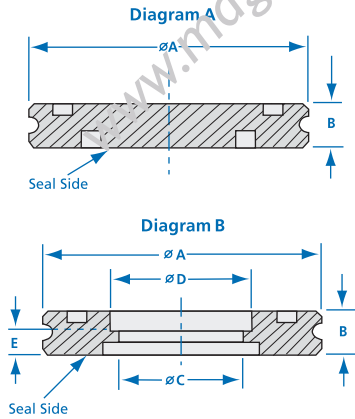
真空配件-ISO系列



Specifications	
Blanks&Flanges	:304(other material available upon request)
Retainer Rings	:304(other material available upon request)
Centerings	:304(other material available upon request)
Clamps	:Aluminium
Outer Rings	:Aluminium
O Ring material	:Viton or NBR
Temperature Range	:150°(Viton)80°(NBR)
Vacuum Rate	:10 <sup>-8</sup> torr

Larger or special size available upon request

## ISO Optional Fastener Flanges



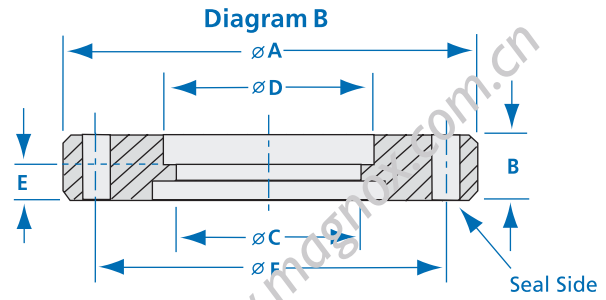
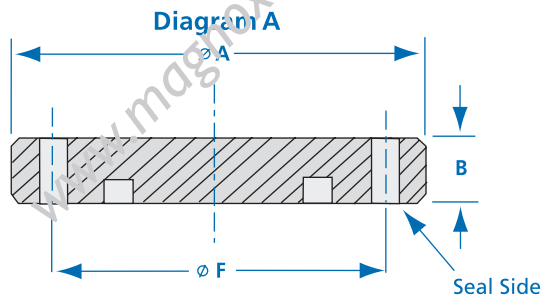
Part Number	Flange Size	Dimensions, mm						
		Diagram	Nominal Id	A	B	C	D	E
66101-0250	ISO-63	A	-	95.00	11.94	-	-	-
66102-0250	ISO-63	B	63.50	95.00	11.94	61.33	63.75	6.35
66101-0300	ISO-80	A	-	110.01	11.94	-	-	-
66102-0300	ISO-80	B	76.20	110.01	11.94	74.63	76.45	6.35
66101-0400	ISO-100	A	-	130.00	11.94	-	-	-
66102-0400	ISO-100	B	101.60	130.00	11.94	99.31	101.85	6.35
66101-0600	ISO-160	A	-	180.00	11.94	-	-	-
66102-0600	ISO-160	B	152.40	180.00	11.94	149.23	152.91	9.53
66101-0800	ISO-200	A	-	240.00	11.94	-	-	-
66102-0800	ISO-200	B	203.20	240.00	11.94	200.03	203.71	9.53
66101-1000	ISO-250	A	-	289.99	11.94	-	-	-
66102-1000	ISO-250	B	254.00	289.99	11.94	250.83	254.51	9.53
66101-1200	ISO-320	A	-	370.00	17.02	-	-	-
66102-1200	ISO-320	B	304.80	370.00	17.02	298.70	305.31	9.53
66101-1600	ISO-400	A	-	449.99	17.02	-	-	-
66102-1600	ISO-400	B	406.40	449.99	17.02	396.85	406.91	9.53
66101-2000	ISO-500	A	-	549.99	17.02	-	-	-
66102-2000	ISO-500	B	508.00	549.99	17.02	498.45	508.51	9.53

## ISO Rotatable Bolt Ring and Retainer Ring

Part Number	Flange Size	Dimensions, mm		
		A	B	C
66103-0250	ISO-63	110.01	130.00	11.99
66103-0300	ISO-80	124.99	145.01	11.99
66103-0400	ISO-100	145.01	165.00	11.99
66103-0600	ISO-160	200.00	224.99	16.00
66103-0800	ISO-200	259.99	284.99	16.00
66103-1000	ISO-250	310.01	335.00	16.00
66103-1200	ISO-320	395.00	424.99	19.99
66103-1600	ISO-400	480.01	510.01	19.99
66103-2000	ISO-500	580.01	610.01	19.99

## Replacement Retainer Ring

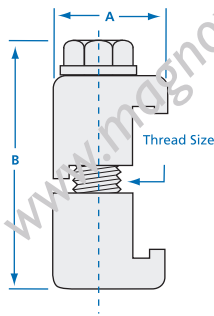
Part Number	Flange Size
66125-0250	ISO-63
66125-0300	ISO-80
66125-0400	ISO-100
66125-0600	ISO-160
66125-0800	ISO-200
66125-1000	ISO-250
66125-1200	ISO-320
66125-1600	ISO-400
66125-2000	ISO-500



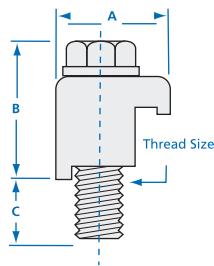
## ISO Nonrotatable Flanges

Part Number	Flange Size	Diagram	Nominal Id	Dimensions, mm							
				A	B	C	D	E	F	Bolt Holes	Bolt Diameter
66104-0250	ISO-63	A	-	130.00	11.94	-	-	-	110.01	110.01	110.01
66105-0250	ISO-63	B	63.50	130.00	11.94	61.93	63.75	6.35	110.01	110.01	110.01
66104-0300	ISO-80	A	-	145.01	11.94	-	-	-	124.99	124.99	124.99
66105-0300	ISO-80	B	88.90	145.01	11.94	74.63	76.45	6.35	124.99	124.99	124.99
66104-0400	ISO-100	A	-	165.00	11.94	-	-	-	124.99	124.99	124.99
66105-0400	ISO-100	B	101.60	165.00	11.94	99.32	101.85	6.35	145.01	145.01	145.01
66104-0600	ISO-160	A	-	224.99	16.00	-	-	-	200.00	200.00	200.00
66105-0600	ISO-160	B	152.40	224.99	16.00	149.23	152.91	9.53	200.00	200.00	200.00
66104-0800	ISO-200	A	-	284.99	16.00	-	-	-	259.99	259.99	259.99
66105-0800	ISO-200	B	203.20	284.99	16.00	200.03	203.71	9.53	259.99	259.99	259.99
66104-1000	ISO-250	A	-	335.00	16.00	-	-	-	310.01	310.01	310.01
66105-1000	ISO-250	B	254.00	335.00	16.00	250.83	254.51	9.53	310.01	310.01	310.01
66104-1200	ISO-320	A	-	424.99	17.02	-	-	-	395.00	395.00	395.00
66105-1200	ISO-320	B	304.80	424.99	17.02	298.70	305.31	9.53	395.00	395.00	395.00
66104-1600	ISO-400	A	-	510.01	17.02	-	-	-	480.01	480.01	480.01
66105-1600	ISO-400	B	406.40	510.01	17.02	397.31	406.91	9.53	480.01	480.01	480.01
66104-2000	ISO-500	A	-	610.01	17.02	-	-	-	580.01	580.01	580.01
66105-2000	ISO-500	B	508.00	610.01	17.02	498.91	508.51	9.53	580.01	580.01	580.01

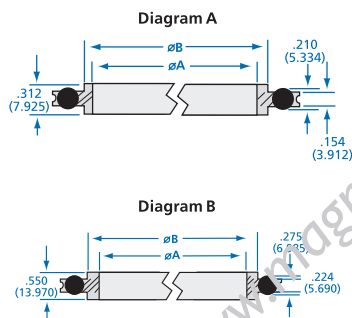




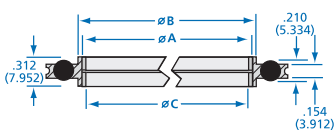
ISO Double Claw Aluminum Clamps			
Part Number	Flange Size	Dimensions, mm	
		A	B
66106-063100	ISO63-ISO100	23.88	49.78
66106-160250	ISO160-ISO250	27.94	49.78
66106-320500	ISO320-ISO500	34.04	63.50



ISO Single Claw Aluminum Clamps - Metric					
Part Number	Flange Size	Dimensions, mm			Metric Thread Size
		A	B	C	
66107-063100	ISO63-ISO100	23.88	30.48	10.16	M8x1.25
66107-160250	ISO160-ISO250	27.94	30.48	10.16	M10x1.50
66107-320500	ISO320-ISO500	34.04	37.59	20.07	M12x1.75

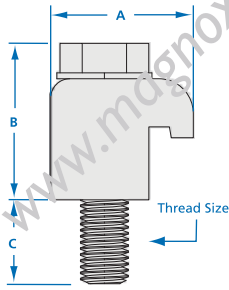


ISO Aluminum Centering Rings/With O-ring and Aluminum Spacer Ring					
Part Number	Flange Size	Dimensions, mm			
		Diagram	O-ring Material	A	B
66108-0250	ISO-63	A	Viton	66.80	69.60
66108-0300	ISO-80	A	Viton	79.76	82.55
66108-0400	ISO-100	A	Viton	98.81	101.60
66108-0600	ISO-160	A	Viton	149.86	152.65
66108-0800	ISO-200	A	Viton	209.80	212.60
66108-1000	ISO-250	A	Viton	257.56	260.35
66108-1200	ISO-320	B	Viton	312.93	317.75
66108-1600	ISO-400	B	Viton	394.97	400.05
66108-2000	ISO-500	B	Viton	496.06	500.89



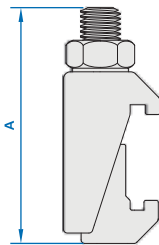
ISO Screened Stainless Steel Centering Rings with O-ring and Aluminum Spacer Ring					
Part Number	Flange Size	Dimensions, mm			
		A	B	C	MESH (sg./in.)
66109-0250	ISO-63	66.80	69.60	60.45	16
66109-0300	ISO-80	79.76	82.55	72.90	16
66109-0400	ISO-100	98.81	101.60	88.90	16
66109-0600	ISO-160	149.86	152.65	139.70	16

Includes O-ring. See below for replacement O-rings



## ISO Single Claw Aluminum Clamps - Metric

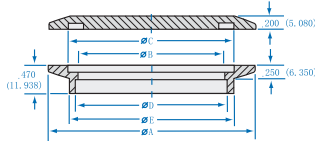
Part Number	Flange Size	Dimensions, mm				
		A	B	C	Metric Thread Size	Clamps Required
66127-063100	ISO63-ISO100	23.88	30.48	10.16	M8x1.25	4
66127-160250	ISO160-ISO250	27.94	30.48	10.16	M10x1.50	8
66127-320500	ISO320-ISO500	34.04	37.59	20.07	M12x1.75	12



## ISO Double Claw Stainless Steel Clamps

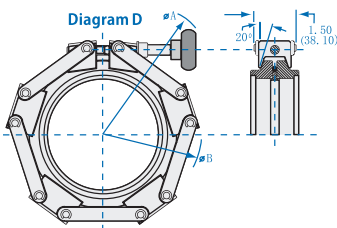
Part Number	Flange Size	Dimensions, mm	
		A	Bolt Size
66126-063250	ISO63-ISO250	60.00	M10
66126-320500	ISO320-ISO500	76.50	M12

备注：物料号默认材质为不锈钢304，如需碳钢镀锌材质，物料号后加-CS



## NW Flanges

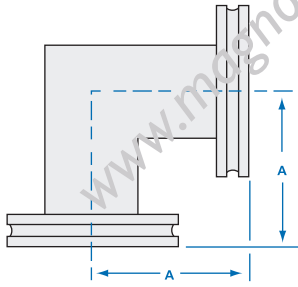
Part Number	Flange Size	Dimensions, mm				
		A	B	C	D	E
66123-0250	NW63 Socket Flange	87.12	61.98	70.10	63.75	68.83
66124-0250	NW63 Blank	87.12	-	70.10	-	-
66123-0300	NW80 Socket Flange	114.05	72.90	83.06	76.45	97.03
66124-0300	NW80 Blank	114.05	-	83.06	-	-
66123-0400	NW100 Socket Flange	134.11	98.30	102.11	101.85	117.09
66124-0400	NW100 Blank	134.11	-	102.11	-	-
66123-0600	NW160 Socket Flange	190.00	98.30	153.00	152.90	168.90
66124-0600	NW160 Blank	190.00	-	153.00	-	-



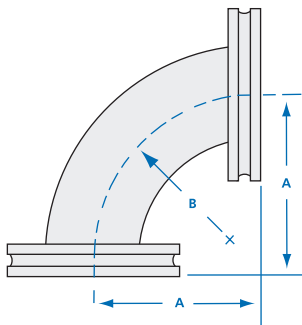
## Chain Clamps for NW-80 to 160 Flanges

Part Number	Flange Size	Dimensions, mm	
		A	B
66828-0300	NW-80	244.09	153.92
66828-0400	NW-100	256.03	171.96
66828-0600	NW-160	273.08	231.70

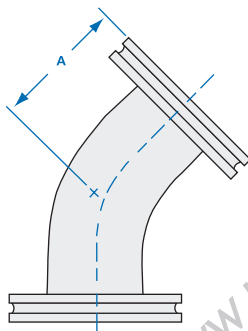




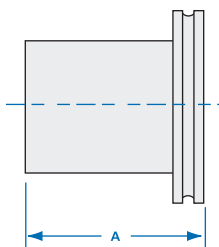
ISO 90 Mitered Elbows			
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66110-0250	ISO-63	63.50	82.55
66110-0300	ISO-80	76.20	88.90
66110-0400	ISO-100	101.60	104.90
66110-0600	ISO-160	152.40	136.65
66110-0800	ISO-200	203.20	187.45
66110-1000	ISO-250	254.00	250.95



ISO 90° Radius Elbows				
Part Number	Flange Size	Dimensions, mm		
		Tube OD	A	B
66111-0250	ISO-63	63.50	101.60	95.25
66111-0300	ISO-80	76.20	120.65	114.30
66111-0400	ISO-100	101.60	158.75	152.40
66111-0600	ISO-160	152.40	238.25	228.60
66111-0800	ISO-200	203.20	314.45	304.80
66111-1000	ISO-250	254.00	390.65	381.00

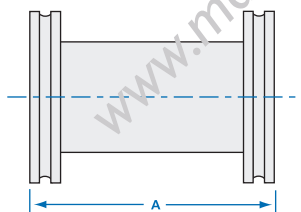


ISO 45° Elbows with Tangents			
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66112-0250	ISO-63	63.50	82.55
66112-0300	ISO-80	76.20	99.82
66112-0400	ISO-100	101.60	127.76



ISO Half Nipples			
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66113-0250	ISO-63	63.50	100/OPTION
66113-0300	ISO-80	76.20	100/OPTION
66113-0400	ISO-100	101.60	100/OPTION
66113-0600	ISO-160	152.40	100/OPTION
66113-0800	ISO-200	203.20	100/OPTION
66113-1000	ISO-250	254.00	100/OPTION
66113-1200	ISO-320	304.80	100/OPTION
66113-1600	ISO-400	406.40	100/OPTION
66113-2000	ISO-500	508.00	100/OPTION

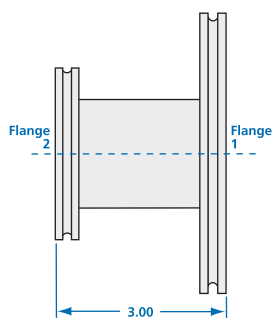
可按照需求定制任意长。例如，需定制ISO63 L=300mm 订购号为66113-0250-0300



## ISO Full Nipples

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66114-0250	ISO-63	63.50	100/OPTION
66114-0300	ISO-80	76.20	100/OPTION
66114-0400	ISO-100	101.60	100/OPTION
66114-0600	ISO-160	152.40	100/OPTION
66114-0800	ISO-200	203.20	100/OPTION
66114-1000	ISO-250	254.00	100/OPTION
66114-1200	ISO-320	304.80	100/OPTION
66114-1600	ISO-400	406.00	100/OPTION
66114-2000	ISO-500	508.00	100/OPTION

