

# Achieving Hygienic Design Compliance:

What every food industry  
stakeholder should know

The webinar will begin shortly.

Thank you for your attendance!



# Achieving Hygienic Design Compliance

What every food industry stakeholder should know

**Deb Smith – Vikan**

– Global Hygiene Specialist

**James Hartley – Mondelez International**

– Global Sanitation Director

**Patrick Wouters – Cargill**

– Global Hygienic Design Leader

**Tim Rugh – 3-A Sanitary Standards Inc.**

– Executive Director



# Webinar information

- The presentations will last about 40 minutes.
- After the presentation, there will be an approximate 20-minute Q&A session. You are invited to send your questions via the Q&A box provided.
- We will reach out after the webinar to answer any questions we do not address during the session.
- This webinar is being recorded, and we will send you the recording as soon as possible following this session.

# Meet our guest presenters



**James Hartley**

Mondelez  
International



**Patrick Wouters**

EHEDG



**Tim Rugh**

3A SSI

# About Vikan and Remco



Leading provider of advanced hygiene and cleaning products and solutions for key sectors, with a global presence in over 90 countries.



Vikan's dedicated presence in North America (U.S. & Canada) supplying colour-coded cleaning and food handling tools for the food industry.

For more information, visit us at:

- <https://www.vikan.com/int/about-vikan/who-we-are>
- <https://remcoproducts.com/us/about-remco/who-we-are>



# Achieving Hygienic Design Compliance:

What every food industry stakeholder should know

**Deb Smith - Vikan**  
Global Hygiene Specialist



# Highlights

## ❖ Introduction to Hygienic Design

- ❖ What does it mean?
- ❖ Why does it matter?
- ❖ Legal requirements
- ❖ GFSI Food Safety Scheme requirements

## ❖ Industrial case studies

- ❖ Some real-life examples of issues related to hygienic design and how they are overcome in MDLZ

## ❖ Support available from EHEDG

- ❖ Guidance
- ❖ Training
- ❖ Certification
- ❖ Expert network

## ❖ Support available from 3-A

- ❖ Guidance
- ❖ Training
- ❖ Certification
- ❖ Expert network

# Hygienic Design: What does it mean?

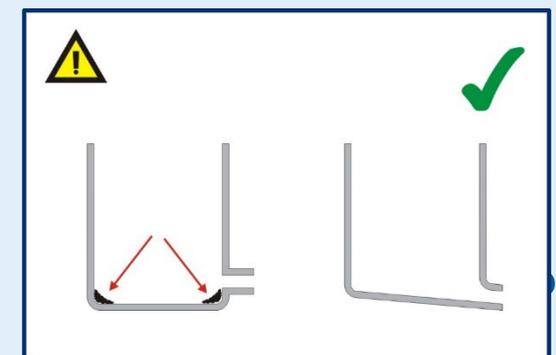
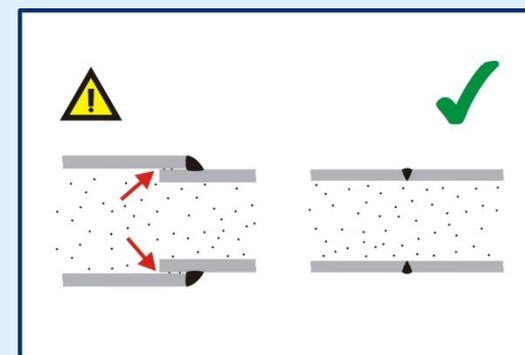
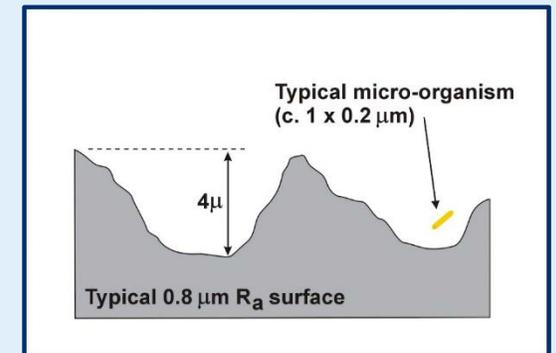
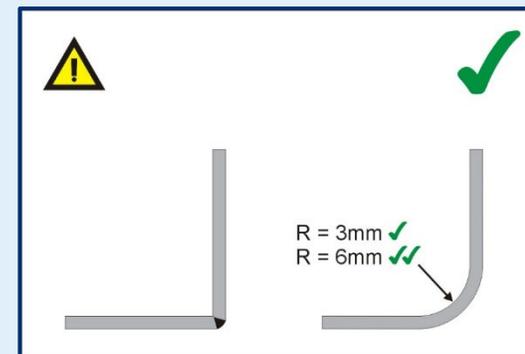
Making something that is easy to clean (decontaminate)



Some general principles of Hygienic Design:

- ✓ No sharp internal angles
- ✓ All areas accessible for easy cleaning and disinfection – no nooks & crannies
- ✓ Smooth surface finishes and welds
- ✓ Self-draining
- ✓ Resistant to corrosion, cracking, splintering & flaking
- ✓ Non-absorbent
- ✓ Made of food contact compliant materials

Courtesy of Eric Partington, Nickel Institute 



# Hygienic Design: Why does it matter?

**EFSA<sup>1</sup>:** *Poor equipment hygienic design* is the most crucial risk factor for persistent \*pathogens in food production

\* *Salmonella, Listeria mono, Cronobacter sakazakii*

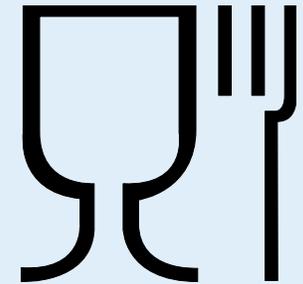
- Other risk factors:
  - Inadequate zoning & hygiene barriers
  - Inadequate cleaning & disinfection
  - Poor infrastructure

[1. Persistence of microbiological hazards in food and feed production and processing environments \(wiley.com\)](http://wiley.com)



# Hygienic Design: EU Legislation

- *Hygienic design*
  - EC 42/2006 - Machinery Directive
- *Materials of construction*
  - EC 1935/2004 - Framework Regulation: materials & articles intended to come into contact with food
  - EU 10/2011 - Plastics Regulation
  - EC 2023/2006 – GMP for materials & articles intended to come into contact with food Regulation
- EC 852/2004 - Hygiene of Foodstuffs Regulation



# Hygienic Design: Machinery Directive

## EC 42/2006

- All surfaces in contact with foodstuffs products must:
  - *be easily cleaned & disinfected*
  - *be smooth & have neither ridges nor crevices*
- The machinery must be designed & constructed in such a way that these materials can be cleaned before each use
- Where this is not possible disposable parts must be used.

