

Stainless Steel Flanges & Flange Unions



Stainless Steel Tongue & Groove Flanges and Flange Unions by HANTEMP Controls are intended for use in stainless steel piping systems that require joints for equipment servicing. Designed for compatibility with HANTEMP Regulators, Solenoid Valves, and Ball Valves, the flanges and flange unions are compatible with Parker R/S, Hansen, Henry, York, and Frick sizes. These flanges and flange unions avoid weld joints of ordinary steel flanges to stainless steel.

Flange Union Kits include: 1 male tongue, 1 female groove flange, stainless steel bolts, nuts, lock washers and gasket. **Companion Flange Sets** include: 2 male tongue flanges. Refer to page 3 for dimensions and connections.

THE TREND TO STAINLESS STEEL PIPING FOR INDUSTRIAL REFRIGERATION SYSTEMS

The application of stainless steel is becoming increasingly popular as the best safe, low maintenance piping for industrial refrigeration facilities. Flanges commonly available are either cast iron, which cannot be welded, or forged steel flanges, which can be welded but are highly susceptible to rusting. In addition, the standard location of flanges in the piping system makes them nearly impossible to paint, especially when surfaces are obstructed by rusting steel nuts and bolts. The absence of embrittlement and increased shock resistance with stainless steel at low temperatures improves safety. The general resistance to corrosion for pipes, welds, and valves results in added savings with the elimination of preventive painting, coating, and rust stain dripping. Lighter weight schedule 10 stainless steel piping is often suitable as an alternative to Schedule 40 above 1½" size.

Where ordinary steel piping is used, these flanges can be properly welded with the correct rod.

THREADED FLANGES AVAILABLE

FPT flanges are created using a single-point threading process to ensure a clean, tight connection. Threads can engage to iron, steel, copper, brass, or plastic FPT threaded pipe. HANTEMP recommends applying a coating of grease to threaded stainless steel connections and bolts prior to installation to prevent galling/sticking.

STAINLESS STEEL FLANGES & FLANGE UNIONS

½" TO 3" PIPE SIZES

800 psig SWP

2-Bolt Oval Configuration

- fits R/S, Hansen, Henry, Frick, and York -

AVAILABLE CONNECTIONS

Socket Weld: ½", ¾", 1", 1¼"
Butt Weld (Schedule 40 & 10): ½", ¾", 1", 1¼"
Threaded (FPT): ¼", ⅜", ½", ¾", 1", 1¼"



½" SSFL SW Flange
(Size 050)



1" SSFL SW Flange
(Size 100)

4-Bolt Square Configuration

- fits R/S, Hansen, Henry, Frick, and York -

AVAILABLE CONNECTIONS

Socket Weld: 1½", 2", 2½", 3"
Butt Weld (Schedule 40 & 10): 1½", 2", 2½", 3"
Threaded (FPT): 1½", 2"



2" SSFL SW Flange
(Size 200)



3" SSFL BW Flange
(Size 300)

