

BLCF & BLCFR SERIES - CAST IRON COMPANION FLANGES

Companion flanges are a coupling device designed to join IPS (iron pipe size) piping systems where disassembly takes place often. They are also used as a transitional fitting for joining dissimilar metals and plastic to metal piping. Companion flanges are available as standard flanges (BLCF series) and reducing flanges (BLCFR series). Companion flange gaskets (BLCFG series) and companion flange bolt/gasket kits (BLCFGK series) are also available.



SPECIFICATIONS:

- Made from Class 125 gray cast iron (ASTM A126)
- Dimensions conform to ANSI/AWWA C110 and ANSI B16.1
- Drilling conforms to ANSI B16.1 Class 125/150 Flanges
- Threads conform to ANSI/ASME B1.20.1
- If the temperature exceeds 150 °F (65 °C), the allowable working pressure drops
- Not for use at temperatures below -20 °F (-29 °C)

MATERIAL LIST	
Gray Iron	
Element	Percent of Composition
Carbon (C)	3.30%
Silicon (Si)	1.93%
Manganese (Mn)	0.62%
Phosphorus (P)	0.10%
Sulphur (S)	0.08%
Iron (Fe)	Remainder

ASME B16.1 Nonshock Gage Pressure - Temperature Ratings			
Temperature (°F)	Class 125 (ASTM A126)		
	Class B		
	NPS (1-12)	NPS (14-24)	NPS (30-48)
-20 to 150	200	150	150
200	190	135	115
225	180	130	100
250	175	125	85
275	170	120	65
300	165	110	50
325	155	105	-
353 [Note 1]	150	100	-
375	145	-	-
406 [Note 2]	140	-	-
425	130	-	-
450	125	-	-
Hydrostatic Shell Test Pressures [Note 3]			
100	300	230	230

General Notes:

- a) Pressure is in lb/sq in. gage.
- b) NPS is nominal pipe size

Notes:

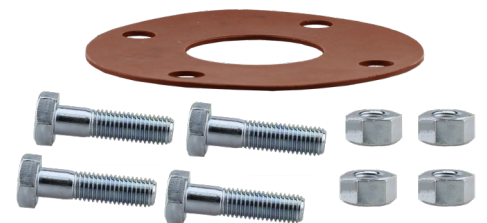
- (1) 353 °F (max.) to reflect the temperature of saturated steam at 125 psig.
- (2) 406 °F (max.) to reflect the temperature of saturated steam at 250 psig.
- (3) Hydrostatic tests are not required unless specified by the user.



BLCFR-1570



BLCF-30



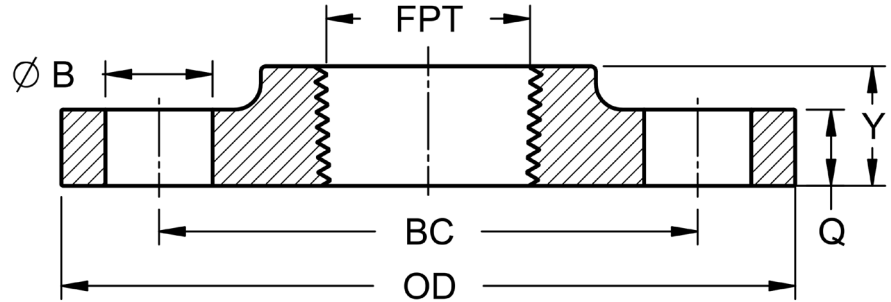
BLCFGK-30

BOSHART
INDUSTRIES

25 Whaley Avenue, PO Box 310, Milverton, ON CANADA N0K 1M0
Tel: 800-561-3164

boshart.com ♦ blog.boshart.com

BLCF SERIES CAST IRON COMPANION FLANGES:



DIMENSIONS												
Part No.	Pipe Connection	OD		Q		Y		BC		B		No. of Bolt Holes
		in	mm	in	mm	in	mm	in	mm	in	mm	
BLCF-10	1"	4.25	107.95	0.44	11.18	0.69	17.53	3.12	79.25	0.62	15.75	4
BLCF-12	1-1/4"	4.62	117.35	0.50	12.70	0.81	20.57	3.50	88.90	0.62	15.75	4
BLCF-15	1-1/2"	5.00	127.00	0.56	14.22	0.88	22.35	3.88	98.55	0.62	15.75	4
BLCF-20	2"	6.00	152.40	0.62	15.75	1.00	25.40	4.75	120.65	0.75	19.05	4
BLCF-25	2-1/2"	7.00	177.80	0.69	17.53	1.12	28.45	5.50	139.70	0.75	19.05	4
BLCF-30	3"	7.50	190.50	0.75	19.05	1.19	30.23	6.00	152.40	0.75	19.05	4
BLCF-40	4"	9.00	228.60	0.94	23.88	1.31	33.27	7.50	190.50	0.75	19.05	8
BLCF-50	5"	10.00	254.00	0.94	23.88	1.44	36.58	8.50	215.90	0.88	22.35	8
BLCF-60	6"	11.00	279.40	1.00	25.40	1.56	39.62	9.50	241.30	0.88	22.35	8
BLCF-80	8"	13.50	342.90	1.12	28.45	1.75	44.45	11.75	298.45	0.88	22.35	8
BLCF-100	10"	16.00	406.40	1.19	30.23	1.94	49.28	14.25	361.95	1.00	25.40	12
BLCF-120	12"	19.00	482.60	1.25	31.75	2.19	55.63	17.00	431.80	1.00	25.40	12
BLCFR-1050	1"	5.00	127.00	0.56	14.22	0.69	17.53	3.88	98.55	0.62	15.75	4
BLCFR-1060	1"	6.00	152.40	0.62	15.75	0.69	17.53	4.75	120.65	0.75	19.05	4
BLCFR-1075	1"	7.50	190.50	0.75	19.05	0.69	17.53	6.00	152.40	0.75	19.05	4
BLCFR-1250	1-1/4"	5.00	127.00	0.56	14.22	0.81	20.57	3.88	98.55	0.62	15.75	4
BLCFR-1260	1-1/4"	6.00	152.40	0.62	15.75	0.81	20.57	4.75	120.65	0.75	19.05	4
BLCFR-1560	1-1/2"	6.00	152.40	0.62	15.75	0.88	22.35	4.75	120.65	0.75	19.05	4
BLCFR-1570	1-1/2"	7.00	177.80	0.69	17.53	0.88	22.35	5.50	139.70	0.75	19.05	4
BLCFR-1575	1-1/2"	7.50	190.50	0.75	19.05	0.88	22.35	6.00	152.40	0.75	19.05	4



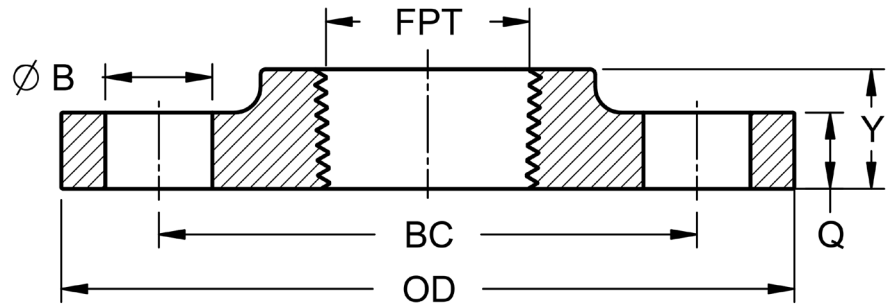
25 Whaley Avenue, PO Box 310, Milverton, ON CANADA N0K 1M0
Tel: 800-561-3164

boshart.com ♦ blog.boshart.com

© 2020 Boshart Industries Inc. All Rights Reserved.