# Hygienic Design: Food Contact materials

## EC 1935/2004

- Materials and articles, including active and intelligent materials and articles, shall be manufactured in compliance with good manufacturing practice so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could:
  - Endanger human health
  - Bring about an unacceptable change in the composition of the food
  - Bring about a deterioration in the organoleptic characteristics

# Hygienic Design: Food Hygiene

## EC 852/2004

- All articles, fittings and equipment with which food comes into contact are to:
  - *be effectively cleaned and, where necessary disinfected,*
  - *be so constructed, of such materials, in good order, repair and condition, as to minimise any risk of food contamination*

# Hygienic Design: US Legislation

With the passage of US FDA Food Safety Modernization Act in 2011, more than ever, sites are required, by regulations, to have their equipment and premises construction based on Hygienic Design principles:



21 CFR 117.40 –  
Equipment & utensils design & maintenance

*Equipment and utensils must be designed & constructed to be adequately cleaned or maintained to protect against contamination.*



21 CFR 117.20(b) -  
Plant construction and design

*The facility must be constructed or designed to facilitate maintenance & sanitary operations.*

<https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-117>

# Hygienic Design: US Legislation



FSIS published Sanitary Performance Standards Compliance Guide as references methods already proven to be effective in maintaining sanitary conditions in meat and poultry establishments.

## § 416.2(b) Construction

- a. *Establishment buildings, including their structures, rooms, and compartments must be of sound construction ...*
- b. *Walls, floors, and ceilings within establishments must be built of durable materials ...*

## § 416.3 Equipment and Utensils

- a. *Equipment and utensils used for processing or otherwise handling edible product or ingredients must be of such material and construction to facilitate thorough cleaning ...*

<https://www.fsis.usda.gov/inspection/compliance-guidance/sanitation-performance-standards-compliance-guide>



# GFSI Benchmark requirements

## Hygienic design of facilities and equipment

#	Scope	End User
J1	Hygienic Design of Food Facilities and Processing Equipment	Facility Constructors, Equipment Manufacturers
J11	Hygienic Design of Food Facilities and Processing Equipment	Facility and Equipment Users



<https://mygfsi.com/how-to-implement/recognition/certification-programme-owners>



# Hygienic Design: BRCS v9 requirements

## 4.6 – Equipment

- All production & product handling equipment shall be suitable for the intended purpose & shall be used to minimise the risk of contamination of product.
- 4.6.1
  - There shall be a documented purchase specification for any new equipment detailing the site requirements for the equipment. This may, for example, include:
    - *any relevant legislation where applicable, requirements for food contact surfaces to meet legal requirements details of intended use of the equipment and the type of materials it will be handling*
  - The supplier should provide evidence that equipment meets these site requirements prior to supply.

The logo for BRCS (British Retailers Consortium) is displayed in a large, bold, green font. The letters are stylized with a slight 3D effect and a shadow.

<https://www.brcgs.com/product/global-standard-food-safety-issue-9/p-13279/>

# Hygienic Design: BRCS v9 requirements

- 4.6.2
  - The *design and construction* of equipment shall be based on risk, to prevent product contamination. e.g., *use of correct seals, impervious surfaces or smooth welds & joints, where they are exposed to product & could otherwise result in foreign-body, microbiological or allergen contamination of the product.*
  - *Equipment that is in direct contact with food shall be suitable for food contact & meet legal requirements where applicable.*

The logo for BRCS (British Retailers Foundation) is displayed in a large, bold, green font. The letters are stylized with a slight 3D effect, and the 'C' contains a registered trademark symbol.

# Hygienic Design: SQF v9 requirements

## 11.1.7 – Equipment & Utensils

- 11.1.7.1
  - Specifications for equipment & utensils & procedures for purchasing equipment shall be documented & implemented.
- 11.1.7.2
  - Equipment & utensils shall be *designed, constructed*, installed, operated, & maintained to meet any applicable regulatory requirements & to not pose a contamination threat to products.
- 11.1.7.3
  - Equipment storage rooms shall be *designed & constructed* to allow for the hygienic & efficient storage of equipment & containers.
- 11.1.7.4
  - Product contact surfaces & those surfaces not in direct contact with food in food handling areas, raw material storage, packaging storage, & cold storage areas shall be constructed of materials that will not contribute to a food safety risk.



<https://www.sqfi.com/the-sqf-code/choose-your-code/library-of-codes/quality>

# Hygienic Design: SQF v9 requirements

- 11.1.7.5
  - Benches, tables, conveyors, mixers, mincers, graders, & other mechanical processing equipment shall be *hygienically designed* and located for appropriate cleaning. *Equipment surfaces shall be smooth, impervious, & free from cracks or crevices.*
- 11.1.7.6
  - Product containers, tubs, & bins used for edible & inedible material shall be *constructed of materials that are non-toxic, smooth, impervious, & readily cleaned*

## 11.6.2 Cold Storage, Freezing, & Chilling of Foods

- 11.6.2.1
  - Chillers, blast freezers, & cold storage rooms shall *be designed & constructed* to allow for the hygienic & efficient refrigeration of food & be easily accessible for inspection & cleaning.



# Hygienic Design: FSSC 22000 requirements

## FSSC 22000 v6: Appendix 1 - Definitions

- Hygienic Design
  - Design & engineering (materials & fabrication) of equipment & premises that are easily cleanable assuring the food is safe & suitable for human consumption (EHEDG Glossary, Version 2020/08.G04).

## 2.5.15: Equipment Management

- In addition to clause 8.2.4 of ISO 22000:2018, the organisation shall:
  - Have a documented purchase specification in place, which addresses *hygienic design*, applicable legal & customer requirements, & the intended use of the equipment, including product handled. The supplier shall provide evidence of meeting the purchase specification prior to installation.



<https://www.fssc.com/schemes/fssc-22000/documents/fssc-22000-version-6/>



# Hygienic Design: Non-conformance



Citation violations related to the requirements below are among the top 10 reported. In 2023, there were 139 violations of 21CFR 117.40, and 106 violations of 21 CFR 117.20(b).



