



Confined Space Safety Guide

Working in Confined Spaces Requires Careful Planning

Confined spaces are among the most hazardous work environments. Toxic atmospheres, lack of oxygen, risk of explosion or falls—these dangers are numerous, often invisible, and require constant vigilance.

A confined space is defined as a place that:

- Is large enough for a worker to enter and perform tasks
- Has limited means of entry or exit
- Is not designed for continuous human occupancy

They come in many forms: tanks, wells, sewers, silos, boilers, tunnels, pits, or vats. Confined spaces are commonly found in industrial, food processing, chemical, municipal, and construction sectors.

By the **CSA Standard Z1006-23**, every employer is responsible for ensuring the safety of workers who must enter these environments. This includes assessing risks, implementing strict work procedures, and having a proven and documented rescue plan in place.

This guide presents the essential tools, equipment, and services you need to keep your teams safe and optimize your operations in these high-risk environments.



CONFINED SPACE ENTRY

Pre-Entry Checklist

PRE-ENTRY SPACE EVALUATION

- IDENTIFY PRESENT HAZARDS (ATMOSPHERE, CONFIGURATION, ETC.)
- CONFIRM WHETHER THE SPACE IS LEGALLY CONSIDERED A CONFINED SPACE UNDER REGULATIONS
- REVIEW SAFETY DATA SHEETS (SDS), IF APPLICABLE
- ASSIGN AN ATTENDANT OUTSIDE THE CONFINED SPACE

ATMOSPHERIC MONITORING

- USE A CALIBRATED GAS DETECTOR TO MEASURE:
 - OXYGEN (O₂)
 - FLAMMABLE GASES
 - TOXIC GASES (H₂S, CO, ETC.)
- VENTILATE THE SPACE AS NEEDED
- CONTINUOUSLY REPEAT TESTING THROUGHOUT THE INTERVENTION

REQUIRED EQUIPMENT

- HARNESS AND RETRIEVAL SYSTEM (WINCH, TRIPOD)
- APPROPRIATE RESPIRATORY PROTECTION (PAPR, SCBA, MASK)
- PERSONAL GAS DETECTOR
- COMMUNICATION WITH THE ATTENDANT
- EXPLOSION-PROOF LIGHTING (IF NEEDED)
- CONFINED SPACE BLOWER/ FAN (IF NEEDED)

DOCUMENTATION AND AUTHORIZATION

- COMPLETED AND SIGNED ENTRY PERMIT FORM
- IDENTIFICATION OF ENTRY TEAM MEMBERS AND ATTENDANT
- VALIDATED ENTRY AND WORK PROCEDURE
- SITE-SPECIFIC RESCUE PLAN AVAILABLE AND UNDERSTOOD

CONFINED SPACE ENTRY

Pre-Entry Checklist

RESCUE PREPARATION

- INSPECTION OF RESCUE EQUIPMENT (LIFTING DEVICE, TRIPOD, ETC.)
- SIMULATION OR BRIEFING ON EMERGENCY EVACUATION STEPS
- EMERGENCY COMMUNICATION IS TESTED AND FUNCTIONAL
- CONFINED SPACE RESCUE-TRAINED TEAM AVAILABLE ON SITE



Rescue Entry and Exit System



MSA Workman® 8ft Confined Space Entry Tripod

The Workman Tripod is designed for intuitive use and quick setup with no tools required.

- Non-slip feet ensure optimal stability
- Automatically locking legs with incremental adjustments
- 4 integrated anchor points for added versatility

SPI Part Number: TR-10102002

Manufacturer Part Number: 10102002

[BUY NOW](#)



MSA Workman® Confined Space Tripod Kit for Entry and Rescue

This complete kit provides a safe and durable solution for confined space entry. It includes:

- 1 eight-foot tripod
- 1 50-foot Workman self-retracting lifeline with rescue function
- 1 pulley
- 1 carabiner

SPI Part Number: 10174589

Manufacturer Part Number: 10174589

[BUY NOW](#)

Rescue and Retrieval Harness



MSA V-FORM® Safety Harness

- 3 D-rings: Dorsal, shoulders
- Leg connection type: Tongue buckles
- Recommended industries: Construction, general industry, utilities, oil and gas

SPI Part Number: 10206074

Manufacturer Part Number: 10206074

Different Sizes Available

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MSA V-FORM+™ Safety Harness

- 4 D-rings: Dorsal, front, and shoulders
- Shoulder padding
- Leg connection type: Quick-connect buckles
- Recommended industries: Construction, utilities, oil and gas

