

**Advancing Food Safety & Quality  
Through Hygienic Design**

**EHEDG Advanced Course on Hygienic Design**

**15<sup>th</sup> – 17<sup>th</sup> November 2022**



**Novotel Christchurch Cathedral Square  
Christchurch**

**Organizer:** EHEDG New Zealand <https://ehedg.co.nz>

**Date:** 15 – 17 November 2022

**Training Venue:** NOVOTEL Christchurch Cathedral Square, 52 Cathedral Rd. Christchurch  
<https://accorevents.com/venues/novotel-christchurch>

### Course Overview:

The objective of this course is to provide knowledge and insight into the hygienic design of equipment and hygienic engineering aspects especially for the food, but also for the cosmetics, pharmaceutical, biotechnology and chemical industries. The course is aiming to:

- create awareness of the EHEDG Organisation
- explain the benefits and importance of Hygienic Design
- provide understanding on the key Hygienic Design criteria for equipment and facilities, including detailed engineering concepts
- communicate the Key Learning Points (KLPs) from all relevant EHEDG guidelines and EHEDG teaching aids such as training modules, case studies and videos
- The course is given from a very practical viewpoint. The theoretical fundamentals of the different subjects are given in a short and concise way, continuously relating these to practice by means of examples on video, pictures or samples. Smaller groups are preferred in order to make the course interactive.

### Target Groups and their Acquired Competencies

- **Designers from Technical Engineering, Process Development and Quality Assurance**
  - After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be able to discharge successfully the role of sole responsible expert in hygienic design for design, construction or operational teams involved with food machinery or food processing.
- **Management, Marketing and Sales Staff from Design & Mechanical Engineering Companies and Food Manufacturers**
  - Sales and marketing professionals need to have sufficient knowledge of hygienic design to assure that sales and development of existing or new products comply with the above requirements. After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be able to discharge successfully the role of executive manager or marketing or sales professional in an organisation involved in designing, installing, maintaining, operating and cleaning food machinery or food processes and systems in such a way that hygienic safety is established and maintained.
- **Operators, Maintenance Engineers, Installers and Sanitarians**
  - After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be competent to operate, maintain, install and clean food machinery or processes in such a way that its hygienic safety is established and maintained, provided the general training is complete.
- **Auditors, Inspectors, Testers, Consultants and Certifiers**
  - After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be competent to verify or test the conformance of hygienic equipment and associated systems and documentation to recognised standards, including [EHEDG Document 8](#).

## Course Detail & Timetable

| <b>Day 1:</b>    |  |
|------------------|--|
| <b>Timetable</b> | <b>Topic</b>   |
| 8:45 – 9:15      | Registration and introduction of delegates                       |
| 9:15 – 9:45      | EHEDG Introduction   |
| 9:45 – 10:30     | Legal Requirements   |
| 10:30 – 10:50    | COFFEE BREAK   |
| 10:50 – 12:10    | Hazards Controlled Through Hygienic Processing                   |
| 12:10 – 12:55    | LUNCH  |
| 12:55 – 14:10    | Hygienic Design Criteria   |
| 14:10 – 15:25    | Materials of Construction & Surface Treatment of Stainless Steel |
| 15:25 – 15:45    | COFFEE BREAK   |
| 15:45 – 16:45    | Welding Stainless Steel Tube Systems                             |
| 16:45 – 17:15    | Case Study – Part 1  |
| <b>Day 2:</b>    |  |
| 8:15 – 9:30      | Static Seals & Pipe Couplings                                    |
| 9:30 – 10:40     | Valves   |
| 10:40 – 11:00    | COFFEE BREAK   |
| 11:00 – 12:00    | Pumps and Homogenizers   |
| 12:00 – 12:45    | LUNCH  |
| 12:45 – 14:00    | Cleaning & Disinfection  |
| 14:00 – 14:45    | Verification and Certification                                   |
| 14:45 – 15:05    | COFFEE BREAK   |
| 15:05 – 17:00    | Case Study Part 2  |
| 19:00            | Course dinner  |
| <b>Day 3:</b>    |  |
| 8:15 – 9:30      | Food Factory Design and Process Layout                           |
| 9:30 – 10:40     | Dry Materials Handling - General                                 |
| 10:40 – 11:00    | COFFEE BREAK   |
| 11:00 – 12:00    | Equipment Installation & Maintenance, Lubricants                 |
| 12:00 – 12:45    | LUNCH  |
| 12:45 – 14:40    | Case Study Preparation of Final Presentations                    |
| 14:40 – 15:00    | COFFEE BREAK   |
| 15:00 – 17:00    | Hygienic Design – Final exam<br>Questionnaire                    |

