

HIGH LEVEL ACCESS SOLUTIONS



HAILO WIND SYSTEMS Products





OVERVIEW







We introduced professional ladder systems into the wind industry. High-quality rungs with unique beading and a special grip profile ensure that our ladder quality is worldwide appreciated. Also available with rail- or rope-guided fall arrest systems.



CUSTOMIZED SERVICE LIFTS

We develop service lifts precisely tailored to our customer's needs and requirements. Thanks to our comprehensive expertise, our ladder- and rope-guided service lifts are characterized by their reliability, quality, safety, smart design and low lifecycle costs.



CLIMB ASSISTS & MOVABLE PLATFORM

Our innovative climb assists, as well as our movable platform C-lift are smart alternatives to service lifts and are also ideally suitable for retrofit projects. Benefit from their extensive advantages and enjoy a new climbing experience.

HIGH LEVEL ACCESS SOLUTIONS

Access technology meets highest standards

With its decades of experience, Hailo Wind Systems has a comprehensive range of professional products and system solutions. Service lifts, ladders, fall arrest systems, climb assists, movable platform, tower equipment and much more:

Our product portfolio always offers the very best quality – for safe, reliable and high quality access systems in wind turbines.

With this sustainable strategic approach, we are one of the leading suppliers for ladders, fall arrest systems and service lifts and access as well as climbing technology. Worldwide.







WE INTRODUCED THE PROFESSIONAL LADDER SYSTEMS INTO WIND TURBINES!

By using the built-in ladder system in wind turbines, you can really experience the safety benefits of high quality components. Only reliable ladder systems can give you the reassurance of safety that should be self-evident.

As the inventor of the aluminium ladder 50 years ago, Hailo introduced the professional ladder system into wind turbines. Since this pioneering achievement, we have continuously developed our ladder systems and brought innovative solutions to the market, such as heated, self-deicing rungs or rails with LED lights.

Today we offer an extensive range of ladders that are unique in terms of quality and variety. High-quality rungs with antislide-profile and patented beading ensure that our ladders are well-known around the world. Naturally, our ladders are internationally certified and available in many widths, lengths and with customized rung distances.

Regardless whether they are for onshore, offshore, cold climate or lattice towers: With our huge range of ladders and accessories, such as ladder connectors, universal anchorage points, rung repair kits or assembly aids, we will always offer the perfect ladder system for you.



QUALITY

Patented, double-beaded rung connection for maximum durability.



RELIABILITY

More than 50 years of manufacturing expertise and worldwide service experience.



SAFETY

High-quality rungs with anti-slide profile and customized rung distance.



YOUR BENEFITS FROM HAILO WIND SYSTEMS LADDERS:

- Suitable for onshore, offshore and lattice towers
- ✓ High-quality materials and processing
- ✓ Patented beading
- ✓ Non-slip rungs with special anti-slide profile
- ✓ Individual rung distance
- ✓ Worldwide installation, maintenance and repairs
- Innovative rope- and rail-guided fall arrest systems
- Complete range of ladder accessories such as rung adapters, rail connectors and ladder brackets
- Customized solutions like nacelle ladders or mounting aids





SERVICE LIFTS



TOPlift + (Edition / Max)

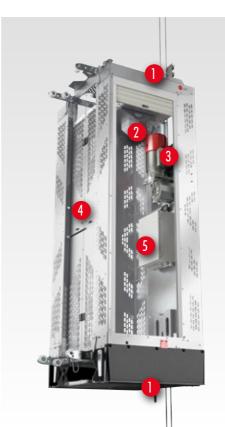
The TOPlift+ from Hailo Wind Systems sets new standards for ladder-guided service lifts. Besides of several innovative safety features, the TOPlift+ particularly stands out due to its great reliability and high-quality processing.

Continuous enhancements with improved details and new components have made the TOPlift+ even more robust, reliable and powerful. For example, downtimes and maintenance times have been reduced significantly, while the levels of safety and quality have been increased. This has caused professional service lifts which exceed even the highest requirements of our long-standing customers.

Naturally, we offer all service lift models in customized versions to meet, for example, the particular requirements of offshore wind power plants.

In addition they are also available in compliance with the Machinery Directive 2006/42/EC, CE certificate and as an option available with transparent macrolon or as a cold climate versions (CCV).

Also, all TOPlift+ models are ideal for retrofits in existing wind turbines or nacelle turbines.



SAFETY FUNCTIONS

All TOPlift+ models come with professional monitoring and safety functions such as the following:

- 1) Optimized travel route limits and additional limit switches above and below the cabin ensure maximum safety.
- 2 High-quality fall arrester to ensure speed limitations while ascending or descending.
- 3 Reliable hoist in accordance with international (quality) standards.
- 4 Smart folding cabin door on the rear for direct access to the ladder in an emergency or for servicing.
- 5 State-of-the-art control cabinets for a better overview and intuitive access to the E-control. Optionally available with innovative display!

