

## A true customer focused approach to manufacturing

Safety Services



- Machine and process safety education
- Assessment and risk identification
- Engineering, design, integration and implementation

# Making Safety Simple— Omron's Concept for the Future

Today, forward-thinking manufacturers clearly realize the new role of increased safety on the factory floor.

- » Recently adopted international safety standards have shifted the way systems are evaluated.
- » Safety is a corporate responsibility, not an obstruction to productivity.
- » Safety is essential to increased productivity and profitability.



“The modern user of safety  
products demands a new vision.”

Poised at the leading-edge of safety solutions worldwide, Omron's safety products focus on making safety work. We are aware of the many demands of automation safeguarding. Consequently, our automation safety products meet or exceed local and international safety standards.

Omron is committed to providing safeguarding solutions that meet your needs for safety and productivity. We design and engineer our products by listening to and working closely with our customers and authorized distributors. We also provide you with:

- » Experienced assistance
- » Expert guidance in application, integration and maintenance
- » Our company is 36,000 employees strong—providing products and services in more than 110 countries worldwide.

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# Omron Qualifications to be Your Safety Expert

## Who is Omron?

With over 35 years of experience in industrial machine safety we are a leading resource for machine and process safeguarding services.

Omron provides all necessary machine safeguarding services, including:

- ▶ employee education
- ▶ machine guarding assessment
- ▶ risk level identification
- ▶ risk reduction planning and documentation
- ▶ review of safety system and circuit designs
- ▶ safety product sourcing
- ▶ placement and installation
- ▶ complete safety system integration
- ▶ user training

## Why You Should Partner with Omron?

The expertise required in all phases of the safeguarding process is not a core competency of most manufacturers. Their engineering and maintenance personnel are too busy to get involved with required details of guarding systems and safety interfaces.

Omron employees serve as active members or chairmen on more than 20 domestic and international standards committees relating to machine safeguarding issues. This level of involvement and investment of time assures we keep current on all the latest updates to these standards. And we pass our knowledge on to you!

The best part of partnering with Omron is your peace of mind knowing that...

- ▶ your machines or process lines are safeguarded correctly to the current standards.
- ▶ you are 100% compliant — nothing less.
- ▶ you have documented risk level identification and a risk reduction strategy.
- ▶ your machine operators are fully and professionally trained on the safety systems installed.
- ▶ you are saving money because machine safety improvements only need to be done once.

Machine Safeguarding Services are available in North America, Europe, South America and South East Asia.

## What our customers think...

*"Creating Safe Workplaces"* by Jim Wille, excerpted from EHS Today

Most companies in the United States are extremely sensitive about maintaining the safest possible working environment in their plants or mills, and managers are serious about enforcing rules and policies that protect the health and safety of all employees.

In fact, comments made by spokespersons of prominent companies such as Alcoa, indicate that safety comes before productivity and quality. They believe that without a safe workplace, production, quality and financial performance goals are not likely met or sustained.

"Alcoa wants its employees and contractors to be able to work safely in a manner that protects and promotes the health and well-being of the individual and the environment," says Jeff Shockey, Alcoa's director of safety and regional services.

According to Shockey, the following are the four main activities undertaken in support of Alcoa's safety system:

Assessing the risks, aspects and impacts associated with our products, services and operations.

Developing and implementing operational controls with built-in layers of protection.

Monitoring and maintaining the risk assessment, controls and implementation to ensure they are current and effective.

Reacting to correct gaps in our protective systems and continuously improve system stability.

### Outside Expertise

The EHS professionals often need to look outside their own organization when peaks in the EHS-related workload exceed internal capacity, or the technical expertise is so complex that it is difficult to maintain in-house proficiency. In order to service plants quickly and efficiently, Alcoa complements the efforts of their full-time health and safety professionals with the expertise of highly specialized external providers.

