



3S LIFT Products

Elevating Health & Safety



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SAFE



SIMPLE



SPECIALIZED

Our Vision, Our Mission

The Leading Wind Turbine Tower Internals Solution Provider

Since our company was founded in 2005, it has been our mission to combat climate change. That's why we offer solutions that contribute to the effectiveness, efficiency and acceptance of renewable energy.

We want to enable people to service wind turbines safely and protect their health. We believe in delivering safe, innovative and cost-efficient wind turbine tower internals that benefit our customers, employees and the planet.

Company Introduction

Ficont Industry (Beijing) Co., Ltd. is a China-based leading provider of equipment and services for people working at height. Our products have been applied in 16 different industries and exported to 65 countries. Our core business is the wind industry. With our strong focus on R&D, we have been granted for more than 800 patents and obtained over 100 global safety qualification certificates. We strive to support our customers and makes a better future in the field of working at height.

Headquartered in Beijing, 3S Industry has Intelligent Manufacturing Centers in Beijing and Tianjin. With wholly-owned subsidiaries in Dallas (USA), Hamburg (Germany), Chennai (India), Tokyo (Japan) and Sao Paulo (Brazil). Our global after-sales service teams provide on-site installation and maintenance services for our customers around the world. This way, 3S Industry ensures quick and reliable technical support, offering one-stop-shop service for our customers.

With our 3S brand creed Safe, Simple, Specialized, we are dedicated to our mission of providing products and services that exceed customer expectations. We strive to make our products the best in their field. We use scientific and technological innovation to drive the development of integrative solutions that serve people working at height.

Service Lift

The Most Efficient and Ergonomic Way to Ascend Towers

Climbing the tower ladder and hoisting replacement parts are time-consuming and risky aspects of turbine maintenance. The repetitive motion of climbing is also physically demanding, causing countless injuries.

A Service Lift is the ideal solution. In addition to being the most efficient and ergonomic method of moving personnel and equipment up a tower, a Service Lift reduces climbing-related injuries and sick leave, thus promoting health and safety.

Wire Rope-Guided Service Lift

The wire rope-guided Service Lift has two guide wire ropes to prevent swiveling or tilting, in addition to a lifting wire rope and safety wire rope. The guide wire ropes are secured to the suspension beam at the top of the turbine and below the base platform.



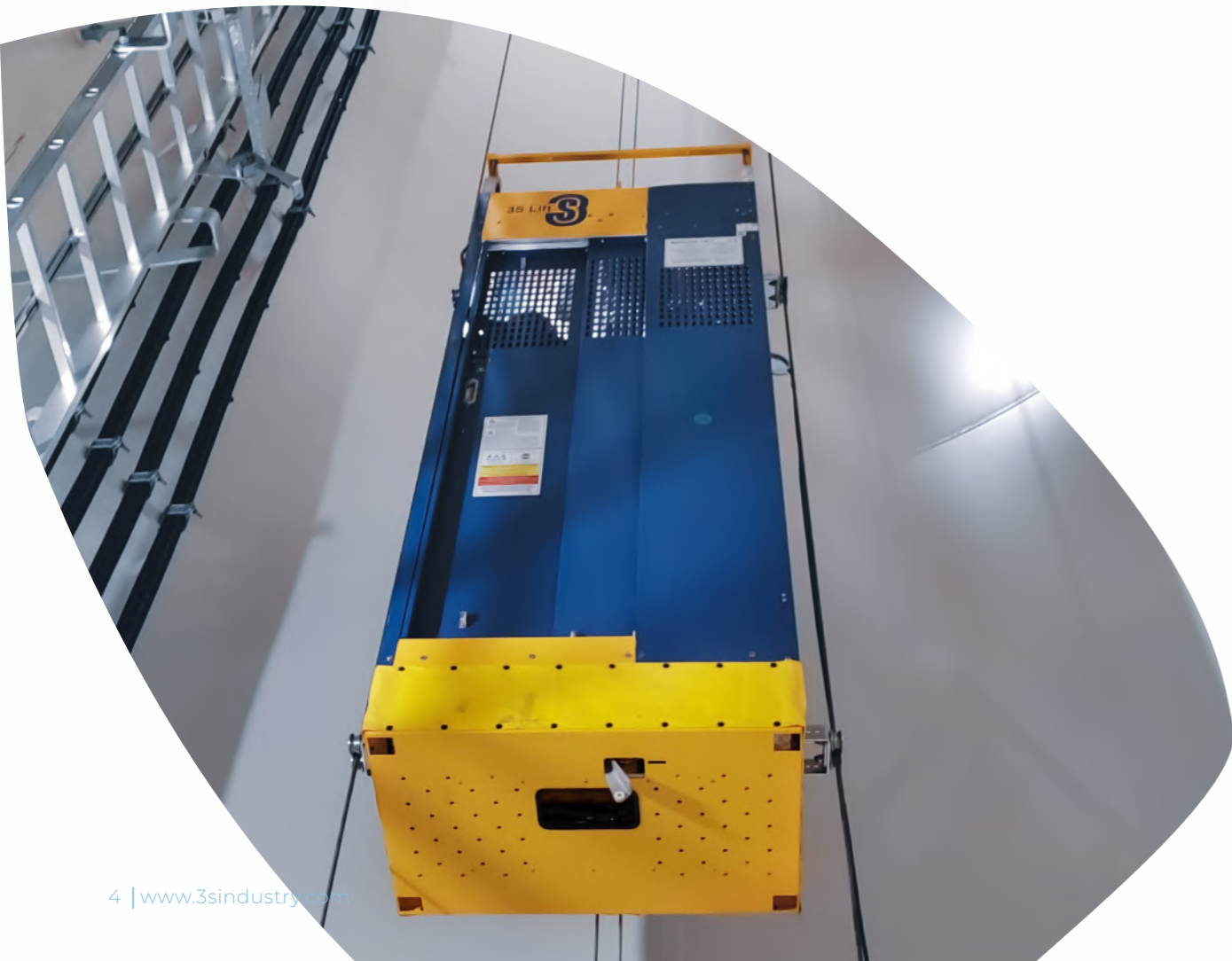
Ladder-Guided Service Lift

The ladder-guided Service Lift travels up and down the guide ladder using two wire ropes for lifting and safety. Normal use of the ladder for climbing is not impaired. This highly reliable system features precisely engineered guide wheels for a particularly smooth ride.



Rack and Pinion Ladder-Guided Service Lift

The rack and pinion ladder-guided Service Lift travels up and down the guide ladder using a pinion hoist mechanism. Featuring exceptional reliability and streamlined maintenance routines that boost AEP, this model is particularly suitable for offshore wind turbines.



Safe & Reliable

For Efficiency & Peace of Mind

Available for all turbine types, our Service Lifts fulfill the highest standards in technical quality, reliability, and safety. They also possess all relevant international certifications (e.g. CE, CU-TR, AS/NZS).

3S Lift's patent-protected technologies are the product of nearly twenty years of engineering and design experience. We supply most major turbine manufacturers, including Vestas, Siemens-Gamesa, GE Renewable Energy, and every major Chinese OEM.



Manual Descent

In the event of power failure, the lift can be lowered safely and smoothly to the next platform using the manual descent function.

Top Sensing Panel

When coming in contact with an obstacle, the panel is compressed and a sensor is triggered. This immediately stops the lift, preventing impact with the obstacle.

