

GG-W-00101c (VA-MED)
 February 21, 1965
 INTERIM REVISION OF
 FED. SPEC. GG-W-101B
 September 25, 1957

INTERIM FEDERAL SPECIFICATION

WASHERS, BEDPAN AND URINAL

This Interim Federal Specification was developed by Veterans Veterans Administration VASD Somerville, N.J., based upon currently available technical information. It is recommended that Federal agencies use it in procurement and forward recommendations for changes to the preparing activity at the address shown above.

The General Services Administration has authorized the use of this Interim Federal Specification as a valid exception to Federal Specification GG-W-101B dated September 25, 1957.

1. SCOPE AND CLASSIFICATION

1.1 Scope: This specification covers bedpan and urinal washers suitable for use in hospitals.

1.2 Classification:

1.2.1 Types and Classes: The bedpan and urinal washers shall be of the following types and classes, as specified in the invitation for bid.

Type	I	Floor Mounted
	Class 1	Automatic Control
	Class 2	Manual Control
Type	II	Wall-Surface Mounted
	Class 1	Automatic Control
	Class 2	Manual Control
Type	III	Recessed Mounted
	Class 1	Automatic Control
	Class 2	Manual Control

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1.2.2 Sizes: The washers shall be of one size which shall accommodate one standard size bedpan or one male or female urinal.

2. APPLICABLE DOCUMENTS

2.1 Specifications and Standards: The following specifications and standards of the issue in effect on date of invitation for bid form a part of this specification:

Federal Specifications:

PPP-B-601--Boxes, Wood, Nailed and Lock-Corner.

PPP-B-621--Boxes, Wood, Nailed and Lock-Corner.

PPP-B-640--Boxes, Fiberboard, Heavy Duty.

QQ-A-266--Aluminum Alloy.

QQ-N-281--Nickel-Copper Alloy (Monel and R-Monel) Bars, Plates, Rods, Sheets, Strips, Wire Forgings, and Structural and Special Shaped Sections.

QQ-S-766--Steel Plates, Sheets and Strip-Corrosion-Resisting.

WW-P-541--Plumbing Fixtures, Land Use.
and Amendment #2

Federal Standards:

Fed. Std. No. 102--Preservation, Packaging, and Packing levels.

Fed. Std. No. 123--Marking for Domestic Shipment.

Military Specifications:

MIL-C-104--Crates, Wood; Lumber and Plywood Sheathed, Nailed and Bolted.

MIL-C-132--Crates, Open Wood; Maximum Capacity 2,500 Pounds.

MIL-C-3774--Crates, Open Wood.

MIL-L-10547--Liners, Case Waterproof.

MIL-P-116--Preservation, Methods of.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications, Standards and Handbooks and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements, as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

(Single copies of this specification and other products specifications required by activities outside the Federal Government for bidding purposes are available without charge at the General Services Administration Regional Offices in Boston, New York, Atlanta, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, Los Angeles, Seattle, and Washington, D.C.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.

(Copies of specifications, purchase descriptions, and standards required by contractor in connection with specific procurement functions should be obtained from the procuring agency or as directed by the contracting officer.)

2.2 Other Publications: The following publications form a part of this specification. Unless otherwise indicated, the issue in effect on date of invitation for bid shall apply.

American Society for Testing Materials (referred to hereinafter as ASTM):

Standard B 149-52--Leaded Nickel Brass (Leaded Nickel Silver) and
Leaded Nickel Bronze (Leaded Nickel Silver) Sand Castings.

Standard B-62-52--Composition Brass or Ounce Metal Casting.

Standard A-159--Class 110 Cast Iron.

Standard B-145 Leaded Red Brass and Leaded Semi-Red Brass Sand
Castings.

(Copies of ASTM standards may be obtained from the Society at 1916 Race Street, Philadelphia 3, Pa.)

National Board of Fire Underwriters' Publication:

National Electrical Code.

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(Copies may be obtained from the National Board of Fire Underwriters, 85 John Street, New York, New York; 222 West Adams Street, Chicago, Illinois, or 465 California Street, San Francisco, California.)

American Standards Association, Inc. (referred to hereinafter as ASA),
Standards:

40.8--National Plumbing Code.

(Application for copies should be addressed to the American Standards Association, Inc., 10 East 40th Street, New York, New York.)

3. REQUIREMENTS

3.1 Materials: Materials not definitely specified shall be of the best quality employed for the purpose in commercial practice. Materials shall be free from all defects and imperfections that might affect the serviceability and appearance of the finished product.

3.1.1 Corrosion-Resisting Metal: Wherever corrosion-resisting metal is specified, it shall be either nickel-copper alloy or corrosion-resisting steel.