### Finding a Machine Guarding Solution

Such was the case when Alcoa went looking for a machine guarding provider. Alcoa Global Business Services evaluated 10 to 15 companies, giving each a standard package of five or six machines to quote during an online bidding event that also included ranking the prospective providers' capabilities in risk assessment, design, engineering, materials and hardware, fabrication, installation and guarding methodology.

The field was narrowed to three prospective providers for a final interview. The providers were pre-qualified based on their safety performance, customer feedback, staff capabilities and preliminary interviews and discussions.

As a result, Omron was selected as one of Alcoa's machine guarding providers. According to Shockey, Omron offered:

Standardized work methods for conducting the gap assessment. He cited the overall quality of the risk assessment and the clarity of the report as well.

The ability to provide cost-effective and practical solutions by listening to and involving machine operators and maintenance personnel as needed.

Competitive pricing and quality of workmanship.

A willingness to be a full-service partner by supporting training and other needs.

Quick response time by upper management in the rare case when an issue arises.

### Provider versus Partner

Omron is more than a provider, it is a partner. Alcoa Safety and Health Services and Omron jointly teach a course on machine safeguarding.

Omron's philosophy is that as a provider/partner, it should develop a close working relationship with the Alcoa personnel who operate and service the equipment. Communicating with the employees on the production floor at the beginning of the program and securing their input and participation was a key factor when implementing machine safeguarding and countermeasures.

## Educating Your Organization

Are you looking for support to help you improve machine safety? Omron has a number of machine safeguarding resources to help you create a safer, more productive plant, including:

### OSHA Walkthrough

OSHA Walkthrough is a safety and health training software program. Omron has joined forces with eMedia Solutions to sponsor their Safety Animated Machine (S.A.M.™) — an interactive CD produced by a team of experts that makes learning about OSHA regulations efficient and memorable. More than ten hours of safety and health training will help manufacturers reduce workplace injuries, lower training costs, improve safety systems, and prepare for an inspection.

### Gotcha Stick

Based on regulatory data, Omron developed the Gotcha Stick safe distance measurement tool.

This free tool is a quick and easy way to verify the safe mounting distance of fixed guards with gaps or openings. It includes both metric and English measurements, and its folding design makes it easy to carry.



### Safety and Sandwiches

Omron offers free, on-site safety product and application training. We call the program “Safety and Sandwiches” because the sessions are scheduled during the lunch break at your facility. The sessions are tailored for plant safety, maintenance and engineering personnel and provide a better understanding of available machine guarding technology, requirements, and proper application.

Your Area Safety Sales Engineer (ASE) will conduct the training. The ASE is trained on the operation, and application of many safety devices and the interpretation of the applicable regulatory and industry standards.

The following is a sample of Safety and Sandwiches topics:

- ▶ Applications and Proper Use of Safety Light Curtains
- ▶ Proper Use and Selection of Monitoring Safety Relays
- ▶ Application of Safety Interlocks
- ▶ Overview of the Safety PLC
- ▶ Selection and use of Safety Mats and Mat Controllers
- ▶ Applications for Safety Contact Strips, Bumpers and Edges
- ▶ Requirements and Uses for E-stops and Rope-Pulls
- ▶ Use of Safety Area Laser Scanners
- ▶ Safety Circuit Requirements Based on Risk Level

