

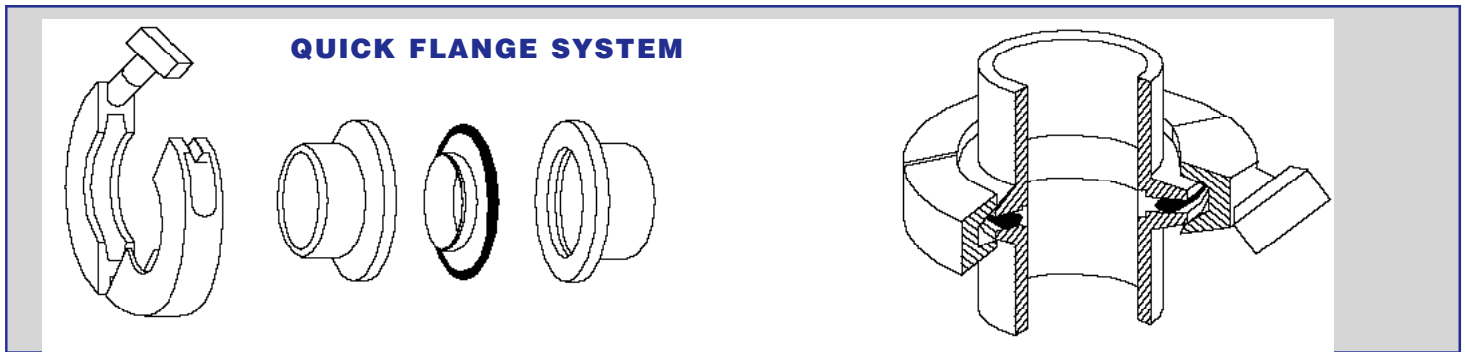
(QF) QUICK FLANGE COMPONENTS

(ASA) FLANGES

(LF) LARGE FLANGE COMPONENTS

(CF) CONFLAT FLANGES

INTRODUCTION



Quick Flange Components

ISA's components (a flange system designed in accordance with ISO- International Standard Organization-standard 2861/1) are an economical, convenient and simplified means of constructing custom vacuum systems. Essentially, this flange system consists of two identical, 360° rotatable flanges, a centering ring which supports an elastomer "O" ring and a quick acting clamp which compresses the sealing ring between the two flanges.

All manufacturers of ISO components, regardless of how they are designated (KF, NW QF, Pneurop, etc.), machine these components to measurements determined by these standards, and as such, are interchangeable. Essentially, the user of ISO components when determining a source should primarily consider the ready availability of product, quality and service.

Features of ISO-QF Components

- Flanges are sexless, infinitely rotatable, self-centering, and most important, available in a multitude of configurations offering the user the choice of either butt welding or internal welding.
- Components are interchangeable with all assemblies made to standard ISO measurements.
- Centering rings are available in 304 stainless steel, brass or aluminum with Viton®, Buna or Silicone "O" rings.
- ISO QF components are made to exacting standards on computer controlled turning lathes. Tolerances and surface finishes are unsurpassed in the industry. Each component is individually inspected to insure that no scratch or other defect exists. Every component is then

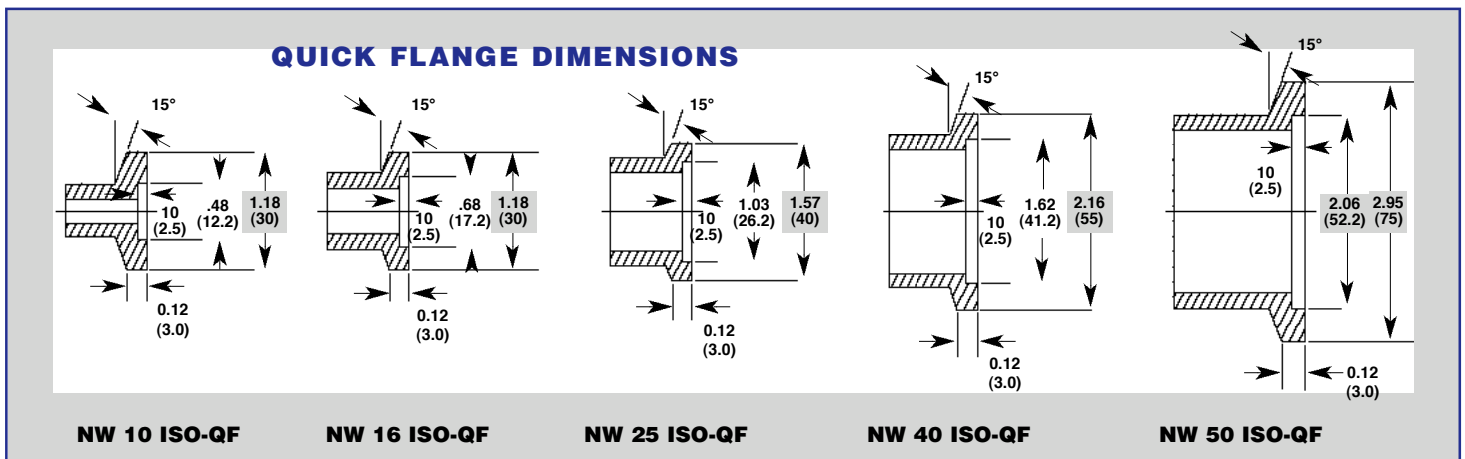
completely cleaned, skin packaged and shipped ready for use in any application.

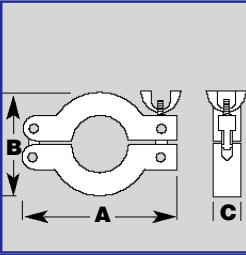
- Every welded assembly is helium leak checked and certified to have a leak rate of less than 1x10⁻⁹ std. cc/sec.
- Custom configurations are available and made to the same exacting requirements as standard components.
Call our engineering staff to discuss your special needs.
- CLAMPS - ISA offers a variety of ISO clamps. CNC machined clamps are available in aluminum and stainless steel as well as ISO standard die-cast aluminum clamps, and bulkhead clamps. Please see page 3 and 4 for additional information.

