SMITH®
CUSTOMER DRIVEN SINCE 1926

MORRIS GROUP INTERNATIONAL

DIRECT FROM THE CORNER OFFICE

JAY R. SMITH MFG. CO.®
JUNE 2020
VOLUME I
ISSUE 2

FROM:
THE JAY R. SMITH ENGINEERING GROUP

TOPICS:
REVIT FILES
FLUID CONTROL SPECS

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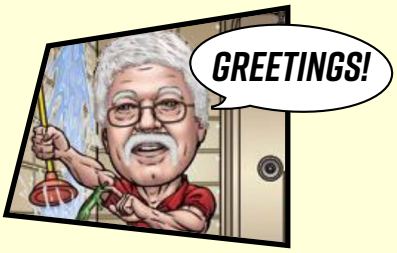

REVIT FILES

Autodesk Revit is Building Information Modeling (BIM) software for Microsoft Windows, which allows the user to design with parametric modeling and drafting elements. Revit is a single file database that can be shared among multiple users. Smith uses an outside Revit content developer. If we do not have a specific figure number, we will immediately send the request to the developer, request a quote and time frame.

Once the time frame is provided, we will notify you. Although we have a large Revit library, some of the low usage or least popular products will occasionally surface. We never reject creating a new Revit content. All new products such as Fluid Controls are automatically submitted for Revit content creation files.

ENGINEERING SPECIFICATIONS

As requested, please find complete engineering specifications for the Fluid Controls Products.

SMITH®
CUSTOMER DRIVEN SINCE 1926

ENGINEERING DEPARTMENT

FLUID CONTROLS ENGINEERING SPECIFICATIONS

1. PRESSURE DROP TRAP PRIMER DEVICE:

- Smith Fluid Controls figure number 2694.
- Device shall be certified to and comply with ASSE 1018, Trap Primer Valves, be installed per the manufacturer's installation instructions and shall be ASSE and IAPMO/UPC listed.
- Device shall be a pressure drop activated trap primer valve designed to operate at a minimum pressure drop of 3 PSI, provided with air gap relief ports for backflow protection and shall be self-adjusting with no field adjustment required.
- The System Operating Pressure Range shall be 20 psi (138 kpa) minimum to 80 psi (552 kpa) maximum.
- The body shall be Lead Free brass material. Optional - Nickel Plated (-NP)
- Connections shall be ½" (13) male NPT inlet and ½" (13) female NPT outlet.
- Device shall be installed in a cold-water supply line per the manufacturer's installation instructions to service one floor drain p-trap or up to four p-traps when using an optional distribution device.
- Optional Connections: Sweat Connections: Fig No 2694-SW or Union Connections: Fig. No. 2694-UN.
- Optional Distribution Devices to Prime up to Four Floor Drain P-Traps Specify: Fig. No. 2694DA (Brass) or 2694DA-ABS (ABS). Refer to Fluid Controls product submittal fig. no. 2694DA.

- (IF REQUIRED) Comparable products shall be as follows:

a. Josam Company
b. Mifab
c. Sioux Chief Mfg.

2. DISTRIBUTION UNITS (CLOVERLEAF STYLE):

- Smith Fluid Controls figure number 2694DA or 2694DA-ABS.
- Unit shall be tested to IAPMO IGC-178 and shall be IAPMO/UPC listed.
- Unit shall be installed with a trap primer valve (Fig. No. 2694) to prime 2 to 4 floor drain p-traps.
- The distribution unit shall be Lead Free brass (2694DA) or ABS (2694DA-ABS) material and regularly furnished with 4 – 3/8" (9.5) NPT connection and two 3/8" (9.5) NPT plugs.
- Optional Connections:
  - Fig No. 2694DA-500 with 4 - ½" (13) O.D. compression fittings.
  - Fig No. 2694DA-625 with 4 – 5/8" (16) O.D. compression fittings.
  - Fig No. 2694DA-ABS-500 with 4 – ½" (13) O.D. compression fittings.
  - Fig No. 2694DA-ABS-625 with 4 – 5/8" (16) O.D. compression fittings.
  - Fig No. 2694DA-625CTS with 4 – 5/8" (16) O.D. push in connections.
  - Fig No. 2694DA-ABS625CTS with 4 – 5/8" (16) O. D. push in connections.

