

Risk Engineering Products and Services Overview



Zurich Risk Engineering can help you achieve your goals

Risk Engineering provides a wide array of products and services that help reduce risk and related losses. We customize our service to address specific customer needs, and work closely with customers and brokers to identify opportunities with the greatest impact.

Each Risk Engineer is trained according to Zurich's global standards. This helps promote quality, consistency and customer satisfaction worldwide.

Risk Engineering can play a key role in helping companies measure and manage their total cost of risk. We aim to fully understand each customer's business needs before proposing a risk improvement strategy.

Our global network of Risk Engineering professionals works to identify areas where the greatest impact can be achieved and focuses on quantifiable results. Whether a customer operates from a single location or an international enterprise, our Risk Engineers can help manage risk and protect the bottom line.

A global network with local knowledge and experience

With over 750 Risk Engineering consultants globally, we have one of the largest multi-discipline Safety and Risk Management departments.*

Online access to your information

Zurich offers online reporting systems, including My Zurich, that provide 24/7 access to your proprietary risk data. Customers can track risk assessment results, status of risk improvement advice and generate benchmark reports for multiple locations.

Risk insights

We help customers stay up to date with relevant legislative and regulatory changes that can affect operations. We can also provide technical articles, case studies and benchmarking reports.

Industry specialization

Our Industry Practice Leaders are industry-specific risk specialists who share in-depth knowledge and innovative solutions with Zurich's customers. Our Risk Engineers have hands-on experience working within the specific industries we service. Many are active with technical committees and focus groups that help drive new standards, guidelines and best practices within a particular industry or group of industries. They take pride in delivering services that make a difference and bring genuine value.

Accredited training

Zurich offers a wide range of training courses. Many are accredited by associated professional bodies and satisfy CEU requirements.

Quality assurance

Zurich Risk Engineering has a formal quality assurance process integrated into our practices, procedures and work products. We routinely solicit customer feedback and foster a culture of continuous improvement.

Benefits of using a truly global service provider

Chances are, we are wherever you are across the globe. Risk Engineering strives for consistency through globalized standard operating procedures and diligent internal training.

*As of 11/06/2019.



Products and Services Overview



Property 6

Risk Engineering's Property loss prevention programs are designed to support our customers' property risk management needs and are administered by Account Engineers who works with our customers to deliver these services.



Machinery Breakdown 7

Risk Engineering's Machinery Breakdown team focuses on helping our customers reduce the frequency and severity of losses related to machinery breakdown by providing a proactive analysis of current operating practices.



Digital Solutions 9

We know our customers need comprehensive, up-to-date information and resources that are easily accessible and simple to work with, to help make the right decisions on risk, and to train their people on today's issues. Our secure, online systems use the latest technology, giving our customers 24/7 access to current information and training.



Liability 11

We can help our customers manage liability exposures both on and off premises. Our liability specialists work closely with our customers to address a wide range of exposures that could result in losses and third-party actions.



Product Liability 12

Our product liability specialists follow a life cycle approach to help manage product risks from design to recall.



Employee Health and Safety (Workers' Compensation) 13

Zurich's health and safety specialists provide a baseline audit of key health and safety management issues and determine the adequacy of current systems and resources.



Construction..... 14

Our Construction Risk Engineers are dedicated to understanding the operational needs unique to the construction industry. We offer a variety of risk management programs specifically designed to address the leading exposures inherent to construction.



Strategic Business Risk 15

Zurich takes a 360-degree view of risk management, which can help our customers minimize barriers to achieving business objectives and maximize strategic growth goals. We help our customers determine potential business threats, put the right sustainable solutions in place, and achieve a broad view on business resilience to help reduce total cost of risk and protect profitability.



Motor Fleet..... 16

Recognizing most businesses have some type of vehicle operations, Risk Engineering's Fleet Specialists have extensive experience and background with a wide variety of motor fleets, from large over-the-road fleets to private passenger fleets, and can incorporate various risk profiles.



