



Hygienic Design a prerequisite for HACCP
EHEDG a Guiding
Authority

EHEDG a guiding authority

EHEDG delivers guidance to universities by offering them illustrated guidelines, practical case studies, animated training material and expert participation to realize Bachelor and Master studies in Hygienic Engineering & Design.

The industry may appreciate appropriate HD knowledge when employing junior engineers.

Less in-house training = **cost savings by implementing prerequisite programs for HACCP**

EHEDG a guiding authority

EHEDG delivers guidance to the food industry by developing illustrated guidelines for food companies preparing for FSSC 22000 Certification.

The requirements of PAS 220 must be addressed by food companies preparing for FSSC (Food Safety System Certification)

What is PAS 220 and what have EHEDG guidelines and PAS 220 in common?

Preparing for FSSC 22000 Certification

Requirements of ISO/TS 22002-1 (PAS 220)

Guiding EHEDG documents for food processors and inspectors:

1. Construction and layout of building

EHEDG Document 44, Hygienic Design Principles for Food Factories

2. Layout of premises and workspace

EHEDG Document 44

3. Utilities – air, water, energy

EHEDG Document 27, Safe storage and distribution of water in food factories

EHEDG Document 28, Safe and Hygienic water treatment in food factories

EHEDG Document 30, Air handling in the food industry

Cost savings in preparation for FSSC 22000 Certification (Food Safety System Certification)

Preparing for FSSC 22000 Certification

Supporting Standards:

EN 1672-2:2005, A1:2009 Food processing machinery

Guiding EHEDG Document 8, Hygienic Design Criteria

Basic concepts - Part 2: Hygiene requirements

Hazard analysis and measures during application of food processing machinery

Basic concepts of hazards for food, caused by food processing machinery

Distinguish between food area, splash area and non-food area

Accomplishment of a risk analysis for food processing machinery based on hygienic aspects

Hygienic requirements on materials and design

Examples for hygienic and non-hygienic design and implementation

Verification of hygiene requirements

Information for use

Preparing for FSSC 22000 Certification

Supporting Standards:

ISO 14159:2002 Safety of machinery

Hygiene requirements for machinery design

Guiding EHEDG Document 8, HygienicDesignCriterias

Basic Regulation

Equipment safety, Hygiene, Design, Consumer protection, Environmental cleanliness, Cleaning, Maintenance, Risk assessment, Biological hazards, Microorganisms, Grades (quality), Instructions for use

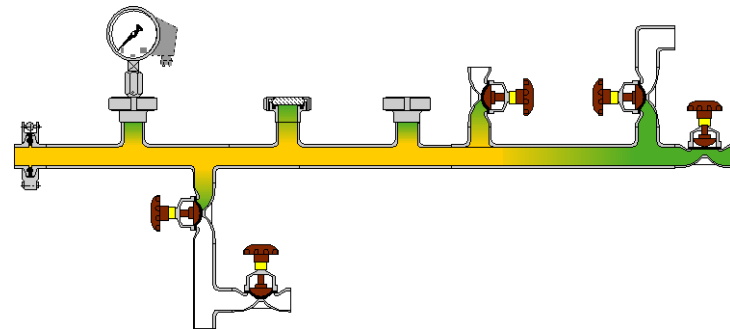
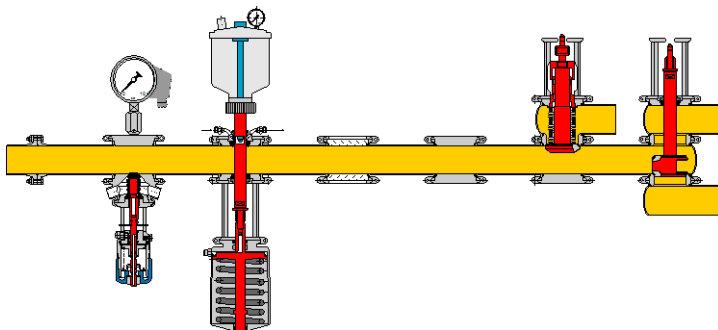
Same approach as EN 1672-2