## **21 CFR 117.40** - *Equipment & utensils design and maintenance*

Equipment and utensils were not designed and constructed to be adequately cleaned or maintained to protect against contamination



## **21 CFR 117.20(b)** - *Plant construction and design –*

Facility was not constructed or designed to facilitate maintenance and sanitary operations

Reference: <https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/inspection-references/inspection-observations>

# Hygienic Design: Non-conformance

## \*Top 5 Non-conformances

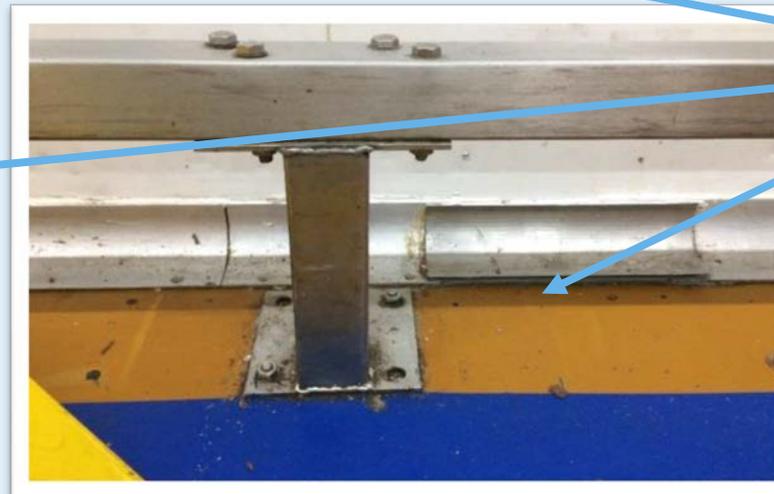
1. Clause 4.11.1
  - Hygienic condition of equipment & premises
2. Clause 4.9.11
  - Use, storage, handling of non-food chemicals
3. Clause 4.6.2
  - Design & construction of equipment
4. Clause 4.4.8
  - Condition of factory doors
5. Clause 4.4.1
  - Condition of factory walls

The logo for BRCGS (British Retail Consortium Global Standards) is displayed in a large, bold, green font. The letters are stylized with a slight 3D effect and a gradient from light to dark green.

\*Based on data from BRCGS issue 9 audits conducted between 1<sup>st</sup> Feb – 31<sup>st</sup> Oct 2023.

# Bad hygienic design:

Walls, floors, drains, ducting/pipework



Contamination traps / difficult to clean / poor design & construction

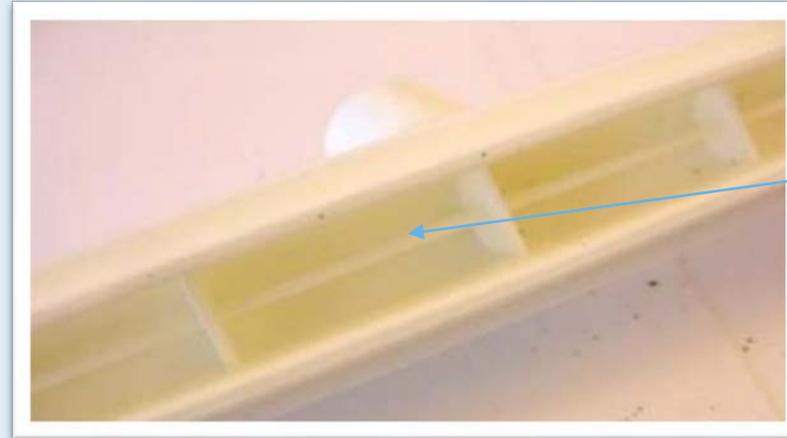
# Bad hygienic design:

## Cleaning equipment design

Biofilm build-up under the screw thread handle fixing



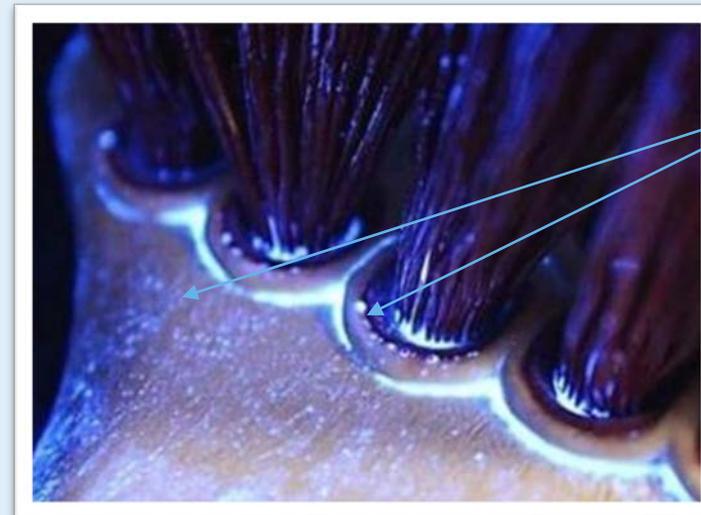
Multiple, deep 'pockets' on the underside of a squeegee – difficult & time consuming to clean



Biofilm build-up between the blades of a twin foam bladed squeegee



Food industry cleaning brush with poor surface finish & multiple contamination traps.

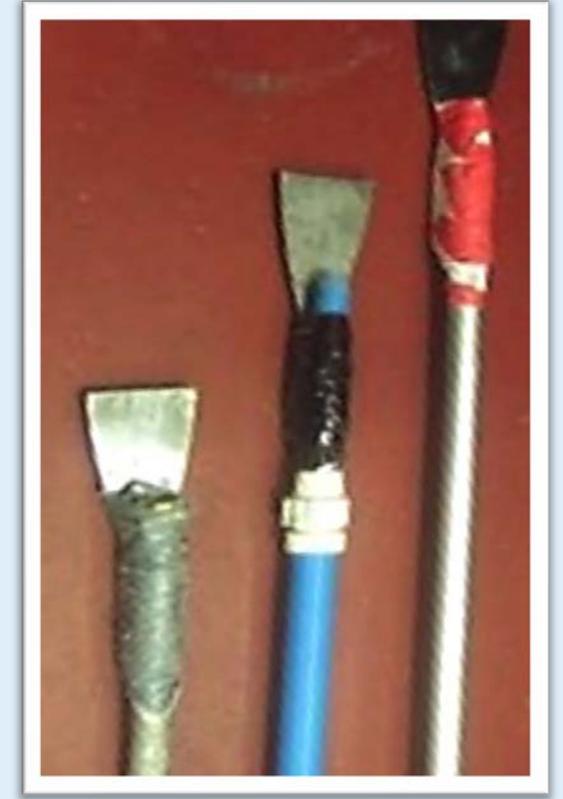


# Bad hygienic design:

Cleaning equipment materials of construction



Site-made cleaning equipment



# Hygienic Design: Cleaning tools

- 4.11.6
  - Cleaning equipment shall be:- *hygienically designed & fit for purpose.*
- 8.5.3
  - Equipment used for cleaning in high-care/risk areas shall be *hygienically designed & fit for purpose.*

## FSSC 22000 - ISO/TS 22002-1:2009

- Prerequisite programmes on food safety –  
Part 1: Food manufacturing:
  - 11.2 Cleaning and sanitizing agents and tools
    - Tools and equipment shall be of *hygienic design*

The logo for BRCS (British Retailers Foundation) is displayed in a large, bold, green font. The letters are stylized with a slight 3D effect and a gradient.The logo for FSSC 22000 is shown. It features a circular icon on the left composed of three curved segments in shades of green and grey, followed by the text "FSSC 22000" in a bold, green, sans-serif font.The logo for Vikan & Remco is located in the bottom right corner. It features the word "Vikan" in a blue, sans-serif font with a registered trademark symbol, followed by "Remco" in a larger, bold, blue font. Below "Remco" is the tagline "a Vikan company" in a smaller, lighter blue font. A blue swoosh underline is positioned beneath the "Vikan" text.