Marine and Maritime 17

As global economic activity gains momentum, more and more companies are shipping goods across the country and around the world. The opportunities of global trade are great, but when your property is in transit or in storage awaiting shipment, risk always goes along for the ride.



Cyber..... 18

Regardless of industry or line of business, Cyber Risk Engineers are highly skilled professionals that deliver assessments and recommendations to assist customers with new or existing cyber program strategy.

Property

Risk Engineering's Property loss prevention programs are designed to support our customers' property risk management needs and are administered by Account Engineers who work with our customers to deliver these services.

An Account Engineer is responsible for:

- Developing an understanding and appreciation of the customer's business
- Serving as the central contact for various property loss prevention and control needs
- Coordinating and directing various property loss prevention and control activities
- Providing the highest quality services and work products to our customer
- Keeping our customer informed of progress, achievements and emerging issues
- Coordinating reviews of construction projects, fire protection systems, fuel-fired equipment and others to help identify potential risks before changes are made

Property loss prevention services can include:

- Site risk evaluations
- Risk grading and benchmarking
- Impairment management
- Consultative project services from design through acceptance
- Loss investigations and analysis
- Research
- Fire protection courses

Risk management and business continuity services can include:

- Supply chain risk assessment
- MyZurich
- Business interruption risk assessment
- Interdependency and supply chain modeling
- Business continuity planning support

Natural hazards

Natural hazards appear in many forms and have the potential to threaten property on a daily basis. If not properly managed, a natural hazard can quickly become a natural disaster. We place great emphasis on understanding the potential impact of natural hazards. This drives mitigation strategies to lessen the impact of these events. Our Account Engineer can assist our customer with a program designed to identify, quantify and mitigate the impact of natural hazards.

Fire protection courses (one- and two-week sessions)

These courses provide Zurich's recommended approach to fixed fire protection system management from a property perspective. These courses address two fundamental questions: "Are systems in service?" and "Will they work?" These active, hands-on training programs are delivered in a state-of-the-art facility by Zurich's most experienced staff. These courses are intended for Zurich's corporate customers and site-level staff responsible for keeping fire protection systems operational. This includes risk, health and safety, facilities, maintenance, and engineering managers, as well as staff assigned to perform fire protection inspection, testing and maintenance activities.

Customers from all over the world have been attending these courses and consistently consider them very insightful and valuable.

Machinery Breakdown

Risk Engineering's Machinery Breakdown team focuses on helping our customers reduce the frequency and severity of losses related to machinery breakdown by providing a proactive analysis of current operating practices.



Machinery Breakdown offers a suite of tools to help our customers manage their equipment risks, including our Fuel-Fired Equipment (FFE) Assessments.

Site risk assessment

We offer services that help our customers analyze and evaluate the following areas:

- Physical plant processes and services
- Objects critical to operation
- Preventive/predictive maintenance
- Business continuity planning
- Plant interdependency studies

Jurisdictional equipment assessment

We perform inspections required to maintain jurisdictionally mandated boiler and pressure vessel certification. Our quality control program is certified through the National Board of Boiler Pressure Vessel Inspectors.

- Jurisdictional/MSHA-required inspections and certification of boilers/pressure vessels
- Upon request, a detailed status report of the customer's boiler and pressure vessels



Fuel-Fire Equipment Assessments

Carbon monoxide (CO) is a colorless, odorless, poisonous gas that is a byproduct of the incomplete burning of various fuels, including coal, wood, charcoal, oil, kerosene, propane and natural gas. Equipment using fossil fuels for operation must be properly installed, operated and maintained to guard against the formation and accumulation of CO in and around equipment rooms.

Maintaining vigilance against CO threats is the mission of Zurich Risk Engineering's Observe-and-Report™ Fuel-Fired Equipment (FFE) Assessment. This targeted survey process assesses the risk of CO from the operation of fuel-fired equipment. It is a customized version of the Observe-and-Report™ program used as an information-gathering service to help Zurich's customers better understand and protect themselves from a variety of risks. Zurich's Risk Engineers will visit selected customer's locations to complete survey questionnaires focusing on areas of equipment operation that may be susceptible to CO build up. The questionnaire is based on the individual customer's operations. The data gathered is aggregated into a summary report, which provides analysis of the exposures across the customer's portfolio.