- (IF REQUIRED) Comparable products shall be as follows:

a. Josam Company
b. Mifab
c. Sioux Chief Mfg.

/1.

2A. BRANCH STYLE DISTRIBUTION UNIT:

- Smith Fluid Controls figure number 2683.
- Unit shall be tested to IAPMO IGC-178 and shall be IAPMO/UPC listed.
- Unit shall be installed with a trap primer valve (Fig No. 2694) to prime 2 to 4 floor drain p-traps.
- The distribution splitter shall be Lead Free brass with soft copper branches for flexibility.
- Optional Connections:
  - Fig. No. 2683-1, 4 – ¼" (6) male sweat end outlets.
  - Fig. No. 2683-2, 4 – ¼" (6) sweat plain ends with 2 closed ends.
  - Fig. No. 2683-3, 4 – ½" (13) NPT female outlets.
  - Fig. No. 2683-4, 3 – ¼" (6) male sweat end outlets.
  - Fig. No. 2683-5, 2 – ¼" (6) male sweat end outlets.
  - Fig. No. 2683-6, 2- ½" (13) Female sweat outlets & 2 closed outlets.

- (IF REQUIRED) Comparable products shall be as follows:

a. Sioux Chief Mfg.

3. WATER HAMMER ARRESTERS

- Smith Fluid Controls figure number 520 Series.
- Arresters shall be certified to and comply with ASSE 1010 Water Hammer Arrester Standard and be installed per the manufacturer's installation instructions. Sizing and placement shall be per the requirements of ASSE 1010 and the Plumbing & Drainage Institute WH-210 standards. Arrester shall be ASSE and IAPMO/UPC listed.
- The body shall be copper with a brass hexagonal male threaded inlet for threaded units. Unit shall contain a piston with O-rings.
- Systems exceeding 60 PSI (414 kpa) shall have a pressure reducing valve installed upstream of the Arrester per ASSE 1010.
- Maximum working pressure is 350 PSI (2413 kpa) and maximum working temperature is 250°F (121° C). Arrester shall be pre-charged and maintenance free.
- Select size A, B, C, D, E or F based on sizing criteria referenced in ASSE 1010 and PDI WH-201Standards.
- Optional Connections:

Threaded Connection: Fig. No. 520-T with NPT connection. Connection size based on specific unit selected.

Sweat Connection: Fig. No. 520-SC with sweat connection. Connection size based on specific unit selected.

- System Rated Plus (For commercial and industrial applications): Fig No. 520 -A, -B, -C with NPT connections.
- For Nickel Plated specify 520-T-NP.

- (IF REQUIRED) Comparable products shall be as follows:

a. Josam Company
b. Mifab
c. Sioux Chief Mfg.

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ELECTRONIC TRAP PRIMING ASSEMBLIES

a. MULTI PORT FLUSH (RECESSED) MOUNT

- Smith Fluid Controls figure numbers 270FM, 271FM and 272FM Series.
- Specify number of discharge outlets required. Manifold calibrated to equally distribute water to all discharge outlets.
    - 270FM -04, -06, -08, -10, -12, -14, -16.
    - 271FM -18, -20, -22, -24.
    - 272FM -26, -28, -30, -32.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be flush mount and assembly shall consist of a solenoid valve, anti-siphon atmospheric vacuum breaker, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, and a calibrated copper manifold(s). Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being served.
- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Specify voltage: 24V, 120V, 240V.
- Specify outlet connections: ½" (13) O.D. compression fitting, 5/8" (16) O.D. compression fitting.
- Supplied with hardwired type electrical connections and has provisions to interface with the Building Management System (BMS) where applicable.
- Select the required Variations:
    - Stainless Steel Enclosure -SS
    - Solid Stainless Steel cover -SSC
    - Hinged Access Door with Screwdriver Latch -SL
    - Hinged Access Door with Cylinder Lock -CL
    - Vandal Proof Cover Screws -U
    - Interface with Facilities Energy Management System -EMS.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