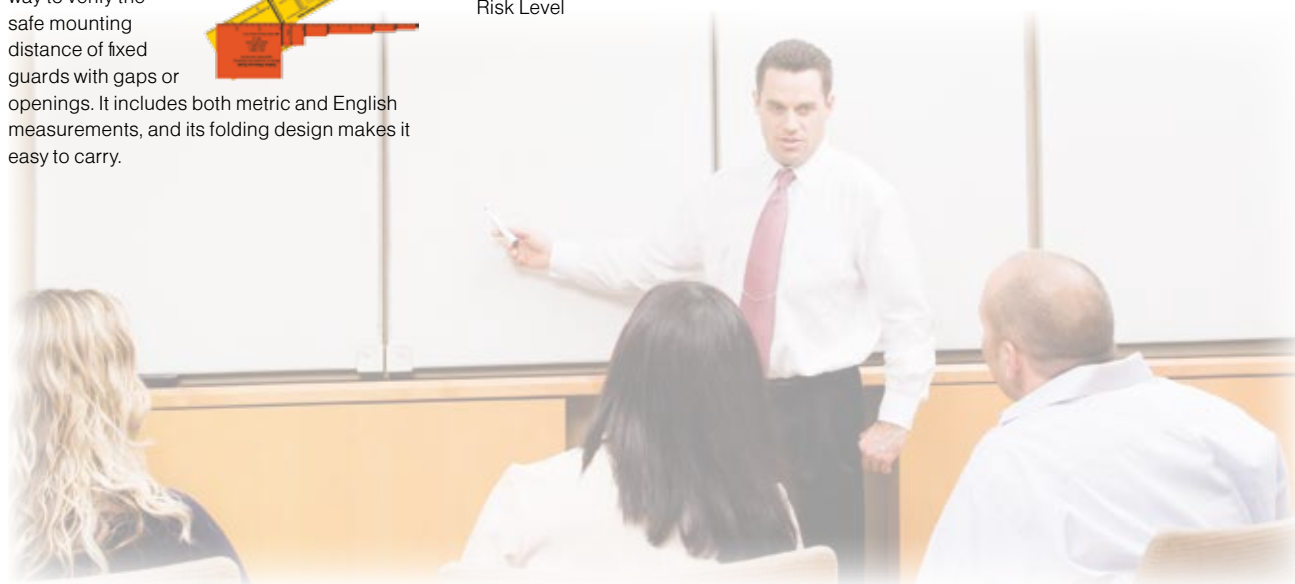
### Guest Speaker Program

Need a guest speaker at your upcoming safety conference?

Omron has experienced personnel specifically-trained as guest speakers for regional, national and global safety conferences. These guest speaker appearances are aimed at compliance issues and not products. Omron understands that this is a training venue and not a sales presentation. The only cost to you is our travel expenses.

Omron guest presentations range from 45 to 90 minutes, depending on the subject. Some of the topics that Omron has recently presented at conferences of 20 to 200 attendees include:

- ▶ Understanding the Requirements of the Latest Global Robot Safety Standards
- ▶ Control Reliability and Safety Circuit Performance
- ▶ Category 1, 2, 3, and 4 (performance levels a-e) of ISO 13849 Safety Circuit Requirements
- ▶ Requirements and Benefits of Performing a Risk Assessment
- ▶ Requirements of the Machine Safety Related Control System Based on Risk Level
- ▶ The Importance of Risk Assessment in Determining the Proper Safety Related Control System
- ▶ The Primary Challenges of Machine Safeguarding



Machine Safeguarding Services are available in North America, Europe, South America and South East Asia.

## Machine Safeguarding Skill Builder Seminar



Are you confident your machines are guarded to the relevant standards?

Are you confident your machines are guarded to the relevant standards?

Have all steps been taken to prevent injuries from process equipment?

Has a documented machine guarding assessment been done to verify compliance?

If you're not sure, or the answer is no to any of these questions, then your facility can benefit from an Omron Machine Safeguarding Skill Builder Seminar.

### What is a Skill Builder?

Skill Builders are 1 or 2-day training seminars that educate your personnel on the requirements and methods of machine and process safeguarding. This helps plant personnel to identify, and sometimes correct, machine safeguarding discrepancies. Two Omron professionals will conduct the training at your manufacturing plant.

### Who Should Attend?

- ▶ EH&S Personnel
- ▶ Plant Maintenance
- ▶ Plant Engineering
- ▶ Production Managers
- ▶ All Managers concerned with the safety of plant personnel

The Machine Safeguarding Skill Builder program has the most impact when the corporate EH&S Manager along with the plant-level safety people meet at one plant location. Classes are small with no more than 20 in attendance.

