goracon®

G-trac® G-lock®

You decide the height.
We'll get you there ... for sure!

With our **personnel and material transport hoists** G-trac® and the **fall attest devices** G-lock® we are not only offering top-level service, but also the best quality in hoisting technology from a single source.

Operating principle of the rope traction hoist G-trac®

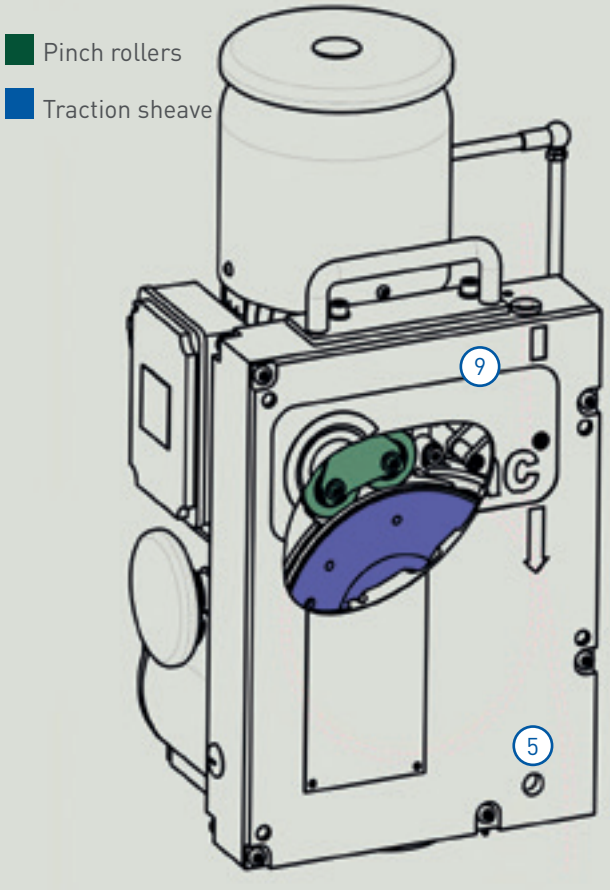
The motor-driven hoist is a rope traction device, inside which the suspension rope is transported through a profi led traction sheave without having a rope drum. Consequently, the lifting height is practically unlimited.

Traction is achieved via friction of the rope inside the traction sheave's V-groove. Hereby, the rope is pressed into the V-groove by means of a pinch roller system, ensuring safe and non-sliping starting and braking of the load.

The G-trac® rope traction hoist is fi tted with an electro-mechanic overload system.

Advantages of the G-trac® rope traction hoist

- With conventional drum winches, the tensile force is transmitted to the rope via the rotating drum.
- With increasing number of rope layers on the drum the tensile force of the hoist is subsequently decreasing! With 4 to 5 rope layers on the drum, the tensile force decreases by about 50 % from the innermost to the outermost layers.
- Due to the different number of rope layers on the drum winch, the radial speed and therefore the hoisting/lowering speed of the winch continuously varies.
- **With a traction hoist, the hoisting/lowering speed always remains constant.**
- Due to the drum's winding capacity, the working range of a drum winch is limited.
- **Because the rope of a traction hoist does not need to be wound up (stored), its working range or lifting height is only limited by the rope's strength and length.**



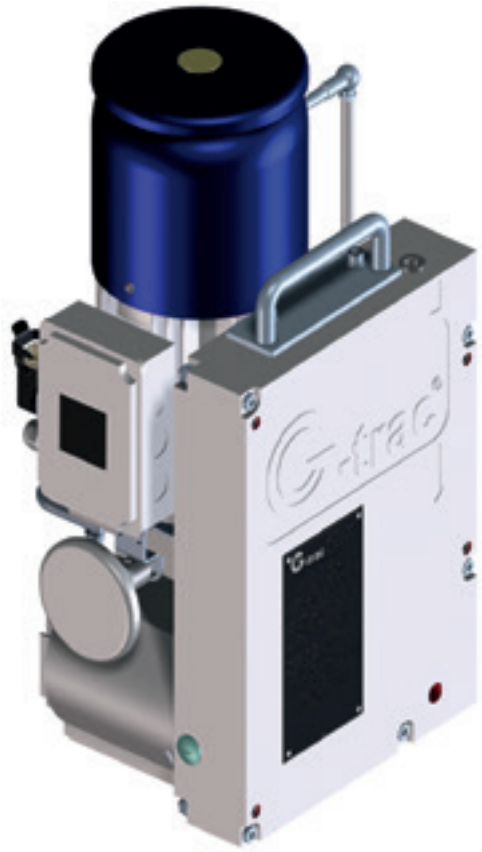
Efficient, robust rope friction hoist from goracon