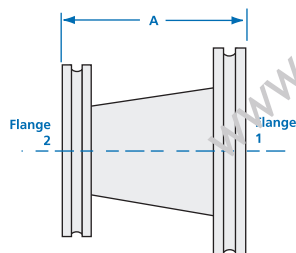
注：可按照需求定制任意长度。例如，据定制ISO63 L=750mm, 订购号为66114-0250-0750



## ISO Reducer Nipples

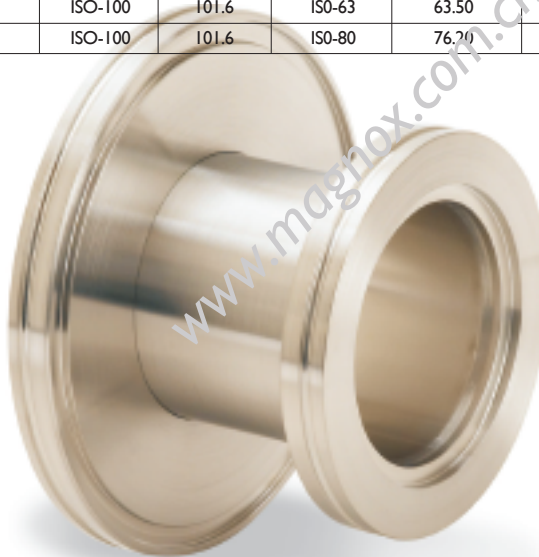
Part Number	Dimensions, mm		
	Flange 1	Flange 2	Tube OD
66115-080063	ISO-80	ISO-63	63.50
66115-100063	ISO-100	ISO-63	63.50
66115-100080	ISO-100	ISO-80	76.20
66115-160063	ISO-160	ISO-63	63.50
66115-160080	ISO-160	ISO-80	76.20
66115-160100	ISO-160	ISO-100	101.60
66115-200063	ISO-200	ISO-63	63.50
66115-200080	ISO-200	ISO-80	76.20
66115-200100	ISO-200	ISO-100	101.60
66115-200160	ISO-200	ISO-160	152.40
66115-250063	ISO-250	ISO-63	63.50
66115-250080	ISO-250	ISO-80	76.20
66115-250100	ISO-250	ISO-100	101.60
66115-250160	ISO-250	ISO-160	152.40
66115-250200	ISO-250	ISO-200	203.20

注：可按照需求定制任意长度。例如，需定制ISO80\*ISO63 L=750mm, 订购号为66115-080063-0750



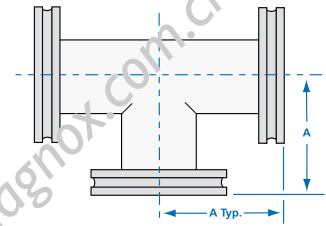
## ISO Conical Reducer Nipples

Part Number	Dimensions, mm				
	Type	Flange 1 Tube OD	Type	Flange 2 Tube OD	A
66116-080063	ISO-80	76.2	ISO-63	63.50	104.65
66116-100063	ISO-100	101.6	ISO-63	63.50	104.65
66116-100080	ISO-100	101.6	ISO-80	76.20	104.65



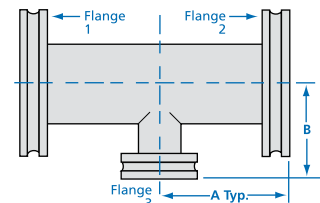
## ISO Equal Tee

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66117-0250	ISO-63	63.50	82.55
66117-0300	ISO-80	76.20	88.90
66117-0400	ISO-100	101.60	104.90
66117-0600	ISO-160	152.40	136.65
66117-0800	ISO-200	203.20	187.45
66117-1000	ISO-250	254.00	250.95



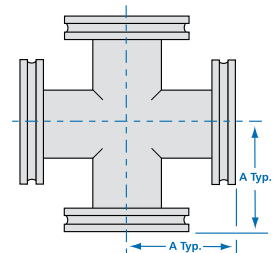
## ISO Reducer Tees

Part Number	Dimensions, mm					
	Flange 1 & 2		Flange 3		A	B
	Type	Arm OD	Type	Leg OD		
66118-080063	ISO-80	76.20	ISO-63	63.50	88.90	88.90
66118-100063	ISO-100	101.6	ISO-63	63.50	104.90	101.60
66118-100080	ISO-100	101.6	ISO-80	76.20	104.90	101.60
66118-160063	ISO-160	152.4	ISO-63	63.50	133.30	127.00
66118-160080	ISO-160	152.4	ISO-80	76.20	133.30	127.00
66118-160100	ISO-160	152.4	ISO-100	101.60	133.30	130.30
66118-200063	ISO-200	203.2	ISO-63	63.50	187.45	152.40
66118-200080	ISO-200	203.2	ISO-80	76.20	187.45	152.40
66118-200100	ISO-200	203.2	ISO-100	101.60	187.45	155.70
66118-200160	ISO-200	203.2	ISO-160	152.40	187.45	162.05



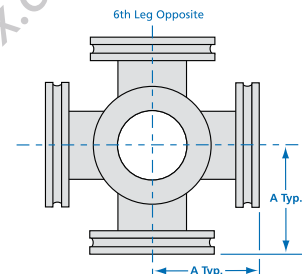
## ISO 4-Way Crosses

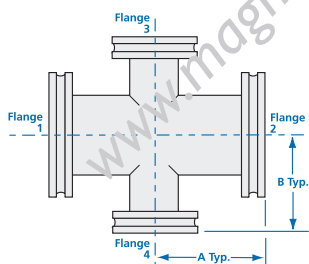
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66119-0250	ISO-63	63.50	82.55
66119-0300	ISO-80	76.20	88.90
66119-0400	ISO-100	101.60	104.90
66119-0600	ISO-160	152.40	136.65
66119-0800	ISO-200	203.20	187.45
66119-1000	ISO-250	254.00	250.95



## ISO 6-Way Crosses

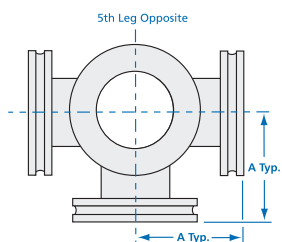
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66122-0250	ISO-63	63.50	82.55
66122-0300	ISO-80	76.20	88.90
66122-0400	ISO-100	101.60	104.90
66122-0600	ISO-160	152.40	136.65
66122-0800	ISO-200	203.20	187.45
66122-1000	ISO-250	254.00	250.95





## ISO 4-Way Reducer Crosses

Part Number	Dimensions, mm					
	Flange 1 & 2		Flange 3		A	B
	Type	Arm OD	Type	Leg OD		
66120-080063	ISO-80	76.20	ISO-63	63.50	83.90	88.90
66120-100063	ISO-100	101.60	ISO-63	63.50	104.90	101.60
66120-100080	ISO-100	101.60	ISO-80	76.20	104.90	101.60
66120-160063	ISO-160	152.40	ISO-63	63.50	133.30	127.00
66120-160080	ISO-160	152.40	ISO-80	76.20	133.30	127.00
66120-200100	ISO-200	152.40	ISO-100	101.60	133.30	130.30
66120-250160	ISO-250	254.00	ISO-160	152.40	187.45	162.05

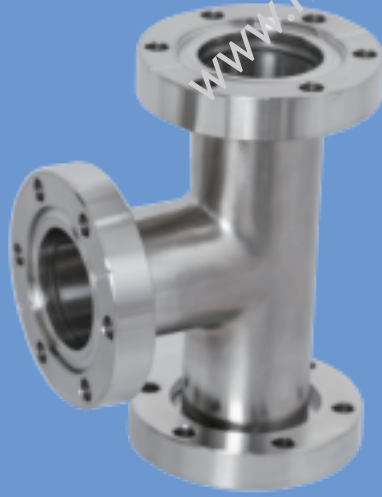
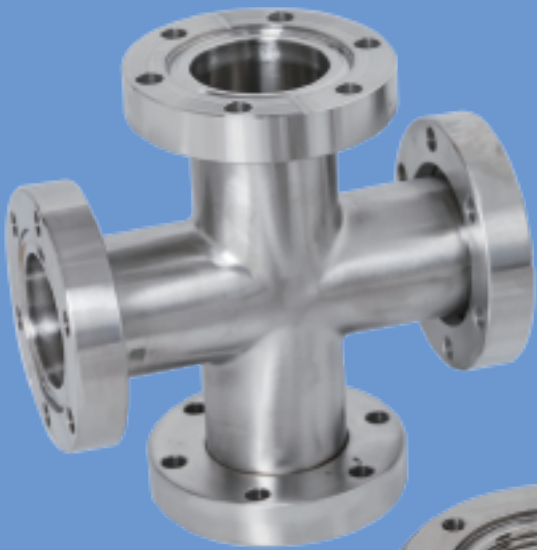


## ISO 5-Way Crosses

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66121-0250	ISO-63	63.50	82.55
66121-0300	ISO-80	76.20	88.90
66121-0400	ISO-100	101.60	104.90
66121-0600	ISO-160	152.40	136.65
66121-0800	ISO-200	203.20	187.45
66121-1000	ISO-250	254.00	250.95

[www.magnox.com.cn](http://www.magnox.com.cn)

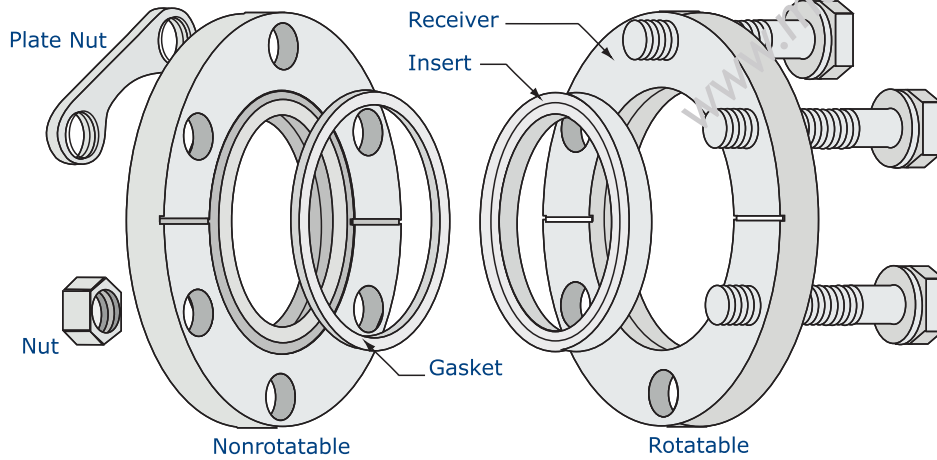
[www.magnox.com.cn](http://www.magnox.com.cn)



[www.magnox.com.cn](http://www.magnox.com.cn)

# Vacuum Fittings-CF Series

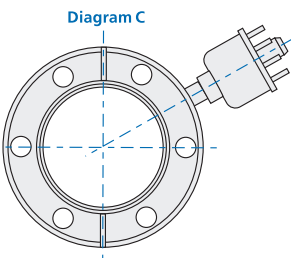
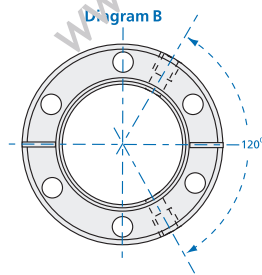
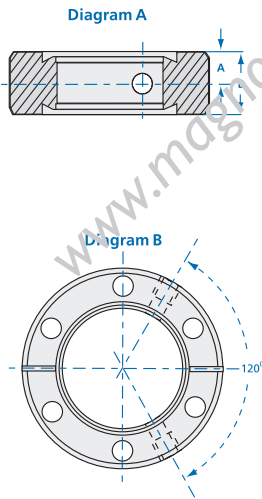
真空配件-CF系列



Specifications	
Blanks&Flanges	:304(other material available upon request)
Gaskets	:OFHC Copper or Viton
Bolt	:304
O Ring material	:OFHC Copper Or Silver Plated
Temperature Range	:-200°~450°(OFHC Copper)
Vacuum Rate	:10-13 torr
Torque Rating	:CF35 and smller 220 kgf-cm CF63 and langer 360 kgf-cm

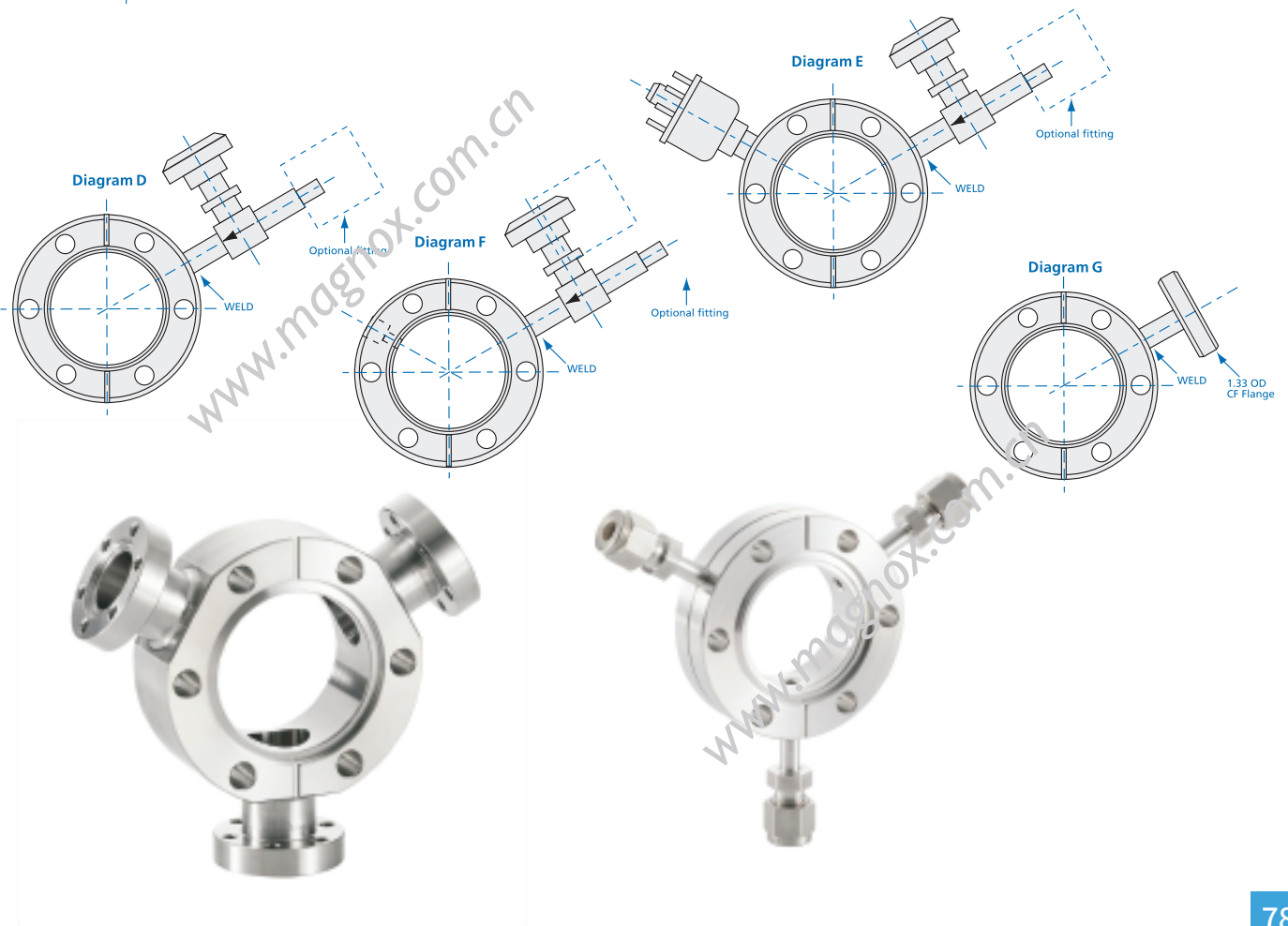
Larger or special size available upon request