SPI Part Number: CHA273

Manufacturer Part Number: 10206112

Different Sizes Available

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Rescue Entry and Exit System



MSA Workman Galvanized Cable Manual Winch

SPI Part Number: CTR027

Manufacturer Part Number: 10153757

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MSA Workman Rescuer Self-Retracting Lifeline with Rescue Mode and Stainless Steel Cable

SPI Part Number: CTR028

Manufacturer Part Number: 10158180

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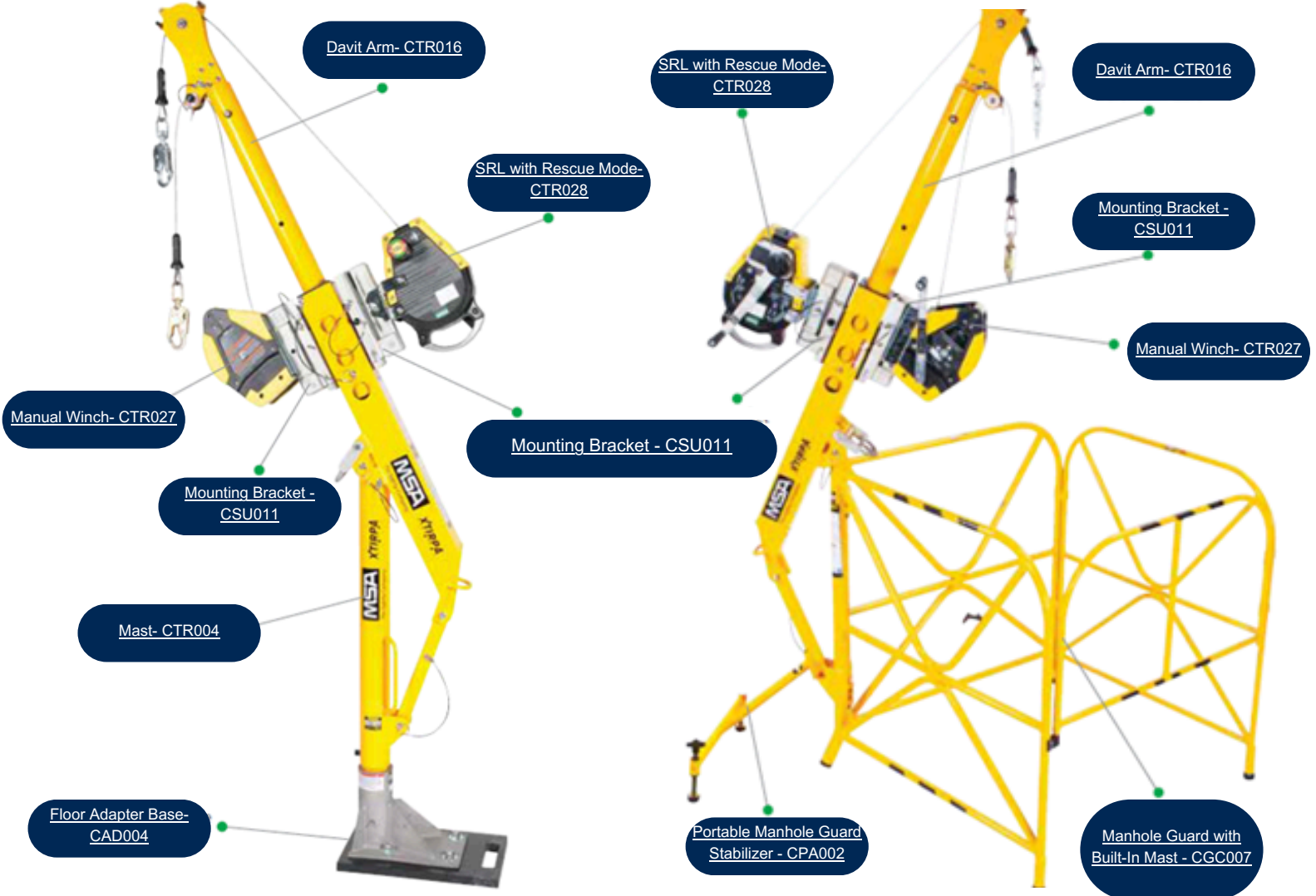
MSA Suretyman 4:1 Rope Rescue System

