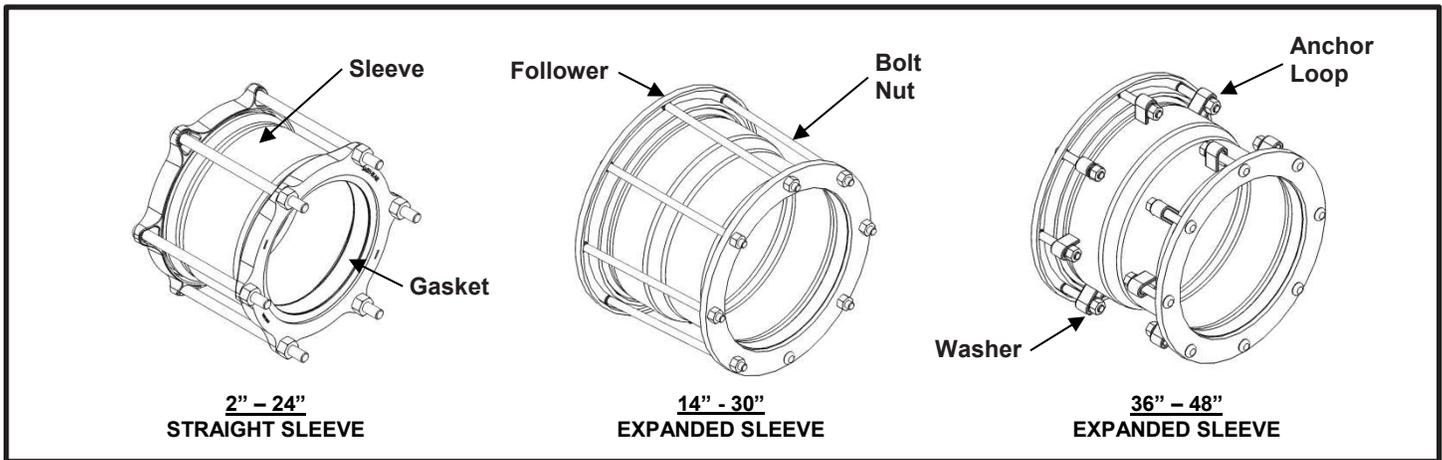


# SPECIFICATION

## STEEL TRANSITION COUPLING

### MODEL 413



#### APPLICATIONS

- **Typical Uses**
  - Joining plain-end pipe of different outside diameters within the same nominal pipe size
- **Standard Pipe Sizes**
  - 2" to 48" nominal
- **Type of Pipe**
  - Carbon Steel, Stainless Steel, Ductile Iron, Asbestos Cement, PVC, HDPE  
(see notes for thin wall PVC & HDPE applications)
- **Working Pressure**
  - 150 psi (standard design)

#### MATERIALS

- **Followers**
  - **Cast Follower** (for sizes up to 12" nominal pipe size)
    - Cast using Ductile Iron 65-45-12 per ASTM A536
    - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
    - Integral bolt head pocket for one wrench installation
  - **Steel Follower** (for sizes 14"-48" nominal pipe sizes)
    - Carbon Steel C1020 per ASTM A576
    - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
    - Integral bolt head pocket for one wrench installation
- **Sleeve**
  - Material: 2" – 5" nominal pipe size = Carbon Steel per ASTM A513 or A53  
6" – 48" nominal pipe size = Carbon Steel per ASTM A283C
  - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
  - Larger O.D. sleeves provided with hanging ring(s) for ease of installation



