

SOAP DISPENSING SYSTEMS

1. GENERAL

1.01 This practice covers the arrangements recommended for use in telephone buildings for dispensing liquid toilet soap. These arrangements are of two general types: the individual unit type consisting of small soap receptacles each equipped with a dispensing valve, and the central tank system comprising one or more storage tanks from which the soap is piped to dispensing valves.

1.02 This practice is reissued to recommend stainless steel rather than chromium finished brass for the metal parts of dispensing units, valves and wall tanks and to include a few other changes as indicated by the marginal arrows.

2. INDIVIDUAL UNITS

2.01 Individual units should be used chiefly in toilet rooms having up to about three wash basins and in larger toilet rooms where connections from a tank are not feasible. They comprise a dispensing valve in combination with a reservoir having a capacity of about one pint. The metal parts of the dispensing valve are stainless steel and the reservoir is glass, vitrified enamel or monel metal depending upon the unit selected. The units should be securely attached to withstand the strain caused by pushing the plunger and so located that spilled soap drains into the wash basin.

3. CENTRAL TANK SYSTEMS

3.01 Small wall mounted stainless steel tanks of two and one-half or five gallons capacity are intended primarily for use in toilet rooms having more than one wash basin in buildings having only a few toilet rooms or where the daily soap consumption is beyond the capacity of the individual unit on the basis of 65-75 persons per unit. These tanks should be mounted, preferably in janitors' closets, adjacent to toilet rooms and in an accessible location for draining and filling. They should be mounted with the top about 7 feet from the floor. Larger tanks located at strategic points (usually near the top of the building unless its height requires intermediate tanks) for serving several or all of the toilet rooms are generally more economical for medium and large size buildings. In determining the proper size tank to use, one quart of diluted soap per day should be allowed for each 150 persons to be

served and consideration should be given to a suitable refilling interval. In order to avoid any possibility of the liquid soap becoming rancid, the refilling interval should ordinarily not exceed about one month.

3.02 In order to have available a suitable receptacle in which the diluted soap may settle for several days before being used, twin tanks should be provided in connection with all of the large installations. The tanks should be mounted on a platform 12 inches to 15 inches high and be provided with covers. Two outlets, each with a suitable valve, should be provided from each tank. One outlet should be connected at the bottom of the tank for drawing off the settled sediment into a bucket. This outlet should not be connected to a soil line. The other outlet should be connected to the supply line and the opening to it should be above the bottom of the tank in order to prevent sediment getting into the supply line. The distance from the bottom of the tank to the supply outlet depends upon the height of the tank and the hardness of the water, information regarding which may be obtained from the municipal water department. The outlet height should be approximately 1 inch for each foot of tank height for water of a hardness not exceeding 10 grains per gallon. The outlet height should be proportionately higher for harder waters. A simple gauge, actuated by a float, should be provided with these tanks. For the two and three gallon tanks and the individual units, the soap settling should be cared for in separate vessels in the house service quarters.

3.03 Supply lines between the tanks and the soap dispensing valves should be as straight and free from bends and fittings as practicable in order to avoid sediment accumulations. Clean-outs in the supply lines should be provided at suitable intervals. It is also desirable that the lines be so graded that the system may be completely drained. Piping should be concealed as far as practicable, otherwise it should be painted the same color as the walls. A shut-off valve should be located on each floor or in each large toilet room to facilitate maintenance. The soap dispensing valves operate satisfactorily at supply line pressures up to 100 pounds. However, the system should generally be designed so that supply line pressures will not exceed 60 pounds. Where building heights would result in higher pressures if one tank

were used, additional tanks should be installed or suitable pressure reducing valves used. In all cases the tank should be located above the level of the valve outlet as the valve will not draw the liquid soap upward.

Black iron piping and fittings are least affected by liquid soap. Copper or brass should not be used as the soap attacks these metals.

4. MATERIALS AND FIXTURES USED

4.01 Tanks: Two and one-half and five gallon capacity wall mounted tanks of stainless steel are available through commercial plumbing supply channels.

4.04 Valves: The soap dispensing valve which is a part of the individual dispensing unit and the valves which are used with the tank systems should both be of the type which delivers lather and both should be stainless steel. Individual units including the dispensing valve as mentioned and dispensing valves for use with tank systems are available through the regular supply channels.

4.02 Tanks of larger capacity, where required, should also be obtained locally. Commercial 35 or 55 gallon steel drums are suitable and should be unpainted on the inside.

4.05 The valves for use with the tank systems are obtainable either in a vertical type suitable for mounting directly on the wash basin or in a horizontal type. However, the vertical type is preferable from the standpoints of operation of the valve, appearance, draining into the basin and the avoidance of a bumping hazard in washing.

4.03 Piping: Black iron or black steel piping and fittings should be used for the supply lines and shut-off valves between the tanks and the various soap dispensing valves.