

3"-42"

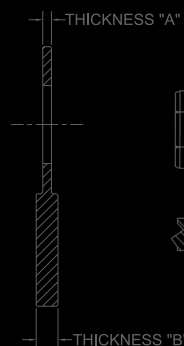
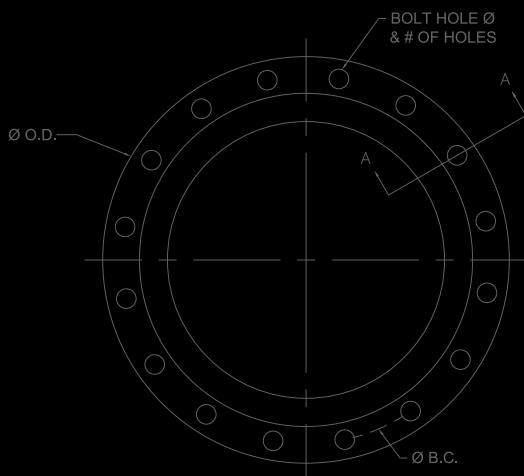
2016 EDITION

# FLANGE-TYTE II™

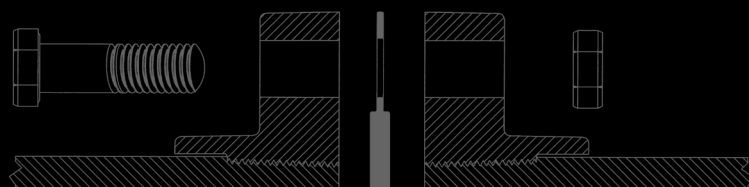
## FULL FACE GASKET FOR FLANGED JOINTS



FOR WATER & WASTEWATER, FIRE PROTECTION & INDUSTRIAL APPLICATIONS



SECTION A-A



STRONG...SINCE 1899

# FLANGE-TYTE II™ FULL FACE GASKET



STRONG...SINCE 1899

2016 EDITION

Revised 09.16

## Table of Contents

FULL FACE FLANGE-TYTE II™ Gasket Introduction	3
Pressure Performance	3
Torque Performance	3
Compatibility	3
Thickness & Material	4
Suggested Specification	4
Assembly Procedures	4
Storage Recommendation	4
Drawing - Technical Data	5
Products for Water, Wastewater and Fire Protection	6

# FLANGE-TYTE II™ FULL FACE GASKET



STRONG...SINCE 1899

2016 EDITION

Revised 09.16

## Full Face FLANGE-TYTE II™ Gasket

The FLANGE-TYTE II™ Gasket is a patent pending, high-performance full-face gasket that incorporates an advanced technological feature designed especially for thread-on style flanges. The new elongated bulb seal covers a larger section of the pipe-flange interface, providing a superior seal that is unmatched by any other flange gasket on the market. The FLANGE-TYTE II™ Gasket is compatible with all flat-face and raised-face flanges of pipe, valves and fittings that use flanges compatible with **ANSI/AWWA C115/ A21.15, ANSI/AWWA C110/A21.10, ASME B16.1** class 125.

U.S. Pipe offers a solution that provides peace of mind through superior performance and sealing that helps eliminate costly leaks and saves valuable time on project schedules. U.S. Pipe provides, free of charge, the FLANGE-TYTE II gasket on all 14-inch and above fabricated flanges. U. S. Pipe warranties all it's 14-inch and above fabricated flanges to be leak free with the use of the FLANGE-TYTE II gasket and will not warranty flange leaks when other types of gaskets are used.

Below are some of the high-performance features this product provides.

### Pressure:

The new elongated bulb technology is a molded flat gasket, the FLANGE-TYTE II™ Gasket can operate safely at high internal pressures and high velocities and still handle the common occurrence of surges in pressure without fear of joint leaks. The gasket can also help resolve installation issues, such as imperfections in the flange face, flange alignment and pipe or equipment alignment.