### How Do They Benefit?

Attendees will walk away with a greater understanding of methods for machine safeguarding and the correct applications of guarding devices.

Your plant personnel are trained on:

- ▶ Identifying machine hazards
- ▶ Machine hazard risk assessment
- ▶ Machine guarding techniques and the latest safeguarding technologies
- ▶ Machine guarding requirements as set by regulatory and consensus standards
- ▶ Safety circuit design requirements based on risk level
- ▶ Practical application



Machine Safeguarding Services are available in North America, Europe, South America and South East Asia.

## Is it Practical?

After the Skill Builder Training is complete, the group goes to the plant floor to participate in a Machine Guarding Inspection. The purpose of this inspection is to raise awareness of obvious guarding shortcomings so that you can act to prevent injuries to personnel. Attendees will apply skills learned by working side-by-side with a machine guarding specialist to evaluate several machines and their current guarding. Many of these discrepancies may be corrected by plant maintenance personnel; however, some may require additional expertise. After the evaluation, there is a group discussion for a better understanding of the findings. After that, the only thing we ask is that you commit to correcting your safeguarding discrepancies.

Machine Safeguarding Skill Builders are 1 or 2-day training seminars that educate your personnel on the requirements and methods of machine and process safeguarding.



## Six Steps to a Safe Plant

The proven process for successfully safeguarding a plant is as follows:

1. Educate responsible corporate and plant level personnel through training seminars on machine guarding,
2. Conduct a plant machine guarding evaluation to identify obvious concerns or imminent danger to employees,
3. Conduct a risk level assessment and create a risk reduction plan,
4. Implement the risk reduction plan,
5. Train operators and maintenance personnel on the care and use of the new safeguarding systems, and
6. Periodic machine safety audits to ensure safe mounting distances and proper application of safeguards that may have changed due to a change in the process or the machine's uses.

# Assessing the Machine or Process: The Most Critical Step Toward Safety

## Five questions to ask:

### Why should I have a formal assessment?

In our experience over 90% of machines on the factory floor are not guarded in accordance with relevant regulations and standards. To safeguard a machine correctly and ensure the existing safeguards are adequate requires a documented machine safeguarding assessment.

A proper assessment helps ensure that your machine remains productive after the guarding is installed.

### What is the assessment process?

The assessment process has two parts: Risk Level Identification and Risk Reduction.

**Risk Level Identification** – The process of interacting with your operators and maintenance personnel to understand the intended use of the machine, the required tasks and related hazards, and the level of risk associated with the operation of the equipment.

**Risk Reduction** – The application of protective measures appropriate for the identified level of risk in a manner that both reduces the risk to a tolerable level and achieves compliance with applicable regulations and standards. The goal is to have a machine that is both safe and productive.

### What is the advantage of documented machine safeguarding assessment and risk reduction plan?

A documented machine safeguarding assessment provides a clear plan to reduce risk and bring machines into compliance. The report contains a high level overview and machine-specific risk reduction recommendations based on the identified risk level of the equipment as used in your facility. The report helps communicate the current status of your machine safeguarding program to all levels of your organization.

A documented assessment helps create priorities for safeguarding while taking into account measures that are currently working. This helps target funds where the most benefit will be realized while also planning for future upgrades. The assessment document can also be used to ensure machines *remain* in compliance by comparing the existing guarding system with the detailed guarding recommendations and drawings. This allows any deviations to be identified and addressed.

The assessment/risk reduction report can show government regulators, your insurance company and corporate headquarters what your plan is to achieve compliance.