# SPECIFICATION

## STEEL TRANSITION COUPLING

### MODEL 413

- **Gasket**
  - Nitrile (Buna-N) per ASTM D2000
  - NSF/ANSI 61 and 372 certified
  - Compounded to resist water, oil, natural gas, acids, alkalies, most (aliphatic) hydrocarbon fluids, and many other chemicals
  - Temperature range: -20°F to +180°F
  - For ductile iron and asbestos cement pipe sizes, the gaskets sealing surface has molded in ribs for maximum sealing on textured pipe
  - Permanently marked with part number and pipe size range for proper selection
- **Anchor Loop**
  - Carbon Steel per ASTM A36
  - Welded to sleeve to secure each follower end independently allowing greater O.D. pipe transitions
- **Bolts**
  - HSLA Carbon Steel per AWWA C111/A21.11
  - 5/8"-11UNC, Track Head Oval Neck
  - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
- **Nut**
  - HSLA Carbon Steel per AWWA C111/A21.11
  - 5/8"-11UNC, Heavy Hex Semi-Finished

#### LISTINGS

- UL certified to NSF/ANSI 61 and 372
- Meets applicable AWWA C219 standards

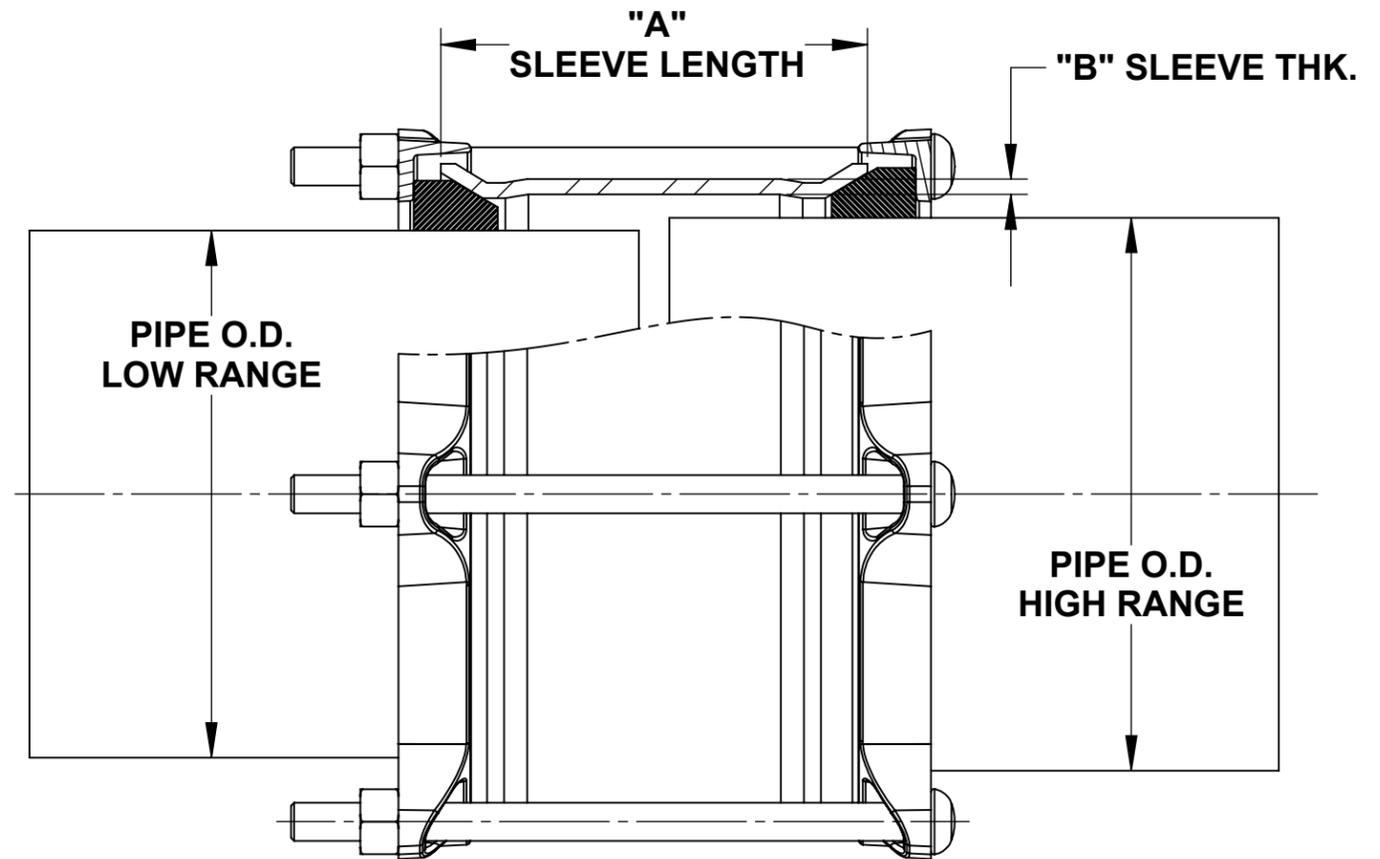
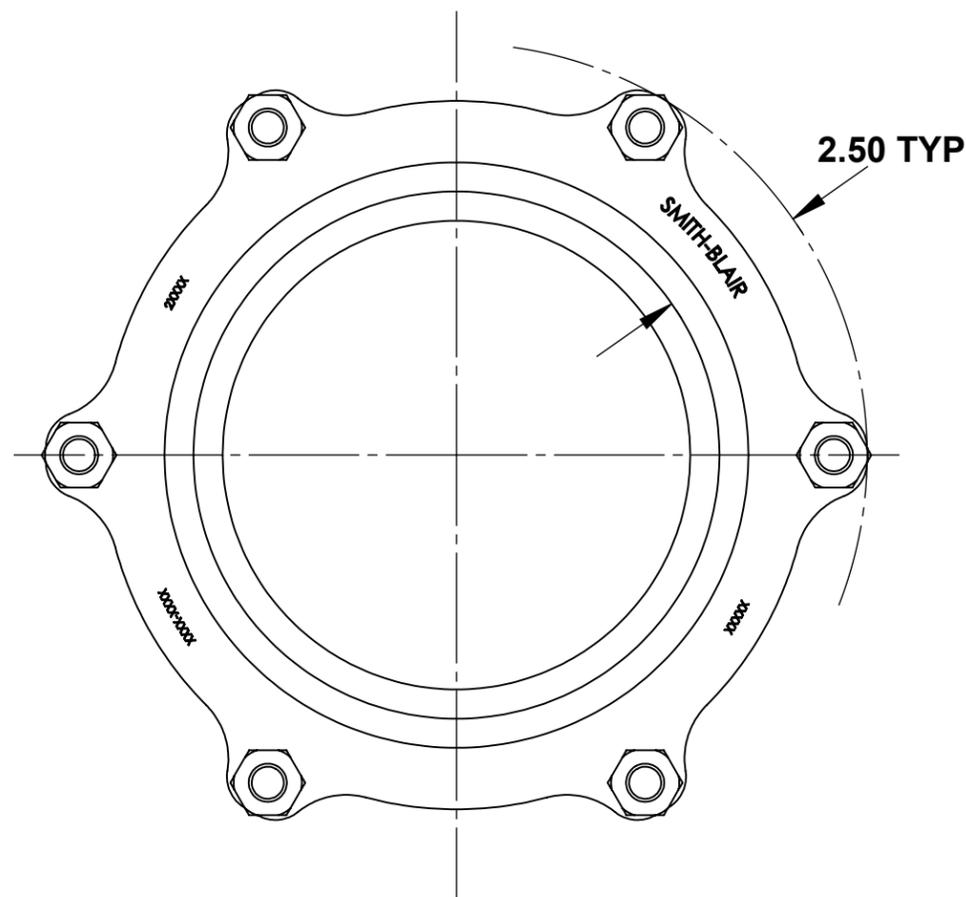
#### OPTIONS

- Other materials of construction (e.g. 304SS, 316SS, etc.)
- Type 304 Stainless Steel hardware with fluoropolymer coated nuts to prevent galling
- Type 316 Stainless Steel hardware with fluoropolymer coated nuts to prevent galling
- Alternative gasket material (e.g. Viton, EPDM, etc.)
- Protected gasket (brass spring molded into leading edge)
- Anode connector
- Insulating boot(s)
- Anchor studs
- Pipe stops incorporated into sleeve
- Higher working pressure design
- Custom sleeve length and thickness