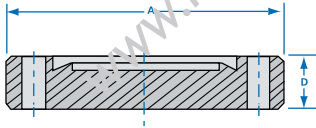
# CF Flanges & Fittings



## CF Double-Sided Special Purpose Flanges

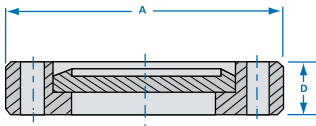
Part Number	Flange OD	Feature	Diagram	D	E
66311-133-01	33.78	(1) 1/16 inch (1.59) NPT hole	A	6.35	12.70
66311-275-01	69.85	(1) 1/8 inch (3.18) NPT hole	A	9.65	19.05
66311-133-D2	33.78	(2) 1/16 inch (1.59) NPT holes	B	6.35	12.70
66311-275-02	69.85	(2) 1/8 inch (3.18) NPT holes	B	9.65	19.05
66311-133-DT	33.78	Thermocouple gauge tube	C	6.35	12.70
66311-275-DT	69.85	Thermocouple gauge tube	C	9.65	19.05
66311-133-DV	33.78	Up-to-air valve	D	6.35	12.70
66311-275-DV	69.85	Up-to-air valve	D	9.65	19.05
66311-133-DIV	33.78	(1) 1/16 inch (1.59) NPT hole & Up-to-air valve	F	6.35	12.70
66311-275-DIV	69.85	(1) 1/8 inch (3.18) NPT hole & Up-to-air valve	F	9.65	19.05
66311-133-DTV	33.78	Thermocouple gauge tube & up-to-air valve	E	6.35	12.70
66311-275-DTV	69.85	Thermocouple gauge tube & up-to-air valve	E	9.65	19.05
66311-133-DTV-1/4 MVCR	33.78	Thermocouple gauge tube & up-to-air valve with inch (6.35) CajonmaleVCR fitting on valve	E	6.35	12.70
66311-275-DTV-1/4 MVCR	69.85	Thermocouple gauge tube & up-to-air valve with inch (6.35) CajonmaleVCR fitting on valve	E	9.65	19.05
66311-133-DTV-1/4 FVCR	33.78	Thermocouple gauge tube & up-to-air valve with inch (6.35) CajonfemaleVCR fitting on valve	E	6.35	12.70
66311-275-DTV-1/4 FVCR	69.85	Thermocouple gauge tube & up-to-air valve with 4 inch (6.35) CajonfemaleVCR fitting on valve	E	9.65	19.05
66311-133-DTV-1/4 SWAG	33.78	Thermocouple gauge tube & up-to-air valve with inch (6.35) Swagelok fitting on valve	E	6.35	12.70
66311-275-DTV-1/4 SWAG	69.85	Thermocouple gauge tube & up-to-air valve with inch (6.35) Swagelok fitting on valve	E	9.65	19.05
66311-275-DS-MINI	69.85	inch (6.35) Swagelok fitting on valve (1) 1.33 inch (33.78) OD side port	G	9.65	19.05





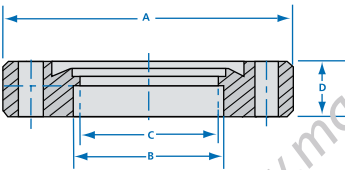
## CF Blank Flange Fixed

Part Number	Flange Size	Dimensions, mm	
		A	D
66301-0133	CF16	33.70	7.60
66301-0212	CF25	53.80	11.90
66301-0275	CF35	69.30	12.70
66301-0338	CF50	85.30	17.30
66301-0450	CF63	113.50	19.10
66301-0600	CF100	151.60	21.30
66301-0800	CF160	202.44	23.90
66301-1000	CF200	253.24	24.60



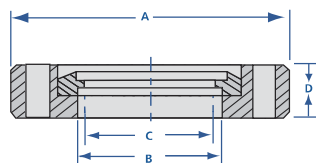
## CF Blank Flange Rotatable

Part Number	Flange Size	Dimensions, mm	
		A	D
66302-0133	CF16	33.70	7.60
66302-0212	CF25	53.80	11.90
66302-0275	CF35	69.30	12.70
66302-0338	CF50	85.30	17.30
66302-0450	CF63	113.50	19.10
66302-0600	CF100	151.60	21.30
66302-0800	CF160	202.44	23.90
66302-1000	CF200	253.24	24.60



## CF Bored Flange Fixed

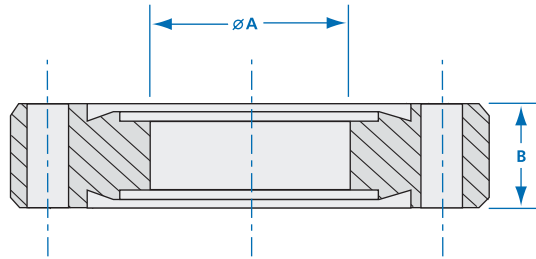
Part Number	Flange Size	Dimensions, mm			
		A	B	C	D
66303-0133	CF16	33.70	19.41	16.00	7.60
66303-0212	CF25	53.80	25.65	23.90	11.90
66303-0275	CF35	69.30	38.35	36.60	12.70
66303-0338	CF50	85.30	51.05	49.30	17.30
66303-0450	CF63	113.50	63.70	62.00	19.10
66303-0600	CF100	151.60	101.80	99.60	21.30
66303-0800	CF160	202.44	153.10	150.40	23.90
66303-1000	CF200	253.24	203.70	200.40	24.60



## CF Bored Flange Rotatable

Part Number	Flange Size	Dimensions, mm			
		A	B	C	D
66305-0133	CF16	33.70	19.41	16.00	7.60
66305-0212	CF25	53.80	25.65	23.90	11.90
66305-0275	CF35	69.30	38.35	36.60	12.70
66305-0338	CF50	85.30	51.05	49.30	17.30
66305-0450	CF63	113.50	63.70	62.00	19.10
66305-0600	CF100	151.60	101.80	99.60	21.30
66305-0800	CF160	202.44	153.10	150.40	23.90
66305-1000	CF200	253.24	203.70	200.40	24.60



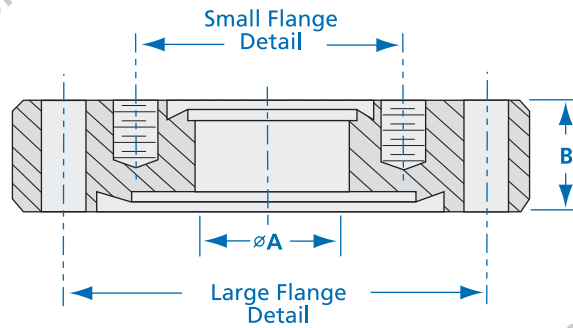


## CF Double-Sided Flanges

Part Number	Nominal ID	Made From	Dimensions, mm	
			A	B
66312-133-000D	1½(34)	133-000N	-	7.62
66312-133-025D	1½(34)	133-000N	6.48	7.62
66312-133-038D	1½(34)	133-000N	9.65	7.62
66312-133-050D	1½(34)	133-000N	12.83	7.62
66312-133-075D	1½(34)	133-000N	16.00	7.62
66312-133-000DS	1½(34)	133-000NS	-	12.70
66312-133-075DS	1½(34)	133-000NS	16.00	12.70
66312-212-000D	2½(54)	212-000N	-	11.94
66312-212-100D	2½(54)	212-000N	25.65	11.94
66312-275-000D	2½(54)	275-000N	-	12.70
66312-275-025D	2½(70)	275-000N	6.48	12.70
66312-275-050D	2½(70)	275-000N	12.83	12.70
66312-275-075D	2½(70)	275-000N	19.30	12.70
66312-275-100D	2½(70)	275-000N	25.65	12.70
66312-275-125D	2½(70)	275-000N	32.00	12.70
66312-275-150D	2½(70)	275-000N	38.35	12.70
66312-275-000DS	2½(70)	275-000N	-	19.05
66312-275-1500S	2½(70)	5275-000NS	38.35	19.05
66312-338-000D	3½(86)	338-000N	-	17.45
66312-338-150D	3½(86)	338-000N	38.35	17.45
66312-338-200D	3½(86)	338-000N	51.05	17.45
66312-450-000D	4½(114)	450-000N	-	17.45
66312-450-150D	4½(114)	450-000N	38.35	17.45
66312-450-200D	4½(114)	450-000N	51.05	17.45
66312-450-250D	4½(114)	450-000N	63.75	17.45
66312-462-000D	4½(117)	462-000N	-	20.62
66312-462-300D	4½(117)	462-000N	76.45	20.62
66312-600-000D	6 (152)	600-000N	-	19.84
66312-600-400D	6 (152)	600-000N	101.85	19.84
66312-675-000D	6½(171)	675-000N	-	21.44
66312-675-500D	6½(171)	675-000N	127.25	21.44
66312-800-000D	8 (203)	800-000N	-	22.23
66312-800-600D	8 (203)	800-000N	152.91	22.23
66312-1000-000D	10 (254)	1000-000N	-	24.59
66312-1000-800D	10 (254)	1000-000N	203.71	24.59
66312-1325-000D	13¼ (337)	1325-000N	-	28.58
66312-1325-1000D	13¼ (337)	1325-000N	251.51	28.58
66312-1400-000D	14 (356)	1400-000N	-	28.58
66312-1400-1200D	14 (356)	1400-000N	305.31	28.58

DS = Thicker than standard flange D = Double-sided flange, nonrotatable

double-sided flange are identical to standard CF flanges except the same gasket-sealing detail is machined into both faces of the flange. these flanges can be inserted between like-sized flanges as spacers, orifice plates, or when radially drilled, as custom penetrations into vacuum systems,



## CF Zero Length Reducer Flanges

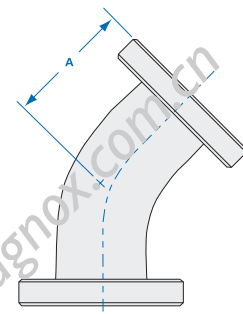
Part Number	Small Flange/jetait	Large Flange/Detail	Dimensions, mm	
			A	B
66313-212-133-075Z	133-000NT	212-000NT	15.88	11.94
66313-275-133-075Z	133-000NT	275-000N	15.88	12.70
66313-275-212-100Z	212-000NT	275-000NT	25.40	12.70
66313-338-133-075Z	133-000NT	338-000N	15.88	17.45
66313-338-212-100Z	212-000NT	338-000NT	25.40	17.45
66313-338-275-150Z	275-000NT	338-000NT	38.10	17.45
66313-450-133-075Z	133-000NT	450-000N	15.88	17.45
66313-450-212-100Z	212-000NT	450-000N	25.40	17.45
66313-450-275-150Z	275-000NT	450-000N	38.10	17.45
66313-450-338-200Z	338-000NT	450-000NT	50.80	17.45
66313-462-133-075Z	133-000NT	462-000N	15.88	20.62
66313-462-212-100Z	212-000NT	462-000N	25.40	20.62
66313-462-275-150Z	275-000NT	462-000N	38.10	20.62
66313-462-338-200Z	338-000NT	462-000N	50.80	20.62
66313-600-133-075Z	133-000NT	600-000N	15.88	19.84
66313-600-212-100Z	212-000NT	600-000N	25.40	19.84
66313-600-275-150Z	275-000NT	600-000N	38.10	19.84
66313-600-338-200Z	338-000NT	600-000N	50.80	19.84
66313-600-450-250Z	450-000NT	600-000N	63.50	19.84
66313-600-462-300Z	462-000NT	600-000NT	76.20	19.84
66313-675-133-075Z	133-000NT	675-000N	15.88	21.44
66313-675-212-100Z	212-000NT	675-000N	25.40	21.44
66313-675-275-150Z	275-000NT	675-000N	38.10	21.44
56313-675-338-200Z	338-000NT	675-000N	50.80	21.44
56313-675-450-250Z	450-000NT	675-000N	63.50	21.44
56313-675-162-300Z	462-000NT	675-000N	76.20	21.44
56313-675-600-400Z	600-000NT	675-000NT	101.60	21.44
56313-800-133-075Z	133-000NT	800-000N	15.88	22.23
56313-800-212-100Z	212-000NT	800-000N	25.40	22.23
66313-800-275-150Z	275-000NT	800-000N	38.10	22.23
66313-800-338-200Z	338-000NT	800-000N	50.80	22.23
66313-800-450-250Z	450-000NT	800-000N	63.50	22.23
66313-800-462-300Z	462-000NT	800-000N	76.20	22.23
66313-800-600-400Z	600-000NT	800-000N	101.60	22.23
66313-800-675-500Z	675-000NT	800-000NT	127.00	22.23
66313-1000-133-075Z	133-000NT	1000-000N	15.88	24.59
66313-1000-212-100Z	212-000NT	1000-000N	25.40	24.59
66313-1000-275-150Z	275-000NT	1000-000N	38.10	24.59
66313-1000-338-200Z	338-000NT	1000-000N	50.80	24.59
66313-1000-450-250Z	450-000NT	1000-000N	63.50	24.59
66313-1000-462-300Z	462-000NT	1000-00N	76.20	24.59
66313-1000-600-400Z	600-000NT	1000-000N	101.60	24.59
66313-1000-675-500Z	675-000NT	1000-000N	127.00	24.59
66313-1000-800-600Z	800-000NT	1000-000N	152.40	24.59
66313-1325-133-075Z	133-000NT	1325-000N	15.88	28.58
66313-1325-212-100Z	212-000NT	1325-000N	25.40	28.58
66313-1325-275-150Z	275-100NT	1325-000N	38.10	28.58
66313-1325-338-200Z	338-000NT	1325-000N	50.80	28.58
66313-1325-450-250Z	450-000NT	1325-000N	63.50	28.58
66313-1325-462-300Z	462-000NT	1325-000N	76.20	28.58
66313-1325-600-400Z	600-000NT	1325-000N	101.60	28.58
66313-1325-675-500Z	675-000NT	1325-000N	127.00	28.58
66313-1325-800-600Z	800-000NT	1325-000N	152.40	28.58
66313-1325-1000-800Z	1000-000NT	1325-000N	203.20	28.58

Flange Detail Definitions, N=Nonrotatable, clearance bolt holes; NT=Nonrotatable, tapped bolt holes

# CF Flanges & Fittings

## CF 45° Radius Elbow with Tangents

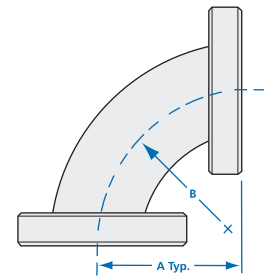
Part Number	Flange Size	Dimensions, mm	
		A	B
66319-0133	CF 1.33"	19.05	23.88
66319-0212	CF 2.12"	25.40	28.96
66319-0275	CF 2.75"	38.10	44.20
66319-0338	CF 3.38"	50.80	52.58
66319-0450	CF 4.50"	63.50	85.60
66319-0462	CF 4.62"	76.20	100.58
66319-0600	CF 6.00"	101.60	132.59



Both Flanges Rotatable

## CF 45° Radius Elbow with Tangents

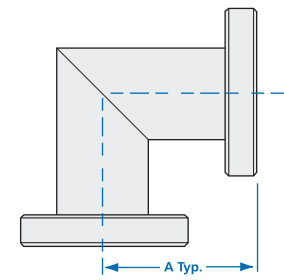
Part Number	Flange Size	Dimensions, mm		
		Tube OD	A	B
66320-0133	CF 1.33"	19.05	38.10	28.60
66320-0212	CF 2.12"	25.40	42.42	38.10
66320-0275	CF 2.75"	38.10	62.48	57.15
66320-0338	CF 3.38"	50.80	81.79	76.20
66320-0450	CF 4.50"	63.5	104.65	95.25
66320-0462	CF 4.62"	76.20	121.41	114.30
66320-0600	CF 6.00"	101.60	163.58	152.40
66320-0800	CF 8.00"	152.40	241.30	228.60
66320-1000	CF 10.00"	203.20	317.50	304.80
66320-1325	CF 13.25"	254.00	393.70	381.00