SPI Part Number: CSY006

Manufacturer Part Number: SRS15200

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MSA Xtirpa Davit Systems



Ensure your anchorage is compliant and certified.
Our Engineering Services →

Safety Equipment Rentals

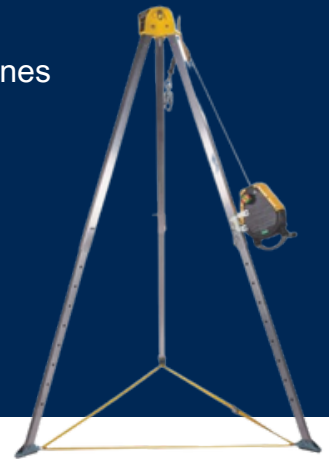
The right items when you need them

Our rental service is the perfect solution for your punctual needs, to fill a gap when demand increases or to reduce downtime when equipment breaks down.

- Rentals can be made on the day of or can be planned and organized according to your needs.
- Short and long term: (1 day, 1 week, 1 month, and more)

We offer several specialized health and safety products for rental:

- Confined Space and Fall Protection: tripods, davit systems, and lifelines
- Gas Detection: portable gas detectors
- Respiratory Protection: supplied-air and self-contained breathing apparatus (SAR, SCBA)
- Complementary Equipment: ventilators, cascade regulators



[Short-term need? Rent it instead](#)

Benefits of renting with SPI



Allows you to add to your current equipment in the event of a temporary increase in demand



Avoids purchase and maintenance costs



Avoids delays while you wait for the repair of your equipment

Engineering Services

Our turnkey confined space safety service includes:

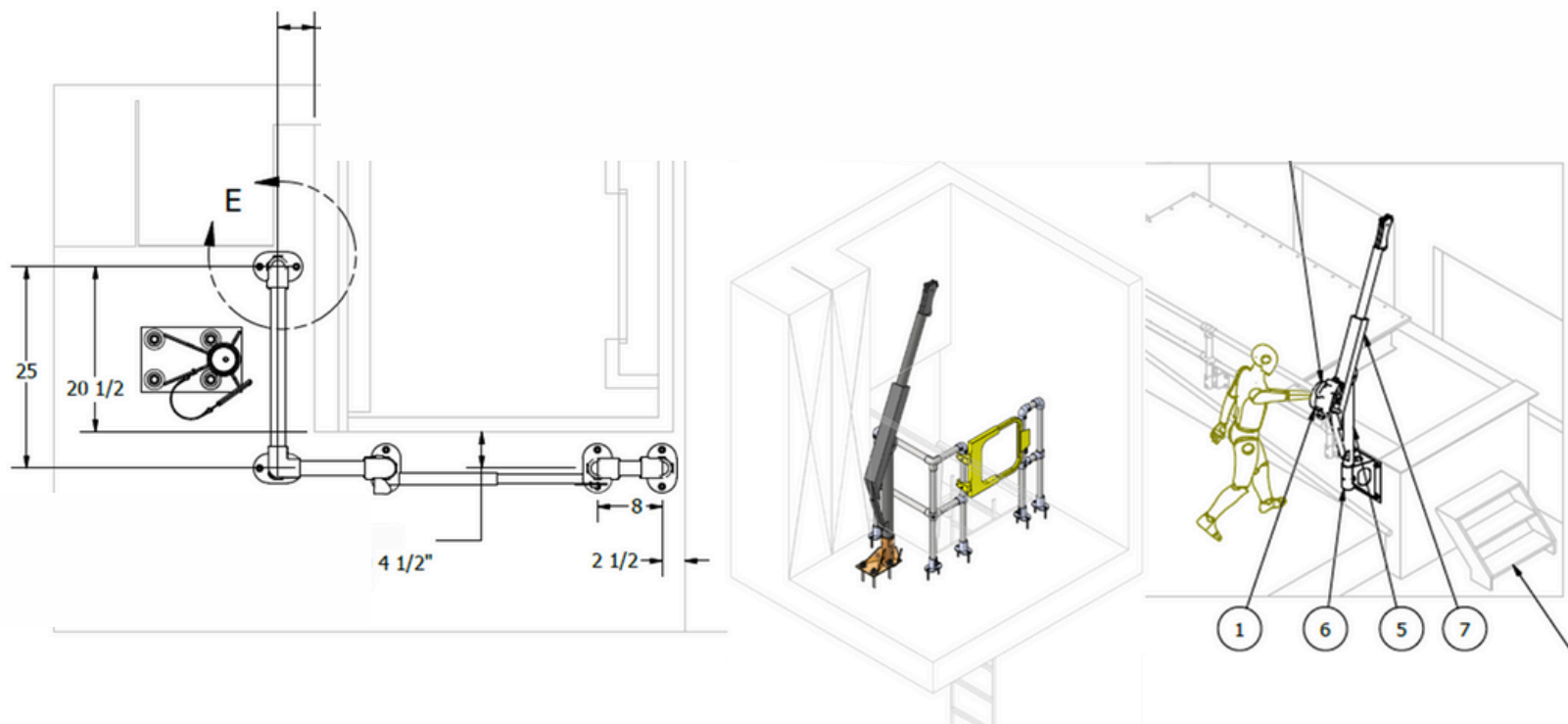
- Design (engineering)
- Installation
- Inspection
- Compliance upgrades for existing systems

