

HIGH LEVEL ACCESS SOLUTIONS



HAILO WIND SYSTEMS
Products

English

HIGH LEVEL ACCESS SOLUTIONS


Climbing technology for highest standards

With its decades of experience, Hailo Wind Systems has a comprehensive range of high quality products and system solutions for the professional equipment of wind turbines.

Whether service lifts, ladders, fall arrest systems, climb assists, movable platform, tower equipment and much more: Safety, reliability and quality are always our top priority.

Hailo Wind Systems - High Level Access Solutions





” Hailo Wind Systems stands for excellent quality, guaranteed every day by every one of our employees.

THE FASCINATION OF WIND ENERGY

We stand for performance and passion

As inventor of the aluminum ladder in Europe over 50 years ago, Hailo introduced the professional ladder systems into the wind turbines. So Hailo was there right from the start!

Today, Hailo Wind Systems is one of the world's market and technology leaders for safe and reliable access and climbing solutions. With our premium ladder systems, customized service lifts, smart climb assists, convenient movable platforms, modern fall arrest systems and much more, we provide everything for professional access systems – not only in wind turbines.

Along with our comprehensive range of services, our international, GWOcertified training center, the Safety And Rescue Academy (S.A.R.A.), sets the standard for safety training and education in the wind industry. With our own subsidiaries and service centers on 4 continents, we provide our customers professional, excellently trained contact persons and service technicians worldwide.

We are proud of our passionate contribution to sustainable energy generation and increased safety in wind turbines. And you can feel this enthusiasm in all of our projects.

**43.000
PROJECTS**

Successfully finished in the
wind industry

**77
COUNTRIES**

Imported our high level
quality products

**2.300
CUSTOMERS**

Are associated with our
products or services

OVERVIEW



LADDERS & FALL ARREST SYSTEMS

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 E-Lift and H-Lift climb assists, as well as our new 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.





LADDERS



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

Machiney Directive 2006/42/EC

CE Compliance available worldwide on request

SERVICE LIFTS



TOPlift+ (Edition)

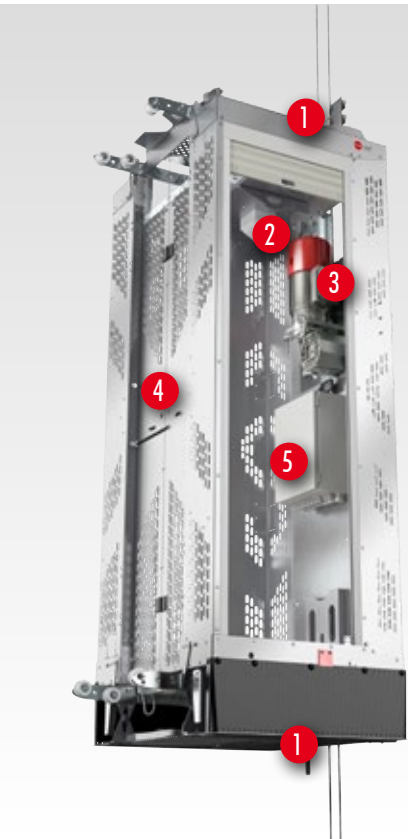
The TOPlift+ from Hailo Wind Systems sets new standards for ladder-guided service lifts. Besides of several innovative safety features, the TOPlift+ particularly stands out due to its great reliability and high-quality processing.

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!