Mechanical Overload Protection

If the rated load is exceeded, an alarm sounds and the mechanical overload protection prevents the Service Lift from being operated until the load has been reduced.

Overspeed Protection

If the preset running speed of the lift is exceeded, the SafeLock will automatically engage, protecting the lift from falling or running at an unsafe speed.

High-Strength Load Bearing Structure

The Service Lift features a robust structural design that can withstand four times its rated load.

Bottom Sensing Panel

When coming in contact with an obstacle, the panel is compressed and a sensor is triggered. This immediately stops the lift, preventing impact with the obstacle.

Wire Rope-Guided Service Lift Specifications

Rated Load	240 - 300 kg
Capacity	2 - 3 persons
Operation Speed	18 m/min
Operating Temperature Range	-20°C – +60°C
Rated Voltage	400 V / 690 V, 50 Hz / 60 Hz
Dimensions	960 x 600 x 2980 mm
Certifications	CE, CU-TR
Compliant with Standard	EN 2006/42/EC, EN ISO 12100, EN 60204-1, EN1808

Ladder-Guided Service Lift Specifications

Rated Load	250kg, 300 kg, 450 kg
Capacity	2 - 3 persons
Operation Speed	18 m/min
Operating Temperature Range	-20°C – +60°C
Rated Voltage	400 V / 690 V, 50 Hz / 60 Hz
Dimensions	960 x 600 x 2980 mm
Certifications	CE, CU-TR
Compliant with Standard	EN 2006/42/EC, EN ISO 12100, EN 60204-1, EN1808

Rack and Pinion Ladder-Guided Service Lift Specifications

Rated load	240kg, 350kg, 480 kg
Capacity	2 - 4 persons
Operation Speed	18, 24 m/min
Operating Temperature Range	-30°C – +60°C
Rated Voltage	400 V / 690 V, 50 Hz / 60 Hz
Dimensions	1030 x 860 x 2820 mm 1200 x 860 x 2820 mm
Compliant with Standard	EN ISO 12100, EN 60204-1, EN81-44

Climb Auto System

Single-Technician Ladder-Mounted Climber

Independent Fall Protection System

The fall protection system of the CAS is independent from the operator's fall arrester. Redundant fall protection guarantees the safety of personnel and equipment.

Operator's Personal Fall Arrester

Climb Auto System's car Fall Protection Device



Improving Health & Safety

On every wind farm there are countless soft tissue injuries due to the repetitive motion of climbing. These injuries can lead to sick leave, long term health issues and reduced motivation among wind turbine technicians. With the CAS, technicians can safely reach the top of the tower while putting zero stress on their muscles and joints. It allows technicians to focus on the job at hand, and not on the climb.

The CAS features control switches on both handles, a remote mode for equipment transport, and collapsible footboards for rapid evacuation in the event of an emergency. The CAS also has redundant fall arrest systems (for the technician and the lift), thus offering superior safety.

Retrofit Installation in 8 Hours or Less

The Climb Auto System can be easily retrofitted to almost any wind turbine – often in 8 hours or less. Because the CAS is mounted to the existing ladder, installation typically requires no structural changes. The CAS reduces the cost of ownership compared to a Service Lift, thanks to lower upfront capital expenditures and lower operating costs.

Increased Uptime and AEP

Faster tower ascent with no fatigue significantly augments technician productivity. This increases turbine uptime and annual energy production (AEP).

Employee Retention

The Climb Auto System completely eliminates the need to climb, thus improving job satisfaction and motivation among technicians. This also boosts employee retention, reducing high technician turnover costs.

80,000 Installations Worldwide

3S Lift's Climb Auto System has been installed in over 80,000 wind turbines worldwide.



No more climbing – thanks to the 3S Lift Climb Auto System. The CAS is a single-technician ladder-mounted climber that completely eliminates the physical and mental strain of climbing. It improves health and safety while reducing the cost of ownership.

Climb Auto System Specifications

Constructing Materials	Aluminum, steel
Rated Load	Manned load capacity: up to 140 kg (310 lbs) Freight safe load: 60 kg (132 lbs)
Speed	18 m/min
Control Method	Frequency conversion vectorial technology
Rated Voltage	Single / 3 phase, AC, 220 V, 50 Hz / 60 Hz (400 V optional)
Dimensions	415 x 390 x 1180 mm
Certification	CE, ETL; UL and OSHA compliant

Increased Uptime and AEP

Optimize Turbine Operations

Three Control Modes

The CAS can be operated manually on the car, by remote control, or via the control cabinet down tower.

Remote Control Lock-Out Protection

To ensure safety, control priority is always given to the operator riding on the CAS car. The on-car manual mode overrides remote operation (via remote control or control cabinet).

Variable Frequency Drive

The variable frequency drive automatically adjusts the running speed to ensure a smooth and stable ride.

Obstacle Detection Device

The obstacle detection device on the left handle prevents accidental damage – for example, if a platform hatch is closed when equipment is sent via remote control. When triggered, the CAS car stops immediately.

Overload Protection

To ensure safe operation, the CAS is equipped with overload protection. If the rated load of 140 kg (310 lbs) is exceeded during manual operation, an alert will sound and the system will not run. During remote operation – e.g. when transporting tools – the load limit is 60 kg (132 lbs).

Platform Indicator

When approaching a platform, the CAS car slows down and sounds an alert, thus ensuring the safety of the operator and any personnel on the platform.

Guide Rail

The CAS car runs on a ladder-mounted guide rail, which strengthens the ladder while also serving as a fall protection system for the operator and car.

Evacuation Step

The evacuation step allows technicians to easily climb over the CAS car to reach a higher point in the tower or to evacuate in the event of power loss.

Manual Emergency Brake

The manual emergency brake is an additional safety feature, allowing the operator to manually engage the car's fall arrester. If the car moves unexpectedly, pulling the brake will stop it immediately.

