



# Installation Instructions

## 421, 422

### Top Bolt® Wide Range Coupling 2"-12"

**Please read installation instructions carefully! See reverse side for notices and warnings!**

**NOTE: This coupling is designed for stab fit. Disassembly is not required.**

**STEP 1**

Inspect the shipment received to ensure no damage has occurred during transit and that no hardware is missing. If present, remove banding straps from coupling prior to installation.

**STEP 2**

Clean pipe surface thoroughly, particularly in area where gasket will seat. Be sure to remove any scale, dirt, or debris that could affect the gasket seal.

**STEP 3**

Measure the outer diameter where gasket will seal and compare the measurement with the gasket range chart below. If the pipe diameter is within the outer gasket range, remove the inner gasket. If not, proceed to Step 4. Repeat this step for each pipe and coupling end. (If the inner gasket is removed by mistake, simply align both the outer and inner gasket grooves and firmly press the inner gasket into place.

**STEP 4**

Lubricate pipes and face of gaskets with suitable lubricant.

**STEP 5**

Slide coupling entirely onto one pipe. If necessary, slightly loosen nuts to facilitate installation. (If reducing, pull onto smaller pipe)

**STEP 6**

Center coupling sleeve over both pipe ends. Do not exceed recommended gap between pipe ends listed below. Do not exceed 4° deflection per end.

**STEP 7**

Tighten bolts on each end to the recommended torque listed below.

**NOTE:** Use of a calibrated torque wrench is recommended!

**NOTE:** Do not lubricate bolts!

**STEP 8**

Re-check bolt torque after line pressurization.

Nominal Size (in)	Catalog Number	Overall Range (in)	Inner Gasket Range (in)	Outer Gasket Range (in)	Maximum Gap <sup>1</sup> (in)	Torque (ft-lb)	Working Pressure (psi)	Test Pressure (psi)
2	42X-02130295-XXX	2.13-2.95	2.13-2.60	2.50-2.95	1	50 <sup>2</sup>	260	390
3	42X-03100420-XXX	3.10-4.20	3.10-3.56	3.70-4.20	2	50 <sup>2</sup>	260	390
4	42X-04460560-XXX	4.46-5.60	4.46-5.05	5.00-5.60	2	60-70	260	390
6	42X-06560760-XXX	6.56-7.60	6.56-7.05	7.00-7.60	4	60-70	260	390
8	42X-08540985-XXX	8.54-9.85	8.54-9.15	9.15-9.85	4	60-70	260	390
10	42X-10641183-XXX	10.64-11.83	10.64-11.18	11.13-11.83	4	60-70	260	390
10 OS	421-10641220-XXX	10.64-12.20	11.00-11.56	11.56-12.20	4	60-70	260	390
12	42X-12621367-XXX	12.62-13.67	12.62-13.06	13.10-13.67	4	60-70	260	390
12 OS	421-12621440-XXX	12.62-14.40	13.14-13.78	13.73-14.40	4	60-70	260	390

1. When using the 422, the maximum gap between pipe ends can be doubled.

2. Coupling may go metal-bound on 2" CTS, or 2.50 OD without inner gasket; or on 3" CTS or 3.70 OD without inner gasket. Continue to tighten to recommended torque.

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## 421, 422

### Top Bolt® Wide Range Coupling 2"-12"



**THIS PRODUCT DOES NOT RESTRAIN PIPE MOVEMENT.** Proper anchoring is required to prevent pipe pull out. Failure to anchor or improper anchoring can result in dangerous pipe content escape, property damage, serious injury, or death. Refer to [smith-blair.com](http://smith-blair.com) for products designed to restrain axial pipe movement. Read the product installation instructions prior to installing this product.



**NOT FOR GAS SERVICE!**

This product is not designed and tested to be used on any applications containing gas. Failure to use the proper coupling for any gas pipeline can result in dangerous pipe content escape, property damage, serious injury, or death.

**Smith-Blair Top Bolt® Series Wide Range Couplings**  
**US Patent 8,528,945 8,864,181 B2 8,776,351 B2**  
**8,789,832 B2 & Other Patents Pending**

#### WARRANTY

Smith-Blair® warrants its products only against defects in materials and workmanship. Smith-Blair's liability and customer's exclusive remedy under this warranty or any warranty extends for a period of one (1) year from the date of Smith-Blair's ship date and is expressly limited to repayment of the purchase price, repair, or replacement, at Smith-Blair's option, during said period, upon proof satisfactory to Smith-Blair® and upon customer's returning and prepaying all charges on such products to factory or warehouse designated by Smith-Blair.

This warranty is made expressly in lieu of all other warranties, expressed, implied or statutory, with respect to quality, merchantability or fitness for a particular purpose.

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#### NOTICE

Metal products are subject to corrosion, particularly when used outdoors and/or underground. A large number of factors and local conditions affect the rate of corrosion. Consult a local corrosion expert to determine the life expectancy of this product when used with your pipeline content, soil, and environment. Also, consult your system designer to determine the suitability of this product in your piping system. Failure to determine the suitability of this product in your application, soil, and/or environment can result in premature product failure. Smith-Blair® will provide additional information about this product's material specifications at your request. You may also obtain product information at [www.smith-blair.com](http://www.smith-blair.com).