Dimensions

ISA offers all ISO configurations in the following sizes; QF10, 16, 25, 40, and 50. The QF10 and 16 sizes are used typically with 1/2" and 3/4" tubing and both utilize the same size clamp. The QF25 is normally used with 1" O.D. tubing, the QF40 with 1-11/2" O.D. tubing and QF50 with 2" O.D. tubing. Our numbering system reflects this situation. Where obsolete 20 and 32 size flanges are encountered, our adaptive centering rings will enable the user to interface with these sizes.

Important dimensional information for various configurations are contained in the following pages of this catalogue. For each of these configurations, however, the flange itself is always the same. For that reason we do not repeat this information in each instance, but show it here as applicable for all components.

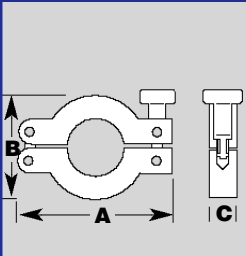




- Industry standard die-cast aluminum clamp

WING-NUT ALUMINUM CLAMP

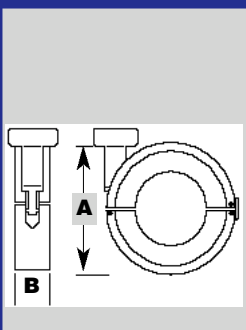
PART NUMBER	TUBE SIZE	A	B	C	UNIT PRICE
QF16-075-CW	1/2" & 3/4"	2.45	1.67	.65	Call
QF25-100-CW	1"	2.86	2.16	.65	Call
QF40-150-CW	1 1/2"	3.53	2.73	.65	Call
QF50-200-CW	2"	4.80	3.70	.90	Call



- Industry standard die-cast aluminum clamp
- "T" knob for easier closure

"T" KNOB ALUMINUM CLAMP

PART NUMBER	TUBE SIZE	A	B	C	UNIT PRICE
QF16-075-CT	1/2" & 3/4"	2.45	1.67	.65	Call
QF25-100-CT	1"	2.86	2.16	.65	Call
QF40-150-CT	1 1/2"	3.53	2.73	.65	Call
QF50-200-CT	2"	4.80	3.70	.90	Call

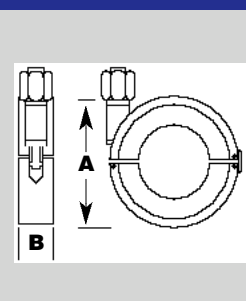


- CNC machined from aluminum bar for extra strength and durability
- Stainless steel pins & stud
- Integral handle lock to prevent accidental opening

CNC ALUMINUM CLAMP

PART NUMBER	TUBE SIZE	A	B	MAX PSI	UNIT PRICE
QF16-075-C	1/2" & 3/4"	1.94	.63	300	Call
QF25-100-C	1"	2.45	.63	250	Call
QF40-150-C	1 1/2"	2.94	.63	220	Call
QF50-200-C	2"	3.94	.63		Call

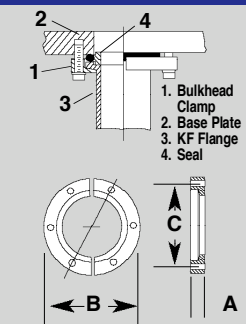
ELIMINATES THE NEED FOR OVER PRESSURE RINGS FOR SIZES QF16, QF25, AND QF40.



- CNC machined from stainless steel bar
- For use on ultra high vacuum or corrosive applications

CNC STAINLESS STEEL CLAMP

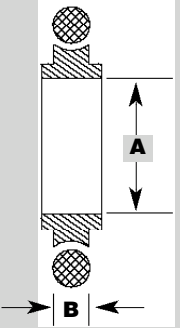
PART NUMBER	TUBE SIZE	A	B	UNIT PRICE
QF16-075-CS	1/2" & 3/4"	1.94	.63	Call
QF25-100-CS	1"	2.45	.63	Call
QF40-150-CS	1 1/2"	2.94	.63	Call
QF50-200-CS	2"	3.94	.63	Call



- Aluminum
- Stainless steel bolts and washers included (10-32x5/8)
- Adapts to a baseplate or fixed flange
- Standard QF seal assembly

BULKHEAD CLAMP

PART NUMBER	# OF BOLTS	A	B	C	UNIT PRICE
QF16-075-BC	6	.36	2.00	1.50	Call
QF25-100-BC	6	.39	2.38	1.89	Call
QF40-150-BC	6	.37	2.94	2.44	Call
QF50-200-BC	8	.40	3.75	3.25	Call

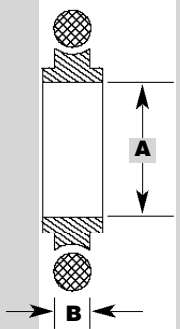


- 304 Stainless steel
- Replaceable "O" ring
- Buna-N - 100° C max.
- Viton - 200° C max.
- Silicone - 200° C max. chemically resistant

CENTERING RING ASSEMBLY 304 STAINLESS STEEL

PART NUMBER	BUNA N/ SILICONE/VITON	A	B	UNIT PRICE		
				BUNA N	SILICONE	VITON
QF10-050-SR-	B, S, or V	.39	.21	Call	Call	Call
QF16-075-SR-	B, S, or V	.63	.21	Call	Call	Call
QF25-100-SR-	B, S, or V	.98	.21	Call	Call	Call
QF40-150-SR-	B, S, or V	1.53	.21	Call	Call	Call
QF50-200-SR-	B, S, or V	1.97	.21	Call	Call	Call