Both Flanges Rotatable

## CF 90° Mitered Elbows

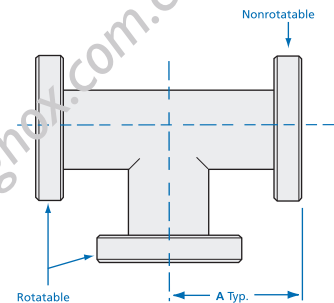
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66321-0133	CF 1.33"	19.05	38.10
66321-0212	CF 2.12"	25.40	52.07
66321-0275	CF 2.75"	38.10	62.48
66321-0338	CF 3.38"	50.80	81.79
66321-0450	CF 4.50"	63.50	85.85
66321-0450H	CF 4.50"	63.50	104.65
66321-0462	CF 4.62"	76.20	89.66
66321-0600	CF 6.00"	127.00	109.73
66321-0600H	CF 6.00"	101.60	134.87
66321-0675	CF 6.75"	101.60	119.63
66321-0800	CF 8.00"	152.40	139.70
66321-0800H	CF 8.00"	152.40	166.62
66321-1000	CF 10.00"	203.20	190.50
66321-1325	CF 13.25"	254.00	254.00



Both Flanges Rotatable

## CF 90° Mitered Elbows

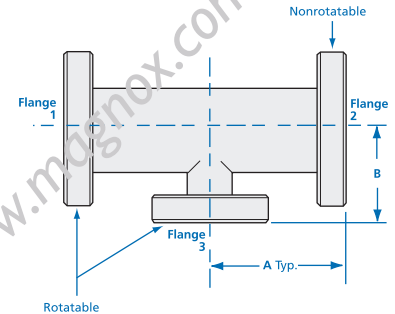
Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66322-0133	CF 1.33"	19.05	38.10
66322-0212	CF 2.12"	25.40	52.07
66322-0275	CF 2.75"	38.10	62.48
66322-0338	CF 3.38"	50.80	81.79
66322-0450	CF 4.50"	63.50	85.85
66322-0450H	CF 4.50"	63.50	104.65
66322-0462	CF 4.62"	76.20	89.66
66322-0600	CF 6.00"	127.00	109.73
66322-0600H	CF 6.00"	101.60	134.87
66322-0675	CF 6.75"	101.60	119.63
66322-0800	CF 8.00"	152.40	139.70
66322-0800H	CF 8.00"	152.40	166.62
66322-1000	CF 10.00"	203.20	190.50
66322-1325	CF 13.25"	254.00	254.00



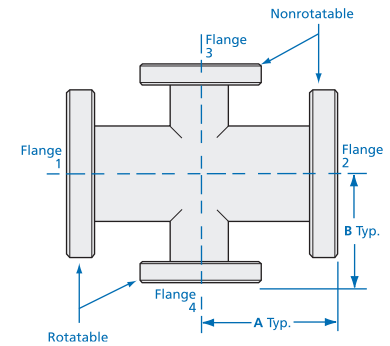
Rotatable

Nonrotatable

CF Reducer Tees						
Part Number	Dimensions, mm					
	Flange 1 & 2 Flange OD Tube OD		Flange 3 Flange OD Tube OD		A	B
66323-02750133	CF 2.75"	38.10	CF 1.33"	19.05	62.48	47.50
66323-02750212	CF 2.75"	38.10	CF 2.12"	25.40	62.48	58.17
66323-03380133	CF 3.38"	50.80	CF 1.33"	19.05	81.79	54.10
66323-03380275	CF 3.38"	50.80	CF 2.75"	38.10	81.79	68.83
66323-04500175	CF 4.50"	63.50	CF 2.75"	38.10	85.85	75.18
66323-04500338	CF 4.50"	63.50	CF 3.38"	50.80	85.85	88.39
66323-04620338	CF 4.62"	76.20	CF 3.38"	50.80	89.66	94.74
66323-04620450	CF 4.62"	76.20	CF 4.50"	63.50	89.66	92.20
66323-06000275	CF 6.00"	101.60	CF 2.75"	38.10	109.73	94.23
66323-06000338	CF 6.00"	101.60	CF 3.38"	50.80	109.73	107.44
66323-06000450	CF 6.00"	101.60	CF 4.50"	63.50	109.73	104.90
66323-06000462	CF 6.00"	101.60	CF 4.62"	76.20	109.73	102.36
66323-06750600	CF 6.75"	127.00	CF 6.00"	101.60	119.63	122.43
66323-08000275	CF 8.00"	152.40	CF 2.75"	38.10	139.70	119.63
66323-08000338	CF 8.00"	152.40	CF 3.38"	50.80	139.70	132.84
66323-08000450	CF 8.00"	152.40	CF 4.50"	63.50	139.70	130.30
66323-08000600	CF 8.00"	152.40	CF 6.00"	101.60	139.70	135.13
66323-10000800	CF 10.00"	203.20	CF 8.00"	152.40	190.50	165.10



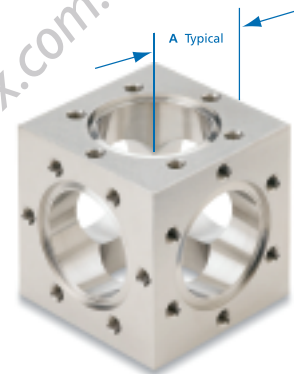
CF Reducer Crosses						
Part Number	Dimensions, mm					
	Flange 1 & 2 Flange OD Tube OD		Flange 3 & 4 Flange OD Tube OD		A	B
66324-02750133	CF 2.75"	38.10	CF 1.33"	19.05	62.48	47.50
66324-02750212	CF 2.75"	38.10	CF 2.12"	25.40	62.48	58.17
66324-03380133	CF 3.38"	50.80	CF 1.33"	19.05	81.79	54.10
66324-03380275	CF 3.38"	50.80	CF 2.75"	38.10	81.79	68.83
66324-04500275	CF 4.50"	63.50	CF 2.75"	38.10	85.85	75.18
66324-04500338	CF 4.50"	63.50	CF 3.38"	50.80	85.85	88.39
66324-04620338	CF 4.62"	76.20	CF 3.38"	50.80	89.66	94.74
66324-04620450	CF 4.62"	76.20	CF 4.50"	63.50	89.66	92.20
66324-06000275	CF 6.00"	101.60	CF 2.75"	38.10	109.73	94.23
66324-06000338	CF 6.00"	101.60	CF 3.38"	50.80	109.73	107.44
66324-06000450	CF 6.00"	101.60	CF 4.50"	63.50	109.73	104.90
66324-06000462	CF 6.00"	101.60	CF 4.62"	76.20	109.73	102.36
66324-06750600	CF 6.75"	127.00	CF 6.00"	101.60	119.63	122.43
66324-08000275	CF 8.00"	152.40	CF 2.75"	38.10	139.70	119.63
66324-08000338	CF 8.00"	152.40	CF 3.38"	50.80	139.70	132.84
66324-08000450	CF 8.00"	152.40	CF 4.50"	63.50	139.70	130.30
66324-08000600	CF 8.00"	152.40	CF 6.00"	101.60	139.70	135.13
66324-10000800	CF 10.00"	203.20	CF 8.00"	152.40	190.50	165.10



Note: Other reducer combinations can be supplied upon request.

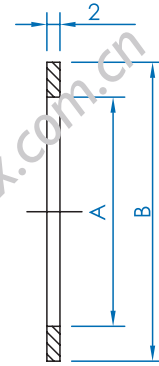
CF 6-Way Cube Crosses		
Part Number	Flange Size	Dimensions, mm
		A
66235-0133	CF 1.33"	17.02
66235-0275	CF 2.75"	34.80
66235-0450	CF 4.50"	56.90
66235-0600	CF 6.00"	75.69
66235-0800	CF 8.00"	101.09

Note: Cube crosses are available in other sizes upon request.

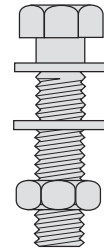


# CF Flanges & Fittings

CF OFHC-Copper			
Part Number	Flange Size	Dimensions, mm	
		A	B
66306-0133	CF16	16.30	21.30
66306-0212	CF25	25.60	35.00
66306-0275	CF35	39.00	48.20
66306-0338	CF50	52.00	61.60
66306-0450	CF63	63.80	82.40
66306-0600	CF100	102.00	120.50
66306-0800	CF160	152.80	171.30
66306-1000	CF200	203.60	222.10



Hex Head Bolts-metric Thread		
Part Number	Flange Size	Flange Bolt Holes
66307-0133	CF16	6
66307-0212	CF25	6
66307-0275	CF35	6
66307-0338	CF50	8
66307-0450	CF63	8
66307-0600	CF100	10
66307-0800	CF160	16
66307-1000	CF200	20



Vacuum Through-hole bolt		
Part Number	Size	Length
66330-003010	M3	10
66330-004015	M4	15
66330-005020	M5	20
66330-006025	M6	25
66330-008030	M8	30
66330-010050	M10	50

注:长度可按照需求定制生产,可提供镀银表面,代码SL;  
如需要M3长度为20mm,表面镀银,物料号为66330-003020-SI



Gasket Clip			
Part Number	Dimensions, mm		
	A	B	C
66308	6.00	19.50	51.00

All Gasket Clip-10 per package

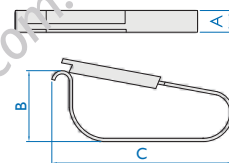


Plate Nut for  
1<sup>1</sup>/<sub>3</sub> (33.78) and 2<sup>3</sup>/<sub>4</sub> (69.85) Flanges

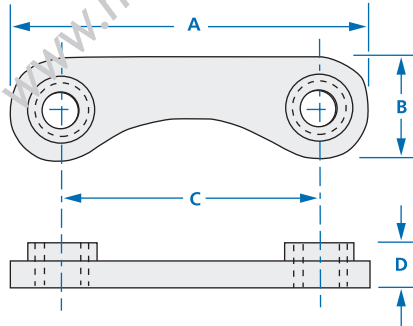
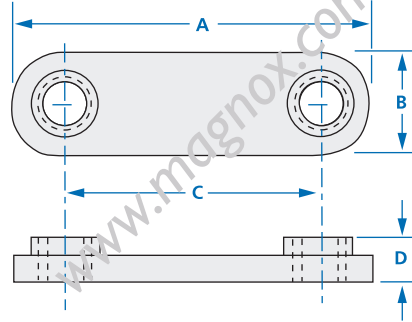


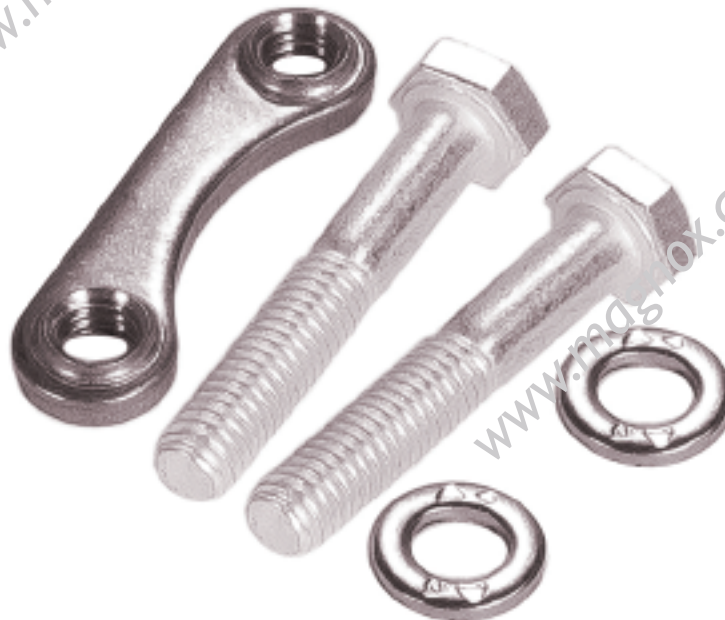
Plate Nut for  
Flanges larger than 2<sup>3</sup>/<sub>4</sub> (69.85)



## Plate Nuts

Part Number	Nominal Flange Size	Thread Size	Dimensions, mm			
			A	B	C	D
66314-0133	CF 1.33"	8-32	20.32	7.62	13.46	3.81
66314-0275	CF 2.75"	1/4-28	40.39	12.70	29.21	4.57
66314-0338	CF 3.38"	3/8-24	44.45	12.70	27.69	5.59
66314-0450	CF 4.50"	3/8-24	51.56	12.70	35.31	5.59
66314-0462	CF 4.62"	3/8-24	44.45	12.70	31.75	5.59
66314-0600	CF 6"	1/4-24	44.45	12.70	28.45	5.59
66314-10000	CF 10"	3/8-24	44.45	12.70	30.23	5.59
66314-0133M	CF 16"	M4xP0.7	20.32	7.62	13.5	3.2
66314-0275M	CF 35"	M6xP1.0	42.2	12.70	29.5	4.7
66314-0338M	CF 50"	M8xP1.25	44.5	12.70	27.7	5.3
66314-0450M	CF 63"	M8xP1.25	51.6	12.70	35.3	5.3
66314-0462M	CF 80"	M8xP1.25	45.8	12.70	31.6	5.3
66314-0600M	CF 100"	M8xP1.25	41.7	12.70	25.4	5.3
66314-0800M	CF 160"	M8xP1.25	44.45	12.70	28.5	5.3
66314-10000M	CF 200"	M8xP1.25	44.45	12.70	30.2	5.3

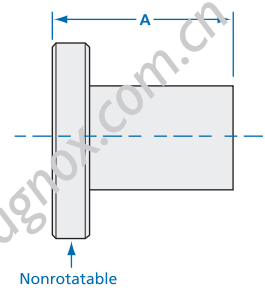
All plate nuts - 24 per package



# CF Flanges & Fittings

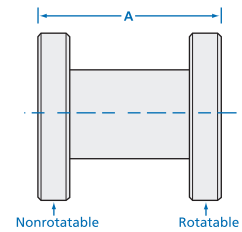
## CF Half Nipples

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66315-0133	CF 1.33"	19.05	100/OPTION
66315-0212	CF 2.12"	25.40	100/OPTION
66315-0275	CF 2.75"	38.10	100/OPTION
66315-0338	CF 3.38"	50.80	100/OPTION
66315-0450	CF 4.50"	63.50	100/OPTION
66315-0462	CF 4.62"	76.20	100/OPTION
66315-0600	CF 6.00"	101.60	100/OPTION
66315-0800	CF 8.00"	152.40	100/OPTION
66315-1000	CF 10.00"	203.20	100/OPTION
66315-1325	CF 13.25"	254.00	100/OPTION
66315-1400	CF 14.00"	304.80	100/OPTION



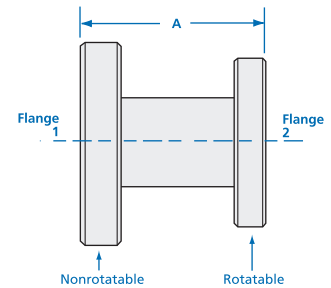
## CF Full Nipples

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66316-0133	CF 1.33"	19.05	100/OPTION
66316-0212	CF 2.12"	25.40	100/OPTION
66316-0275	CF 2.75"	38.10	100/OPTION
66316-0338	CF 3.38"	50.80	100/OPTION
66316-0450	CF 4.50"	63.50	100/OPTION
66316-0462	CF 4.62"	76.20	100/OPTION
66316-0600	CF 6.00"	101.60	100/OPTION
66316-0800	CF 8.00"	152.40	100/OPTION
66316-1000	CF 10.00"	203.20	100/OPTION
66316-1325	CF 13.25"	254.00	100/OPTION
66316-1400	CF 14.00"	304.80	100/OPTION



## CF Reducer Nipples

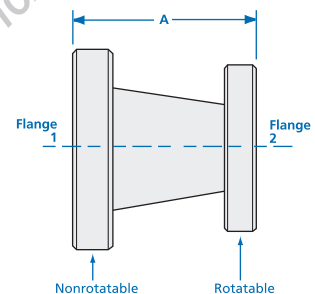
Part Number	Flange Size		Dimensions, mm	
	Flange 1	Flange 2	Tube OD	A
66317-02750133	CF 2.75"	CF 1.33"	33.78	100/OPTION
66317-04500133	CF 4.50"	CF 1.33"	33.78	100/OPTION
66317-04500275	CF 4.50"	CF 2.75"	69.85	100/OPTION
66317-04500338	CF 4.50"	CF 3.38"	85.85	100/OPTION
66317-06000275	CF 6.00"	CF 2.75"	69.85	100/OPTION
66317-08000275	CF 8.00"	CF 2.75"	69.85	100/OPTION
66317-08000450	CF 8.00"	CF 4.50"	114.30	100/OPTION
66317-08000600	CF 8.00"	CF 6.00"	152.40	100/OPTION
66317-10000275	CF 10.00"	CF 2.75"	69.85	100/OPTION
66317-10000450	CF 10.00"	CF 4.50"	114.30	100/OPTION
66317-10000600	CF 10.00"	CF 6.00"	152.40	100/OPTION
66317-10000800	CF 10.00"	CF 8.00"	203.20	100/OPTION
66317-13251000	CF 13.25"	CF 10.00"	254.00	100/OPTION
66317-14001200	CF 14.00"	CF 12.00"	304.80	100/OPTION