E-Stop Button

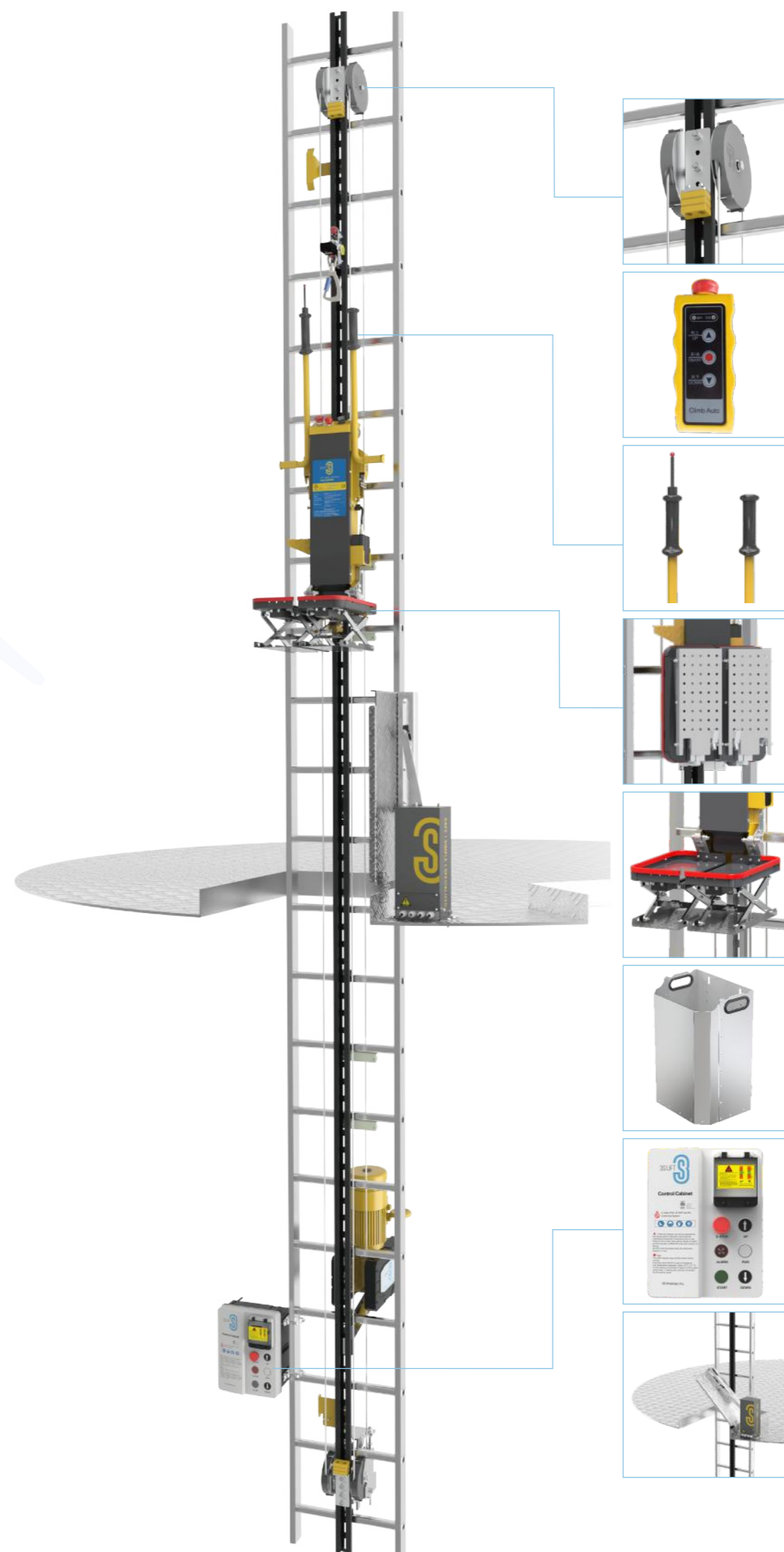
The car, remote control, and down-tower control cabinet each have an emergency stop button (E-Stop), providing an additional layer of safety.

Traction Unit

Equipped with a powerful 1.5 kW traction unit, the Climb Auto System features a rope slipping detector and brake protection.

Tensioning Device

The quick-adjust tensioning device on the base platform allows for easy regular wire-tension checks and adjustments.



Top Sheave

The top sheave's compact design allows the CAS car to reach the uppermost platform.

Remote Control

The convenient remote control feature allows technicians to call the car to their position in the tower or send equipment to a co-worker on another platform.

Two-Handle Start-Up Switch

To use the CAS car, the operator must press and hold the switches on both handles simultaneously. If the operator releases either switch, the system stops immediately.

Collapsible Footboards

The collapsible footboards enable rapid evacuation in case of emergency.

Bottom Sensing Panel

When coming in contact with an obstacle, the panel is compressed and the sensor is triggered. This immediately stops the CAS car, thus preventing collision.

Toolbox

The custom metal toolbox can be firmly attached to the footboards to send materials up or down tower via remote control.

Control Cabinet

Located down-tower, the control cabinet is used to power the system up and down. It can also be used to operate the CAS car remotely.

Auto Hatch Opener (Optional)

The Auto Hatch Opener makes CAS operation even more convenient by automatically opening and closing platform hatches as the car passes through them.

Auto Hatch Opener

Preventing Falls From The Platform

The Auto Hatch Opener makes CAS operation even more convenient by automatically opening and closing platform hatches as the car passes through them.

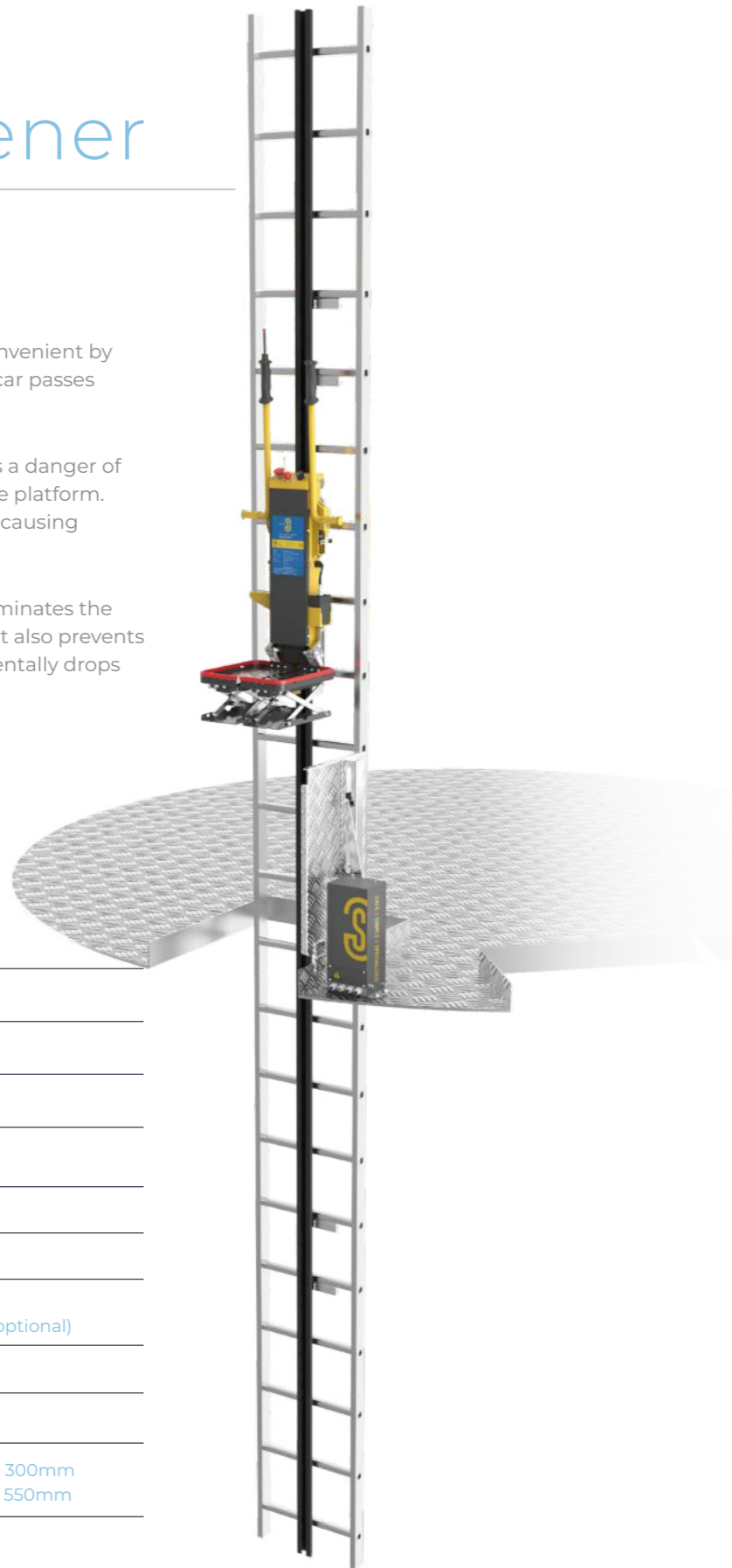
When technicians neglect to close platform hatches, there is a danger of fatal fall injuries in case a technician steps into the hole in the platform. They may also accidentally drop tools down the open hatch, causing serious injuries to others working below them.