### What information is derived from the assessment report?

Assessment is a two part process and you will want to make sure that the report addresses both. The assessment company should provide you with a written report that contains usable information and includes a specific and detailed strategy on how to guard the machine correctly to achieve maximum safety and productivity. At a minimum, the report should

contain the following information and *always* consider the risk level of a given machine:

- ▶ Applicable safety standards or regulations considered
- ▶ Overview of the process used to determine the risk level for each machine
- ▶ Explanation of the risk reduction requirements that apply
- ▶ Detailed identification information for each machine
- ▶ Types and descriptions of hazards associated with each machine
- ▶ Factors and model used to determine the risk level for the machine
- ▶ Safety-related control system performance requirements for compliance
- ▶ Estimated risk level after guarding using the assessor's detailed recommendations
- ▶ Detailed, written, risk reduction recommendations covering the type and location of the safeguarding measures and a description of how they will be applied to reduce the risk to a tolerable level
- ▶ A drawing showing the guarding concept and approximate location of the guards and safety devices on the machine

### Are there different types of assessments?

Absolutely! And it is important to understand the type of assessment that you will be getting. There are basically four types of assessments:

- ▶ Compliance Assessment
- ▶ Compliance Assessment with Generalized Recommendations
- ▶ Risk Reduction (Product Oriented Solution)
- ▶ Machine & Process Safeguarding Assessment and Risk Reduction Solution (Best Value and Most Usable)

These four types of assessments are detailed on the following page.



Machine Safeguarding Services are available in North America, Europe, South America and South East Asia.





The best way to safeguard a machine correctly is by conducting a documented machine safeguarding assessment.

### Risk Reduction:

- ▶ Identifies a possible solution (which typically revolves around product offering of the party conducting assessment)
- ▶ Provides no risk assessment

Performed by:

- ▶ Safety component manufacturers/ representatives/distributors (typically based on fitting products immediately available to all applications — a “square peg in a round hole.”)

Cost: Relatively low (‘disguised quote’) - sometimes free!

Value: Low (only identifies partial solutions based on capabilities of 3rd party)

### Compliance Assessment:

- ▶ Identifies compliance issues (typically comprised of intensive documentation)
- ▶ Sometimes includes risk level identification
- ▶ Provides no solution (risk reduction)

Performed by:

- ▶ Safety ‘consultants’ (typically with regulatory experience or some form of ‘safety’ certification, not necessarily with a specialization in machine safeguarding)
- ▶ Software packages (assign levels of risk/compliance based on static list of questions)

Cost: Relatively high

Value: Low (only identifies mostly obvious deficiencies)

### Compliance Assessment with Generalized Recommendations:

In addition to the information supplied by a Compliance Assessment, this report includes:

- ▶ General solutions for risk reduction, but not specific enough to be used as a comprehensive guideline for budgeting

Performed by:

- ▶ Safety ‘consultants’

Cost: Relatively high

Value: Moderate (identifies mostly obvious deficiencies with general solutions, but not enough information to identify an accurate cost of implementation)

### Machine & Process Safeguarding Assessment and Risk Reduction Solution:

- ▶ Identifies existing risk level based on application and use of equipment
- ▶ Determines performance requirements of safeguarding system based on level of identified risk
- ▶ Evaluates existing safeguards to performance requirements identified
- ▶ Provides solution to achieve required performance level while maintaining productivity
- ▶ Prioritizes action list based on combination of risk level and compliant safeguards already in place

Performed by:

- ▶ Qualified safety experts specializing in safeguarding industrial machinery
- ▶ Experts on applicable regulations, directives, and standards
- ▶ True solution providers capable of offering turn-key integration

Cost: Moderate

Value: High (provides required document (risk level assessment) that justifies performance requirements and finds solutions based on achieving high safety and productivity)

### How do I qualify a vendor to perform my assessments?

The vendor should:

- ▶ Have extensive experience conducting machine safeguarding risk level assessments in accordance with all applicable standards.
- ▶ Be willing to provide you with a sample assessment report.
- ▶ Provide a reference list of companies and contacts where machine safeguarding assessments were conducted in the last 2 years and equivalent in scope to your requirements.
- ▶ Be able to provide proof of Professional Liability or Errors & Omissions insurance.
- ▶ Provide a written report of the assessment findings to include identified risk levels that validate the detailed risk reduction strategies.
- ▶ Be an active member of various trade organizations and participate on various industry consensus standard committees.