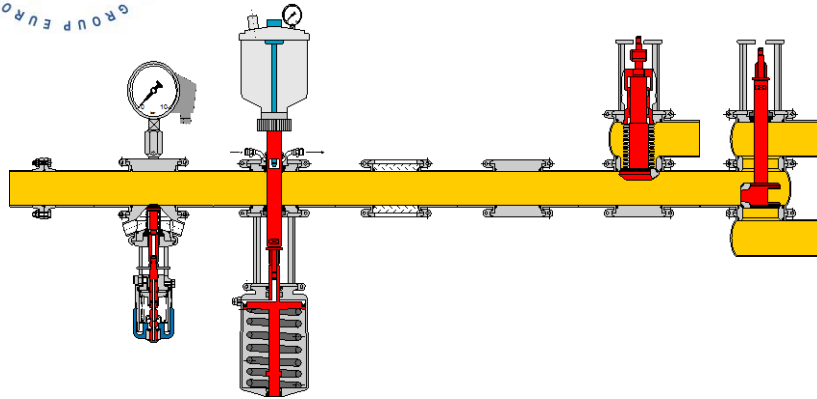
EHEDG a guiding authority

EHEDG delivers guidance to the food industry by developing illustrated guidelines, practical test procedures and animated training material to demonstrate **guidance** by investing in HACCP.

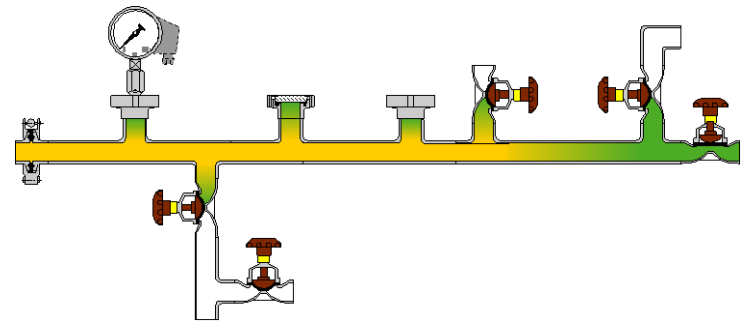
The cleaning process is essential for food safety and is often a critical issue of the whole production process.

We compare process components like valves, pumps, sensor connections, pipe couplings up to complete process modules via defined CIP programs to give information about the design effect on the cleanability