Since the AHO reliably opens the hatch for technicians, it eliminates the risk of techs bumping their heads against the closed hatch. It also prevents hand and finger injuries that can occur if a technician accidentally drops the hatch on their fingers while closing it.

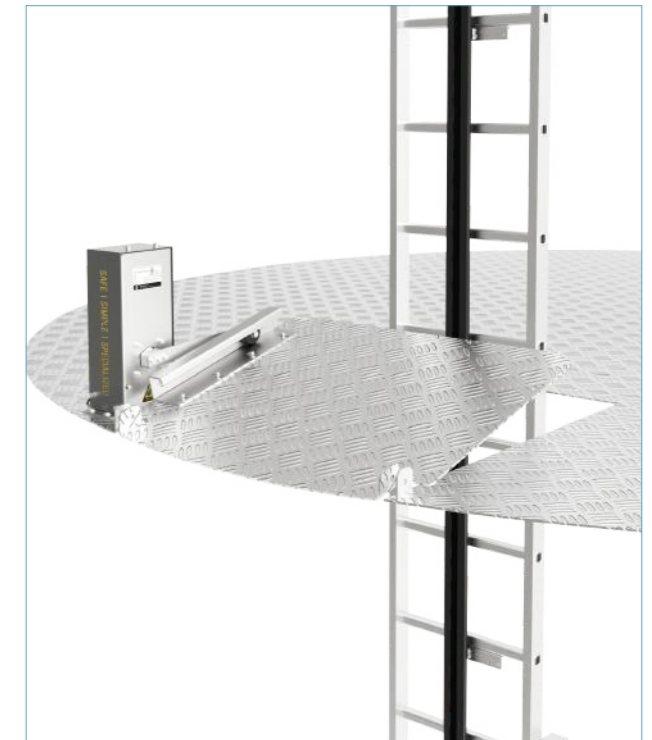
Auto Hatch Opener Specifications

(Equipped with Button or Sensor)

Model	IHM-15	
Operation Temperature	-40 °C – +60 °C	
Anti-Corrosion Grade	C4	
Rated Voltage	Single phase, AC230 V±10%, 50/60 Hz	
Power	60 W	
Certification	CE, ETL	
Protection Class	IP 44 (Higher protection class optional)	
Weight	11 kg	
Drive Unit Dimensions	172 x 131 x 408 mm	
Crank Arm Length	Back - Opening	300mm
	Side - Opening	550mm



Side-Opening Model



Back-Opening Model

Adaptable to Most Hatches

The Auto Hatch Opener can be adapted to most hatch and platform types, without major structural modifications.

Robust Temperature Resistance

The system can be operated in adverse temperatures ranging from -40 °C to 60 °C.

Easy Installation

The AHO can be installed quickly and easily, using only a few screws to mount it.

Anti-Strip Chain

The chain design prevents stripping, thereby ensuring system integrity.

Compact Design

Work activities on the platform are not impaired thanks to the system's compact design.

Dual Operation

Normal opening and closing of the hatches by hand remains possible (in the event of power outage or another problem).

Durability

Over 25 years service life thanks to high quality materials and sturdy construction.

Maintenance-Free

The AHO requires no maintenance.

Offshore Davit Crane

Sturdy and Durable to Withstand the Harsh Offshore Environment

The 3S LIFT Offshore Crane is a special lifting device intended for transferring materials (spare parts, maintenance materials, etc.) between a service vessel and the outside platform of a wind turbine. It significantly reduces labor intensity, improves maintenance efficiency and operation safety.

Equipped with high-quality components, the crane is highly durable. It features sophisticated anti-corrosive coating to withstand the harsh ocean environment. It has a high level of shock resistance and bearing capacity, even in harsh conditions, and is designed for more than 35 years of service life.

The crane has an ergonomic design structure, which is highly comfortable and can easily lift and transport heavy objects, ensuring efficient supply and maintenance of spare parts for maximum efficiency.



Ultra-High Corrosion Protection

The crane has CX-class corrosion resistance, making it suitable for the harsh marine environment.

Customizable Safe Working Load

The safe working load can be customized according to customers' needs to facilitate lifting and transporting of large turbine components.

Self-Locking Protection Function

The self-locking slewing bearing is an independent mechanical locking mechanism and can resist gusts of up to 70 m/s.

Anti-Twisting Wire Rope

The anti-twisting wire rope can stop rotation of the lifting object and reduce wire rope damage and breakage, with excellent corrosion resistance at the same time.

Overload Protection Function

When a load exceeding the rated load is applied, the winch drum will stop running automatically to ensure the safety of the operator and equipment.

Emergency Load Lowering Function (ELL)

The ELL function is activated by the operator and is used to slowly and safely lower the suspended load to the supporting level in case of sudden power failure or crane failure.

Obstacle Avoidance Function

By preset the position of obstacles, ensure that the hook reaches sufficient height to safely cross the obstacles before turning. The crane will stop slewing when the height requirement is not met, so that the crane will avoid collision risks effectively and make operation safer.

Automatic Overload Protection System (AOPS)

When the crane's hook becomes entangled with the vessel, leading to an overload, the AOPS is automatically activated. As this occurs, the winch drum releases the rope, accompanied with an audible and visual alarm. This system prevents significant damage to the crane in the event of an overload.

Unique Wire Rope Pressure Mechanism and Slack Rope Limiter Mechanism

The unique wire rope pressure mechanism and slack rope limiter mechanism keep the wire rope in order. The lifting hook stops immediately when reaching the ground, making the crane safe and reliable.

Distributed Sealing Protection Design

The crane uses distributed sealing for its key parts. The wire rope, hoisting motion limiter, lifting motor, and slewing bearing are all equipped with sealing housing, improving the waterproofing and corrosion resistance of the entire crane, and prolonging the service life.

Wireless Remote Control

The wireless remote control is equipped with a screen, which can display real-time load and height information during the operation, so that it can provide a convenient and efficient visualization experience for users.