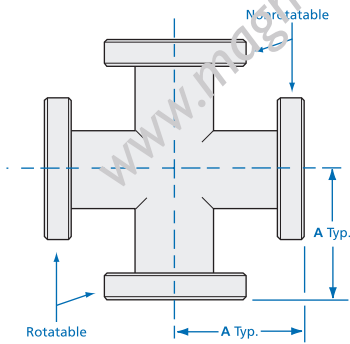
可按照需求定制任意长度。例如，需定制CF35\*CF16=750MM, 订购号为66317-02750133-0750

## CF Conical Reducer Nipples

Part Number	Flange Size		Dimensions, mm
	Flange 1 OD	Flange 2 Tube OD	A
66318-02120133	CF 2.12"	CF 1.33"	51.82
66318-02750133	CF 2.75"	CF 1.33"	78.23
66318-02750212	CF 2.75"	CF 2.12"	69.85
66318-03380212	CF 3.38"	CF 2.12"	70.36
66318-03380275	CF 3.38"	CF 2.75"	71.37
66318-04500133	CF 4.50"	CF 1.33"	75.18
66318-04500275	CF 4.50"	CF 2.75"	75.69
66318-04500338	CF 4.50"	CF 3.38"	104.65
66318-04620275	CF 4.62"	CF 2.75"	104.65
66318-04620338	CF 4.62"	CF 3.38"	108.97
66318-04620450	CF 4.62"	CF 4.50"	108.97
66318-06000338	CF 6.00"	CF 3.38"	112.78
66318-06000450	CF 6.00"	CF 4.50"	110.24

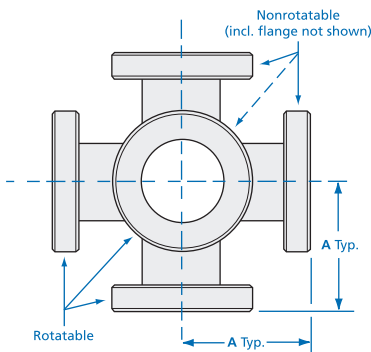






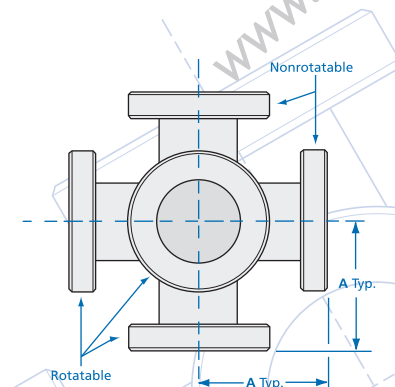
## CF 4-Way Crosses

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66326-0133	CF 1.33"	19.05	38.10
66326-0212	CF 2.12"	25.40	52.07
66326-0275	CF 2.75"	38.10	62.48
66326-0338	CF 3.38"	50.80	81.79
66326-0450	CF 4.50"	63.50	85.85
66326-0450H	CF 4.50"	63.50	104.65
66326-0462	CF 4.62"	76.20	89.66
66326-0600	CF 6.00"	101.60	109.73
66326-0600H	CF 6.00"	101.60	134.87
66326-0675	CF 6.75"	127.00	119.63
66326-0800	CF 8.00"	152.40	139.70
66326-0800H	CF 8.00"	152.40	166.62
66326-1000	CF 10.00"	203.20	190.50
66326-1325	CF 13.25"	254.00	254.00



## CF 6-Way Crosses

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66327-0133	CF 1.33"	19.05	38.10
66327-0212	CF 2.12"	25.40	52.07
66327-0275	CF 2.75"	38.10	62.48
66327-0338	CF 3.38"	50.80	81.79
66327-0450	CF 4.50"	63.50	85.85
66327-0450H	CF 4.50"	63.50	104.65
66327-0462	CF 4.62"	76.20	89.66
66327-0600	CF 6.00"	101.60	109.73
66327-0600H	CF 6.00"	101.60	134.87
66327-0675	CF 6.75"	127.00	119.63
66327-0800	CF 8.00"	152.40	139.70
66327-0800H	CF 8.00"	152.40	166.62
66327-1000	CF 10.00"	203.20	190.50
66327-1325	CF 13.25"	254.00	254.00



## CF 5-Way Crosses

Part Number	Flange Size	Dimensions, mm	
		Tube OD	A
66328-0133	CF 1.33"	19.05	38.10
66328-0212	CF 2.12"	25.40	52.07
66328-0275	CF 2.75"	38.10	62.48
66328-0338	CF 3.38"	50.80	81.79
66328-0450	CF 4.50"	63.50	85.85
66328-0450H	CF 4.50"	63.50	104.65
66328-0462	CF 4.62"	76.20	89.66
66328-0600	CF 6.00"	101.60	109.73
66328-0600H	CF 6.00"	101.60	134.87
66328-0675	CF 6.75"	127.00	119.63
66328-0800	CF 8.00"	152.40	139.70
66328-0800H	CF 8.00"	152.40	166.62
66328-1000	CF 10.00"	203.20	190.50
66328-1325	CF 13.25"	254.00	254.00



www.magnox.com.cn

www.magnox.com.cn

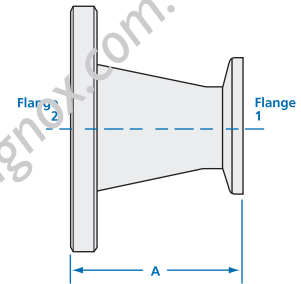


www.magnox.com.cn

www.magnox.com.cn

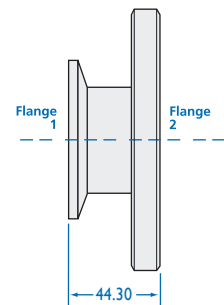
## NW to CF Conical Adapter Nipples

Part Number	Flange Size		Dimensions .mm
	Flange 1	Flange 2	A
66501-16212	NW-16	2.12CF	42.93
66501-16275	NW-16	2.75CF	69.34
66501-25133	NW-25	1.33CF	51.56
66501-25275	NW-25	2.75CF	69.34
66501-25338	NW-25	3.38CF	69.85
66501-40133	NW-40	1.33CF	76.96
66501-40212	NW-40	2.12CF	68.33
66501-40338	NW-40	3.38CF	69.85
66501-40450	NW-40	4.50CF	73.66
66501-40462	NW-40	4.62CF	103.12
66501-50212	NW-50	2.12CF	68.33
66501-50275	NW-50	2.75CF	69.34
66501-50450	NW-50	4.50CF	73.66
66501-50462	NW-50	4.62CF	103.12
66501-50600	NW-50	6.00CF	106.93



## NW to CF Adapter Nipples

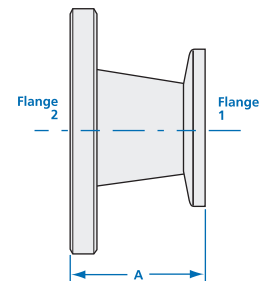
Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	Tube OD
66502-10133	NW-10	1.33 CF	12.70
66502-16133	NW-16	1.33 CF	19.05
66502-25212	NW-25	2.12 CF	25.40
66502-40275	NW-40	2.75 CF	38.10
66502-50133	NW-50	1.33 CF	19.05
66502-50338	NW-50	3.38 CF	50.80



可按照需求定制任意长度。例如，需定制KF40\*CF35L=750mm, 订购号为66502-40275-0750

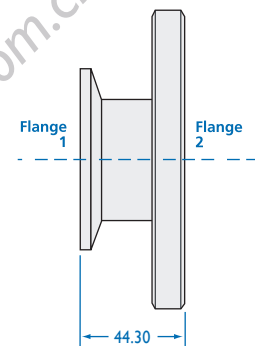
## NW to ASA Conical Adapter Nipples

Part Number	Flange Size		Dimensions .mm
	Flange 1	Flange 2	A
66503-25050	NW-25	ASA-5	70.61
66503-40050	NW-40	ASA-5	70.61
66503-40060	NW-40	ASA-6	102.36
66503-50050	NW-50	ASA-5	70.61
66503-50060	NW-50	ASA-6	102.36
66503-50075	NW-50	ASA75	102.36



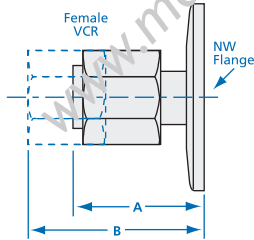
## NW to ASA Adapter Nipples

Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	Tube OD
66504-16050	NW-16	ASA-5	19.05
66504-16060	NW-16	ASA-6	19.05
66504-16075	NW-16	ASA-7.5	19.05
66504-16090	NW-16	ASA-9	19.05
66504-16110	NW-16	ASA-11	19.05
66504-25060	NW-25	ASA-6	25.40
66504-25075	NW-25	ASA-7.5	25.40
66504-25090	NW-25	ASA-9	25.40
66504-25110	NW-25	ASA-11	25.40
66504-40075	NW-40	ASA-7.5	38.10
66504-40090	NW-40	ASA-9	38.10
66504-40110	NW-40	ASA-11	38.10
66504-50090	NW-50	ASA-9	50.80
66504-50110	NW-50	ASA-11	50.80



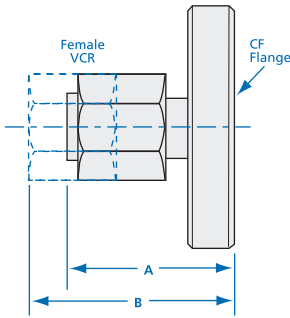
可按照需求定制任意长度。例如，需定制KF16\*ASA5" L=750MM, 订购号为66504-16050-0750

Note: Add suffix "-G" to model number if O-Ring Groove is required on ASA flange.  
Call for ASA groove prices.



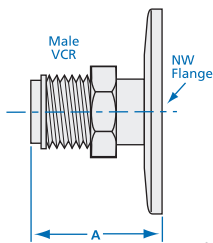
## NW Female VCR Adapters

Part Number	Flange Size	VCR Size	Dimensions .mm	
			A	B
66519-1004	NW-10	1/4"	37.08	49.78
66519-1604	NW-16	1/4"	37.08	49.78
66519-2504	NW-25	1/4"	37.08	49.78
66519-4004	NW-40	1/4"	37.08	49.78
66519-5004	NW-50	1/4"	37.08	49.78
66519-1606	NW-16	3/8"	41.91	55.88
66519-2506	NW-25	3/8"	41.91	55.88
66519-4006	NW-40	3/8"	41.91	55.88
66519-5006	NW-50	3/8"	41.91	55.88
66519-1608	NW-16	1/2"	41.91	55.88
66519-2508	NW-25	1/2"	41.91	55.88
66519-4008	NW-40	1/2"	41.91	55.88
66519-5008	NW-50	1/2"	41.91	55.88



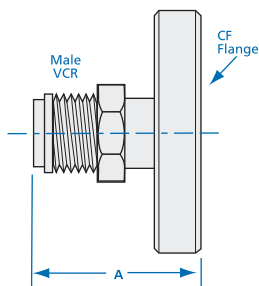
## CF Female VCR Adapters

Part Number	Flange Size	VCR Size	Dimensions .mm	
			A	B
66520-133004	1.33CF	1/4"	34.54	47.75
66520-133006	1.33CF	3/8"	39.37	54.10
66520-275004	2.75CF	1/4"	34.54	47.75
66520-275006	2.75CF	3/8"	39.37	54.10



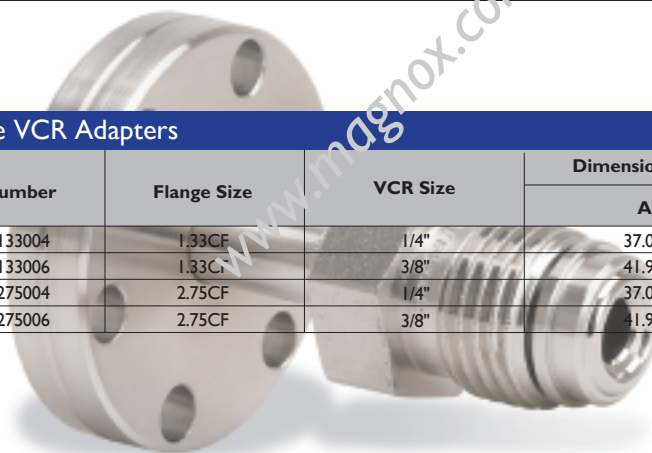
## NW Male VCR Adapters

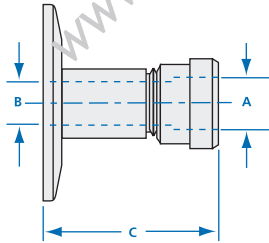
Part Number	Flange Size	Tube OD	Dimensions, mm
			A
66521-1004	NW-10	1/4"	37.08
66521-1604	NW-16	1/4"	37.08
66521-2504	NW-25	1/4"	37.08
66521-4004	NW-40	1/4"	37.08
66521-5004	NW-50	1/4"	37.08
66521-1606	NW-16	3/8"	41.91
66521-2506	NW-25	3/8"	41.91
66521-4006	NW-40	3/8"	41.91
66521-5006	NW-50	3/8"	41.91
66521-1608	NW-16	1/2"	41.91
66521-2508	NW-25	1/2"	41.91
66521-4008	NW-40	1/2"	41.91
66521-5008	NW-50	1/2"	41.91



## CF Male VCR Adapters

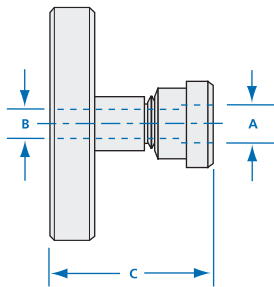
Part Number	Flange Size	VCR Size	Dimensions .mm
			A
66522-133004	1.33CF	1/4"	37.08
66522-133006	1.33CF	3/8"	41.91
66522-275004	2.75CF	1/4"	37.08
66522-275006	2.75CF	3/8"	41.91





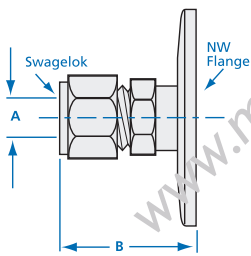
## NW Quick Disconnect Adapters

Part Number	Flange Size	Dimensions, mm		
		A	B	C
66523-1004	NW-10	6.35	4.75	37.59
66523-1604	NW-16	6.35	4.75	37.59
66523-2504	NW-25	6.35	4.75	37.59
66523-4004	NW-40	6.35	4.75	37.59
66523-1006	NW-10	9.53	7.14	41.15
66523-1606	NW-16	9.53	7.14	41.15
66523-2506	NW-25	9.53	7.14	41.15
66523-4006	NW-40	9.53	7.14	41.15
66523-1608	NW-16	12.70	10.31	45.47
66523-2508	NW-25	12.70	10.31	45.47
66523-4008	NW-40	12.70	10.31	45.47
66523-5008	NW-50	12.70	10.31	45.47
66523-2512	NW-25	19.05	15.88	49.02
66523-4012	NW-40	19.05	15.88	49.02
66523-5012	NW-50	19.05	15.88	49.02
66523-4016	NW-40	25.40	22.23	49.02
66523-5016	NW-50	25.40	22.23	49.02



