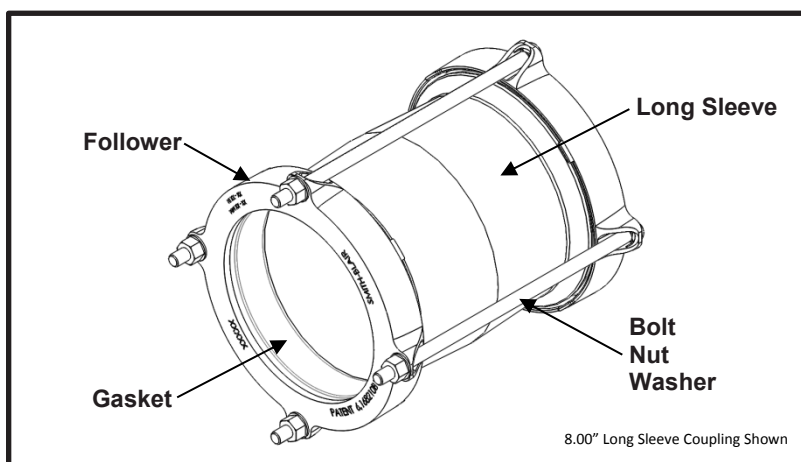


# SPECIFICATION

## QUANTUM® WIDE RANGE CAST COUPLING – LONG SLEEVE MODEL 462



### APPLICATIONS

- **Typical Uses**
  - Joining plain-end pipe of different outside diameters with same nominal size
  - Replace split or excessively damaged pipe
- **Standard Pipe Sizes**
  - 4" to 12" nominal
- **Type of Pipe**
  - Carbon Steel, Stainless Steel, Ductile Iron, Asbestos Cement, PVC, HDPE  
(see notes for thin wall PVC & HDPE applications)
- **Working Pressure**
  - 250 psi

### MATERIALS

- **Follower**
  - Cast using Ductile Iron 65-45-12 per ASTM A536
  - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
  - Permanently marked with part number and pipe size range for proper selection
  - Integral bolt head pocket for one wrench installation
  - Designed to provide up to 1.65" of range with a single follower
  - Tabs cast in follower to center and concentrate sealing force uniformly over gasket
- **Sleeve**
  - Cast using Ductile Iron 65-45-12 per ASTM A536
  - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
  - Single sleeve design for each nominal pipe size reducing inventory
  - Longer body allows for increased size flexibility in pipe repairing and gap separation
- **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
  - Leading edge of gasket has molded in ribs for maximum sealing against sleeve
  - Permanently marked with part number and pipe size range for proper selection

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## QUANTUM® WIDE RANGE CAST COUPLING – LONG SLEEVE

### MODEL 462

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- **Bolts**
  - HSLA Carbon Steel per AWWA C111/A21.11
  - Epoxy coated threads to prevent galling
  - 5/8"-11UNC x 17.00" long, Oval Neck Track Head
  - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
- **Nut**
  - HSLA Carbon Steel per AWWA C111/A21.11
  - Fluoropolymer coated to prevent galling
  - 5/8"-11UNC, Heavy Hex Semi-Finished
- **Washer**
  - Carbon Steel per ASTM F844
  - Fe/Zn coated per ASTM F1941-10
  - 5/8" Type A Plain
  - Utilized to preserve corrosion resistance of epoxy coated surfaces and increase bearing surface

#### LISTINGS

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

#### OPTIONS

- 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)

#### 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® and Quantum® are registered trademarks 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® web site for part numbers and ordering information
- See the Smith-Blair® web site for warranty information
- See the Smith-Blair® web site for corrosion warnings

# SPECIFICATION

## QUANTUM® WIDE RANGE CAST COUPLING – LONG SLEEVE MODEL 462

### Recommended Pipe to Pipe Centerline Gaps

Sleeve Length	Optimum Gaps		Maximum Gap
	Straight Run	Deflected Joints	
5"	1/2"	1"	2"
7"	1/2"	1-1/2"	3"
10"	1"	2-1/4"	4-1/2"
Longer Than 10"	1"	2-3/4"	"Sleeve Length" – 6"