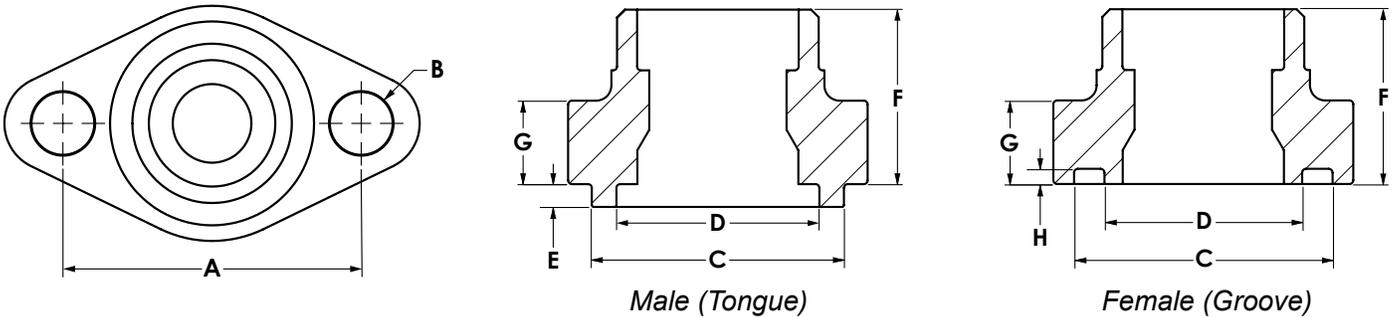
STAINLESS STEEL FLANGE DIMENSIONS

2-Bolt Oval Flanges

Socket Weld (shown), Butt Weld, or Threaded (FPT),

1/2" Nominal (gasket 1.27" OD x 0.97" ID x .06" thick)

1" Nominal (gasket 2.08" OD x 1.67" ID x .06" thick)



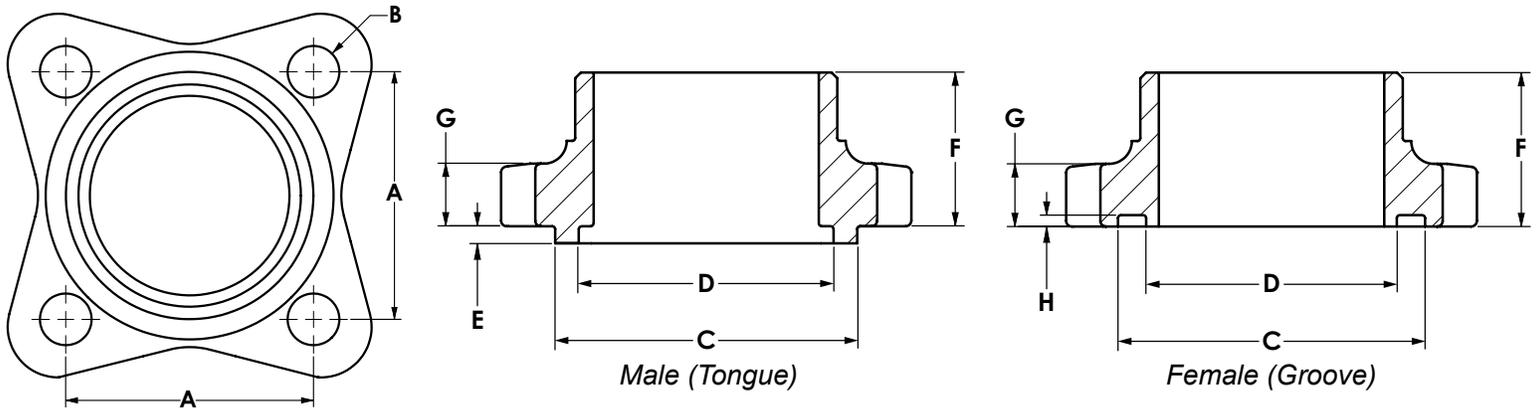
4-Bolt Square Flanges

Socket Weld, Butt Weld (shown), or Threaded (FPT),

2" Nominal (gasket 3.23" OD x 1.52" ID x .06" thick)

2 1/2" Nominal (gasket 3.75" OD x 3.00" ID x .06" thick)

3" Nominal (gasket 4.38" OD x 3.63" ID x .06" thick)



Size	Connection	Dimensions (inches)							
		A	B*	C**	D**	E	F	G	H
050	1/2"	2.13	1/2"x5/8"	1.25	0.98	0.19	0.58	0.58	0.13
050	3/4"	2.13	1/2"x5/8"	1.25	0.98	0.19	0.58	0.58	0.13
100	3/4"	3.13	5/8"	2.13	1.63	0.19	1.44	0.69	0.13
100	1"	3.13	5/8"	2.13	1.63	0.19	1.44	0.69	0.13
100	1 1/4"	3.13	5/8"	2.13	1.63	0.19	1.44 [†]	0.69	0.13
200	1 1/2"	3.06	5/8"	3.28	2.47	0.19	1.94	1.00	0.13
200	2"	3.06	5/8"	3.28	2.47	0.19	1.94	1.00	0.13
300	2 1/2"	3.88	3/4"*	3.77	3.00	0.19	1.88	0.88	0.13
300	3"	4.13	3/4"*	4.38	3.63	0.19	1.88 [†]	0.88	0.13