# Cleaning tools: Good hygienic design

<http://viewer.ipaper.io/vikan/food-safety-information/ultra-hygiene/ultra-hygiene-advertorial-en-300/>

<http://viewer.ipaper.io/vikan/white-papers/cleaning-tool-maintenance/cleaning-tool-maintenance-whitepaper-en-300/>



## Choosing hygienically designed cleaning tools

- what are they and why it matters

GLOBAL HYGIENE SPECIALIST DEBRA SMITH  
VIKAN A/S, RIEVEVEJ 1, 7900 SKIVE, DENMARK

WHAT ARE HYGIENICALLY DESIGNED CLEANING TOOLS?  
The hygienic design of something is related to how easy it is to clean. It can also relate to the materials it is made of<sup>1)</sup>.

The principles of hygienic design have been defined<sup>2)</sup> by the European Hygienic Engineering Design Group (EHEDG, see [www.ehedg.org](http://www.ehedg.org)).

Vikan are Company Members of EHEDG



These principles state that equipment should be<sup>3)</sup> have,

- free of crevices and contamination traps e.g. use of smooth joins, absence of small holes, recesses, and sharp internal angles
- a smooth surface finish (Ra, less than 0.8µm)

- easy to clean (and dry) e.g. quick and easy to dismantle/re-assemble, or of one piece construction, or with easy access to all areas for cleaning and disinfection
- made of food safe materials i.e., non-toxic (in compliance with EU food contact material legislation)
- well constructed e.g. durable
- non-absorbent
- appropriately temperature and chemical resistant i.e. to dishwashing and autoclaving, to cleaning and disinfection chemicals.

WHY HYGIENIC DESIGN MATTERS  
Thanks to EHEDG, many food manufacturers already appreciate the benefits of using hygienically designed production equipment, i.e. that it is quicker and easier to clean, and minimises the risk of product contamination by microbes, allergens, foreign bodies etc. This in turn maximises food safety and quality, reduces the risk of expensive product rejection or recall, and minimises food waste. However, when it comes to the equipment used to clean the food production environment and production equipment, very few cleaning tools are developed with good hygienic design in mind.

Vikan A/S - Department of Research & Development Copyright © 2016 Vikan A/S - All Rights Reserved 01

# Hygienic Design: Guidance, Certification, Training



# APPLYING HD PRINCIPLES IN FOOD MANUFACTURING

Dr Jim Hartley  
Global Sanitation Director

Mondelēz International



# 7 FUNCTIONAL HYGIENIC DESIGN PRINCIPLES

The 7 Principles of Hygienic Design are applied for any Mondelez International project where facility, grounds, equipment or process are affected:

1. Separation
2. Cleanability
3. Compatible Materials
4. Smooth and Accessible Surfaces
5. Drainability (Self Draining)
6. Framework And Joint Attachments
7. Utilities, Electrical Installations and other Sub-Systems

According to the relative food safety risk derived from:

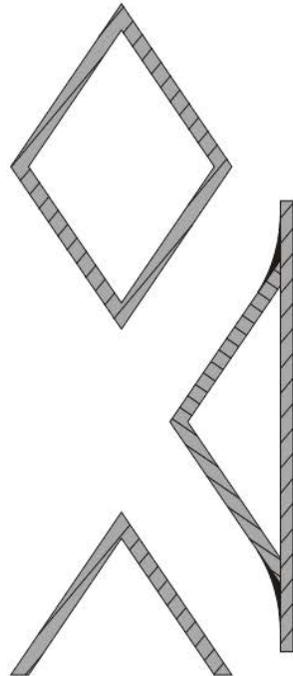
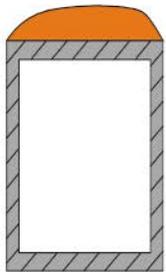
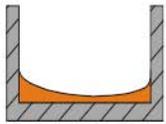
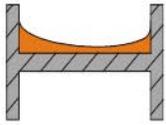
- Microbial Contamination
- Allergen Control
- Foreign Material Contamination
- Chemical Contamination

# SMOOTH AND ACCESSIBLE SURFACES



# DRAINABILITY

Avoid horizontal surfaces, dead ends and areas where debris can accumulate



# FRAMEWORK AND JOINT ATTACHMENTS

Avoiding horizontal surfaces; accessible; hex-head fasteners



# FRAMEWORK AND JOINT ATTACHMENTS

Avoiding exposed threads and



# FINAL THOUGHTS

Hygienic design is a team sport!

- Build capability in your organisations, especially engineering community
- Engage with OEMs early in process to design out what you can
- Attention to detail is essential at all stages of the process
- Ensure that the principles are applied based on product risk to help prioritise capital and resources





# European Hygienic Engineering & Design Group

Introduction  
2024

# Who is EHEDG?



EHEDG was founded in 1989 as a non-profit consortium of



Equipment  
manufacturers



Food  
producers



Suppliers to the  
food industry



Research institutes  
and universities



Public health authorities  
and governmental  
organisations

# Some of our members



# The EHEDG Vision



## MARKET

A globally recognized authority

All stakeholders in the production of safe food

- Producers & retailers
- Equipment- & system-suppliers
- Service-suppliers & building-designers
- Academia
- Legislators and enforcement-agencies

## PRODUCTS

A consensus-based product portfolio

A comprehensive product portfolio

- Guidelines on processes, services and buildings, striving for harmonisation on a global scale
- Testing & Certification
- Training & Education

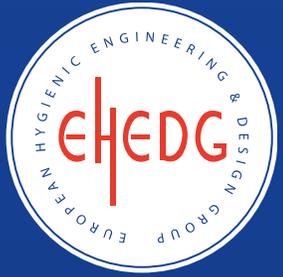
## STRUCTURE

A well-balanced membership with global coverage

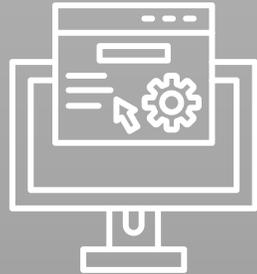
A fully-transparent, non- profit organisation

- Funded by strongly committed members
- Relying upon voluntary contribution and active involvement
- Attractive for large and small companies

# What are our objectives?



To provide guidance on hygienic design and engineering to ensure food safety and quality