Thanks to the innovative material and personnel hoist G-trac® with load capacities from 400 up to 1000 kg, our product range for hoisting technology has been consistently expanded.

In the field facade and height access technology, we provide our global customers with comprehensive services combined with utmost flexibility of supply.

Our worldwide certificates:

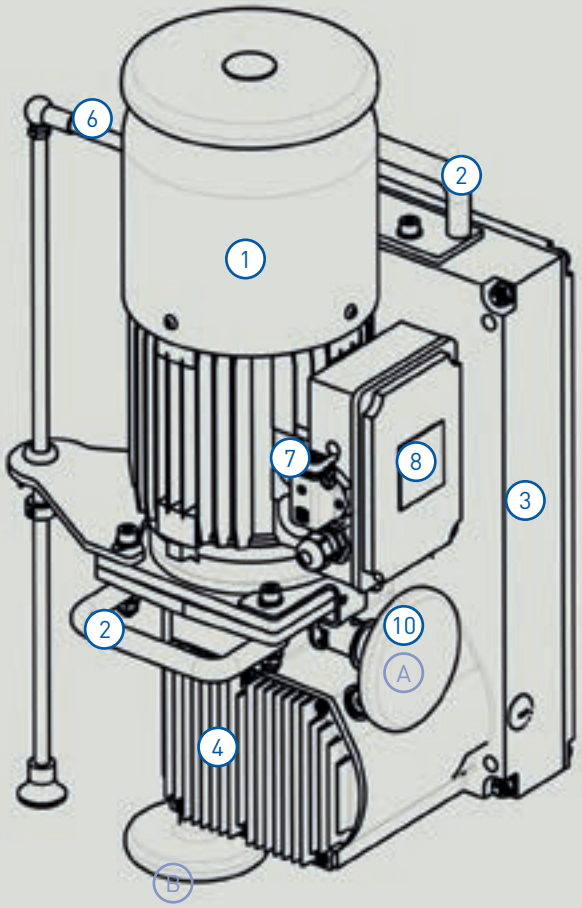
EN 1808 | CSA B44.7 | ASME A17.7



Our quality features:

1	Powerful, reliable electric motor
2	Carrying handles
3	Robust aluminium housing ensures **a low dead weight and high strength**
4	Quiet worm gear drive
5	Functional single-point suspension or a four-point attachment
6	Fully encapsulated **electromagnetic brake** with manual brake release lever for emergency rescue via the centrifugal brake
7	Controller connection
8	Operating hours counter
9	Built-in, precise electromechanical overload limiter
10	Ergonomic hand wheel for emergency operation. Either in exposed parking position (A) or permanently installed (B)

Also available as Cold Climate Version CCV for temperatures of -30...+50 °C.



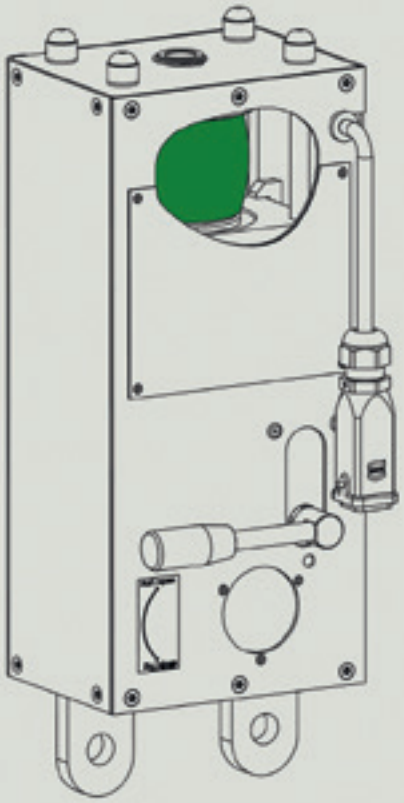
Function of the fall arrest device G-lock®

