

Structural Mechanical and Piping (SMP)

Surveys for mining, energy and infrastructure projects

Culhig Surveying is engaged on many of Australia's largest energy and resource projects. From early works, to establishment of site controls, quality assurance and conformance auditing, Culhig Surveying remove the potential for costly errors encountered during the construction and commissioning of structural, mechanical and piping elements.

With a portfolio covering module installation, mechanical equipment installation, structural steel erection and sub millimetre specialist installations and alignments, our experienced civil engineers and engineering surveyors complete the checks and verifications to ensure assembly and positioning is accurate and compliant, and delivered to project specifications.



Construction and Installation

Applications

- Modular construction
- Stick-built construction
- Equipment installation
- Vessel landing
- Tank assembly
- Tank strapping and calibration
- Survey reports for manufacturers data reports (MDR) and stakeholders

Benefits ·····

- Real-time, precise dimensional control
- Seamless site installations
- Opportunity to reverse engineer SMP components
- Sustained survey checks during construction
- $\bullet\ \ \$ 3D models to compare existing and published conditions
- Control of as-built information vs. current site requirements



Survey Methodology

Through our first-hand knowledge of your obligations, timelines and targets, we have developed unique risk mitigation methodologies to ensure the quality of spatial data does not compromise productivity in the field.

Our SMP reporting and survey guidelines developed in house over the years ensure we accurately and consistently install key components alongside your mechanical fitters, including:

- Trestle erection and headstock checks
- Hold-down bolt verification surveys
- Sub mm base or sole plate levelling
- Conveyor stringer alignments
- Head and tail pulley frame and bearing alignments
- Tank strake assemblies and verticality checks
- Column verticality checks
- Sag and ball mill installations
- Overhead gantry crane rail installations
- Tripper installation
- High pressure grinding roller installations
- Piping alignments, set out and clash detection reporting



Site Surveying

Culhig Surveying engage the latest survey techniques and technology as well as digital applications where relevant.

This includes terrestrial laser scanners, laser distance meters, mobile laser scanners and unmanned aerial systems (UAS), plus traditional robotic total stations and high precision sub mm equipment for critical component installations.

