

## **SECTION 05 05 23 BOLTS, NUTS AND ACCESSORIES**

### **PART 1 GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Steel bolts, nuts, washers, clamps, straps, rods and accessories.
- B. Galvanize bolts, nuts and accessories unless specified otherwise.

#### **1.2 REFERENCES**

- A. AISC M011: Manual of Steel Construction.
- B. ASME B1.1: Unified inch Screw Threads (UN and UNR Thread Form), Supplement.
- C. ASTM A 126: Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
- D. ASTM A 197: Standard Specification for Cupola Malleable Iron.
- E. ASTM A 307: Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
- F. ASTM A 325: Standard Specification for High-Strength Bolts for Structural Steel Joints.
- G. ASTM A 506: Standard Specification for Steel, Sheet and Strip, Alloy, Hot-Rolled and Cold-Rolled, Regular Quality and Structural Quality.
- H. ASTM A 575: Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grades.
- I. ASTM F 593: Standard Specifications for Stainless Steel Bolts, Hex Cap Screws, and Studs.

### **PART 2 PRODUCTS**

#### **2.1 MATERIALS**

- A. Bolts, Nuts, Accessories: Galvanized steel, Section 05 05 10 (except if stainless steel).
- B. All sizes bolts and nuts, American Standard machined heavy hexagon heads with class 2 fit and threads, ASME B1.1.
- C. Standard Bolts: Steel, ASTM A 307.
- D. High Strength Bolts: Steel, ASTM A 325.
- E. Anchor Bolts: Steel, ASTM A 307, or ASTM F 593 stainless steel when indicated.
- F. Washers: Grey iron, ASTM A 126.
- G. Clamps and Straps: Steel, ASTM A 506.
- H. Rods: Steel, ASTM A 575.
- I. Rod Coupling: Malleable iron, ASTM A 197.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION**

- A. Torque all nuts and bolts by procedures contained in AISC M011 to secure items requiring fastening.

B. Extend bolt through nut not less than 1/4 inch beyond nut.

END OF SECTION