Standards

- MD 2006/42/EC
- EMC 2014/30/EC
- EN 13852-1
- EN 13852-3
- EN ISO 12100
- EN 60204-1
- ISO 12944
- DNV GL-ST-0378

Certifications

- CE Certification (by SGS)
- EMC Certification China
- Classification Society (CCS) Certification
- DNV-GL Certification

Patents

- Covered by 35 patents



OC-5010

Offshore Davit Crane Specifications

Model	OC-5010
Rated Load	500 kg / 1000 kg
Lifting Speed	20 m/min or 36 m/min
Slewing Radius	5 m
Max. Slewing Angle	350°
Max. Lifting Height	30 m
Wire Rope Diameter	11 mm
Power Supply	400 V / 690 V
Rated Power	8 kW
Service Life	35 years
Operating Temperature	-20°C ~ +45°C
Max. Wind Speed	18 m/s
Max. Significant Wave Height	2 m



OC-8010

Main Specifications (Customizable)

Model	OC Series	Lifting Height	20 m to 30 m
Slewing Radius	2 m – 12 m	Wire Rope Diameter	8 mm to 14 mm
Safe Working Load	500 kg – 2000 kg	Slewing Angle	0° – + 360°
Lifting Speed	18 m/min to 40 m/min	Boom Type	Fixed/luffing (customizable)
Slewing Method	Manual/electric (customizable)	Power Supply	400 V / 690 V
Operating Temperature	-20 °C – +45 °C	Service Life	35 years

Offshore Davit Crane Specifications

Product Model	Slewing Radius	Rated Load	Lifting Speed	Lifting Height	Wire Rope Diameter	Operating Temperature
OC-2110	2.1 m	1000 kg	18 m/min	≤25 m	φ 11 mm	-20°C ~ +45°C
OC-2516	2.5 m	1600 kg	24 m/min	≤28 m	φ 12 mm	-20°C ~ +45°C
OC-3010	3 m	1000 kg	24 m/min	≤25 m	φ 11 mm	-20°C ~ +45°C
OC-4010	4 m	1000 kg	24 m/min	≤25 m	φ 11 mm	-20°C ~ +45°C
OC-5010	5 m	1000 kg	36 m/min	≤25 m	φ 11 mm	-20°C ~ +45°C
OC-5016	5 m	1600 kg	24 m/min	≤28 m	φ 12 mm	-20°C ~ +45°C
OC-7010	7 m	1000 kg	36 m/min	≤25 m	φ 11 mm	-20°C ~ +45°C
OC-8010	8 m	1000 kg	40 m/min	≤30 m	φ 11 mm	-20°C ~ +45°C

Climb Assist

Climbing Assistance for Improved Health & Safety

The repetitive motion of climbing the turbine tower is time-consuming and strenuous. Our Climb Assist provides a constant lifting force during tower ascent and descent, significantly reducing fatigue and strain. This boosts health and safety while also augmenting employee satisfaction and retention.

The 3S Lift Climb Assist features an advanced design that automatically adapts to the climber's speed. Variable-frequency vector control assures precisely attuned assistance, whether climbing up or down the tower. No manual operation is required to start or stop the system, allowing the operator to always maintain a safe hold on the ladder.

Climb Assist Specifications

Lifting Force	Adjustable from 30–50 kg
Wire Rope Diameter	6 mm
Protection Class	Motor: IP 55 Control box: IP 66
Power Supply	Single / 3 phase, 220 V, 50 / 60 Hz. Optional: 3 phase, 400 V, 50 Hz
Lifting Speed	Adapts to climber's speed Max. 37 m/min
Operating Temperature	-40°C – +60°C
Weight	motor: 17 kg Control box: 3.3 kg
Certification	CE, ETL, OSHA compliant

Advanced Speed-Adapting Technology

Equipped with advanced speed adapting technology, the Climb Assist provides steady assistive force, adapting dynamically to the climber's speed.

Variable-Frequency Vector Control

Variable-frequency vector control enables excellent dynamic performance and comfortable assistive force.

Ascent and Descent Assistance

The Climb Assist offers a constant lifting force of 30–50 kg (65–110 lbs) during ascent and 30 kg (65 lbs) during descent. This reduces stress on the body, especially on the knees and ankles.

Minimal Maintenance

The drive and the control box are designed to require no annual maintenance, reducing the overall maintenance time of the Climb Assist to a minimum.

Top Sheave

The top sheave fits between the top two rungs, thus minimizing required installation space.



Traction Wire Rope

The traction wire rope is made of steel, providing safe and reliable performance in addition to extraordinary durability.



Control Box

The lightweight control box is waterproof and vibration-proof. It features an industrial cable plug for convenient and quick connection. If desired, it can be used as a portable device to support multiple Climb Assist units.



Motor

The motor provides a continuous lifting force of 30–50 kg.



Blade Maintenance Platform

Wind Turbine Blade Service and Repair

With its patented three-point lifting technology, 3S Lift provides a safe, reliable, and cost-effective way to perform blade maintenance and repair work. We offer off-the-shelf and custom solutions for our industrial maintenance platforms to meet the challenges of these tasks. Our comprehensive training helps customers assemble the platforms and rigging equipment on site and provides instructions for the work procedures.

Convenient Blade Repair Without Crane Usage

The platforms consist of a railing, hoist, SafeLock, and support arm. They can automatically move up and down the blade without the usual need for additional auxiliary equipment such as a crane.

Customizable for Various Uses

Blade maintenance platforms can be customized for a variety of maintenance activities, including standard inspections, applying leading edge protection, blade cleaning services, and blade and tower painting.

Nearly 20 Years of Experience

Our engineers and technicians have more than twenty years of experience in the manufacture and use of our blade maintenance platforms, producing more than 300 units.

Sofit-Z3 Specifications

Rated Load	350 kg
Speed	9 m/min
Power	7 kW
Rated Voltage	400 V
Weight	1300 kg
Dimensions	5.8 m x 2 m x 2.7 m



Sofit-22 Specifications

Rated Load	280 kg
Speed	9 m/min
Power	3 kW
Rated Voltage	3 phase, 400 V
Weight	235 kg
Dimensions	2 m x 0.7 m x 1.1 m



Sofit-W3 Specifications

Rated Load	660 kg
Speed	9 m/min
Power	5.4 kW
Rated Voltage	3 phase, 400 V
Weight	800 kg
Dimensions	5.2 m x 3.7 m x 1.1 m



Aluminum Ladder

High Strength, Easy to Assemble, Customizable

3S Lift aluminum ladders are made from high-strength aluminum. The ladders are manufactured using a flaring and riveting technique. Applications include wind turbine towers, cooling towers, chimneys, signal towers, lighthouses, water towers, tower cranes, high building facades, etc. The 3S Lift aluminum ladder can be used independently as a climbing device or with a guide rail to mount a Service Lift.



Aluminum Ladder Specifications

Standard Width	470 / 490 / 520 / 575 mm
Custom Width	300 – 1000 mm
Section Length	5880 mm
Rung Distance	280 mm
Rung Dimensions	30 x 30 mm
Stile Dimensions	60 x 25 mm or 72 x 25 mm 74 x 25 mm
Standards	GB/T 17889.2 , GB 17888.4 , EN131-2 , EN ISO 14122 , DIN 18799 , AS 1657 , NASI - A14.3 , OSHA 1910.23 , OSHA 1926.1053
Certification	CE

Dimensions can be customized according to customer requirements



WTL-A2 type

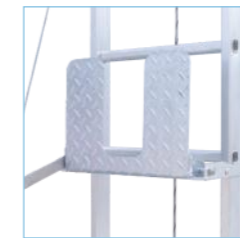


WTL-A1 type

Resting Platform

Resting Platforms provide a place for intermediate rest when climbing ladders. They are used in wind turbine towers, cooling towers, chimneys, signal towers, lighthouses, water towers, tower cranes, external walls of tall buildings, towers, etc.

Resting Platforms are easy to install and operate. They increase the level of safety. Equipped with specialized surface treatments, Resting Platforms are highly resistant to corrosion, even in harsh environments. It is also compatible with protection and lifting products.



Anchor Point

The 3S Lift Anchor Point is a fixed anchor point used for safety and fall protection equipment. It can also be used as a hanging point for evacuation devices.

The Anchor Point is made of high-quality steel. The sophisticated anti-corrosion surface treatment of the Anchor Point ensures its safe and reliable performance in offshore and onshore environments.

