



Design Challenges for Automation

May 21, 2013

KOLLMORGEN®

Because Motion Matters™



3-A Sanitary Standards, Inc.

Kollmorgen Business Structure

Because Motion Matters.™



Aligning with customer needs.

Kollmorgen Automation Products

KOLLMORGEN

Because Motion Matters.™



Why Automation?

Because Motion Matters.™



Profitability

Productivity

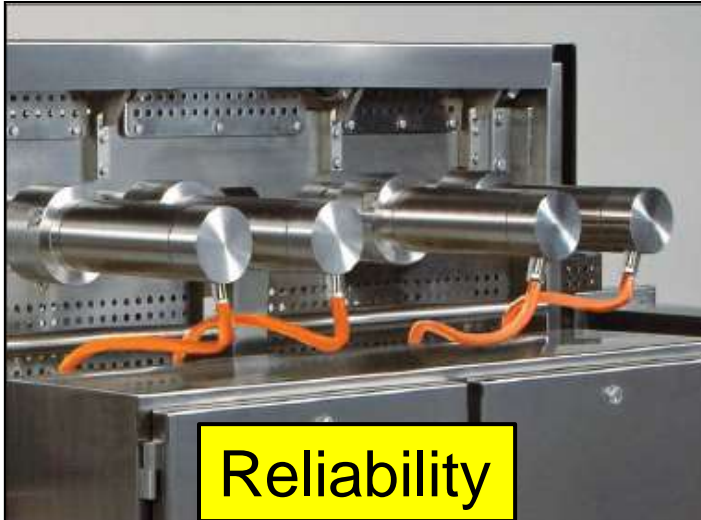
Quality Products

Challenges for Technology in Sanitary Design

Because Motion Matters.™



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

Because Motion Matters.™



Cleaning, Sanitizing & Sanitary Design



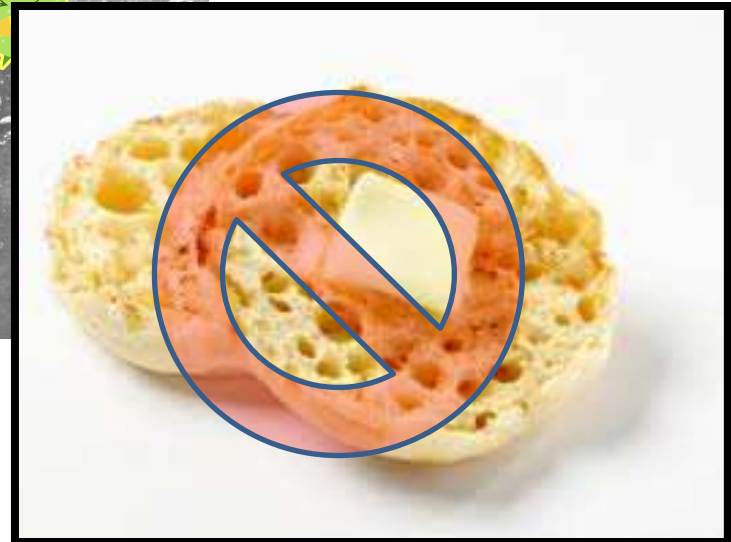
Cleanable to a Microbiological Level



OPEN

ACCESSIBLE

NO HIDING PLACES



Made of Compatible Materials

Because Motion Matters.™



No Product or Liquid Collection

Because Motion Matters.™



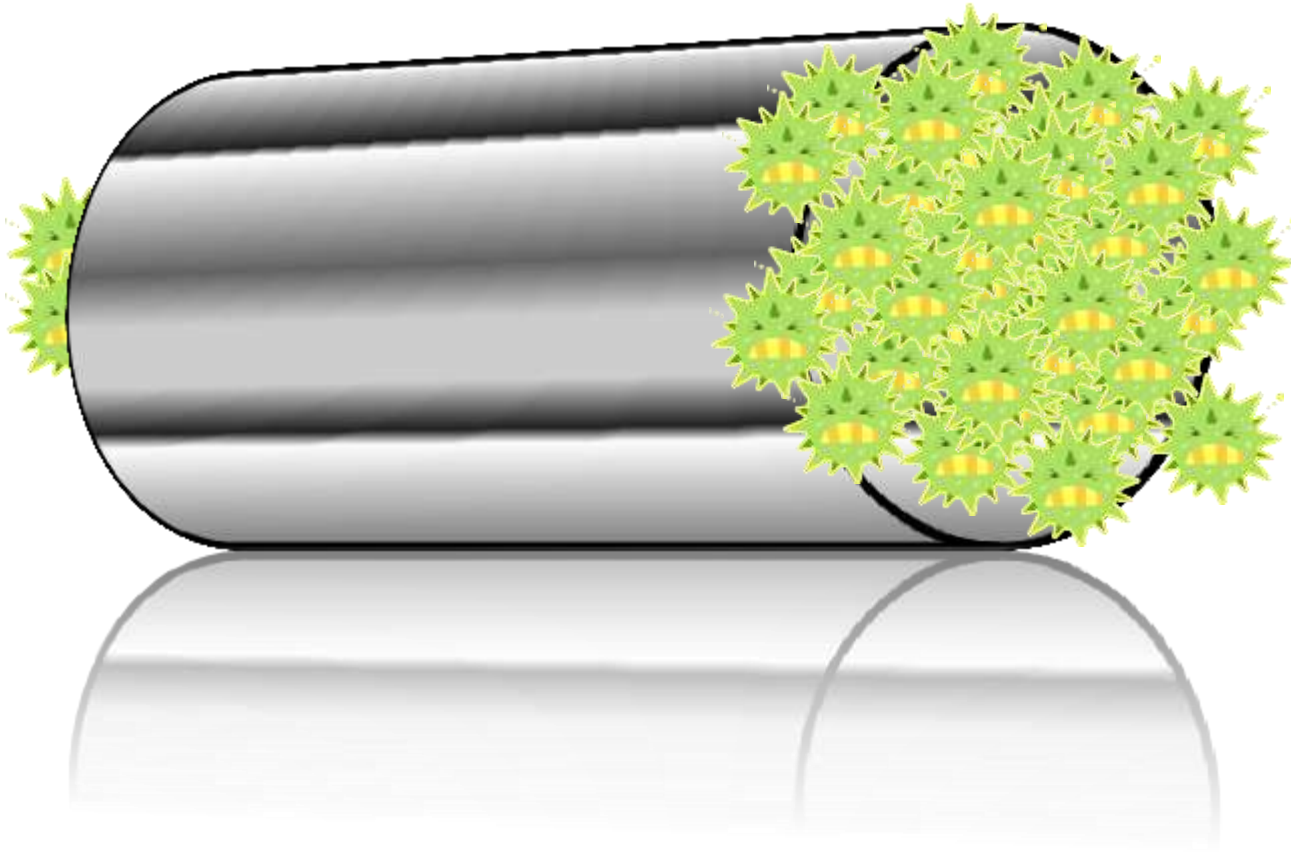
Think Round and Sloped



Hollow Areas - Hermetically Sealed

Because Motion Matters.™

Eliminate Hollow Frames or Rollers



No Niches

KOLLMORGEN

Because Motion Matters.™



GAPS
IT
RECRACKS
NAMESE
BOLTS
ATES
RIVETS
ON

Hygienic Design of Enclosures

Consider all interfaces ...



... like HMI, switches, handles, and push buttons

Validate Cleaning and Sanitizing Protocols

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Document
and
validate processes

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