BII-BLCF,BLCFR-0823(1202)
BII-BLCFG,BLCFGK-0823(1675,1202,1211)

BLCFR SERIES CAST IRON COMPANION FLANGES:



DIMENSIONS												
Part No.	Pipe Connection	OD		Q		Y		BC		B		No. of Bolt Holes
		in	mm	in	mm	in	mm	in	mm	in	mm	
BLCFR-1590	1-1/2"	9.00	228.6	0.94	23.88	0.88	22.35	7.50	190.5	0.75	19.05	8
BLCFR-15110	1-1/2"	11.00	279.4	1.00	25.40	0.88	22.35	9.50	241.3	0.88	22.35	8
BLCFR-2070	2"	7.00	177.80	0.69	17.53	1.00	25.40	5.50	139.7	0.75	19.05	4
BLCFR-2075	2"	7.50	190.5	0.75	19.05	1.00	25.40	6.00	152.4	0.75	19.05	4
BLCFR-2090	2"	9.00	228.6	0.94	23.88	1.00	25.40	7.50	190.5	0.75	19.05	8
BLCFR-20110	2"	11.00	279.4	1.00	25.40	1.00	25.40	9.50	241.3	0.88	22.35	8
BLCFR-201350	2"	13.50	342.9	1.12	28.45	1.00	25.40	11.75	298.45	0.88	22.35	8
BLCFR-2575	2-1/2"	7.50	190.5	0.75	19.05	1.12	28.45	6.00	152.4	0.75	19.05	4
BLCFR-2590	2-1/2"	9.00	228.6	0.94	23.88	1.12	28.45	7.50	190.5	0.75	19.05	8
BLCFR-25110	2-1/2"	11.00	279.4	1.00	25.40	1.12	28.45	9.50	241.3	0.88	22.35	8
BLCFR-3090	3"	9.00	228.6	0.94	23.88	1.19	30.23	7.50	190.5	0.75	19.05	8
BLCFR-30100	3"	10.00	254.0	0.94	23.88	1.19	30.23	8.50	215.9	0.88	22.35	8
BLCFR-30110	3"	11.00	279.4	1.00	25.40	1.19	30.23	9.50	241.3	0.88	22.35	8
BLCFR-301350	3"	13.50	342.9	1.12	28.45	1.19	30.23	11.75	298.45	0.88	22.35	8
BLCFR-40100	4"	10.00	254.0	0.94	23.88	1.31	33.27	8.50	215.9	0.88	22.35	8
BLCFR-40110	4"	11.00	279.4	1.00	25.40	1.31	33.27	9.50	241.3	0.88	22.35	8
BLCFR-401350	4"	13.50	342.9	1.12	28.45	1.31	33.27	11.75	298.45	0.88	22.35	8
BLCFR-50110	5"	11.00	279.4	1.00	25.40	1.44	36.58	9.50	241.3	0.88	22.35	8
BLCFR-601350	6"	13.50	342.9	1.12	28.45	1.56	39.62	11.75	298.45	0.88	22.35	8

BOSHART
INDUSTRIES

25 Whaley Avenue, PO Box 310, Milverton, ON CANADA N0K 1M0
Tel: 800-561-3164

boshart.com ♦ blog.boshart.com

© 2020 Boshart Industries Inc. All Rights Reserved.

BII-BLCF,BLCFR-0823(1202)
BII-BLCFG,BLCFGK-0823(1675,1202,1211)

BLCFG SERIES CAST IRON COMPANION FLANGE GASKETS:

SPECIFICATIONS:

- Made from 1/8" thick, full faced, styrene butadiene rubber (SBR) (ASTM D1330)
- Dimensions conform to ASME B16.1
- Maximum temperature rating: -20 to 170 °F (-29 to 76 °C)