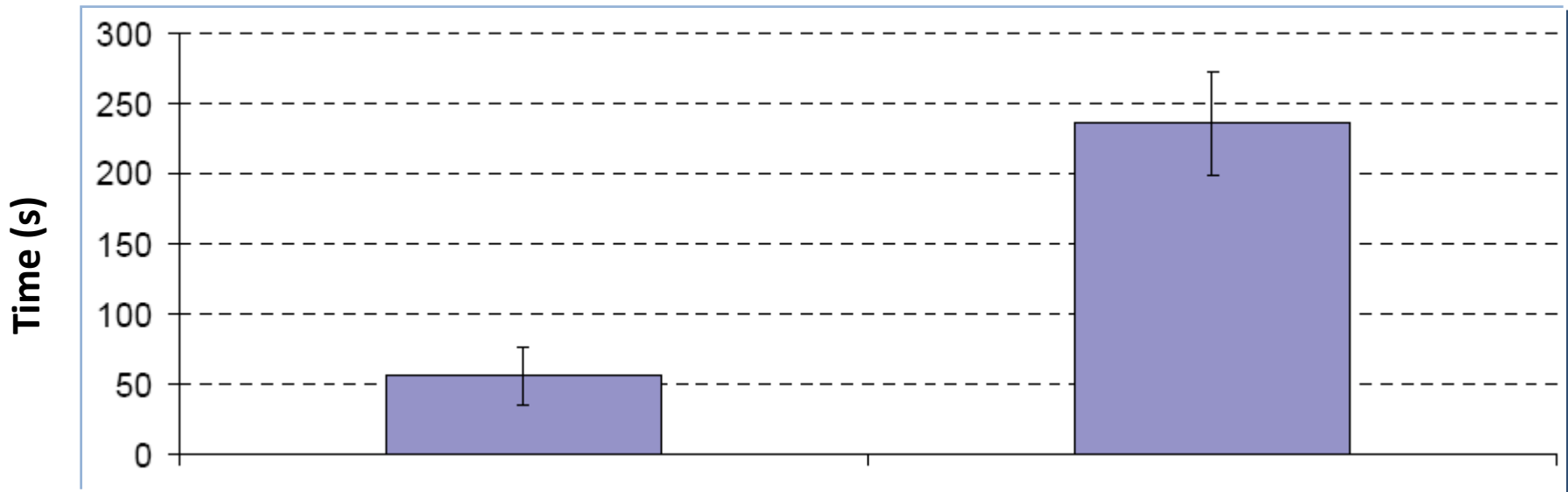




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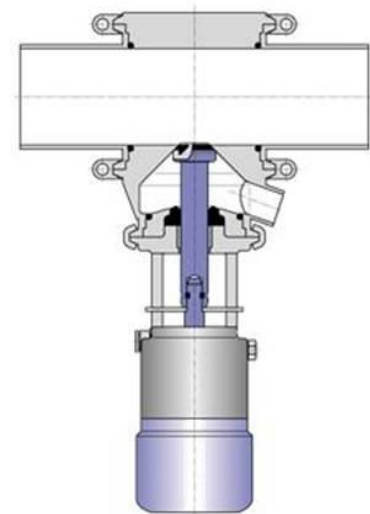


LEGACY DESIGN



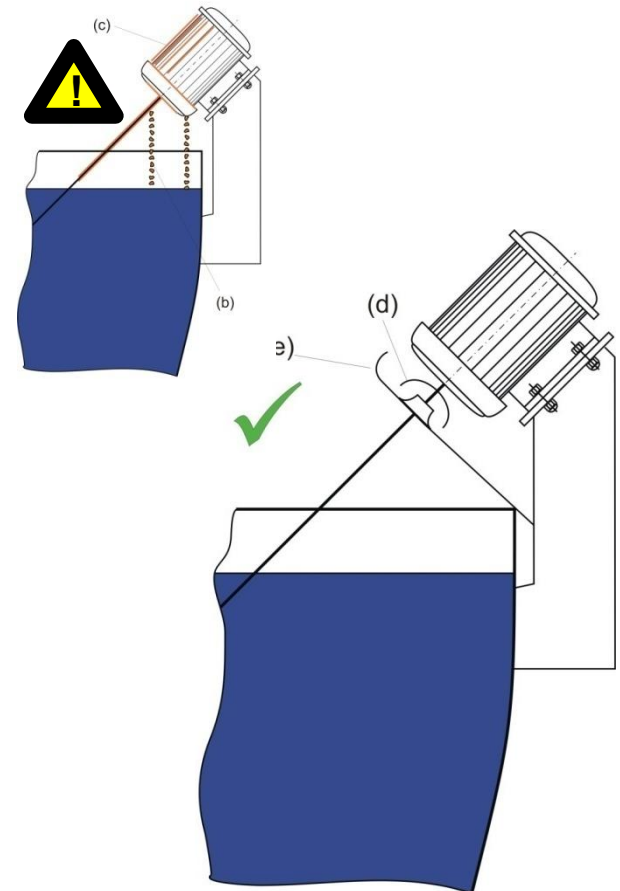
Hygienic Design module results in 76% less CIP time