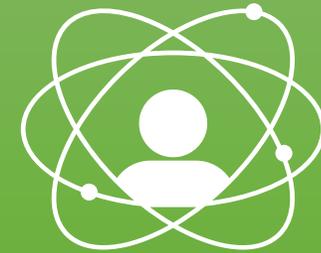
To offer a platform for the food industry to discuss issues on hygienic design



To develop science-based guideline documents on hygienic design requirements and practices to facilitate compliance to legislation



To maintain a transparent and unambiguous certification-scheme for hygienic equipment



To identify areas where hygienic-design knowledge is insufficient and to initiate and promote research and development in those areas



# Unlock member benefits today!

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- Download 50+ guidelines free of charge;
- Let up to 100 colleagues access the EHEDG environment and resources;
- Meet fellow members through our Regional Sections and widen your network;
- Contribute your expertise in our Working Groups;
- Sharpen competencies on the latest hygienic design topics with a reduced registration fee for our Fundamentals and Advanced courses;
- Attend our World Congress at a discounted member rate (next edition: Nantes, 2-3 October 2024);
- Get the chance to run for our bi-annual Board Elections.

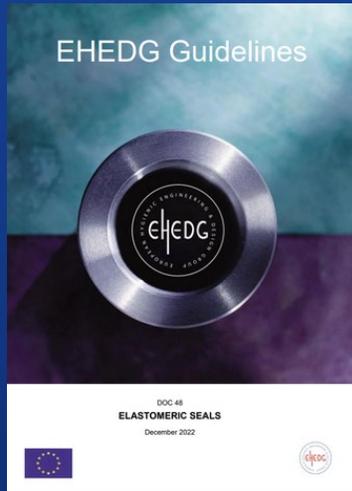
# Membership fee scheme



Food-related Turnover P.A.	Contribution P.A.	Free Staff Member
Over 500 million EUR	€10,000	100
50 to 500 million EUR	€5,000	50
10 to 50 million EUR	€2,500	25
1 to 10 million EUR	€1,000	10
Less than 1 million EUR	€500	5

[Become a member](#)

# Our Product Portfolio



## Guidelines

30+ Working Groups and  
50+ published documents



## Testing & Certification

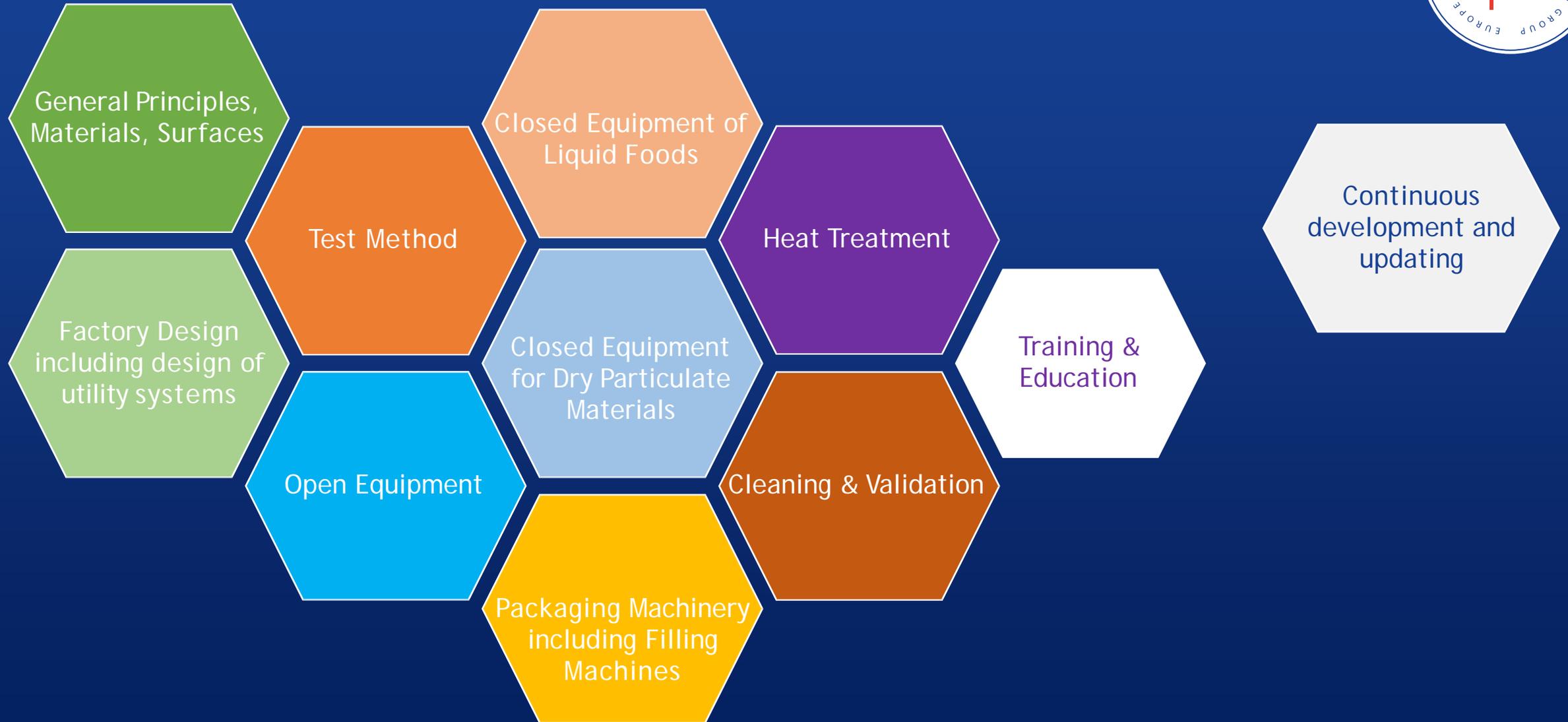
400+ certified  
equipment, cleaned with  
liquids or dry-cleaned only



## Training & Education

Introductory and advanced  
courses, online and in-person  
in many countries around the  
world

# Focus areas of Working Groups



## Some Recent EHEDG Deliverables

01

White Paper on GFSI Hygienic Design Scopes JI & JII

To provide info, explanations, and guidance on the publication of the GFSI benchmarking requirements for equipment management in the food industry

02

Position Paper on potential ban of PFAS on food contact surfaces in food manufacturing and processing equipment

EHEDG acknowledges the importance of addressing environmental and health concerns and emphasises the importance of a balanced and risk-based approach.

