

**ROYAL MODEL 180  
SECTION 15440  
PLUMBING FIXTURES**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

A. Exposed urinal Flushometers for 1-1/4" (3.81cm) top spud urinals.

1.02 RELATED SECTIONS

A. Section 15010: Basic Mechanical Requirements.

B. Section 15050: Basic Mechanical Materials and Methods.

1.03 QUALITY ASSURANCE

A. Codes and Standards:

1. Americans with Disabilities Act (ADA).

\*\*INSERT NAME OF APPLICABLE CODE\*\*

2. [ ] Plumbing Code.

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each Flushometer specified.

B. Shop Drawings: Submit manufacturer's rough-in drawings indicating rough-in requirements, dimensions, required clearances, and methods of assembly of components and anchorages.

C. Maintenance Data: Include manufacturer's maintenance data in Maintenance Manual as specified in Division 1.

1.05 DELIVERY, STORAGE AND HANDLING

A. Store Flushometers in manufacturer's original packaging. Do not store packages in such a manner that may cause damage to Flushometers.

**PART 2 - PRODUCTS**

2.01 ACCEPTABLE MANUFACTURERS

A. Sloan Valve Company; Royal Model 180 Flushometer.

2.02 FIXTURES

A. Flushometers: Quiet, exposed diaphragm type, urinal Flushometer, chrome plated, with metal oscillating non-hold-open handle, 1"(2.54cm) I.P.S. screwdriver Bak-Chek control stop with protective cap, adjustable tailpiece, vacuum breaker, flush connection and spud coupling for 1-1/4"(3.18cm) top spud, spud flange, cover tube, set screw wall flange and sweat-solder adaptor. Valve body, cover, tailpiece and control stop shall conform with ASTM alloy classification for red and semi-red brasses. Valve shall conform with Federal Spec WW-P-541, Mil Spec V-29193, ANSI 112.19.6 and ASSE 1037. Valve must be non-externally adjustable to prevent installer from easily adjusting water volume delivery in violation of applicable water use laws and requirements. Valve must be non-externally adjustable to prevent installer from easily adjusting water volume delivery in violation of applicable water use laws and requirements. Handle shall

conform to applicable ADA requirements.

1. Flush Cycle: 3.0 gallons(11.35 l)(Conventional).
2. Centerline of Supply Above Fixture: 11-1/2 inches(29.21cm).
3. Variations from Standard Specifications (Options):  
\*\*RETAIN APPLICABLE VARIATIONS BELOW\*\*
  - a. BG - Bio-Gard Handle
  - b. T - 1-1/2"(3.81 cm) Flush Connection
  - c. XYV - Less Vacuum Breaker

### **PART 3 - EXECUTION**

#### **3.01 INSTALLATION**

- A. All plumbing work shall be installed in accordance with applicable codes and regulations.
- B. Flush all water supply lines prior to making connections.
- C. Install Flushometers in strict accordance with manufacturer's installation instructions and applicable codes and regulations.
- D. Do not use toothed tools when installing Flushometers.
- E. Comply with applicable requirements of the Americans with Disabilities Act (ADA) with respect to plumbing fixtures for the physically handicapped.
- F. Position of water supply must be in strict accordance with Flushometer manufacturer's installation instructions to assure proper alignment with Flushometer valve.

#### **3.02 FIELD QUALITY CONTROL**

- A. Test Flushometers to demonstrate proper operation upon completion of installation, after water supply has been turned on. Adjust, repair or replace malfunctioning units, then retest.
- B. Inspect each installed unit for damage. Replace damaged units.

#### **3.03 ADJUSTING**

- A. Adjust control stop to meet flow rate required for proper cleansing of the fixture.

#### **3.04 CLEANING**

- A. Do not use abrasive or chemical cleaners to clean Flushometers. Use only soap and water to clean Flushometers, then wipe dry with clean cloth or towel.

#### **3.05 PROTECTION**

- A. While cleaning ceramic or glazed tile, protect Flushometers from any splattering of acids or cleaning fluids which can discolor or remove chrome plating.

Metric Conversions:

3/4" = 1.90cm, 1" = 2.54cm, 1-1/4" = 5.71cm, 1-1/2" = 3.81cm, 1-3/4" = 4.44cm, 1-7/8" = 4.76cm,

2" = 5.08cm, 2-1/16" = 5.23cm, 2-1/8" = 5.39cm, 2-1/4" = 5.71cm, 2-1/2" = 6.35cm, 2-3/4" = 6.98cm,

3" = 7.62cm, 4" = 10.16cm, 4-3/4" = 12.06cm, 5-1/4" = 13.33cm, 5-5/16" = 13.49cm,

6" = 15.24cm, 6-1/2" = 16.51cm, 7-1/2" = 19.05cm, 8" = 20.32cm, 9-1/2" = 25.02cm, 9-3/4" = 25.66cm,

10" = 25.4cm, 10-1/4" = 26.03cm, 10-7/8" = 27.62cm, 11-1/2" = 29.25cm, 12" = 30.48cm,

13" = 33.02cm, 13-3/8" = 33.97cm, 13-1/2" = 34.29cm, 13-3/4" = 34.92cm,

14" = 35.56cm, 14-1/2" = 36.82cm, 15-1/2" = 39.37, 16" = 40.64cm, 16-3/4" = 42.54cm,

17" = 43.17cm, 17-1/4" = 43.81cm, 17-1/2" = 44.44cm, 19" = 48.26, 19-1/4" = 48.89cm,

20" = 50.79cm, 21-1/2" = 54.60cm, 22-1/2" = 57.15cm, 23" = 64.03cm, 24" = 60.86cm, 24-1/2" = 62.13cm,

27" = 74.19cm, 30" = 76.2cm, 34-3/8" = 92.92cm, 60" = 152.4cm, 72" = 182.88cm.