



# About Us

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| Offering professional rescue escape  
and electric lifting solutions

**18** Year

Industry specialization

**20** K SQ.M

Manufacturing Complex

**40+**

Specialized Researchers

**6**

Worldwide Offices

# About the Market

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**93**

Global Markets

**59<sub>k</sub>**

Use Cases

**10<sub>+</sub>**

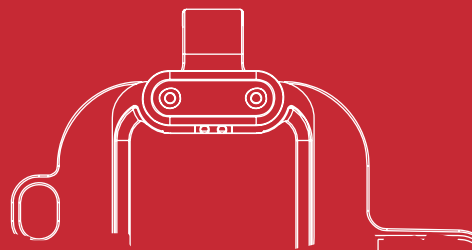
National key project planning products

**10<sub>k</sub>**

Global Users

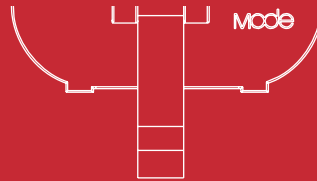
## Industry coverage

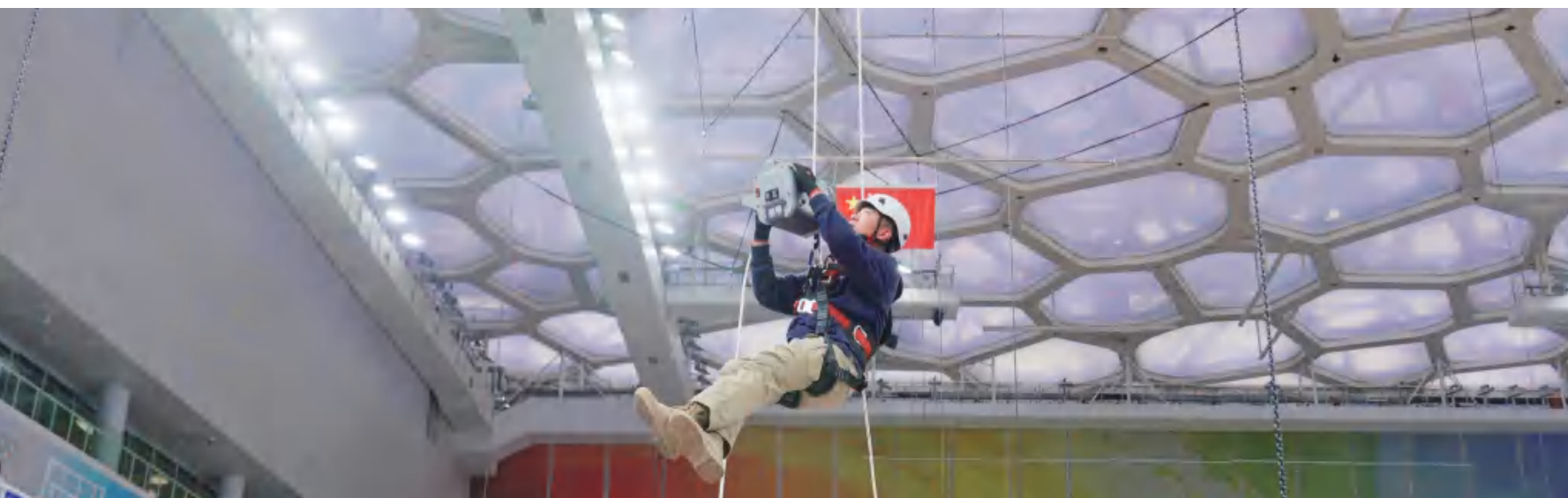
Industry, Construction, Wind Energy, Power, Building Maintenance, Oil & Gas and Fire Fighting.



# Smart Spider Battery-Powered Ascender

Safe, Reliable / Long-lasting Endurance





## PRODUCT INTRODUCTION

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- Fast, secure, and reliable, Smart Spiders efficiently transport you to required heights, depths, or complex terrains for various tasks such as installation, inspection, maintenance, repair, and rescue.
- Made from aluminum alloy, it is lightweight, durable, and wear-resistant, allowing for easy installation and disassembly. Internationally certified standard ropes and batteries ensure that your actions are safe, flexible, enduring, time-saving, and cost-effective.

