

# MACHINE SAFETY TRAINING COURSE

## GENERAL MACHINE SAFETY



### A REVIEW OF THE CONCEPTS OF MACHINE SAFEGUARDING

Anyone responsible for the design, operation, or maintenance of machines needs an understanding of legal requirements, risk assessment, types of hazards, the several levels of circuit design, and available types of safety equipment and how they all come together for a complete safety solution.

Let **tec.nicum** help you take a step into the world of machine safety with our general machine guarding course.

#### COURSE OUTLINE:

- Understanding Regulatory Standards
- Risk Assessment Principles
- Hazard Types
- Risk Reduction
- Safeguarding Principles
- Guarding Principles
- Fixed and Movable Guards
- Reaching and Guard Opening Design
- Types of Safety Interlock Devices
- Emergency Stop Devices
- Stop Categories
- Mats, Edges and Bumpers
- Safety Light Curtains, Scanners, Beams
- Special Function of Optical Devices
- Two Hand Control
- Enabling Devices
- Safety Distance Calculations
- Mechanically Linked Relays/Contactors
- Safety Monitoring Relays and Controllers
- Understanding Safety Circuit Design
- Fault Tolerance and Exclusions
- Fluid Power Safety

This course can be presented in person in one day, or broken up into multiple sessions for online (live) presentation. A TÜV Certified Functional Safety Engineer for Machinery from our **tec.nicum** Group will be presenting this training. Their experience will bring the expertise that you are looking for in a machine safeguarding specialist.

For more information regarding this training or our other Engineering Services, please contact:

**Devin Murray**

**tec.nicum** Services Manager

FS Engineer (TÜV Rheinland, #4274/11, Machinery)

Phone: (914) 419-3731 | E-Mail: [dmurray@schmersal.com](mailto:dmurray@schmersal.com)

#### SCHMERSAL USA

15 Skyline Drive, Hawthorne, NY 10532  
 Tel: 914-347-4775, Fax: 914-347-1567  
 E-mail: [salesusa@schmersal.com](mailto:salesusa@schmersal.com)  
[www.schmersalusa.com](http://www.schmersalusa.com)

#### SCHMERSAL CANADA

29 Centennial Road, Unit 1, Orangeville ON L9W 1R1  
 Tel: 519-307-7540, Fax: 519-307-7543  
 E-Mail: [salescanada@schmersal.com](mailto:salescanada@schmersal.com)  
[www.schmersalcanada.ca](http://www.schmersalcanada.ca)