* Be sure to add B, S or V to part number

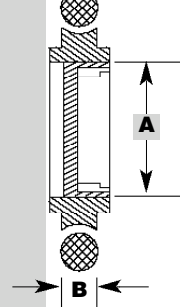


- Aluminum
- Replaceable "O" ring
- Buna-N - 100° C max.
- Viton - 200° C max.
- Silicone - 200° C max. chemically resistant

CENTERING RING ASSEMBLY ALUMINUM & BRASS

PART NUMBER	BUNA N/ SILICONE/VITON	A	B	UNIT PRICE		
				BUNA N	SILICONE	VITON
QF10-050-AR-	B, S, or V	.39	.21	Call	Call	Call
QF16-075-AR-	B, S, or V	.63	.21	Call	Call	Call
QF25-100-AR-	B, S, or V	.98	.21	Call	Call	Call
QF40-150-AR-	B, S, or V	1.53	.21	Call	Call	Call
QF50-200-AR-	B, S, or V	1.97	.21	Call	Call	Call

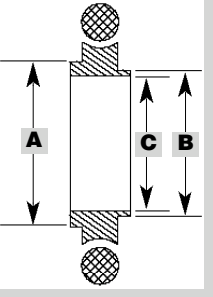
* Be sure to add B, S or V to part number * Brass also available



- 304 Stainless steel
- Replaceable Viton "O" ring
- 72 mesh screen stainless steel
- Other screen sizes available

CENTERING RING ASSEMBLY 304 STAINLESS STEEL WITH SCREEN

PART NUMBER	A	B	UNIT PRICE
QF10-SRV-SM	.31	.21	Call
QF16-SRV-SM	.50	.21	Call
QF25-SRV-SM	.86	.21	Call
QF40-SRV-SM	1.45	.21	Call
QF50-SRV-SM	1.88	.21	Call

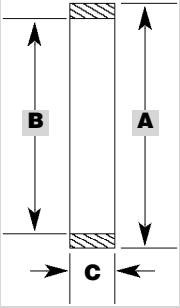


- 304 Stainless steel
- Replaceable "O" ring
- Buna-N - 100° C max.
- Viton - 200° C max.
- Silicone - 200° C max. chemically resistant
- Connects obsolete bore sizes to std. ISO-KF

ADAPTIVE CENTERING RING ASSEMBLY ALUMINUM & 304 STAINLESS STEEL

PART NUMBER	BUNA N/ SILICONE/VITON	A	B	C	UNIT PRICE		
					BUNA N	SILICONE	VITON
QF10-16-ASR-	B,S, or V	.67	.47	.39	Call	Call	Call
QF20-25-ASR-	B,S, or V	1.02	.87	.81	Call	Call	Call
QF32-40-ASR-	B,S, or V	1.61	1.34	1.26	Call	Call	Call

* Be sure to add SS (stainless steel) or AL (aluminum) along with B, S, or V - to indicate O-ring

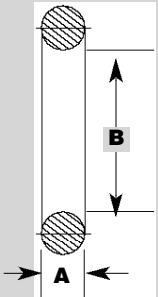


- Use for "O"ring retention when operating at internal pressures exceeding atmospheric pressure
- 304 Stainless steel

OVER PRESSURE RING 304 STAINLESS STEEL

PART NUMBER	A	B	C	MAX. PSIG	UNIT PRICE
QF10-050-OPR	1.25	1.09	.14	100	Call
QF16-075-OPR*	1.25	1.19	.35	100	Call
QF25-100-OPR*	1.66	1.58	.35	100	Call
QF40-150-OPR*	2.25	2.17	.35	75	Call
QF50-200-OPR	2.75	2.62	.15	50	Call

*Over pressure rings not needed with CNC clamp for sizes QF16, QF25, and QF40.

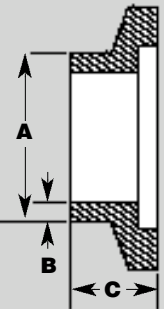


- Replaceable seal for centering ring
- Standard inch O-ring sizes 200° C max.

REPLACEMENT O-RING BUNA N, SILICONE, VITON

PART NUMBER	VITON, SILICONE, BUNA	A	B	UNIT PRICE		
				Buna-N	Silicone	Viton
QF10-050-	OV, OS, OB	.21	.60	Call	Call	Call
QF16-075-	OV, OS, OB	.21	.73	Call	Call	Call
QF25-100-	OV, OS, OB	.21	1.10	Call	Call	Call
QF40-150-	OV, OS, OB	.21	1.60	Call	Call	Call
QF50-200-	OV, OS, OB	.21	2.10	Call	Call	Call

* Be sure to add OV(viton), OS(silicone), OB(buna n), to part number

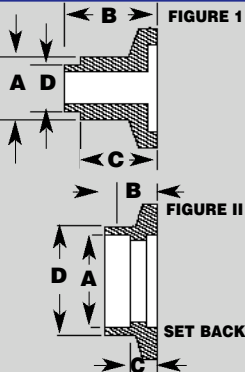


- 304 Stainless steel
- 6061-T6 Aluminum
- Butt weld
- Standard inch tube diameters

SHORT WELD STUB FLANGE STAINLESS STEEL OR ALUMINUM

PART NUMBER	STAINLESS STEEL OR ALUMINUM	TUBE SIZE	A	B	C	UNIT PRICE	
						Stainless Steel	Aluminum
QF10-050-	SS,AS	1/2"	.50	.07	.50	Call	Call
QF16-050-	SS,AS	1/2"	.50	.07	.50	Call	Call
QF16-075-	SS,AS	3/4"	.75	.07	.50	Call	Call
QF25-100-	SS,AS	1"	1.00	.07	.50	Call	Call
QF40-150-	SS,AS	1 1/2"	1.50	.07	.75	Call	Call
QF50-200-	SS,AS	2"	2.00	.07	.75	Call	Call