# PRODUCT FEATURES

## MODE'S INDEPENDENTLY DEVELOPED ENERGY MANAGEMENT SYSTEM.



- Rapid Charging and Long-Lasting Battery Life.
- Equipped with simultaneous charging and discharging protection, as well as safeguards against undervoltage, overcurrent, overdischarge, short circuit, and temperature extremes.
- Remote wireless control ensures a stable signal.

**200KG**

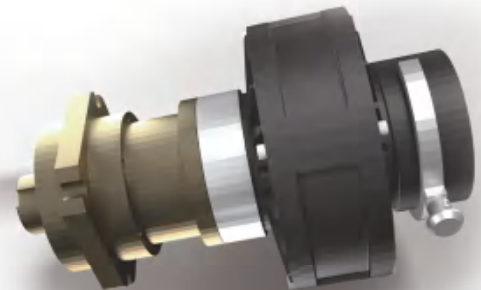
Safe Load

**360M**

Maximum climbing distance

## AN UPGRADED TRANSMISSION ASSEMBLY LEADS TO AN ENHANCED USER EXPERIENCE.

- Featuring a digital motor, it generates low heat and offers stepless speed regulation for precise control.
- Equipped with a multi-stage planetary gearbox, it boasts a compact size, high torque, and abundant power.
- Featuring a power failure brake, it automatically engages braking when power is lost, thereby eliminating the risk of losing control.



# FUNCTION INTRODUCTION



**SPEED CONTROL HANDLE**  
(speed can be adjusted by twisting the handle)



**ROPE GUIDE WHEEL**  
(Suitable for 10.5 mm ~11 mm static rope according to EN1891 standard)

**UP KEY**

**POWER BUTTON**

**DOWN KEY**

**EMERGENCY STOP BUTTON**



**EMERGENCY DESCENT BUTTON**  
(Drop manually without power)

# USAGE METHOD

BATTERY CAPACITY DISPLAY  
(LED screen highlight)

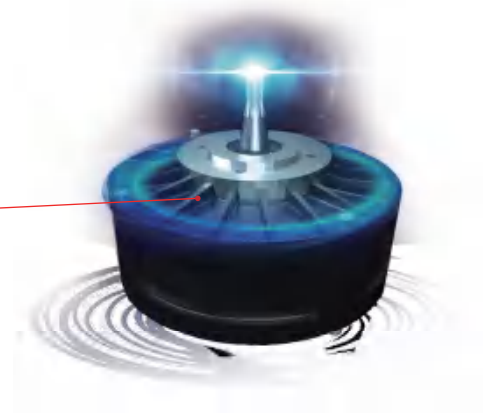


WIFI SIGNAL

POWER BATTERY-5000 MAH  
(IEC62133-2017 certification)



CONSTANT SPEED MOTOR  
(1000W power, load up to 200KG)



# PRODUCT PARAMETERS



SMART SPIDER PRO

<b>BRAND</b> Mode	<b>MODEL</b> Smart spider pro	<b>MATERIAL QUALITY</b> All aluminum alloy body	<b>APPEARANCE SIZE</b> 332*263.3*268.5 (MM)	<b>SINGLE UNIT WEIGHT</b> 14.80KG (including battery)
<b>BATTERY</b> 5000MAH power battery	<b>VOLTAGE</b> 36V	<b>SPEED</b> Stepless speed change with an increase of 0-20m/min Descending 0~30m/min continuously variable speed	<b>CHARGING DURATION</b> 140 min	
<b>POWER</b> 1000W	<b>SAFE LOAD</b> 200KG	<b>RUNNING DISTANCE (SINGLE BATTERY)</b> Round trip 360M (120KG load)	<b>NO ELECTRICITY RELEASE DECREASE</b> Have	
<b>EMERGENCY STOP</b> Have	<b>WORKING TEMPERATURE</b> -20 ° C to+50 ° C	<b>PROTECTION LEVEL</b> IP54	<b>STANDARD SAFETY BUCKLE</b> D-type safety buckle * 1	<b>WIFI</b> Standard configuration
<b>ROPE REQUIREMENTS</b> Comply with EN1891A standard wire diameter 10.5-11MM (length optional)	<b>CHARGER</b> Single charge 1			