#### NOTES

- This product **does not** restrain the pipe from pulling out of the fitting
- Pipe stiffeners **are required** when this product is used on HDPE and thin wall PVC pipe
- Flexi-Coat<sup>®</sup> is a registered trademark of Smith-Blair Inc.
- These product specifications were correct at the time of publication and are subject to change without notice
- See the Smith-Blair<sup>®</sup> web site for part numbers and ordering information
- See the Smith-Blair<sup>®</sup> web site for warranty information
- See the Smith-Blair<sup>®</sup> web site for corrosion warnings

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Ph: 870-773-5127 • Fax: 870-773-5212  
Toll-Free Numbers: Ph: 800-643-9705 • Fax: 800-648-6792



NOM. PIPE SIZE	MAX COUPLING O.D. RANGE	A	B	HARDWARE		APPROX. WEIGHT (LBS)
				QTY.	SIZE	
2	2.07 TO 2.81	5	0.261	2	5/8" X 8.00"	8.00
2-3	2.69 TO 3.88	5	0.227	2	5/8" X 8.00"	9.50
3-4	3.44 TO 4.68	5	0.258	3	5/8" X 8.00"	13.00
5-5	4.74 TO 5.84	5	0.280	4	5/8" X 8.00"	20.50
5-6	5.47 TO 6.99	5	0.301	5	5/8" X 8.00"	23.50
6	6.57 TO 7.26	5	0.322	5	5/8" X 8.00"	27.75
8	7.94 TO 8.75	5	0.342	6	5/8" X 8.00"	33.50
8	7.94 TO 9.25	5	0.375	6	5/8" X 8.00"	40.50
8	8.56 TO 9.45	5	0.375	6	5/8" X 8.00"	40.50
8-10	9.00 TO 10.38	5	0.375	7	5/8" X 8.00"	41.00
10	9.88 TO 10.84	5	0.250	8	5/8" X 8.00"	32.75
10	10.63 TO 11.50	5	0.375	7	5/8" X 8.00"	46.00
10-12	11.00 TO 12.06	5	0.375	7	5/8" X 8.00"	47.50
12	11.88 TO 13.10	5	0.375	8	5/8" X 8.00"	52.25
12	12.63 TO 13.70	5	0.375	8	5/8" X 8.00"	56.50
12-14	13.88 TO 14.50	5	0.375	6	5/8" X 8.00"	62.00
14	15.30 TO 15.65	7	0.375	8	5/8" X 11.00"	86.00
16	17.40 TO 17.80	7	0.375	8	5/8" X 11.00"	96.00
18	19.50 TO 19.92	7	0.375	10	5/8" X 11.00"	108.00
20	21.60 TO 22.06	7	0.375	10	5/8" X 11.00"	118.00
24	25.80 TO 26.32	7	0.375	12	5/8" X 11.00"	140.00

