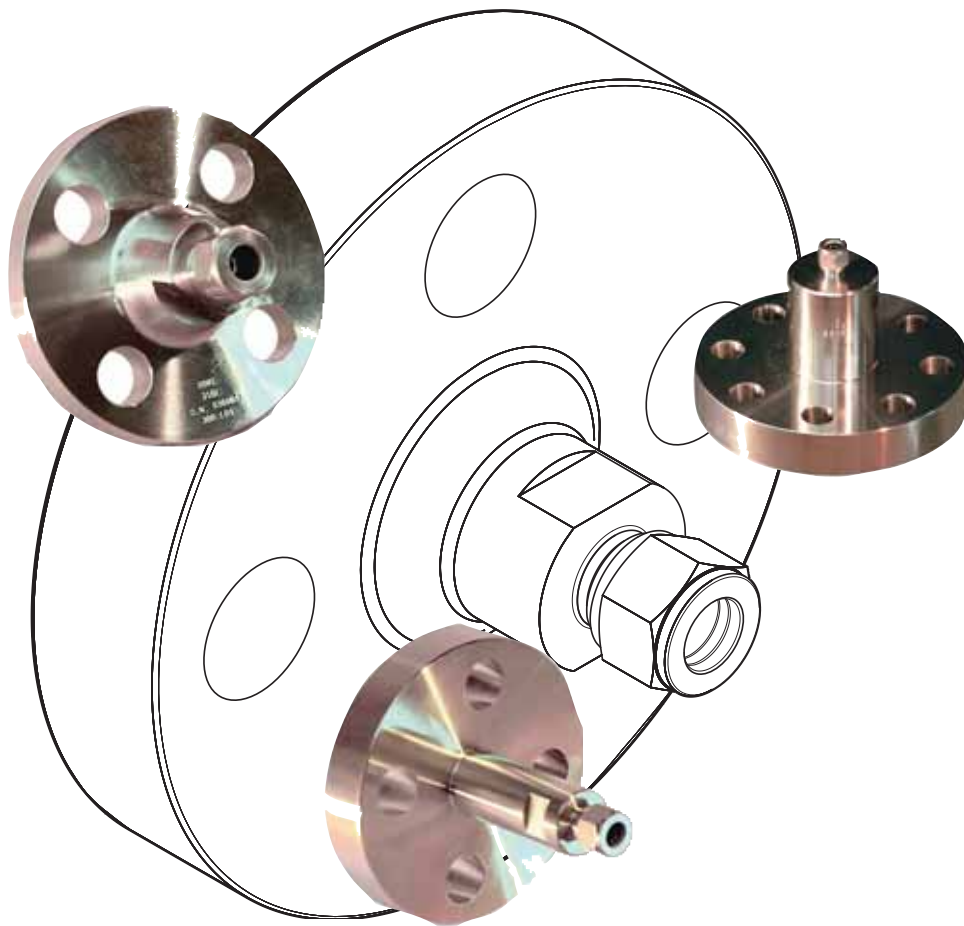




## Gyrolok® Flanges

Gyrolok® flanges provide a simple, safe interface between pipe flanges and instrument fittings, eliminating the need for pipe threading or welding. This design incorporates a HOKE Gyrolok® Tube Fitting with a standard flange assembly. The flange end is dimensioned to meet ANSI B16.5 Pressure Classes 150, 300, 600, and 1500. Available in 316 stainless steel, Duplex UNS S31803, Hastelloy® C-276, Inconel®, Monel®, and other superior alloys.



pipe flanges

### Technical Data

STANDARD MATERIAL*	316 stainless steel, Duplex UNS S31083, Inconel®, Hastelloy® C-276, Monel®
FINISH	125 to 250 µinch
FLANGE SIZES NPS**	1/2", 3/4", 1", 2"
GYROLOK® FITTINGS	1/4", 3/8", 1/2"

\* Consult factory for other materials  
\*\* Consult factory for other sizes

### Features

- Meets ANSI B16.5 Pressure Class 150, 300, 600, and 1500 requirements for pipe flanges and flange fittings.<sup>†</sup>
- Includes Gyrolok® fittings – 1/4", 3/8", 1/2", 3/4", 1".
- One-piece integral body.
- Use for transitions from process lines to instrumentation lines.
- See page 7 for options.
- Special High Tolerance NPT Thread