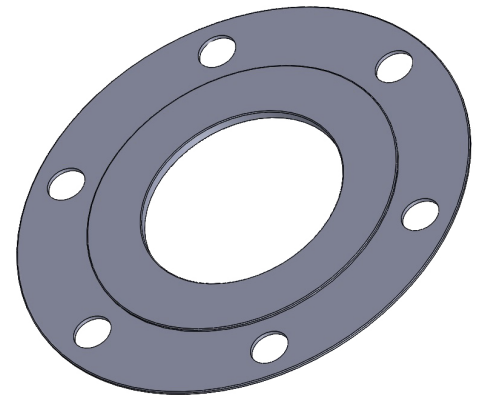
The FLANGE-TYTE II™ Gasket is rated for a water working pressure of 350 psi for 3"-24" sizes, 250 psi for 30"-42" sizes. If your application requires higher working pressures, please contact your U.S. Pipe Sales Representative.

### Torque:

The FLANGE-TYTE II™ Gasket employs an elongated sealing bulb on both sides of the gasket (see figure 1.2). This provides a larger sealing surface but uses lower bolt torque. Less torque means reduced stress on flanges, bolts and nuts in addition to providing a much safer and dependable assembly for the installer. Please refer to the bolt torque ratings in Table 1 on page 6.

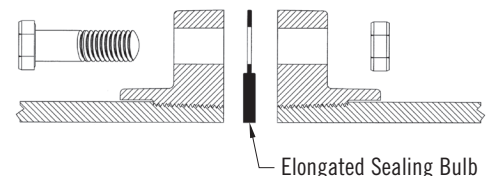
### Compatibility:

The FLANGE-TYTE II™ Gasket is compatible with flanges conforming to **ANSI/AWWA C115/ A21.15, ANSI/AWWA C110/A21.10, ASME B16.1** class 125, and **ANSI/AWWA C207** class B, D, and E flanges.



Flange-Tyte II™ Gasket

Figure 1.2



**NOTE:** U.S. Pipe recommends the use of **FLANGE-TYTE II™** Gaskets with Ductile Iron flanged joint products supplied by U.S. Pipe. These gaskets were designed specifically for the unique surface of Ductile Iron. Flat rubber gaskets are **NOT** considered equal in performance and may not provide the sealing capability the project requires. In addition, their use could result in unintended damage to the flanges and threads of the fabricated pipe by applying excess torque to the bolts/flanges in order to seal the joint.

**FLANGE-TYTE II™** is a Trademark of United States Pipe and Foundry Company, LLC.

# FLANGE-TYTE II™ FULL FACE GASKET



STRONG...SINCE 1899

2016 EDITION

Revised 09.16

## Gasket Thickness and Material:

The FLANGE-TYTE II™ Gasket is offered in 1/8" thickness per the recommendation of **ANSI/AWWA C115/A21.15** Appendix A, Sec. A.2. The FLANGE-TYTE II™ Gasket is commonly provided in SBR elastomer with a Shore "A" durometer hardness of 65, which is adequate for most conditions of service for potable or domestic wastewater contact. SBR elastomer carries a maximum service temperature of 150°F for water and 125°F for air applications.

## Suggested Specification:

Ductile Iron pipe flanged joints shall conform to **ANSI/AWWA C115/A21.15**. Gaskets for Ductile Iron flanged joints shall be full-face type SBR elastomer per **ANSI/AWWA C111/A21.11** and shall be 1/8" thickness. Flanged gaskets shall be the high-performance type satisfying the special recommendations of **ANSI/AWWA C111/A21.11** Appendix C, Sec. C.2 and have an elongated bulb molded into both faces of the gasket. Flanged gaskets shall be U.S. Pipe FLANGE-TYTE II™ Gasket or pre-approved equal.

## Assembly Procedures:

The FLANGE-TYTE II™ Gasket should be assembled using the same general procedures and practices for installing flanged joints. **ANSI/AWWA C115/A21.15** Appendix C, Sec. C.3 can be used for general guidance. The use of flanged joints underground is NOT recommended because of the rigidity of the joint. The faces of the flanges must be free of sand, grit, grease, or other foreign matter. Flanged bolts should be tightened in a progressively crisscross pattern, such as tightening the bottom bolt; then, the top bolt; next, the bolts at either side; and finally, the remaining bolts. This process should be repeated until all bolts are sufficiently tightened.