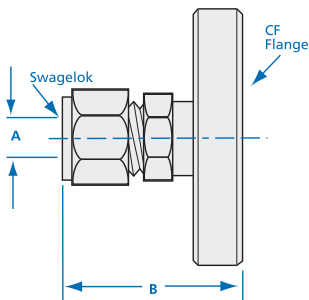
## NW Quick Disconnect Adapters

Part Number	Flange Size	Dimensions, mm		
		A	B	C
66524-13304	1.33 CF	6.35	4.76	35.31
66524-13306	1.33 CF	9.53	7.14	38.86
66524-13308	1.33 CF	12.70	10.32	43.18
66524-27504	2.75 CF	6.35	4.76	35.31
66524-27506	2.75 CF	9.53	7.14	38.86
66524-27508	2.75 CF	12.70	10.32	43.18
66524-27512	2.75 CF	19.05	15.88	50.55
66524-27516	2.75 CF	25.40	22.23	51.05



## NW Swagelok Adapters

Part Number	Flange Size	Dimensions, mm	
		A	B
66525-1004	NW-10	6.35	37.34
66525-1604	NW-16	6.35	37.34
66525-2504	NW-25	6.35	37.34
66525-4004	NW-40	6.35	37.34
66525-5004	NW-50	6.35	37.34
66525-1006	NW-10	9.53	41.45
66525-1606	NW-16	9.53	41.45
66525-2506	NW-25	9.53	41.45
66525-4006	NW-40	9.53	41.45
66525-5006	NW-50	9.53	41.45

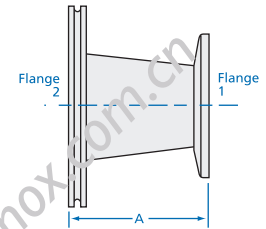


## CF Swagelok Adapters

Part Number	Flange Size	Dimensions, mm	
		A	B
66526-13304	1.33CF	6.35	34.80
66526-13306	1.33CF	9.53	40.13
66526-27504	2.75CF	6.35	34.80
66526-27506	2.75CF	9.53	39.12

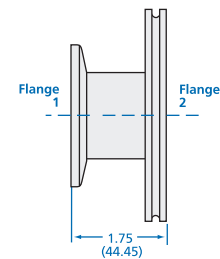
## NW to ISO Conical Adapter Nipples

Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	A
66505-40063	NW-40	ISO-63	70.61
66505-40080	NW-40	ISO-80	102.36
66505-50063	NW-50	ISO-63	70.61
66505-50080	NW-50	ISO-80	102.36
66505-50100	NW-50	ISO-100	102.36



## NW to ISO Adapter Nipples

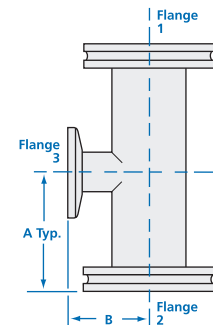
Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	Tube OD
66514-16063	NW-16	ISO-63	19.05
66514-25063	NW-25	ISO-63	25.40
66514-25080	NW-25	ISO-80	25.40
66514-25100	NW-25	ISO-100	25.40
66514-40100	NW-40	ISO-100	38.10
66514-50160	NW-50	ISO-160	50.80



可按照需求定制任意长度。例如，需定制KF16\*ISO63 L=750MM, 订购号为66514-16063-0750

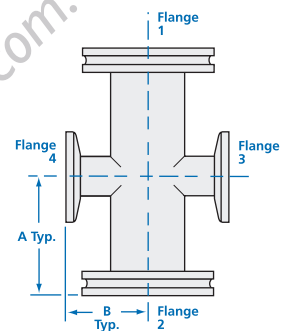
## NW to ISO Adapter Tees

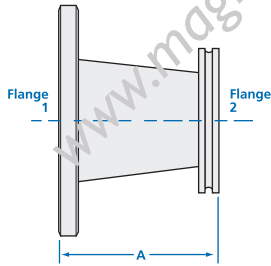
Part Number	Flange Size		Dimensions, mm	
	Flange 1&2	Flange 3	A	B
66506-40063	ISO-63	NW-40	82.55	73.66
66506-40080	ISO-80	NW-40	88.90	80.01
66506-40100	ISO-100	NW-40	104.90	92.71
66506-40160	ISO-160	NW-40	136.65	118.11
66506-50063	ISO-63	NW-50	82.55	86.36
66506-50080	ISO-80	NW-50	88.90	92.71
66506-50100	ISO-100	NW-50	104.90	105.41
66506-50160	ISO-160	NW-50	136.65	130.81



## NW to ISO Adapter Crosses

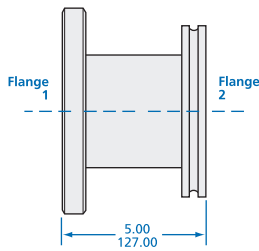
Part Number	Flange Size		Dimensions, mm	
	Flange 1&2	Flange 3&4	A	B
66507-40063	ISO-63	NW-40	82.55	73.66
66507-40080	ISO-80	NW-40	88.90	80.01
66507-40100	ISO-100	NW-40	104.90	92.71
66507-40160	ISO-160	NW-40	136.65	118.11
66507-50063	ISO-63	NW-50	82.55	86.36
66507-50080	ISO-80	NW-50	88.90	92.71
66507-50100	ISO-100	NW-50	104.90	105.41
66507-50160	ISO-160	NW-50	136.65	130.81





## NW to ISO Conical Adapter Nipples

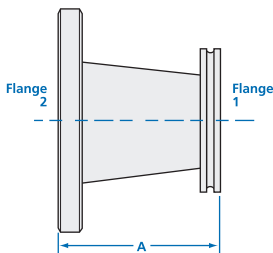
Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	A
66508-275063	2.75 CF	ISO-63	71.38
66508-275080	2.75 CF	ISO-80	103.63
66508-338063	3.38 CF	ISO-63	72.39
66508-338080	3.38 CF	ISO-80	104.14
66508-338100	3.38 CF	ISO-100	104.14
66508-450080	4.50 CF	ISO-80	107.95
66508-450100	4.50 CF	ISO-100	107.95
66508-462063	4.62 CF	ISO-63	105.66
66508-462100	4.62 CF	ISO-100	105.66
66508-600063	6.00 CF	ISO-63	109.47
66508-600080	6.00 CF	ISO-80	109.47



## CF to ISO Adapter Nipples

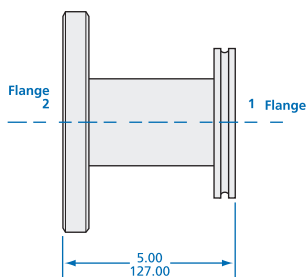
Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	A
66509-0450063	4.50 CF	ISO-63	63.50
66509-0462080	4.62 CF	ISO-80	76.20
66509-0600100	6.00CF	ISO-100	101.60
66509-0800160	8.00 CF	ISO-160	152.40
66509-1000200	10.00 CF	ISO-200	203.20

注：可按照需求定制任意长度。例如，需定制CF4.5\*ISO63 L=750mm，订购号为66509-0450063-0750



## ISO to ASA Conical Adapter Nipples

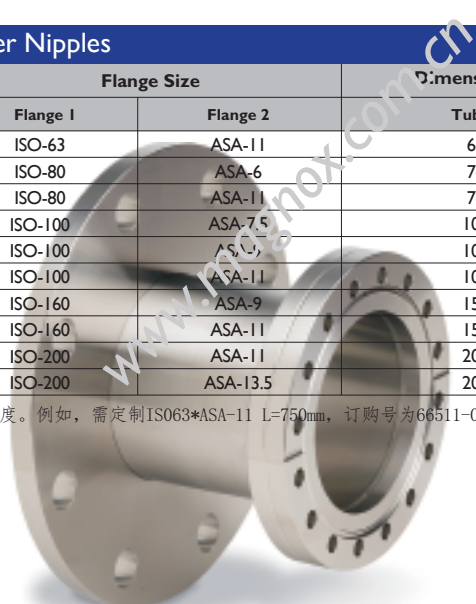
Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	Tube OD
66510-063050	ISO-63	ASA-5	73.15
66510-063060	ISO-63	ASA-6	104.90
66510-063075	ISO-63	ASA-7.5	104.90
66510-080050	ISO-80	ASA-5	104.90
66510-100075	ISO-100	ASA-7.5	104.90
66510-100050	ISO-100	ASA-5	104.90



## ISO to ASA Adapter Nipples

Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	Tube OD
66511-063110	ISO-63	ASA-11	63.50
66511-080060	ISO-80	ASA-6	76.20
66511-080110	ISO-80	ASA-11	76.20
66511-100075	ISO-100	ASA-7.5	101.60
66511-100090	ISO-100	ASA-9	101.60
66511-100110	ISO-100	ASA-11	101.60
66511-160090	ISO-160	ASA-9	152.40
66511-160110	ISO-160	ASA-11	152.40
66511-200110	ISO-200	ASA-11	203.20
66511-200135	ISO-200	ASA-13.5	203.20

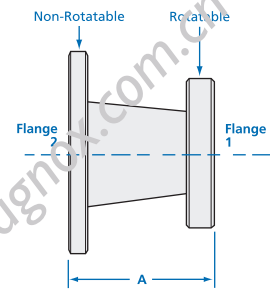
注：可按照需求定制任意长度。例如，需定制ISO63\*ASA-11 L=750mm，订购号为66511-063110-0750



# Adapter Fittings

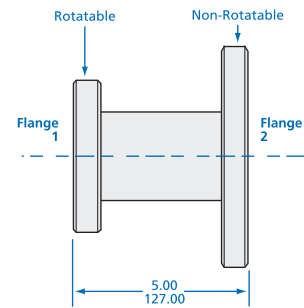
## CF to ASA Conical Adapter Nipples

Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	A
66512-21250	2.12CF	ASA-5	70.87
66512-27550	2.75CF	ASA-5	71.88
66512-27560	2.75CF	ASA-6	103.63
66512-33850	3.38CF	ASA-5	72.38
66512-33860	3.38CF	ASA-6	104.14
66512-33875	3.38CF	ASA-7.5	104.14
66512-45050	4.50CF	ASA-5	76.20
66512-45060	4.50CF	ASA-6	107.95
66512-45075	4.50CF	ASA-7.5	107.95
66512-46250	4.62CF	ASA-5	105.66
66512-46275	4.62CF	ASA-7.5	105.66
66512-60050	6.00CF	ASA-5	109.47
66512-60060	6.00CF	ASA-6	109.47



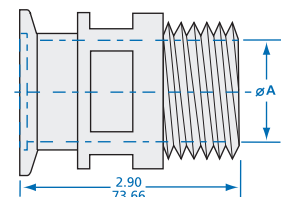
## CF to ASA Adapter Nipples

Part Number	Flange Size		Dimensions, mm
	Flange 1	Flange 2	Tube OD
66513-0133050	1.33 CF	ASA-5	19.05
66513-0133060	1.33 CF	ASA-6	19.05
66513-0212060	2.12 CF	ASA-6	25.40
66513-0462060	4.62 CF	ASA-6	76.20
66513-0133075	1.33 CF	ASA-7.5	19.05
66513-0212075	2.12 CF	ASA-7.5	25.40
66513-0275075	2.75 CF	ASA-7.5	38.10
66513-0133090	1.33 CF	ASA-9	19.05
66513-0212090	2.12 CF	ASA-9	25.40
66513-0275090	2.75CF	ASA-9	38.10
66513-0338090	3.38 CF	ASA-9	50.80
66513-0450090	4.50 CF	ASA-9	63.50
66513-0462090	4.62 CF	ASA-9	76.20
66513-0600090	6.00 CF	ASA-9	101.60
66513-0133110	1.33 CF	ASA-11	19.05
66513-0212110	2.12 CF	ASA-11	25.40
66513-0275110	2.75 CF	ASA-11	38.10
66513-0338110	3.38 CF	ASA-11	50.80
66513-0450110	4.50 CF	ASA-11	63.50
66513-0462110	4.62 CF	ASA-11	76.20
66513-0600110	6.00CF	ASA-11	101.60
66513-0800110	8.00CF	ASA-11	152.40
66513-0133135	1.33 CF	ASA-13.5	19.05
66513-0212135	2.12 CF	ASA-13.5	25.40
66513-0275135	2.75 CF	ASA-13.5	38.10
66513-0338135	3.38 CF	ASA-13.5	50.80
66513-0450135	4.50 CF	ASA-13.5	63.50
66513-0462135	4.62 CF	ASA-13.5	76.20
66513-0600135	6.00 CF	ASA-13.5	101.60
66513-0800135	8.00 CF	ASA-13.5	152.40
66513-1000135	10.00 CF	ASA-13.5	203.20

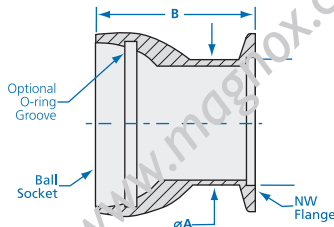


## NW Welch Pump Adapters

Part Number	Flange Size	Dimensions, mm	
		Thread	A
66515-1603813	KF16	3/4-18 NPSM x1.00	11.43
66515-1603420	KF16	3/4-20 NPSM x1.00	14.28
66515-2503420	KF25	3/4-20 NPSM x1.00	14.23
66515-2510020	KF25	1-20 NPSM x1.00	19.05
66515-4010020	KF40	1-20 NPSM x 1.00	19.05
66515-4011212	KF40	1 1/2-12 NPSM x 1.00	28.58
66515-4013420	KF40	1 3/4-20 NPSM x1.00	34.93
66515-5013420	KF50	1 3/4-20 NPSM x1.00	34.93







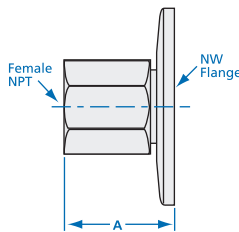
## NW Ball Socket Adapters

Part Number	Dimensions, mm				
	Ball Socket	Flange I Type	Tube OD A	A	B
66516-405030	50/30	NW-40	38.10	48.26	-
66516-405030G	50/30	NW-40	38.10	48.26	2-224
66516-507550	75/50	NW-50	50.80	67.31	-
66516-507550G	75/50	NW-50	50.80	67.31	2-232

Note: "G" in model number indicates O-ring and O-ring groove.

## NW Female Pipe Adapters

Part Number	Flange Size	Thread Size	Dimensions, mm
			A
66517-1002	KF10	1/8"	23.37
66517-1602	KF16	1/8"	23.37
66517-2502	KF25	1/8"	23.37
66517-4002	KF40	1/8"	23.37
66517-5002	KF50	1/8"	23.37
66517-1004	KF10	1/4"	27.18
66517-1604	KF16	1/4"	27.18
66517-2504	KF25	1/4"	27.18
66517-4004	KF40	1/4"	27.18
66517-5004	KF50	1/4"	27.18
66517-1608	KF16	1/2"	36.58
66517-2508	KF25	1/2"	35.31
66517-4008	KF40	1/2"	35.31
66517-5008	KF50	1/2"	35.31
66517-2510	KF25	3/4"	36.83
66517-4010	KF40	3/4"	36.83
66517-5010	KF50	3/4"	36.83
66517-2512	KF25	1"	39.88
66517-4012	KF40	1"	39.88
66517-5012	KF50	1"	39.88

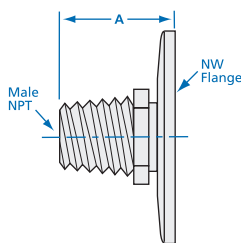


注: 此产品示意图仅供参考, 具体工艺及尺寸请咨询销售。

需求的螺纹规格不同在订购号最后一位加对应的螺纹首字母, 如要KF25"1/4"NPT内螺纹, 订购号为66517-2504-N.