High Corrosion Resistance

High quality surface treatment for durability and corrosion resistance.

High Adaptability

Unique structural design for reliable performance with climbing ladders.

Made Specifically for Ladders

Specially designed for ladders to meet the requirements of daily use of climbers and increase their health & safety.



Personal Protective Equipment

Personal Safety When Working at Height

3S PROTECTION is committed to providing professional personal protection equipment (PPE), focused on excellent product quality, optimized wear experience, and providing more convenient and comfortable services to support people working at height. As one of the three elements of fall prevention, the harness is an essential protective product to ensure the safety of workers at height.



Full-Body Harness

3S PROTECTION flagship series Full-Body Harnesses are made of aviation-grade aluminum alloy, and feature a total of 5 attachment rings. The polyester webbing is wear-resistant, waterproof, oil-resistant and dirt-repellent. The thick and soft EVA back and waist pads make the harnesses more comfortable to use. The harnesses are suitable for aerial maintenance, handling, decoration, cleaning, welding, etc. They can be used in a range of industries, including wind energy, construction, telecommunication, electric power, chemical, etc.

Wear Resistant and Oil-Proof Webbing

High strength polyester
Breathable and wear-resistant, wrinkle-free.

Attachment (O-ring)

Sternal attachment point can be used with Climb Auto System.

Thick Waist Pad

Comfortable and supportive.

Ancillary D-ring (Bilateral)

Waist attachment points connect to work positioning system.

Traction D-ring

Abdominal attachment point can be used with Climb Assist.

Adjustable Quick Buckles

Suitable for the operators of different sizes.



Full-Body Harness Specifications

Model	11011010	11011020	11011030	11011012
Static Load	15 kN	15 kN	15 kN	15 kN
Load Capacity	100 kg	100 kg	100 kg	100 kg
Standard	EN361 / EN358	EN361 / EN358 / EN813	EN361 / EN358 / EN813	EN361 / EN358



Left and Right Pads with Different Colors
Convenient and fast to wear.

D-Ring
Dorsal attachment points connect fall protection system.

Ergonomic U-Shaped Back Pad Design
Scientific distribution load, comfortable and snug.

Thick Replacable EVA Pads
Reduce the cost of replacement.

Tool Sling
Easily holds common tools.

Left and Right Pads with Different Colors
Easy to identify left and right side, which helps to avoid incorrect use and makes them easier and quicker to put on.

Superior Material

Aviation grade aluminum alloy attachments, light-weight and high-strength.

Wearing Comfort

Comfortable and breathable waist pad reduces fatigue from long operation.

Flexible Fit

Multiple adjustment buckles are suitable for users of different sizes.

Safe and Tidy

Pockets allow convenient storage of strap ends to avoid them hanging loosely and getting caught during use.

Superior Quality

Upgraded sewing process and coating techniques make webbing wear-resistant, waterproof and oil-resistant.

Wear-Resistant Material

Wear-resistant waist support plate is replaceable.

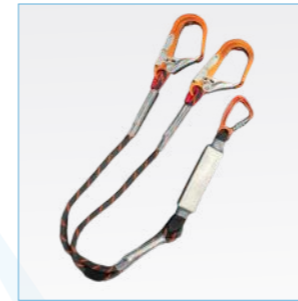
Improved Safety

The green prompt sign on the quick connect buckle indicates that is fastened.

Complementary Personal Protective Equipment

Full-Body Harnesses must be used in conjunction with safety lanyards, to prevent falls and protect the safety of workers at heights.

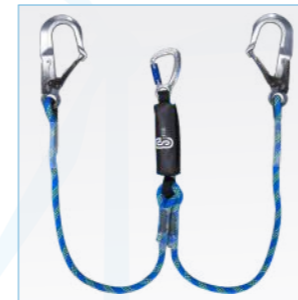
They can be used in a range of industries, including wind energy, construction, telecommunication, electric power, chemical, etc.



12100510
100% Tie-Off Shock-Absorbing Lanyard (Dual Leg)



1210010
100% Tie-Off Shock-Absorbing Lanyard (Dual Leg)



SC-01001
100% Tie-Off Shock-Absorbing Lanyard (Dual Leg)



SC-02001
Shock-Absorbing Lanyard (Single Leg)



SD-01001
Adjustable Work-Positioning Lanyard



SE-01001
Vertical Lifeline With Shock Pack And Fall Arrester

Sealed Self-Retracting Lifeline

Fall Protection for Safety and Free Movement

Working at height can make it challenging for employees to fully concentrate on the task at hand while staying safe at the same time. They can be so engaged with completing a job that they may miss important safety steps. Alternatively, safety equipment can sometimes constrict the technicians' movements and hinder them from efficiently completing their tasks.

3S Lift helps technicians be more productive and feel safe with our Sealed Self-Retracting Lifeline Fall Protection System. This lightweight, durable fall protection has a self-retracting, built-in wire rope that provides guaranteed safety for personnel while allowing them to move freely in the work area. Should a fall occur, the brake will self-engage to arrest the fall. The 3S Lift Sealed Self-Retracting Lifeline allows technicians to perform repairs and installations at height with complete peace of mind.

Sealed Self-Retracting Lifeline Specifications

Model	SRL-15S	SRL-25S	SRL-06SA
Rated Load	140 kg (up to 190 kg when tested according to OSHA 1926.502)	140 kg	140 kg
Maximum Force	6 kN at 100 kg load, 8 kN at 140 kg load		
Wire Rope Length	15 m	25 m	6.2 m
Wire Rope Diameter	5 mm	5 mm	5 mm
Maximum Braking Distance	1 m	1 m	1 m
Weight	13.5 kg	24.8 kg	4.9 kg
Constructing Materials	Aluminum alloy housing, stainless steel components		ABS shell, stainless steel components
Anti-Corrosion Class	C5-M	C5-M	C4-H
Protection Class	IP68 and IP69 K	IP68 and IP69 K	/
Certification	CSA Z259.2.2-2017 EN 360: 2002, GB 24544-2009, ANSI Z359.14-2014, ANSI A10.32-2012, OSHA 1910.66, OSHA 1926.502	EN 360: 2002 GB 24544-2009	CSA Z259.2.2-2017 EN 360: 2002 ANSI A10.32-2012, ANSI Z359.14-2021, OSHA 1910.66, OSHA 1926.502



Carrying Handle

The carrying handle allows for convenient transportation.

Ergonomic Wire Rope Handle

The ergonomic wire rope handle provides added comfort when making connections. It also seals the wire rope after it is withdrawn, protecting it from exposure to the elements.

Swivel Hook

The swivel hook limits twisting of the lifeline.

Impact Indicator

The impact indicator provides visual indication of fall arrest to allow for repair or replacement.

Lock Hook

The lock hook reduces the change of accidental disengagement.

On-Shore and Offshore Use

Designed for both, on-shore and offshore, the SRL-15S and the SRL-25S can operate in the harshest environments.

Self-Retracting

The self-retracting design allows the lifeline to be extended and retracted, always keeping it taut. This provides freedom of movement without compromising safety.

Self-Locking

The self-locking fall arrest mechanism engages instantly, should a fall occur.

Durable Design

The product's durable design features anti-corrosive protection to avoid damage from the environment.

Simple Installation and Disassembly

The reliable, self-locking lifeline is easy to install, use and disassemble.

No Maintenance from User

The lifeline is thoughtfully designed to require no maintenance from the user.