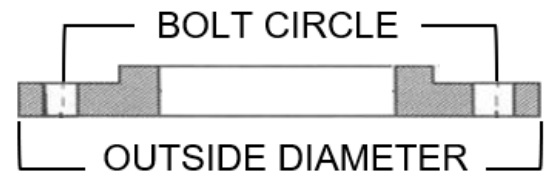


DIMENSIONS									
Part No.	Pipe Connection	Gasket I.D.		Gasket O.D.		BC		No. of Bolt Holes	Weight grams
		in	mm	in	mm	in	mm		
BLCFG-15	1-1/2"	1.91	48.51	5.00	127.0	3.88	98.55	4	61.84
BLCFG-20	2"	2.38	60.45	6.00	152.4	4.75	120.65	4	74.84
BLCFG-25	2-1/2"	2.88	73.15	7.00	177.8	5.50	139.70	4	102.06
BLCFG-30	3"	3.50	88.90	7.50	190.5	6.00	152.40	4	115.67
BLCFG-40	4"	4.50	114.30	9.00	228.6	7.50	190.50	8	161.03
BLCFG-50	5"	5.56	141.22	10.0	254.0	8.50	215.90	8	172.37
BLCFG-60	6"	6.62	168.15	11.0	279.4	9.50	241.30	8	183.70
BLCFG-80	8"	8.62	218.95	13.5	342.9	11.75	298.45	8	233.60
BLCFG-100	10"	10.75	273.05	16.0	406.4	14.25	361.95	12	308.44
BLCFG-120	12"	12.75	323.85	19.0	482.6	17.00	431.80	12	508.02

Choosing the correct gasket/gasket kit for a companion flange:

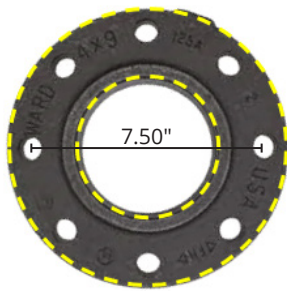
Standard Flanges:

Match the size code in the companion flange part number to the size code in the gasket part number. The size code is the two or three digit number at the end of the part number. For example, for the companion flange BLCF-40, the correct gasket is BLCFG-40.

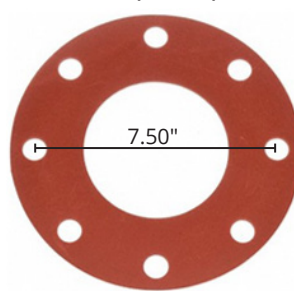


Reducing Flanges:

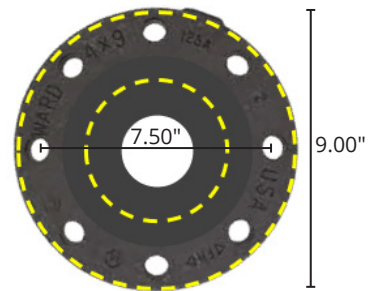
Match the number of bolt holes and bolt circle (BC) diameter in the gasket to the number of bolt holes and BC diameter in the reducing flange. Alternatively, match the reducing flange O.D. to the gasket O.D. The last two to 4 digits of the reducing flange part number indicate the O.D. For example, the reducing flange BLCFR-2090 has 8 bolt holes and 7.50" BC. The corresponding gasket is BLCFG-40 which also has 8 bolt holes and 7.50" BC. The O.D. of the gasket and reducing flange also match (9.00").



