PolySHAPE

VISION SYSTEM FOR THE IDENTIFICATION OF GEOMETRIC DEFECTS OF BILLETS, SLABS & BLOOM
**PolySHAPE**

The system is normally integrated within a robust Polytec - PolyTAG BLE tagging cell and allows to measure the shape of the billet head. The check can be done for each single billet. The system consists essentially of a 3D laser scanner, and a particular software algorithm measures precisely 0.2 mm (0.003 inch) head of the billet head and identifies the main geometric defects that occur from continuous casting. A version of stand-alone PolySHAPE can be dispensed, which can be installed directly in continuous casting. The software is configurable and allows you to set different alarm thresholds for each defect and its tolerance.

**Specifications:**

- Optical resolution: 0.2 mm / 0.008 in
- Measurement accuracy: 0.4 mm / 0.015 in
- Repeatability: 0.1 mm / 0.0039 in
- Billet size: from 80 to 260 mm (3 to 10 in) (square and round)
- Billet temperature: from 0 to 1000 °C (32 to 1800 °F)
- Cycle time for measurement: about 20 seconds
**INSTALLATION**

This system is installed on a full automatic robotic solution.

**HARDWARE**

3D vision laser scanner

Dedicated controller based on Windows PC

**SOFTWARE**

ActiveSHAPE version 1.0

**MAIN FUNCTIONS OF HMI**

The HMI interface allows:

- a visualization of the dimensional data of section and face;
- to customize the setting of the alarms parameters
- an analysis and report acquisitions