*Size 050 is elliptical for broad compatibility

**Nominal shown; tongue has clearance to fit in groove.

[†]1 1/4" Socket Weld "F" Dimension: 0.69"
3" Socket Weld "F" Dimension: 0.88"

Note: Size 300 bolt holes are slightly oval for compatibility with Size 250 flanges.

INSTALLATION DIMENSIONS

2-BOLT OVAL FLANGES -

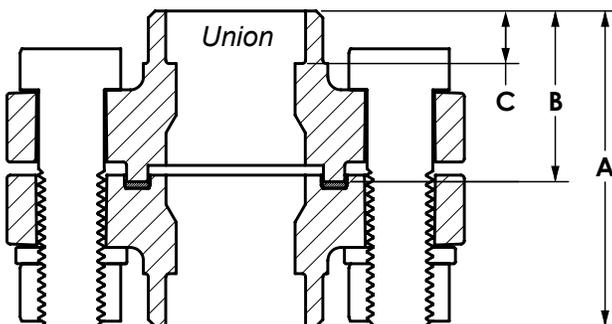
Size	Socket Weld	Dimensions (inches)		
		A	B	C
050	1/2"	1.24	0.73	0.38
050	3/4"	1.24	0.73	0.50

Size	Socket Weld	Dimensions (inches)		
		A	B	C
100	3/4"	3.00	1.63	0.50
100	1"	3.00	1.63	0.50
100	1 1/4"	1.50	0.88	0.50

Size	Butt Weld	Dimensions (inches)	
		A	B
050	1/2"	<i>Contact Factory</i>	
050	3/4"		

Size	Butt Weld	Dimensions (inches)	
		A	B
100	3/4"	3.00	1.63
100	1"	3.00	1.63
100	1 1/4"	3.00	1.63

Size	FPT	Dimensions (inches)	
		A	B
050	1/4"	1.24	0.73
050	3/8"	1.24	0.73
050	1/2"	1.24	0.73



Size	FPT	Dimensions (inches)	
		A	B
100	3/4"	3.00	1.63
100	1"	3.00	1.63
100	1 1/4"	1.50	0.88

4-BOLT SQUARE FLANGES -

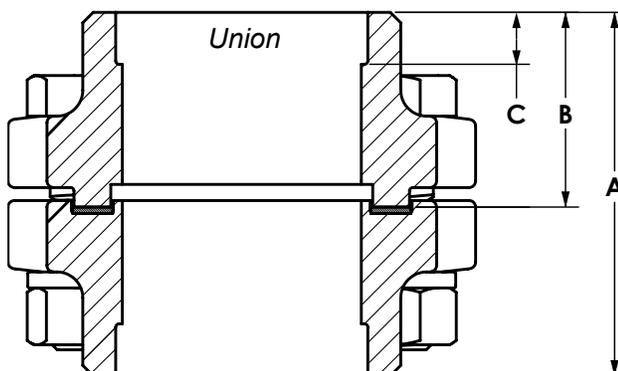
Size	Socket Weld	Dimensions (inches)		
		A	B	C
200	1 1/2"	4.00	2.13	0.63
200	2"	4.00	2.13	0.69

Size	Socket Weld	Dimensions (inches)		
		A	B	C
300	2 1/2"	4.00	2.07	0.75
300	3"	2.10	1.06	0.82

Size	Butt Weld	Dimensions (inches)	
		A	B
200	1 1/2"	4.00	2.13
200	2"	4.00	2.13

Size	Butt Weld	Dimensions (inches)	
		A	B
300	2 1/2"	4.00	2.10
300	3"	4.00	2.10

Size	FPT	Dimensions (inches)	
		A	B
200	1 1/2"	4.00	2.13
200	2"	4.00	2.13



Size	Bolt Size
050	7/16"-14
100	5/8"-11
200	5/8"-11
300	3/4"-10

Note: Contact factory for ODS connections from 7/8" to 3 1/8".