- The fall arrest device is a compact safety system that holds the load securely in case of a rope break or malfunction of the hoisting system.
- The safety rope runs through the device where it drives a centrifugal mechanism. In case of excessive speed, the mechanism reacts and arrests the load gently and securely.
- Optionally, the fall arrest device can be fitted with an inclination monitor for end and C-support brackets.
- Also available as Cold Climate Version for temperatures of -30...+50 °C

Advantages of the fall arrest device G-lock®

- An integral structural shock absorber system damps dynamic load peaks reliably and safely below the value of Sd ≤5 required by DIN EN 1808.
- The G-lock does more for your safety than simply meeting the values required by DIN EN 1808.
- Thanks to the integral fall detector system, the hoist's downward movement is immediately stopped automatically.
- An safety locking device is an additional safety component in case the suspension rope breaks. It prevents unintentional release of the arrested load.

Shock absorber



G-lock®... the fall arrest device from goracon® - – unique worldwide.

Utmost feeling of safety with payloads of 400 up to 1000 kg and rope speeds up to 24 m/min.

G-lock® serves as a protective safety device in case of drive gear failure or rope break.
The integral centrifugal system reacts to a defined "speed limit", which is measured directly on the safety rope passing through. An integral shock absorber system reduces the fall arrest loads to a minimum.

Our worldwide certificates:

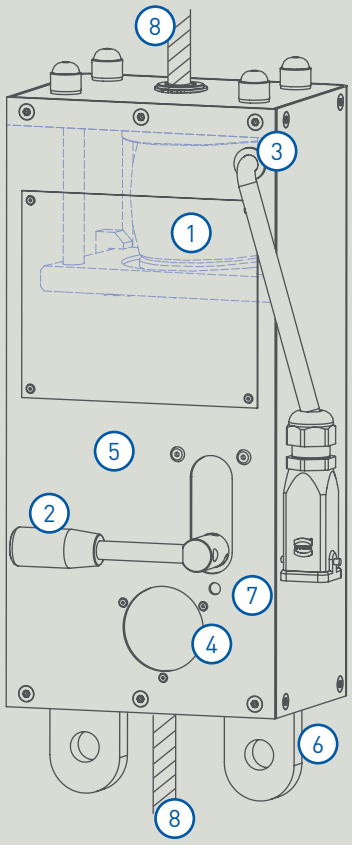
EN 1808 | CSA B44.7 | ASME A17.7

Our quality features:

1	Structural shock absorber for damping dynamic load peaks
2	Ergonomic one-lever operation for opening and closing the fall arrest device
3	Integral electromagnetic fall arrest detector
4	Tripping by means of wear-free centrifugal mechanism
5	Robust aluminium housing
6	Sturdy suspension lugs
7	Safety lock status detection
8	Safety rope

Optional: Inclination and drive gear failure monitoring combined in one unit.

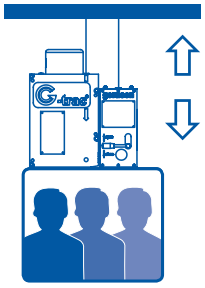
Also available as Cold Climate Version CCV for temperatures of -30...+50 °C.