Types of systems supported:

- Permanent davit bases (wall-mounted, floor-mounted, recessed, or custom)
- Permanent or temporary guardrails, self-closing gates
- Anchors for fall arrest or travel restraint
- Retrieval systems (bars, poles, etc.)
- Custom design of any other system

Did you know?

The installation of retrieval systems, such as davit bases, must be reviewed by an engineer. This requirement ensures compliance with current standards and regulations, and adherence to the manufacturer's recommendations—ultimately guaranteeing worker safety.



Technical Services

Optimize the safety and performance of your fall protection equipment with our technical services!

Trust Our Certified Technicians to Ensure:

- Maintenance of your equipment
- Inspection
- Standards-compliant certification

On-site, at your company or in our branch – our experts operate in accordance with manufacturer standards and current regulations, ensuring the reliability and compliance of your equipment.

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Working in confined spaces? We have the solutions to protect your team.

Our consulting services help keep your teams safe on the job.

[GET THE DETAILS](#)

Our Services Include:

- ✓ **Risk Assessment:** Identification of confined space hazards to implement appropriate preventive measures.
- ✓ **Procedure Development:** Creation of protocols that comply with current regulations to ensure safe operations.
- ✓ **Specialized Training:** Training sessions for workers and supervisors, covering best practices and proper use of protective equipment.
- ✓ **Technical Support:** Assistance with selecting and maintaining safety equipment, including gas detectors and ventilation systems.



Gas Detection - IO4

Discover the Future of Workplace Safety with the MSA Connected Platform

This integrated solution is built around the ALTAIR io™ 4 gas detector, equipped with built-in LTE connectivity. It enables real-time monitoring of your teams without the need for complex IT setup.

SPI Health and Safety is proud to be the first MSA-accredited provider in Canada to offer this turnkey solution—making safety management simpler while enhancing compliance in the field.

Benefits:

- **Instant Deployment:** No setup required, automatic connectivity.
- **Enhanced Safety:** Live visibility of your workers in the field.
- **Simplified Compliance:** Centralized data for easier audits.
- **Long-Term Rental:** SPI offers the solution through a convenient rental program and takes care of maintenance and updates.



Automatic Connectivity



Over-the-Air Updates



Automatic Bump and Calibration



Gas Detection



MSA ALTAIR io™ 4 Multigas Detector

SPI Part Number: GDE054

Manufacturer Part Number: 10248523

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MSA Altair 4XR Dust resistant and Waterproof Multigas Detector

SPI Part Number: GDE124

Manufacturer Part Number: 10178557

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MSA Altair 4XR Multigas Detector Kit

SPI Part Number: GDK004

Manufacturer Part Number: 10178357

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Gas Detection



MSA GALAXY® GX2 Automatic Test System for Altair 4/Altair 4X with 1 Valve and Charger North American

SPI Part Number: GST036

Manufacturer Part Number: 10128630

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MSA Galaxy® GX2 No-Charging Automated Test System for Altair 4/Altair 4X with 1 Valve for North American Version

SPI Part Number: GDE422

Manufacturer Part Number: 10128642

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MSA Galaxy GX2 Bump Test and Single-Gas Calibration Dock for ALTAIR 4/4X Multigas Detectors

SPI Part Number: GST008

Manufacturer Part Number: AGX2B1010N000

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Respiratory Protection

Self-contained breathing apparatuses (SCBAs) are essential for ensuring the safety of workers exposed to hazardous or contaminated atmospheres. These devices are designed to provide a reliable supply of breathable air in the most critical situations.

We offer a wide range of models suited to various industries and applications, including confined spaces and industrial environments.

Please note:

Due to the large number of possible configurations, specific details are not listed in this document.