<sup>†</sup> Consult factory for other classes

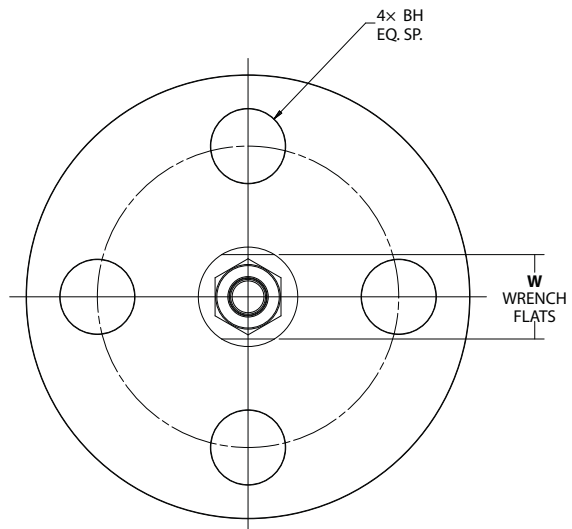
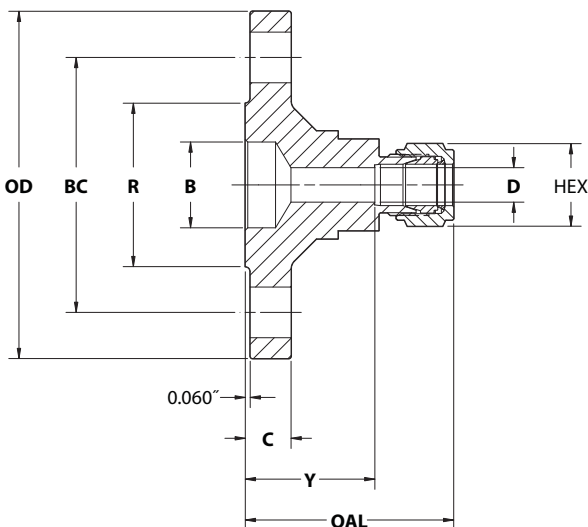
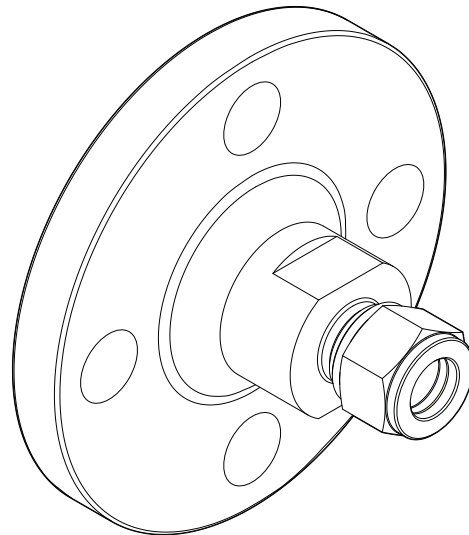
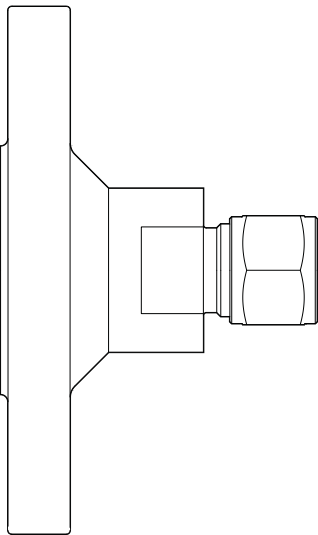
### HOKE Inc.

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303  
Phone (864) 574-7966 Fax (864) 587-5608  
www.hoke.com • sales@hoke.com

# ANSI B16.5 - Type Flanges

Class 150												
NPS	OD	R	B	C	BC	BH	GYROLOK® FITTING	D	HEX	Y	OAL	W
½"	3.50	1.38	0.62	0.45	2.375	0.625	¼"	0.187	⅞"	1.46	2.10	20mm
							⅜"	0.282	1⅛"	2.11		
							½"	0.422	⅞"	2.24		
¾"	3.88	1.69	0.82	0.51	2.750	0.625	¼"	0.187	⅞"	1.64	2.28	0.875
							⅜"	0.282	1⅛"	2.29		
							½"	0.422	⅞"	2.42		
1"	4.25	2.00	1.05	0.56	3.125	0.625	¼"	0.187	⅞"	1.77	2.41	1.125
							⅜"	0.282	1⅛"	2.42		
							½"	0.422	⅞"	2.55		
							¾"	0.656	1⅛"	2.52		
2"	6.00	3.62	2.07	0.76	4.750	0.750	¼"	0.187	⅞"	2.08	2.72	2.00
							⅜"	0.282	1⅛"	2.73		
							½"	0.422	⅞"	2.86		
							¾"	0.656	1⅛"	2.83		
							1"	0.875	1½"	2.92		

