Principles of Sanitary Equipment Design

The American Meat Institute Equipment Design Task Force\(^1\) has created ten principles to guide the equipment manufacturers in sanitary design. The following principles basically require all parts of the processing equipment be easily accessible for cleaning and sanitation, and elimination of places on the machines that could trap product debris and other material that could result in the development of pathogen growth niches:

1. Cleanable to a microbiological level
2. Made of compatible materials
3. Accessible for inspection, maintenance and sanitation.
4. No product or liquid collection.
5. Hollow areas should be hermetically sealed.
6. No niches.
7. Sanitary operational performance.
8. Hygienic design of maintenance enclosures.
9. Hygienic compatibility with other plant systems.
10. Validated cleaning and sanitation protocols.

Sanitary equipment design plays a crucial role in controlling the biological, chemical and physical hazards in raw and/or ready-to-eat poultry products. Cooperation and collaboration between the manufacturers and users of the equipment is a must to achieve the desired levels of hygiene/sanitation. To aid in equipment evaluations, a checklist with assigned points is also provided. To be effective, it is recommended that a particular piece of equipment is used in the processing line for a 90-day period, disassembled to its normal daily level, and evaluated both visually and microbiologically. In the audit forms, full points are given to satisfactory, one-half points given to marginal, and no points are given to unsatisfactory items. Future issues of WOGS will expand on each of the ten points outlined above with the assigned audit points.

An equipment designed, manufactured, operated, and maintained with the recognized sanitary principles will assure the production of safe and wholesome products.

\(^1\) [http://www.meatami.com]

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