TOPlift+	11+	L2+	L3+
Payload / Persons [max.]	250 kg / 2 Persons	250 kg / 2 Persons	300 kg / 3 Persons
Speed	18 m / min at 50 Hz	18 m / min at 50 Hz	18 m / min at 50 Hz
Operational temperature range	-20 °C to +50 °C Available on request to -35 °C (L1 only)	-20 °C to +50 °C Available on request to -35 °C (L2 only)	-20 °C to +50 °C Available on request to -35 °C (L3 only)
Cabin dimensions LxWxH [mm]	962 x 950 x 2750	962 x 800 x 2750	962 x 1200 x 2750
Space requirement for clearance of the cabin	1080 x 1080	930 x 1080	1300 x 1080



SERVICE LIFTS



GLOBALlift + (Edition)



SAFETY FUNCTIONS

All GLOBALlift models come with professional monitoring and safety functions such as the following:

- Optimized travel route limits and additional limit switches above and below the cabin ensure maximum safety.
- 2 High-quality fall arrester to ensure speed limitations while ascending or descending.
- 3 Reliable hoist in accordance with international (quality) standards.
- 4 State-of-the-art control cabinets for a better overview and intuitive access to the E-control. Optionally available with innovative display!
- 5 New lateral guide profiles that optimise the guiding characteristics and enable more comfortable usage.

GLOBALlift H / H+ Series	н	H2+	H4	H5.2
Payload / Persons [max.]	250 kg / 1 Person	250 kg / 2 Persons	250 kg / 2 Persons	250 kg / 2 Persons
Speed	18 m / min at 50 Hz	18 m / min at 50 Hz 22 m / min at 60 Hz	18 m / min at 50 Hz	24 m / min at 60 Hz
Operational temperature range	-15 °C to +40 °C Available on request -35 °C	-20 °C to +40 °C	-20 °C to +40 °C	0 °C to +55 °C
Cabin dimensions LxWxH [mm]	638 x 670 x 2915	580 x 986 x 3119	703 x 1060 x 2921	815 x 1102 x 3074
Space requirement for clearance of the cabin	720 x 720	1300 x 700	1200 x 800	1200 x 940
Rope distance [mm]	630	1150	1020	1045
GLOBALlift R / R+ Series	R1+	R2+	R4+	

	kope distance [mm]	030	1150	1020
	GLOBALlift R / R+ Series	R1+	R2+	R4+
	Payload / Persons [max.]	250 kg / 2 Persons	250 kg / 2 Persons	250 kg / 2 Persons
	Speed	$18~\mathrm{m}$ / min at $50~\mathrm{Hz}$	18 m / min at 50 Hz	18 m / min at 50 Hz
	Operational temperature range	-25 °C to +50 °C Available on request -30 °C and +35 °C	-25 °C to +50 °C Available on request -30 °C and +35 °C	-25 °C to +50 °C Available on request -30 °C and +35 °C
	Cabin dimensions LxWxH [mm]	683 x 1189 x 2882	683 x 1033 x 2882	780 x 778 x 2882
9	Space requirement for clearance of the cabin	1300 x 800	1200 x 800	900 x 900
	Rope distance [mm]	1150	1020	746



With GLOBALlift R, Hailo Wind Systems achieved its goal of manufacturing locally, quickly and economically all over the world a service lift that fulfils the highest quality requirements.

The new GLOBALlift H+ (Edition) models were developed on the basis of a rope-guided 2-man cabin but are also suitable for transporting one person. State-of-the-art safety systems, such as the constantly improved arresters, hoists and overload protection systems, always ensure maximum safety.

The modular aluminum structure with its special design allows an improved all-round view, while the compact cabin affords maximum protection and comfort. Naturally, we offer all service lift models in customized versions to meet, for example, the particular requirements of offshore wind power plants.

In addition all of our GLOBALlift+ service lifts are also available in compliance with the Machinery Directive 2006/42/EC, as cold climate versions (CCV) and with CE certificate worldwide upon request.

Also, all GLOBALlift models are ideal for retrofits in existing wind turbines or nacelle turbines.

MOVABLE PLATFORM



C-LIFT — THE SMART MOVABLE PLATFORM

The C-lift is the smart movable platform from Hailo Wind Systems. Driven via two steel ropes and guided by the fall arrester rail of the ladder system, the movable platform is operated via wireless connection by a drive unit installed on the ground. The C-lift transports one person (up to 120 kg) reliably and safely.

The C-lift not only impresses with its high cost-effectiveness as well as easy installation and operation, but also due to smart features such as its send function, automatic operation (when the treading surfaces are folded in), wireless signal connection, reduced maintenance requirements and its suitability for retrofits.

Versatile safety features such as limit switches for automatic switching off, overload detection, wireless signal redundancies and an emergency-off function, as well as the mandatory two-hand operation, ensure our high Hailo Wind Systems safety standard.

