



# MINING AND HEAVY INDUSTRIES

Heavy industries and mining usually mean difficult conditions, and... oversized equipment. Within this realm, it's the measurement equipment that needs to come to the part, and not the opposite. This is where the portability of Creaform 3D measurement technologies really stands out as a major benefit. Whether for a mechanical adaptation, for monitoring the wear level or for better assessing the 3D environment of a project, Creaform technologies can quickly resolve the issues faced by companies working in these sectors.

## 3D SCANNING AND REVERSE ENGINEERING

Engineering time for developing mechanical products can be significantly optimized through using accurate, representative digital models. Experts from the Creaform Metrology Services can create such quality models.

- 3D scanning : acquiring data on very large, complex systems (laser / long-range 3D scanners)
- Design intent, as-is state, or congestion simulation
- Stress, deformation and product specifics analysis
- Inspection and quality control of heavy vehicle and industrial equipment
- Reverse engineering for production tooling, rolling equipment, heavy machinery, etc.
- Assessing as-built / assembled conditions



## CONTROL AND WEAR QUANTIFICATION

Monitoring wear levels for production equipment takes place during planned shutdowns, and thus must be carried out efficiently. The Creaform 3D measurement technology is perfectly suited for such applications, since it can acquire data very quickly, without having to move the equipment. Plus, this technology makes it possible to collect a very large volume of measurements, which can be used in different projects such as research & development, operations or preventative maintenance.

- Mill inspection & analysis
- Mill liner design and optimization
- Shortened production shutdowns thanks to a fast
- 3D data acquisition
- Highly repeatable data
- 3D scanning possible even in tight spaces
- Monitoring of wear levels and prediction of mechanical failures



## STRUCTURAL SURVEYS

Creaform can survey large-scale structures. This data shortens the time required to take measurements, and can be used as a reliable and precise base for the next project steps.

- Clash analysis/simulation/visualisation
- 3D scanning of plants and factories of all sizes (inside and outside) for the creation of 2D layouts or 2D drawings
- Congestion visualization for future interventions, or component handling
- Access to a simplified 3D model through visualization tools
- Communicating precise 3D data between decision makers and multiple subcontractors
- Can be anchored on geodetic coordinates
- Intervention time is shortened, and the data volume is optimal for oversized industrial complexes