## 2" - 24" STRAIGHT SLEEVE TRANSITION COUPLING

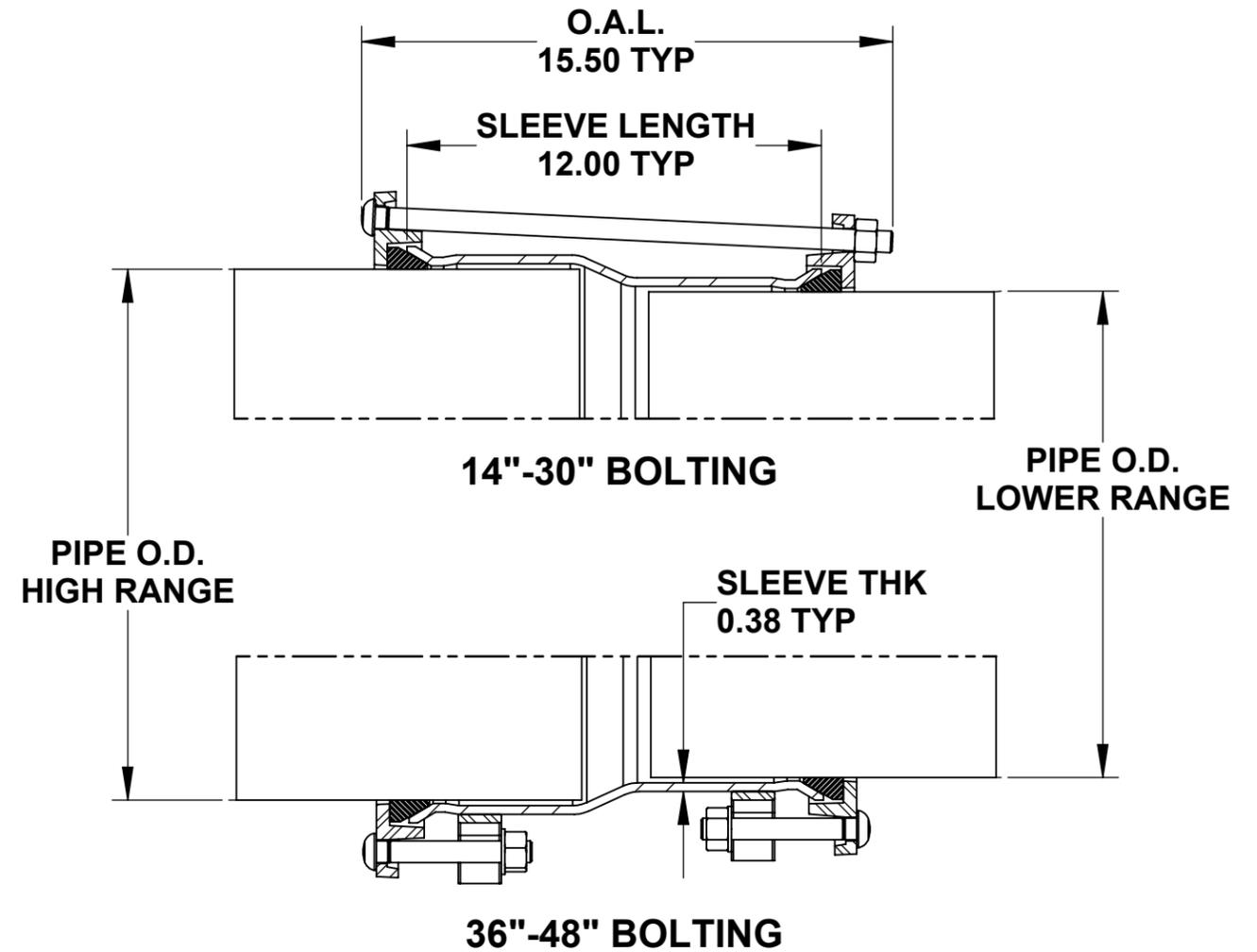
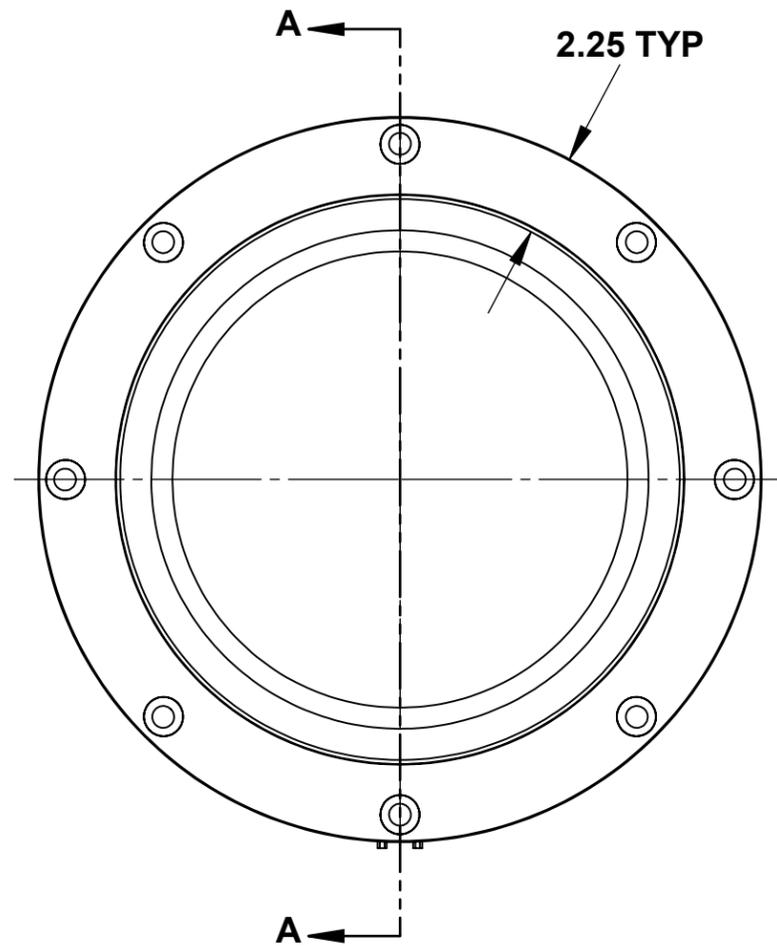
CERTIFIED TO NSF/ANSI 61-G & 372

