

The **LEITNER DirectDrive**

The gearless drive system, an exclusive offer from LEITNER

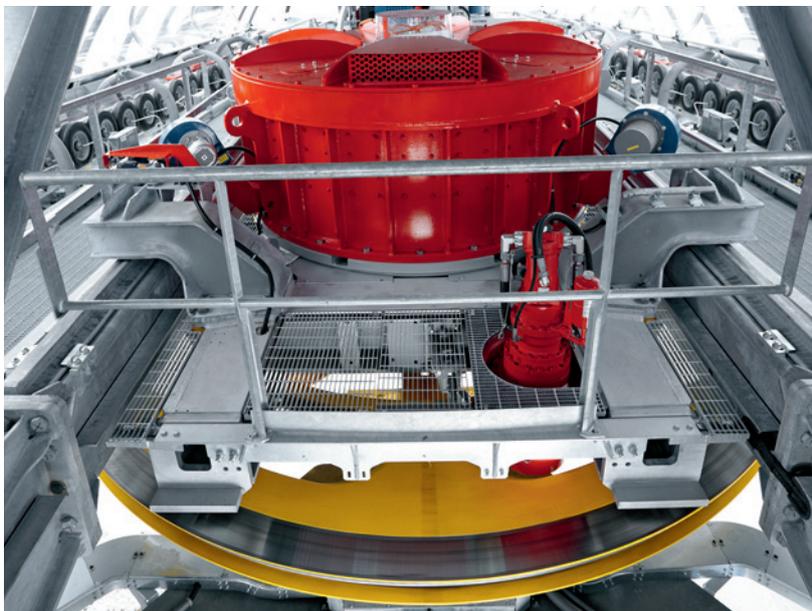
Basis The LEITNER DirectDrive, an in-house development, is the world's only ropeway drive system that can be operated without gearbox.

Description The DirectDrive has a low-rpm synchronous motor, whose output shaft is directly connected with the sheave. The drive consists of only 3 moving parts (rotor and two bearings), which rotate at the same speed as the sheave.

The electric motor is characterised by its absolute redundancy and availability. The rotor is equipped with permanent magnets, the stator has a segmented design and consists of 8 independent segments with 3 winding units each. The winding units can be replaced individually.

The braking system comprises a service and a safety brake, which both act directly on the drive sheave and are equipped with their own independent hydraulic system.

The drive sheave is connected with the output shaft by means of a quick-release radial tooth coupling and can be disconnected from the drive chain in a few easy steps.



Benefits A station with DirectDrive offers the **quietest operation, minimal maintenance requirements** and extremely low operating costs (no gearbox inspection, no gearbox oil change).

In combination with a redundant set-up of the control system, the segmented design of the motor achieves the **highest possible availability** of the installation.

The drive frame of the DirectDrive is movable and can easily **compensate for possible elongations** of the **carrying-hauling rope** – quickly and with little effort.

Technical data

Drive motor	Low-rpm AC motor (external cooling) 8 stator segments with a total of 24 windings (individual replacement possible)
Control system	Up to 4 parallel inverters, additionally inverters upon power request
Service/safety brake	Hydraulic, acting on drive sheave 4 callipers max.
Gearbox	Not applicable
Drive sheave Ø	4.20 m (one part); 4.90 m (two parts); 5.30 m (two parts)
Max. rope tension at top station	Up to 900 kN
Emergency drive system (standard)	Diesel-hydraulic, sheave driven via pinion and sprocket