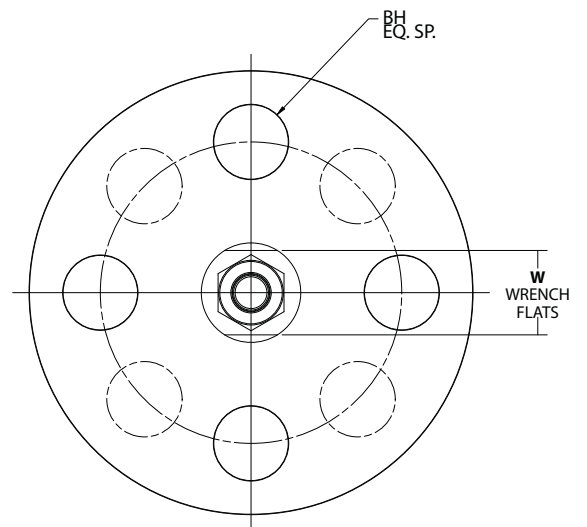
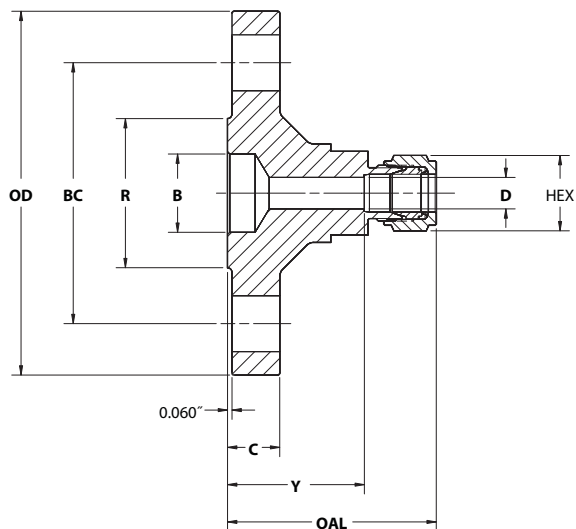
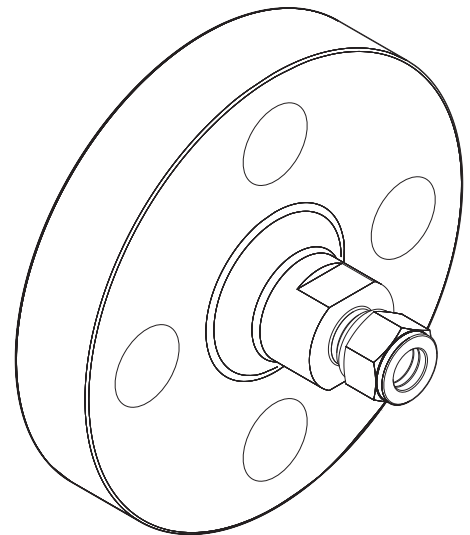
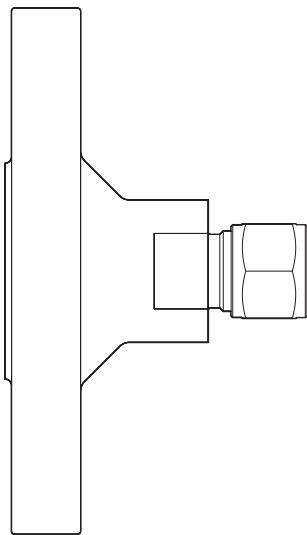
Dimensions are in inches unless otherwise noted  
 Dimensions are for reference only and subject to change