## NW Male Pipe Adapters

Part Number	Flange Size	Thread Size	Dimensions, mm
			A
66518-1002	KF10	1/8"	22.61
66518-1602	KF16	1/8"	22.61
66518-2502	KF25	1/8"	22.61
66518-4002	KF40	1/8"	22.61
66518-5002	KF50	1/8"	22.61
66518-1004	KF10	1/4"	27.94
66518-1604	KF16	1/4"	27.94
66518-2504	KF25	1/4"	27.94
66518-4004	KF40	1/4"	27.94
66518-5004	KF50	1/4"	27.94
66518-1608	KF16	1/2"	34.29
66518-2508	KF25	1/2"	34.29
66518-4008	KF40	1/2"	34.29
66518-5008	KF50	1/2"	34.29
66518-2512	KF25	3/4"	34.29
66518-4012	KF40	3/4"	34.29
66518-5012	KF50	3/4"	34.29
66518-2516	KF25	1"	41.66
66518-4016	KF40	1"	41.66
66518-5016	KF50	1"	41.66



注: 此产品示意图仅供参考, 具体工艺及尺寸请咨询销售。

需求的螺纹规格不同在订购号最后一位加对应的螺纹首字母, 如要KF25"1/4"NPT外螺纹, 订购号为66518-2504-N.



www.magnox.com.cn

www.magnox.com.cn



www.magnox.com.cn

www.magnox.com.cn

## Formed Bellows Ordering Information 成型波纹管订购信息

<b>66701</b>		<b>0075</b>		<b>0300</b>		<b>CB</b>		<b>10</b>		<b>F4</b>	
产品系列		终端A		长度 (mm)		产品类型		材质		内表面处理	
66701	KF法兰金属软管	0050	KF16	0050	xxxx	CB	可弯曲压缩(Compressible Bellows)	10	304	空白	FA
66702	ISO法兰金属软管	0133	CF16	0133		FH	可弯曲不可压缩(Flexible hoses)	40	316L	F4	FF
66703	CF法兰金属软管	0075	KF16	0075				HH	哈氏合金	PT	PTFE涂层
66704	KF法兰外衬编织网金属软管	0212	CF25	0212				TR	纯钛		
66705	ISO法兰外衬编织网金属软管	0100	KF25	0100							
66706	CF法兰外衬编织网金属软管	0275	CF35	0275							
		0150	KF40	0150							
		0338	CF50	0338							
		0200	KF50	0200							
		0450	CF63	0450							
		0250K	ISO63-K	0250K							
		0250F	ISO63-F	0250F							
		0250N	NW63	0250N							
		0462	CF80	0462							
		ISO80-K	ISO80-K	ISO80-K							
		ISO80-F	ISO80-F	ISO80-F							
		ISO80-NW80	NW80	ISO80-NW80							
		CF100	CF100	CF100							
		ISO100-K	ISO100-K	ISO100-K							
		ISO100-F	ISO100-F	ISO100-F							
		NW100	NW100	NW100							
		CF130	CF130	CF130							
		ISO160-K	ISO160-K	ISO160-K							
		ISO160-F	ISO160-F	ISO160-F							
		NW160	NW160	NW160							
		CF160	CF160	CF160							
		ISO200-K	ISO200-K	ISO200-K							
		ISO200-F	ISO200-F	ISO200-F							
		NW200	NW200	NW200							
		CF200	CF200	CF200							
		ISO250-K	ISO250-K	ISO250-K							
		SO250-F	SO250-F	SO250-F							
		NW250	NW250	NW250							
		CF250	CF250	CF250							
		ISO320-K	ISO320-K	ISO320-K							
		ISO320-F	ISO320-F	ISO320-F							
		NW320	NW320	NW320							
		TW	直管对焊	TW							
		TW	直管对焊	TW							

### 说明

- 1、直管对焊端为英制规格，尺寸代码参见A21页
- 2、当端口B和端口A代码完全相同时，端口B代码将被省略。
- 3、型号说明仅用于说明型号组成规则，有些组合实际并不存在；如有疑问请联系迈格诺科销售代表。

# Bellows & Flexible Hose

## Formed Bellows Technical Data

成型波纹管技术参数

Type	Flange	Dimensions, mm			contraction Rate %
		ID	OD	Thickness	
Compressible Bellows	KF10	10.50	15.20	0.15	7.00
	KF16	20.00	30.50	0.15	7.00
	KF25	25.30	36.00	0.15	8.00
	KF40	39.50	54.00	0.15	11.00
	KF50	49.50	65.00	0.15	12.00
	ISO63	62.70	82.00	0.20	13.00
	ISO80	78.50	102.00	0.20	13.00
	ISO100	101.00	126.00	0.20	14.00
	ISO160	149.00	176.20	0.25	23.00
	ISO200	200.00	240.00	0.25	24.00

## Flexible Hoses Technical Data

普通波纹管技术参数

Type	Flange	Dimensions, mm			Bending Radius (mm)	
		ID	OD	Thickness	Constant Bending	Repeated Bending
Flexible Hoses	KF10	10.50	15.20	0.15	30.00	40.00
	KF16	20.30	29.00	0.20	70.00	70.00
	KF25	26.00	35.00	0.20	90.00	90.00
	KF40	40.00	52.00	0.25	120.00	120.00
	KF50	54.00	67.00	0.25	140.00	140.00
	ISO63	63.00	80.00	0.25	150.00	150.00
	ISO80	78.50	102.00	0.25	220.00	220.00
	ISO100	101.00	126.00	0.25	280.00	280.00
	ISO160	151.00	179.00	0.30	500.00	500.00
	ISO200	200.00	231.00	0.30	750.00	750.00

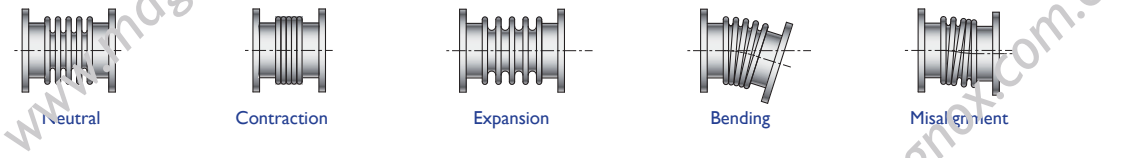
## Metal Mesh Bellows Technical Data

金属编织网波纹管技术参数

Type	Flange	Dimensions, mm			Bending Radius (mm)		Max. working pressure(Mpa)
		ID	OD	Thickness	Constant Bending	Repeated Bending	
Single Braid	KF10	10.50	15.20	0.15	30.00	185.00	4.90
	KF16	20.30	29.00	0.20	80.00	140.00	2.90
	KF25	26.00	35.00	0.20	90.00	170.00	3.90
	KF40	40.00	52.00	0.25	120.00	220.00	2.80
	KF50	54.00	67.00	0.25	170.00	220.00	1.50
	ISO63	63.00	80.00	0.25	140.00	240.00	1.60
	ISO80	78.50	102.00	0.25	260.00	250.00	1.60
	ISO100	101.00	126.00	0.25	320.00	280.00	1.10
	ISO160	150.50	178.50	0.30	500.00	600.00	1.00
	ISO200	200.00	231.00	0.30	750.00	850.00	1.10

## Basic Motions Of Bellows Expansion Joints






波纹管基本运动形式

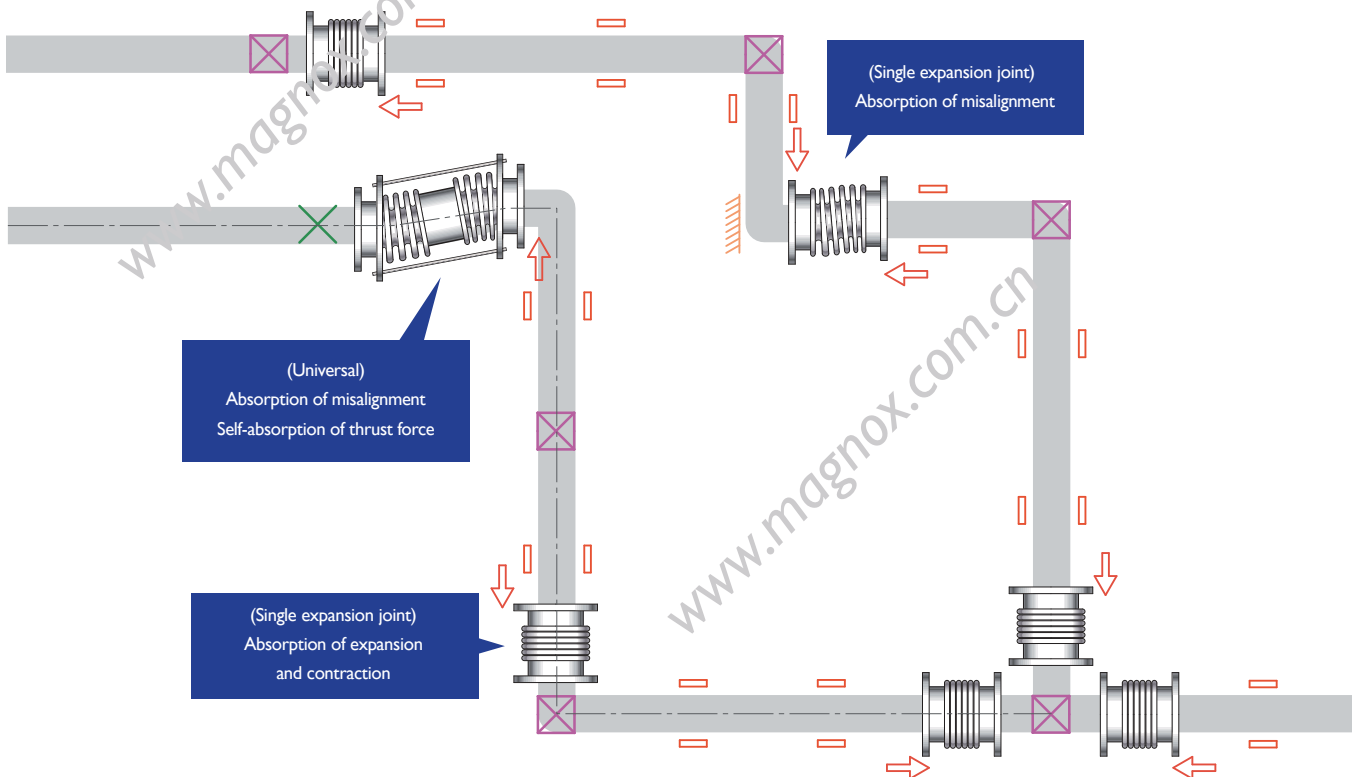


## Examples Of Application Of Bellows Expansion Joints

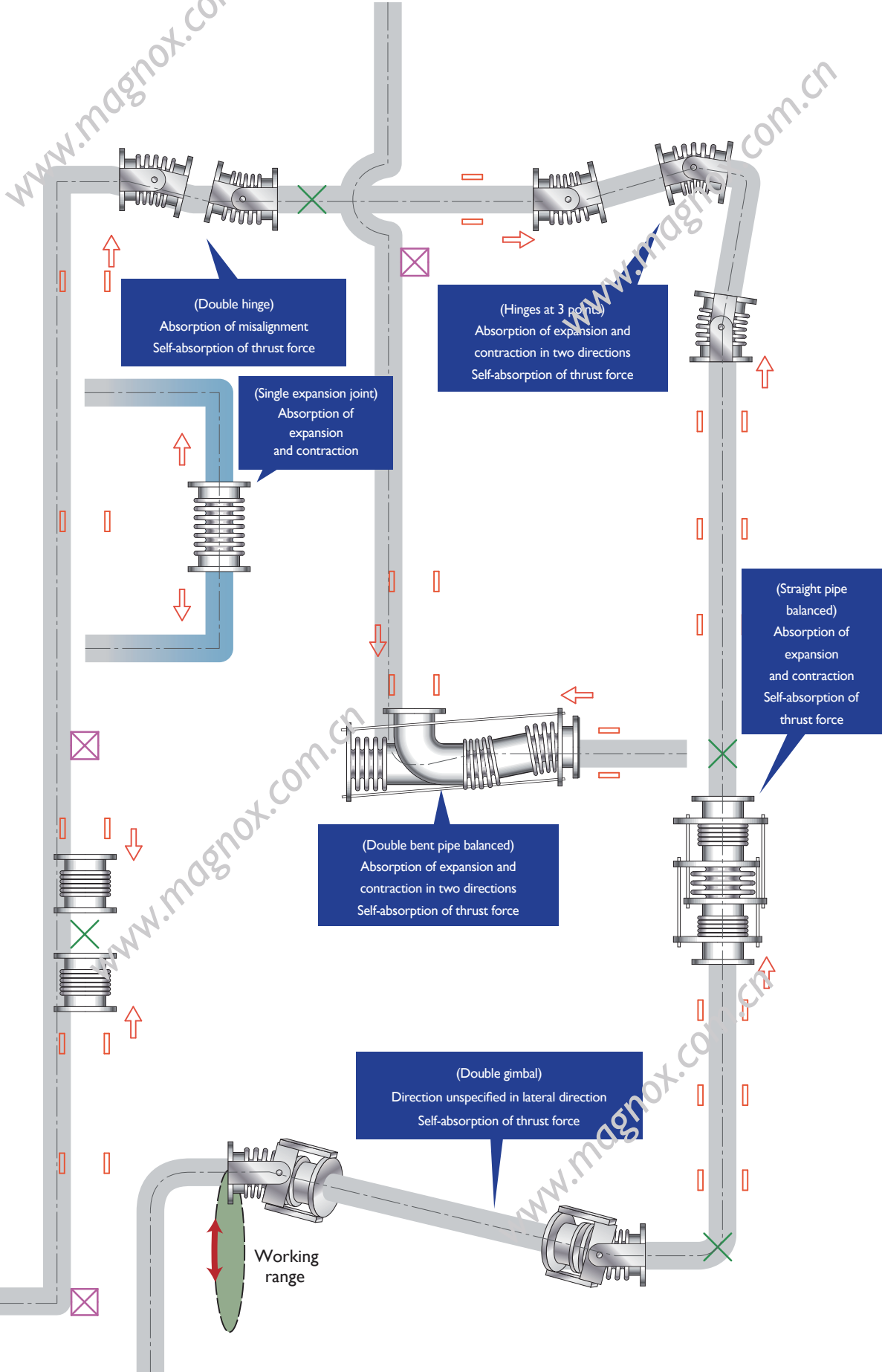
应用实例介绍

Terms and symbols

Term	Description	Symbol
Main anchor	Must be resistant to the expansion joint thrust force and the spring reaction force.	
Slide anchor	Must be resistant to the expansion joint thrust force and the spring reaction force but does not restrain the force in the sliding direction.	
Intermediate anchor	Must be resistant to the spring reaction force of expansion joint.	
Guide	Pipe guide device for transmitting smoothly the necessary force for centering of expansion joint and pipe and movement in the axial direction to the anchor	
Direction of expansion of pipe		



# Bellows & Flexible Hose

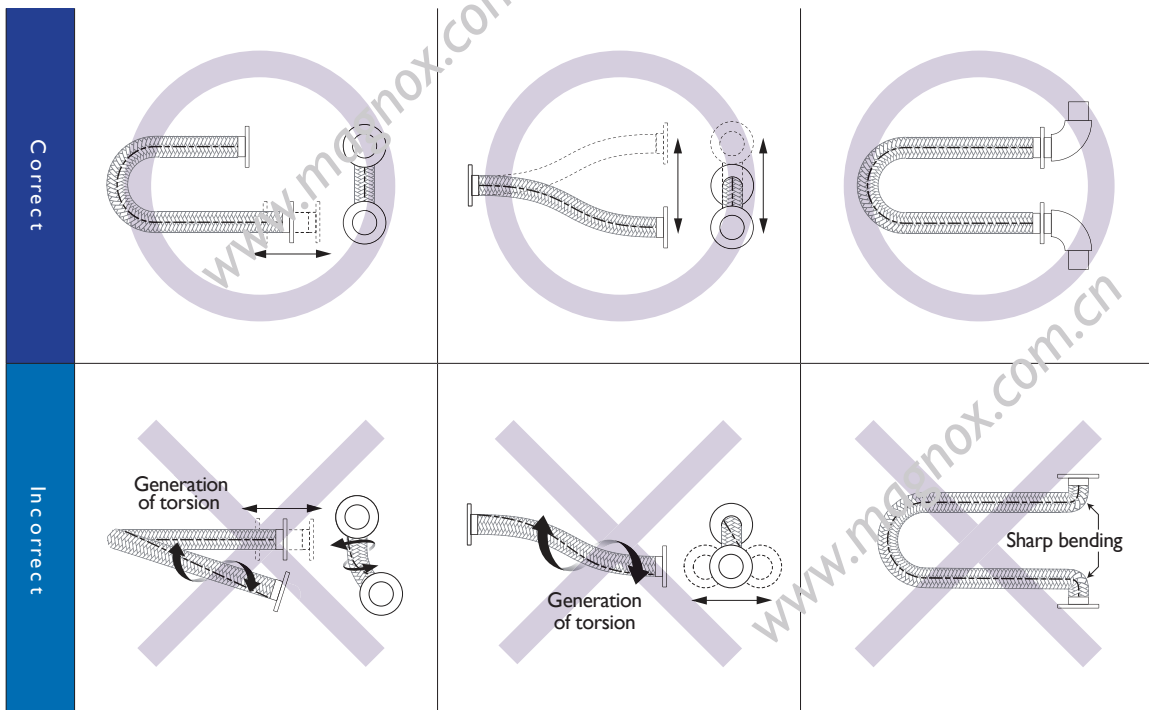


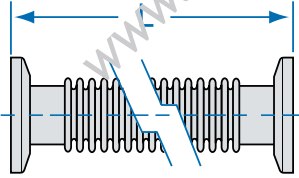
## Instructions common to flexible hoses and bellows

- ◆ These products are made from thin plates. Even insignificant impact may damage the products. For transportation, pack them with sufficient packaging materials, and handle them carefully during transportation.
- ◆ Store the products in a clean and dry room. Avoid contact with high moisture, saline matter and high lyacid atmosphere.
- ◆ Use them in the ranges specified in drawings, delivery specifications and catalogs. If any product is used out of the design specifications, it may be damaged.
- ◆ Avoid using fluids which do not have corrosion resistance for each material.
- ◆ Do not expose the products directly to sparks from a welder or a grinder. When using a welder or a grinder near the products, appropriately protect them.
- ◆ If they are moved after installation or used as measures against vibration, fatigue cracks may develop in them in a short period.