## Engineering and Design: Implementing Integrated Safety

*Select from the following services to tailor a solution that meets your needs*

### Turn-Key Safeguard Integration

Omron specializes in the installation of safeguarding systems in a wide variety of industries and applications including industrial fabrication equipment, manufacturing systems and robot cells for compliance with applicable safety standards. Our service includes an on-site project manager to monitor quality and ensure that the safety measures are applied properly. Expert installers fabricate custom guards and our trained electricians ensure that the requirements for safety circuitry are met. The integration team will train plant personnel on the care and use of the safeguarding systems.

- ▶ Integration services are quoted based on findings and recommendations in an Omron safeguarding assessment and risk reduction report.

### Machine Safeguarding Evaluation / Risk Level Identification / Risk Reduction

Omron performs detailed risk level identification services including risk reduction recommendations in accordance with recognized standards to bring machines or process lines into compliance with applicable regulatory requirements and specific ANSI, RIA, NFPA, NEC, CSA, EN, IEC, and ISO standards. During the process, our professionals will inspect perimeter, point-of-operation, and power transmission guarding in addition to power isolation, including pneumatic, hydraulic and electrical lockout.

Our detailed report will provide you with:

- ▶ the initial risk level
- ▶ written recommendations for compliance
- ▶ safeguarding and safety circuit requirements based on risk level
- ▶ emergency stop requirements (if applicable)
- ▶ a plan view drawing of the equipment identifying recommended protective measures
- ▶ the estimated risk level achieved after all recommended safeguards are properly installed
- ▶ an estimated cost to properly safeguard the machine(s) or process line(s) on a turn-key basis



Machine Safeguarding Services are available in North America, Europe, South America and South East Asia.

For complete specifications and additional models and accessories visit [www.omron247.com](http://www.omron247.com)

Omron specializes in the installation of safeguarding systems in a wide variety of industries and applications.

### Safety System Interface Engineering and Design

Omron will engineer the required safeguarding system based on our assessment. Our engineers will design control circuitry and a guarding strategy appropriate to the identified risk level. This will include applicable interface schematics and a bill of materials. This offering works best when a facility has trained maintenance personnel that will be installing the safeguards.

### Machine or Process Safety Consulting

These services can include several machine safety consulting functions. Examples include:

- ▶ a review of current safety system and interface drawings for compliance
- ▶ perform safe mounting distance calculations for presence sensing safeguard devices
- ▶ writing or reviewing of company safety standards for compliance with current safeguarding standards

### Safety Project Engineering/Design

After complete risk level identification, any gaps in compliance need to be filled. We can engineer and design the required safeguards and provide you with the materials and components necessary to complete the project yourself. Our engineers will design safety-rated control circuits as required and provide engineering documentation to meet your needs.



# Gemba:

A true customer focused approach to manufacturing

We find the best improvement ideas come from being on the front lines and walking the manufacturing floor. This way we can gather data from every source and truly understand the full impact of a problem, spotting waste and uncovering opportunities for practical improvement.

**"Gemba"** is a Japanese word that refers to the place where value is created for customers.

For complete specifications and additional models and accessories visit [www.omron247.com](http://www.omron247.com)



### Technical Resources

We offer free phone support, application engineers in every market and free training. Every year we train more than 1,000 engineers, distributors and customers.



### Customized Project Consultation

To meet the needs of our customers we provide integrated solutions, project management, and strategic sales consultation in coordination with our global business units. Our advanced technologies and rapid response approach enables customers to reduce development time and leverage our technical expertise and known quality for machine solutions.



### Ready When Needed

96% of requests are delivered from existing stock, ready for immediate delivery from our warehouses throughout the Americas.