★

NEW FEATURES OF TOPLIFT +

- ✓ Improved hoists & fall arresters
- ✓ E-control with innovative display (optional)
- ✓ Many improved details

TOPlift+	L1+	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

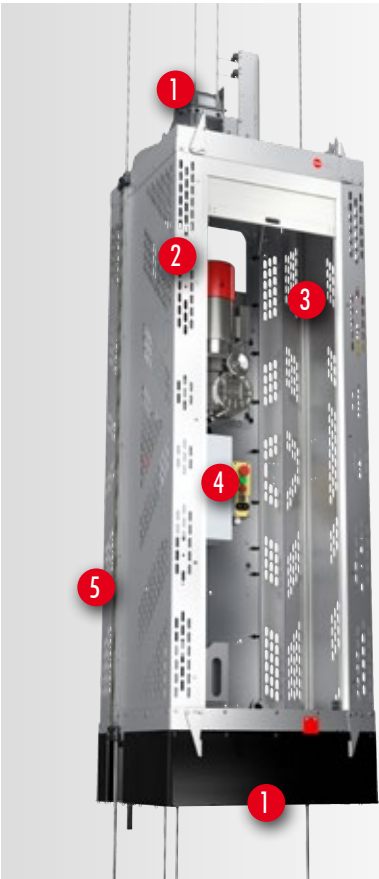
Machinery Directive 2006/42/EC

CE Compliance available worldwide on request

SERVICE LIFTS



GLOBALlift+ (Edition)



SAFETY FUNCTIONS

All GLOBALlift 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 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.

NEW FEATURES OF GLOBALlift+

- ✓ Improved hoists & fall arresters
- ✓ E-control with innovative display (optional)
- ✓ Many improved details

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.

GLOBALlift H / H+ Series	H1	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+	
Payload / Persons [max.]	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	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	
Space requirement for clearance of the cabin	1300 x 800	1200 x 800	900 x 900	
Rope distance [mm]	1150	1020	746	

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	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 Clift is not a substitute for fall protection or PPE!



CLIMB ASSIST

E-LIFT – THE INNOVATIVE CLIMB ASSIST

The E-Lift is a portable, motorised climb assist system that was specifically designed for wind turbines.

Thanks to its unique functionality and modern technology, the E-lift creates time savings of up to 50 % and reduces the physical burden by 80 %. Due to its innovative technology, the speed is individually adapted to the user’s weight, which makes it considerably more efficient and comfortable to use compared to all other climb assists.

Thanks to its generously dimensioned battery, the E-Lift can be flexibly brought to any location and is therefore the ideal climb assist for wind farms of any size. Based on the numerous safety functions, it is reliable and safe to use – not only in wind turbines.


HIGHLIGHTS


- ✓ Innovative technology
- ✓ High cost-effectiveness
- ✓ Automatically adaptive tractive force



- 
HUGE TIME SAVINGS
 Up to 50 % faster ascent and descent (approx. 150 h/year)
- 
GREATLY REDUCED EFFORT
 Up to 80 % less physical exertion
- 
HIGH COST REDUCTIONS
 Significant reduction in total investment per wind turbine
- 
BETTER WORKING CONDITIONS
 Significant improvement in working conditions
- 
LONG SERVICE LIFE
 Approximately 1,500 m ascent and descent thanks to powerful battery
- 
FLEXIBLE TO USE
 Ideal for retrofit projects and temporary use
- 
LOW MAINTENANCE REQUIREMENTS
 Optimised maintenance tasks and minimal training requirements



E-Lift	TECHNICAL DATA
Dead weight	11,5 kg
User weight	50 to 130 kg
Ascent & descent time savings	Max. 50 %
Assistance force	80 % of user weight
Speed	Max. 24 m/min
Operating temperature	0 °C to 50 °C (-10 °C if battery > 0 °C)
Range	Approximately 1,500 m (about 9 ascents and descents)
Battery	Li-Ion, 11,6 Ah, charging time: 5 h, service life after 1.000 charges: approx. 80 %
Ladder inclination	Max. 0 - 3 ° or 5 ° per 5 m
Safety information	Not a device for passenger transport. No fall protection/PPE.


STANDARDS

✓ Machinery Directive 2006/42/EC	✓ EMC Directive 2014/30/EU
✓ ISO 9001:2015	✓ CE conformity



H-LIFT – THE EFFICIENT CLIMB ASSIST

The H-lift is a modern climb assist system that was specifically designed for cost-effective use in wind turbines. It reduces ascent and descent times by up to 50 % and the physical burden of climbing by about 40 kg.

