MSA Latchways® **Solutions for Oil and Gas**

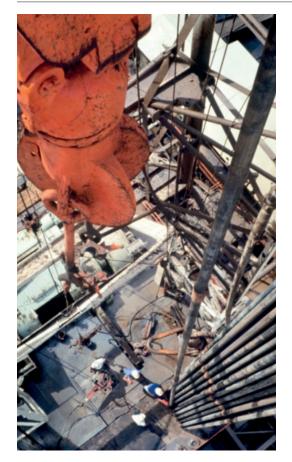


Complete fall protection for onshore and offshore applications





Working at heights in the oil and gas industry



Quality control

MSA product design results in innovative engineering using high quality components, reflected in ISO9001:2008 accreditation. Quality is at the center of everything we do.

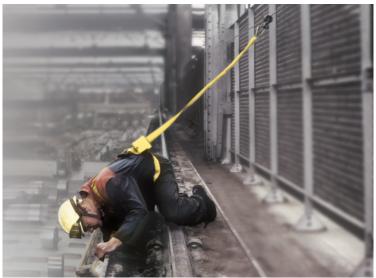
- System components are constructed of industry-recognizable quality materials such as marine-grade 316S stainless steel and 17/4 PH stainless steel for critical cast components.
- Every part of each system is individually inspected; critical castings are subject to X-ray inspection and either dye-penetrant or magnetic particle analysis.
- Every product is marked to provide complete traceability.
- Every component is designed to perform to a safety factor of two.

MSA has been active within the fall protection industry for nearly 100 years and offers the most innovative and inherently safe solutions for working at heights within the oil and gas sector. MSA Latchways products help to ensure worker safety when working at heights within the harshest environments, and are complemented by value-added services such as training, recertification, specification, and fully integrated in-house customer service team.

MSA's range of Latchways products are used for many applications, including general maintenance to rig-up and rig-down activity, servicing pipe racks and ascending/descending derrick ladders.

Tailored solutions

MSA's in-depth knowledge of the energy industry allows for tailored solutions dependent upon project requirements. The inherent flexibility of Latchways products provides ideal fall arrest systems that can be designed and installed to follow often complex contours of energy industry structures.



Testina

All Latchways products are extensively tested, passing and in many cases exceeding required standards. The Latchways Sealed Self Retracting Lifeline (SRL) is the only available product that is currently rated to IP69K and IP68 for ingress protection and high pressure high temperature wash-down operations. Prototypes are subjected to comprehensive testing including static strength, corrosion resistance, locking, conditioning, and dynamic performance. Testing is conducted in MSA test facilities; results are submitted to external laboratories for independent verification.



The Latchways SRL

Latchways SRLs are unique—MSA has totally re-engineered the method by which SRLs function, creating additional safety features enabling complete field serviceability, lower cost of ownership and reduction of down time. Onsite maintenance is possible due to a simple stainless steel coil mechanism that absorbs energy in the event of a fall—Constant Force® technology. Also, 100% reliable Full Contact™ pawl locking mechanism creates an audible click that can be felt while in use, indicating correct system operation.

Serviceability is key when purchasing SRLs. Cable and hook assembly components generally see the most wear, so all Latchways units enable simple cable replacement within minutes. Furthermore, if a fall occurs, energy absorbers are easily replaced, allowing SRLs to be safely returned to service. Training for this and the other simple service techniques are available free of charge from MSA, avoiding costly complete factory rebuilds.

Key Benefits

- · Onsite (on- and offshore) servicing
- Speedy replacement of cable and hook assembly and Latchways Constant Force technology load absorber
- Toughened case that withstands harsh environments

Standards

- BS EN 360:2002
- ANSI Z359.14-2012
- OSHA 1910.66
- OSHA 1926.502
- CSA Z259.2.2-98

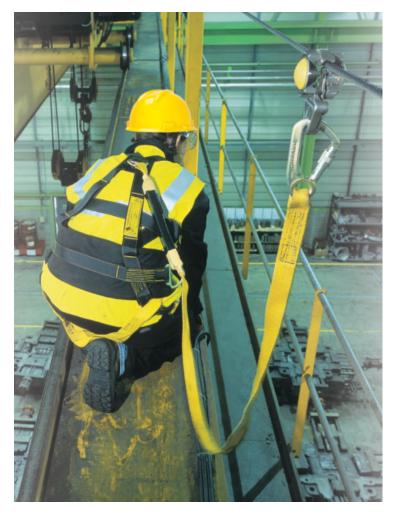


Modular components allow quick field servicing.