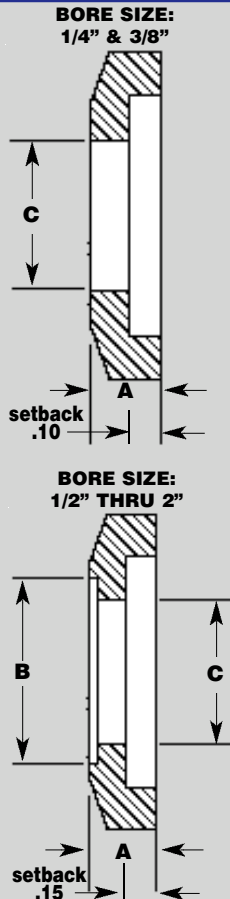
* Be sure to add SS (stainless steel) or AS (aluminum) to part number



- 304 Stainless steel
- Internal weld
- Self-aligning
- Accepts standard tubing

SHORT WELD FLANGE 304 STAINLESS STEEL

PART NUMBER	FIGURE	TUBE SIZE	A	B	SET BACK		UNIT PRICE
					C	D	
QF10-050-SF	I	1/2"x.04	.50	.56	.50	.42	Call
QF16-050-SF	I	1/2"x.04	.50	.56	.50	.42	Call
QF16-075-SF	I	3/4"x.04	.75	.56	.50	.67	Call
QF25-100-SF	II	1"	1.01	.50	.17	1.13	Call
QF40-150-SF	II	1 1/2"	1.51	.50	.21	1.75	Call
QF50-200-SF	II	2"	2.01	.62	.23	2.25	Call



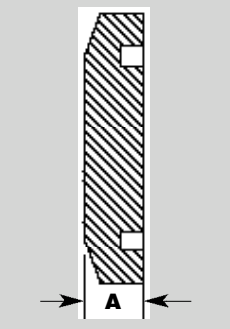
BORE SIZE:
1/4" & 3/8"

BORE SIZE:
1/2" THRU 2"

- 304 Stainless steel
- Standard inch tube O.D.'s

BORED WELD FLANGE 304 STAINLESS STEEL

PART NUMBER	BORE SIZE	A	B	C	UNIT PRICE
QF10-B25	1/4"	.20		.26	Call
QF10-B38	3/8"	.20		.38	Call
QF10-B50	1/2"	.20	.51	.45	Call
QF16-B25	1/4"	.20		.26	Call
QF16-B38	3/8"	.20		.38	Call
QF16-B50	1/2"	.20	.51	.45	Call
QF16-B75	3/4"	.20	.76	.68	Call
QF25-B25	1/4"	.20		.26	Call
QF25-B38	3/8"	.20		.38	Call
QF25-B50	1/2"	.20	.51	.45	Call
QF25-B75	3/4"	.20	.76	.71	Call
QF25-B100	1"	.20	1.01	.94	Call
QF40-B25	1/4"	.20		.26	Call
QF40-B38	3/8"	.20		.38	Call
QF40-B50	1/2"	.20	.51	.45	Call
QF40-B75	3/4"	.20	.76	.71	Call
QF40-B100	1"	.20	1.01	.94	Call
QF40-B150	1 1/2"	.20	1.51	1.44	Call
QF50-B25	1/4"	.20		.26	Call
QF50-B38	3/8"	.20		.38	Call
QF50-B50	1/2"	.20	.51	.45	Call
QF50-B75	3/4"	.20	.76	.71	Call
QF50-B100	1"	.20	1.01	.94	Call
QF50-B150	1 1/2"	.20	1.51	1.44	Call
QF50-B200	2"	.20	2.01	1.94	Call

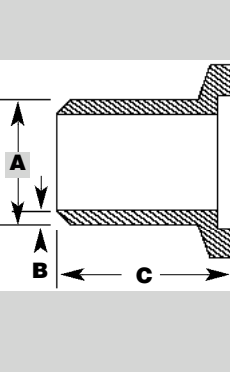


- 304 Stainless steel
- Brass
- 6061 T6 Aluminum
- Not recommended for welding but may be modified (use unbored stub)
- To close off unused ports

BLANK FLANGES STAINLESS STEEL, BRASS, OR ALUMINUM

PART NUMBER	STAINLESS STEEL, BRASS, OR ALUMINUM	A	UNIT PRICE		
			Stainless Steel	Brass	Aluminum
QF10-050-	SB, BB, AB	.20	Call	Call	Call
QF16-075-	SB, BB, AB	.20	Call	Call	Call
QF25-100-	SB, BB, AB	.20	Call	Call	Call
QF40-150-	SB, BB, AB	.20	Call	Call	Call
QF50-200-	SB, BB, AB	.20	Call	Call	Call

* Be sure to add SB (stainless steel), BB (Brass), or AB (aluminum) to part number

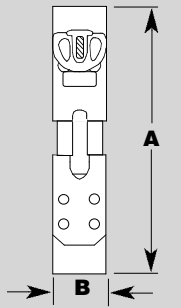


- 304 Stainless steel
- 6061-T6 Aluminum
- Usable as half nipple
- Butt weld
- Standard inch tube diameters

LONG BUTT FLANGE STAINLESS STEEL OR ALUMINUM

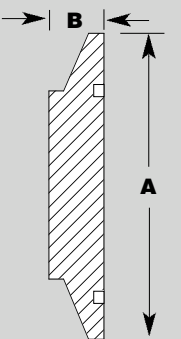
PART NUMBER	STAINLESS STEEL OR ALUMINUM	TUBE SIZE	A	B	C	UNIT PRICE	
						Stainless Steel	Aluminum
QF10-050-	LF, ALF	1/2"	.50	.07	1.58	Call	Call
QF16-050-	LF, ALF	1/2"	.50	.07	1.58	Call	Call
QF16-075-	LF, ALF	3/4"	.75	.07	1.58	Call	Call
QF25-100-	LF, ALF	1"	1.00	.07	1.58	Call	Call
QF40-150-	LF, ALF	1 1/2"	1.50	.07	1.58	Call	Call
QF50-200-	LF, ALF	2"	2.00	.07	1.58	Call	Call