To save costs, all major components are mobile and can be installed in a few steps. The drive and control unit is only required once per system, making it particularly efficient to use in wind farms. Thanks to many improvements, high set-up costs and expensive investments are a thing of the past.

The operation of the H-Lift was also specifically tailored to the requirements of wind turbines. Furthermore no training course or intensive maintenance is required either.

And thanks to the numerous safety functions, it is reliable and safe to use – not only in wind turbines.


HIGHLIGHTS


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





- 
HUGE TIME SAVINGS
 Up to 50 % faster ascent and descent (approx. 150 h/year)
- 
REDUCED EFFORT
 Up to 40 kg less physical load
- 
ENORMOUS COST REDUCTIONS
 Extremely large reduction in total investment per wind turbine
- 
BETTER WORKING CONDITIONS
 Significant improvement in working conditions
- 
SIMPLE INSTALLATION
 Simple installation and operation
- 
FLEXIBLE TO USE
 Ideal for retrofit projects and temporary use
- 
VERY LOW MAINTENANCE REQUIREMENTS
 Minimal maintenance and training requirements

H-Lift	TECHNICAL DATA
Dead weight (motor unit / control)	20 kg (14 kg / 6 kg)
User weight	60 to 120 kg
Support	Up to 40 kg
Adjustable speed range	25 - 35 m/min
Operating temperature	-10 °C to 45 °C
Ladder inclination	Max. 0 – 3 ° or 5 ° per 5 m
Safety information	Not a device for passenger transport. No fall protection/PPE.


STANDARDS [PENDING]

• Machinery Directive 2006/42/EC	• EMC Directive 2014/30/EU
• ISO 9001:2015	• CE conformity



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.



Ladder with HWS-FAS 8 fall arrest system




HWS SKC EVO fall arrest device

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




 Our PARTNER H-50.2 is DIN EN 353-1:2014 certified

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



 Our HWS SKC EVO is DIN EN 353-1:2014 certified and not compatible with our H-8 fall arrest system

FALL ARREST DEVICES

	H-50.2 fall arrest system	HWS-FAS 8 fall arrest system
Type	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

The image shows two technicians in full safety gear, including yellow helmets and black work clothes, working on the exterior of a white wind turbine nacelle. They are positioned on a metal platform with safety railings. The technician on the left is standing and leaning forward, while the one on the right is kneeling. Both are wearing harnesses and have various tools and equipment attached to their belts. The background features a vast, green, hilly landscape under a clear blue sky, with another wind turbine visible in the distance.

