Process Control Optimisation

- DAL Advance Process Control (APC)

Application in the Cement and Minerals plants

DIRECT BENEFITS

INCREASED PRODUCTION

Operation closer to a limiting constraint, Reduced grade transition time, Reduced batch time

IMPROVED PRODUCT QUALITY

Higher reproducibility
Higher quality products
Less scrap (off-spec material)

REDUCED USE OF ENERGY AND RAW MATERIALS
REDUCED EMISSIONS

INDIRECT BENEFITS

SAFER OPERATION
INCREASED OPERATION STABILITY & SUSTAINABILITY
LOWER MAINTENANCE COST
INCREASED EQUIPMENT LIFETIME
BETTER UTILIZATION OF HUMAN RESOURCES AND EQUIPMENT

UP TO 5%
PRODUCTION INCREASE

UP TO 4%
POWER SAVING

UP TO 2%
SPECIFIC HEAT SAVING

UP TO 30%
REDUCES DESIRED QUALITY DEVIATION

machaya consulting

SPECIFICATIONS	BEFORE VALUES	GUARANTEED VALUES	ACHIEVED
CLINKER PRODUCTION	2800 tpd	3200 tpd	3400 tpd
SPECIFIC HEAT CONSUMPTION	870 kcal/kg clinker	790 kcal/kg clinker	750 kcal/kg clinker
CLINKER TEMPERATURE	190 °C	AMBIENT TEMPERATURE +65 °C	AMBIENT TEMPERATURE +54,5 °C
ENERGY CONSUMPTION	31 kWh/t clinker	26 kWh/t clinker	24 kWh/t clinker