BLCF-40



BLCFG-40



BLCFR-2090

BOSHART
INDUSTRIES

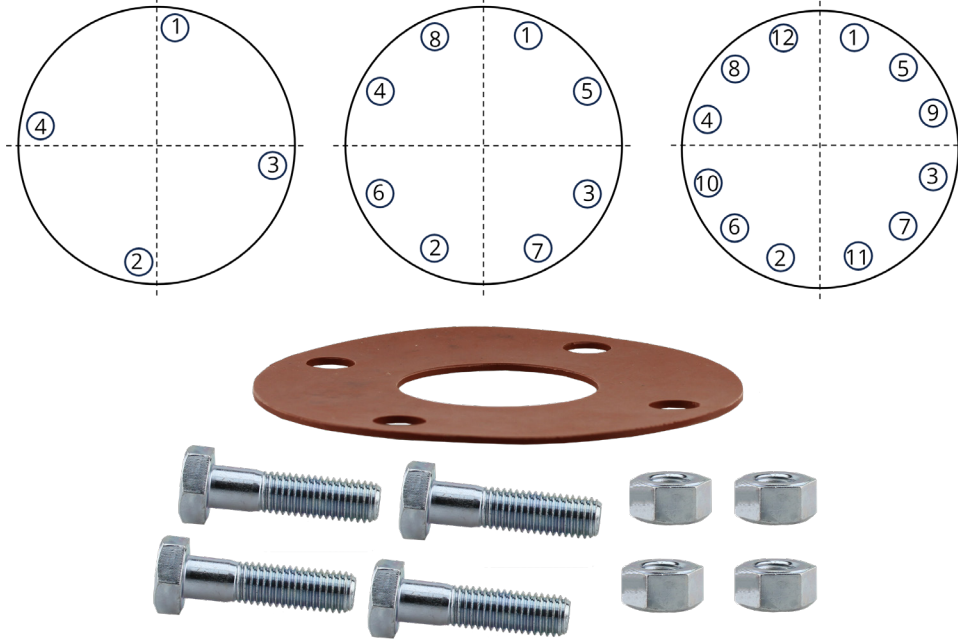
25 Whaley Avenue, PO Box 310, Milverton, ON CANADA N0K 1M0
Tel: 800-561-3164

boshart.com ♦ blog.boshart.com

BLCFGK SERIES CAST IRON COMPANION FLANGE BOLT & GASKET KIT:

SPECIFICATIONS:

- Each kit comes packaged in a sealed poly bag with one gasket and the correct number of bolts & nuts to suit one flange
- Bolt Material: Zinc plated carbon steel (ASTM A307)
- Nut Material: Zinc plated carbon steel (ASTM A563)
- Install bolts according to the numbered pattern in the diagram below:



DIMENSIONS

Part No.	Pipe Connection	Gasket Included	Gasket O.D.		Gasket BC		Bolt Diameter		Bolt Length		No. of Bolts & Nuts	Weight grams
			in	mm	in	mm	in	mm	in	mm		
BLCFGK-20	2"	BLCFG-20	6.00	152.4	4.75	120.65	0.63	16.00	2.50	63.50	4	807.4
BLCFGK-25	2-1/2"	BLCFG-25	7.00	177.8	5.50	139.70	0.63	16.00	2.50	63.50	4	859.6
BLCFGK-30	3"	BLCFG-30	7.50	190.5	6.00	152.40	0.63	16.00	2.50	63.50	4	859.6
BLCFGK-40	4"	BLCFG-40	9.00	228.6	7.50	190.50	0.63	16.00	3.00	76.20	8	1791
BLCFGK-50	5"	BLCFG-50	10.00	254.0	8.50	215.90	0.75	19.05	3.50	88.90	8	2898
BLCFGK-60	6"	BLCFG-60	11.00	279.4	9.50	241.30	0.75	19.05	3.50	88.90	8	2905
BLCFGK-80	8"	BLCFG-80	13.50	342.9	11.75	298.45	0.75	19.05	3.50	88.90	8	3003
BLCFGK-100	10"	BLCFG-100	16.00	406.4	14.25	361.95	0.88	22.35	4.00	101.60	12	6833
BLCFGK-120	12"	BLCFG-120	19.00	482.6	17.00	431.80	0.88	22.35	4.00	101.60	12	6997

For more information on installation, adjustment, repair & operation, visit Boshart Knowledge Base at

SUPPORT.BOSHART.COM



BOSHART

INDUSTRIES

25 Whaley Avenue, PO Box 310, Milverton, ON CANADA N0K 1M0
Tel: 800-561-3164

boshart.com ♦ blog.boshart.com