# ANSI B16.5 - Type Flanges

Class 300												
NPS	OD	R	B	C	BC	BH	GYROLOK® FITTING	D	HEX	Y	OAL	W
1/2"	3.75	1.38	0.62	0.57	2.625	0.625 4 holes	1/4"	0.187	9/16"	1.64	2.28	20mm
							3/8"	0.282	11/16"	1.58	2.29	
							1/2"	0.422	7/8"	1.46	2.42	
3/4"	4.62	1.69	0.82	0.63	3.250	0.750 4 holes	1/4"	0.187	9/16"	1.83	2.47	0.875
							3/8"	0.282	11/16"	1.77	2.48	
							1/2"	0.422	7/8"	1.65	2.61	
1"	4.88	2.00	1.05	0.70	3.500	0.750 4 holes	1/4"	0.187	9/16"	2.02	2.66	1.125
							3/8"	0.282	11/16"	1.96	2.67	
							1/2"	0.422	7/8"	1.84	2.80	
							3/4"	0.656	1 1/8"	1.78	2.77	
2"	6.50	3.62	2.07	0.89	5.000	0.750 8 holes	1/4"	0.187	9/16"	2.33	2.97	2.00
							3/8"	0.282	11/16"	2.27	2.98	
							1/2"	0.422	7/8"	2.15	3.11	
							3/4"	0.656	1 1/8"	2.09	3.08	
							1"	0.875	1 1/2"	1.91	3.17	

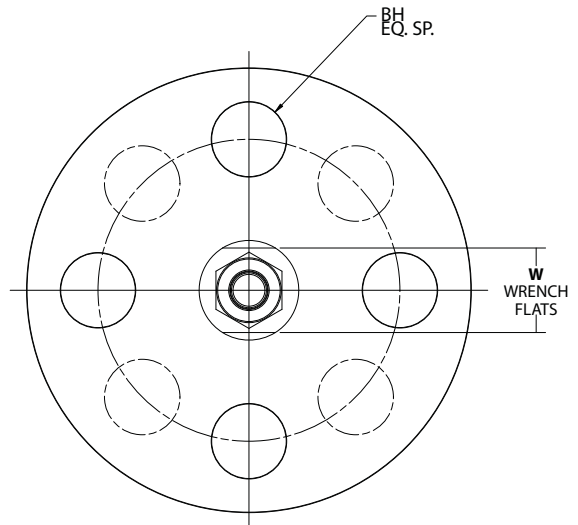
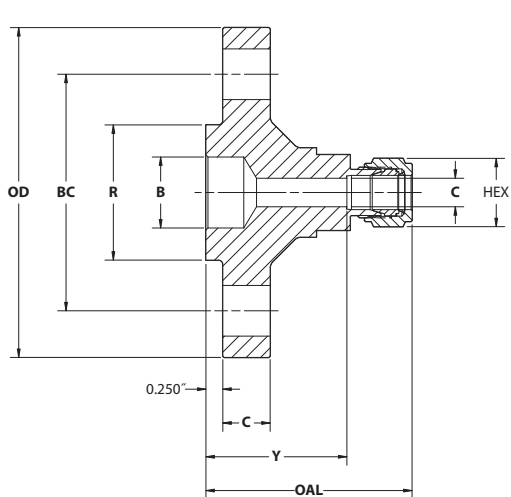
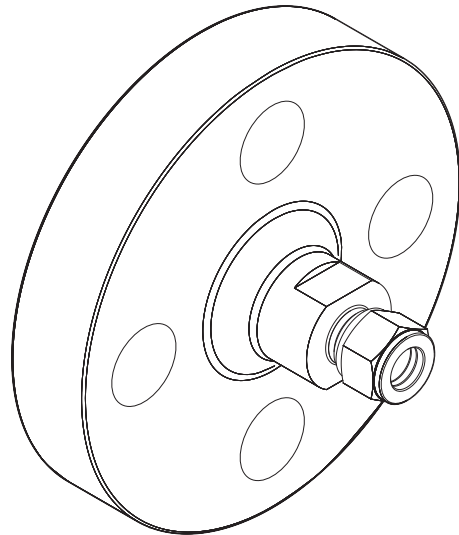
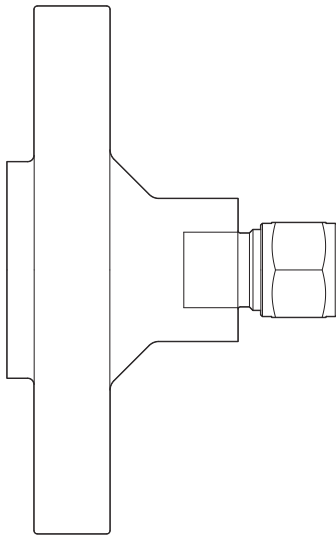
Dimensions are in inches unless otherwise noted  
 Dimensions are for reference only and subject to change