*Pipe gap to be centered in coupling sleeve.*

### Total Maximum Allowable Axial Pipe Movement per Coupling

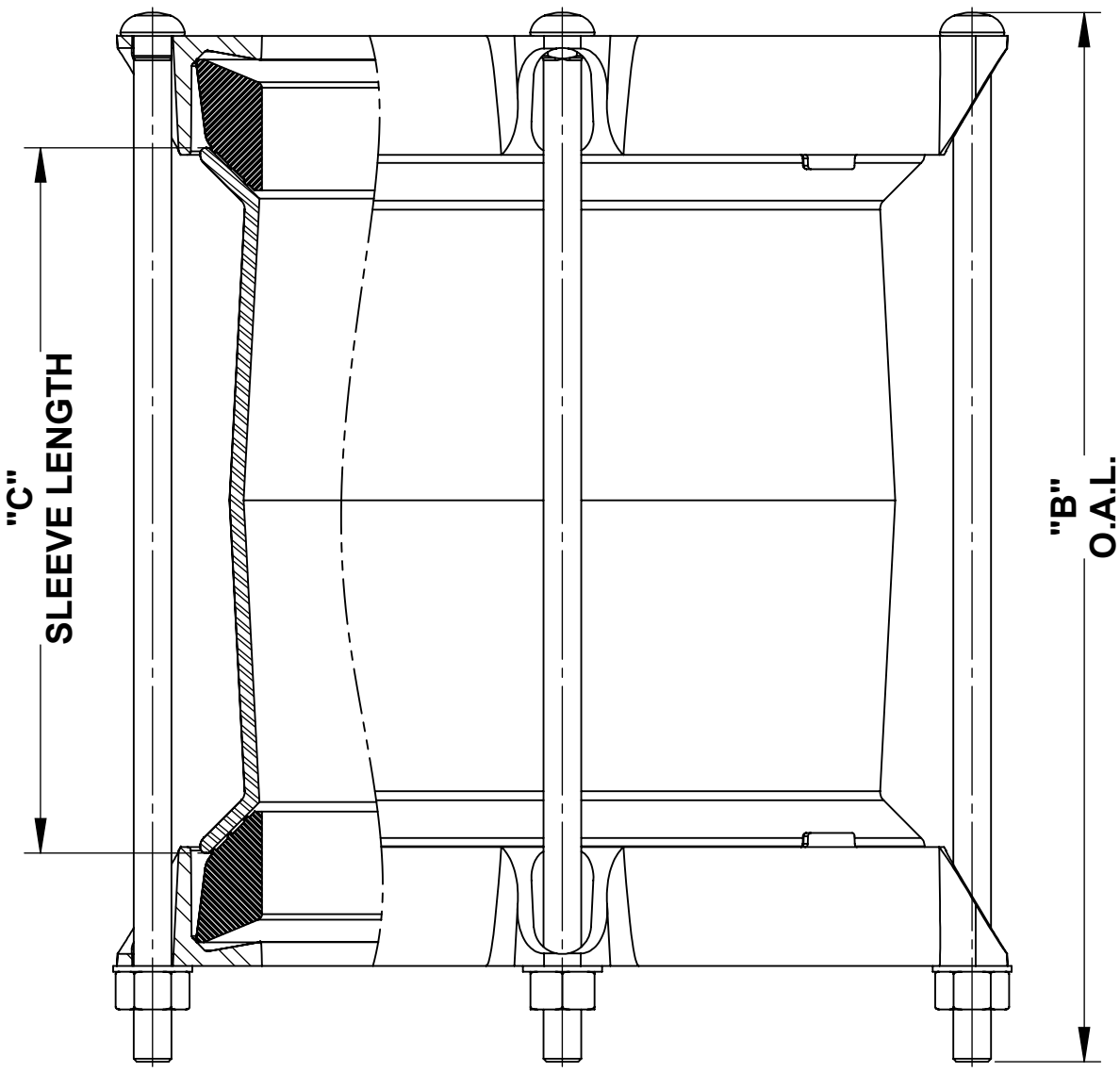
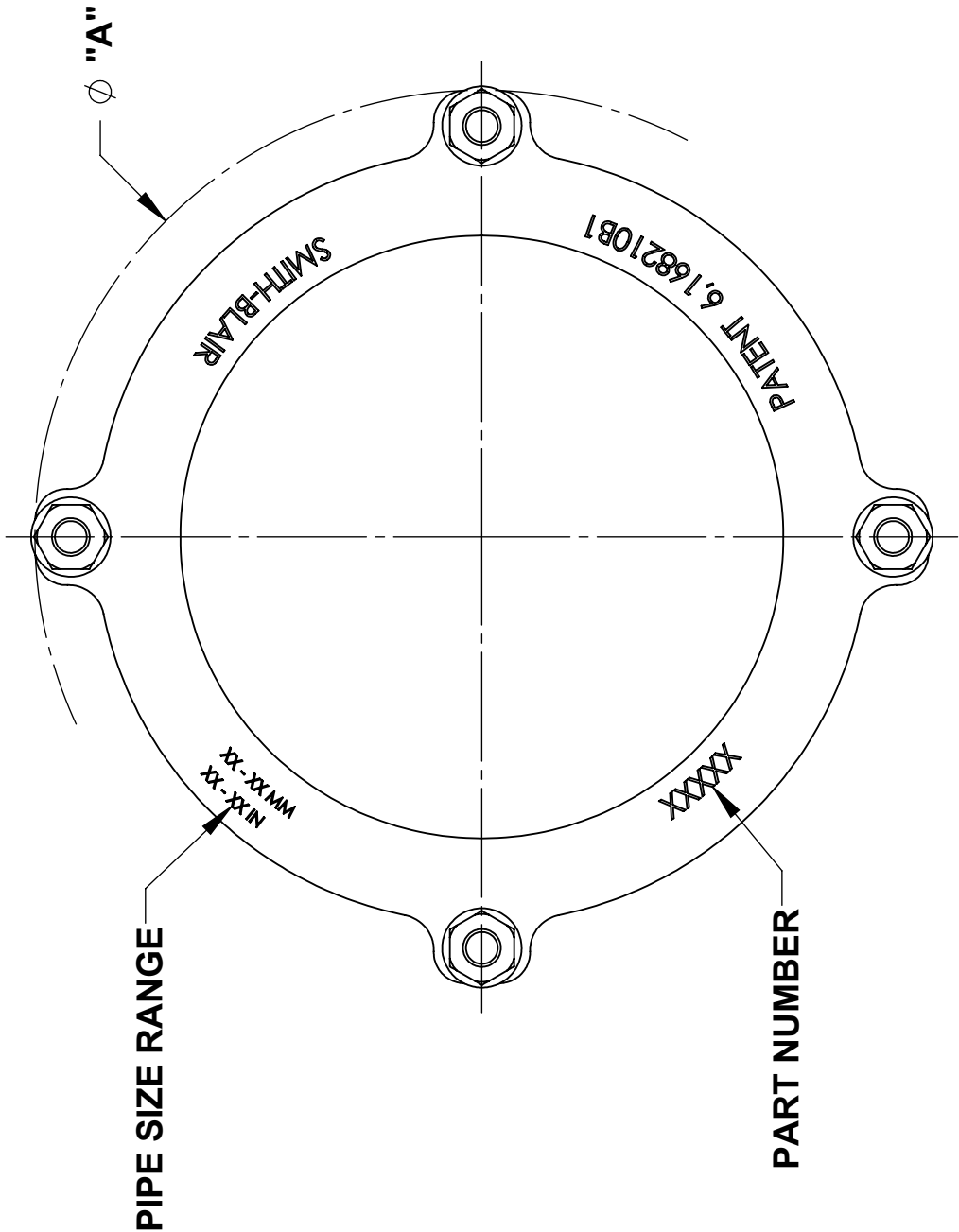
Coupling Size	Allowable Movement
3/4" to 2"	1/8"
2-1/2" to 10"	1/4"
10-3/4" and Larger	3/8"