## SMART SPIDER MAX

<b>BRAND</b> Mode	<b>MODEL</b> Smart spider max	<b>MATERIAL QUALITY</b> All aluminum alloy body	<b>APPEARANCE SIZE</b> 332*263.3*268.5 (mm)	<b>SINGLE UNIT WEIGHT</b> 14.90KG (including battery)
<b>BATTERY</b> 5000MAH power battery	<b>VOLTAGE</b> 36V	<b>SPEED</b> Stepless speed change with an increase of 0-22m/min Descending 0~35m/min continuously variable speed	<b>CHARGING DURATION</b> 140 minutes	
<b>POWER</b> 1000W	<b>SAFE LOAD</b> 200KG	<b>RUNNING DISTANCE (SINGLE BATTERY)</b> Round trip 450M (100KG load)	<b>NO ELECTRICITY RELEASE DECREASE</b> Have	
<b>EMERGENCY STOP</b> Have	<b>WORKING TEMPERATURE</b> -20 ° C to+50 ° C	<b>PROTECTION LEVEL</b> IP65	<b>STANDARD SAFETY BUCKLE</b> D-type safety buckle * 1	<b>WIFI</b> Standard configuration
<b>ROPE REQUIREMENTS</b> Comply with EN1891A standard wire diameter 10.5-11 MM (length optional)		<b>CHARGER</b> Single charge 1		

# APPLICATION AREAS OF PRODUCTS



## High Towers

- Power tower repair and maintenance
- Telecom tower repair and maintenance



## Aerial

- High-rise building cleaning
- Facade maintenance
- Lift equipment and objects



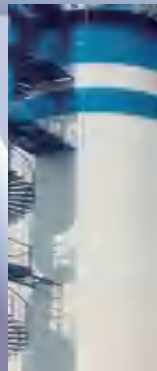
## Rescue Services

- Mountain rescue
- Urban rescue
- Fire rescue



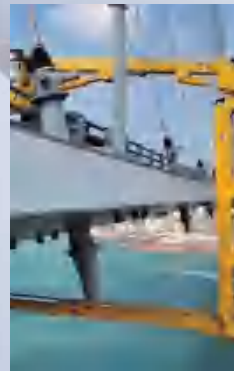
## Performance Industry

- Stage setup
- High-altitude stage equipment maintenance
- Stage equipment upkeep



## Industrial Services

- Smoke/Silo maintenance
- Tree care services
- Mining exploration



## Others

- Working in narrow spaces
- Engineering construction
- Bridge inspection



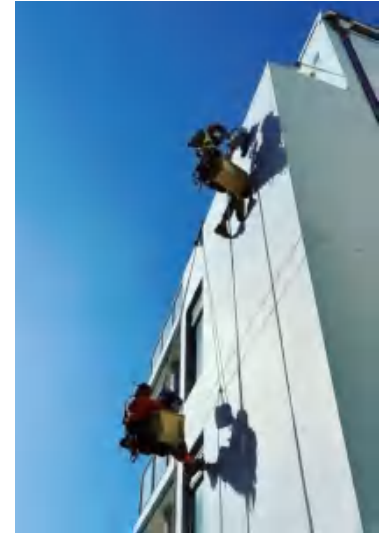
## Rope Technology

- Rope technology Services and training

## Wind Power Generation

- Wind turbines
- Blade maintenance and cleaning

# Building Maintenance



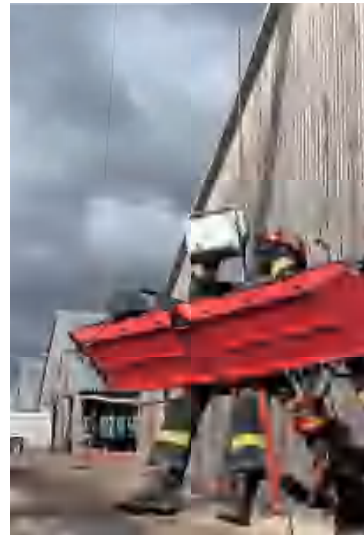
In the maintenance operations of high-rise buildings, historical landmarks, and large public facilities, the Smart Spider battery powered ascender can quickly move to the designated position and achieve precise positioning, reducing the time workers spend frequently moving in high-altitude areas and improving the efficiency of maintenance work.

It can be equipped with a slide-out extended deck or an adjustable working platform, further expanding the working space and enabling workers to handle maintenance tasks at multiple locations simultaneously.

Adopting high-strength materials and a stable mechanical structure, it maintains good stability even when working at higher heights.

