

Ventilation: Inlet Guide Vane



Benefit:
16.8MWh/day
R13M/year



Cost:
R 26.1M



Payback:
2 Years

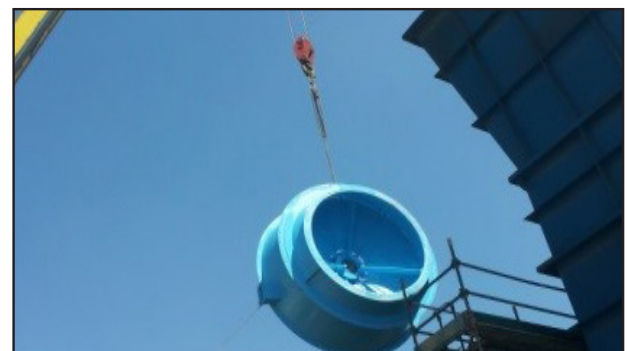
The mine's 20 main surface fans IGVs could not be controlled due to a lack of maintenance, rust and the fact that it was not dynamically controllable. This in turn caused an excessive amount of air to be circulated into the mine, which is an inefficient point of operation.

The reduction in volume flow is related to power consumption by the "cube law", i.e. a flow reduction of 10% - 15% can yield an electrical power saving of up to 25% with a neglectable influence on the working environment.



For this project:

A 4.2MW peak evening clipping program has been in operation at the main surface fans of a major platinum producer since August 2013. This is to enable the reduction of electricity usage within the primary ventilation system.



Completed August 2013.