b. MULTI PORT SURFACE MOUNT

- Smith Fluid Controls figure numbers 270SM, 271SM and 272SM Series.
- Specify number of discharge outlets required. Manifold calibrated to equally distribute water to all discharge outlets.
    - 270SM -04, -06, -08, -10, -12, -14, -16.
    - 271SM -18, -20, -22, -24.
    - 272SM -26, -28, -30, -32.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be surface mounted in a NEMA 1 box enclosure and assembly shall consist of a solenoid valve, anti-siphon atmospheric vacuum breaker, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, and a calibrated copper manifold(s). Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being served.

/3.

- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Specify voltage: 24V, 120V, 240V.
- Specify outlet connections: ½" (13) O.D. compression fitting, 5/8" (16) O.D. compression fitting.
- Supplied with hardwired type electrical connections and has provisions to interface with the Building Management System (BMS) where applicable.
- Select the required Variations:
    - Vandal Proof Cover Screws -U
    - Interface with Facilities Energy Management System -EMS.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

c. SINGULAR DEVICE-SURFACE MOUNT

- Smith Fluid Controls figure number 273.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be surface mounted and consist of a solenoid valve, cast bronze air gap, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, a surface mounting plate, and a ½" (13) NPT female outlet connection. Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being served.
- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Specify voltage: 24V, 120V, 240V.
- Outlet connection: ½" (13) NPT female.
- Supplied with hardwired type electrical connections and has provisions to interface with the Building Management System (BMS) where applicable.
- Device primes one floor drain P-trap. Provide a 2694DA distribution unit to prime two to four floor drain P-traps.
- Select the required Variations:
    - Interface with Facilities Energy Management System -EMS.
    - Fig. No. 2694DA distribution unit.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

d. SINGULAR DEVICE - SURFACE MOUNT BOX

- Smith Fluid Controls figure number 273-B.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.

• Device shall be surface mounted in a NEMA 1 box enclosure and consist of a solenoid valve, cast bronze air gap, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, and a ½" (13) NPT female outlet connection. Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being serve.
• Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
• Specify voltage: 24V, 120V, 240V.
• Outlet connection: ½" (13) NPT female.
• Supplied with hardwired type electrical connections and has provisions to interface with the Building Management System (BMS) where applicable.
• Device primes one floor drain P-trap. Provide a 2694DA distribution unit to prime two to four floor drain P-traps.
• Select the required Variations:
    - Interface with Facilities Energy Management System -EMS.
    - Fig. No. 2694DA distribution unit.

• (IF REQUIRED) Comparable products shall be as follows:
a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

e. <u>SINGULAR ELECTRONIC TRAP PRIMING DEVICE</u>

• Smith Fluid Controls figure number 273-SW.
• Device shall be certified to and comply with ASSE 1044.
• Device shall be UL 1951 compliant.
• Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
• Device shall consist of a solenoid valve, bronze cast air gap, factory timer pre-set to discharge a metered amount of water once every 24 hours, and a ½" (13) NPT female outlet connection. Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being serve.
• Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
• Specify voltage: 24V, 120V, 240V.
• Outlet connection: ½" (13) NPT female.
• The 120V supplied with a 6' (1.83 M) long electrical cord with a three prong plug and has no provisions to interface with the Building Management System (BMS).
• The 24V and 240V is supplied with hardwired type electrical connections and has no provisions to interface with the Building Management System (BMS).
• Device primes one floor drain P-trap. Provide a 2694DA distribution unit to prime two to four floor drain P-traps.
• Select the required Variations:
    - Fig. No. 2694DA distribution unit.

