NSF International Standard
for Food Equipment —

Food equipment

5 Design and construction

5.35 Food shields

Food shields covered under section 5.35 shall conform to the requirements in 5.35.1 through 5.35.6.

Reason: All food shields, regardless of specific application, must be in compliance with 5.35.1 through 5.35.6. Thereafter, requirements for specific application food shields are covered.

5.35.1 Food shield materials shall conform to the splash zone material requirements of 4.

5.35.2 Food shields shall be designed and manufactured to conform to the splash zone requirements of 5.

5.35.3 A food shield shall provide a barrier between the mouth of a customer and unpackaged food to minimize the potential of contamination of the food by a customer. A food shield in compliance with the applicable requirements herein, shall be considered to be in compliance with the barrier requirement.

Reason: Since no food shield is 100% effective in protecting unpackaged food, its purpose is to “minimize” the potential for contamination by a customer. The second sentence clarifies the intent of the barrier requirement.

5.35.4 If provided, lights, heating elements and other accessory fixtures shall be designed, manufactured and installed to conform to the splash zone requirements of 4 and 5.

5.35.5 Food shield glass shall conform to the requirements of 5.44.3. To protect against chipping, exposed edges of glass shall be protected by tight fitting channels, stripping materials, or other means such as rounding the edges of tempered glass.

5.35.6 A vertical barrier (end shield) shall be provided at each end of a foodshield. The vertical barrier shall be a minimum of 18 in (450 mm) deep (front-to-back) beginning at the bottom leading edge of the foodshield. The minimum height of the vertical barrier shall be equal to the overall height of the foodshield. The maximum distance from the bottom edge of the vertical barrier and counter top shall be 1.5 in (38 mm).

Reason: Establishes a requirement for providing protection at the end of a food shield.
5.35.6.1 A foodshield intended to be installed a maximum of 3 in (76 mm) from a building wall perpendicular to the foodshield is exempt from the requirements of 5.35.6 provided that the height of the building wall is not lower than the overall height of the foodshield. The manufacturer’s specification sheet, brochure, installation instructions and/or shop drawings shall include these building wall and proximity requirements.

Reason: Provides an exception to the end protection requirement when the end of a food shield is in close proximity to a building wall that will provide end protection.

5.35.7 Self service food shields (see figure 11)

5.35.7.1 The maximum vertical distance between a counter top and the bottom leading edge of a food shield shall be 13 in (330 mm).

Reason: A reduction in the maximum vertical opening provides for reasonable protection of unpackaged food when a tray slide is present on the counter.

5.35.7.2 The minimum horizontal distance between the front inside edge of displayed food and the bottom leading edge of a food shield shall be three-quarters of the maximum vertical distance \(0.75 \times \text{maximum vertical distance}\) of 5.35.7.1.

Reason: Increasing the minimum horizontal distance provides for reasonable protection of unpackaged food when a tray slide is present on the counter.

5.35.7.3 The sum of a food shield’s protected horizontal plane (X) and its protected vertical plane (Y) shall be greater than or equal to 20 in (508 mm). Either X or Y may equal 0 in (0 mm).

Reason: Increasing the overall size of a food shield provides for protection of unpackaged food for persons at the upper end of the average height range.

5.35.7.4 Food shields shall be designed and manufactured to minimize obstruction of a customer’s view of the food.

5.35.7.5 The maximum horizontal distance between vertical, horizontal and angled panels at post and framing member locations shall be 2 in (51 mm).

5.35.8 Food shields for use in elementary schools

5.35.8.1 Food shields designed and manufactured for use in elementary schools and other similar applications shall have full front panel(s) complying with 5.35.12 or be designated for use with wrapped or packaged serving portions.

Reason: Establishes requirements for food shields used in elementary school type applications.

5.35.9 Multiple tier food shields

5.35.9.1 A self service foodshield over the bottom tier shall conform to 5.35.7.

5.35.9.2 All tiers above the bottom tier shall have a permanent attached label restricting use to wrapped or packaged serving portions.

Reason: Establishes requirements for multiple-tiered food shields.
5.35.10 Food shields for use on mobile buffet counters

Food shields for use on mobile buffet counters shall conform to 5.35.7.

Reason: Establishes requirements for food shields on mobile buffet counters.

5.35.11 Food shields for use on cooking and/or carving station operations (see figure 11A)

5.35.11.1 Food shields for use on cooking and/or carving stations shall include a vertical barrier to a minimum height of 60 in (1524 mm) above the finished floor.

5.35.11.2 The maximum vertical distance from the bottom edge of the food shield and counter top shall be 6 in (152 mm).

5.35.11.3 The minimum horizontal distance between the front inside edge of displayed food and the front (customer side) face of the food shield shall be three-quarters of the vertical distance (0.75 x vertical distance) of 5.35.11.2.

Reason: The maximum distance between the bottom edge of the glass and counter top was increased from 1.5" to 6" to permit plated food to be passed to a customer.

5.35.11.3 added due to the increase in the maximum vertical distance in 5.35.11.2.

5.35.12 Food shields for use on cafeteria counters (see figure 11B)

5.35.12.1 The sum of a food shield’s protected horizontal plane (X) and its protected vertical plane (Y) shall be greater than or equal to 32 in (813 mm). When (X) equals 0 in (0 mm), (Y) shall be a minimum of 60 in (1524 mm).

5.35.12.2 The maximum distance from the bottom edge of the front (vertical) glass and counter top shall be 1.5 in (38 mm).

5.35.12.3 The maximum distance between the vertical glass and horizontal glass is 0.75 in (19 mm)

5.35.12.4 The minimum horizontal distance between the front inside edge of displayed food and the bottom leading edge of a food shield is 1.5 in (38 mm).

Reason: Food shield section reformatted to be more user friendly. Section for elementary schools, mobile buffet counters, cafeteria counters, cooking and/or carving station operations, and multi-tier shields were added to add further clarification to shields used in those applications.