HAILO WIND SYSTEMS

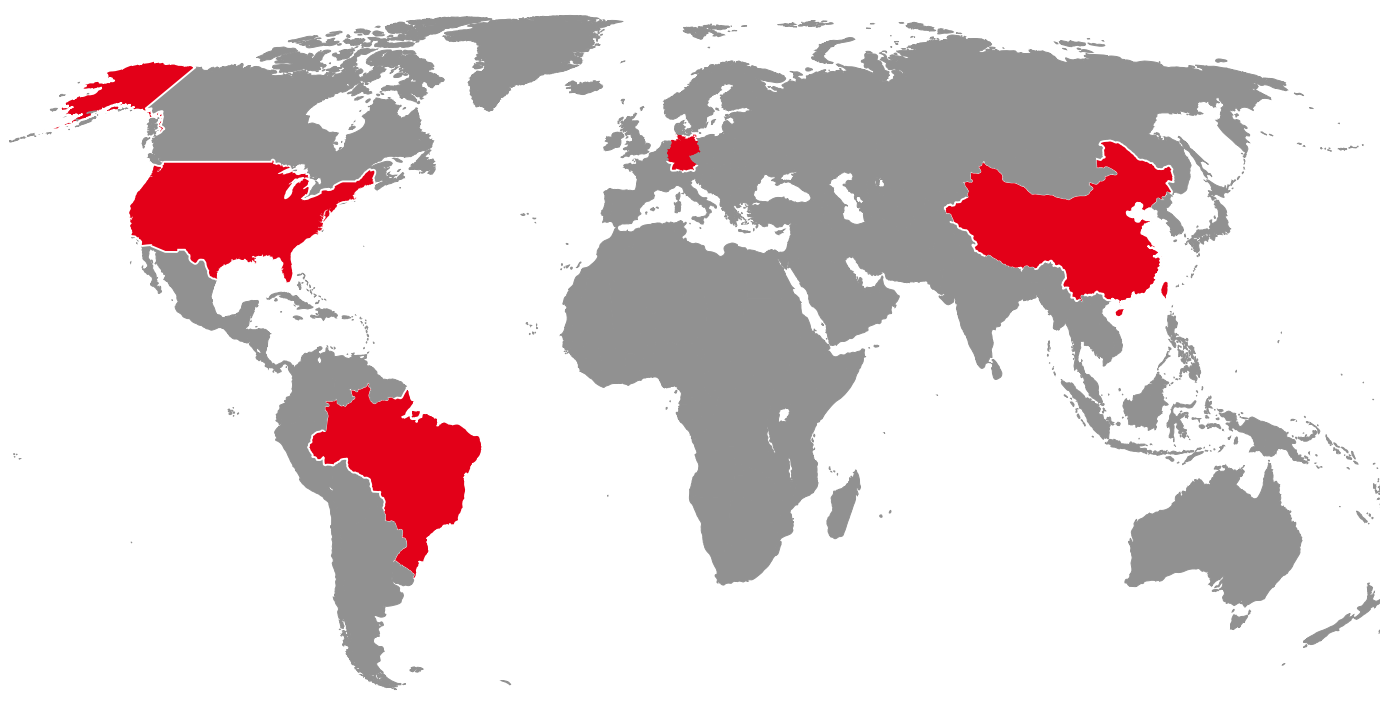
Your global partner for access solutions

Quality, reliability and safety always have top priority for our products and services.

Whether service lifts, ladders, fall arrest systems, climb assists, movable platform, tower equipment, hoists, fall arresters, e-controls, ropes or individual requirements: Hailo Wind Systems as your global partner enables you to achieve new heights with safety.

Hailo Wind Systems – High Level Access Solutions.

GLOBAL CONTACT



Hailo Wind Systems GmbH & Co. KG

Kalteiche-Ring 18
35708 Haiger · Germany
Phone: +49 (0) 27 73/82 1410
Fax: +49 (0) 27 73/82 15 61
info@hailo-windsystems.com
www.hailo-windsystems.com

Hailo Wind Systems (Guangzhou) Co., Ltd.

Room 2005, Jian Bo Hui Building,
No.288-298 Tang An Road, Tianhe District
Guangzhou, 510665 China
Phone: +86 (0) 20 8527 6850
Fax: +86 (0) 20 8527 6821
info@hailo-windsystems.cn
www.hailo-windsystems.com/cn

Ningbo Hailo Wind Systems Co., Ltd.

No.12 Pushun Road, Beilun District,
Ningbo, 315803 China
Phone: +86 (0) 574 8687 6625
Fax: +86 (0) 574 8687 6603
info@hailo-windsystems.cn
www.hailo-windsystems.com/cn

Hailo Wind Systems USA Inc.

1395 Mineral Springs Road
Elberton, GA 30635 · USA
Phone: +1 706 283 4500
Fax: +1 706 283 4600
info@hailo.us
www.hailo-windsystems.us

Hailo Wind Systems do Brasil

Av. Antônio Artioli, 570 – BLC 1 Flims,
SLC 202 – Swiss Park, Swiss Park Office
13.049-900 – Campinas – SP
Phone: +55 19 3512-9701
info@hailo-windsystems.br
www.hailo-windsystems.com/br