# ANSI B16.5 - Type Flanges

Class 600												
NPS	OD	R	B	C	BC	BH	GYROLOK® FITTING	D	HEX	Y	OAL	W
½"	3.75	1.38	0.62	0.57	2.625	0.625 4 holes	¼"	0.187	⅞"	1.89	2.53	20mm
							⅜"	0.282	1⅛"	1.83	2.54	
							½"	0.422	⅞"	1.71	2.67	
¾"	4.62	1.69	0.82	0.63	3.250	0.750 4 holes	¼"	0.187	⅞"	2.08	2.72	0.875
							⅜"	0.282	1⅛"	2.02	2.73	
							½"	0.422	⅞"	1.90	2.86	
1"	4.88	2.00	1.05	0.70	3.500	0.750 4 holes	¼"	0.187	⅞"	2.27	2.91	1.125
							⅜"	0.282	1⅛"	2.21	2.92	
							½"	0.422	⅞"	2.09	3.05	
							¾"	0.656	1⅛"	2.03	3.02	
2"	6.50	3.62	2.07	1.01	5.000	0.750 8 holes	¼"	0.187	⅞"	2.71	3.35	2.00
							⅜"	0.282	1⅛"	2.65	3.36	
							½"	0.422	⅞"	2.53	3.49	
							¾"	0.656	1⅛"	2.47	3.46	
							1"	0.875	1½"	2.29	3.55	

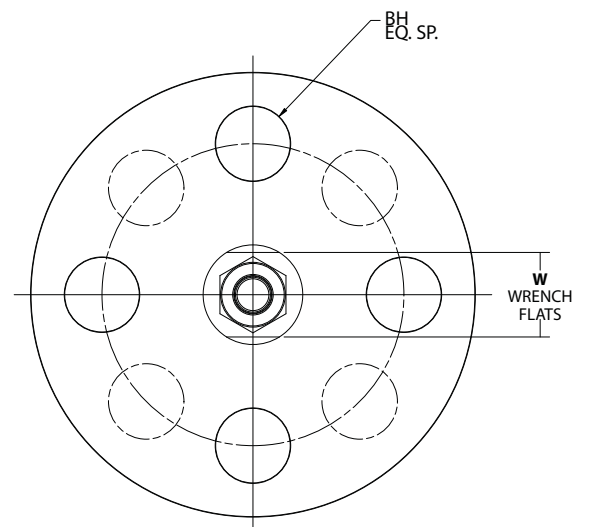
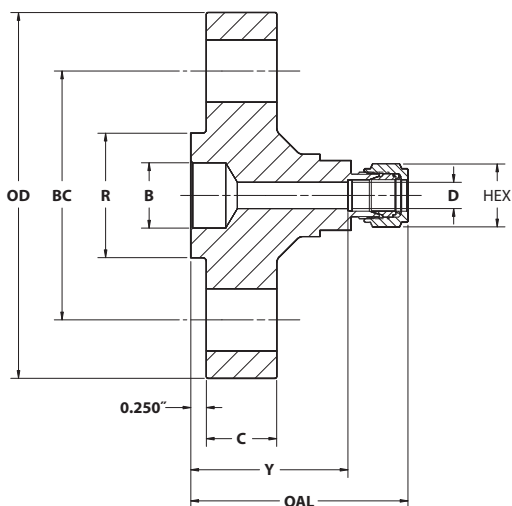
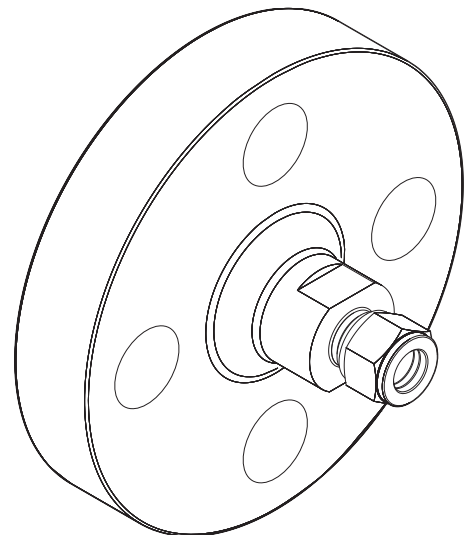
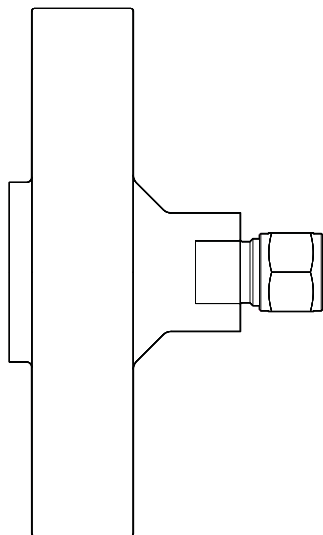
Dimensions are in inches unless otherwise noted  
 Dimensions are for reference only and subject to change



