

## Pump drives ensure efficient water use in rugged mining terrain

Water is an important input for large-scale mining and the efficient reuse of water is a necessity where water is scarce. At one of the world's biggest copper mining sites, powerful Emotron FDU pump drives now enable great efficiency improvements in water recirculation.

In the Chilean desert 4 400 m MSL, Emotron design and engineering must withstand difficult conditions such as extreme winds, thunderstorms and high levels of solar radiation. Telemetric control and extensive service secure operation at all times.



### Saving water means saving a unique biodiversity

Collahuasi in the Atacama desert may seem rugged and remote, but it is surrounded by salt flats and wetlands of great biodiversity. Its water is crucial for the nearby towns and for the biodiversity of surrounding areas.

Collahuasi therefore has a strategy aligned with the National Water Resources Policy working towards the sustainable and efficient use of water.

### Improvements in water recirculation

The past years' focused efforts on water savings and water recirculation has begun to show results. Emotron powered pumps have greatly improved water recirculation to 80.6% recirculation in the year.

This means that less than 20% of the total water used by the process was new water drawn from the aquifers.

### Ease of service including 24/7 response

The conditions and remote location require both skilled local servicemen, remote access and redundant solutions that makes service fast and efficient. Emotron Latin America is on a 24/7 service support.

### Communication and control by telemetry

Emotron LATAM mechanical engineering and design created a solution for complete electrical protection, including communication and control by telemetry with central mining command.

### Emotron FDU in customized Nema 4 IP66 cabinets

Energy efficient Emotron drives were chosen due to their ability to handle the elevation, extreme weather conditions and mining pollution.

The drives were built into specialized portable IP66 cabinets which may be placed in an outdoor environment anywhere around the mine.





### FDU drives

For this project, several different CE certified FDU-48 IP54 variable frequency drives with STO option board, communication option board, Ethernet Modbus TCP are used. The powers vary between 30-400kW.

At Emotron, expert knowledge is always at your fingertips. Your project team will follow you every step of the way. We manage a design review followed by an in-house survey when necessary.

We test all of your components individually before commissioning for your peace of mind.

### Worldwide service network

With a worldwide partner network and remote access solutions, we can offer service contracts to fit your needs. The complete service offer includes:

- ✓ Commissioning
- ✓ Training
- ✓ Test facilities
- ✓ 24/7 support
- ✓ Remote access
- ✓ Application diagnostics
- ✓ Maintenance
- ✓ Extended warranty
- ✓ Repairs
- ✓ Rentals



*We put all our energy into saving yours.*



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