**SECTION 713 HEALTH CARE PLUMBING

713.1 Scope.**
This section shall govern those aspects of health care plumbing systems that differ from plumbing systems in other structures. Health care plumbing systems shall conform to this section in addition to the other requirements of this code. The provisions of this section shall apply to the special devices and equipment installed and maintained in the following occupancies: nursing homes; homes for the aged; orphanages; infirmaries; first aid stations; psychiatric facilities; clinics; professional offices of dentists and doctors; mortuaries; educational facilities; surgery, dentistry, research and testing laboratories; establishments manufacturing pharmaceutical drugs and medicines; and other structures with similar apparatus and equipment classified as plumbing.  **713.2 Bedpan washers and clinical sinks.**
Bedpan washers and clinical sinks shall connect to the drainage and vent system in accordance with the requirements for a water closet. Bedpan washers shall also connect to a local vent.  **713.3 Indirect waste.**
All sterilizers, steamers and condensers shall discharge to the drainage through an indirect waste pipe by means of an *air gap.* Where a battery of not more than three sterilizers discharges to an individual receptor, the distance between the receptor and a sterilizer shall not exceed 8 feet (2438 mm). The indirect waste pipe on a bedpan steamer shall be trapped.  **713.4 Vacuum system station.**
Ready *access* shall be provided to vacuum system station receptacles. Such receptacles shall be built into cabinets or recesses and shall be visible.  **713.5 Bottle system.**
Vacuum (fluid suction) systems intended for collecting, removing and disposing of blood, pus or other fluids by the bottle system shall be provided with receptacles equipped with an overflow prevention device at each vacuum outlet station.  **713.6 Central disposal system equipment.**
All central vacuum (fluid suction) systems shall provide continuous service. Systems equipped with collecting or control tanks shall provide for draining and cleaning of the tanks while the system is in operation. In hospitals, the system shall be connected to the emergency power system. The exhausts from a vacuum pump serving a vacuum (fluid suction) system shall discharge separately to open air above the roof.  **713.7 Central vacuum or disposal systems.**
Where the waste from a central vacuum (fluid suction) system of the barometric-lag, collection-tank or bottle-disposal type is connected to the drainage system, the waste shall be directly connected to the sanitary drainage system through a trapped waste.

**713.7.1 Piping.**
The piping of a central vacuum (fluid suction) system shall be of corrosion-resistant material with a smooth interior surface. A *branch* shall not be less than 1/2 inch (12.7 mm) nominal pipe size for one outlet and shall be sized in accordance with the number of vacuum outlets. A main shall not be less than 1-inch (25 mm) nominal pipe size. The pipe sizing shall be increased in accordance with the manufacturer’s instructions as stations are increased.

**713.7.2 Velocity.**
The velocity of airflow in a central vacuum (fluid suction) system shall be less than 5,000 feet per minute (25 m/s).

**713.8 Vent connections prohibited.**
Connections between local vents serving bedpan washers or sterilizer vents serving sterilizing apparatus and normal sanitary plumbing systems are prohibited. Only one type of apparatus shall be served by a local vent.  **713.9 Local vents and stacks for bedpan washers.**
Bedpan washers shall be vented to open air above the roof by means of one or more local vents. The local vent for a bedpan washer shall not be less than a 2-inch-diameter (51 mm) pipe. A local vent serving a single bedpan washer is permitted to drain to the fixture served.

**713.9.1 Multiple installations.**
Where bedpan washers are located above each other on more than one floor, a local vent *stack* is permitted to be installed to receive the local vent on the various floors. Not more than three bedpan washers shall be connected to a 2-inch (51 mm) local vent *stack,* not more than six to a 3-inch (76 mm) local vent *stack* and not more than 12 to a 4-inch (102 mm) local vent *stack.* In multiple installations, the connections between a bedpan washer local vent and a local vent *stack* shall be made with tee or tee-wye sanitary pattern drainage fittings installed in an upright position.