## Course Qualification

A certificate for successful completion of the final exam – “EHEDG Advanced Course on Hygienic Design” will be delivered to participants. Participants will be offered the opportunity to have their name published in the Training Section of the EHEDG website.

## Trainers

The course content will be delivered in by; Shane Mason – Engineering Manager, Pentair New Zealand; and David Lowry, Managing Director of Lowry Food Consulting and Chairperson of EHEDG New Zealand. Shane and David are authorised EHEDG Trainers.

## Course Registration

Numbers: This course is limited to the first 24 persons who apply

Course Fees: NZ\$2150 + GST

Discounts: Discounts apply for multiple registrations from the same company, students and for EHEDG members. Visit the registration site for details.

Registration: Details at [www.nzifst.org.nz](http://www.nzifst.org.nz).

*Registrations must be received no later than 5pm Friday 14<sup>th</sup> October.*

Links: <https://www.ehedg.org/training-education/>

Location: Novotel Christchurch Cathedral Square is in the centre of the city. Visit their website for accommodation details: <https://accorevents.com/venues/novotel-christchurch>

## Trainers

### Shane Mason



Shane Mason is a very experienced professional mechanical engineer, currently working as Engineering / R&D Manager for Pentair Flow Technologies Pacific Pty. Ltd based in Hamilton, a position which he has held since 1992. His career began at MIRINZ designing, building and testing prototype mechanical de-boning equipment for lamb carcasses. He then moved to NDA Engineering in Hamilton as an R&D Engineer / Technical Sales Manager developing farm milk holding tanks and ancillary equipment. He solely developed new techniques for Hydroforming of stainless steel vessel domed ends for both road tankers and large fabricated liquid storage silos.

In his role with Pentair, he has had sole responsibility for the re-development and ongoing support of all products in the current Pentair Hygienic Valve portfolio and including a HOVAP Hygienic pump range. The projects involved: plastic and electronic component design, PLC BUS protocol variants, integration of other OEM pneumatic valves and electronic proximity switches, tooling design and elastomeric seal design.

A key element of this work has been application of hygienic design principles and he has undertaken both 3-A and EHEDG certification requirements for the products and markets. Shane has successfully completed a Certified EHEDG Advanced Training Course.

### David Lowry



David has 40 years' experience in the NZ and global food industry with a primary focus on microbiological quality and safety of food manufacturing operations. David has worked closely with food professionals and regulators across all industry sectors, with special focus on red meat, seafood, poultry, produce, dairy, RTE foods and bottled water operations. He has strong expertise in pathogen and shelf-life troubleshooting, and particularly the importance of hygienic design and effective hygiene programs in food quality and safety.

His professional career started at MIRINZ undertaking fundamental and process-related microbiological research for the meat industry and other aligned protein sector industries, mainly addressing key pathogens, spoilage profiling and predictive modelling and direct technical support to process operations. He then moved to ECOLAB focusing on cleaning and sanitation program development with multiple leadership roles in the Australian and New Zealand operations as well as 6 years spread across Ecolab's global business based in the US and Asia Pacific. David now has his own consultancy company – Lowry Food Consulting Ltd. -

<https://www.foodinc.co.nz/>

His extensive experience in microbiological troubleshooting and incident prevention, and the desire to drive hygienic design improvements and efficiencies in the food industry led to his mission to establish a regional section of EHEDG as a primary resource for the NZ Food Industry where he is currently the chairperson of EHEDG New Zealand. David has successfully completed a Certified EHEDG Advanced Training Course. He is a Fellow of NZIFST and is a regular presenter and Food Industry Conferences and other training events.