

## IN-PLACE XY MILLING RESTORES NICKEL AND COBALT CUTTERS

### FAST RESPONSE AND PRECISION WORK AT KRISTIANSAND, NORWAY METAL REFINERY

Goltens received an urgent call from a large metal refinery in Kristiansand, Norway that refines Copper, Nickel and Cobalt and precious metals into finished product. The refinery experienced a casualty to the nickel cutter forcing an immediate stop to production. The cause of the casualty was worn guide rails on the nickel cutter and they required an immediate on-site machining response.

Goltens quickly sent it's in-situ machinists and tools to the refinery 350KM away, and began work on the guide rails. After some initial set-up challenges due to limited space, Goltens was able to begin machining on the damaged nickel cutter. However, during the repair, the company discovered an even more urgent requirement on their cobalt cutter guide rails and Goltens redirected its staff and tools to repair that before continuing on the repair of the nickel cutter.

#### IN-SITU STERN TUBE BORING REPAIRS:

- XY Milling of 2 nickel cutter guide rails measuring 1,000mm x 150mm, machining about 1.5mm from the surface of the rails
- XY Milling of 2 cobalt cutter guide rails measuring 1,200mm x 200mm, machining about 1.5mm from the surface of the rails

#### RESULTS:

Both jobs were finished in 7 days by a two man in-situ machining team using the X/Y tool. Both metal cutters were restored to operation and production resumed.

#### PROJECT FACTS: METAL REFINERY MILLING

# of Guides Machined:	4 Total
Length/Width of Cobalt guides:	1,200mm x 200mm
Length/Width of Nickel guides:	1,000mm x 150mm
Material Removed from guides:	~1.5mm



Damaged guide rails pre-machining



XY Milling of guide rails in progress



Guide rails post machining