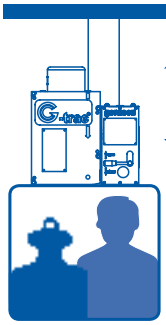


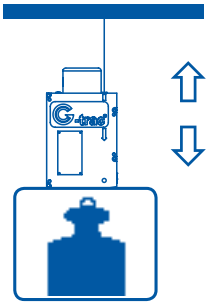
Use for rotor blade inspection

Use in the G-servicelift

Use for façade maintenance units







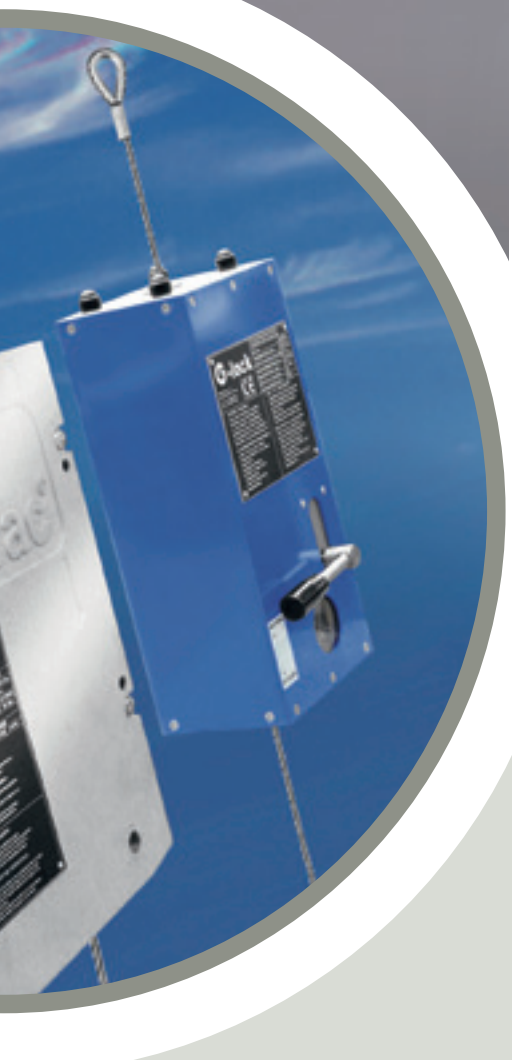
Where is the G-trac® used?

The G-trac® is used in suspended access equipment (SAE), e.g. working platforms and façade maintenance units. Numerous application possibilities are also found as rope traction hoist for material transport.

Other applications for the G-trac® are found mainly wherever great lifting heights must be overcome, and a compact hoist with high payload is required. The lifting height is practically unlimited, because the hoist is driven by the friction crested between rope and traction sheave, and no rope storage is required.

Application areas of the G-trac® are also found in elevator, aerial & overhead line construction, facade inspection, scaffolding, building construction, civil & structural engineering, nuclear power plants and in the wind turbine field.

Use for silo inspection



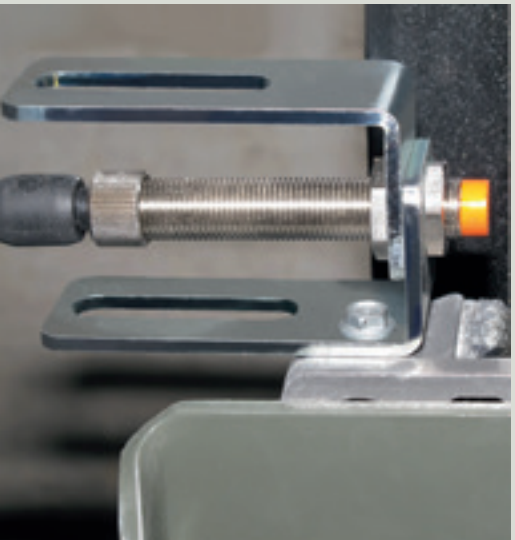
Use in the G-worklift

Use in boiler maintenance

Use in elevator construction

G-trac® for scaffold-free elevator construction as G-liftup system

- Payloads up to 1000 kg
- Customized adaptation to the cabin roof
- With 9 and/or 18 m/min rope speed, controlled via frequency inverter or polechange electric motor