Extended Serviceable Life with Minimal Maintenance Costs

The 3S Lift Sealed Self-Retracting Lifeline offers an extended serviceable life with minimal maintenance costs.

Sealed Design

The sealed design protects the lifeline from the elements and prevents damage from grease, moisture, and dirt.

Evacuation and Rescue Device

Safe Evacuation When Working At Height

The Evacuation and Rescue Device is used for emergency descent and assisted rescue. It enables the fully automatic, controlled evacuation of up to two people simultaneously. The dual-brake mechanism with active heat dissipation ensures reliable performance, even when descending heavy loads from great heights.

Sosaf-2



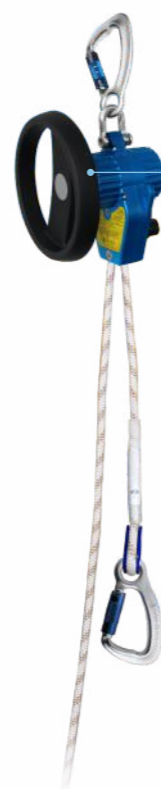
Self-Cooling Double Brake

The dual-brake mechanism with active heat dissipation provides stable descent at uniform speed.

High-Performance Rope

Designed for application on- and offshore, the highly robust kernmantle rope is resistant to wear, fire, saltwater spray, and high and low temperatures.

Sosaf-2R



Escapes and Rescue

With its integrated spoke handwheel, the Sosaf-2R model can be used for hoisting.

Sosaf-3R



Bi-Directional Design

The bi-directional design of the Evacuation and Rescue Device allows for the uninterrupted descent or rescue of several people. Both ends of the rope can be used for descent, enabling continuous abseiling. This allows for more people to be evacuated in a short amount of time. In addition, the intuitive design prevents human error, thus increasing safety.

High-Strength Aluminum Alloy

The high-strength aluminum-alloy construction of the housing is lightweight and corrosion-resistant.

Ball Bearing Rope Routing

The ball bearing design of the rope routing ensures maximum durability and stability.



Evacuation and Rescue Device Specifications

Model	Sosaf-2	Sosaf-2R	Sosaf-3R
Rope Diameter	9.6 mm	9.6 mm	9.6 mm
Descending Speed	~0.9 m/s	~0.9 m/s	~0.9 m/s
Temperature Range	-40°C ~ +65°C	-40°C ~ +65°C	-40°C ~ +65°C
Storage Temperature	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
Relative Humidity	0% ~ 95%	0% ~ 95%	0% ~ 95%
Device Weight (Excluding Rope)	1.9 kg	2.5 kg	3.1 kg
Descent Load	1 person: 150kg, single descent height: 500m 2 persons: 250kg, single descent height: 250m 2 persons: 282kg, max. single descent height: 150m		
Product Validity Period	The actual maximum descent height must be less than the rope length. The maximum descent load can be up to 282 kg in case of emergency. The validity period of 3S Auto Descending Device is 15 years with vacuum packaging. The validity period of 3S Auto Descending Device is 6 years without vacuum packaging.		

Optional Accessories

A flexible anchor point, edge protector, and crow bracket are available upon request. The device kit can also be configured to include additional brackets, straps, edge protectors, t-bars, and other rescue accessories.

Packaging Options

The Evacuation and Rescue Device is available in four different packaging options.

1. Moisture-proof bag: The most convenient option for technicians who carry the device to different locations.
2. Vacuum-sealed, inside a moisture-proof bag: Perfect for cases where the device is kept in a confined space.
3. Vacuum-sealed, inside a sturdy plastic box: Ideal when the device is kept inside the turbine permanently.
4. Vacuum-sealed, inside a C4H corrosion-resistant metal box: Another popular option for units that remain inside the turbine.

Customizable Rope

The rope length can be customized based on usage requirements.

Guide Rail Fall Protection System

TF-R/R5

Fall protection is paramount for safety when working at height. Should a technician slip or miss a rung on the ladder, the Fall Arrester will lock immediately, preventing a fall.

Our fall protection system consists of two components: a guide rail and a Fall Arrester. The Fall Arrester moves with the technician, travelling along the guide rail. Made from high-strength aluminum alloy that is resistant to acid, alkali and corrosion, our fall protection systems are suitable for deployment even in the harshest conditions.

The system is suitable for installation on any aluminum or steel ladder.

SL-R60S / SL-R50E Fall Arrester

The Fall Arrester is attached to the ladder-mounted safety guide rail. It slides along the rail and engages automatically in the event of a fall.

Our corrosion- and abrasion-resistant Fall Arresters are suitable for deployment in demanding conditions, both on- and offshore.

Energy Absorber

To dampen the impact when falling, our Fall Arresters feature an energy absorber. This further improves safety while making the system more comfortable for the user. The SL-R50E and SL-R60S even come with 2 separate energy absorbers, ensuring excellent performance.

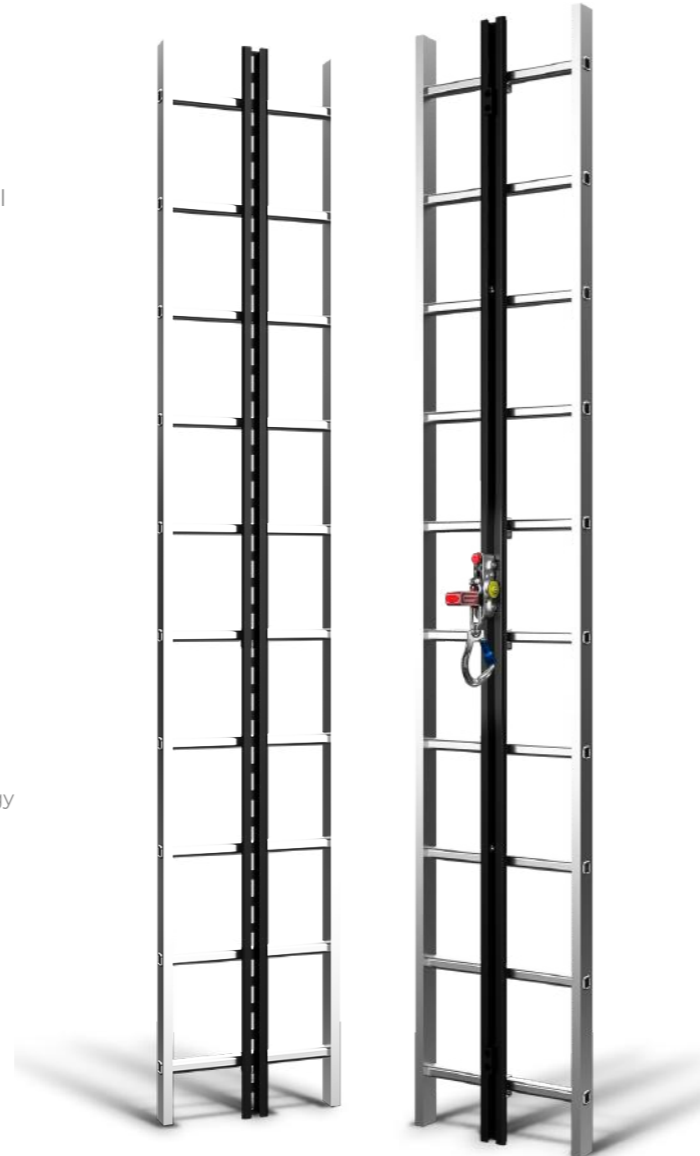
Anti-Inversion Design

The intuitive design of our fall arresters only allows installation in one direction, thus preventing operator error.