Traditional scaffolding and rope access require a significant amount of labor for setup, dismantling and maintenance. In contrast, the Smart Spider battery powered ascender is relatively easy to operate and can be managed by only a few personnel. This significantly reduces labor costs and workload in high altitude activities such as building maintenance, painting, and glass cleaning and installation.

# Fire Rescue

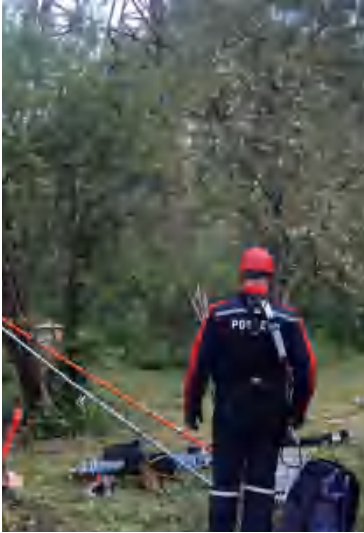


In high-rise building fire rescue operations, the Smart Spider battery powered ascender can help firefighters quickly reach the fire floor of high-rise buildings, with a maximum working load of 250kg and an ascent speed of up to 22 meters per minute.

This rapid ascent capability can significantly reduce the time it takes for firefighters to reach the fire scene. It can not only transport firefighters but also carry rescue equipment such as fire extinguishers, hoses, and breaching tools. The multi-person basket application can evacuate trapped individuals to the ground in batches. With its high load capacity and efficiency, it can quickly and safely transfer trapped people to safety.

The Smart Spider is highly portable, with the entire equipment set being easily carried by hand and capable of operating in confined spaces. This portability makes it suitable for rescue operations in complex terrains such as mountains and canyons. When cable car equipment is damaged and people are trapped, rescue personnel can use the Smart Spider to approach the trapped individuals and safely transport them to the ground.

# Electric Power Industry



Smart Spider battery-powered ascender, compact and lightweight, is easy to carry and install, and is not restricted by site or environment, whether in mountainous areas, plains, or urban settings.

In the maintenance of power transmission lines, it reduces the physical and time-consuming efforts of workers in climbing towers and scaling, indirectly lowering labor costs. It provides a stable working platform that enables workers to safely and efficiently perform equipment maintenance and installation, avoiding the safety hazards associated with direct climbing of equipment.

Compared with traditional lifting equipment, the Smart Spider has a simple structure, low maintenance costs, and a long service life, which can reduce equipment wear and maintenance expenses. With the Smart Spider, the working height can be adjusted according to the height of the equipment to meet different maintenance and installation requirements. This allows maintenance personnel to access various parts of the equipment more conveniently and improve work efficiency.

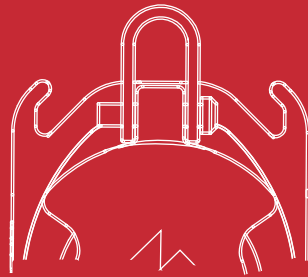
# Wind Energy Industry



In wind energy projects, safety and efficiency are the core challenges of working at heights.

The Mode Smart Spider battery-powered ascender replaces traditional tower climbing, increasing speed by 3 to 5 times, reaching 30 meters per minute, which significantly reduces the overall time cost of maintenance work and improves maintenance efficiency.

Moreover, wind energy projects face the challenge of transporting heavy tools. The Smart Spider has a maximum load capacity of 250kg and features emergency braking fall protection, which not only solves the problem of transporting heavy tools but also ensures sufficient safety during transportation. With an IP65 protection rating, it can operate efficiently even in harsh weather conditions. In case of emergencies, especially when the battery is low, it can be manually lowered to the ground to avoid being suspended in the air.



# Escape Descent Device

Designed To Be Safe / User-Friendly





## PRODUCT INTRODUCTION

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- Mode's escape descent device comprises a suspension ring, speed regulator (descent device), safety rope, and other components.
- The device body is constructed from aerospace aluminum, ensuring compact size, lightweight design, and stable operation through its dual braking system. After undergoing extensive testing and strength trials spanning six months, it has demonstrated smooth performance even in extreme conditions.
- During critical moments, it enables simultaneous use by one or multiple individuals, facilitating continuous alternating use in both upward and downward directions.

