



## The LEITNER Underground Drive

For maximum power

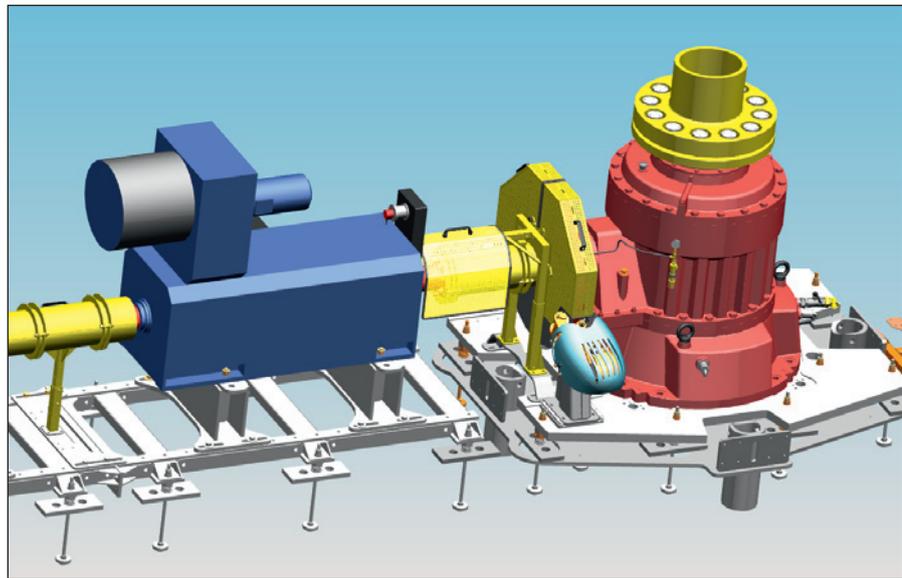
**Basis** For the LEITNER underground drive, the electric motor, gearbox and service brake are set up in a separate drive room located below the station level.

**Description** The drive system consists of an electric motor, a 4-step planetary gearbox, two braking systems and a diesel-hydraulic emergency drive system.

The electric motor can be either an AC or DC drive. At higher drive power, a double-sided input into the main gearbox is possible, allowing for drive configurations with up to 4 drive motors.

The braking system comprises a service and a safety brake. While the electromagnetic service brake acts on a flywheel fixed on the transmission input shaft, the hydraulic safety brake acts directly on the drive sheave.

The drive sheave is connected with the transmission output shaft by means of a vertical drive shaft. The shafts are connected with a bolt coupling that can be released in no time at all.



**Benefits** The underground set-up of electric motor and gearbox ensures **low noise emissions** in the station area and **maximum protection** of the drive components **at low temperatures**.

As the station structure does not have to take up the drive torque, the **maximum rope tension** required by high-power installations at the top station can be easily achieved with an underground drive.

Two independently acting braking systems with different mechanisms ensure **maximum safety** and **availability** of the installation. The 4-step planetary gearbox impresses with its low maintenance requirements and ensures **low power losses** with an **efficiency of 95 %**.

### Technical data

Drive motor	AC or DC
Service brake	Electromagnetic, acting on flywheel 2 callipers max.
Safety brake	Hydraulic, acting on drive sheave 3 callipers max.
Gearbox	4-step planetary gearbox, double-sided gearbox input possible, max. drive torque of 660 kNm
Drive sheave Ø	4.20m (one part); 4.90m (two parts); 5.30m (two parts)
Max. rope tension at top station	Up to 1200 kN
Emergency drive system	Diesel-hydraulic, sheave driven via pinion and sprocket