



# Quantum Coupling

Patent 6,168210B1

# 461



**Description:** Wide Range Cast Couplings

**Application:** Joining plain end pipe of all outside diameters within the coupling range.

### Key Features:

- Great for reducing coupling inventory
- Heavy cast Ductile Iron parts for long life
- Meets applicable AWWA C219 Standards
- Stab fit, making installation a breeze. No disassembly required
- Bolts and nuts are coated for superior corrosion resistance and better torque capabilities
- Up to 1.65" of range with a single gasket and flange, reducing the need for large coupling inventories
- One coupling per nominal pipe size takes the guess work out of deciding which coupling size to choose

### Materials Specifications (subject to change):

SLEEVE: High Strength Ductile Iron ASTM A536

FLANGES: High Strength Ductile Iron ASTM A536

GASKET: Nitrile (Buna N) NSF 61 approved

FINISH: Flexi-Coat® Fusion-Bonded Epoxy Finish

BOLTS: HSLA Steel per ANSI A21.11 (AWWA C111) with Flexi-Coat® Fusion-Bonded Epoxy Finish to prevent galling (Stainless Steel optional)

NUTS: Heavy hex HSLA Steel per ANSI A21.11 with fluoropolymer Finish to prevent galling

Temperature Range: -20°F to +180°F

**Working Pressure:** Up to 250 PSI

**Pipe Applications:** Steel, Cast Iron, Asbestos Cement, PVC and other. For other pipe materials, please contact Smith-Blair Engineering.

**Sizes (in inches):** 1½, 2, 2½, 3, 4, 6, 8, 10, 12



**THIS PRODUCT DOES NOT RESTRAIN PIPE MOVEMENT.** Proper anchoring is required to prevent pipe pullout. Failure to anchor or improper anchoring can result in dangerous pipe content escape, property damage, serious injury, or death. Read the product installation instructions prior to installing this product.



36 Hudson Rd  
Sudbury MA 01776



800-225-4616  
www.tisales.com



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## Standard Coupling

| NOM. SIZE (IN.) | O.D. RANGE (IN.) | WITH EPOXY COATED ALLOY BOLTS & NUTS | WITH STAINLESS STEEL BOLTS & NUTS | SLEEVE LENGTH (IN.) | 5/8" BOLT QUANTITY | LAYING LENGTH (IN.) | WT. (LBS.) |
|-----------------|------------------|--------------------------------------|-----------------------------------|---------------------|--------------------|---------------------|------------|
|                 |                  | CATALOG NUMBER                       | CATALOG NUMBER                    |                     |                    |                     |            |
| 1 1/2           | 1.81 - 2.28      | 461-01810228-000                     | 461-01810228-031                  | 4                   | 2                  | 10.5                | 8.2        |
| 2               | 2.34 - 2.85      | 461-02340285-000                     | 461-02340285-031                  | 4                   | 2                  | 10.5                | 10         |
| 2 1/2           | 2.84 - 3.35      | 461-02840335-000                     | 461-02840335-031                  | 4                   | 2                  | 10.5                | 10         |
| 3               | 3.46 - 4.21      | 461-03460421-000                     | 461-03460421-031                  | 5                   | 4                  | 10.5                | 15         |
| 4               | 4.46 - 5.60      | 461-04460560-000                     | 461-04460560-031                  | 5.5                 | 4                  | 10.5                | 26         |
| 6               | 6.54 - 7.65      | 461-06540765-000                     | 461-06540765-031                  | 6                   | 4                  | 10.5                | 33         |
| 8               | 8.54 - 9.85      | 461-08540985-000                     | 461-08540985-031                  | 6                   | 4                  | 10.5                | 44         |
| 10              | 10.65 - 12.20    | 461-10651220-000                     | 461-10651220-031                  | 7.5                 | 8                  | 13.5                | 72         |
| 12              | 12.75 - 14.40    | 461-12751440-000                     | 461-12751440-031                  | 7.5                 | 8                  | 13.5                | 89         |

## Metric Coupling

| NOM. SIZE |      | O.D. RANGE    |           |
|-----------|------|---------------|-----------|
| (IN)      | (MM) | (IN)          | (MM)      |
| 1 1/2     | 40   | 1.81 - 2.28   | 46 - 58   |
| 2         | 50   | 2.34 - 2.85   | 59 - 72   |
| 2 1/2     | 65   | 2.84 - 3.35   | 72 - 85   |
| 3         | 80   | 3.46 - 4.21   | 88 - 107  |
| 4         | 100  | 4.46 - 5.60   | 113 - 142 |
| 6         | 150  | 6.54 - 7.65   | 166 - 194 |
| 8         | 200  | 8.54 - 9.85   | 217 - 250 |
| 10        | 250  | 10.65 - 12.20 | 271 - 310 |
| 12        | 300  | 12.75 - 14.40 | 324 - 366 |

## Long Sleeve Coupling

| NOM. SIZE (IN.) | O.D. RANGE (IN.) | WITH EPOXY COATED ALLOY BOLTS & NUTS | WITH STAINLESS STEEL BOLTS & NUTS | SLEEVE LENGTH (IN.) | 5/8" BOLT QUANTITY | LAYING LENGTH (IN.) | WT. (LBS.) |
|-----------------|------------------|--------------------------------------|-----------------------------------|---------------------|--------------------|---------------------|------------|
|                 |                  | CATALOG NUMBER                       | CATALOG NUMBER                    |                     |                    |                     |            |
| 4               | 4.46 - 5.60      | 462-04460560-000                     | 462-04460560-031                  | 12                  | 4                  | 17                  | 31.4       |
| 6               | 6.54 - 7.65      | 462-06540765-000                     | 462-06540765-031                  | 12                  | 4                  | 17                  | 42.3       |
| 8               | 8.54 - 9.85      | 462-08540985-000                     | 462-08540985-031                  | 12                  | 4                  | 17                  | 55.3       |
| 10              | 10.65 - 12.20    | 462-10651220-000                     | 462-10651220-031                  | 12                  | 8                  | 17                  | 73.0       |
| 12              | 12.75 - 14.40    | 462-12751440-000                     | 462-12751440-031                  | 12                  | 8                  | 17                  | 87.0       |