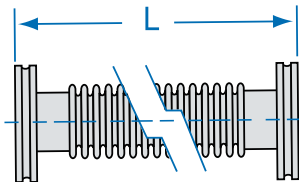
## Flexible hoses

- ◆ When installing any flexible hose, do not apply torsion to it. To prevent damage owing to torsion during installation, it is recommended to use a joint, such as a loose flange, union joint or SNM joint, which can prevent torsion at one end of the tube.
- ◆ Do not install any flexible hose in such a way that the tube is twisted when it is bent. Install the tube in such a way that it is constantly on a certain plane to prevent damage to the tube caused by torsion when it is bent.
- ◆ Avoid bending any flexible hose at a sharp angle. If a tube is installed improperly, the tube may be repeatedly bent at a sharp angle. If a tube is used at a radius lower than the allowable minimum bending radius, it will be fatigued early and damaged in a short period.
- ◆ Do not expand or contract any flexible hose. Do not install a tube in an expanded or contracted condition exceeding the specified range.
- ◆ Reworking  
Avoid reworking any joint if possible. When reworking a joint, take care not to damage the hose or joint, and protect the hose to prevent entry of dust into the tube.
- ◆ Welding  
When welding a hose to a mating pipe joint, take utmost care that the hose is not thermally influenced. Otherwise, it may be distorted, or the material characteristics may be degraded, thereby resulting in early breakage.
- ◆ Examples of correct use and incorrect use

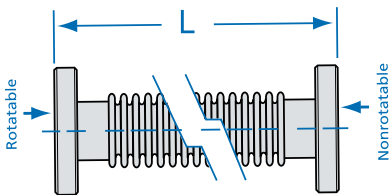




KF Bellows		
Part Number	Flange Size	Dimensions, mm
		L
66701-0016	KF16	100/OPTION
66701-0025	KF25	100/OPTION
66701-0040	KF40	100/OPTION
66701-0050	KF50	100/OPTION



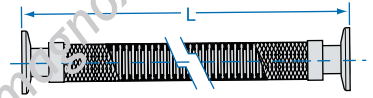
ISO Bellows		
Part Number	Flange Size	Dimensions, mm
		L
66702-0063	ISO-63	100/OPTION
66702-0080	ISO-80	100/OPTION
66702-0100	ISO-100	100/OPTION
66702-0160	ISO-160	100/OPTION
66702-0200	ISO-200	100/OPTION



CF Bellows		
Part Number	Flange Size	Dimensions, mm
		L
66703-0133	CF16	100/OPTION
66703-0275	CF35	100/OPTION
66703-0338	CF50	100/OPTION
66703-0450	CF63	100/OPTION
66703-0600	CF100	100/OPTION
66703-0800	CF160	100/OPTION

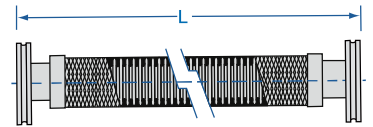
## KF Flexible Braided Coupling

Part Number	Flange Size	Dimensions, mm	
		Wall Thickness	L
66704-0016	KF16	0.20	100/OPTION
66704-0025	KF25	0.20	100/OPTION
66704-0040	KF40	0.20	100/OPTION
66704-0050	KF50	0.20	100/OPTION



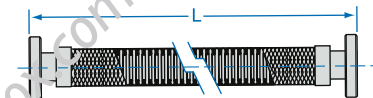
## ISO Flexible Braided Coupling

Part Number	Flange Size	Dimensions, mm	
		L	
66705-0063	ISO-63	200/OPTION	
66705-0080	ISO-80	200/OPTION	
66705-0100	ISO-100	200/OPTION	
66705-0160	ISO-160	200/OPTION	
66705-0200	ISO-200	200/OPTION	
66705-0250	ISO-250	200/OPTION	
66705-0300	ISO-300	200/OPTION	



## CF Flexible Braided Coupling

Part Number	Flange Size	Dimensions, mm	
		L	
66706-0133	CF16	200/OPTION	
66706-0275	CF35	200/OPTION	
66706-0338	CF50	200/OPTION	
66706-0450	CF63	200/OPTION	
66706-0600	CF100	200/OPTION	
66706-0800	CF160	200/OPTION	





## Vacuum Insulation Double-layer Flexible Hoses

真空双层绝热软管

### Features

- ◆ Remarkably high flexibility
- ◆ The excellent heat insulating performance minimizes evaporation of the internal fluid.

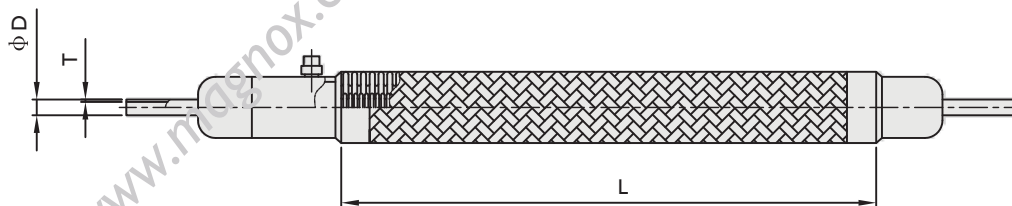
### Specifications

Material	Inner hose SUS316L
	Outer hose SUS304
Working pressure MAX	1.0 MPa
Working temperature	MIN -200℃
Allowable leak rate	$1.33 \times 10^{-10}$ Pa · m <sup>3</sup> /sec or less



### Remarks

- ◆ Hoses for working pressure of higher than 1 MPa can be designed and fabricated.
- ◆ Hoses having length not shown in the L column can be fabricated.



### Standard dimensions

Part Number	Tube Size	Dimensions, mm			
		D	T	L	Min. bending radius
66713-0004	1/4"	6.35	1.0	1000~3000	250
66713-0006	3/8"	9.52	1.0	1000~3000	300
66713-0008	1/2"	12.7	1.2	1000~3000	300

## Ultra High Purity Bellows

超高纯波纹管

### Specifications

- ◆ Material: 304&316L stainless steel
- ◆ Pressure Rating:  
1/4":(10-9torr) to 150 psi (10 bar)  
3/8"-1/2":(10-9torr) to 75 psi(5 bar)
- ◆ Temperature Rating:  
70 to 1000°F(20 to 537°C)
- ◆ Hoses for working pressure of higher than 1 MPa can be designed and fabricated.
- ◆ Hoses having length not shown in the L column can be fabricated.



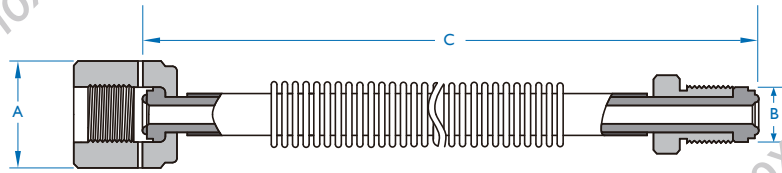
订购信息

### Ordering Information

66707		4SW				8		VF		0300		40		F4	
产品系列		终端接口尺寸		终端接口形式A		终端接口尺寸		终端接口形式B		长度(mm)		材质		内表面处理	
66707	金属软管	4	1/4"	TW	TUBE	4	1/4"	TW	TUBE	XXXX	10	304	BLANK	BA	
66708	外衬编织网软管	6	3/8"	SW	Lok	6	3/8"	SW	Lok		40	316L	F4	EP	
		8	1/2"	VM	Male VCR	8	1/2"	VM	Male VCR		PT	PTFE			
		12	3/4"	VF	Fmale VCR	12	3/4"	VF	Fmale VCR		PA	PFA			
		16	1"	OF	Fmale VCO	16	1"	OF	Fmale VCO						
		6M	6mm	OM	Male VCO	6M	6mm	OM	Male VCO						
		8M	8mm	QF	Quick Fittings	8M	8mm	QF	Quick Fittings						
		10M	10mm	NM	Male NPT	10M	10mm	NM	Male NPT						
		12M	12mm	NF	Fmale NPT	12M	12mm	NF	Fmale NPT						
		20M	20mm	PM	Male PT	20M	20mm	PM	Male PT						
		25M	25mm	PF	Fmale PT	25M	25mm	PF	Fmale PT						
				GM	G螺纹外丝			GM	G螺纹外丝						
				GF	G螺纹内丝			GF	G螺纹内丝						

### 说明

- 1、PTFE及PFA材质只能以带外套编织网形式，且内管为光滑圆管。
- 2、长度为终端至终端的尺寸，表示形式为4位，若总长300mm则表示为0300。
- 3、“选型说明”用于说明型号的组成规则，有些组合实际并不存在：如有疑问，请联系迈格诺科相关销售工程师。



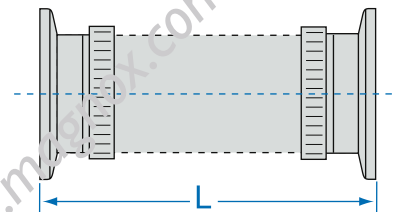
Inlet Type	Dimension, mm		
	A	B	C
Lok-Lok	1/4"Lok	1/4"Lok	OPTION
	3/8"Lok	3/8"Lok	OPTION
	1/2"Lok	1/2"Lok	OPTION
	3/4"Lok	3/4"Lok	OPTION
	1"Lok	1"Lok	OPTION
MVCR-MVCR	1/4"MVCR	1/4"MVCR	OPTION
	3/8"MVCR	3/8"MVCR	OPTION
	1/2"MVCR	1/2"MVCR	OPTION
	3/4"MVCR	3/4"MVCR	OPTION
	1"MVCR	1"MVCR	OPTION
FVCR-FVCR	1/4"FVCR	1/4"FVCR	OPTION
	3/8"FVCR	3/8"FVCR	OPTION
	1/2"FVCR	1/2"FVCR	OPTION
	3/4"FVCR	3/4"FVCR	OPTION
	1"FVCR	1"FVCR	OPTION
FVCR-MVCR	1/4"FVCR	1/4"MVCR	OPTION
	3/8"FVCR	3/8"MVCR	OPTION
	1/2"FVCR	1/2"MVCR	OPTION
	3/4"FVCR	3/4"MVCR	OPTION
	1"FVCR	1"MVCR	OPTION
FVCR-Lok	1/4"FVCR	1/4"Lok	OPTION
	3/8"FVCR	3/8"Lok	OPTION
	1/2"FVCR	1/2"Lok	OPTION
	3/4"FVCR	3/4"Lok	OPTION
	1"FVCR	1"Lok	OPTION
MVCR-Lok	1/4"MVCR	1/4"Lok	OPTION
	3/8"MVCR	3/8"Lok	OPTION
	1/2"MVCR	1/2"Lok	OPTION
	3/4"MVCR	3/4"Lok	OPTION
	1"MVCR	1"Lok	OPTION
TUBE-TUBE	1/4" TUBE	1/4" TUBE	OPTION
	3/8" TUBE	3/8" TUBE	OPTION
	1/2" TUBE	1/2" TUBE	OPTION
	3/4" TUBE	3/4" TUBE	OPTION
	1" TUBE	1" TUBE	OPTION

# PVC Hoses & Teflon Bellows

## PVC Hoses with NW Flanges

Part Number	Flange Size	Dimensions, mm
		L
66714-0016	KF16	100/OPTION
66714-0025	KF25	100/OPTION
66714-0040	KF40	100/OPTION
66714-0050	KF50	100/OPTION

可按照需求定制任意长度。例如，需定制KF25 L=750mm, 订购号为66714-0025-0750



## Teflon Bellows with NW Flanges

Part Number	Flange Size	Dimensions, mm
		L
66709-0016	KF16	100/OPTION
66709-0025	KF25	100/OPTION
66709-0040	KF40	100/OPTION
66709-0050	KF50	100/OPTION

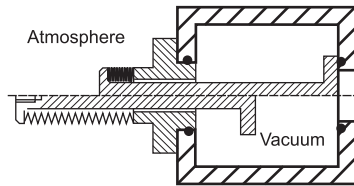
可按照需求定制任意长度。例如，需定制KF25 L=750mm, 订购号为66709-0025-0750



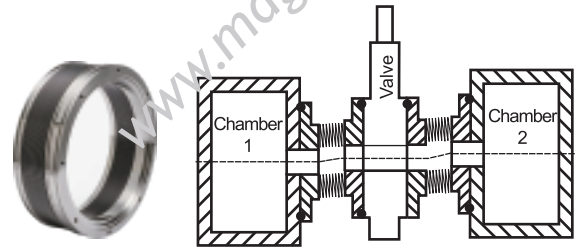
## Introduction To Welded Metal Bellows

### 金属焊接波纹管介绍

Welded metal bellows are flexible connecting elements between vacuum flanges or end fittings of any kind. The welded metal bellow is not a rigid body but can overcome a specified working stroke. Three main fields of application can be identified: as feedthrough, as expansion joint or as vibration isolator.



welded metal bellows can serve as feedthroughs to introduce movements into the vacuum or to separate the vacuum chamber from mechanical parts.



welded metal bellows can serve as compensators to balance thermal expansion and mounting tolerances (e.g. height differences or angular offsets).



welded metal bellows are often used for vibration decoupling, e.g., between vacuum pump and measuring instrument. A special design of the compensator causes a better vibration isolation by an increased number of diaphragm pairs, but enlarges the risk of self-resonance.

## Advantages Of Welded Metal Bellows

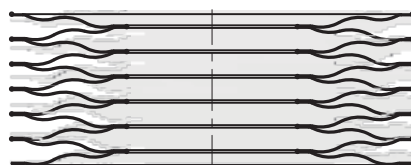
### 金属焊接波纹管的优点

- ◆ High flexibility
- ◆ Lowest assembly dimension
- ◆ For highest demands in UHV applications
- ◆ Lower spring forces
- ◆ Variable web width (OD-ID)
- ◆ Almost unlimited bellow length
- ◆ Non-circular shapes available (racetrack, rectangular)

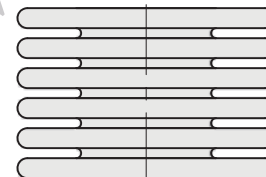
## Comparison Of Welded Metal Bellows And Flexible Hoses

### 金属焊接波纹管与柔性软管比较

In comparison to flexible hoses which are made of a thin-walled, partly bead welded and hydraulically formed tube, welded metal bellows can execute significantly larger lateral, axial, and angular motions in relation to their size. They also have a lower spring rate.



welded metal bellows



Flexible hose