



Key-Lock® mechanical joint



Water Well's Pipeline Drainage System at Kostolac Open Pit Mine using Bondstrand® 3410 Key-Lock GRE pipe

Open pit mine Kostolac produces coal for thermal power plants in TE-KO system. The ground water has to be lowered to allow appropriate working conditions for excavators/digging machines. The water, coming from the wells, is transported to the recipient open pit mine area. On this section, two pipelines were installed: BS 3410 pipe from 250-900 mm on one line with total capacity 750 l/s and 150-700 mm on the other line with capacity 550 l/s. 93 water wells were put in service. Branch connections were made with outlet saddles. When the excavators reach a water well line, the pipe sections are replaced when the next drainage line is constructed.

Features and benefits

Key Lock joints provide easy and fast assembly and re-assembly. As it is lightweight material, it provides easy installation and movement to the new location can be done without the need for heavy lifting equipment and special tooling. UV resistance, corrosion resistance and flexibility of pipe joints are advantages for pipelines laid on the ground surface.

Advantages

- Reduction in installation costs and time
- Expected long term service life 30 years
- UV resistant
- Light weight material
- Corrosion resistant
- Maintenance free

Project

Drainage water transport from water wells to recipient on the Open Pit Mine Kostolac, Serbia

Client

EPS – Electric Power Industry of Serbia

Pipe system

Bondstrand 3410 unlined with Key-Lock mechanical joints

Diameter: 6 to 36 inch (150 to 900 mm)

Quantity: 5300 meter

Operating conditions

Operating pressure: 10 bar

Design pressure: 12 bar

Test pressure: 18 bar

Operating temperature: Ambient

Design temperature: Ambient

Installation date

December, 2010