
Alberta Dishwashing Standard

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Alberta
HEALTH

Purpose

All mechanical dishwashing machines used in a food establishment shall be so designed and constructed that, when operated in accordance with the manufacturers' instructions, shall effectively accomplish the following:

1. Remove physical soil from all surfaces of dishes.
2. Sanitize dishes either by the application of hot water or by the application of an approved chemical solution to the surfaces of the dishes.

MECHANICAL DISHWASHING STANDARD

Mechanical dishwashing machines are to conform to the National Sanitation Foundation (NSF) standards for dishwashing machines:

NSF 3 - 1982. Commercial spray-type dishwashing machines

(Important information relating to the NSF Standards is contained in Appendix A.)

1. Wash water temperatures in mechanical dishwashing machines must be at least 60°C (140°F) for hot temperature machines, and at least 48°C(120°F) for low temperature machines.
2. Mechanical dishwashers are designed to sanitize by either the use of hot water or by the use of chemical sanitizers.
 - (a) If hot water is used to sanitize, the clean rinse water temperature at the manifold must measure 82°C(180°F) for 10 seconds.
 - (b) If chemicals are used to sanitize, the chemicals and chemical concentrations are as follows:
 - i) 100 parts per million available chlorine; or
 - ii) 12.5 parts per million iodine; or
 - iii) 200 parts per million QUATS
3. Mechanical dishwashing machines, detergent and chemical feeders are to be maintained in good repair and are to be operated in accordance with the manufacturer's instructions.

Appendix A

FIELD EVALUATION PROCEDURES FOR SPRAY-TYPE DISHWASHING MACHINES

Study the Data Plate of the Machine

Check to assure that the following conditions exist:

1. "Scrap trays" clear of soil
2. Dishes properly prescraped and racked
3. On conveyor-type machines, curtains intact and in proper position.
4. Overflow standpipe in place and not blocked or leaking.
5. Wash and rinse pump inlet unobstructed. Tank interior clear of buildup of lime, food soils, etc.
6. Wash and rinse nozzles clear of obstructions and lime deposits.
7. End caps in place on waste and rinse arms.
8. Wash and rinse thermometers accurate or properly calibrated.
9. Flow pressure 15 - 20 psi.

Checking Temperatures in Dishwashing machines

When checking temperatures in dishwashing machines, consider these factors:

1. Close adherence to the manufacturers specification as listed on the data plate ensures proper evaluation.
2. Heat accumulation on dishes over a period of time in hot water sanitizing machines, not merely a single temperature, achieves proper sanitization. Therefore, each of the wash, power rinse (on some machines), and final rinse cycles must be operating at its proper temperature. For hot water sanitizing machines, the following should be determined:
 - a. No deposits (e.g., lime, napkins, etc.) on the heat elements.
 - b. On gas heated machines, tank gas heater jets not obstructed.
 - c. No excessive ventilation in the removal of steam and condensation.
3. Temperatures of wash water and pumped rinse water are taken directly from the tanks of the machines. As standard practice, the temperature of the water during the final rinse cycle should be taken at the inlet manifold 82°C(180°F).

4. Maximum-registering mercury-filled thermometers and thermo-labels may be used to confirm the effectiveness of heat sanitization.

(For hot water sanitizing machines, a reading of 77°C(170°F), at the dish level, measured using a maximum registering or paper thermometer, is an indication of satisfactory sanitization.)

5. To give accurate reading, the maximum-registering, mercury-filled thermometer should be attached in a vertical position to the machine. (Rubber bands or clips may be used to hold the thermometer in place.) The thermometer should also be removed from any case or guard when used. Thermo-labels are attached by pressure-sensitive adhesive tape to a clean, dry plate.
6. Although absolute accuracy cannot be expected from thermometers, a variation of from 1 to 5 degrees F. in either direction is acceptable.
7. To help verify the accuracy of the machine thermometer, wax pencils which melt at specific temperatures are available. The rinse line can be marked at a point of exposed pipe thread, then observed for the point at which the marking begins to melt.

This information is adapted in part from material published by the National Sanitation Foundation, Ann Arbor, Michigan.