👉 **Need a device suited to your reality?**

Talk to your SPI representative. They'll guide you toward the equipment best suited to your needs and recommend a solution that meets current safety standards.

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Manage Confined Space Hazards

Prepare your teams to work safely in confined spaces

SPI offers hands-on learning in modern facilities equipped with confined space simulators. Your workers develop real-world skills in a safe and supervised environment.

Our training programs are 100% compliant with provincial and national standards, including CSA Z1006-23, to ensure rigor and peace of mind.

OUR TRAININGS



Flexible and tailored to your reality

Our training sessions can be delivered at our offices or directly at your facility, thanks to our mobile confined space simulator.



Confined Space Entry and Stand-by Attendant/Supervisor

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Confined Space Entry & Rescue

[LEARN MORE](#)



Confined Space Entry and Basic Rescue

[LEARN MORE](#)



Confined Space: Permit Delivery

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Train your teams, wherever they are.

Access online OHS training at your own pace →





V-Gard H1™ Safety Helmet

Features

- Fas-Trac® III Pivot Ratchet Suspension for superior comfort, adjustability, and range of motion.
- Non-contact foam liner maximizes air flow and breathability for optimal cooling and hygiene.
- Non-vented options for use in electrical applications where Class E certification is needed.
- Vented options for optimal air flow and cooling.
- Field replaceable 4-point chinstrap with multiple adjustment points for customized fit and comfort.
- Premium moisture wicking sweatband with breathable foam and hook and loop attachment for easy field replacement.
- Patent pending “push-button” accessory attachment rail and universal lighting clips for quick installation and removal.
- Convenient rescue whistle integrated into the chin strap buckle.
- Matte finish shell.
- Standard reflective trim.



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Head Protection



MSA V-Gard H1 Trivent Vented Helmet with Fas-Trac Suspension

SPI Part Number: TCR029

Manufacturer Part Number: 10194783

Different Colors Available

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MSA V-Gard H1 Novent Class E Safety Helmet with Fas-Trac III for Electrical Work

SPI Part Number: TCR043

Manufacturer Part Number: 10219933

Different Colors Available

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MSA Replacement Chinstrap for V-Gard H1 Novent

SPI Part Number: TCR067

Manufacturer Part Number: 10194766

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Accessories for the V-Gard H1™ Safety Helmet



MSA V-Gard Anti-Fog and Impact-Resistant Polycarbonate Clear Face Shield for V-Gard H1

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MSA V-Gard H1 Visor Frame without Debris Control

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MSA V-Gard H1 Visor Frame with Debris Control

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MSA V-Gard H1 Replacement Moisture-Wicking Helmet Sweatband

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MSA Replacement Debris Control Insert for V-Gard H1 Visor Frame

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MSA V-Gard H1 Trivent Helmet Chinstrap Replacement

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The V-Gard H2™ Safety Helmet

V-Gard H2™ Safety Helmet Features

Quick and easy customization with thousands of existing logos, easy creation of new logos, and reflective stripes.

Integrated headlamp strap clips for easy and secure donning and doffing of lights on the helmet.

ANSI Z89.1 Type II certification with integrated chinstrap for enhanced protection against lateral impacts

Non-vented options for use in electrical applications where Class E certification is needed.

Optional venting for improved air flow, cooling and reduced heat stress.

Extensive accessory compatibility with nearly all V-Gard H1 and V-Gard accessories for a wide variety of industrial applications and easy integration with existing inventory.

Comfortable ratchet suspension that's easily adjustable with a gloved hand.

Antimicrobial sweatband, crown pad, and ratchet pad with Ionic+® high-purity silver to eliminate odor-causing bacteria.

Optional Mips® system for additional rotational impact protection designed to help reduce the risk of traumatic brain injury.



Mips

⚠ Please note:

This model is not currently CSA certified, although it meets several international standards.