Equipment testing services

Our Risk Engineers can help our customers coordinate and enhance their maintenance testing programs, including:

- Infrared testing
- Oil sampling for transformers
- Vibration testing and analysis

Special services

Leading-edge loss control technologies are used by Zurich Risk Engineers to assess or perform various services such as:

- Refrigeration/ammonia contamination surveys
- Boiler/equipment review of installation plans prior to construction
- Electrical system surveys, including surge protection systems
- Investigation of equipment failure to determine root cause
- Used plant equipment condition assessments
- Customized training for operation and care of boilers and machinery at the local plant or corporate level

Digital Solutions

To make the right decisions on risk and to train your people on today's issues, our customers need comprehensive, up-to-date information and resources that are easily accessible and simple to work with. Our secure, online systems use the latest technology, giving our customers 24/7 access to current information and training.

Some of the tools available include:



Zurich Risk Advisor

Winner of a Business Insurance Innovation Award

This suite of self-services Risk Engineering tools helps enable our customers to carry out their own risk assessments and optimize their risk improvement actions and budget, all from one place. Zurich Risk Advisor gives our customers access to our risk grading methodology, key practices, risk insights and industry benchmarks.



MyZurich

Winner of a Business Insurance Innovation Award

MyZurich is the customer's personal point of entry for online access "on demand" to information related to international insurance and risk engineering programs. It's accessible 24 hours a day wherever customers have access to a computer. This tool includes:

- Up-to-date reviews of risk management program and claims data
- Vital information about recent Zurich risk assessments
- Risk insights that can help improve and control cost of risk
- Access to the Zurich Multinational Insurance Application (Zurich MIA)



Online courses

Zurich's online courses offer hundreds of quality safety training programs for the customers' employees. Courses use interactions and video to maintain the participants' interest and include quizzes to check their level of understanding. Certificates of completion are provided and many courses offer continuing education units (CEUs) or other certifications. In addition, focused courses can be hand-picked for your company.



FirstReport Online

FirstReport Online OSHA Reporting System helps our customers manage reporting and recordkeeping more effectively. It also takes that official next step of interpreting incident data into reports to help our customers analyze losses and find root causes.



Fire Protection Impairment Program

The Zurich Fire Protection Impairment Program was developed to support customers' efforts when fixed fire protection systems need to be taken out of service for renovations, expansions or repairs. By taking the appropriate precautions, this program will help our customers safeguard their investment in fixed fire protection and limit system outages to the smallest area and shortest duration possible.



eZ-Ergo™ Ergonomic Self-Assessment Tool

Through a series of scientifically designed questions, this web-based learning tool provides information on improving posture, workstation arrangement and behavior. All employees responses can be recorded to report and identify trends.

Liability

Zurich Risk Engineers help our customers address liability exposures both on and off premises. Our liability specialists work closely with our customers to assist them with addressing a wide range of exposures that could result in losses and third-party actions.



Slips, trips and falls (STF)

A leading cause of loss category for all types of business is STF events. Zurich can help identify and control the fundamental causes of STF events with our unique program. Our certified specialists can also provide slip-resistance testing.

Hospitality and gaming

Risk Engineers with hospitality and gaming experience can provide:

- Train-the-trainer programs for:
 - Front desk
 - Housekeeping
 - Valet parking
 - Back of the house
- Liquor liability assessment and training
- Swimming pool and resort attractions consultation

Security services

We have Certified Prevention Professional (CPP) specialists who:

- Conduct security assessments for various industries
- Review security policies and procedures
- Assess premise security systems

Zurich Hazard Analysis (ZHA)

ZHA is a methodology that can help our customers identify various types of hazards or vulnerabilities and manage corresponding risks. Leading companies use ZHA to help strengthen internal processes and apply the same methodology with key members of their external supply chain.