**NOTES:**

- SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
- 8.63" X 9.05" STD SLEEVE LENGTH COUPLING SHOWN. OTHER SIZES SIMILAR

WRENCH SIZE CHART	
NUT	SIZE
5/8"-11UNC HH	1-1/16"

TOLERANCES U.N.O. .XX= ±.03 .XXX= ±.015 FRACTIONS= ±1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.	APP'D	DATE
	SCALE: N/A	CK'D	DATE
ALL DIMENSIONS ARE IN INCHES.		DRN	CHD
TITLE		DATE	10/6/15
<b>SPECIFICATION STEEL TRANSITION COUPLING MODEL 413</b>			
SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS		P/N N/A	
		DWG. NO. SPEC_413.DRW	1 OF 2 SHEET
		3/8/16 REV.	



SECTION A-A

**NOTES:**

- 1. SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
- 2. 8.63" X 9.05" STD SLEEVE LENGTH COUPLING SHOWN. OTHER SIZES SIMILAR

CERTIFIED TO NSF/ANSI 61-G & 372

NOM. PIPE SIZE	MAX COUPLING O.D. RANGE	HARDWARE		APPROX. WEIGHT (LBS)
		QTY.	SIZE	
14	14.00 TO 15.30	8	5/8" X 15.00"	110
16	16.00 TO 17.40	8	5/8" X 15.00"	125
18	18.00 TO 19.50	8	5/8" X 15.00"	145
20	20.00 TO 21.60	10	5/8" X 15.00"	160
24	24.00 TO 25.80	12	5/8" X 15.00"	180
30	30.00 TO 32.00	14	5/8" X 15.00"	215
36	36.00 TO 38.30	32	5/8" X 4.50"	260
42	42.00 TO 44.50	36	5/8" X 4.50"	315
48	48.00 TO 50.80	40	5/8" X 4.50"	350

## 14" - 48" EXPANDED SLEEVE TRANSITION COUPLING

WRENCH SIZE CHART	
NUT	SIZE
5/8"-11UNC HH	1-1/16"

TOLERANCES U.N.O. .XX= ±.03 .XXX= ±.015 FRACTIONS= ±.015 ANGLES= ±1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.	APP'D	DATE	
		CK'D	DATE	
	SCALE: N/A	DRN	CHD	DATE 10/6/15
<b>TITLE SPECIFICATION STEEL TRANSITION COUPLING MODEL 413</b>				
<b>SMITH-BLAIR, Inc.</b> TEXARKANA, ARKANSAS		P/N N/A		
DWG. NO.		<b>SPEC_413.DRW</b>		2 OF 2 SHEET 3/8/16 REV.