### Our Engineers

Knowledgeable, experienced and above all, involved. Every day, they make a difference. If you have a design challenge, they will find the answer. If you have a safety or control issue, they will help you solve it. If you want to manufacture in a different country, they will connect you with our experts in the field.

Developing innovative machines

365

days a year



### Automation Center, Chicago, IL

**Making your bright ideas even brighter.**

Our expert engineers are ready and eager to try out the latest applications and test your new ideas.



### Tsunagi connectivity labs

**We've made inter-operability issues a thing of the past.**

The specialist engineers in our Tsunagi Labs achieve compliance to open standards, ensuring that multi-vendor solutions are supported. Available in: Chicago, Shanghai, Amsterdam and Kyoto.



### Omron247.com

**We've gathered everything you'll need to stay informed, increase commission and maintain your equipment, all in one place.**

Complete specs, CAD drawings and eLearning—all available in multiple languages for your convenience.

Our customers, distributors and employees have completed more than 12,000 hours of eLearning.







# Providing you with the support to operate globally

36,000 employees, 110 countries worldwide

R&D based on worldwide requirements

Global product availability

Global support and services structure

## Local support

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With our wide network of offices, we are close to your factories and customers. Our knowledgeable and capable engineers provide global scale with local and market knowledge at your command, anywhere.

## The Cost of Safety

Estimating the financial costs in advance of an injury is difficult. Fortunately, OSHA's interactive *Safety Pays* website offers assistance.

Using insurance company claims data, the tool calculates the estimated direct and indirect costs of an injury. Also, if you enter your profit margin information, *Safety Pays* will project the additional sales required to recover the costs of the injury.

Consider a simple example: Assume that a company has annual sales of \$10 million with an 8% pre-tax profit margin. For a single accident resulting in an amputation, *Safety Pays* estimates the costs of the injury as follows:

Average Direct Cost:	\$21,718
Average Indirect Cost:	\$23,890
Estimated Total Cost:	\$45,608

The additional sales revenue necessary to cover these costs are:

**Total Cost: \$570,100**

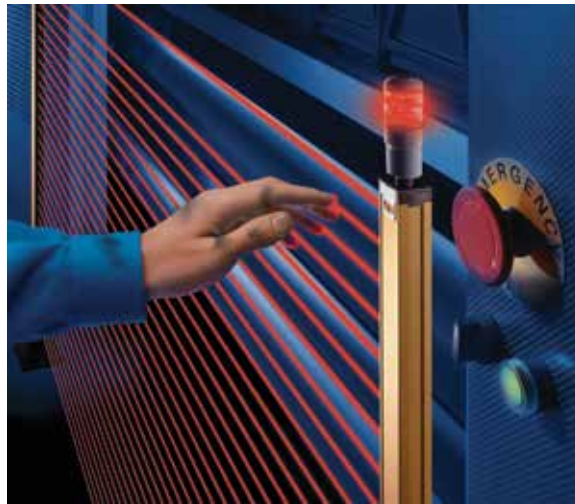
In other words, **the next 5.7% of sales growth will go solely to pay for the total cost of the accident.** If your pre-tax margins are less, the sales impact is even greater.

**Indirect costs account for the majority of accident expenses but are not typically covered by insurance.**

One final note - the answers returned by *Safety Pays* may be conservative with regard to the ratio of indirect-to-direct costs which is almost 1:1. A poll by Liberty Mutual Group estimates the actual figure may be 5:1 while an American Society of Safety Engineers study suggests a ratio of 8:1.

### Who thinks investing in safety equipment and programs impacts the bottom line?

- » 61% of executives claim that for every dollar spent on investments in workplace safety \$3 are saved (according to a poll by the Liberty Mutual Group).
- » 95% of the executives in the poll indicate workplace safety has a positive impact on a company's financial performance.
- » OSHA's Office of Regulatory Affairs reports an even more dramatic result; suggesting \$4 to \$6 are saved for every \$1 invested.