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# Installation Instructions

## 421

### Top Bolt® Wide Range Coupling 16" & 24"

**Please read installation instructions carefully! See reverse side for notices and warnings!**

**NOTE: This coupling is designed for stab fit. Disassembly is not required.**

**STEP 1**

Inspect the shipment received to ensure no damage has occurred during transit and that no hardware is missing. If present, remove banding straps from coupling prior to installation.

**STEP 2**

Clean pipe surface thoroughly, particularly in area where gasket will seat. Be sure to remove any scale, dirt, or debris that could affect the gasket seal.

**STEP 3**

Measure the outer diameter where gasket will seal and compare the measurement with the gasket range chart below. If the pipe diameter is within the outer gasket range, remove the inner gasket. If not, proceed to Step 4. Repeat this step for each pipe and coupling end. (If the inner gasket is removed by mistake, simply align both the outer and inner gasket grooves and firmly press the inner gasket into place.

**STEP 4**

Slide coupling entirely onto one pipe. If necessary, slightly loosen nuts to facilitate installation. (If reducing, pull onto smaller pipe)

**NOTE:** No lubrication on the coupling or pipe necessary!

**STEP 5**

Center coupling sleeve over both pipe ends. Do not exceed recommended gap between pipe ends listed below. Do not exceed 4° deflection per end.

**STEP 6**

On end of coupling, tighten bolts equally alternate sides and maintain equal gap distances between flange halves to the recommended torque listed below. Repeat this for opposite end of coupling.

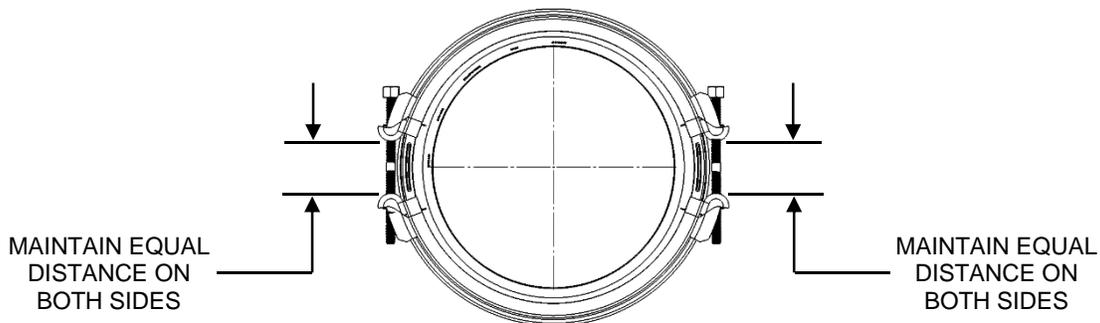
**NOTE:** Use of a calibrated torque wrench is recommended!

**NOTE:** Do not lubricate bolts!

**STEP 7**

Re-check bolt torque after line pressurization.

Nominal Size (in)	Catalog Number	Overall Range (in)	Inner Gasket Range (in)	Outer Gasket Range (in)	Maximum Gap <sup>1</sup> (in)	Torque (ft-lb)	Working Pressure (psi)	Test Pressure (psi)
16	421-16001785-XXX	16.00-17.85	16.00-16.50	17.35-17.85	4	150	260	390
24	421-24002632-XXX	24.00-26.32	24.00-24.80	25.25-26.32	4	150	230 DIPS	345 DIPS
							150 IPS	225 IPS



# Installation Instructions

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### Smith-Blair Top Bolt® Series Wide Range Couplings

US Patent 8,528,945 8,864,181 B2 8,776,351 B2

8,789,832 B2, 9,791,077

#### WARRANTY

Smith-Blair® warrants its products only against defects in materials and workmanship. Smith-Blair's liability and customer's exclusive remedy under this warranty or any warranty extends for a period of one (1) year from the date of Smith-Blair's ship date and is expressly limited to repayment of the purchase price, repair, or replacement, at Smith-Blair's option, during said period, upon proof satisfactory to Smith-Blair® and upon customer's returning and prepaying all charges on such products to factory or warehouse designated by Smith-Blair.

This warranty is made expressly in lieu of all other warranties, expressed, implied or statutory, with respect to quality, merchantability or fitness for a particular purpose.

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#### NOTICE

Metal products are subject to corrosion, particularly when used outdoors and/or underground. A large number of factors and local conditions affect the rate of corrosion. Consult a local corrosion expert to determine the life expectancy of this product when used with your pipeline content, soil, and environment. Also, consult your system designer to determine the suitability of this product in your piping system. Failure to determine the suitability of this product in your application, soil, and/or environment can result in premature product failure. Smith-Blair® will provide additional information about this product's material specifications at your request. You may also obtain product information at [www.smith-blair.com](http://www.smith-blair.com).

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