Hand Protection



Kosto A9 Cut Resistant Safety Gloves

SPI Part Number: MKV119

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Kosto A6 Cut Resistant Gloves with Nitrile Foam Coated Palm

SPI Part Number: MKV106

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Kosto A6 Cut Resistant and Level 3 Impact Resistant Leather Gloves

SPI Part Number: MKGV35

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Kosto Cut Resistant A5 Leather Driver-Style Work Gloves

SPI Part Number: MKGV25

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Environment with potential flame hazards



Kosto High-Visibility FR Rain Jacket with 360° Reflective Design

SPI Part Number: VMK502

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Kosto FR Waterproof High-Visibility Safety Pants

SPI Part Number: VPK502

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Environment with a risk of flame exposure and arc flash hazard



Kosto Dazzle High Visibility, Flame Resistant and Arc Flash Rain Coat

SPI Part Number: VMKF60

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Kosto Dazzle High Visibility, Flame Resistant and Arc Flash Rain Pants

SPI Part Number: VPKF60

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Kosto Dazzle Welding Spark Resistant Coverall

SPI Part Number: VCKF05

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Environment with a risk of flame exposure and electrical arc hazard



Kosto Dazzle Welding Spark Resistant Coverall

SPI Part Number: VCKF06

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Kosto Dazzle Arc Flash & Welding FR Coverall with Zippered Leg

SPI Part Number: VCKF10

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Kosto Aluskin Work Coverall for Aluminum Smelter and Welding with 4" Reflective Tape

SPI Part Number: VCKA01

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NEW!



Kosto Goatskin Arc Flash and A5 Cut-Resistant Driver Gloves with Kevlar®

SPI Part Number: MKVF01

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Kosto Arc Flash Kevlar® Lined Goatskin Work Gloves with 5" Cuff

SPI Part Number: MKVF07

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Environment with a risk of dust and particle exposure



Kosto Microporous Limited Use Coverall

SPI Part Number: VCK370

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Environment with a risk of heat exposure



Kosto Hi-Viz Summer-Friendly Coverall Ripstop

SPI Part Number: VCK16

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3 KEY STEPS FOR A SUCCESSFUL CONFINED SPACE MANAGEMENT PROGRAM

Planning – Implementation – Integration & Follow-Up

1. Planification :

- Develop a shared vision among the members of the executive management
- Designate a project lead
- Get support from experienced and specialized resources
- Prepare an action plan corresponding to your reality
- Allocate sufficient resources (people, time and money for each step of the project)

2. Implantation :

Many operational actions are required to successfully complete this project. Sequence and type may vary. However, here are the usual steps:

- Prepare a list of all confined spaces.
 - Perform a risk analysis for each confined space.
 - Identify each confined space using a placard.
 - Order and use the recommended work and rescue equipment.
 - Develop a confined space entry program integrating the decisions of the organization concerning the roles and responsibilities of each stakeholder, the qualifications and training requirements, and a list of equipment and assigned rescuers.
- Draw and install anchorage points (engineer required).
 - Develop and validate specific rescue plans.
 - Planning what to do in case of an emergency is crucial.
 - Train all stakeholders involved in confined space work, including entrants, attendants, permit issuers, people responsible for contaminant detection as well as rescuers.
 - Use the appropriate procedure and permit management system (paper format or software).

Do you know the 3 types of confined space hazards?



Physical



Atmospheric



Biological

How to recognize confined spaces using the 3 “R”

- Not designed to “remain” there
- “Restricted” access
- There are “risks”

As you know, many organizational and human actions are necessary to successfully implement any change project. The confined space project is no exception. Thus, the following actions are also required to maximize your return on investment.

- Leadership from the management and project lead
- Ongoing communication and information exchange with the managers, foremen and employees
- Change management

3. Integration and Follow-Up :

Follow-up is essential to ensure the integration and application of new practices and expectations. Different initiatives are required to ensure the project remains alive, and the new practices are respected at all times.

- Update the list of confined spaces (addition and removal)
- Perform the risk analysis of new confined spaces
- Clean and replace signage, if necessary
- Validate/clarify the information found in the documents, if required
- Inspect and maintain equipment on a regular basis, including anchors
- Ensure constant communication
- Plan upgrade training
- Include the subject of confined space during departmental meetings (maintenance)
- Assess your practices and the skills of your stakeholders on a regular basis



Additional Resources

Articles

- [Confined Spaces Rescue](#)
- [Confined Space Risk Assessment: What You Need to Know](#)
- [Danger! 3 Questions to Ask Before Entering Confined Spaces](#)
- [Everything You Need to Know For a Successful Confined Space Protection](#)
- [Preventing Occupational Fatalities in Confined Spaces](#)
- [Q&A: Confined Space Oxygen Levels and Gas Detection with Dräger](#)
- [Effective Safety Practices for Working With Confined Space Hazards](#)

[and more →](#)

Exclusive Contest

Enter for a chance to win a custom V-Gard H1 helmet featuring your company's logo. The perfect blend of style, comfort, and safety!

[ENTER HERE →](#)

