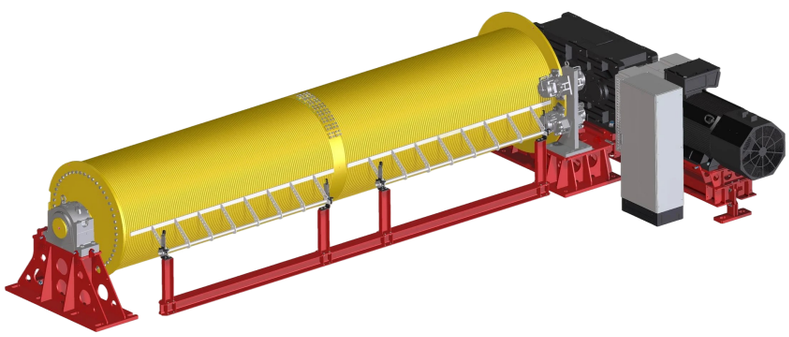
Single-Layer Winches

ADD WINGS TO YOUR WORK

Single-Layer Winches



Seik's single-layer winch drives multiple ropes in perfect synchrony, ensuring **maximum power** and precision, while the **single-layer technology** helps minimize rope wear. The system is based on an **electric motor** and can be powered either by the electrical grid or by a dedicated PowerPack equipped with a diesel engine.

The optional **redundancy system**, featuring dual independent electric motors, ensures operational continuity even in the event of a failure, while the optional **radio remote control** enables remote operation of the winch, increasing flexibility, safety, and efficiency. **Safety** is further ensured by **two** passive and independent **braking systems**.

KEY STRENGHTS

- CONSTRUCTION QUALITY
- EFFICIENCY
- MODULARITY
- SAFETY

MAIN FEATURES

Technical Features	
Weight (kg)	From 35000 to 59000
Power (kW)	From 250 to 900
Cable capacity (m)	From 708 to 1280
Cable diameter (mm)	From 28 to 32
Performance	
Speed (m/s)	From 1,5 to 3
Traction force (kN)	From 220 to 460

Note: The data presented refer to winches manufactured to date. All specifications are subject to modification and can be **customized** in accordance with customer requirements.

Areas of application

- CONSTRUCTION
- ENERGY SECTOR

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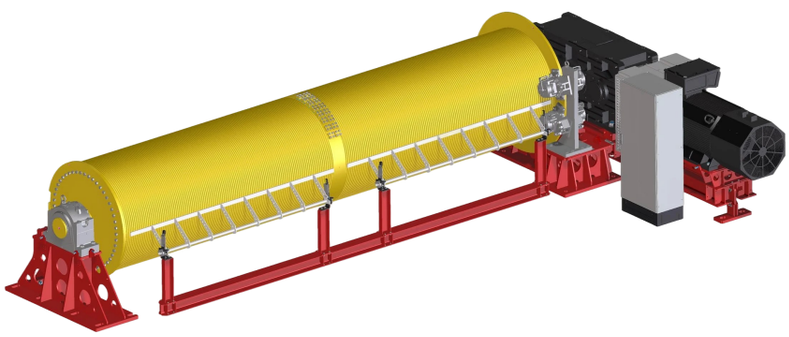

KEY STRENGHTS

- CONSTRUCTION QUALITY
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- SAFETY

HIGH CONFIGURABILITY	**Designed for a high level of configurability based on customer requirements**
SAFETY	**Passive brakes ensure safe stopping of the drum under all operating conditions**
HIGH TRACTION FORCE	**Engineered to generate high tarction forces in a stable and controlled manner**
REDUCED MAINTENANCE	**Minimal rope maintenance thanks to single-layer spooling**
MOBILITY	**Modular design enabling easy transport and simplified installation**

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CLOSED LOOP

This winch has been designed for the simultaneous handling of two **closed-loop** ropes.

Safety is ensured by the presence of two independent passive braking systems. The service brake acts in a controlled manner on the coupling during normal operation, while the emergency brake acts directly on the drum disc.

These winches, integrated into systems such as the **Skytruck**, are used in the transport of materials for **dam construction**, enabling safe and controlled load transportation.

Example of application

SAUDI ARABIA, construction of a dam

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- CONSTRUCTION QUALITY
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- SAFETY

MAIN FEATURES

Technical Features	
Weight (kg)	59000
Dimensions (mm)	16500 × 7000 × 3500
Power (kW)	400
Cable capacity (m)	2 x 640
Cable diameter (mm)	28
Performance	
Speed (m/s)	Up to 3
Traction force (kN)	220

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GRAVITY

Single-Layer Winches

This winch has been designed for the simultaneous operation of **two traction ropes**.

The system consists of two **independent electric motors**, ensuring drive redundancy, and a passive braking system with two independent disc brakes mounted directly on the drum, guaranteeing operational **safety**.

These winches, integrated into an **automated gantry crane**, are used in the **excavation of piezometric wells** for the safe and efficient handling of materials and operators. During load descent, the ropes automatically arrange themselves in a “V” configuration, stabilizing the load and preventing rotation, a key feature at great depths.

KEY STRENGHTS

- CONSTRUCTION QUALITY
- EFFICIENCY
- MODULARITY
- SAFETY

MAIN FEATURES

Technical Features	
Weight (kg)	55000
Dimensions (mm)	13100 × 3400 × 2200
Power (kW)	2 x 450
Cable capacity (m)	2 x 625
Cable diameter (mm)	30
Performance	
Speed (m/s)	Up to 2,75
Traction force (kN)	300

Example of application

HONDURAS, construction of a piezometric well

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GRAVITY WITH COUNTER-PULL

This winch has been designed for the simultaneous operation of two **closed-loop** ropes and one counter-pull rope.

The passive braking system ensures a high level of operational **safety** and consists of two independent band brakes mounted directly on the drum. These devices act both as service brakes and emergency brakes.

These winches, integrated into systems such as the **Skydumper**, are used in the **transport of aggregates in quarries**, where operational efficiency and safety are essential requirements.

Example of application

- AUSTRIA (Tenneck), transport of aggregates in a quarry
- AUSTRIA (Grubing), transport of aggregates in a quarry

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- SAFETY

MAIN FEATURES

Technical Features	
Weight (kg)	From 35000 to 48100
Power (kW)	From 250 to 630
Cable capacity (m)	From 354 to 417
Cable diameter (mm)	From 28 to 32
Performance	
Speed (m/s)	From 1,5 to 3
Traction force (kN)	From 330 to 460

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Electrical power supply

The winch can be powered in two ways: from the mains supply or via a dedicated power pack (diesel engine) with a total output of 1000 kW.

Container

When a grid connection is available, the winch is supplied through a climate-controlled container equipped with an inverter and a programmable control system.

In this configuration, the potential braking energy of downward-moving loads can be converted into electrical energy and fed back into the grid.

Powerpack

If no grid connection is available, the power pack system provides the required energy, i.e., a StageV diesel engine complying with the latest emissions regulations.

In this case, the braking energy is dissipated through a resistor.

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Accessories

Redundant system

The redundancy system ensures safe operation even in the event of a motor failure. Two independent electric motors transmit power to the drum via their respective drive shafts, gearboxes, and couplings, ensuring full redundancy of the drive system. Thanks to the dual drives of equal power and capacity, the winch continues to operate without interruption, guaranteeing maximum reliability and service continuity.

Radio remote control

The radio remote control allows the winch to be operated from a distance, as an alternative or complement to the standard control panel. The system provides increased flexibility and operational safety, reduces risks, and optimizes maneuvering efficiency.

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Transport by Rope - design, production, sale and rental of ropeways, winches and cable cranes

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