SSFL FLANGE UNION KITS				
Threaded (FPT)	Socket Weld	Butt Weld	Size (mm)	Wt. lbs. (Kg)
SS-UK-050-FPT025	SS-UK-050-SW050	SS-UK-050-BW050*	½" (13)	1.5 (0.7)
SS-UK-050-FPT038	SS-UK-050-SW075	SS-UK-050-BW075*	¾" (20)	1.5 (0.7)
SS-UK-050-FPT050				
SS-UK-100-FPT075	SS-UK-100-SW075	SS-UK-100-BW075	¾" (20)	3.0 (1.3)
SS-UK-100-FPT100	SS-UK-100-SW100	SS-UK-100-BW100	1" (25)	3.0 (1.3)
SS-UK-100-FPT125	SS-UK-100-SW125	SS-UK-100-BW125	1¼" (32)	3.0 (1.3)
SS-UK-200-FPT150	SS-UK-200-SW150	SS-UK-200-BW150	1½" (40)	9.1 (4.1)
SS-UK-200-FPT200	SS-UK-200-SW200	SS-UK-200-BW200	2" (50)	9.1 (4.1)
		SS-UK-200-BW250	2½" (65)	9.1 (4.1)
	SS-UK-300-SW250	SS-UK-200-BW250	2½" (65)	16.5 (7.5)
	SS-UK-300-SW300	SS-UK-300-BW300	3" (80)	16.5 (7.5)

Unions include 1 male and 1 female flange, stainless steel bolts, nuts, lock washers, and gaskets. Connections may be mixed.

SSFL COMPANION FLANGE SETS				
Threaded (FPT)	Socket Weld	Butt Weld	Size (mm)	Wt. lbs. (Kg)
SSFL-050-FPT025	SSFL-050-SW050	SSFL-050-BW050*	½" (13)	1.0 (0.5)
SSFL-050-FPT038	SSFL-050-SW075	SSFL-050-BW075*	¾" (20)	1.0 (0.5)
SSFL-050-FPT050				
SSFL-100-FPT075	SSFL-100-SW075	SSFL-100-BW075	¾" (20)	2.2 (1)
SSFL-100-FPT100	SSFL-100-SW100	SSFL-100-BW100	1" (25)	2.2 (1)
SSFL-100-FPT125	SSFL-100-SW125	SSFL-100-BW125	1¼" (32)	2.2 (1)
SSFL-200-FPT150	SSFL-200-SW150	SSFL-200-BW150	1½" (40)	8.0 (3.6)
SSFL-200-FPT200	SSFL-200-SW200	SSFL-200-BW200	2" (50)	8.0 (3.6)
	SSFL-300-SW250	SSFL-300-BW250	2½" (65)	15.5 (7)
	SSFL-300-SW300	SSFL-300-BW300	3" (80)	15.5 (7)

*Contact factory

Note: Unless specified, all butt weld Companion Flange Sets & Unions will be supplied with schedule 40 pipe connections. Schedule 10 pipe connections are available upon request. To order, specify catalog number and quantity.

Note: HANTEMP Companion Flange Sets & Unions are carefully packed to prevent any possible damage to machined surfaces during shipping.

RECOMMENDED PROCEDURE FOR FLANGE BOLT TIGHTENING

Use fresh gaskets. Ensure all sealing surfaces are clean and free of damage and debris. A light coating of refrigerant oil may be used on gaskets. Verify flanges are parallel and pipes are in alignment. Use proper and approved bolting materials. Tighten fasteners gradually and in an opposing pattern. Reference the latest edition of the IIAR standards for further guidance.

Anti-seize lubricant recommended for all stainless steel fasteners.



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