rope friction hoist G-trac® for material transport

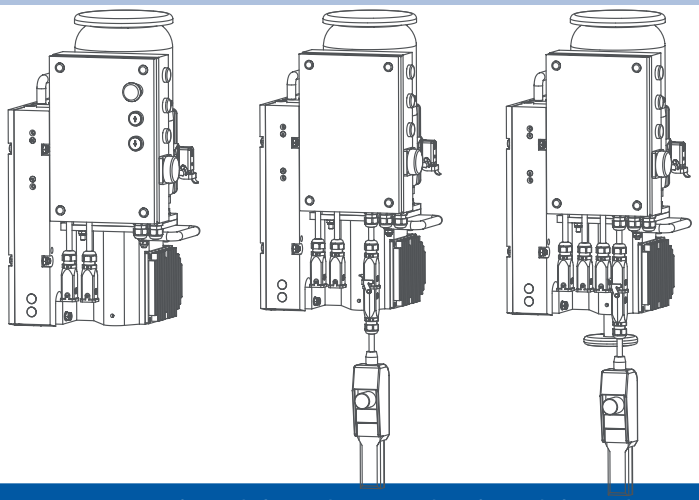
- Combined in a single unit
- With adapted fall arrest device
- Sturdy and durable standing frame
- Integrated controls
- Operation via plug-in pendant control unit
- Optional remote radio control

G-trac	Load capacity (kg)	Hoisting speed (m/min)	Rope ø (mm)
400-1000	400 – 1000	9	9.0/10.2

G-trac rope traction hoist for personnel transport

For connection to single control unit

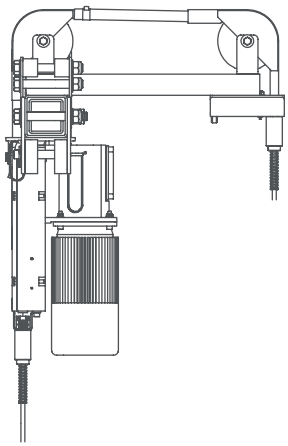
If you want to know more or wish to request technical documentation, simply contact us.



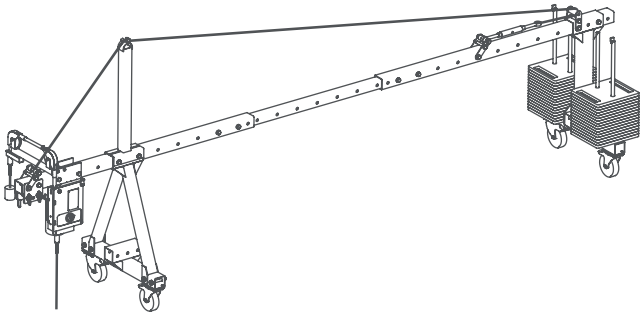
	Direct control via the control cabinet	Control via pendant control unit for temporarily installed suspended access equipment (SAE)	Control via pendant control unit for suspended access equipment (SAE) assigned to the building
Up/Down pushbutton	●	—	—
EMERGENCY STOP, lockable	●	—	—
Multi-pin socket for connecting a pendant control unit	—	●	●
Multi-pin sockets for connecting 2 limit switches	●	●	—
Multi-pin sockets for connecting 3 limit switches	—	—	●
CEE 16 A connection	●	●	●
230 VAC power socket	●	●	●
Signal lamps for indicating phase fault, fall arrest detection, overload	●	●	●
Optional remote radio control, also for retrofittable (range 200 m)			

Material hoist for rooftop davits

For redirecting the unloaded rope end



Cost-effective, quickly installed crane alternative for working on buildings. Lifting and positioning of façade element, construction & installation material, tools, and machines. Redirecting the unloaded rope end.



G-trac	Load capacity (kg)	Hoisting speed (m/min)	Rope ø (mm)
400 – 1000	400 – 1000	9	9.0/10.2

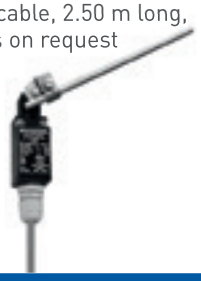
Pendant control unit

Central control unit

Remote radio control

Limit switch

- Operating limit switch
- Emergency stop limit switch (upwards travel)
- Lower limit for travel
- Special applications
- Limit switch cable, 2.50 m long, other lengths on request



	Central control unit for 1 G-trac	Central control unit for 1 or 2 G-tracs	Central control unit for 1 to 3 G-tracs
Up/Down pushbutton	●	●	●
EMERGENCY STOP, lockable	●	●	●
Multi-pin socket for the control cable	●	●	●
Selector switch for individual or overall control	—	●	●
CEE 16 A connection	●	●	●
2 x 230 VAC power sockets	●	●	●
Signal lamps for indicating phase fault, fall arrest detection, overload	●	●	●
Signal lamps for indicating inclination	—	●	●

Other G-products

G-smartrac®... the rope traction hoist with electric motor for material transport

Mobile rope traction with any lifting height for flexible and economic material transport. Simple operation for safe working at great heights.