3.1.1.1 Corrosion-Resisting Steel: Unless otherwise specified, corrosion-resisting steel shall conform to Federal Specification QQ-S-766, Class 304, where welding is required and Class 301 or 302 where forming without welding is required. Exposed surfaces shall have No. 3 finish or equivalent.

3.1.1.2 Nickel-Copper Alloy: (Monel Metal) shall conform to Federal Specification QQ-N-281.

3.1.2 White Metal Castings: White metal castings shall conform to the composition defined in ASTM Specification B-149, Leaded Nickel Bronze (Leaded Nickel Silver), 11A.

3.1.3 Cast Iron: Iron castings shall have a minimum thickness of 0.025" and shall conform to ASTM A-159.

3.1.4 Chromium Plating: Chromium plating shall conform to Federal Specification WW-P-541, Section 9.

3.1.5 Fasteners: Rivets, bolts, nuts, studs, spacers, and metals used for welding shall be of the same kind of material as the material joined or of metal which will not re-act to cause corrosion.

3.1.6 Electrical Equipment:

3.1.6.1 Motors: Motors shall be of sufficient size for the duty to be performed, and shall not exceed their name plate rating when the driven equipment is operating at specified capacity under the most severe conditions likely to be encountered. Radio interference suppression shall not be required.

3.1.7 Approval: For Type I, II, and III, Class 1, washers, the supplier shall submit to the Government proof that electrical components of the equipment he will supply under this specification conform to the applicable requirements of Underwriters' Laboratories, Inc. Such proof shall consist of a laboratory report, listing or label by Underwriters's Laboratories, Inc. As an alternate, the supplier may submit proof satisfactory to the Government that the electrical components of his equipment conform to the published standards or applicable requirements, including methods of tests of Underwriters' Laboratories, Inc. Such proof shall include a laboratory report by a qualified independent laboratory acceptable to the Government, including test results and methods used to determine conformance with the above listed Underwriters' Laboratories, Inc. Standard and the National Board of Fire Underwriters' Laboratories, Inc. in testing the same or similar items.

3.1.8 Acid Resisting Finish: Where acid resisting finish is called for in this specification it shall consist of at least three sprayed-on coatings of white, vitreous frit enamel. The first two coatings shall be air dried and hardened by reheating the casting to a minimum of 1360 deg. F. The final coating shall be dried for 24 hours and then bonded by heating the casting again to 1360 deg. F. The finished castings shall meet the requirements of 4.3.1.

3.2 Construction: The washer shall be so fabricated as to permit emptying, washing, and steam flushing of bedpans and urinals. The washer shall consist of at least the following:

- (a) Washer body.
- (b) Controls.
- (c) Mounting.

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3.2.1 Washer Body: The washer body or hopper shall consist of the following:

- (a) Door assembly.
- (b) Chamber and trap assembly.
- (c) Water and Steam line fittings.

3.2.1.1 Door assembly: The door shall be fabricated of corrosion-resisting steel conforming to Federal Specification QQ-S-766 or brass casting conforming to ASTM B-149-52 or ASTM B-145. The door shall be hinged at the bottom and shall be protected by baffles to prevent leakage.

3.2.1.1.1 Foot Pedal and Lift Rod: The door assembly shall be supplied with a foot pedal and lift rod for opening the door. The pedal and lift rod shall be constructed of corrosion-resisting steel conforming to Federal Specification QQ-S-766 or Brass with nickel whitened or chrome plated finish. The door shall close automatically when pedal is released; this assembly shall contain an oil check to assure firm quiet closure of this door.

3.2.1.1.2 Intake Slot: The door assembly or chamber shall contain an air intake slot at the bottom of door which shall be baffled to prevent water leakage.

3.2.1.1.3 Holding Devices: The interior of the door shall be furnished with two automatically adjustable arms, covered with non-metallic material, or provided with rubber pieces so placed on the door as to reduce noise when the utensil is put in and removed from the chamber. The arms or clamps shall spread when door is opened and as door is closed the arms shall clamp or grip the bedpan or urinal in an upright position and invert it to permit drainage, a separate urinal holding bar will be required if the arms are not designed to hold either a bedpan or a urinal.

3.2.1.2 Chamber and Trap Assembly

3.2.1.2.1 Chamber: The chamber shall be rectangular in shape with rounded corners. The door opening of the chamber shall be inclined 15 deg. from vertical. The bottom of the chamber shall taper to a wide mouth outlet approximately 3 1/2 to 4 1/2 inches with a machined flange to fit a similar flange on the trap section. The bottom of the chamber shall be funnel shaped without protrusions or ledges and when joined to the trap will present an unobstructed passage for flushing waste matter. Chamber shall be furnished inside and out with an acid resisting finish.

3.2.1.2.1.1 Chamber Ventilation: The chamber shall be supplied with a 2 inch exhaust outlet in the top of the chamber. The air intake on the door assembly or chamber shall provide a natural draft to dispel odors, vapors and gasses.