**See Table 1 on page 6 for bolt torque requirements.**

## Storage Recommendation:

Gaskets should be stored in a cool location, out of direct sunlight, and shall not come in contact with petroleum products. Gaskets should be inaccessible to vermin and should be stored away from any electrical equipment such as switchgear unless adequate precautions are taken to avoid the concentration of ozone in the storage area. Gaskets should be used on a first-in, first-out basis and should be inspected annually and prior to installation. Evidence of surface cracking, dry rot, or vermin attack is cause for discarding the gaskets and replacement with new gaskets.

## ANSI/AWWA Standards

### ANSI/AWWA C115/A21.15

Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.

### ANSI/AWWA C110/A21.10

Ductile-Iron and Gray-Iron Fittings for Water

### ANSI/AWWA C153/A21.53

Ductile-Iron Compact Fittings for Water Service

### ANSI/AWWA C111/A21.11

Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings

### ASME/ANSI B16.1

Cast Iron Pipe Flanges and Flanged Fittings

### ASME/ANSI B16.5

Pipe Flanges and Flanged Fittings

### AWWA C207

Steel Pipe Flanges for Waterworks Service - Sizes 4 in. through 144 in.

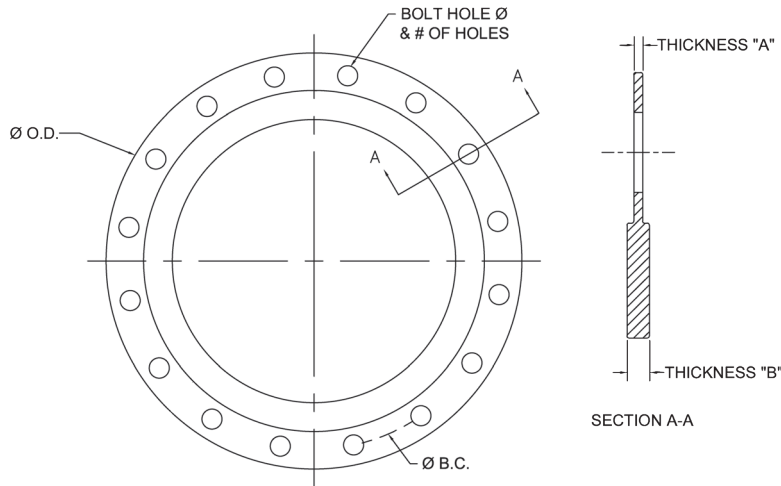
# FLANGE-TYTE II™ FULL FACE GASKET



STRONG...SINCE 1899

2016 EDITION

Revised 09.16



**NOTE:** U.S. Pipe recommends the use of **FLANGE-TYTE II™** Gaskets with Ductile Iron flanged joint products supplied by U.S. Pipe. These gaskets were designed specifically for the unique surface of Ductile Iron. Flat rubber gaskets are **NOT** considered equal in performance and may not provide the sealing capability the project requires. In addition, their use could result in unintended damage to the flanges and threads of the fabricated pipe by applying excess torque to the bolts/ flanges in order to seal the joint.

**FLANGE-TYTE II™** is a Trademark of United States Pipe and Foundry Company, LLC.

**Table 1. FLANGE-TYTE II™ Technical Data**

Size Inches	BC Inches	OD Inches	A	B	No. of Bolt Holes	Bolt Hole Dia. (in)	Working Pressure psi		
							150	250	350
							Bolt Torque ft-lb		
3	6.00	7.50	1/8	.281	4	3/4		90	110
4	7.50	9.00	1/8	.281	8	3/4	-	90	110
6	9.50	11.00	1/8	.281	8	7/8	-	90	110
8	11.75	13.50	1/8	.281	8	7/8	-	90	110
10	14.25	16.00	1/8	.312	12	1	-	90	130
12	17.00	19.00	1/8	.312	12	1	-	90	130
14	18.75	21.00	1/8	.375	12	1-1/8	-	110	150
16	21.25	23.50	1/8	.312	16	1-1/8	-	110	160
18	22.75	25.00	1/8	.375	16	1-1/4	-	120	180
20	25.00	27.50	1/8	.375	20	1-1/4	-	120	200
24	29.50	32.00	1/8	.375	20	1-3/8	-	130	220
30	36.00	38.75	1/8	.375	28	1-3/8	-	350	-
36	42.75	46.00	1/8	.375	32	1-5/8	-	475	-
42	49.50	53.00	1/8	.500	36	1-5/8	-	600	-

**NOTE:**

**Gasket Thickness:** All full face FLANGE-TYTE II™ Gaskets are 1/8" thick. Thinner gaskets are **NOT** recommended for use with Ductile Iron flanges.