Latchways overhead systems

Workers attached to the Latchways overhead system have both unfettered mobility and continuous, hands-free security while working at heights. Latchways overhead systems consist of a length of cable, with each end attached to a structure using Constant Force technology at one end and D-ring at the other. Cable is tensioned by unique Latchways tensioning device; single spans can be as long as 60 m or 65.5 yards; longer lengths require intermediates. Users are connected to the cable by an innovative, robust mobile anchorage that offers outstanding levels of safety, convenience and versatility within virtually any environment. Should a fall occur, the cable and Constant Force technology unit absorb energy created by the fall, ensuring that the fall is safely arrested.

Latchways horizontal systems

Latchways overhead system design is replicated in the Latchways horizontal system, usually fixed to a structure at shoulder/waist height, following structural contours to help ensure worker access to all areas while still attached to the system. End fixings are similar to the Latchways overhead system; intermediates are D-rings through which the unique Latchways Transfastener™ effortlessly passes when workers use the system.

Key Benefits

- · Quick and simple installation
- Less costly to install than I-beam systems
- Can be configured as single span (as long as 60 m/65.5 yards) or multi-span system
- Can be used by as many as 3 workers
- Mobile anchorages remain permanently attached to system
- Can be retrofitted to existing structures or incorporated at design stage of new facilities
- Easily able to accommodate changes of direction
- Written warranty available on system service life

Standards

- System-tested to EN 795
- Mobile anchorage certified by SATRA
- Conforms to EN 362:1992



Latchways unique removable Transfastener can be removed at any point along cable and allows hands-free work along system length.



Latchways vertical systems

Latchways vertical systems typically include top anchor, bottom anchor, intermediates, cable, and LadderLatch™ device, providing outstanding personal safety for workers on fixed ladders.

Proven effectiveness of the LadderLatch unit with unique Latchways starwheel component provides workers the security of constant system attachment while also having both hands free for climbing. If a worker should fall from the system, the LadderLatch device immediately locks onto the system cable and arrests the fall.

In the event of a fall, a worker attached to a Latchways vertical system is far less likely to be injured during the fall arrest process compared to a fall from a traditional hoop system.

Key Benefits

- Can be fitted to follow structural contours
- Suitable for retrofitting or as part of new construction
- · Entire system is unobtrusive and lightweight
- Operation is unaffected by snow, ice or other adverse weather conditions
- Can be integrated into a comprehensive system incorporating vertical, inclined and horizontal sections
- Will support as many as 4 workers on single line
- LadderLatch unit rotates freely through intermediate cable guides, providing users with continuous hands-free protection
- In the event of a fall, LadderLatch unit locks onto cable and arrests fall
- Energy absorbers built into system protect end anchors from excessive loads should fall occur
- LadderLatch unit can be attached or detached at any point along the system
- Easy to install and maintain
- Meets all appropriate international standards



Latchways LadderLatch unit locks onto the cable in the event of a fall.



Standards

- EN 353:1 2002
- CSA Z259.2.1-98
- ANSI Z359.14-2012
- AS/NZS 1891.3-1997
- OSHA-Compliant
- Tested and passed potential new EN353-1 standard test
- CE-marked





MSA—The Safety Company

Our business is safety. We've been the world's leading manufacturer of high-quality safety products since 1914. MSA products may be simple to use and maintain, but they're also highly-sophisticated devices and protective gear — the result of countless R&D hours, relentless testing and an unwavering commitment to quality that saves lives and protects millions of men and women each and every day. Many of our most popular products integrate multiple combinations of electronics, mechanical systems and advanced materials to help ensure that users around the world remain protected in even the most hazardous of situations.

Our Mission

MSA's mission is to see to it that men and women may work in safety and that they, their families and their communities may live in health throughout the world.

MSA: Because every life has a purpose.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described. under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete

concerning proper use and care of these products.

and detailed information



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