* Be sure to add LF (stainless steel) or ALF (aluminum) to part number



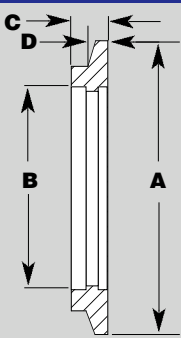
- 304 stainless steel
- Use with Clamp Flange Flanges (only) this page

CLAMP FLANGE CLAMPS 304 STAINLESS STEEL			
PART NUMBER	A	B	UNIT PRICE
QF63-250-CW	3.90	.93	Call
QF80-300-CW	4.75	.93	Call
QF100-400-CW	5.38	.93	Call
QF160-600-CW	7.25	.93	Call
QF200-800-CW	9.56	.93	Call



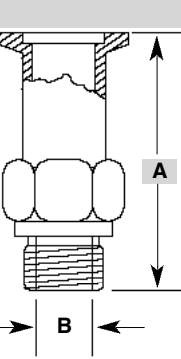
- 304 Stainless Steel

CLAMP FLANGE BLANK FLANGE 304 STAINLESS STEEL			
PART NUMBER	FLANGE O.D. A	B	UNIT PRICE
QF63-250-SB	3.740	.470	Call
QF80-300-SB	4.330	.470	Call
QF100-400-SB	5.120	.470	Call
QF160-600-SB	7.090	.470	Call
QF200-800-SB	9.450	.470	Call



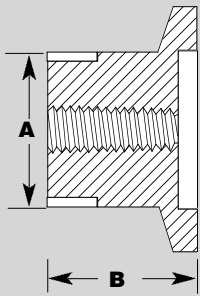
- 304 Stainless Steel

CLAMP FLANGE WELD FLANGE 304 STAINLESS STEEL					
PART NUMBER	FLANGE O.D.				UNIT PRICE
	A	B	C	D	
QF63-250-SF	3.740	2.510	.472	.25	Call
QF80-300-SF	4.330	3.010	.472	.25	Call
QF100-400-SF	5.120	4.010	.472	.25	Call
QF160-600-SF	7.090	6.02	.472	.25	Call
QF200-800-SF	9.450	8.02	.472	.25	Call



- Replace inlet-hose connector
- Stainless steel
- Includes metal gasket

WELCH PUMP ADAPTOR 304 STAINLESS STEEL				
PART NUMBER	FOR USE WITH WELCH PUMP NO.	A	B	UNIT PRICE
QF16-075-WP1	1399, 1400, 1410	1.77	.45	Call
QF16-075-WP2	1405	2.56	.56	Call
QF25-100-WP1	1380, 1402, 1403 8806, 8811, 8816 8821	2.76	.75	Call
QF40-150-WP1	1373, 1376, 8831	2.56	1.13	Call
QF40-150-WP2	1374, 1397, 8851	2.56	1.38	Call

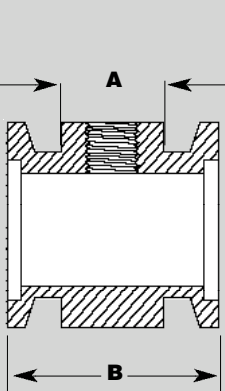


- 304 Stainless steel
- Brass
- 6061 T6 Aluminum
- 1/8" & 1/4" NPT female thread
- Fits most thermocouple gauges
- Use with teflon tape

FLANGE ADAPTOR TO 1/8" & 1/4" NPT STAINLESS STEEL, BRASS, OR ALUMINUM

PART NUMBER	A	B	UNIT PRICE		
			Stainless Steel	Brass	Aluminum
QF10-050-	.62	.75	Call	Call	Call
QF16-075-	.62	.75	Call	Call	Call
QF25-100-	.88	.75	Call	Call	Call
QF40-150-	1.25	1.00	Call	Call	Call
QF50-200-	1.75	1.00	Call	Call	Call

* Be sure to add SP (stainless steel), BP (Brass), or AP(aluminum) to part number
* Specify 1/8" NPT or 1/4" NPT when ordering

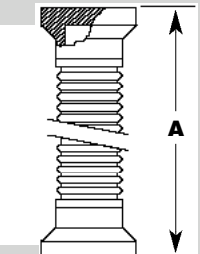


- 304 Stainless steel
- 6061 T6 Aluminum
- Tapped to female NPT
- Special tapped hole on request
- Use with teflon tape

ADAPTIVE TEE TO FEMALE 1/8" & 1/4" NPT STAINLESS STEEL OR ALUMINUM

PART NUMBER	STAINLESS STEEL OR ALUMINUM	A	B	UNIT PRICE	
				Stainless Steel	Aluminum
QF16x1/8NPT-	ST, AT	.76	1.57	Call	Call
QF16x1/4NPT-	ST, AT	.76	1.57	Call	Call
QF25x1/8NPT-	ST, AT	.76	1.57	Call	Call
QF25x1/4NPT-	ST, AT	.76	1.57	Call	Call
QF40x1/8NPT-	ST, AT	.76	1.57	Call	Call
QF40x1/4NPT-	ST, AT	.76	1.57	Call	Call
QF50x1/8NPT-	ST, AT	.76	1.57	Call	Call
QF50x1/4NPT-	ST, AT	.76	1.57	Call	Call

