Design Challenges for Automation

May 21, 2013
Kollmorgen Business Structure

Aligning with customer needs.
Kollmorgen Automation Products
Why Automation?

Profitability

Productivity

Quality Products
Challenges for Technology in Sanitary Design
Automation Performance Expectations

Reliability

Operating Conditions

Clean & Sanitize

Sanitary Design
Reliability

Moisture
Cleaning
Sanitizing
Food Safe
Condensation
Material Wear
Contamination
Temperature Shock

Compatible Materials
Corrosion Resistant
Food Grade
Waterproof

We constantly deal with a “Monday morning shock.”

--Bitburger Brewery
Operating Conditions
Cleaning, Sanitizing & Sanitary Design

Time and time again cleaning and sanitizing must be done at the prescribed times to keep those nasty bugs in check. Automation and machine design characteristics to consider for reliability, productivity, repeatability, and verifiability include the following…
Cleanable to a Microbiological Level

OPEN ACCESSIBLE

NO HIDING PLACES
Made of Compatible Materials
No Product or Liquid Collection

Think Round and Slopeded
Hollow Areas - Hermetically Sealed

Eliminate Hollow Frames or Rollers
No Niches
Consider all interfaces ...

... like HMI, switches, handles, and push buttons
Validate Cleaning and Sanitizing Protocols

Document and validate processes