



SAFE | SIMPLE | SPECIALIZED  
ACCESS EQUIPMENT



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# Service Lift

The Most Efficient and Ergonomic  
Way to Ascend Towers

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# 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.



## Fully Independent Lifting and Safety Systems

The Service Lift has two independent braking mechanisms: the lifting system and the safety system. These redundant braking systems ensure maximum safety and reliability.

## 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.

## 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.

## 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.



# Proven Safeguards

## Experience in Providing Comprehensive Safety Systems

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

### 25,000 Installations Worldwide

3S Service Lifts have been installed in 25,000 wind turbines worldwide.

### Mechanical Interlock

The mechanical interlock function is an essential safety feature. It ensures that the guard rail is closed and locked when the lift is in use. The guard rail can be opened using a key that is attached to the cabin, but only when the lift is at a platform. Furthermore, the lift cannot leave the platform until the guard rail has been locked and the key removed. This ensures maximum safety whenever personnel are entering or exiting the lift.

### Platform Indicator

When the Service Lift reaches a platform, an indicator lights up inside the lift, allowing the operator to exit safely.

### Electromagnetic Door Lock

The electromagnetic door lock keeps the door closed when the lift is in motion and automatically disengages when the lift reaches a platform. Manual override is possible for escape during emergencies.

### Escape Exits

The Service Lift is equipped with several escape exits for evacuation in an emergency. Depending on the lift model, personnel can evacuate through the roof, floor, entry door, or a special evacuation panel, thus accommodating any evacuation scenario.

### 60,000 Cycle Fatigue Test for Traction Hoist

The Service Lift's traction hoist has passed 60,000 cycles of fatigue testing.

## Wire Rope-Guided Service Lift Specifications

Rated load	240 - 450 kg
Capacity	2 - 3 persons
Operation speed	9, 10.7, 18 m/min
Operating temperature range	-20°C – +60°C
Idle temperature range	-60°C – +75°C (custom-made low temperature)
Rated voltage	400 V / 690 V, 50 Hz / 60 Hz
Weight	200 - 220 kg
Dimensions	960 x 600 x 2980 mm – 1190 x 1010 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	240 - 350 kg
Capacity	2 - 3 persons
Operation speed	9, 10.7, 18 m/min
Operating temperature range	-20°C – +60°C
Idle temperature range	-60°C – +75°C (custom-made low temperature)
Rated voltage	400 V / 690 V, 50 Hz / 60 Hz
Weight	220 kg
Dimensions	960 x 600 x 2980 mm – 1190 x 1010 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	240 kg – 450 kg (customizable)
Capacity	2 – 5 persons
Operation speed	18 m/min
Operating temperature range	-30°C – +60°C
Idle temperature range	-60°C – +75°C (custom-made low temperature)
Rated voltage	400 V / 690 V, 50 Hz / 60 Hz
Weight	280 - 400 kg
Dimensions	1090 x 750 x 2570 mm – 1600 x 960 x 2650 mm