FOR INFORMATIONAL PURPOSES ONLY

NSF International Standard
for Food Equipment —

Food equipment

5 Design and construction

5.35 Food shields

5.35.1 Food shields shall conform to the splash zone materials, design, and construction requirements of 4 and 5 (see figure 11).

5.35.2 Food shields shall provide a barrier between the mouth of the customer and unpackaged food.

5.35.3 The maximum vertical distance between a counter top and the bottom leading edge of a food shield shall be 14 in (350 mm). Minimum height should no less than 9”.

5.35.4 The bottom leading edge of the food shield shall extend a minimum horizontal distance of 7.0 in (175 mm) half the distance of 5.35.3. Distance defined as beyond the front inside edge of a food well.

5.35.5 The sum of a food shield’s protected horizontal plane (X) and its protected vertical plane (Y) shall equal a minimum of 18 in (450 mm) (see figure 11). Either X or Y may equal 0.

5.35.6 Food shields shall be transparent and designed to minimize obstruction of the customer’s view of the food. 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. The glass shall conform to the requirements of 5.44.3.

5.35.7 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.

5.35.8 Food shields designed for use in elementary schools and other special installations, K-5 shall have full front panels in accordance with 5.35.5, allowing a maximum of 1 1/2” at bottom for cleaning, or require pre-wrapped or packaged serving portions. Specifications for use in elementary schools and other special installations shall be included in manufacturers Installation and Instructions manual.

Reason: Clarification.
5.35.9 Serving counters utilizing serving staff shall be no lower than 34” AFF.

Reason: STG on FEF did not feel this section was needed.

5.35.10 Where multiple shelf tiered display stands are used, tiers above 50” AFF any upper secondary tier shall be protected by self-closing front panels, or require pre-wrapped or packaged servings. Lower Primary or base tiers shall meet the requirements of 5.35.1 thru 5.35.8. Use of strip curtains shall be prohibited.

Reason: Clarification

5.35.11 Food shields on Mobile buffet counters shall meet the requirements of 5.35.1 thru 5.35.8 and shall should be designed to fit through nominal 36” doorway passages.

Reason: Clarification

5.35.12 Portable self-service countertop display stands shall meet the requirements of 5.35.1 thru 5.35.8 or utilize self-closing panels, or require pre-wrapped or packaged servings.

Reason: Language added to meet main code content. Language deleted due to the clarification in 5.35.4.

5.35.13 Food shields on cooking or preparation operations facing customers or service cafeteria lines shall include a vertical barrier to a minimum of 54” AFF, allowing a maximum of 1 1/4” of clearance at bottom for cleaning.

Reason: Language added for cleaning at bottom guidance. A new section will be drafted for the inclusion of food shields on service lines.

5.35.14 Food shields on service cafeteria lines shall include a vertical barrier to a minimum of 54” AFF, allowing a maximum of 1 1/4” of clearance at bottom for cleaning.

Reason: Section added for further clarification of service cafeteria lines.

Food shields covered under 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 sections 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 figures 11 & 11A)

5.35.7.1 The maximum vertical distance between a counter top and the bottom leading edge of a food shield shall be 44 13 in (350 330 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 one-half three-quarters of the maximum vertical distance \(0.75 \times \text{maximum vertical distance}\) of 5.35.7.1.

Reason: Increasing in 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 48 20 in (450 508 mm). Either X or Y may equal 0 in (0 mm).

Reason: Increasing the over size of a food shield provides protection for 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 (see figure 11B).
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 require be designated for use with pre-wrapped or packaged serving portions and shall conform to 5.35.6.3.

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

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

5.35.8.3 The maximum distance between the vertical glass and horizontal glass shall be 0.75 in (19 mm).

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 be protected by self-closing front panels or have a permanent attached label restricting use to pre-wrapped or packaged serving portions. Use of strip curtains shall be prohibited.

Reason: Establishes requirements for multi-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 distance from the bottom edge of the glass food shield and counter top shall be 4.5 in (119 mm).

5.35.11.3 The minimum horizontal distance between the front inside edge of displayed food and the front (custom side) face of the food shield shall three-quarters of the vertical distance \(0.75 \times \text{maximum vertical distance}\) of 5.35.11.2.

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

5.35.11.3 added due to 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).

5.35.12.3 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.