Attachment at Any Position

The Fall Arresters can be attached and removed at any position on the guide rail.

TF-R/R5 Guide Rail Fall Protection System



Comfortable and Convenient Use

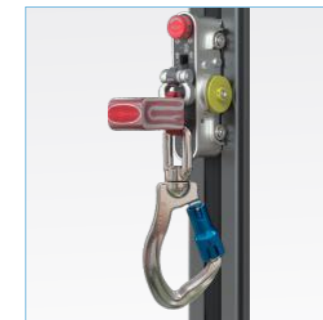
Our Fall Arresters are designed to be particularly comfortable and convenient. They smoothly track the climber's movement while moving along the guide rail and require no manual tugging.

Secondary Locking Mechanism

SL-R60S offers an added level of safety by providing a secondary locking mechanism in addition to the primary one.

TF-R/R5 Guide Rail Fall Protection System Specifications

Guide Rail Type	Inner rail type
Corresponding Fall Arrester	SL-R60S, SL-R50E
Ladder	Aluminum ladders and steel ladders
Max. Static Load	16 kN
Compliant with Standard	EN 353-1
Certification	CE

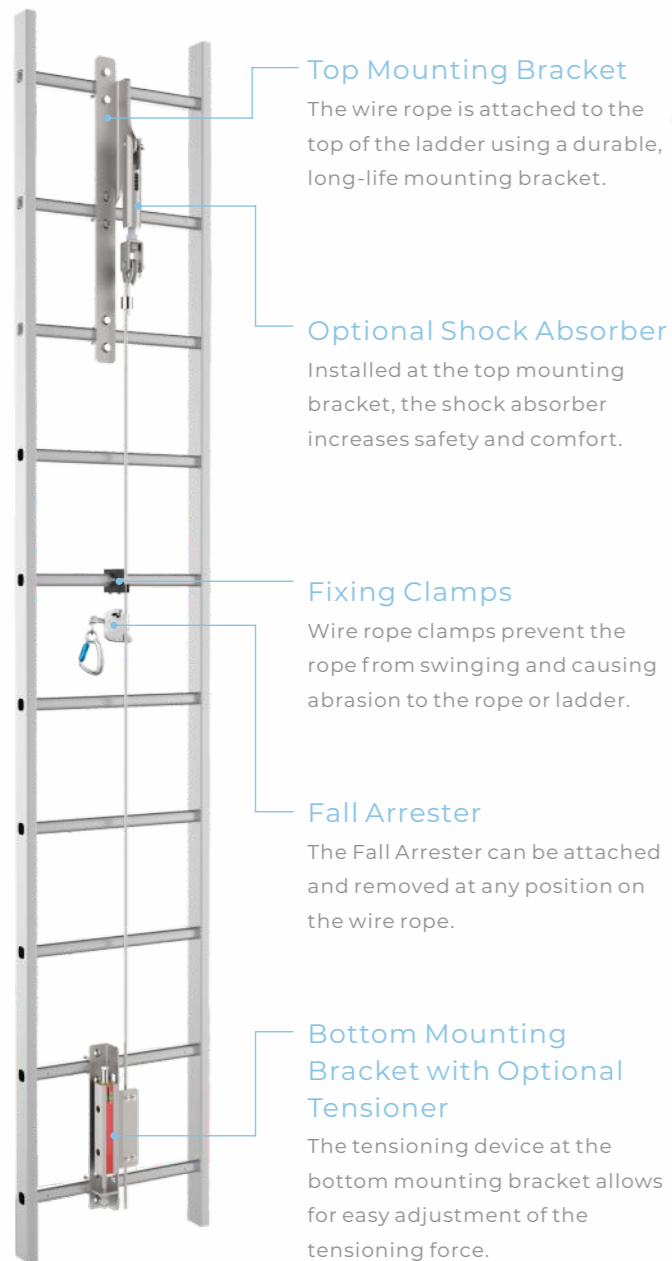


Fall Arrester Specifications

Model	SL-R60S	SL-R50E
Corresponding Fall Protection System	TF-R/R5	TF-R/R5
Rated Load	140 kg	140 kg
Max. Static Load	16 kN	16 kN
Compliant with Standard	ANSI Z359.16 ANSI A14.3 CAN/CSA Z259.2.4 AS/NZS 1891.3 EN 353-1	EN 353-1 ANSI Z359.16 CSA Z259.2.4
Certification	CE	CE

Wire Rope Fall Protection System

TF-83 / TF-80 / TF-10



Top Mounting Bracket

The wire rope is attached to the top of the ladder using a durable, long-life mounting bracket.

Optional Shock Absorber

Installed at the top mounting bracket, the shock absorber increases safety and comfort.

Fixing Clamps

Wire rope clamps prevent the rope from swinging and causing abrasion to the rope or ladder.

Fall Arrester

The Fall Arrester can be attached and removed at any position on the wire rope.

Bottom Mounting Bracket with Optional Tensioner

The tensioning device at the bottom mounting bracket allows for easy adjustment of the tensioning force.

Our wire rope fall protection system prevents falling and keeps personnel safe while working at height. It is made up of two components: a guide wire rope and a Fall Arrester.

The TF-83 / TF-80 / TF-10 Wire Rope Fall Protection System can be installed on any aluminum or steel ladder. It consists of mounting brackets, a wire rope, tensioning device and wire rope clamps. The wire rope is installed between the upper and lower mounting brackets.

TF-83 / TF-80 / TF-10 Fall Protection System Specifications

Model	TF-83 / TF-80 / TF-10
Safety Wire Rope	8.3 mm / 8.0 mm / 9.5 mm
Corresponding Fall Arrester	SL-810S, SL-820S
Shock Absorber	Optional
Tensioner	Optional
Compliant with Standard	EN 353-1, ANSI Z 359.16, CSA Z259.2.5
Certification	CE, ETL, OSHA compliant

SL-810S / SL-820S Fall Arrester

The SL-810S / SL-820S Fall Arrester slides smoothly along the wire rope of the TF-83 / TF-80 / TF-10 Wire Rope Fall Protection System. It slides along the rope and engages automatically in the event of a fall.

Our corrosion- and abrasion-resistant Fall Arresters are suitable for deployment in harsh conditions, both on- and offshore. They can be attached and removed at any position on the rope and also feature an anti-inversion design, which prevents incorrect operation.

Secure Locking System

The internal spring mechanism of the SL-810S / SL-820S ensures secure locking.

Optional Energy Absorber

To dampen the impact when falling, the Fall Arrester can be equipped with an energy absorber. This further improves safety while making the system more comfortable for the user.

Anti-Inversion Design

The intuitive design of the SL-810S allows installation only in one direction, thus preventing operator error.

Stainless Steel

The stainless steel Fall Arrester is designed for adverse conditions.

8 mm to 10 mm Wire Ropes

The SL-810S / SL-820S can accommodate 8 to 10 mm wire ropes.



Fall Arrester Specifications

Model	SL-810S	SL-820S
Corresponding Fall Protection System	TF-83 / TF-80 / TF-10	TF-83 / TF-80 / TF-10
Rated Load	140 kg	140 kg
Max. Static Load	16 kN	16 kN
Compliant with Standard	EN 353-1	EN 353-1
Certification	CE	CE