3.2.1.2.2 Trap Assembly: The trap assembly fabricated of cast iron, shall be approximately funnel shaped and fitted with a gasketed flange for bolting to the chamber flange. The trap shall be supplied with all necessary bosses or flanges for supporting components of the washer. Type III, Class 1 and Class 2 shall be supplied with a universal or multi-directional trap, for left or right installation.

3.2.1.3 Water and Steam Line Fittings:

3.2.1.3.1 Water Line Fittings: The cold water supply system of each washer shall include the following:

- (a) Control valve.
- (b) Vacuum breaker.
- (c) Spray nozzles (not less than three).
- (d) Solenoid valve or Motor Driven valve assembly for Class 1 apparatus.
- (e) Flush valve for Class 2 apparatus.

3.2.1.3.2 Steam Line Fittings: Sanitizing by steam shall be accomplished by a steam jet located in the rear of the chamber or in the bottom of the chamber directed upward.

3.2.1.3.3 Piping: Pipe and fittings shall be seamless brass N. P. T. or copper tubing. The water line shall be supplied with a backflow preventer. The steam line shall be supplied with a steam trap, strainer, and throttling valve or a By-Pass System with a fixed orifice. Both water and steam lines shall be fitted with shut-off valves at the supply connection to the washer.

3.2.2 Controls.

3.2.2.1 Types I, II, and III, Class 1 Automatic Controls: Types I, II, and III, Class 1, automatic controls shall automatically perform the washing and steam flushing functions which shall consist of:

- (a) 25 second cold water flush. (Minimum time requirement)
- (b) 25 second flush of live steam. (Minimum time requirement)
- (c) Shut off: end of cycle.

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The automatic functions shall be controlled by an electric motor driven valve system or a system of electric valves. The automatic controls shall be for operation on a 110/120 volt, 60 cycle, AC, line and shall contain a push button to start the cycle and a pilot light to indicate when the unit is in operation. The control panel shall be an access panel or service cover.

3.2.2.2 Type I, II, and III, Class 2, Manual Control: The manual controls for Class 2 washers shall consist of the following:

- (a) Pedal actuated flush valve (water).
- (b) A hand operated whistle valve (steam).

3.2.3.1 Floor Mounting: The floor or pedestal mounted washer shall be supplied with a cast iron waste trap extension for connection to standard building floor waste line. An auxiliary waste trap floor support of one inch brass pipe or rod shall be supplied complete with an adjustable floor flange. Exhaust connection shall be polished chromium two inch copper brass tubing complete with wall flange. The automatic controls shall be contained in a corrosion-resisting steel housing arranged for mounting above the apparatus. Controls and indicators shall project through front panel of control housing.

3.2.3.2 Wall Surface Mounting: The wall surface mounted washer shall be supplied with a cast iron waste trap and companion flange for connection to standard building wall waste line. The companion flange shall be arranged for flush mounting with the wall and have inside lugs for floor support attachment. Details of exhaust connection and automatic control mounting shall be as specified in 3.2.3.1.

3.2.3.3 Recessed Mounting: The recessed mounted washer shall be supplied with a cast iron universal or multi-directional waste trap arranged for mounting on a floor support built into the wall. Wall opening and piping shall be concealed by a removable, corrosion-resisting steel panel, at least 0.050 inch thick; conforming to Federal Specification QQ-S-766. Automatic controls and indicators shall project through finishing panel above unit.

3.3 Material and Workmanship: The finished articles shall be new of the manufacturer's current production. They shall be clean, well made, and free of any defects that may affect the appearance and serviceability.

3.3.1 Finish: The inside and outside of cast iron components of

the chamber, trap assembly, waste trap, waste trap and companion flange (except for gasketed surfaces; openings for screws, pins and bushings; surfaces beneath metal parts attached to the castings: and parts located behind a wall or finishing panel) shall have an acid resisting finish, as specified in 3.1.8., except recessed model which will have only the inside of the components, shall have an acid resisting finish. The front and edges of a cast door shall be chromium plated. The inside and outside surfaces of each door shall be free of cracks, checks, sand holes, burrs and serrations that would hold soil deposits. Unless otherwise specified herein, other metal parts which are exposed to view from the front and sides of the unit after it is installed shall have a chromium finish.

3.4 Service Data: The contractor shall furnish with each bedpan and urinal washer two (2) copies of each of the manufacturer's book (s) containing:

- (a) Complete instructions for installation, operation and maintenance of the equipment.
- (b) Wiring diagrams for electrical items or components.
- (c) List of normal service parts identified by manufacturer's part number and quantity of each required for preventative maintenance purposes.

4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling: Samples of any materials, components or devices entering into manufacture of the articles covered herein, may be selected from time to time by the Government inspector, and carefully examined and tested to determine compliance with this specification and any other applicable specifications listed herein.

