

Oxygen Generation System



Case Study Details

Kinross Gold has an existing mine and processing plant located in Mauritania, called the Tasiast Mine, which required more oxygen for leaching in the expansion of their gold processing area. Kinross looked at three technologies (VPSA, PSA and VSA) and chose the VSA system (vacuum swing adsorption) since it had the lowest operating costs, lowest maintenance costs and fastest payback versus the other technologies.

H2Flow supplied three large DOCS 5000 VSA units from PCI Gases. The three units operate in parallel and produce pure oxygen at 93-95% purity for a total flow of 850 Nm³/hr at 380 kPag.

The systems are part standard design and part custom design as the equipment was specially designed for 50 degrees C outdoor ambient conditions, high dust loads and 550V/3/50 hz power. Control boxes are stainless steel. PCI will also be able to monitor the control system from its California plant through the internet.

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The systems includes process air rotary lobe blowers, noise enclosures, molecular sieve tanks, buffer tanks, boosters and all required valves, instruments, piping and controls.

Client: Kinross Gold, Tasiast Project

Engineer: Ausenco

Start-Up: September 2017