The pendulum function (alternating weight lifting) permits a cost reduction of 50% with every hoisting cycle. The pendulum function eliminates empty travel, and is thereby always ready for operation at short notice.

G-climber® Plug & play ... and ready to go!

The G-climber® relieves the service technician with up to 40 kg during the strenuous climb to the nacelle of a wind turbine tower.

The lightweight mobile drive unit can be transported from tower to tower, where it can be mounted/unmounted quickly at fixed basic unit.

The G-climber® sets standards in terms of service work flexibility as well as profitability of a wind energy plant.

G-liftup ... System component for scaffold-free lift installation

The G-trac® rope traction hoist is certified for transporting persons, and therefore perfectly suited for eliminating the complex scaf-folding of a lift shaft. By means of customized adaptation, the hoist-ing technology is installed on the cabin roof, so that it can be used as a working platform. The emerging end of the suspension rope i s passed around an upper and lower pulley without touching the ground, therefore keeping it free of contamination. Usually, the lift's own safety brake acts as a fall arrest device. Further safety devices such as limit switches, overload, and a rope end monitoring ensure safe and reliable operation.

G-servicelift®... a powerful system for personnel and material transport

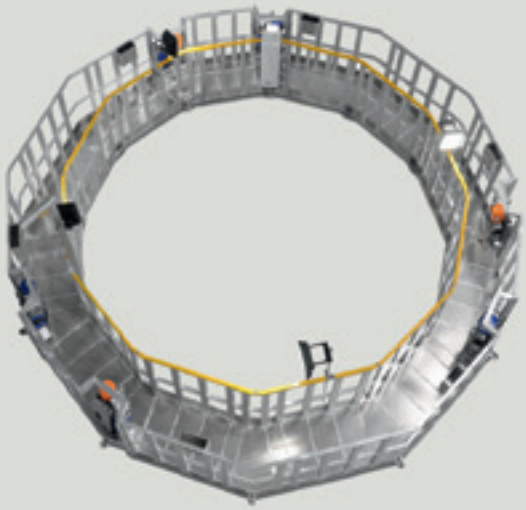
To ensure high availability and thereby efficiency, today's wind energy plants are usually fitted with a service lift as standard. This means that access to a nacelle at a height of e.g. 100 m takes only about 5 minutes.

goracon's G-servicelift® enables 3 to 4 persons or a load of up to 400 kg to be lifted. Automatic operation preserves human resources, and reduces operating and maintenance costs.

All versions – whether ladder or rope-guided – are fitted with the specially developed G-trac®and G-lock® drive technology as well as all safety devices in accordance with Machinery Directive 2006/42/EC.

G-platform® GW-750... Working platform for erecting wind turbine towers

The G-platform® GW-750 Series is a specially developed working platform whose segments can be adapted to the differing tower diameters during construction. The working platform is powered by means of six G-trac® rope friction hoists. Three of these hoists are operated alternately to raise the platform inside the tower, so that there is no need for a mobile crane. Consisting of 60 sections, the basic platform structure is fitted with corresponding anchor points as well as safety devices such as overload, height monitoring, and the G-lock® fall arrester.



G-worklift®... the modular working platform

Every workplace – whether on building façades, wind turbine towers, chimneys, masts, silos or bridges – must be safely accessible. Frequentl access is difficult and requires a working platform that is flexibly designed and easy to install and to remove.

With goracon's drive technology and its modular design, the G-worklift® meets all the requirements for safe working at great heights.

Simple assembly and disassembly without tools, thanks to modular design and plug-in systems, easy transport, and the G-trac® and G-lock® drive systems, result in a combination for optimum workplaces.

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Subject to technical changes.
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