HIGHLIGHTS

- ✓ Cost-efficient & smart
- Faster & more comfortable
- Easy operation & maintenance







HUGE TIME SAVINGS

Up to 50 % faster ascent and descent (approx. 150 h/year)



VERSATILE SAFETY FUNCTIONS

Reliable system of safety services



HIGH COST REDUCTIONS

Extremely large reduction in total investment per wind turbine



BETTER WORKING CONDITIONS

Significant improvement in working conditions



EASY TO USE

Simple installation and operation



FLEXIBLE TO USE

Ideal for retrofit projects



LOW MAINTENANCE REQUIREMENTS

Minimal maintenance and training requirements

C-lift	TECHNICAL DATA
Dead Weight	26 kg without drive unit and control
User weight	Max. 120 kg
Speed	18 m/min
Operational temperature range	-20 °C to 50 °C
Compatible fall arrest systems	H-50.2, H-50 and other
Ladder inclination	-3 ° to +15 °
Power	1,1 kW
Functions	$\label{prop:continuous} \mbox{Automatic travel, send function, wireless signal communication and many more.}$
Safety functions	Overload detection, limit switches, automatic switching off, emergency-off function, two-hand operation and many more.
Safety information	Personal safety ensured via compatible fall arrester. The C-lift is not a substitute for fall protection or PPE!



FALL ARREST SYSTEMS





Ladder with pre-assembled fall arrest rail Hailo H-50.2

FALL ARREST SYSTEMS FROM HAILO WIND SYSTEMS - SAFETY AT EVERY LEVEL

Our fall arrest systems stand for maximum safety and quality. All systems comply with PPE directive (EU) 2016/425 for climbing protection systems, are internationally certified and are suitable for use as reliable fall protection on fixed ladders.

All of the accompanying fall arrest devices, including fixed guides, are also equipped with integrated shock-absorbing elements to minimise impact forces and have been in use successfully worldwide for many years.

OUR FALL ARREST SYSTEMS BENEFITS



MANUFACTURER KNOW-HOW

Expertise, experience and know-how from the specialists.



CUSTOMIZED PRODUCTS

Excellent solutions for individual requirements.



COMPREHENSIVE SERVICES

Installation, maintenance and more from one partner.



HIGH QUALITY STANDARDS

We are continuously enhancing all of our products.



1 H-50.2 FALL ARREST SYSTEM

Our approved rail-guided fall arrest system for maximum safety and reliability:

- ✓ High-quality aluminium extruded profile
- ✓ Worldwide appreciated
- ✓ Continuous, frame-less grooved design
- Excellent durability
- ✓ Fast installation
- ✓ Long-term safety



2 HWS-FAS 8 FALL ARREST SYSTEM

Our new cost-efficient rope-guided fall arrest system with many benefits:

- ✓ Can be used regardless of ladder and rung width
- ✓ Very easy, fast installation
- ✓ Available with 8 mm steel or stainless steel rope
- Steel insert for reduced rope elongation
- ✓ Ideal for retrofits
- ✔ Practical indicator for correct rope tension



FALL ARREST DEVICES

	H-50.2 fall arrest system	HWS-FAS 8 fall arrest system	
Туре	PARTNER H-50.2, rail-guided	HWS SKC EVO, rope-guided	
Weight incl. shock absorber (approx.)	1,200 kg	0,500 kg	
User weight	50 to 136 kg	50 to 140 kg	
Possible angle	-3 ° to 15 °	-15 ° to 15 °	
Features	Fall protection rail can be used simultaneously with up to 5 persons	Fall protection rope can be used simultaneously with up to 5 persons	
	Very simple attachment to the ladder	Very simple attachment to the ladder	
	Runner detachment at any time	Runner detachment at any time	
	Very short fall arrester slip path	Very good running characteristics and easy operation	
	Excellent grip on rail even if dirty or oily	Minimal maintenance and repairs	

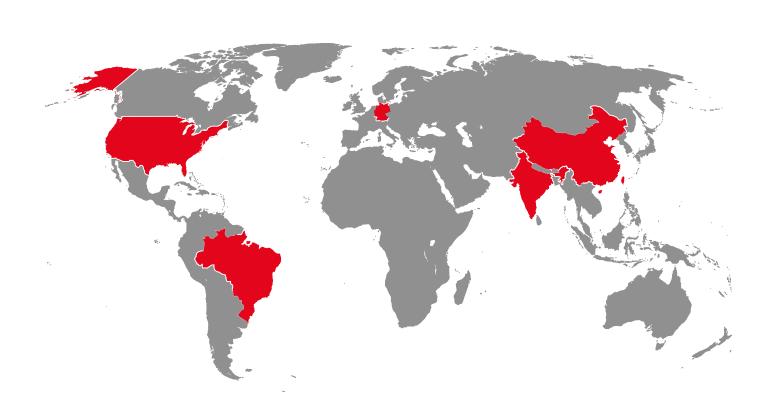


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