# APPLICATION AREAS OF PRODUCTS



Fire Protection



Mining



Oil & Gas



Cable Car



Amusement Park



Rock Climbing



Wind Power

Construction

# PRODUCT FEATURES

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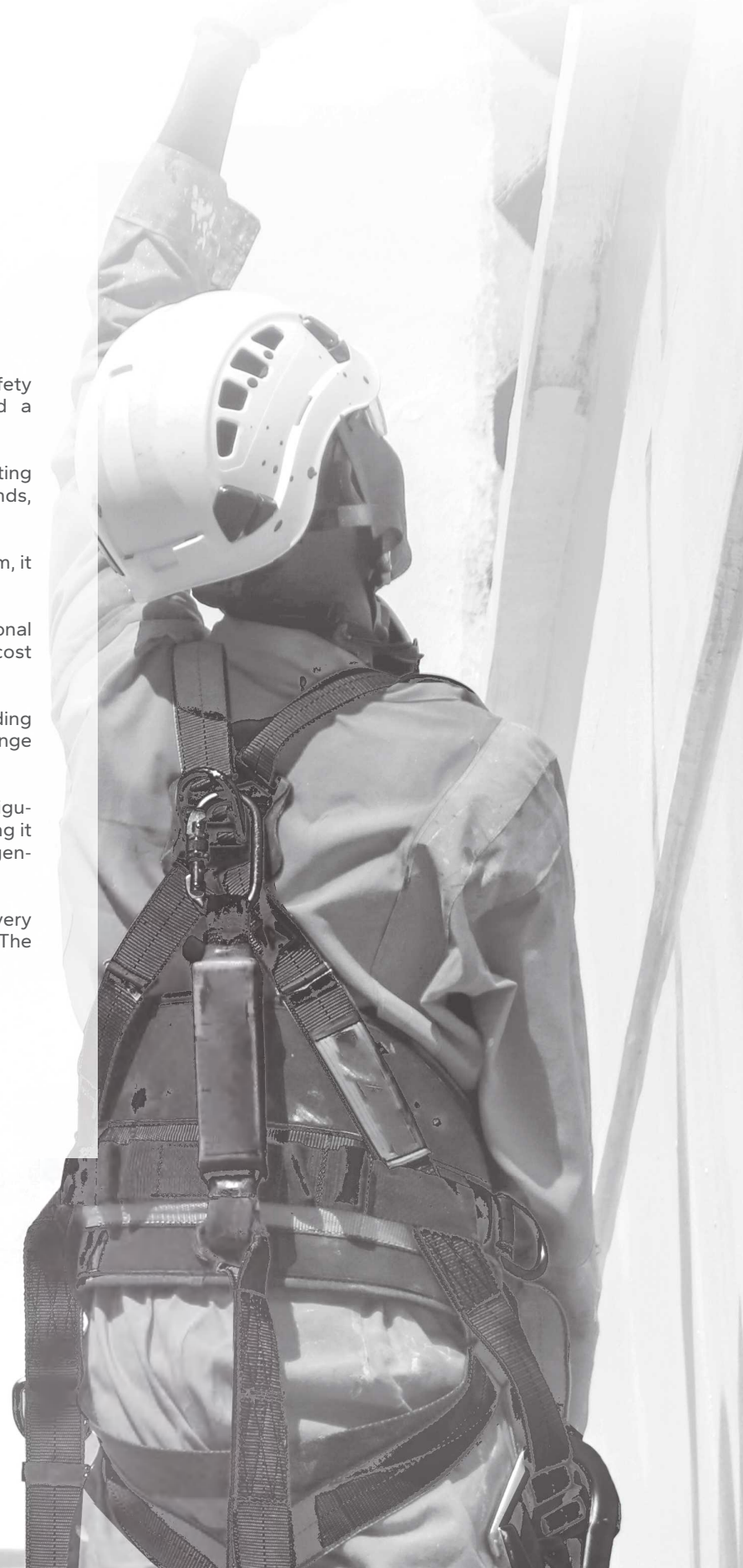
## MAINTAINING HIGH STANDARDS TO ENSURE EVEN MORE RELIABLE QUALITY.



