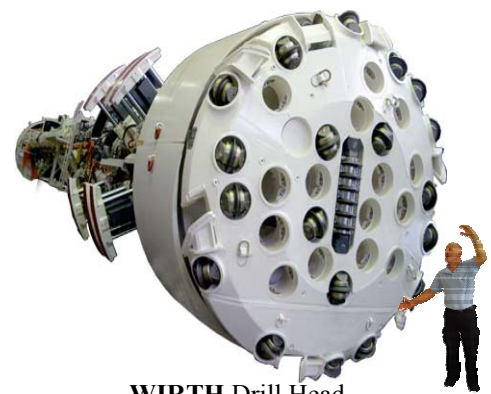


## Soft starters for Mining Applications

Driving drilling machines  
With 8 hydraulic Motors  
Caspian Sea Highway



WIRTH Drill Head

The Alborz tunnel, 6300 meters long, is probably the most difficult part of the second section of the Caspian Sea Highway.

The Drill manufacturer employed 2 different types of 4 Hydraulic motors each for the drill head used to drill this triple tunnel. Solcon was called upon to soft start these 8 motors.

Solcon's reputation for long term reliability ensured that these motors would start every time with no in-rush current, thereby alleviating the potential voltage drop associated with long cables and ensuring no undue stress on the motor shaft due to high starting torque.

Solcon came through with another major advantage in this application by using the Solcon Multi Motor Starting system. One Solcon soft-starter starts all 8 motors using two sets of starting characteristics for the 2 different types of hydraulic motors. Solcon offers not only the highest quality, long term reliability and the ultimate motor and starter protection, but also savings in initial capital investment, engineering costs,



VATECH Hydraulic Motors

**One Solcon RVS-DN soft-starter controls:**

- 4 x 300kW\ 690V motors
- 4 x 200kW\ 690V motors

**2 separate current settings and 2 sets of starting characteristics**