**Material:** Gaskets will be furnished as SBR.

**Assembly:** See Page 4 of the full face FLANGE-TYTE II™ Brochure for guidance.

**Compatibility:** The full face FLANGE-TYTE II™ Gasket is compatible with flanges conforming to ANSI/AWWA C115/A21.15, ANSI/AWWA C110/A21.10, ASME B16.1 class 125, and ANSI/AWWA C207 class B, D, and E flanges.



# FLANGE-TYTE II™ FULL FACE GASKET



STRONG...SINCE 1899

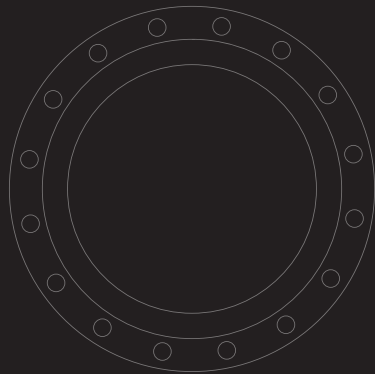
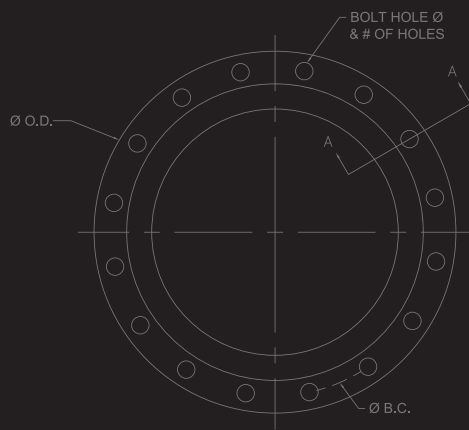
2016 EDITION

Revised 09.16

## Products for Water, Wastewater and Fire Protection

Ductile Iron Pipe	SIZE RANGE
TYTON JOINT® Pipe	3"-64"
Mechanical Joint Pipe	3"-64"
TR FLEX® Pipe	4"-36"
HP LOK® Restrained Joint Pipe	30"-64"
Flanged Pipe	3"-64"
USIFLEX® Boltless Flexible Ball Joint Pipe	4"-48"
<b>Restrained Joints</b>	
TR FLEX® Pipe	4"-36"
HP LOK® Restrained Joint Pipe	30"-64"
MJ FIELD LOK® Gaskets	4"-24"
FIELD LOK 350® Gaskets	4"-24"
FIELD LOK® Gasket	30" & 36"
TR FLEX GRIPPER® Rings	4"-36"
TR TELE FLEX® Assemblies	4"-24"
<b>Fittings</b>	
TRIM TYTON® Fittings	4"-12"
TYTON® Fittings	14"-64"
TR FLEX® Fittings and TR FLEX® Telescoping Sleeves	4"-64"
Mechanical Joint Fittings CIO	30"-48"
Flanged Fittings	30"-64"
XTRA FLEX® Couplings	4"-24"
<b>Miscellaneous Products</b>	
<b>PROTECTO 401™ Lined Ductile Iron Pipe for Domestic Sewage and Industrial Wastes</b>	<b>4"-64" Ductile Iron</b>
RING FLANGE-TYTE® Gaskets	4"-36"
Full Face FLANGE-TYTE II™ Gaskets	4"-42"
Polymeric Linings	For all pipe sizes
Saddle Outlets	Various Ductile Iron
Welded Outlets	Various Ductile Iron
Polyethylene Encasement	4"-64"

*Our products are manufactured in conformance with National Standards so that our customers may be assured of getting the performance and longevity they expect. Use of accessories or other appurtenances that do not comply with recognized standards may jeopardize the performance and longevity of the project.*



*All U.S. Pipe brochures and/or products are subject to change without further notice.*



STRONG...SINCE 1899

Two Chase Corporate Drive, Suite 200  
Birmingham, AL 35202  
866.DIP.PIPE (866.347.7473)  
FAX 205.254.7165  
[www.uspipe.com](http://www.uspipe.com)