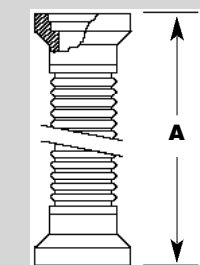
* Be sure to add ST (stainless steel) or AT (aluminum) to end of part number.
* Specify 1/8" NPT or 1/4" NPT when ordering



- Special lengths to order

QF TO STAINLESS BELLOWS

PART NUMBER	HOSE I.D.	WALL	FREE A	SPRING RATE	STATIC BEND	UNIT PRICE
QF16-075-F	5/8"	.006"	4.0"	46 LBS/IN.	1"	Call
QF25-100-F	1"	.006"	4.0"	32 LBS/IN.	1.4"	Call
QF40-150-F	1 1/2"	.006"	4.0"	81 LBS/IN.	2.36"	Call
QF50-200-F	2"	.006"	4.0"	77 LBS/IN.	2.5"	Call

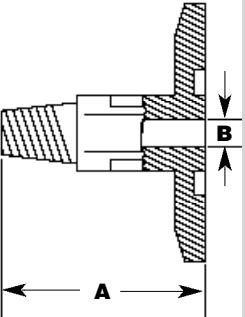


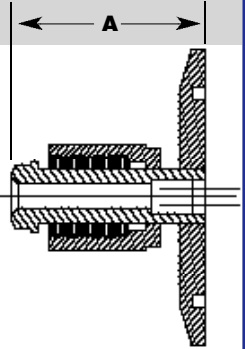
- Helium leak checked
- Special lengths to order
- Thick wall available
- Custom length

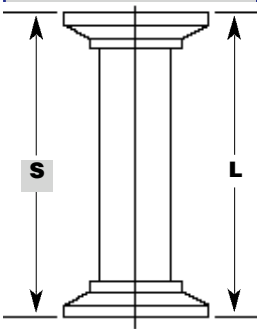
QF TO FLEXIBLE METAL HOSE 10", 20", 40" LENGTH - THIN WALL

PART NUMBER	HOSE I.D.	WALL	SPRING RATE	STATIC BEND	10" UNIT PRICE	20" UNIT PRICE	40" UNIT PRICE
QF16-075-MH	5/8"	.006"	3 LBS./IN.	1"	Call	Call	Call
QF25-100-MH	1"	.006"	2 LBS./IN.	1.4"	Call	Call	Call
QF40-150-MH	1 1/2"	.006"	4 LBS./IN.	2.36"	Call	Call	Call
QF50-200-MH	2"	.006"	4 LBS./IN.	2.5"	Call	Call	Call

* Be sure to add the number 10, 20, or 40 to end of part number

		QF TO MALE PIPE ADAPTOR 304 STAINLESS STEEL			
	<ul style="list-style-type: none"> ● Stubs have male 1/8" to 1" NPT threads ● 304 Stainless steel ● Slabbed to accept wrench ● Teflon tape recommended to seal thread ● Larger sizes available on request 	PART NUMBER	A	B	UNIT PRICE
				QF16x12NPT	1.57
		QF16x25NPT	1.97	.36	Call
		QF25x12NPT	1.57	.26	Call
		QF25x25NPT	1.97	.36	Call
		QF25x50NPT	2.95	.63	Call
		QF25x75NPT	2.95	.83	Call
		QF25x100NPT	1.30	1.05	Call
		QF40x12NPT	1.57	.26	Call
		QF40x25NPT	1.97	.36	Call
		QF40x50NPT	2.95	.63	Call
		QF40x75NPT	2.95	.83	Call
		QF40x100NPT	2.95	1.05	Call
		QF40x125NPT	2.95	1.33	Call
		QF40x150NPT	3.25	1.60	Call
		QF50x12NPT	1.57	.26	Call
		QF50x25NPT	1.97	.36	Call
		QF50x50NPT	2.95	.63	Call
		QF50x75NPT	2.95	.83	Call
		QF50x100NPT	2.95	1.05	Call
		QF50x125NPT	3.12	1.33	Call
		QF50x150NPT	3.12	1.60	Call

		QF TO FEMALE VCR®				
	<ul style="list-style-type: none"> ● QF to female VCR® ● 304 Stainless steel <p>Also Available</p> <ul style="list-style-type: none"> ● Male VCR® ● Swagelock® ● Male & female YCO® 	PART NUMBER	TUBE O.D.	FLANGE TYPE	A	UNIT PRICE
				QF16x12VCR	1/8"	QF16
	QF16x25VCR		1/4"	QF16	1.36	Call
	QF16x38VCR		3/8"	QF16	1.65	Call
	QF16x50VCR		1/2"	QF16	1.65	Call
	QF25x12VCR		1/8"	QF25	.85	Call
	QF25x25VCR		1/4"	QF25	1.36	Call
	QF25x38VCR		3/8"	QF25	1.55	Call
	QF25x50VCR		1/2"	QF25	1.55	Call
	QF25x75VCR		3/4"	QF25	2.15	Call
	QF25x100VCR		1"	QF25	2.27	Call
	QF40x12VCR		1/8"	QF40	.85	Call
	QF40x25VCR		1/4"	QF40	1.36	Call
	QF40x38VCR		3/8"	QF40	1.55	Call
	QF40x50VCR		1/2"	QF40	1.55	Call
	QF40x75VCR		3/4"	QF40	2.05	Call
	QF40x100VCR		1"	QF40	2.27	Call
	QF50x12VCR		1/8"	QF50	.85	Call
	QF50x25VCR		1/4"	QF50	1.36	Call
	QF50x38VCR		3/8"	QF50	1.55	Call
	QF50x50VCR		1/2"	QF50	1.55	Call
	QF50x75VCR	3/4"	QF50	2.05	Call	
	QF50x100VCR	1"	QF50	2.26	Call	