03

Guideline Tank and Vessel Cleaning

Explains all you need to know to effectively clean tanks and vessels for safe and quality food manufacturing

04

Guideline Pack-off Systems for Dry Particulate Materials

Addresses hygienic design aspects of both buildings and equipment for dry particulate materials packaging systems



# A truly global network

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## Europe



Austria  
Belgium  
Bulgaria  
Croatia  
Denmark  
Finland  
France  
Germany  
Ireland Italy  
Macedonia  
Netherlands  
Norway  
Portugal  
Poland  
Romania  
Serbia  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom

# A truly global network



Argentina  
Brazil  
Chile

Colombia  
Mexico  
Uruguay



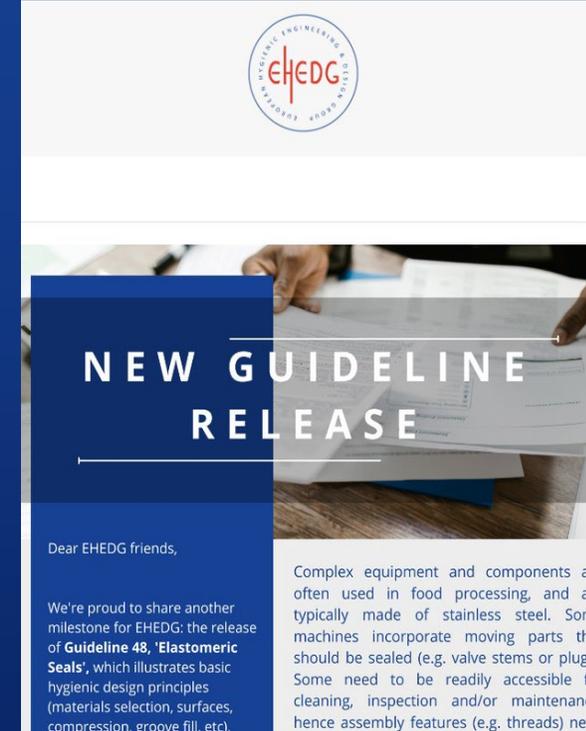
Armenia  
China  
India  
Israel

Japan  
Taiwan  
Thailand



New Zealand  
Australia

# EHEDG Communication



[EHEDG Publications](#)

[EHEDG LinkedIn Page](#)

[EHEDG Newsletter](#)

# Useful links

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- [To become an EHEDG member](#)
- [To see our guidelines offer](#)
- [To request to join an EHEDG Working Group](#)
- [To sign up for a training course](#)
- [To request a training course](#)
- [To request a certification for your component](#)



# EHEDG World Congress 2024



'Achieving hygienic excellence by design'

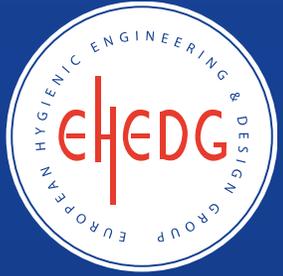


Register now!

2-3 October | Nantes, France

Breakout sessions, Poster area, Sponsor tours, Networking





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Any questions?  
Reach out to us!



**EHEDG Head Office**

Karspeldreef 8, 1101CJ Amsterdam, Netherlands

[office@ehedg.org](mailto:office@ehedg.org)

+31 610 216 958







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Menu ☰



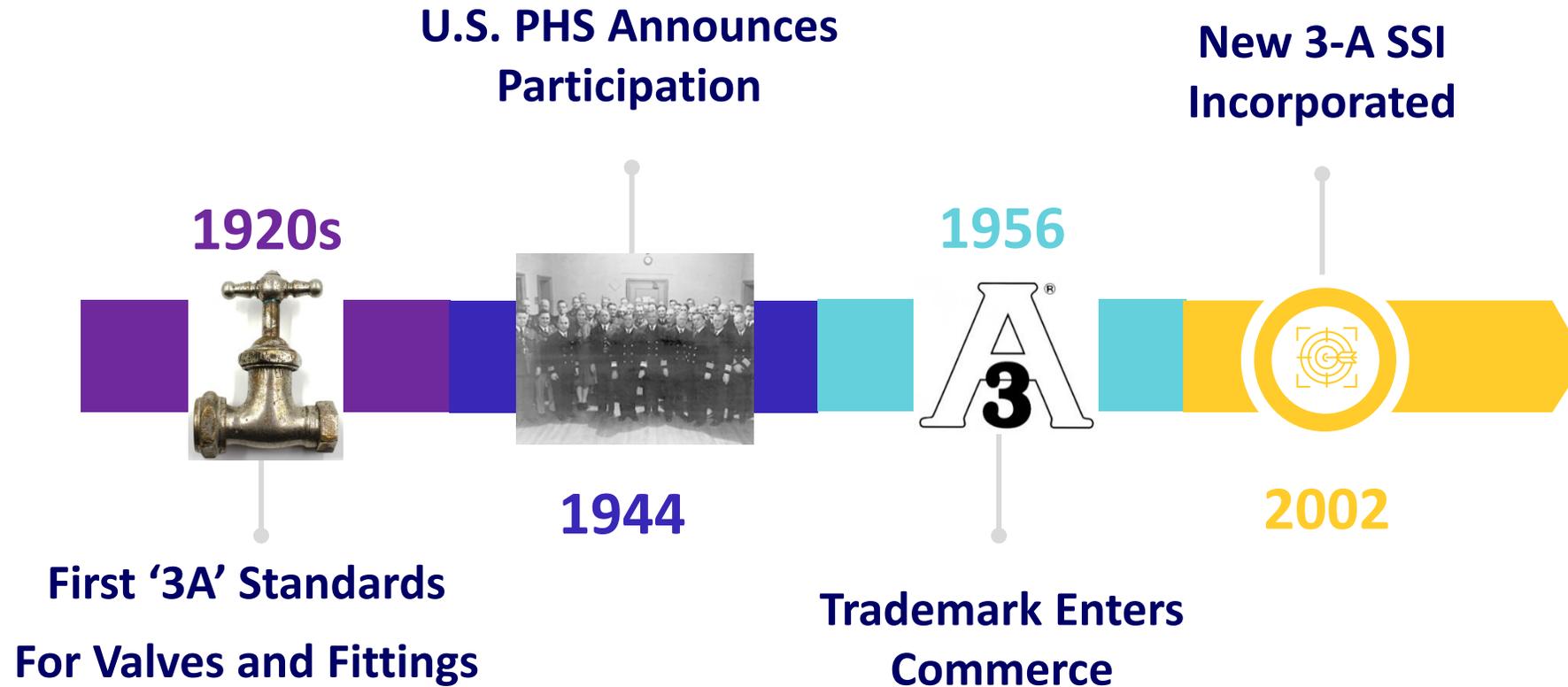
# Achieving Hygienic Design Compliance

## The Role of 3-A Sanitary Standards, Inc.

➔ [Read about 3-A SSI and the 3-A Symbol](#)



