Food and Beverage Manufacturing Meeting Kits



Food and beverage manufacturing, ranging from bakeries and bottling plants to meat and dairy processing, has one of the highest rates of worker injuries and illnesses. Workers need to be aware of the risks and hazards in order to get the proper training and work practices to stay safe.

FOOD AND BEVERAGE PROCESSING

- Measure, mix and cook ingredients.
- Peel and slice food.
- Control the temperature and automated processes for making products.
- Check the quality of the product and record results during the production process.
- Operate and maintain machines.
- Inspect and pack the final product.
- Clean and sterilise the factory processing area.
- Turn fresh milk into anything from dehydrated power to a fine cheese.
- Process whole plants like carrots into diced or cut packaged goods.
- Transform grain into flour and then a variety of baked goods.
- Butcher pig, cows, chickens, etc.
- Add chemical components like preservatives to enhance shelf life and reduce spoilage.

RISK/HAZARDS OF FOOD AND BEVERAGE MANUFACTURING

Heavy materials, lifting, and repetitive motions can lead to ergonomics injuries. Ergonomics training can teach you proper movements and neutral postures. Lifting and moving heavy raw ingredients and finished products can lead to strains and sprains. Practice proper lifting techniques by lifting with your legs, keeping your back straight, and your head facing forward. Use mechanical lifts, carts, and dollies when available. Separate loads into smaller, more manageable sizes.

Repetitive tasks such as moving, washing, sorting, cutting, and trimming raw materials can lead to repetitive motion injuries. Take your rest and meal breaks regularly to give your body a chance to recover from fatigue. Frequent

microbreaks of 30 seconds every 20-to-30 minutes help rest and relax your muscles. Where possible, rotate your tasks to prevent overuse of muscle groups. If you stand for long periods of time, wear comfortable shoes. A foot rest allows you to change positions at your post. Anti-fatigue mats cushion your legs and joints from hard floor surfaces.

Moving machinery and conveyor systems in food and beverage facilities pose a risk of caught/crush injuries. Rotating shafts for mixers can pull you into the machine. Wear close-fitting clothing and avoid long, loose hair, and jewelry. Never reach into or around moving parts. Make sure powered equipment is turned off and use lockout/tagout before you clear a jam, service or maintain it. Slicing, chopping, and cutting machines pose a risk of cuts and amputations. Maintain this equipment properly, use blade guards, and watch where your hands are at all times when the machine is active.

Steam and hot water is used for food safety and process cleanliness and both pose a danger of burns. Label water and steam lines so you do not come into contact or work on them until they are drained. All of the water required to wash, process, and sterilize foods can accumulate on the facility floor and pose a slip hazard. Wear non-slip footwear. Keep wet floors to a minimum by installing floor drains and mopping or squeegeeing floors frequently. Non-slip floor coatings and rubber matting reduce water puddling and increase traction.

Work environments for food and beverage manufacturing can vary in temperature extremes. Steam processes can be warm and humid. Refrigerators and freezers expose workers to the cold. Working around baking ovens exposes workers to the heat. Wear layers of clothing to protect your skin and provide you protection whether you are working in the heat, cold, or in between.

ENVIRONMENTAL PAIN POINTS

The food and beverage industry must pay particular concern to the environment. These concerns are the following:

1. Food processing can include a wide variety of temperature conditions, ranging from a flash-freezer to an industrial-scale fryer or oven. Materials need to be carefully selected for performance characteristics at these temperature extremes.
2. The heightened cleaning requirements for food processing and packaging equipment mean extremely powerful cleaning agents must be used. These cleaning chemicals are so caustic that they can damage many materials. Materials need to be carefully selected to reflect cleaning agents that will be used. UV treatments are another potentially damaging cleaning process. Selecting the right materials is important for avoiding contamination from grease, ensuring amenability to caustic cleaning chemicals, and avoiding overly porous materials where microbes can hide.
3. Dry food products like grains, beans, and sugar are abrasive to hardware and bearing materials. Particulate matter can also be generated in food production of many types. This “food dust” can easily get into the inner working of exposed machines, causing damage and reducing reliability. Sticky grease for traditional metal bearings can exacerbate this problem, functioning almost like flypaper for contaminants.
4. Equipment needs to be approved by all relevant regulators.

THE MOST PAINFULL POINT – REGULATIONS

- Food and Drug Administration (FDA): regulates the composition, additives, and properties of materials for food contact
- US Department of Agriculture (USDA): regulates food safety and inspection for manufacturing, packaging, and handling practices, including meat, poultry, fruits, and vegetables
- National Sanitation Foundation (NSF): an independent agency devoted to achieving solutions relative to public health and the environment
- 3-A Sanitary Standards: an independent agency dedicated to advancing hygienic equipment design for the food, beverage, and pharmaceutical industries

FINAL WORD

All of the food and manufacturing processes come with urgent packaging and distribution timelines, often with an imperative to complete the process, with processed food out the door, in under 48 hours from receiving raw food from the farm.