### Pipe End Tolerances

Pipe OD	Minus Tolerance	Plus Tolerance
1/2" up to 16"	-0.06	+0.06
>16" up to 24"	-0.08	+0.08
>24" up to 42"	-0.10	+0.10
>42"	-0.06	+0.12

### Maximum Angular Deflection per Coupling

Nominal Pipe Size	Center Sleeve Length		
	5"	7"	10" and Larger
1/2" up to 2"	7°	7°	7°
>2" up to 12"	4°	4-1/2°	4-1/2°
>12" up to 24"	2-1/2°	4°	4-1/2°
>24" up to 36"	-	3-1/2°	4°
>36" up to 42"	-	3°	3-1/2°
>42" up to 60"	-	2-1/2°	3°
>60" up to 80"	-	-	2-1/2°
>80" up to 100"	-	-	2°
>100"	-	-	-



- NOTES:
- SEE SMITH-BLAIR CATALOG FOR PIPE RANGE AVAILABILITY
  - 8" COUPLING SHOWN OTHER SIZES SIMILAR

NOM. PIPE SIZE	PIPE O.D. RANGE	A	B	C	HARDWARE		APPROX WEIGHT (LBS)
					QTY.	SIZE	
4	4.46 TO 5.60	10.50	17.50	12	4	5/8" X 17.00"	31.4
6	6.54 TO 7.65	12.50	17.50	12	4	5/8" X 17.00"	42.3
8	8.54 TO 9.85	15.25	17.50	12	4	5/8" X 17.00"	55.3
10	10.65 TO 12.20	18.00	17.50	12	8	5/8" X 17.00"	73.0
12	12.75 TO 14.40	20.25	17.50	12	8	5/8" X 17.00"	87.0

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

CERTIFIED TO NSF/ANSI 61-G & 372

TOLERANCES U.N.O. XX= ±.03 XXX= ±.015 FRACTIONS= 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
ALL DIMENSIONS ARE IN INCHES.			DATE
TITLE SPECIFICATION QUANTUM® WIDE RANGE CAST COUPLING – LONG SLEEVE MODEL 462			
SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS		P/N N/A	
SPEC_462.DRW		1 OF 1	3/8/16
DWG. NO.		SHEET REV.	