Contractor management and safety

In many industries, the use of contractors is increasing, ranging from routine maintenance to highly specialized operations. Zurich Risk Engineers can assist in controlling this unique risk by reviewing contractor selection criteria and risk-transfer controls.

Manufacturing

Our team of Risk Engineers can provide specialized assessments to help our customers evaluate and control:

- Attractive nuisances
- Public exposures
- Off-premise operations

Product Liability

Services include:

- Product safety
- Hazard analysis
- Imported product risk management
- Product liability prevention training
- Review of existing program

Zurich Product liability specialists follow a life cycle approach to help manage product risks from design to recall.

Zurich Hazard Analysis (ZHA)

To design safe and reliable products means designing defect-free products. Proven hazard analysis methods help product designers identify and reduce defects before products are manufactured and sold. ZHA is a recognized hazard analysis method that can help our customers produce products with fewer defects.

Hazard Analysis Critical Control Point certification (HACCP)

We conduct food safety classes throughout the year with our customers to develop or improve their existing food safety programs, including HACCP certification for the participants.

Product liability prevention program review and training

Using ten recognized key practices for a comprehensive Product Liability Risk Management program, we help our customers:

- Assess the effectiveness of product liability programs
- Develop an action plan for further improvement

Zurich also provides product liability training to customers to help meet their specific needs.



Employee Health and Safety

(Worker's Compensation)

Zurich's health and safety specialists provide consultation on a number of management issues. Our consultation aims to help improve overall employee safety, strengthen programs and equip companies to deal with emerging issues. We begin with an understanding of company operations and injury data to collaborate with the customer on the development of a plan that targets their pain points.

Loss source targeted services

Our specialists can evaluate our customers' accident and injury data and develop a set of services to help minimize leading causes of injuries at their company such as:

- Slips, trips and falls
- Cumulative trauma
- Lifting and manual material handling

Online tools

Navigating worker protection programs can present a challenge. Our specialists have created online tools to help our customers develop programs to address:

- Hearing conservation
- Silica
- Hazard communication
- Respiratory protection
- Office ergonomics (eZ-Ergo™)

Management audit services

Services may include:

- Review of safety management systems, documentation and discussion with key personnel
- Site visits
- Comparison to key practices
- Presentation of findings to management

Health and safety risk management assessment and audit

For companies with multiple operations, our Risk Engineers can help implement corporate protocols and programs. We can tailor assessment services to cover a wide range of areas, such as:

- Premises hazards
- Hazard communication
- Hazardous chemicals
- Indoor air quality
- Physical and biological hazards
- Material handling
- Electrical safety
- Computer workstations
- Machinery safety

Health and safety risk management services

Zurich Risk Engineers can also provide our customers access to other, services to facilitate their existing health and safety efforts, such as:

- Online and video training resources
- Customized training video development
- Trending, loss analysis and incident investigation tools

Construction

Zurich Construction Risk Engineers are dedicated to understanding the operational risks unique to the construction industry. We offer a variety of risk management programs specifically designed to address the leading exposures inherent to construction.

Our goal is to help reduce loss exposures and improve operations to positively impact our customer's profitability. We use a consultative service approach which includes recommendations for implementation of key practices and offer a suite of industry-specific programs and tools.

Risk insights

Leadership and involvement in construction associations, task forces, committees and research projects provide us with a wealth of information to share with our customers and industry colleagues through seminars, webinars, risk notices, and RiskTopics and safety calendars.

Consultative and onsite services

Targeted risk assessments that focus on safety, quality, natural perils, subcontractor management, site security and construction processes.

In addition Zurich has programs designed to assess and provide feedback from inside a customer's corporate operational structure, including:

Zurich X-Ray: An interview-based assessment that measures the difference between management expectations and field perceptions by providing a snapshot of the culture and understanding at different levels within an organization.