- The manufacturing process of the descent device body incorporates patented technology from Germany's Stuobi. It utilizes a high-strength aerospace aluminum alloy for integrated molding, complying with EN 341:2011, Class A requirements. Moreover, it holds CE certification from European authorities.
- The static rope is meticulously woven using a special process with high-strength polyester fibers, providing exceptional abrasion resistance and anti-slip performance. It adheres to EN 1891 Type A and ZA494-2004 standards, boasting a breaking strength exceeding 22 KN.
- The storage bag boasts qualities such as high-temperature resistance, flame retardance, moisture resistance, corrosion resistance, and water-proofing. It can effectively operate within a temperature range of -40°C to 60°C, ensuring normal functionality.
- The connectors are in compliance with the EN 362 standard.
- The dual centrifugal braking system combines the centrifugal principle with proprietary patented technology and military-grade friction materials, resulting in smooth deceleration. In contrast to similar products employing cast gears, our product utilizes precision-processed low-carbon alloy steel material, providing a strength over three times greater than that of cast gears.

# DESIGNED TO BE SAFE USER-FRIENDLY FAST AND CONVENIENT

- **Safety:** Rigorously tested and compliant with international safety certification standards (EN 341), it is designed to withstand a maximum load of 125kg, ensuring safety and reliability during use.
- **User-Friendly:** With just three simple steps – unlock, pull the starting device, and descend – the average setup time is under 30 seconds, rendering it suitable for various emergency situations.
- **Portability:** Weighing only 1.8kg and measuring 30cm x 15cm x 10cm, it includes a portable backpack for convenient carrying and use.
- **Reusability:** Tested over 100 actual uses without requiring additional maintenance or replacement, ensuring long-term reliability and cost effectiveness.
- **Adaptability:** Suitable for various environments and settings, including tall buildings, bridges, and ships, it can be utilized within a height range of 30 meters to 150 meters.
- **Rapid Deployment:** Requiring no additional tools or complex configurations, it can be set up and activated within 10 seconds by securing it in the appropriate position. This ensures a swift response to emergency situations.
- **Easy Maintenance:** A check and maintenance session is required every six months, involving cleaning and lubricating key components. The entire maintenance process takes less than 15 minutes.



# INDUSTRIAL APPLICATIONS



## WITHOUT HANDWHEEL MODEL

Weight Capacity: 125kg

- Emergency Descent: It can be employed to rapidly lower oneself from a height to the ground as an escape measure during emergencies.
- In high-risk environments, it guarantees a safe and swift descent to a secure zone. With its innovative design and user-friendly operation, it proves exceptionally effective in scenarios like high-altitude operations and mountain rescues. Suitable for both rescue professionals and individuals, it becomes a valuable asset in emergency situations.

## WITH HANDWHEEL MODEL

Lifting Capacity: 250kg for upward movement

Descending Capacity: 125kg

- In addition to facilitating rescue descents, the handwheel located on top of the unit can also be used to elevate the rescued individual upwards.
- The rescue function is commonly employed in industrial settings to address emergency situations during operations. This feature is used to rescue individuals who may become trapped.
- Additionally, you can attach the rescue descender to your safety harness, anchor the end of the gravity rope to a higher point, and then manually rotate the handwheel to elevate yourself to a higher location.



## DRILL-POWERED RESCUE MODEL

Lifting Capacity: 250kg for upward movement  
Descending Capacity: 125kg

- In addition to facilitating rescue descents, the trapped individual can easily perform self-rescue by using a drill to rotate the device, enabling a swift escape from danger.
- It combines the functionalities of an escape descender and an electric drill. This device empowers users, in specific situations, to ascend the safety rope using an electric drill, achieving upward movement to a higher position.
- This capability is typically utilized in escape and rescue scenarios, such as ascending from below or climbing upwards in emergency situations.



# CIVILIAN EVACUATION



## CIVILIAN EVACUATION

- In critical situations where buildings are engulfed in smoke and flames during a fire, and evacuation routes are blocked, individuals can employ this device for a safe and swift 'descent from above,' effectively escaping danger.
- It can be installed on building windows, balconies, rooftop terraces, as well as in office or entertainment spaces. It facilitates the rescue of individuals trapped on upper floors of tall buildings, allowing infants and young children to evacuate alongside adults and enabling multiple people to escape in a continuous cycle.