Mechanical Design / Hygienic Design



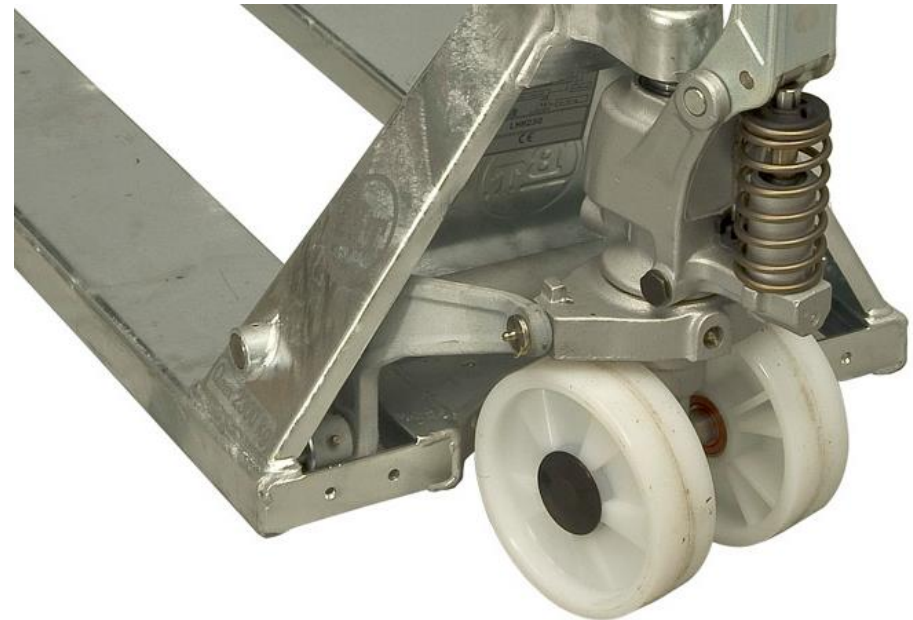
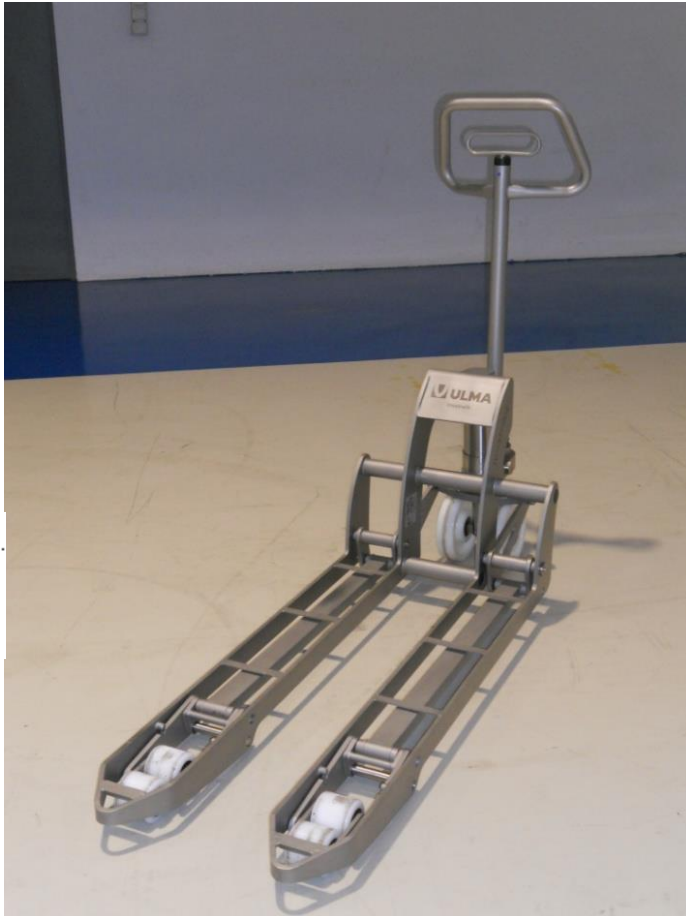
Mechanical Engineering / Hygienic Engineering

Arrangement of ancillary equipment



Contamination of the whole batch

Example: Joints and Surfaces



The comparison shows that a complete changeover of a production plant towards hygienic design will result in a considerably reduced CIP time.

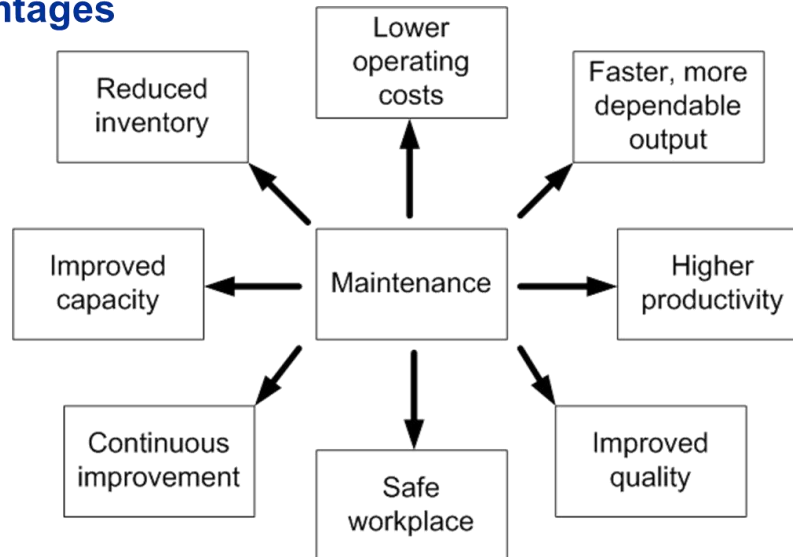
Although HD components need higher investments, their payback will be achieved in a very short time, with an added value of faster processing, increased plant capacity and an extended plant lifetime.

EHEDG a guiding authority

EHEDG delivers guidance to the food industry by developing illustrated guidelines, practical test procedures and animated training material to demonstrate the importance of good maintenance to realise **less cost for HACCP** and to establish and maintain hygienic performance.

Motivation

Advantages



Thank you!