Chapter 1
KITCHEN SINKS
Code References

1.) KITCHEN SINKS
   a. Drainage Fixture Unit Value Table 82.30-1
   b. Minimum Trap Size Table 82.30-1
   c. Minimum Vent Size Table 82.31-3
   d. Minimum Pitch of Horizontal Piping Comm 82.30(5)(a)1.
   e. Maximum Developed Length Between Trap & Vent Table 82.31-1
   f. Double Sanitary Tees Prohibited Comm 82.32(5)(b) & Comm 82.31(11)(a)
   g. Combination Drain & Vent System Comm 82.31(17)(a)1. thru 2.d. See chapter P
   h. Separate Traps Not Required Comm 82.32(3)(a)2.
   i. Minimum Waste Opening in Sinks Comm 84.20(5)(m)2.

2.) DISHWASHERS
   a. Definitions
      (1) Air-Gap Comm 81.01(6)
      (2) Air-Break Comm 81.01(5)
      (3) Local Waste Piping Comm 81.01(145)
      (4) Indirect Waste Piping Comm 81.01(131)
   b. Installation
      (1) Maximum length of indirect waste piping Comm 82.33(9)(d)1.
      (2) Air-gap or air-break below a countertop Comm 82.33(9)(d)1.a.
      (3) Air-gap or air-break above a countertop Comm 82.33(9)(d)1.b.
      (4) Dishwashers connecting to food waste grinder permitted Comm 82.33(9)(d)1.b.
   c. Portable Dishwasher Discharge Comm 82.33(8)(d)1.
   d. Hose for Local Waste Piping Table 84.30-1 & Note "a"
Chapter I

KITCHEN SINKS

Residential

**Prohibited installation:** see Comm 82.31 (11) (a) & 82.32 (5) (b).

Two single compartment kitchen sinks side by side.

Two double compartment kitchen sinks side by side.

The maximum developed length of the indirect waste piping from the dishwashing machine is 10'. See Comm 82.33 (9) (d) 1. a.

All traps shown have removable dips.

The installation of a residential dishwashing machine drain shall comply with ASSE 1021.
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Residential

Indirect waste piping: The maximum length of the indirect waste piping is 10 feet. See Comm 82.33 (9) (d) 1. Indirect waste may discharge to local waste by means of air-gap or air-break above countertop. The installation of a residential dishwashing machine drain shall comply with ASSE 1021.

Local waste piping: The maximum length of the local waste piping if hose is used is 18". See Comm 82.33 (9) (d) 1. b. The local waste piping shall connect to the kitchen sink branch tailpiece above the trap inlet, a standpipe or to the dishwashing machine connection of a food waste grinder.

Single trap: Double compartment kitchen sinks may be connected with a single trap provided no compartment is more than 6" deeper than any other, the distance between the compartments' waste outlets does not exceed 30" and no compartment waste outlet is equipped with a food waste grinder. See Comm 82.32 (3) (a).
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Residential - Two Compartment Sink

Note: This arrangement shown may be with or without a food waste grinder.

Note: A double tee-wye is required as per Comm 82.32 (5) (b) and 82.31 (11) (a).

Note: With or without food waste grinder.
Note: All traps shown have removable traps.

Note: Indirect waste pipe from dishwasher maximum 10’ length of hose.

Where an air-gap/air-break is located below the countertop the only permitted discharge point is a standpipe. See Comm 82.33 (9) (d) 1. a.

1/4 bend with 1 3/4” radius. The first 90° fitting downstream from the trap may be a tee or quarter bend, though a long turn fitting is still better design.

Either compartment could have a food waste grinder.

Vent system for Kitchen sink is as per Comm 82.31 (11) (b).

Vent system for standpipe is as per Comm 82.31 (13) (a).

The standpipe shown shall be at least 1 1/2” in diameter and shall extend at least 15” above the trap inlet. See Comm 82.33 (9) (d) 1. a. The indirect waste piping may discharge to the standpipe by means of an air-gap or air-break located below the countertop.

The installation of a residential dishwashing machine drain shall comply with ASSE 1021.
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Residential - Two Compartment Sink with Dishwasher

Dishwasher DFU: When the residential DW discharges into a kitchen sink tailpiece, the DFU load of the dishwasher is not added to the drain or vent system.

Air-gap or air-break above countertop

No food waste grinder

With or without food waste grinder

1 1/4"

1 1/2"

1 1/2"

1/4 bend with 1 3/4" radius

1 1/2"

Double tee-wye as per Comm 82.31 (11) (a)

From dishwasher Max. 10' of hose.

Note: All traps shown have removable dips.

The installation of a residential dishwashing machine drain shall comply with ASSE 1021.

Air-gap or air-break above countertop

1/4 bend with 1 3/4" radius

1 1/2"

1 1/2"

** Tee wye fitting is recommended although tee is permitted.

From dishwasher Max. 10' of hose.

Two traps on a horizontal branch as illustrated above is permitted as per Comm 82.31 (11) (b).

The installation of a residential dishwashing machine drain shall comply with ASSE 1021. The installation of a manufactured air-gap shall comply with ASME A112.1.3.
**Traps:** All traps shown have removable dips.

**Local waste:** In this installation if the local waste is over 18" in length, it must be made of rigid materials.

The standpipe for the DW shall be a minimum 1-1/2" in diameter and a minimum 15" in length above the trap weir.

The installation of a residential dishwashing machine drain shall comply with ASSE 1021. The installation of a manufactured air-gap shall comply with ASME A112.1.3.

Local waste pipe is a maximum 18" in length when hose is used.

**Note:** When the dishwasher discharges into the same trap as the kitchen sink compartment, the fixture unit value of the dishwashser is not calculated on the drain and vent piping.

The installation of a residential dishwashing machine drain shall comply with ASSE 1021.
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KITCHEN SINKS
Residential - Remote & Island Areas

The installation of a residential dishwashing machine drain shall comply with ASSE 1021.

10' maximum developed length.

1 1/4"
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KITCHEN SINKS
Residential - Three Compartment Sinks

Note: When three compartment sinks are installed and the compartments are connected together with a continuous waste fitting, the difference in sink depths shall not exceed 6", and no compartment waste outlet is equipped with a food waste grinder.
Two double compartment kitchen sinks back to back or side to side installation.

The installation of a residential dishwashing machine drain shall comply with ASSE 1021.
1. **Question:** May a food waste disposal dishwasher knockout or dishwasher connecting hub be used as an opening to discharge the dishwasher into?
   **Answer:** Yes, it may. See Comm 82.33 (9) (d) 1. b.

2. **Question:** What type of a stack fitting shall be used for two back to back kitchen sinks?
   **Answer:** A double tee wye shall be used. See Comm 82.31 (11) (a)

3. **Question:** Could two 2 x 1-1/2 tees installed in the vertical position so as to serve as a vertical wet vent serve two kitchens back to back or side by side as long as the distance from the bottom of the sink to the centerline of the waste was not exceeded?
   **Answer:** Yes.

4. **Question:** Does the DFU increase or do you count the dishwasher DFU when the dishwasher discharges into the food waste grinder or into the branch tailpiece?
   **Answer:** No, only the kitchen sink DFU is counted.

5. **Question:** If stacked tees were used, one to drain the kitchen sink and the other to drain the dishwasher into a standpipe would you count both the dishwasher and the kitchen sink DFUs?
   **Answer:** You would count both fixtures for a total DFU of 4, 2 DFU for a residential sink and two for a residential dishwasher.

6. **Question:** What is the maximum length of indirect waste piping from a residential-type dishwasher?
   **Answer:** The maximum length of the indirect waste shall not exceed 10'.
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