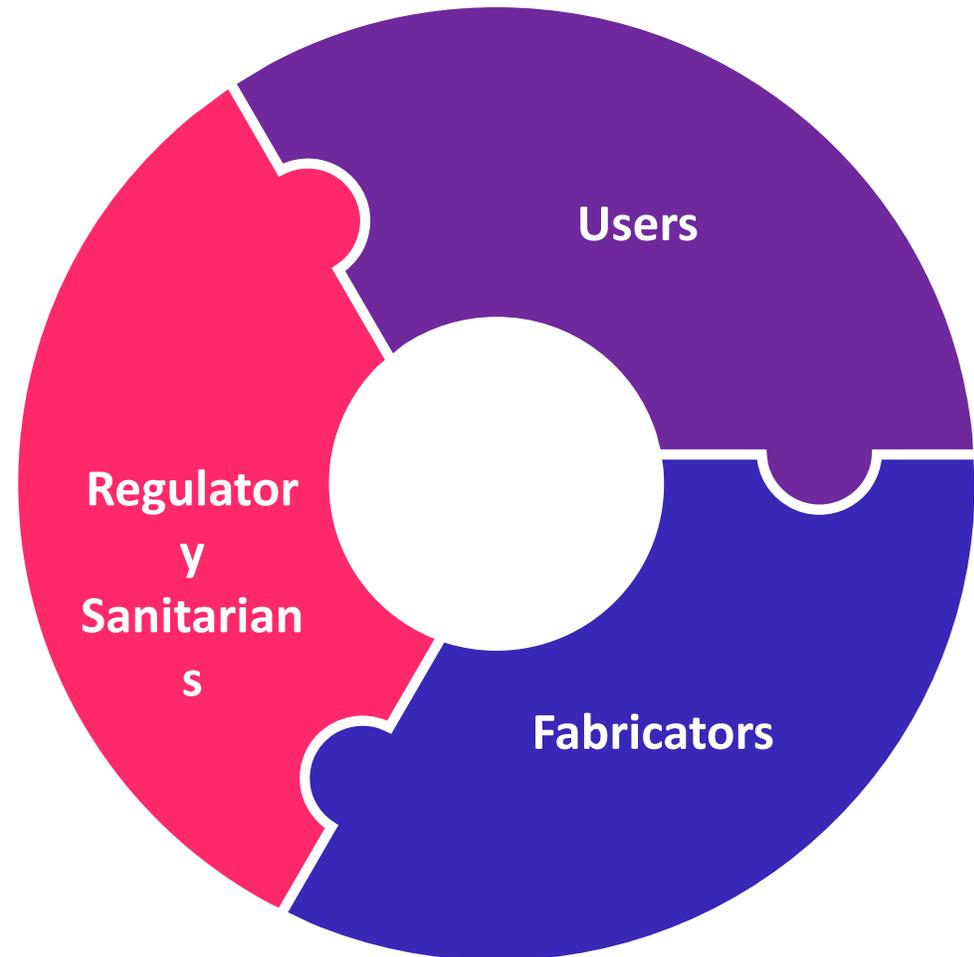
# ONE HUNDRED YEARS IN ONE MINUTE





## 3-A SSI TODAY

- ❖ Not-for-profit 501 (c) (3) corporation
- ❖ Represents three stakeholder groups with long history of collaboration
- ❖ Governance vested in voting representatives of Member Organizations

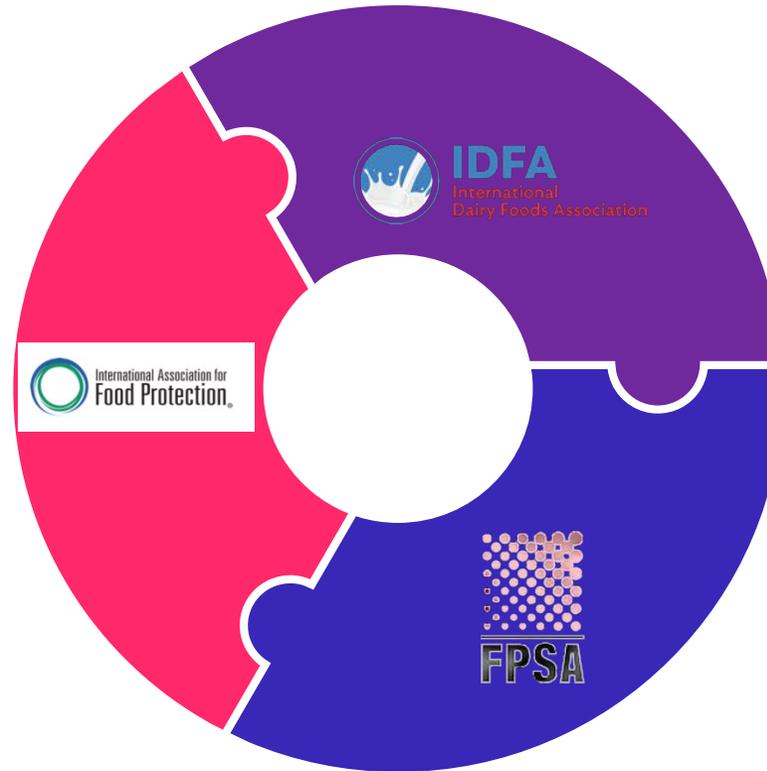




# 3-A SSI MEMBERSHIP CLASSES

## Regulatory Sanitarians

Representing Federal, State or local Regulatory Officials or Academia



## Users

Representing firms engaged in the use of equipment or systems covered by 3-A Standards or Accepted Practices

## Fabricators

Representing firms engaged in manufacture of equipment or systems covered by 3-A Standards or Accepted Practices



# THE QUIDDITY OF 3-A SSI



**What Do  
We Do?**



**Why Do We  
Do It?**



**How Do We  
Do It?**



# WHAT?

- ❖ **Standards Writing and Publishing**
- ❖ **3-A Symbol Authorization & Certificates**
- ❖ **Third Party Verification Program**
- ❖ **Industry Training and Education**
- ❖ **Harmonization and Liaison with Other Organizations**

# WHY?

- ❖ **To protect public health by using hygienic equipment to:**
- ❖ **Ensure that all product contact surfaces can be mechanically cleaned (CIP)**
- ❖ **Protect food from contamination and**
- ❖ **Be dismantled easily for manual cleaning or inspection**

# WHY?

## **Supports U.S. Regulatory Objectives:**

- ❖ **USDA – General Specifications for Dairy Plants Approved for USDA Inspection and Grading Service**
- ❖ **U.S. PHS – Grade “A” Pasteurized Milk Ordinance, PMO 2013 Revision, Section 7 ITEM 11p. CONSTRUCTION AND REPAIR OF CONTAINERS AND EQUIPMENT**
- ❖ **Food Safety Modernization Act (FSMA) driving broader recognition and demand worldwide**