# ANSI B16.5 - Type Flanges

Class 1500												
NPS	OD	R	B	C	BC	BH	GYROLOK® FITTING	D	HEX	Y	OAL	W
½"	4.75	1.38	0.62	0.89	3.250	0.875 4 holes	¼"	0.187	⅞"	2.21	2.85	20mm
							⅜"	0.282	1⅛"	2.15	2.86	
							½"	0.422	7⁄8"	2.03	2.99	
¾"	5.12	1.69	0.82	1.01	3.500	0.875 4 holes	¼"	0.187	⅞"	2.58	3.22	0.875
							⅜"	0.282	1⅛"	2.52	3.23	
							½"	0.422	7⁄8"	2.40	3.36	
1"	5.88	2.00	1.05	1.13	4.000	1.000 4 holes	¼"	0.187	⅞"	2.71	3.35	1.125
							⅜"	0.282	1⅛"	2.65	3.36	
							½"	0.422	7⁄8"	2.53	3.49	
							¾"	0.656	1⅛"	2.47	3.46	
2"	8.50	3.62	2.07	1.51	6.500	1.000 8 holes	¼"	0.187	⅞"	3.83	4.47	2.00
							⅜"	0.282	1⅛"	3.77	4.48	
							½"	0.422	7⁄8"	3.65	4.61	
							¾"	0.656	1⅛"	3.59	4.58	
							1"	0.875	1½"	3.41	4.67	

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# ANSI B16.5 - Type Flanges

## Pressure-Temperature Ratings

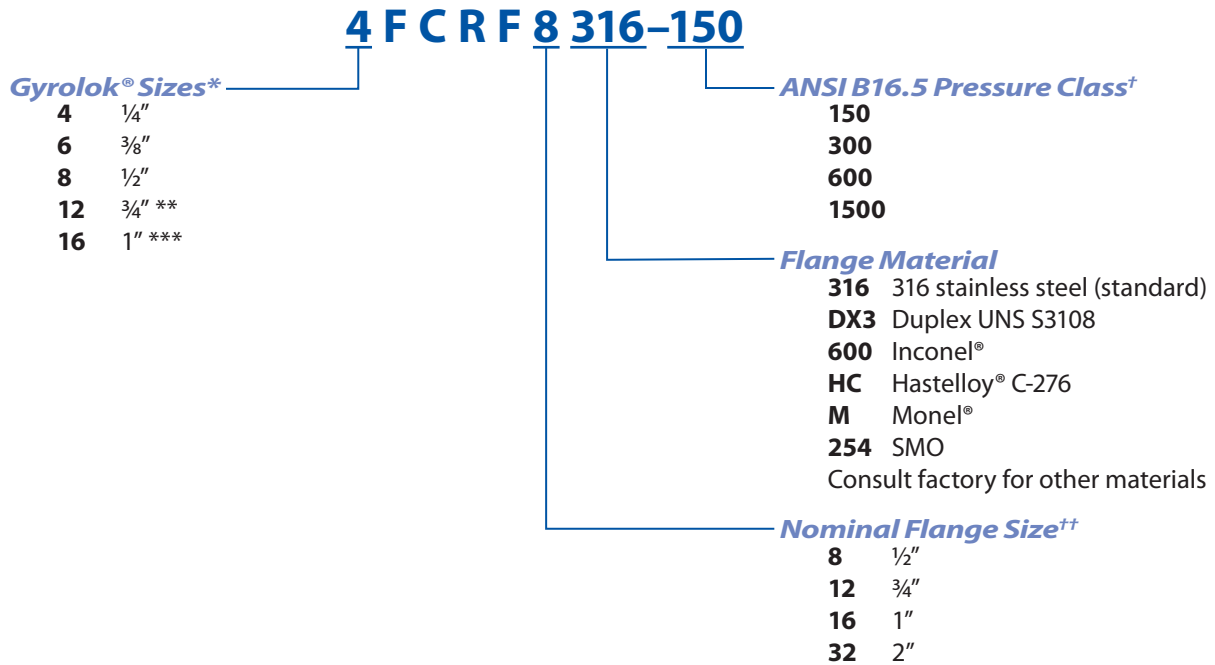
To determine pressure ratings for fittings with a flange end connection and a second end connection, use the lower of the two pressure ratings.