4.2 Inspection: Government inspection may be performed at either point of production or point of delivery. In case of factory inspection, every facility shall be afforded inspectors by manufacturers for the prosecution of their work. After installation of the equipment, and before final acceptance, each piece shall be visually inspected, operated, and subjected to specific tests to determine if it complies in all respects with the design, performance, and materials required by this specification.

4.3 Test Procedures:

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4.3.1 Test for Vitreous - Enameled Parts: Examine each part through an inspection window 3 inched in diameter, with the eyes of the observer about 2 feet from the surface observed. The light source shall be partially diffused daylight, supplemented if necessary with diffused artificial light, the total being of intensity approximating that usually available within a few feet of an unobstructed outside window, but not in direct sunlight. Some waviness in an enamel surface is unavoidable and is not cause for rejection. Defects other than those given in Table 1 are not allowable. These would include bubbles, pinholes, cracks, discoloration and flaking.

4.3.2 Test for Thickness of Vitreous Enamel Finish: Pass a spark emitting device or condenser coil, operating on 110 volts, over and one inch above the surface of each part. No sparks shall be generated as the device is passed over the vitreous enameled surfaces.

4.3.3 Test for Hardness of Vitreous Enamel Finish: The hardness of the vitreous enameled finish shall range from 3 1/2 to 6 as determined by Mohs' scale.

Reference: Mechanical Engineer's Handbook, Rev. 5th Edition, McGraw-Hill, 4th Printing, May 1954, pages 86 and 408.

TABLE I

Maximum Number Allowed

Defect	Size	Per Inspection Window	Per Fixture
Dimples	0.250" dia. x 0.031" deep (maximum)	2	8
Lumps	0.250" dia. x 0.031" high (maximum)	2	8
Specks	0.01" to 0.15"	4	Not to be Counted
	0.016" to 0.031"	2	8
	0.032" to 0.062"	1	5

5. PREPARATION FOR DELIVERY

(for civil agency procurement the definitions and application of levels of packaging and packing shall be in accordance with Fed. Std. No. 102, of the issue in effect).

5.1 Packaging: Packaging shall be level A, B, or C, as specified (see Section 6).

5.1.1 Level A:

5.1.1.1 Motors: All openings in electric motors shall be sealed with tape conforming to PPP-T-60, Type II, Class 1.

5.1.1.2 Indicators, Gauges and Dials: All indicators, gauges and dials shall be covered with cushioning material conforming to PPP-C-643 and the cushioning material secured in place with tape specified herein.

5.1.1.3 Switch Boxes, Outlets, Connections and Drain Line Opening: All switch boxes, outlets, connections and drain line openings shall be sealed with tape specified herein.

5.1.1.4 Instruction Books and Parts Lists: Instruction books and parts lists shall be packaged together in accordance with MIL-P-116, method IC-1, and secured to the washers in a protected location.

5.1.2 Level B: The washers shall be packaged as specified in 5.1.1.

5.1.3 Level C: The washers shall be packaged in accordance with the supplier's commercial practice.

5.2 Packing: Packing shall be level A, B, or C as specified (see Section 6).

5.2.1 Level A:

5.2.1.1 Washers: Each washer shall be packed in container conforming to PPP-B-621, Class 2, style optional; or to PPP-B-601, overseas type; or to PPP-B-640, Class 2, Grade A, style optional, except when a washer exceeds 1000 pounds net weight, it shall be packed in a crate conforming to MIL-C-3774, nailed assembly, skid type base. The contents of the crate shall be blocked, braced and

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anchored in accordance with MIL-C-104, and waterproofed with a shroud extending to the base of the crate in accordance with the appendix to MIL-C-132. The contents of the nailed wood and fiberboard containers shall be waterproofed within a sealed case liner conforming to MIL-L-10547, except that sealed case liners may be omitted from fiberboard containers when they are sealed with water resistant tape in accordance with the appendix to the fiberboard container specification. Strapping shall be in accordance with the appendix to the applicable container specification.

5.2.2 Level B:

5.2.2.1 Washers: Each washer shall be packed as specified in 5.2.1.1 except that the containers shall be class 1, domestic type and waterproofing shall not be required.

5.2.3 Level C: Each complete washer shall be packed to insure carrier acceptance and safe delivery to destination in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking:

5.3.1 Civil Agencies: In addition to markings required by the contract or order, the shipping containers shall be marked in accordance with Fed. Std. No. 123.

5.3.2 Military Activities: In addition to markings required by the contract or order, the shipping containers shall be marked in accordance with MIL-Std-129.

6. NOTES:

6.1 Ordering Data: Procurement:

- (a) Title, number and date of this specification.
- (b) Type of washer required.
- (c) Class of washer required.
- (d) Sampling and inspection required.
- (e) Packaging and Packing required.

6.2 Transportation Description.