Three-dimensional metrology on CMM with laser head

Working volume:
- Z axis: 600mm
- Y axis: 1000mm
- X axis: 700mm

Laser head as a touch probe:
- Automatic tooling change
- Unique measuring environment
- Laser and standard analysis combined
- Unique measurement report

3D controls without limits:
- Castings and forged parts
- Precision machining parts
- Plastic parts
- Rubber parts
- Contactless and touch probe inspection
- 3D scanning, digitalization and reverse engineering with no compromise

3D scanning, digitalization and reverse engineering with no compromise.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Position error (AMT)</td>
<td>1.1µm (0.0001&quot;)</td>
</tr>
<tr>
<td>Maximum travel (UMA)</td>
<td>3µm (0.0001&quot;)</td>
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<tr>
<td>Data acquisition (samples)</td>
<td>70,000 points/sec</td>
</tr>
<tr>
<td>Points per line (approx.)</td>
<td>5000</td>
</tr>
<tr>
<td>Measuring temperature range</td>
<td>15°C-27°C (59°F-81°F)</td>
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<tr>
<td>Operating temperature range</td>
<td>10°C-40°C (50°F-104°F)</td>
</tr>
<tr>
<td>Warm-up time</td>
<td>0 (zero) seconds</td>
</tr>
<tr>
<td>Weight</td>
<td>315g (11.1oz)</td>
</tr>
<tr>
<td>ingress protection</td>
<td>IP54</td>
</tr>
<tr>
<td>Power</td>
<td>110/24VAC, 50/60Hz, 1A</td>
</tr>
<tr>
<td>Laser type</td>
<td>Class II (656nm)</td>
</tr>
<tr>
<td>Laser head compatibility</td>
<td>NIKON, MITSUBISHI, OKUMA, PNC, and</td>
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</table>
Nowadays design is in 3D
Nowadays production is in 3D
Quality controls must be in 3D.

In Metrix 3D all this is reality

AND IT IS NOT ALL

3D controls are automated on CMM
These are 3D controls on serial production

Measurements techniques available:

- Touch probing
- Precision continuous touch scanning
- Contactless laser scanning with integrated laser head

Complete reports with:

- 3D color mapping
- GD&T analysis
- Tables with tolerances evaluation
- Cross section analysis
- Wall thickness analysis

The amount of data acquired can be used for REVERSE ENGINEERING

- Defining modifications, wear and tear and deformations
- Reproducing complex shape objects
- Reproducing soft and flexible objects
- Handwork preservation
- Developing tool paths
- FEM analysis support
- Prototypes Construction