**713.9.2 Trap required.**
The bottom of the local vent *stack,* except where serving only one bedpan washer, shall be drained by means of a trapped and vented waste connection to the sanitary drainage system. The trap and waste shall be the same size as the local vent *stack.*

**713.9.3 Trap seal maintenance.**
A water supply pipe not less than 1/4 inch (6.4 mm) in diameter shall be taken from the flush supply of each bedpan washer on the discharge or fixture side of the vacuum breaker, shall be trapped to form not less than a 3-inch (76 mm) water seal, and shall be connected to the local vent *stack* on each floor. The water supply shall be installed so as to provide a supply of water to the local vent *stack* for cleansing and drain trap seal maintenance each time a bedpan washer is flushed.

**713.10 Sterilizer vents and stacks.**
Multiple installations of pressure and nonpressure sterilizers shall have the vent connections to the sterilizer vent *stack* made by means of inverted wye fittings. *Access* shall be provided to vent connections for the purpose of inspection and maintenance.

**713.10.1 Drainage.**
The connection between sterilizer vent or exhaust openings and the sterilizer vent *stack* shall be designed and installed to drain to the funnel or basket-type waste fitting. In multiple installations, the sterilizer vent *stack* shall be drained separately to the lowest sterilizer funnel or basket-type waste fitting or receptor.

**713.11 Sterilizer vent stack sizes.**
Sterilizer vent *stack* sizes shall comply with Sections 713.11.1 through 713.11.4.

**713.11.1 Bedpan steamers.**
The minimum size of a sterilizer vent serving a bedpan steamer shall be 11/2 inches (38 mm) in diameter. Multiple installations shall be sized in accordance with Table 713.11.1.  **TABLE 713.11.1 STACK SIZES FOR BEDPAN STEAMERS AND BOILING-TYPE STERILIZERS (Number of Connections of Various Sizes Permitted to Various-sized Sterilizer Vent Stacks)**

|  |  |
| --- | --- |
| **STACK SIZE (inches)**  | **CONNECTION SIZE**  |
| **11/2″**  |  | **2″**  |
| 11/2a  | 1 | or | 0 |
| 2a  | 2 | or | 1 |
| 2b  | 1 | and | 1 |
| 3a  | 4 | or | 2 |
| 3b  | 2 | and | 2 |
| 4a  | 8 | or | 4 |
| 4b  | 4 | and | 4 |

|  |
| --- |
| For SI: 1 inch = 25.4 mm. |
| a. Total of each size. |
| b. Combination of sizes. |

**713.11.2 Boiling-type sterilizers.**
The size of a sterilizer vent *stack* shall be not less than 2 inches (51 mm) in diameter where serving a utensil sterilizer and not less than 11/2 inches (38 mm) in diameter where serving an instrument sterilizer. Combinations of boiling-type sterilizer vent connections shall be sized in accordance with Table 713.11.1.

**713.11.3 Pressure sterilizers.**
Pressure sterilizer vent stacks shall be 21/2 inches (64 mm) minimum. Those serving combinations of pressure sterilizer exhaust connections shall be sized in accordance with Table 713.11.3.  **TABLE 713.11.3 STACK SIZES FOR PRESSURE STERILIZERS (Number of Connections of Various Sizes Permitted To Various-sized Vent Stacks)**

|  |  |
| --- | --- |
| **STACK SIZE (inches)**  | **CONNECTION SIZE**  |
| **3/4″**  | **1″**  | **11/4″** | **11/2**″ |
| 11/2a  | 3 or | 2 or | 1 | — |
| 11/2b  | 2 and | 1 | — | — |
| 2a  | 6 or | 3 or | 2 or | 1 |
| 2b  | 3 and | 2 | — | — |
| 2b  | 2 and | 1 and | 1 | — |
| 2b  | 1 and | 1 and | — | 1 |
| 3a  | 15 or | 7 or | 5 or | 3 |
| 3b  | 1 and | 1 and5 and | 2 and | 21 |

|  |
| --- |
| For SI: 1 inch = 25.4 mm. |
| a. Total of each size. |
| b. Combination of sizes. |

**713.11.4 Pressure instrument washer sterilizer sizes.**
The diameter of a sterilizer vent *stack* serving an instrument washer sterilizer shall be not less than 2 inches (51 mm). Not more than two sterilizers shall be installed on a 2-inch (51 mm) *stack,* and not more than four sterilizers shall be installed on a 3-inch (76 mm) *stack.*