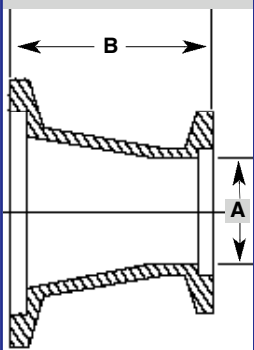
- Special lengths to order

QF NIPPLES

304 STAINLESS STEEL OR 6061 ALUMINUM

PART NUMBER			UNIT PRICE
	S	L	
QF16-075-NS	3.15		Call
QF16-075-NL		12.60	Call
QF25-100-NS	3.94		Call
QF25-100-NL		12.60	Call
QF40-150-NS	5.12		Call
QF40-150-NL		12.60	Call
QF50-200-NS	5.51		Call
QF50-200-NL		12.60	Call

FOR ALUMINUM ADD - A TO PART NUMBER



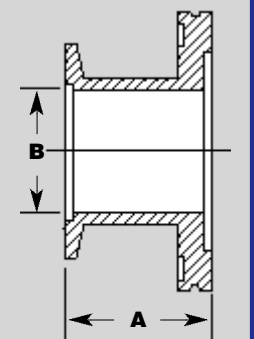
- Mates differing ISO-QF sizes
- Made from solid bar - no welds
- 6061 T6 aluminum

CONICAL QF TO QF REDUCERS

STAINLESS STEEL OR ALUMINUM

PART NUMBER	STAINLESS STEEL OR ALUMINUM	A	B	UNIT PRICE	
				Stainless Steel	Aluminum
QF25x16-	CR, ACR	.62	1.57	Call	Call
QF40x16-	CR, ACR	.62	1.57	Call	Call
QF40x25-	CR, ACR	.87	1.57	Call	Call
QF50x16-	CR, ACR	.62	1.57	Call	Call
QF50x25-	CR, ACR	.87	1.57	Call	Call
QF50x40-	CR, ACR	1.37	1.57	Call	Call

* Be sure to add CR (stainless steel) or ACR (aluminum) to part number



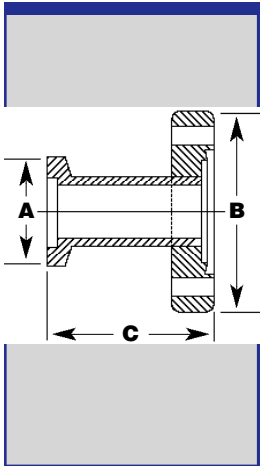
- Other size combinations available

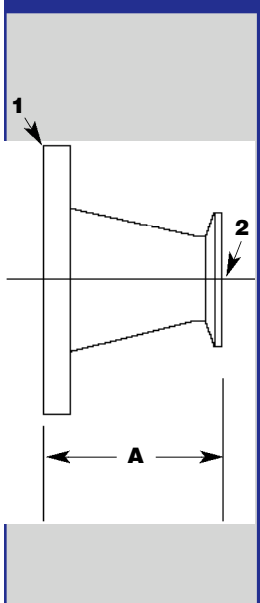
LF to QF REDUCERS

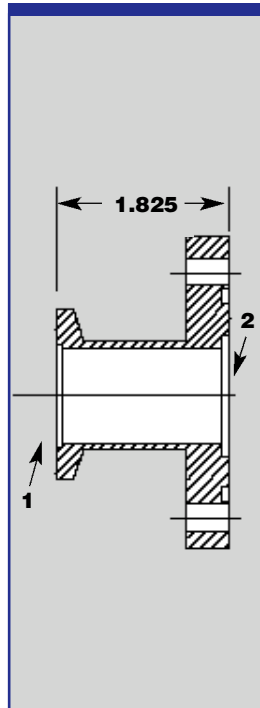
304 STAINLESS STEEL OR 6061 ALUMINUM

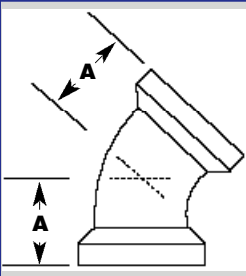
PART NUMBER			UNIT PRICE
	A	B	
QF40xLF63	1.83	1.375	Call
QF50xLF63	1.83	1.875	Call
QF40xLF80	1.83	1.375	Call
QF50xLF80	1.83	1.875	Call
QF40xLF100	1.83	1.375	Call
QF50xLF100	1.83	1.875	Call

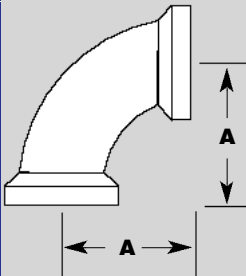
FOR ALUMINUM ADD - A TO PART NUMBER

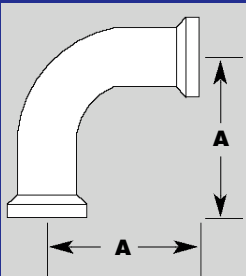
 <ul style="list-style-type: none"> Other combinations available 	QF TO CF FLANGE ADAPTOR					
	PART NUMBER	TUBE O.D.	FLANGE			UNIT PRICE
			A	B	C	
QF10x133	.50	1.18	1.33	1.75	Call	
QF16x133	.75	1.18	1.33	1.75	Call	
QF16x275	.75	1.18	2.75	1.78	Call	
QF25x212	1.00	1.57	2.12	1.78	Call	
QF25x275	1.00	1.57	2.75	1.78	Call	
QF40x275	1.50	2.16	2.75	1.78	Call	
QF40x338	1.50	2.16	3.38	1.80	Call	
QF50x133	.75	2.95	1.33	1.95	Call	
QF50x275	1.50	2.95	2.75	1.95	Call	
QF50x338	2.00	2.95	3.38	1.95	Call	
QF50x450	2.00	2.95	4.50	1.95	Call	

