

The Perth Mint Gold Corporation – Continuous Caster Control Upgrade

HIGHLIGHTS

Temperature control, using a thyristor from Eurotherm

Temperature monitoring, using S-products temperature transducers

System control via a touch panel from Total Control

INTRODUCTION

The Perth Mint is Australia's oldest operating Mint and one of the oldest still operating from its original site, established in 1899 to mint gold sovereigns for the British Empire. The Mint is owned by the West Australian Government and is Australia's specialist precious metals mint, producing collector and investment coins for world markets.

It specialises in precious metals minting in both proof and uncirculated (bullion) qualities, producing regular issues in gold, silver, platinum and palladium.

APPLICATION

The existing control equipment for the continuous caster are old and the control requires upgrading with better operator interface facilities.

The thyristor requires upgrading and a better and smoother control of the caster is essential to produce the best gold bars.

SCOPE

Industrial Automation is to design, supply and commission the control cubicle containing all control equipment. This includes the supply and design of the control system using a PLC, Operator Interface Panel and thyristor.

It also includes for the supply, installation and calibration of the temperature and current transducers.

EQUIPMENT USED

- Mitsubishi FX2N series PLC
- 10.5" colour touch screen Operator interface, QuickPanel from Total Control
- Thyristor from Eurotherm
- S-Products temp. transducers
- Faget current transducers
- IA signal isolators – IA 1400

END RESULT

The new thyristor and control equipment is packaged into one control panel which is mounted close to the caster.

The new system facilitates the operator with online status of the operation of the caster. It enables the operator to change system settings with a touch.

The operator can set the operating temperatures and also the time intervals for the solenoid valve through a touch panel to cast the best result every time.