# HOW?

- ❖ **3-A SSI relies on a large network of committed volunteers to carry out its mission**
- ❖ **Processors, Fabricators and Regulatory Sanitarians participate because of the focus on sanitary design criteria**
- ❖ **Participation increases your professional expertise, helps assure your voice is heard**
- ❖ **3-A SSI is ANSI-accredited SDO**

# Explore [www.3-a.org](http://www.3-a.org)



**Knowledge Center**



**Training Resources**



**Quick Links**

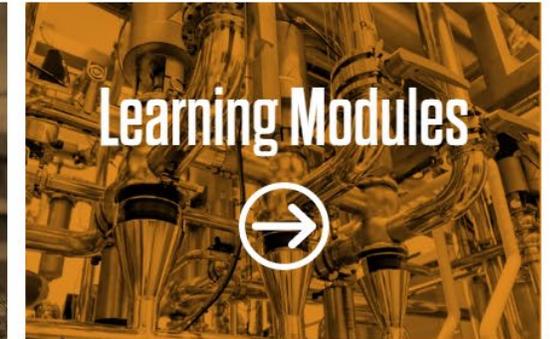


**Document Library**



# KNOWLEDGE CENTER

## 3-A SSI RESOURCES



## TRAINING

- Learn more about 3-A SSI training resources





# TRAINING

1.0 Overview of Principles of Hygienic Design



2.0 Basics of Hygienic Equipment Design



2.1 Materials and Surface Finishes



3.0 Hygienic Facility Design & Environmental Controls



4.0 Cleaning and Sanitizing



# TRAINING

The screenshot shows a training interface with a left-hand menu and a main content area. The menu lists various topics under four main sections: Introduction, What is Hygienic Design?, Fundamental Elements of Hygienic Design, and Overview of Hygienic Equipment Design. The main content area displays the title 'MODULE 1.0' with a logo, the course duration 'Approx. 60 minutes', and the main title 'OVERVIEW OF PRINCIPLES OF HYGIENIC DESIGN AND FOUNDATION ELEMENTS'. It also states 'Presented by: 3-A Sanitary Standards, Inc. Education Center'. A video player interface is visible at the bottom of the main content area.

**Menu**

- 1. Introduction
  - 1.1. Welcome Page
  - 1.2. Course Navigation
  - 1.3. Course Topics
  - 1.4. Introduction to 3-A SSI
  - 1.5. The Role of 3-A SSI
- 2. What is Hygienic Design?
  - 2.1. Hygienic Design - Defined
  - 2.2. Impact of Hygienic Design
  - 2.3. Industries Using Hygienic Design
  - 2.4. Quiz Introduction
  - 2.5. Question 1
  - 2.6. Holistic Approach to Hygienic Design
- 3. Fundamental Elements of Hygienic Design
  - 3.1. Hygienic Design Elements
  - 3.2. Definition: Hazard
  - 3.3. How 3A Manages Physical Hazards
  - 3.4. How 3A Manages Chemical Hazards
  - 3.5. How 3A Manages Biological Hazards
  - 3.6. Question 2
  - 3.7. Question 3
  - 3.8. Contact Surfaces - Scope of Module
  - 3.9. Definition: Product Contact Surfaces
  - 3.10. Definition: Non-Product Contact Surfaces
  - 3.11. Question 4
- 4. Overview of Hygienic Equipment Design
  - 4.1. Equipment Design

Module 1.0. Overview of Principles of Hygienic Design

**3-A** **MODULE 1.0**

Course Duration:  
Approx. 60 minutes

**OVERVIEW OF  
PRINCIPLES OF HYGIENIC DESIGN  
AND FOUNDATION ELEMENTS**

Presented by:  
**3-A Sanitary Standards, Inc.  
Education Center**



# QUICK LINKS



## Quick Links

Quick Links training guides can help new and experienced users through the 3-A certification process. Explore our training content from the list below.

### THIRD PARTY VERIFICATION (TPV) INSPECTION

This tutorial you will learn about what TPV is, who will conduct the inspection, what will be inspected the key elements of the TPV inspection process.

[→ VIEW QUICK LINK TRAINING](#)

### INTRODUCTION TO THE 3-A SSI ONLINE SYSTEM

This tutorial will help you navigate the new 3-A SSI online system, including creating new account, signing in with existing credentials and managing your account, as well as renewing/amending your 3-A Symbol or Certificate.

[→ VIEW QUICK LINK TRAINING](#)

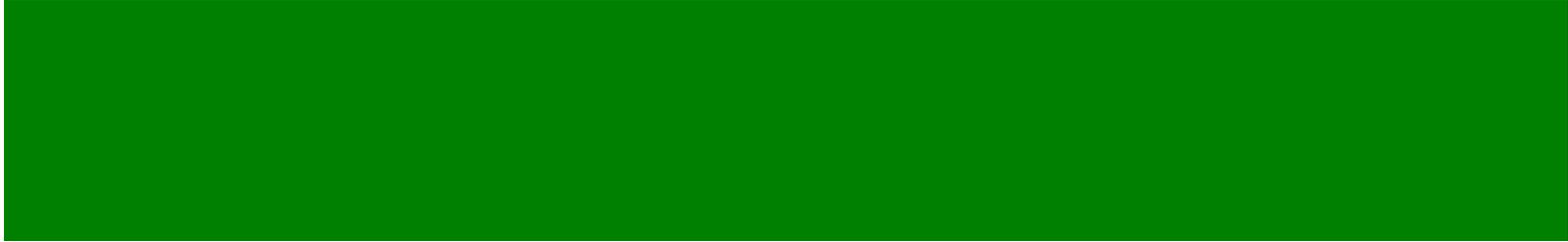
### HOW TO VERIFY 3-A SYMBOLS

This tutorial, you will learn how to verify 3-A symbols, and how to find 3-A symbol/certificate holders in the 3-A online database. You will also learn how to properly and authorized use the 3-A symbol.

[→ VIEW QUICK LINK TRAINING](#)



# DOCUMENT LIBRARY



## DOCUMENT LIBRARY

3-A SSI maintains a large repository of important documents that help sanitarians, engineers and regulators maintain the quality of their products through hygienic design. Below are different sets of documents that will help you get your job done right.

[Full Document Library](#)

[Annual Meeting Presentations](#)

[Resource Papers and Links](#)





# Summit on Hygienic Design

Join Us in Rosemont, IL  
May 7-9, 2024



# Panel Questions & Discussion

# Further information and support



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# Vikan's Food Safety Webinar Series

What's next?



## Topic:

Food Hygiene and Sanitation Updates for Key GFSI Benchmarked Schemes

## Date & Time:

May 16<sup>th</sup>, 2024  
3 p.m. CEST (9 a.m. EST)

## Presenter:

Deb Smith, Vikan  
Amit M Kheradia, Remco