Zurich Hazard Analysis (ZHA): Uses your in-house expertise to identify and manage key hazards. We then work with customers to develop customized risk improvement measures to help reduce those hazards.

Risk mitigation services

Below are some additional service offerings to help understand and mitigate construction risks:

- Crane and rigging program review and training
- Highway worker safety program (HWSP)
- Hot work and wet work programs
- Job hazard analysis / pre-task planning

- Quality Management program review
- Silica tool kit
- Soft tissue injury prevention program (STIPP) and customized stretching program
- Subcontractor prequalification
- Water intrusion assessment
- Zurich SafetyNet observation-based assessment

Fleet management and safety

Zurich has a full complement of risk management solutions to help develop or enhance an existing fleet management program including:

- Defensive driver training
- DOT fleet review with recommendations
- Fleet program review and implementation assistance

Professional Liability

- Design review process

Subguard®

Zurich's Subcontractor Default Insurance services include:

- Assessment of general contractor controls of subcontractors
- Subguard® Lessons Learned including subcontractor financial evaluation, subcontractor default trends and default mitigation

Strategic alliances

Zurich has aligned with strategic vendors to provide automated and cost-effective risk management solutions:

- ClickSafety
- National Equipment Register (NER)
- OSHA Fast Fix
- Tattletale

Strategic Business Risk

Our 360-degree view of risk management can help minimize barriers to achieving business objectives and maximize strategic growth goals. Zurich's Strategic Business Risk Management is divided into two major areas: business resilience services and enterprise risk solutions.

Services

Zurich Hazard Analysis

ZHA is a methodology that can assist our customers in identifying various types of hazards or vulnerabilities and managing corresponding risks. Leading companies use ZHA to strengthen internal processes and apply the same methodology to key members of their external supply chain.

Business Continuity Management (BCM)

Review and gap analysis

Our BCM review allows customers to benchmark internal or supplier BCM plans against known standards and best practices. This review can provide a summary of the key performance gaps in the BCM processes and propose a basis for improvements.

Business Continuity Management (BCM)

Healthcheck

Our BCM diagnostic assessment can help identify strengths and areas for improvement to help our customers further embed BCM processes and potentially yield greater positive outcomes. In addition, Zurich's BCM specialists can help our customers reduce the gaps in their BCM framework with step-by-step implementation support.

Business Interruption (BI) Assessment and interdependency modeling

Our desktop interdependency study can assist our customers in identifying and estimating total BI and CBI (Contingent Business Interruption) exposure. The study highlights for the customer worst credible-case property and business interruption risk scenarios and provides spreadsheet modeling of the financial impact of supply chain business interruption scenarios.

Supply chain assessment and mapping

Using the Zurich supply chain risk assessment software, can help determine and map critical supplier and supply exposures. This service calculates financial and interdependency information to evaluate potential loss scenarios and helps optimize risk mitigation improvement. Our supply chain risk assessment helps our customers understand the total cost of ownership for goods and services, helping them protect profitability from breaks in the chain.

Enterprise risk solutions

Total Risk Profiling (TRP)

TRP offers a systematic approach to addressing an organization's major strategic opportunities, exposures, and other key initiatives. TRP can deliver an assessment and quantification of risks to our customers' business objectives, helping them prioritize and budget for appropriate treatment to manage risks proactively. TRP also helps managers to monitor critical challenges to executing strategic objectives.

Zurich Risk Room

The Zurich Risk Room gives our customers the ability to view their unique risk landscape on a country-by-country basis. This proprietary tool taps into Zurich's data and numerous external sources to present global risks in an interactive way. This tool can enable our customers to identify the correlation between various risks and to test assumptions before making major strategic decisions.

Motor Fleet

Recognizing that most businesses have some type of vehicle operations, Risk Engineering's fleet specialist team has extensive experience and background with a wide variety of motor fleets – from large over-the-road fleets to private passenger fleets – and can incorporate various risk profiles.



