PrintRite3D® INSPECT™

Software for in-process inspection of metallurgical properties

- Uses position mapping to locate off-nominal part conditions, enabling user to offset discrepancies and increase quality.
- Uses sensor data and establishes in-process quality metrics to optimize melt pool thermal conditions during the process, enabling user control of parameter settings to keep parts at this optimal setting.
- Provides part quality reporting using statistical analysis of process data to validate repeatability.
- Enables forensic interrogation of suspect part data for process improvement, optimization and control.
- Provides end-of-build part-by-part quality report and compares build to build, enabling user warning of machine reliability issue.

Data Analytics and Reporting
- Proprietary TED™ and TEDp™ quality metrics provide wide and narrow band spectral data analysis
- Outputs melt pool relative temperature
- Identifies defect thermal signatures and location
- Scan Viewer: layer-by-layer, part-by-part 2D visualization
- 3D point cloud thermal mapping of entire build job
- Statistical process control for serial production build-to-build, part-to-part and layer-to-layer production trend charting

FEATURES
- Establish optimal melt pool thermal condition, map process space, monitor and control
- Characterize and quantify process and consistency across build plate and between machines

BENEFITS
- Reduce qualification time
- Reduce number of qualification samples
- Prevent build failure
- Reduce scrap
- Reduce post process testing

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