Working Pressure by Class, psig*				
TEMPERATURE °F	ASME CLASS			
	150	300	600	1500
-20 to 100	275	720	1440	3600
200	235	620	1240	3095
300	215	560	1120	2795
400	195	515	1025	2570
500	170	480	955	2390
600	140	450	900	2255
650	125	440	885	2210
700	110	435	870	2170
750	95	425	855	2135
800	80	420	845	2110
850	65	420	835	2090
900	50	415	830	2075
950	35	385	775	1930
1000	20	365	725	1820

Working Pressure by Class, bar*				
TEMPERATURE °F	ASME CLASS			
	150	300	600	1500
-29 to 38	19.0	49.6	99.3	248.2
50	18.4	48.1	96.2	240.6
100	16.2	42.2	84.4	211.0
150	14.8	38.5	77.0	192.5
200	13.7	35.7	71.3	178.3
250	12.1	33.4	66.8	166.9
300	10.2	31.6	63.2	158.1
325	9.3	30.9	61.8	154.4
350	8.4	30.3	60.7	151.6
375	7.4	29.9	59.8	149.4
400	6.5	29.4	58.9	147.2
425	5.5	29.1	58.3	145.7
450	4.6	28.8	57.7	144.2
475	3.7	28.7	57.3	143.4
500	2.8	28.2	56.5	140.9
538	1.4	25.2	50.0	125.5

\* Pressure ratings are according to ASME B16.5-2003, Tables 2-2.2 and F2-2.2.

## How to Order



\* Refer to the Hoke Gyrolok® catalog #79002 for our full range of fitting products. See the Hoke Tubing Data Charts #79308 for more information on tubing data.

\*\* Only available for 1" and 2" NPS

\*\*\* Only available for 2" NPS

† Consult factory for other classes

†† Consult factory for other sizes

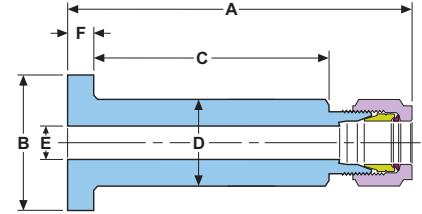
# Options

## Lapped Flange Connectors

The Lapped Flange Connector is used to allow safe and simple connections between process lines and instruments. The basic, one-piece unit consists of a HOKE Gyrolok tube connection end and a 1/2" lap joint pipe flange. The flange end is dimensioned to meet ANSI 2500 flange specifications. Available in "Smooth" or "Serrated/Concentric" seal faces, and in 316 stainless steel, Hastelloy® C-276, or Monel®.



Lapped Flange Connector CLF (fractional)									
PART NUMBER*	FLANGE SEAL	FINISH	T TUBE O.D.	DIMENSIONS (inch)					
				A	B	C	D	E MIN	F
4CLFA[ ]	A	3.2–6.3 micrometer (Ra)	¼	3.33	1.38	2.28	0.88	0.19	0.25
4CLFB[ ]	B	6.3–12.5 micrometer (Ra)							
6CLFA[ ]	A	3.2–6.3 micrometer (Ra)	¾	3.34	1.38	2.28	0.88	0.30	0.25
6CLFB[ ]	B	6.3–12.5 micrometer (Ra)							
8CLFA[ ]	A	3.2–6.3 micrometer (Ra)	½	3.47	1.38	2.28	0.88	0.42	0.25
8CLFB[ ]	B	6.3–12.5 micrometer (Ra)							



Lapped Flange Connector CLF/MM (metric)									
PART NUMBER*	FLANGE SEAL	FINISH	T TUBE O.D.	DIMENSIONS (mm)					
				A	B	C	D	E MIN	F
10CLFA[ ]MM	A	3.2–6.3 micrometer (Ra)	10	84.1	34.9	57.9	22.2	7.1	6.4
10CLFB[ ]MM	B	6.3–12.5 micrometer (Ra)							

\* To specify material, insert BR=brass, 316=stainless steel, M=Monel®, or HC=Hastelloy® C-276 in place of the brackets. Example: 4CLFA316.