Zurich offers a broad selection of consultative services, including:

- Loss and root cause analysis
- Motor fleet risk assessment
- Driver safety training and orientation strategies
- In-vehicle observation
Train the trainer course
- Controls for non-owned fleet
- Passenger transport safety
- Regulatory support
- Onsite workshops

Prostyle Driving Series 10-4 Defense

To help establish a safety culture for customer fleets, Zurich offers the Zurich Prostyle Driving Series 10-4 Defense, a multimedia driver training system that brings solutions to real-world situations. This informative program, which teaches the psychological and tactical aspects of safe driving, includes:

- Solutions for common defensive driving errors
- Practical reinforcement techniques to help drivers recognize hazards and respond in time
- Techniques for detecting and correcting poor driving habits

This program is available for heavy trucks or passenger/light commercial vehicle fleets. It's also available in Spanish.

With its modular format, the Zurich Prostyle Driving Series 10-4 Defense courses are suitable for both general safety meeting sessions and individualized training.

Marine and Maritime



As global economic activity gains momentum, more and more companies are shipping goods across the country and around the world. The opportunities of global trade are great, but when your property is in transit or in storage awaiting shipment, risk always goes along for the ride.

Zurich Risk Engineering completes over 2,000 assessment and consulting projects with marine, maritime, trucking and transportation-related customers annually.

Zurich Risk Engineering professionals help our customers protect what matters by delivering the knowledge, tools and experience it takes to understand their marine cargo and transportation risks. Because every customer's risk profile is different, we have aligned our Risk Engineering services to several specialized areas designed to address those individual needs with:

- Dock operations
- Terminals and ports
- International cargo shipments
- Cargo storage, packing and delivery
- Container load and stow operations
- Supply chain security
- Contract labor providers
- Marine construction

Our qualified, experienced professionals strive to understand the challenges of the Marine and Maritime industry firsthand. Our Risk Engineers average more than 15 years of industry experience, and have worked with some of the world's largest companies.

Zurich Risk Engineering completes over 2,000 assessment and consulting projects with marine, maritime, trucking and transportation-related customers annually.

We understand the influence that effective risk management services can have on your insurance program, risk landscape and risk transfer solutions. We can tailor a program to help meet your needs from a range of consultancy, assessments and control measures.

Cyber

Cyber Risk Engineers offers insights and guidance for customers seeking to better understand, manage and mitigate their cyber risks. Our goal and commitment is to help customers build a culture of awareness around their information security.



Our team is highly skilled and has a wide array of security experience to offer as both practitioners and consultants in such industries as retail/wholesale, banking, insurance, professional services and the military. Our recommendations can be used by a company's information security team to help make a company's computing environment and business more secure and resilient against cyberattacks.

Effective and robust cybersecurity requires an information security management system (ISMS) built on three pillars: people, process and technology.

People

A sampling of our "people" services includes:

- Board and C-suite education
- User awareness training addressing:
 - Phishing
 - Social engineering
 - Password standards and management
 - Business email compromise
- Security team training
- Hiring practice security guidelines
- Access management
 - Users
 - Vendors

- Privileged users
- Remote users

Process

We can assist in the development of processes including:

- Cybersecurity strategy
- Capability roadmap
- Policies and procedures
 - Acceptable use
 - Asset management
 - Vulnerability management
 - Patch management
 - Risk assessment
 - Vendor management
 - Incident response
 - Disaster recovery
- Management metrics for cybersecurity

Technology

Some of our recommendations may involve specialized technology solutions available through established referral arrangements with leading security vendors and consultants. These firms can provide products and services to Zurich customers at a reduced cost.



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This is intended as a general description of certain types of risk engineering services available to qualified customers through The Zurich Services Corporation, provided solely for informational purposes. The Zurich Services Corporation does not guarantee any particular outcome and there may be conditions on your premises or within your organization, which may not be apparent to us. You are in the best position to understand your business and your organization and to take steps to minimize risk, and we wish to assist you by providing the information and tools to help you assess your changing risk environment. Risk Engineering services are provided by The Zurich Services Corporation. In Canada, services are provided by Risk Services.

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