• (IF REQUIRED) Comparable products shall be as follows:
a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

f. SINGULAR DEVICE - SURFACE MOUNT WITH BATTERY PACK

- Smith Fluid Controls figure number 273-12V.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be surface mounted and consist of a solenoid valve, cast bronze air gap, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, a surface mounting plate, and a ½" (13) NPT female outlet connection. Device must be installed plumb, with access, 12V battery pack and installed a minimum of 12" above flood level of floor drain or device being served.
- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Outlet connection: ½" (13) NPT female.
- This device has no provisions to interface with the Building Management System (BMS) or Facilities Energy Management System (EMS).
- Device primes one floor drain P-trap. Provide a 2694DA distribution unit to prime two to four floor drain P-traps.
- Select the required Variations:
  - Fig. No. 2694DA distribution unit.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

g. SINGULAR DEVICE - SURFACE MOUNT BOX WITH BATTERY PACK

- Smith Fluid Controls figure number 273-B-12V.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be surface mounted in a NEMA 1 box enclosure and consist of a solenoid valve, cast bronze air gap, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, a surface mounting plate, and a ½" (13) NPT female outlet connection. Device must be installed plumb, with access, 12V battery pack and installed a minimum of 12" above flood level of floor drain or device being served.
- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Outlet connection: ½" (13) NPT female.
- This device has no provisions to interface with the Building Management System (BMS) or Facilities Energy Management System (EMS).
- Device primes one floor drain P-trap. Provide a 2694DA distribution unit to prime two to four floor drain P-traps.
- Select the required Variations:
  - Fig. No. 2694DA distribution unit.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

h. MULTI PORT FLUSH (RECESSED) MOUNT-CTS TYPE CONNECTIONS

- Smith Fluid Controls figure numbers 271FM-CTS and 272FM-CTS Series.
- Specify number of discharge outlets required. Manifold calibrated to equally distribute water to all discharge outlets.
    - 271FM-CTS -04, -08, -12, -16 -20.
    - 272FM-CTS -24, -28, -32, -36.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be flush mount and assembly shall consist of a solenoid valve, anti-siphon atmospheric vacuum breaker, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, and a calibrated copper manifold. Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being served.
- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Specify voltage: 24V, 120V, 240V.
- Outlet connections: 5/8" (16) O.D. -CTS push connect fitting.
- Supplied with hardwired type electrical connections and has provisions to interface with the Building Management System (BMS) where applicable.
- Select the required Variations:
    - Stainless Steel Enclosure -SS
    - Solid Stainless Steel cover -SSC
    - Hinged Access Door with Screwdriver Latch -SL
    - Hinged Access Door with Cylinder Lock -CL
    - Vandal Proof Cover Screws -U
    - Interface with Facilities Energy Management System -EMS.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

j. MULTI PORT SURFACE MOUNT-CTS TYPE CONNECTIONS

- Smith Fluid Controls figure numbers 271SM-CTS and 272SM-CTS Series.
- Specify number of discharge outlets required. Manifold calibrated to equally distribute water to all discharge outlets.
    - 271SM-CTS -04, -08, -12, -16 -20.
    - 272SM-CTS -24, -28, -32, -36.
- Device shall be certified to and comply with ASSE 1044.
- Device shall be UL 1951 compliant.
- Device shall be IAPMO EGS (NRTL) and IAPMO/UPC listed.
- Device shall be surface mounted in a NEMA 1 box enclosure and assembly shall consist of a solenoid valve, anti-siphon atmospheric vacuum breaker, screwdriver style stop valve, factory timer pre-set to discharge a metered amount of water once every 24 hours, and a calibrated copper manifold. Device must be installed plumb, with access and installed a minimum of 12" above flood level of floor drain or device being served.
- Working pressure: 20 PSI (138 kPa) to 100 PSI (689 kPa).
- Specify voltage: 24V, 120V, 240V.