HOST MATERIAL	ALUMINUM MATERIAL
MANUFACTURING PROCESS	DIE-CASTING
ROPE MATERIAL	NYLON
BUCKLE RING MATERIAL	ALUMINUM COMPONENTS
MANUFACTURING STANDARDS	EN341 EN1496
CERTIFICATION	CE
SURFACE TREATMENT	SPRAY COATING
BRAKING MECHANISM	CENTRIFUGAL BRAKE
WORKING LOAD	30-250KG
DESCENT SPEED	0.5-2M/S
BRAKING QUANTITY	DUAL BRAKING
TRANSMISSION STRUCTURE	TWO-STAGE GEAR TRANSMISSION

## Escape Descent Device

# USAGE METHOD

- When emergency evacuation is required, begin by retrieving the Mode Safety Escape Device and attaching it to the pre-installed escape attachment point.
- Deploy the rope from the backpack onto the ground, ensuring it is untangled and fully extended.
- Secure the opposite end of the escape device's rope and fasten it to the loop on the evacuee's life jacket.
- Exit the cabin using the escape hatch.
- Upon landing, detach the loop and move away from the scene.
- When the combined weight of two evacuees does not exceed the escape device's maximum load capacity, fasten the rope loop to the loops on both evacuees' life jackets, enabling simultaneous evacuation.
- After the first descending person has landed, they unfasten the loop. The next person waiting to descend attaches the other end of the rope to their own life jacket loop to complete the evacuation process.
- Evacuees must wear a full-body harness compliant with EN361 standards or a rescue harness compliant with EN1496 standards.




Mode


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Professional After-Sales


# PROFESSIONAL AFTER-SALES MANAGEMENT PROCESS AND SERVICE TEAM.



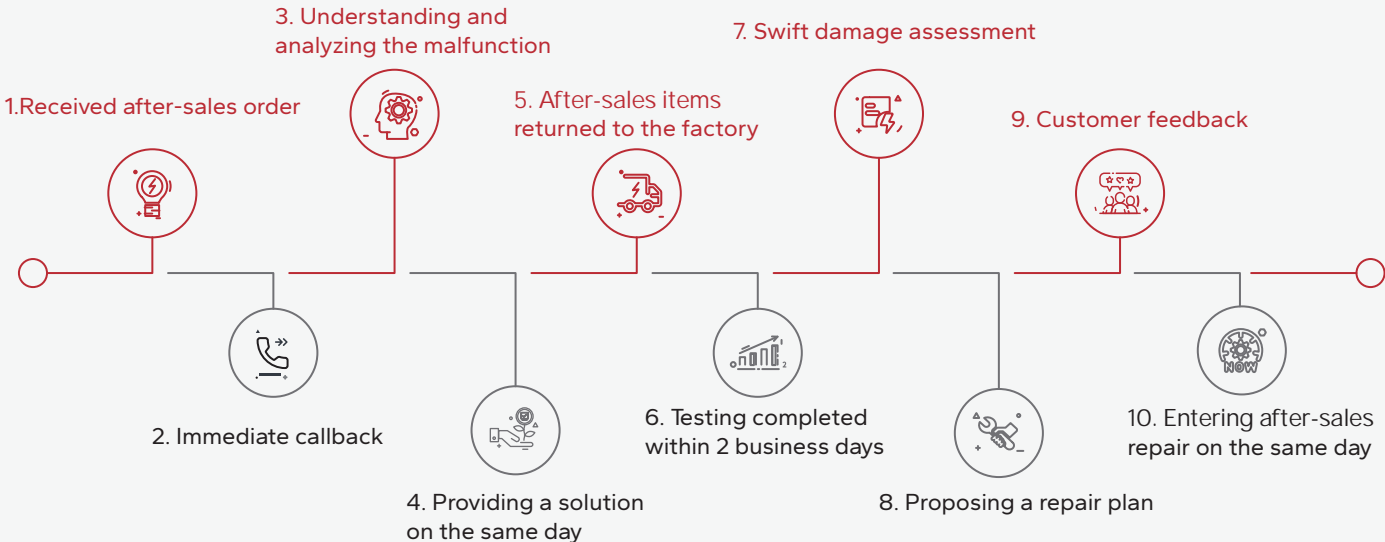
Customer service is available  
online 24/7,  
ready to respond at any time.



Urgent after-sales matters will  
be resolved within 2 hours.



Repairs will be finished  
within 7 business days.



## MODE CHINA

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## Mode Technology Co.,Ltd.

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## Gowow Technology (Shanghai) Co., Ltd.

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