Flange Seal "A"



Smooth

Flange Seal "B"



Serrated / Concentric

## Gyrolok Tube Fittings

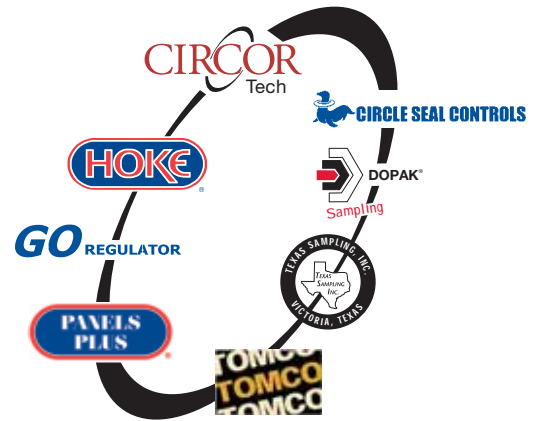
See the Gyrolok Tube Fittings catalog #79002 for product information, assembly instructions, and guarantee of interchangeability with certain other manufacturers.

Gyrolok® components are guaranteed to be interchangeable with certain other suppliers. For more information, visit [www.hoke.com](http://www.hoke.com) or contact your local Hoke distributor.



## For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.



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405 Centura Court • PO Box 4866 (29305)  
Spartanburg, SC 29303  
Tel (864) 574-7966 • Fax (864) 587-5608  
[www.circortechnologies.com](http://www.circortechnologies.com)

**CIRCOR Instrumentation  
Technologies  
Central Europe**

Leeuwenhoekweg 24  
2661 CZ Bergschenhoek  
The Netherlands  
Tel +31 10 4206011 • Fax +31 10 4566774  
[www.circortechnologies.com](http://www.circortechnologies.com)

**Hoke Controls / Panels Plus**

2054 Francis St.  
Ontario, CA 91761  
Tel (909) 923-3770  
Fax (909) 923-2550  
[www.circor-panelsplus.com](http://www.circor-panelsplus.com)

**Texas Sampling, Inc**

3706 Rio Grande  
Victoria, Texas 77901  
Tel (361) 575-8087  
Fax (361) 575-8157  
[www.texassampling.com](http://www.texassampling.com)

**CIRCOR Instrumentation, Ltd.**

1-3 Bouverie Road  
Harrow  
Middlesex, HA1 4HB  
UK  
Tel +44 18 9520 6780  
Fax +44 18 9520 6781  
[www.circor.co.uk](http://www.circor.co.uk)

**Dopak Inc.**

9572 Kempwood  
Houston, Texas 77080  
Tel (713) 460-8311  
Fax (713) 460-8578  
[www.dopak.com](http://www.dopak.com)

**Circle Seal  
Controls, Inc.**

2301 Wardlow Circle  
Corona, CA 92880  
Tel (951) 270-6200  
Fax (951) 270-6201  
[www.circlesealcontrols.com](http://www.circlesealcontrols.com)

**Hoke GmbH**

Weitzesweg 11  
Postfach 1541  
D-61118 Bad Vilbel-Dortelweil  
Germany  
Tel +49 6101 82 56 0  
Fax +49 6101 82 56 40  
[www.hoke.de](http://www.hoke.de)

**CIRCOR Instrumentation Technologies**

CIRCOR Instrumentation Technologies (CIT) is a product group of CIRCOR International (NYSE: CIR), specializing in fluid process control solutions with orifice sizes typically up to 1". Our main product lines include ball, needle, packless, diaphragm, solenoid, and metering valves, pressure regulators, quick couplers, Gyrolok® compression tube fittings, and fully integrated sampling systems.

CIT markets primarily to the petrochemical, refining, power generation, food and beverage, semiconductor, and pharmaceutical industries, and to OEM's. CIT separates itself from the competition by offering highly engineered components manufactured to exacting standards and a variety of custom options.