Machine and Process Safety Education, Assessment and Risk Identification, Engineering and Design, Integration, and Implementation...

## All From a Single Source.

**Please call us with any questions or comments. We welcome the opportunity to partner with you for a safer, more productive, and profitable future.**

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## Introduction Providing Solutions and Assistance to the EH&S Professional

# Justifying the Cost of Safeguarding Equipment

Machinery safeguarding represents one of the best investments on the plant floor. For example, in a study conducted by the Liberty Mutual Group for the US, 61 percent of executives say they save \$3 for every dollar invested in safety equipment and programs. This is just one example of many worldwide studies that show the importance of investing in machinery safety.

No one discounts the impact that an accident has on plant operations. However, the cost of an accident can be staggering. In addition to the emotional cost to employees and managers, the direct and indirect costs of an accident accelerate quickly. Direct medical expenses and workers' compensation benefits are just the tip of the iceberg. The indirect costs of lost production, OSHA fines, replacing damaged goods and machinery, and paying higher workers' compensation premiums can represent a larger portion of the total cost of an accident.

The same survey of executives indicates that executives figure to spend \$3 to \$5 of indirect costs for every dollar of direct costs of an accident. For example, an accident with direct costs of \$10,000 has additional indirect costs of \$30,000 to \$50,000. The impact of just this one accident becomes even more significant when a company realizes that the bulk of these costs are not covered by insurance.

OSHA offers a software program, \$AFETY PAYS, as part of its eTools and Electronic Products for Compliance Assistance. This interactive package helps employers determine the potential impact of occupational injuries by estimating both direct and indirect costs.

A user supplies information about company profit margins, and the program calculates the additional sales needed to cover the cost of an injury. The program uses real insurance company claim data and an expert software system. It can be found on the OSHA web site at: <http://www.osha.gov/dcsp/smallbusiness/safetypays/estimator.html>.



Perimeter guarding system to guard aluminum coil slitting line.

## Why You Should Partner with Omron

### Because..

- The expertise required in all phases of the safeguarding process is not a core competency of most manufacturers or maintenance personnel.
- EH&S personnel have to be involved with every area of Environmental, Health & Safety. They are too busy to get involved with required details of guarding systems and safety interfaces.
- It needs to get done right the first time.
- We have an established history of providing companies with safe work environments.
- Our employees stay up-to-date with industry-related trends by participating with and contributing to standards committees.
- Our employees are members of various industry trade organizations.

### Peace of Mind...

- Knowing that your machines or process lines are safeguarded correctly to the current standards.
- With 100% compliance – not 90% or less.
- Having documented risk level identification and risk reduction strategy.
- Knowing machine operators are trained on the safety systems installed.
- By saving money because it only needs to be done once.

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- Programmable Logic Controllers (PLC) • Temperature Controllers • Remote I/O

**Robotics**

- Industrial Robots • Mobile Robots

**Operator Interfaces**

- Human Machine Interface (HMI)

**Motion & Drives**

- Machine Automation Controllers (MAC) • Motion Controllers • Servo Systems
- Frequency Inverters

**Vision, Measurement & Identification**

- Vision Sensors & Systems • Measurement Sensors • Auto Identification Systems

**Sensing**

- Photoelectric Sensors • Fiber-Optic Sensors • Proximity Sensors
- Rotary Encoders • Ultrasonic Sensors

**Safety**

- Safety Light Curtains • Safety Laser Scanners • Programmable Safety Systems
- Safety Mats and Edges • Safety Door Switches • Emergency Stop Devices
- Safety Switches & Operator Controls • Safety Monitoring/Force-guided Relays

**Control Components**

- Power Supplies • Timers • Counters • Programmable Relays
- Digital Panel Meters • Monitoring Products

**Switches & Relays**

- Limit Switches • Pushbutton Switches • Electromechanical Relays
- Solid State Relays

**Software**

- Programming & Configuration • Runtime