- Outlet connections: 5/8" (16) O.D. -CTS push connect fitting.
- Supplied with hardwired type electrical connections and has provisions to interface with The Building Management System (BMS) where applicable.
- Select the required Variations:
    - Vandal Proof Cover Screws -U
    - Interface with Facilities Energy Management System -EMS.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

4. <u>DIELECTRIC FITTINGS</u>

- Smith Fluid Controls Figure number 950 Series.
- Fittings shall have a steel-to-plastic design establishing an effective waterway interrupting the continuity of electrical current.
- Fittings shall be designed to comply with the requirements of ASTM standard F-1545 for continuous use in temperatures up to +220°F (104°C) and for pressures up to 300 psi (2068 kpa).
- Optional Connections:
    - Thread X Thread - Fig. No. 950 TxT.
    - Groove X Thread – Fig. No. 950 GxT.
    - Groove X Grove – Fig. No. 950 GxG

Refer to the submittal drawing for exact sizes.

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

5. <u>TRAP PRIMER ADAPTERS</u>

- Smith Fluid Controls figure number 276-_A or 276-_P.
- Adapters shall be Schedule 40 ABS or PVC as selected and have a 360°adjustment capability prior to permanent installation.
- Adapters shall be 2", 3" or 4" pipe size as specified.
- Optional trap primer Connections: (Select specific figure number for size, material and connection – refer to submittal drawing, figure number 276)
    - ½" (13) NPT female
    - ½" (13) O.D. compression fitting
    - 5/8" (16) O.D. compression fitting
    - 5/8" (16) O.D. push-in fitting

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

6. AIR GAPS

- Smith Fluid Controls figure number 280, 281-S AND 281-T Series.
- Air Gaps shall be cast bronze material. Lead free brass.
- Optional Inlet Connections:
    - Fig. No. 280, ½“ (13) NPT male inlet X ½” (13) NPT female outlet.
    - Fig. No. 281-S, ¾” (19) sweat inlet X 1-1/2” (38) sweat outlet.
    - Fig No. 281-T, ¾ “(19) NPT male inlet X 1-1/2” (38) NPT female outlet.
- Optional finishes;
    - Nickel Plated -NP

- (IF REQUIRED) Comparable products shall be as follows:

a. Precision Plumbing Products
b. Mifab
c. Sioux Chief Mfg.

7. ACCESS DOORS

- Smith Fluid Controls figure number 470, 472, 474 and 474-SS Series.
- Drywall Surfaces:

Fig. No. 470 Series (Specify door size and variations): Access door and frame shall be fabricated from 16 gage, galvannealed steel with a white prime coat finish. The door shall have rounded safety corners and a concealed pivoting rod hinge. Frame shall be one-piece construction with no miters or welds on the face. Latch shall be screwdriver operated. Finish shall be a white prime coat suitable for painting.

- Drywall Surfaces – Stainless Steel Door and Frame:

Fig. No. 472 Series (Specify door size and variations): Access door and frame shall be fabricated from 16 gage, type 304, stainless steel with a satin finish on exposed surfaces. Hinge shall be concealed type. The door shall have rounded safety corners and a concealed pivoting rod hinge. Frame shall be one-piece construction with no miters or welds on the face. Latch shall be screwdriver operated.

- Fire Rated Wall Access Door:

Fig. No. 474 Series (Specify door size and variations): Fire rated access door and frame shall be fabricated from 16 gage, galvannealed steel with a white prime coat finish. Hinge shall be concealed type. Door shall have a heavy-duty spring to provide positive latching when closed and an interior latch release slide enabling door to be opened from the inside. Exterior latch shall be recessed and operated using ring attached to the sliding bolt. Finish shall be a white prime coat suitable for painting. Doors are fire rated 1-1/2 hours.

- Stainless Steel Fire Rated Wall Access Doors:

Fig. No. 474-SS Series (Specify door size and variations). Stainless steel fire rated wall access door and frame shall be fabricated from 16 gage, type 304, stainless steel with a satin finish on exposed surfaces. Hinge shall be concealed type. The door shall have a heavy-duty spring to provide positive latching when closed and an interior latch release slide enabling door to be opened from the inside. Exterior latch shall be recessed and operated using ring attached to the sliding bolt. Doors are fire rated 1-1/2 hours.