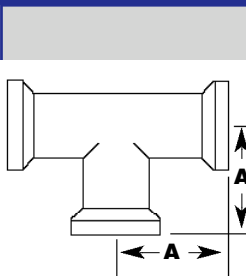
 <ul style="list-style-type: none"> Other combinations available 	QF TO CF CONICAL ADAPTOR NIPPLES					
	PART NUMBER	FLANGE 1		FLANGE 2		UNIT PRICE
	TYPE	TUBE O.D.	TYPE	TUBE O.D.	A	
133xQF25-CR	1.33	.75	QF25	1.00	2.03	Call
133xQF40-CR	1.33	.75	QF40	1.50	3.03	Call
212xQF16-CR	2.12	1.00	QF16	.75	1.69	Call
212xQF40-CR	2.12	1.00	QF40	1.50	2.69	Call
212xQF50-CR	2.12	1.00	QF50	2.00	2.69	Call
275xQF16-CR	2.75	1.50	QF16	.75	2.73	Call
275xQF25-CR	2.75	1.50	QF25	1.00	2.73	Call
275xQF50-CR	2.75	1.50	QF50	2.00	2.73	Call
338xQF25-CR	3.38	2.00	QF25	1.00	2.75	Call
338xQF40-CR	3.38	2.00	QF40	1.50	2.75	Call
450xQF40-CR	4.50	2.50	QF40	1.50	2.90	Call
450xQF50-CR	4.50	2.50	QF50	2.00	2.90	Call
462xQF40-CR	4.62	3.00	QF40	1.50	4.06	Call
462xQF50-CR	4.62	3.00	QF50	2.00	4.06	Call
600xQF50-CR	6.00	4.00	QF50	2.00	4.21	Call

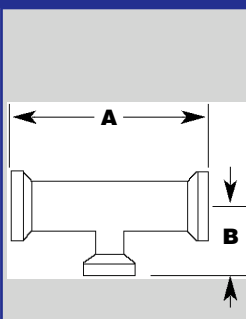
 <ul style="list-style-type: none"> Add G to part # if an O-Ring groove is needed Other flange combinations and lengths available on request 	QF TO ASA ADAPTOR NIPPLES					
	PART NUMBER	FLANGE STYLE		TUBE OD	PRICE	O-RING GROOVE
	1	2				
QF16x100ASA	QF16	100ASA	.75	Call	Call	
QF16x150ASA	QF16	150ASA	.75	Call	Call	
QF16x200ASA	QF16	200ASA	.75	Call	Call	
QF16x300ASA	QF16	300ASA	.75	Call	Call	
QF16x400ASA	QF16	400ASA	.75	Call	Call	
QF16x600ASA	QF16	600ASA	.75	Call	Call	
QF25x200ASA	QF25	200ASA	1.00	Call	Call	
QF25x300ASA	QF25	300ASA	1.00	Call	Call	
QF25x400ASA	QF25	400ASA	1.00	Call	Call	
QF25x600ASA	QF25	600ASA	1.00	Call	Call	
QF40x150ASA	QF40	150ASA	1.50	Call	Call	
QF40x200ASA	QF40	200ASA	1.50	Call	Call	
QF40x300ASA	QF40	300ASA	1.50	call	Call	
QF40x400ASA	QF40	400ASA	1.50	call	Call	
QF40x600ASA	QF40	600ASA	1.50	Call	Call	
QF50x150ASA	QF50	150ASA	2.00	Call	Call	
QF50x200ASA	QF50	200ASA	2.00	Call	Call	
QF50x300ASA	QF50	300ASA	2.00	Call	Call	
QF50x400ASA	QF50	400ASA	2.00	Call	Call	
QF50x600ASA	QF50	600ASA	2.00	Call	Call	

 <ul style="list-style-type: none"> ● 304 Stainless steel ● Other center-line dimensions available 	45° ELBOW		
	PART NUMBER	A	UNIT PRICE
	QF16-075-E45	.91	Call
	QF25-100-E45	1.12	Call
	QF40-150-E45	1.68	Call
	QF50-200-E45	1.99	Call

 <ul style="list-style-type: none"> ● 304 Stainless steel ● Other center-line dimensions available 	90° ELBOW		
	PART NUMBER	A	UNIT PRICE
	QF16-075-E90	1.57	Call
	QF25-100-E90	1.97	Call
	QF40-150-E90	2.56	Call
	QF50-200-E90	3.17	Call

 <ul style="list-style-type: none"> ● 304 Stainless steel ● Other sizes & centerline dimensions available 	90° ELBOW - LONG RADIUS		
	PART NUMBER	A	UNIT PRICE
	QF16-075-E90-LR	2.70	Call
	QF25-100-E90-LR	3.64	Call
	QF40-150-E90-LR	5.12	Call
	QF50-200-E90-LR	5.52	Call

 <ul style="list-style-type: none"> ● Other center-line dimensions available 	QF TEES 304 STAINLESS STEEL OR 6061 ALUMINUM		
	PART NUMBER	A	UNIT PRICE
	QF16-075-T	1.57	Call
	QF25-100-T	1.97	Call
	QF40-150-T	2.56	Call
	QF50-200-T	2.76	Call
FOR ALUMINUM ADD - A TO PART NUMBER			

 <ul style="list-style-type: none"> ● Other center-line dimensions available ● Other reductions available 	QF REDUCING TEES 304 STAINLESS STEEL OR 6061 ALUMINUM			
	PART NUMBER	A	B	UNIT PRICE
	QF25x16-T	3.94	1.70	Call
	QF40x16-T	5.12	1.95	Call
	QF40x25-T	5.12	2.22	Call
	QF50x16-T	5.51	2.20	Call
	QF50x25-T	5.51	2.47	Call
	QF50x40-T	5.51	2.81	Call
FOR ALUMINUM ADD - A TO PART NUMBER				

Also available with LF (ASA) and CF flanges; call for a price comparison.

SALES & TECHNICAL SUPPORT **1-401-454-0188**